PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
1	AAA001D	PIPE SADDLE, UN 3786-01, CONSISTING OF PLATE, ACC. TO, UN 3786-03 AND MANUFACT., DRWG., LOOSE POINT, PLATE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	600	-	-	-	-	-		12	12	Nos.			0
2	ABB001D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT, CONTACT SURFACE,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	15	-	-	-	-	-	3	22	25	Nos.			0
3	ABB002D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570, CONTACT SURFACE,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	20	-	-	-	-	-		15	15	Nos.			0
4	ABB002D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570, CONTACT SURFACE,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	25	-	-	-	-	-	38	222	260	Nos.			0
5	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	40	-	-	-	-	-		68	68	Nos.			0
6	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	50	-	-	-	-	-	23	291	314	Nos.			0
7	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	80	-	-	-	-	-		533	533	Nos.			0
8	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	100	-	-	-	-	-	4	451	455	Nos.			0
9	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	150	-	-	-	-	-	5	321	326	Nos.			0
10	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	200	-	-	-	-	-	60	354	414	Nos.			0
11	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	250	-	-	-	-	-	3	114	117	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
12	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	300	-	-	-	-	-	10	64	74	Nos.			0
13	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	350	-	-	-	-	-		29	29	Nos.			0
14	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	400	-	-	-	-	-	5	77	82	Nos.			0
15	ABB003D	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	500	-	-	-	-	-		71	71	Nos.			0
16	ABC001D	U-BOLT, UN 3786-01, CONSISTING OF TWO U-BOLTS, CONTACT SURFACE,, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	15	-	-	-	-	-		1	1	Nos.			0
17	ABC002D	U-BOLT, UN 3786-01, CONSISTING OF TWO U-BOLTS, FORM A DIN 3570, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	20	-	-	-	-	-		2	2	Nos.			0
18	ABC002D	U-BOLT, UN 3786-01, CONSISTING OF TWO U-BOLTS, FORM A DIN 3570, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	25	-	-	-	-	-	3	27	30	Nos.			0
19	ABC002D	U-BOLT, UN 3786-01, CONSISTING OF TWO U-BOLTS, FORM A DIN 3570, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	40	-	-	-	-	-		6	6	Nos.			0
20	ABC003D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	50	-	-	-	-	-	6	35	41	Nos.			0
21	ABC003D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	80	-	-	-	-	-		40	40	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
22	ABC004D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	100	-	-	-	-	-		61	61	Nos.			0
23	ABC004D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	150	-	-	-	-	-		38	38	Nos.			0
24	ABC004D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	200	-	-	-	-	-	6	53	59	Nos.			0
25	ABC004D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	250	-	-	-	-	-		11	11	Nos.			0
26	ABC004D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	300	-	-	-	-	-		10	10	Nos.			0
27	ABC004D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	350	-	-	-	-	-		6	6	Nos.			0
28	ABC004D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	400	-	-	-	-	-		8	8	Nos.			0
29	ABC004D	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	500	-	-	-	-	-		10	10	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
30	ACA003D	PIPE SHOE, UN 3786-01, CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	300	-	3	-	-	-		49	49	Nos.			0
31	ACA003D	PIPE SHOE, UN 3786-01, CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	400	-	4	-	-	-		3	3	Nos.			0
32	ACA220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	80	-	191	-	-	-		2	2	Nos.			0
33	ACA220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	166	-	-	-		7	7	Nos.			0
34	ACA220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	206	-	-	-		12	12	Nos.			0
35	ACA221D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	218	-	-	-		108	108	Nos.			0
36	ACA221D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	258	-	-	-		182	182	Nos.			0
37	ACA221D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	348	-	-	-		27	27	Nos.			0
38	ACA221D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	500	-	504	-	-	-		4	4	Nos.			0
39	ACB005D	PIPE SHOE, UN 3786-01, CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	300	-	3	-	-	-		37	37	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
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Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
40	ACB220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	80	-	131	-	-	-		1	1	Nos.			0
41	ACB220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	146	-	-	-		14	14	Nos.			0
42	ACB220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	166	-	-	-		2	2	Nos.			0
43	ACB220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	206	-	-	-		6	6	Nos.			0
44	ACB221D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	218	-	-	-		161	161	Nos.			0
45	ACB221D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	258	-	-	-		112	112	Nos.			0
46	ACB221D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	348	-	-	-		12	12	Nos.			0
47	ACC007D	PIPE SHOE, UN 3786-01, CONSISTING OF PLATES, WITH TWO, CLAMPS, TWO FLAT BARS ,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG.,, FIXED POINT, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	300	-	3	-	-	-		1	1	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
48	ACC220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, FIXED POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	166	-	-	-		1	1	Nos.			0
49	ACC220D	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, FIXED POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	206	-	-	-		1	1	Nos.			0
50	ACD003D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	300	-	3	-	-	-		6	6	Nos.			0
51	ACD003D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	500	-	4	-	-	-		1	1	Nos.			0
52	ACD053D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS, SHEET LINER,, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, SHEET LINER A240GR.321or 1.4541, MAT. DELIV. COND. ASTM-A283/240,, EN 10025/10088-2	250	-	3	-	-	-		1	1	Nos.			0
53	ACD221D	SLOPE PIPE SHOE WITH STOP, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, TRANSVERSALE GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	218	300	-	-		4	4	Nos.			0
54	ACD221D	SLOPE PIPE SHOE WITH STOP, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, TRANSVERSALE GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	258	300	-	-		4	4	Nos.			0
55	ADA001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1	-	-	-		11	11	Nos.			0
56	ADA001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	1	-	-	-		594	594	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
57	ADA001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	3	-	-	-		1	1	Nos.			0
58	ADA001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	1	-	-	-		391	391	Nos.			0
59	ADA001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	2	-	-	-		1	1	Nos.			0
60	ADA002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	2	-	-	-	1	37	38	Nos.			0
61	ADA002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	3	-	-	-		149	149	Nos.			0
62	ADA002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	2	-	-	-		6	6	Nos.			0
63	ADA002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	3	-	-	-		91	91	Nos.			0
64	ADA051D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, SHEET LINER,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	50	-	1	-	-	-		12	12	Nos.			0
65	ADA051D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, SHEET LINER,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	100	-	1	-	-	-		5	5	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
66	ADA052D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, SHEET LINERS,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	200	-	2	-	-	-		5	5	Nos.			0
67	ADB001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	25	-	1	-	-	-		8	8	Nos.			0
68	ADB001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1	-	-	-		76	76	Nos.			0
69	ADB001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	1	-	-	-		544	544	Nos.			0
70	ADB001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	2	-	-	-		1	1	Nos.			0
71	ADB001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	1	-	-	-		410	410	Nos.			0
72	ADB002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	2	-	-	-		31	31	Nos.			0
73	ADB002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	3	-	-	-		123	123	Nos.			0
74	ADB002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	2	-	-	-		54	54	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
75	ADB002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	3	-	-	-		172	172	Nos.			0
76	ADB051D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, SHEET LINER,, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	50	-	1	-	-	-		9	9	Nos.			0
77	ADB052D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, SHEET LINERS,, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	200	-	2	-	-	-		16	16	Nos.			0
78	ADC001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1	-	-	-		14	14	Nos.			0
79	ADC001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	1	-	-	-		52	52	Nos.			0
80	ADC001D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	1	-	-	-		50	50	Nos.			0
81	ADC002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	2	-	-	-		5	5	Nos.			0
82	ADC002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	3	-	-	-		20	20	Nos.			0
83	ADC002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	2	-	-	-		15	15	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
84	ADC002D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	3	-	-	-		31	31	Nos.			0
85	ADC051D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, SHEET LINER,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	50	-	1	-	-	-		1	1	Nos.			0
86	ADC052D	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, SHEET LINERS,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	200	-	2	-	-	-		2	2	Nos.			0
87	ADD001D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO MANUFACT. DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	50	-	1	-	-	-		1	1	Nos.			0
88	ADD001D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO MANUFACT. DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	80	-	1	-	-	-		19	19	Nos.			0
89	ADD001D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO MANUFACT. DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	100	-	1	-	-	-		20	20	Nos.			0
90	ADD002D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	150	-	2	-	-	-		1	1	Nos.			0
91	ADD002D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	150	-	3	-	-	-		3	3	Nos.			0
92	ADD002D	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	200	-	2	-	-	-		3	3	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
93	AEB001D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	15	-	200	-	-	-	2	12	14	Nos.			0
94	AEB001D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	15	-	150	-	-	-		182	182	Nos.			0
95	AEB001D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	40	-	150	-	-	-		5	5	Nos.			0
96	AEB001D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	40	-	200	-	-	-		48	48	Nos.			0
97	AEB002D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	20	-	200	-	-	-		2	2	Nos.			0
98	AEB002D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	25	-	150	-	-	-	1	9	10	Nos.			0
99	AEB002D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	25	-	200	-	-	-	12	20	32	Nos.			0
100	AEB003D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	200	-	-	-	2	18	20	Nos.			0
101	AEB003D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	250	-	-	-	16	3	19	Nos.			0
102	AEB004D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	200	-	-	-		1	1	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
103	AEB004D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	300	-	-	-		1	1	Nos.			0
104	AEB005D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	200	-	-	-		2	2	Nos.			0
105	AEB005D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	300	-	-	-		1	1	Nos.			0
106	AEX001D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG., U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	15	-	150	-	-	-		1	1	Nos.			0
107	AEX001D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG., U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	15	-	200	-	-	-		44	44	Nos.			0
108	AEX002D	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG., U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	25	-	200	-	-	-		3	3	Nos.			0
109	CS0001D	PIPE SADDLE, MANUFACT. DRWG., PIPE SADDLE ACC. TO, MANUFACTURER DRAWING	250	-	-	-	-	-		46	46	Nos.			0
110	CS0015D	U-BOLT, MANUFACT. DRWG., U-BOLT ACC. TO, MANUFACTURER DRAWING	250	-	-	-	-	-		37	37	Nos.			0
111	CS02051	PLATE, MANUFACT. DRWG., PLATE	1	-	-	-	-	-		7	7	Nos.			0
112	CS02052	PLATE, MANUFACT. DRWG., PLATE	2	-	-	-	-	-		4	4	Nos.			0
113	CS02054	PLATE FOR SECONDARY SUPPORT, MANUFACT. DRWG., PLATE	1	-	-	-	-	-		85	85	Nos.			0
114	CS02055	PLATE FOR SECONDARY SUPPORT, MANUFACT. DRWG., PLATE	2	-	-	-	-	-		667	667	Nos.			0
115	CS02056	PLATE FOR SECONDARY SUPPORT, MANUFACT. DRWG., PLATE	3	-	-	-	-	-		92	92	Nos.			0
116	CS02058-2	PLATE FOR INSTRUMENT SUPPORT	50	-	-	-	-	-		2	2	Nos.			0
117	CS02058-2S	PLATE FOR INSTRUMENT SUPPORT	50	-	-	-	-	-		18	18	Nos.			0
118	CS02058-6	PLATE FOR INSTRUMENT SUPPORT	150	-	-	-	-	-		57	57	Nos.			0
119	CS03000-01	PTFE- SS FRICTION PLATE, MANUFACT. DRWG., PTFE GUIDE	1	-	-	-	-	-		2	2	Nos.			0
120	CS03000-02	PTFE- SS FRICTION PLATE, MANUFACT. DRWG., PTFE GUIDE	2	-	-	-	-	-		6	6	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
121	CS03000-03	PTFE- SS FRICTION PLATE, MANUFACT. DRWG., PTFE GUIDE	3	-	-	-	-	-		21	21	Nos.			0
122	CS03002-03	GRAPHITE SLIDE PLATE, MANUFACT. DRWG., GRAPHITE SLIDE PLATE	8	-	-	-	-	-		366	366	Nos.			0
123	CS03003	ROLLER SUPPORT, MANUFACT. DRWG., ROLLER SUPPORT	1	-	-	-	-	-		4	4	Nos.			0
124	CS03005	STAINLESS STEEL SHEET, MANUFACT. DRWG., STAINLESS STEEL SHEET	1	-	-	-	-	-		271	271	Nos.			0
125	CS03007	STAINLESS STEEL SHEET, MANUFACT. DRWG., STAINLESS STEEL SHEET	4	-	-	-	-	-		116	116	Nos.			0
126	CS03007	STAINLESS STEEL SHEET, MANUFACT. DRWG., STAINLESS STEEL SHEET	8	-	-	-	-	-		2	2	Nos.			0
127	CS04003-01S	PIPE SHOE WELDED	80	-	131	-	-	-		9	9	Nos.			0
128	CS04003-11	PIPE SHOE WELDED	80	-	50	-	-	-		83	83	Nos.			0
129	CS04003-12	PIPE SHOE WELDED	80	-	70	-	-	-		2	2	Nos.			0
130	CS04004-02S	PIPE SHOE WELDED	100	-	166	-	-	-		7	7	Nos.			0
131	CS04004-11	PIPE SHOE WELDED	100	-	50	-	-	-		85	85	Nos.			0
132	CS04004-12	PIPE SHOE WELDED	100	-	70	-	-	-		1	1	Nos.			0
133	CS04006-02S	SLOPE PIPE SHOE WELDED	150	-	193	-	-	-		1	1	Nos.			0
134	CS04006-12	PIPE SHOE WELDED	150	-	70	-	-	-		24	24	Nos.			0
135	CS04006-13	PIPE SHOE WELDED	150	-	110	-	-	-		45	45	Nos.			0
136	CS04008-02S	SLOPE PIPE SHOE WELDED	200	-	218	-	-	-		51	51	Nos.			0
137	CS04008-03S	SLOPE PIPE SHOE WELDED	200	-	258	-	-	-		82	82	Nos.			0
138	CS04008-11	PIPE SHOE WELDED	200	-	110	-	-	-		18	18	Nos.			0
139	CS04008-12	PIPE SHOE WELDED	200	-	70	-	-	-		2	2	Nos.			0
140	CS04008-12S	PIPE SHOE WELDED	200	-	218	-	-	-		5	5	Nos.			0
141	CS04008-13S	PIPE SHOE WELDED	200	-	218	-	-	-		2	2	Nos.			0
142	CS04010-03S	SLOPE PIPE SHOE WELDED	250	-	285	-	-	-		57	57	Nos.			0
143	CS04010-13	PIPE SHOE WELDED	250	-	110	-	-	-		67	67	Nos.			0
144	CS04010-23	PIPE SHOE WELDED	250	-	110	-	-	-		1	1	Nos.			0
145	CS04012-03S	SLOPE PIPE SHOE WELDED	300	-	310	-	-	-		74	74	Nos.			0
146	CS04012-13	PIPE SHOE WELDED	300	-	110	-	-	-		14	14	Nos.			0
147	CS04014-03S	SLOPE PIPE SHOE WELDED	350	-	326	-	-	-		84	84	Nos.			0
148	CS04014-13	PIPE SHOE WELDED	350	-	110	-	-	-		14	14	Nos.			0
149	CS04016-04S	SLOPE PIPE SHOE WELDED	400	-	344	-	-	-		75	75	Nos.			0
150	CS04016-05S	SLOPE PIPE SHOE WELDED	400	-	404	-	-	-		1	1	Nos.			0
151	CS04016-12	PIPE SHOE WELDED	400	-	70	-	-	-		3	3	Nos.			0
152	CS04016-13	PIPE SHOE WELDED	400	-	110	-	-	-		2	2	Nos.			0
153	CS04018-15	PIPE SHOE WELDED	450	-	110	-	-	-		5	5	Nos.			0
154	CS04020-04S	SLOPE PIPE SHOE WELDED	500	-	394	-	-	-		32	32	Nos.			0
155	CS04020-05S	SLOPE PIPE SHOE WELDED	500	-	454	-	-	-		1	1	Nos.			0
156	CS04024-03S	PIPE SHOE WELDED	600	-	445	-	-	-		1	1	Nos.			0
157	CS04024-13	PIPE SHOE WELDED	600	-	110	-	-	-		31	31	Nos.			0
158	CS04030-13	PIPE SHOE WELDED	750	-	110	-	-	-		59	59	Nos.			0
159	CS05020	PIPE SHOE WELDED	2	-	-	-	-	-		263	263	Nos.			0
160	CS05020	PIPE SHOE WELDED	3	-	-	-	-	-		30	30	Nos.			0
161	CS06041	ADJUSTABLE SUPPORT, MANUFACT. DRWG., ADJUSTABLE SUPPORT	1	-	-	-	-	-	2	5	7	Nos.			0
162	CS06043	ADJUSTABLE SUPPORT, MANUFACT. DRWG., ADJUSTABLE SUPPORT	2	-	-	-	-	-	2		2	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
163	HAX003D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	40	-	1500	-	-	-		1	1	Nos.			0
164	HAX003D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	40	-	2250	-	-	-		1	1	Nos.			0
165	HAX003D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1000	-	-	-		1	1	Nos.			0
166	HAX003D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1250	-	-	-		1	1	Nos.			0
167	HAX003D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1500	-	-	-		3	3	Nos.			0
168	HAX003D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1750	-	-	-		2	2	Nos.			0
169	HAX003D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	2750	-	-	-		2	2	Nos.			0
170	HAX003D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	1000	-	-	-		1	1	Nos.			0
171	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	2500	-	-	-		1	1	Nos.			0
172	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	300	-	1750	-	-	-		1	1	Nos.			0
173	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	300	-	2250	-	-	-		1	1	Nos.			0
174	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	350	-	1000	-	-	-		2	2	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
175	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	350	-	2000	-	-	-		2	2	Nos.			0
176	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	350	-	2500	-	-	-		1	1	Nos.			0
177	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	400	-	1500	-	-	-		1	1	Nos.			0
178	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	400	-	2250	-	-	-		1	1	Nos.			0
179	HAX004D	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	400	-	2750	-	-	-		1	1	Nos.			0
180	KNB002D	GUIDE BRACKET, UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, ACC. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	400	-	-	-		8	8	Nos.			0
181	KNB901D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	400	-	-	-		13	13	Nos.			0
182	KNB901D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	600	-	-	-		2	2	Nos.			0
183	KNB901D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	400	-	-	-		5	5	Nos.			0
184	KNB901D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	600	-	-	-		1	1	Nos.			0
185	KNB902D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	400	-	-	-		27	27	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
186	KNB902D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	600	-	-	-		1	1	Nos.			0
187	KNB902D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	800	-	-	-		1	1	Nos.			0
188	KNB902D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	1000	-	-	-		2	2	Nos.			0
189	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	400	-	-	-		8	8	Nos.			0
190	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	600	-	-	-		1	1	Nos.			0
191	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	800	-	-	-		1	1	Nos.			0
192	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	1000	-	-	-		1	1	Nos.			0
193	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	400	-	-	-		2	2	Nos.			0
194	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	600	-	-	-		1	1	Nos.			0
195	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	800	-	-	-		3	3	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
196	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	400	-	-	-		1	1	Nos.			0
197	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	600	-	-	-		2	2	Nos.			0
198	KNB903D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	800	-	-	-		6	6	Nos.			0
199	KNB953D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	400	-	-	-		4	4	Nos.			0
200	KNB953D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	600	-	-	-		2	2	Nos.			0
201	KNB953D	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	1000	-	-	-		2	2	Nos.			0
202	KNC003D	SUPPORT BRACKET, UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, ACC. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	800	-	-	-	1		1	Nos.			0
203	KNC901D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	400	-	-	-		25	25	Nos.			0
204	KNC901D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	600	-	-	-		6	6	Nos.			0
205	KNC901D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	400	-	-	-		36	36	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
206	KNC901D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	600	-	-	-		5	5	Nos.			0
207	KNC902D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	400	-	-	-		23	23	Nos.			0
208	KNC902D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	600	-	-	-		15	15	Nos.			0
209	KNC902D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	800	-	-	-		2	2	Nos.			0
210	KNC903D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	400	-	-	-		3	3	Nos.			0
211	KNC903D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	600	-	-	-		1	1	Nos.			0
212	KNC903D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	400	-	-	-		1	1	Nos.			0
213	KNC903D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	600	-	-	-		1	1	Nos.			0
214	KNC903D	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	800	-	-	-		1	1	Nos.			0
215	NAA001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	25	-	400	-	-	-		63	63	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
216	NAA001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	25	-	600	-	-	-		3	3	Nos.			0
217	NAA001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	40	-	400	-	-	-		1	1	Nos.			0
218	NAA001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	40	-	500	-	-	-		4	4	Nos.			0
219	NAA001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	40	-	600	-	-	-		1	1	Nos.			0
220	NAA001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	40	-	800	-	-	-		10	10	Nos.			0
221	NAA001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	50	-	400	-	-	-		35	35	Nos.			0
222	NAA002D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, TWO CLAMPS,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	100	-	400	-	-	-		2	2	Nos.			0
223	NAA002D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, TWO CLAMPS,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	150	-	1000	-	-	-		4	4	Nos.			0
224	NAA101D	SUPPORT, MANUFACT. DRWG., CONSISTING OF ONE, PIPES, ONE CLAMP,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	50	-	150	-	-	-		1	1	Nos.			0
225	NAA102D	SUPPORT, MANUFACT. DRWG., CONSISTING OF ONE, PIPES, TWO CLAMPS,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	300	-	-	-		1	1	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
226	NAC001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03, AND MANUFACT. DRWG.,, FIXED POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	25	-	400	-	-	-		47	47	Nos.			0
227	NAC001D	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03, AND MANUFACT. DRWG.,, FIXED POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	50	-	400	-	-	-		35	35	Nos.			0
228	NCX002D	SUPPORT, UN 3788-01, CONSISTING OF TWO PIPES,, TOP-END PLATE ADJUSTABLE,, ACC. TO UN 3788-03, AND MANUFACT. DRWG., PIPE 1.0254 ST 37.0, T.END PLATE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	600	-	-	-		1	1	Nos.			0
229	NCX002D	SUPPORT, UN 3788-01, CONSISTING OF TWO PIPES,, TOP-END PLATE ADJUSTABLE,, ACC. TO UN 3788-03, AND MANUFACT. DRWG., PIPE 1.0254 ST 37.0, T.END PLATE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	600	-	-	-		1	1	Nos.			0
230	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	50	-	250	-	-	-		2	2	Nos.			0
231	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	250	-	-	-		3	3	Nos.			0
232	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	250	-	-	-		1	1	Nos.			0
233	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	300	-	-	-		1	1	Nos.			0
234	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	350	-	-	-		6	6	Nos.			0
235	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	250	-	-	-		6	6	Nos.			0
236	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	400	-	-	-		20	20	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
237	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	300	-	-	-		1	1	Nos.			0
238	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	400	-	-	-		7	7	Nos.			0
239	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	300	-	-	-		1	1	Nos.			0
240	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	400	-	-	-		2	2	Nos.			0
241	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	500	-	-	-		1	1	Nos.			0
242	NSA001D	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	350	-	-	-		4	4	Nos.			0
243	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	300	-	-	-		3	3	Nos.			0
244	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	250	-	-	-		2	2	Nos.			0
245	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	350	-	-	-		2	2	Nos.			0
246	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	300	-	-	-		13	13	Nos.			0
247	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	350	-	-	-		1	1	Nos.			0
248	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	400	-	-	-		3	3	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
249	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	300	-	-	-	1	10	11	Nos.			0
250	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	400	-	-	-		2	2	Nos.			0
251	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	600	-	-	-		5	5	Nos.			0
252	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	350	-	-	-		14	14	Nos.			0
253	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	400	-	-	-		14	14	Nos.			0
254	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	600	-	-	-		6	6	Nos.			0
255	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	350	-	-	-		1	1	Nos.			0
256	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	400	-	-	-		2	2	Nos.			0
257	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	500	-	-	-		1	1	Nos.			0
258	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	600	-	-	-		12	12	Nos.			0
259	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	400	-	-	-	1	4	5	Nos.			0
260	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	500	-	-	-		1	1	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
261	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	600	-	-	-		1	1	Nos.			0
262	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	500	-	400	-	-	-		3	3	Nos.			0
263	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	600	-	500	-	-	-		1	1	Nos.			0
264	NTA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	600	-	800	-	-	-		1	1	Nos.			0
265	NUA001D	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	300	-	-	-		3	3	Nos.			0
266	NUA001D	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	500	-	-	-		1	1	Nos.			0
267	NUA001D	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	400	-	-	-		2	2	Nos.			0
268	NUA001D	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	600	-	-	-		1	1	Nos.			0
269	NUG002D	TRUNNION, CONSISTING OF ONE, PIPE, AND SHOE, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	3	800	-	-		1	1	Nos.			0
270	NVA001D	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	1000	-	-	-		1	1	Nos.			0
271	NWA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	600	-	-	-		1	1	Nos.			0
272	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	1	300	-	-		2	2	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
273	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	1	400	-	-		15	15	Nos.			0
274	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	1	800	-	-		1	1	Nos.			0
275	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	1	1000	-	-		1	1	Nos.			0
276	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	3	400	-	-		1	1	Nos.			0
277	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	400	-	-		3	3	Nos.			0
278	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	500	-	-		1	1	Nos.			0
279	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	800	-	-		6	6	Nos.			0
280	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	1000	-	-		2	2	Nos.			0
281	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	1200	-	-		1	1	Nos.			0
282	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	400	-	-		1	1	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
283	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	500	-	-		1	1	Nos.			0
284	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	800	-	-		4	4	Nos.			0
285	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	1000	-	-		2	2	Nos.			0
286	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	1200	-	-		5	5	Nos.			0
287	NWG001D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	1500	-	-		2	2	Nos.			0
288	NWG002D	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	4	1200	-	-		1	1	Nos.			0
289	NXA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	300	-	-	-		1	1	Nos.			0
290	NXA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	500	-	-	-		1	1	Nos.			0
291	NXA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	500	-	1000	-	-	-		2	2	Nos.			0
292	NXA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	600	-	500	-	-	-		1	1	Nos.			0
293	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	50	-	300	-	-	-		1	1	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
294	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	300	-	-	-		2	2	Nos.			0
295	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	300	-	-	-		6	6	Nos.			0
296	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	400	-	-	-		1	1	Nos.			0
297	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	400	-	-	-	2		2	Nos.			0
298	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	800	-	-	-	2		2	Nos.			0
299	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	300	-	-	-		1	1	Nos.			0
300	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	500	-	-	-		1	1	Nos.			0
301	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	600	-	-	-		4	4	Nos.			0
302	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	500	-	-	-	2	2	4	Nos.			0
303	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	300	-	-	-		3	3	Nos.			0
304	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	400	-	-	-		3	3	Nos.			0
305	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	600	-	-	-		2	2	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
306	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	300	-	-	-		1	1	Nos.			0
307	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	500	-	-	-		1	1	Nos.			0
308	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	600	-	-	-		3	3	Nos.			0
309	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	800	-	-	-		2	2	Nos.			0
310	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	400	-	-	-		7	7	Nos.			0
311	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	600	-	-	-		1	1	Nos.			0
312	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	400	-	-	-		3	3	Nos.			0
313	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	600	-	-	-		1	1	Nos.			0
314	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	800	-	-	-		7	7	Nos.			0
315	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	1000	-	-	-		1	1	Nos.			0
316	NYA001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	600	-	500	-	-	-		2	2	Nos.			0
317	NYC001D	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	600	-	-	-		2	2	Nos.			0
318	WCA003D	WELDED PIPE SHOE	200	-	2	-	-	-		72	72	Nos.			0
319	WCA003D	WELDED PIPE SHOE	200	-	3	-	-	-		77	77	Nos.			0

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
320	WCA003D	WELDED PIPE SHOE	250	-	3	-	-	-		93	93	Nos.			**0**
321	WCA003D	WELDED PIPE SHOE	300	-	3	-	-	-		14	14	Nos.			**0**
322	WCA003D	WELDED PIPE SHOE	350	-	3	-	-	-		52	52	Nos.			**0**
323	WCA004D	WELDED PIPE SHOE	600	-	4	-	-	-		108	108	Nos.			**0**
324	WCA004D	WELDED PIPE SHOE	750	-	4	-	-	-		158	158	Nos.			**0**
325	WCA053D	WELDED PIPE SHOE	350	-	3	-	-	-		2	2	Nos.			**0**
326	WCA053D	WELDED PIPE SHOE	400	-	4	-	-	-		10	10	Nos.			**0**
327	WCA053D	WELDED PIPE SHOE	500	-	4	-	-	-		2	2	Nos.			**0**
328	WCB005D	WELDED PIPE SHOE	200	-	2	-	-	-		68	68	Nos.			**0**
329	WCB005D	WELDED PIPE SHOE	200	-	3	-	-	-		69	69	Nos.			**0**
330	WCB005D	WELDED PIPE SHOE	250	-	3	-	-	-		194	194	Nos.			**0**
331	WCB005D	WELDED PIPE SHOE	300	-	3	-	-	-		17	17	Nos.			**0**
332	WCB005D	WELDED PIPE SHOE	350	-	3	-	-	-		80	80	Nos.			**0**
333	WCB005D	WELDED PIPE SHOE	400	-	4	-	-	-		7	7	Nos.			**0**
334	WCB006D	WELDED PIPE SHOE	600	-	4	-	-	-		29	29	Nos.			**0**
335	WCB006D	WELDED PIPE SHOE	750	-	4	-	-	-		37	37	Nos.			**0**
336	WCB055D	WELDED PIPE SHOE	400	-	4	-	-	-		7	7	Nos.			**0**
337	WCC007D	WELDED PIPE SHOE	200	-	2	-	-	-		8	8	Nos.			**0**
338	WCC007D	WELDED PIPE SHOE	350	-	3	-	-	-		6	6	Nos.			**0**
339	WDA001D	WELDED PIPE SHOE	25	-	1	-	-	-		183	183	Nos.			**0**
340	WDA001D	WELDED PIPE SHOE	40	-	1	-	-	-		3	3	Nos.			**0**
341	WDA001D	WELDED PIPE SHOE	50	-	1	-	-	-		6	6	Nos.			**0**
342	WDA001D	WELDED PIPE SHOE	80	-	3	-	-	-		48	48	Nos.			**0**
343	WDA001D	WELDED PIPE SHOE	100	-	3	-	-	-		16	16	Nos.			**0**
344	WDA051D	WELDED PIPE SHOE	100	-	1	-	-	-		1	1	Nos.			**0**
345	WDB001D	WELDED PIPE SHOE	25	-	1	-	-	-		610	610	Nos.			**0**
346	WDB001D	WELDED PIPE SHOE	50	-	1	-	-	-		6	6	Nos.			**0**
347	WDB001D	WELDED PIPE SHOE	80	-	1	-	-	-		21	21	Nos.			**0**
348	WDB001D	WELDED PIPE SHOE	80	-	3	-	-	-		58	58	Nos.			**0**
349	WDB001D	WELDED PIPE SHOE	100	-	3	-	-	-		14	14	Nos.			**0**
350	WDB002D	WELDED PIPE SHOE	150	-	2	-	-	-		43	43	Nos.			**0**
351	WDB002D	WELDED PIPE SHOE	150	-	3	-	-	-		44	44	Nos.			**0**
352	WDB051D	WELDED PIPE SHOE	50	-	1	-	-	-		2	2	Nos.			**0**
353	WDB051D	WELDED PIPE SHOE	80	-	1	-	-	-		3	3	Nos.			**0**
354	WDB051D	WELDED PIPE SHOE	80	-	3	-	-	-		3	3	Nos.			**0**
355	WDC001D	WELDED PIPE SHOE	25	-	1	-	-	-		331	331	Nos.			**0**
356	WDC001D	WELDED PIPE SHOE	80	-	1	-	-	-		25	25	Nos.			**0**
357	WDC001D	WELDED PIPE SHOE	80	-	3	-	-	-		8	8	Nos.			**0**
358	WDC001D	WELDED PIPE SHOE	100	-	1	-	-	-		1	1	Nos.			**0**
359	WDC001D	WELDED PIPE SHOE	100	-	3	-	-	-		1	1	Nos.			**0**
360	WDC002D	WELDED PIPE SHOE	150	-	2	-	-	-		9	9	Nos.			**0**
361	WDC002D	WELDED PIPE SHOE	150	-	3	-	-	-		9	9	Nos.			**0**
362	WDC051D	WELDED PIPE SHOE	25	-	1	-	-	-		1	1	Nos.			**0**
363	WNA102D	TRUNNION	50	-	250	-	-	-		1	1	Nos.			**0**
364	WNA102D	TRUNNION	50	-	400	-	-	-		1	1	Nos.			**0**
365	WNA102D	TRUNNION	80	-	300	-	-	-		18	18	Nos.			**0**
366	WNA102D	TRUNNION	100	-	150	-	-	-		1	1	Nos.			**0**
367	WNA102D	TRUNNION	100	-	200	-	-	-		3	3	Nos.			**0**
368	WNA102D	TRUNNION	100	-	250	-	-	-		2	2	Nos.			**0**
369	WNA102D	TRUNNION	100	-	300	-	-	-		1	1	Nos.			**0**

PRICED SCHEDULE FORMAT for Supply of Equipment / Items (BOQ)

All Prices should be in INR

Name of Equipment : Primary Supports for NALCO Alumina 5th Stream Refinery
RFQ (MR) No: 6695-PPM-G00-EC-0183
Bidder Name :
This BOQ template is for reference. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Sr. No.	Item Code	Item Description	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	Qty Required at Nalco site at Vizag Port	Qty Required at Nalco site at Damanjodi	Total Qty Required	Units*	BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis	Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi / Vizag Port, Odisha	Total Price in Figures CPT Nalco Project Site - Incoterms 2010 Damanjodi Vizag Port,, Odisha
											A	Nos.	B	C	D = (A x B) + (A x B x C)
A		**Supply of Primary Supports as per MR.**													
370	WNA102D	TRUNNION	150	-	400	-	-	-		1	1	Nos.			**0**
371	WNA102D	TRUNNION	200	-	400	-	-	-		21	21	Nos.			**0**
372	WNA102D	TRUNNION	500	-	500	-	-	-		5	5	Nos.			**0**
373	WNA102D	TRUNNION	500	-	600	-	-	-		5	5	Nos.			**0**
374	WNC107D	TRUNNION	40	-	200	-	-	-		1	1	Nos.			**0**
375	WNC107D	TRUNNION	100	-	250	-	-	-		1	1	Nos.			**0**
									213	13425	13638	Nos.		**Total Charges for Supply**	0.00

Notes for BOQ:

1.Bidder should quote Basic Unit rate in Rs/Nos in column B. The Basic unit rate quoted in Column B (BASIC Unit Price in Figures to be entered by the Bidder -FOT Dispatch Point basis).

2.Bidder to quote the Unit Price applicable in Rs / Nos in Column "BASIC Unit Price in Figures to be entered by the Bidder - FOT Dispatch Point basis". Accordingly "Total Price in Figures CPT Nalco Project Site - **Incoterms 2020** Damanjodi, Odisha" shall be calculated as multiplying = (Total Quantity x Basic Unit Price) + (Total Quantity x Basic Unit Price x % of Freight Charges) (Example BOQ Sr No. 1 Total qty is 12 Nos - Unit Rate 100 Rs/Nos, Freight 10%. Hence total price on CPT NALCO Project Site will be (12 x 100)+(12x100x10%)= Total Rs.1320.00

3. Bidder to quote the freight charges accordingly. The freight charges quoted in % in Column C (Freight Charges in % to be entered by the Bidder Upto Project Site - Damanjodi, Odisha) shall be applied for bid evaluation and ordering purpose

4. * Note : Unit of Measurement for Pipe is Meter and for Other Items is Number

5. Above Prices should be exclusive of GST.

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
1	ABB001D	ORDER-DESIGNATION U-BOLT	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BOLT			
		CONTACT SURFACE,			
		ACC. TO UN 3786-03 AND			
		MANUFACT. DRWG., LONGITUDINAL			
		GUIDE			
		MATERIAL			
		U-BOLT: 1.0036 S235JRG1			
		CON.SURFACE: 1.0038 S235JRG2			
		MAT. DELIV. COND. EN 10025			
2	ABB002D	ORDER-DESIGNATION U-BOLT	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BOLT FORM A			
		DIN 3570, CONTACT SURFACE,			
		ACC. TO UN 3786-03 AND			
		MANUFACT. DRWG., LONGITUDINAL			
		GUIDE			
		MATERIAL			
		U-BOLT: 1.0036 S235JRG1			
		CON.SURFACE: 1.0038 S235JRG2			
		MAT. DELIV. COND. EN 10025			
3	ABB003D	ORDER-DESIGNATION U-BOLT	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BOLT FORM A			
		DIN 3570,			
		ACC. TO UN 3786-03 AND			
		MANUFACT. DRWG., LONGITUDINAL			
		GUIDE			
		MATERIAL			
		U-BOLT: 1.0036 S235JRG1			
		MAT. DELIV. COND. EN 10025			
4	ABC002D	ORDER-DESIGNATION U-BOLT	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF TWO U-BOLTS			
		FORM A DIN 3570, CONTACT			
		SURFACE, ACC. TO UN 3786-03			
		AND MANUFACT. DRWG., FIXED			
		POINT			
		MATERIAL			
		U-BOLT: 1.0036 S235JRG1			
		CON.SURFACE: 1.0038 S235JRG2			
		MAT. DELIV. COND. EN 10025			
5	ABC003D	ORDER-DESIGNATION U-STRAP	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF TWO FLAT BARS			
		WITH STUD FOR WELDING, CONTACT			
		SURFACE, ACC. TO UN 3786-03			
		AND MANUFACT. DRWG., FIXED			
		POINT			
		MATERIAL			
		FLAT BAR: 1.0038 S235JRG2			
		CON.SURFACE: 1.0038 S235JRG2			
		MAT. DELIV. COND. EN 10025			
6	ABC004D	ORDER-DESIGNATION U-STRAP			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF TWO FLAT BARS			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		WITH STUD FOR WELDING, CONTACT	See Details		
		SURFACE, ACC. TO UN 3786-03			
		AND MANUFACT. DRWG., FIXED			
		POINT			
		MATERIAL			
		FLAT BAR: 1.0038 S235JRG2			
		CON.SURFACE: 1.0038 S235JRG2			
		MAT. DELIV. COND. EN 10025			
7	ADA002D	ORDER-DESIGNATION PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH TWO			
		CLAMPS, ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., LOOSE POINT			
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
8	AEB001D	ORDER-DESIGNATION HORIZONTAL PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-05 AND			
		MANUFACT. DRWG.,			
		LONGITUDINAL GUIDE			
		MATERIAL			
		U-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
9	AEB002D	ORDER-DESIGNATION HORIZONTAL PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-05 AND			
		MANUFACT. DRWG.,			
		LONGITUDINAL GUIDE			
		MATERIAL			
		U-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
10	AEB003D	ORDER-DESIGNATION HORIZONTAL PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-05 AND			
		MANUFACT. DRWG.,			
		LONGITUDINAL GUIDE			
		MATERIAL			
		U-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
11	CS06041	ORDER-DESIGNATION ADJUSTABLE SUPPORT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS ADJUSTABLE SUPPORT			
12	CS06043	ORDER-DESIGNATION ADJUSTABLE SUPPORT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS ADJUSTABLE SUPPORT			
13	KNC003D	ORDER-DESIGNATION SUPPORT BRACKET			
		STANDARD UN 3789-01			
		DESCRIPTIONS CONSISTING OF HE-B BAR,			
		WITH TWO CLAMPS,			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		ACC. TO UN 3789-04 AND	See Details		
		MANUFACT. DRWG.			
		MATERIAL			
		HE-B BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
14	NTA001D	ORDER-DESIGNATION TRUNNION			
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE,			
		ACC. TO			
		MANUFACT. DRWG.,	See Details		
		LOOSE POINT			
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
15	NYA001D	ORDER-DESIGNATION TRUNNION			
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE,			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT	See Details		
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
16	AAA001D	ORDER-DESIGNATION PIPE SADDLE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF PLATE, ACC. TO			
		UN 3786-03 AND MANUFACT.	See Details		
		DRWG., LOOSE POINT			
		MATERIAL			
		PLATE: 1.0038 S235JRG2			
		MAT. DELIV. COND. EN 10025			
17	ABC001D	ORDER-DESIGNATION U-BOLT			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF TWO U-BOLTS			
		CONTACT SURFACE,			
		ACC. TO UN 3786-03			
		AND MANUFACT. DRWG., FIXED	See Details		
		POINT			
		MATERIAL			
		U-BOLT: 1.0036 S235JRG1			
		CON.SURFACE: 1.0038 S235JRG2			
		MAT. DELIV. COND. EN 10025			
18	ACA003D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS, ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., LOOSE POINT	See Details		
		MATERIAL			
		PLATE: A283GR.B or 1.0038			
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A283 / EN 10025			
19	ACA220D	ORDER-DESIGNATION SLOPE PIPE SHOE			
		STANDARD MANUFACT. DRWG.			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS,			
		VERTICALLY ADJUSTABLE,			
		ACC. TO MANUFACT. DRWG.,	See Details		
		LOOSE POINT			
		MATERIAL			
		CLAMP: 1.0045 S355JR			
		PLATE: 1.0045 S355JR			
		MAT. DELIV. COND. EN 10025-1/-2			
20	ACA221D	ORDER-DESIGNATION SLOPE PIPE SHOE			
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS,			
		VERTICALLY ADJUSTABLE,			
		ACC. TO MANUFACT. DRWG.,	See Details		
		LOOSE POINT			
		MATERIAL			
		CLAMP: 1.0045 S355JR			
		PLATE: 1.0045 S355JR			
		MAT. DELIV. COND. EN 10025-1/-2			
21	ACB005D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS, ACC.			
		TO UN 3786-04 AND MANUFACT.			
		DRWG., LONGITUDINAL GUIDE	See Details		
		MATERIAL			
		PLATE: A283GR.B or 1.0038			
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A283 / EN 10025			
22	ACB220D	ORDER-DESIGNATION SLOPE PIPE SHOE			
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS,			
		VERTICALLY ADJUSTABLE,			
		ACC. TO MANUFACT. DRWG.,	See Details		
		LONGITUDINAL GUIDE			
		MATERIAL			
		CLAMP: 1.0045 S355JR			
		PLATE: 1.0045 S355JR			
		MAT. DELIV. COND. EN 10025-1/-2			
23	ACB221D	ORDER-DESIGNATION SLOPE PIPE SHOE			
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS,			
		VERTICALLY ADJUSTABLE,			
		ACC. TO MANUFACT. DRWG.,	See Details		
		LONGITUDINAL GUIDE			
		MATERIAL			
		CLAMP: 1.0045 S355JR			
		PLATE: 1.0045 S355JR			
		MAT. DELIV. COND. EN 10025-1/-2			
24	ACC007D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS, TWO FLAT BARS ,			
		ACC. TO UN 3786-04 AND			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		MANUFACT. DRWG.,	See Details		
		FIXED POINT			
		MATERIAL			
		PLATE: A283GR.B or 1.0038			
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A283 / EN 10025			
25	ACC220D	ORDER-DESIGNATION SLOPE PIPE SHOE			
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS,			
		VERTICALLY ADJUSTABLE,			
		ACC. TO MANUFACT. DRWG.,	See Details		
		FIXED POINT			
		MATERIAL			
		CLAMP: 1.0045 S355JR			
		PLATE: 1.0045 S355JR			
		MAT. DELIV. COND. EN 10025-1/-2			
26	ACD003D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS, ACC. TO MANUFACT.DRWG.			
		TRANSVERSE GUIDE	See Details		
		MATERIAL			
		PLATE: A283GR.B or 1.0038			
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A283 / EN 10025			
27	ACD053D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS, SHEET LINER,			
		ACC. TO MANUFACT.DRWG.			
		TRANSVERSE GUIDE	See Details		
		MATERIAL			
		PLATE: A283GR.B or 1.0038			
		CLAMP: A283GR.B or 1.0038			
		SHEET LINER: A240GR.321or 1.4541			
		MAT. DELIV. COND. ASTM-A283/240,			
		EN 10025/10088-2			
28	ACD221D	ORDER-DESIGNATION SLOPE PIPE SHOE WITH STOP			
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF PLATES, WITH TWO			
		CLAMPS,			
		VERTICALLY ADJUSTABLE,			
		ACC. TO MANUFACT. DRWG.,	See Details		
		TRANSVERSALE GUIDE			
		MATERIAL			
		CLAMP: 1.0045 S355JR			
		PLATE: 1.0045 S355JR			
		MAT. DELIV. COND. EN 10025-1/-2			
29	ADA001D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., LOOSE POINT	See Details		
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		MAT. DELIV. COND. DIN 17100			
30	ADA051D	ORDER-DESIGNATION PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH ONE			
		CLAMP, SHEET LINER,			
		ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., LOOSE POINT			
		MATERIAL			
		CLAMP: 1.0038 S235JRG2			
		T-BAR: 1.0038 S235JRG2			
		SHEET LINER: 1.4541 X6CrNiTi18-10			
		MAT. DELIV. COND. EN 10025-1/-2/10088-2			
31	ADA052D	ORDER-DESIGNATION PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH TWO			
		CLAMPS, SHEET LINERS,			
		ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., LOOSE POINT			
		MATERIAL			
		CLAMP: 1.0038 S235JRG2			
		T-BAR: 1.0038 S235JRG2			
		SHEET LINER: 1.4541 X6CrNiTi18-10			
		MAT. DELIV. COND. EN 10025-1/-2/10088-2			
32	ADB001D	ORDER-DESIGNATION PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH ONE			
		CLAMP, FLAT BAR GUIDES, ACC.			
		TO UN 3786-04 AND MANUFACT.			
		DRWG., LONGITUDINAL GUIDE			
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
33	ADB002D	ORDER-DESIGNATION PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH TWO			
		CLAMPS, FLAT BAR GUIDES, ACC.			
		TO UN 3786-04 AND MANUFACT.			
		DRWG., LONGITUDINAL GUIDE			
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
34	ADB051D	ORDER-DESIGNATION PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH ONE			
		CLAMP, SHEET LINER,			
		FLAT BAR GUIDES, ACC.			
		TO UN 3786-04 AND MANUFACT.			
		DRWG., LONGITUDINAL GUIDE			
		MATERIAL			
		CLAMP: 1.0038 S235JRG2			
		T-BAR: 1.0038 S235JRG2			
		SHEET LINER: 1.4541 X6CrNiTi18-10			
		MAT. DELIV. COND. EN 10025-1/-2/10088-2			
35	ADB052D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		DESCRIPTIONS CONSISTING OF T-BAR, WITH TWO			
		CLAMPS, SHEET LINERS,			
		FLAT BAR GUIDES, ACC.			
		TO UN 3786-04 AND MANUFACT.	See Details		
		DRWG., LONGITUDINAL GUIDE			
		MATERIAL			
		CLAMP: 1.0038 S235JRG2			
		T-BAR: 1.0038 S235JRG2			
		SHEET LINER: 1.4541 X6CrNiTi18-10			
		MAT. DELIV. COND. EN 10025-1/-2/10088-2			
36	ADC001D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., FIXED POINT	See Details		
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
37	ADC002D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH TWO			
		CLAMPS, ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., FIXED POINT	See Details		
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
38	ADC051D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH ONE			
		CLAMP, SHEET LINER,			
		ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., FIXED POINT	See Details		
		MATERIAL			
		CLAMP: 1.0038 S235JRG2			
		T-BAR: 1.0038 S235JRG2			
		SHEET LINER: 1.4541 X6CrNiTi18-10			
		MAT. DELIV. COND. EN 10025-1/-2/10088-2			
39	ADC052D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH TWO			
		CLAMPS, SHEET LINERS,			
		ACC. TO UN 3786-04 AND			
		MANUFACT. DRWG., FIXED POINT	See Details		
		MATERIAL			
		CLAMP: 1.0038 S235JRG2			
		T-BAR: 1.0038 S235JRG2			
		SHEET LINER: 1.4541 X6CrNiTi18-10			
		MAT. DELIV. COND. EN 10025-1/-2/10088-2			
40	ADD001D	ORDER-DESIGNATION PIPE SHOE			
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH ONE			
		CLAMP, ACC. TO MANUFACT. DRWG.			
		TRANSVERSE GUIDE	See Details		
		MATERIAL			
		T-BAR: A36 or 1.0038			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A36/283 / EN 10025			
41	ADD002D	ORDER-DESIGNATION PIPE SHOE	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF T-BAR, WITH TWO			
		CLAMPS, ACC. TO MANUFACT.DRWG.			
		TRANSVERSE GUIDE			
		MATERIAL			
		T-BAR: A36 or 1.0038			
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A36/283 / EN 10025			
42	AEB004D	ORDER-DESIGNATION HORIZONTAL PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-05 AND			
		MANUFACT. DRWG.,			
		LONGITUDINAL GUIDE			
		MATERIAL			
		U-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
43	AEB005D	ORDER-DESIGNATION HORIZONTAL PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-05 AND			
		MANUFACT. DRWG.,			
		LONGITUDINAL GUIDE			
		MATERIAL			
		U-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
44	AEX001D	ORDER-DESIGNATION HORIZONTAL PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-05 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		U-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
45	AEX002D	ORDER-DESIGNATION HORIZONTAL PIPE SHOE	See Details		
		STANDARD UN 3786-01			
		DESCRIPTIONS CONSISTING OF U-BAR, WITH ONE			
		CLAMP, ACC. TO UN 3786-05 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		U-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
46	CS0001D	ORDER-DESIGNATION PIPE SADDLE	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PIPE SADDLE ACC. TO			
		MANUFACTURER DRAWING			
47	CS0015D	ORDER-DESIGNATION U-BOLT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS U-BOLT ACC. TO			
		MANUFACTURER DRAWING			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
48	CS02051	ORDER-DESIGNATION PLATE	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PLATE			
49	CS02052	ORDER-DESIGNATION PLATE	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PLATE			
50	CS02054	ORDER-DESIGNATION PLATE FOR SECONDARY SUPPORT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PLATE			
51	CS02055	ORDER-DESIGNATION PLATE FOR SECONDARY SUPPORT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PLATE			
52	CS02056	ORDER-DESIGNATION PLATE FOR SECONDARY SUPPORT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PLATE			
53	CS02058-2	ORDER-DESIGNATION PLATE FOR INSTRUMENT SUPPORT	See Details		
54	CS02058-2S	ORDER-DESIGNATION PLATE FOR INSTRUMENT SUPPORT	See Details		
55	CS02058-6	ORDER-DESIGNATION PLATE FOR INSTRUMENT SUPPORT	See Details		
56	CS03000-01	ORDER-DESIGNATION PTFE- SS FRICTION PLATE	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PTFE GUIDE			
57	CS03000-02	ORDER-DESIGNATION PTFE- SS FRICTION PLATE	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PTFE GUIDE			
58	CS03000-03	ORDER-DESIGNATION PTFE- SS FRICTION PLATE	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS PTFE GUIDE			
59	CS03002-03	ORDER-DESIGNATION GRAPHITE SLIDE PLATE	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS GRAPHITE SLIDE PLATE			
60	CS03003	ORDER-DESIGNATION ROLLER SUPPORT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS ROLLER SUPPORT			
61	CS03005	ORDER-DESIGNATION STAINLESS STEEL SHEET	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS STAINLESS STEEL SHEET			
62	CS03007	ORDER-DESIGNATION STAINLESS STEEL SHEET	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS STAINLESS STEEL SHEET			
63	CS04003-01S	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
64	CS04003-11	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
65	CS04003-12	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
66	CS04004-02S	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
67	CS04004-11	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
68	CS04004-12	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
69	CS04006-02S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
70	CS04006-12	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
71	CS04006-13	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
72	CS04008-02S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
73	CS04008-03S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
74	CS04008-11	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
75	CS04008-12	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
76	CS04008-12S	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
77	CS04008-13S	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
78	CS04010-03S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
79	CS04010-13	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
80	CS04010-23	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
81	CS04012-03S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
82	CS04012-13	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
83	CS04014-03S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
84	CS04014-13	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
85	CS04016-04S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
86	CS04016-05S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
87	CS04016-12	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
88	CS04016-13	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
89	CS04018-15	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
90	CS04020-04S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
91	CS04020-05S	ORDER-DESIGNATION SLOPE PIPE SHOE WELDED	See Details		
92	CS04024-03S	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
93	CS04024-13	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
94	CS04030-13	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
95	CS05020	ORDER-DESIGNATION PIPE SHOE WELDED	See Details		
96	HAX003D	ORDER-DESIGNATION HANGER	See Details		
		STANDARD UN 3787-01			
		DESCRIPTIONS WITH ANCHOR CLIP, CLAMP,			
		ACC. TO UN 3787-03 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
97	HAX004D	ORDER-DESIGNATION HANGER	See Details		
		STANDARD UN 3787-01			
		DESCRIPTIONS WITH ANCHOR CLIP, CLAMP,			
		ACC. TO UN 3787-03 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
98	KNB002D	ORDER-DESIGNATION GUIDE BRACKET	See Details		
		STANDARD UN 3789-01			
		DESCRIPTIONS CONSISTING OF T-BAR,			
		WITH TWO CLAMPS,			
		ACC. TO UN 3789-04 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
99	KNB901D	ORDER-DESIGNATION GUIDE BRACKET	See Details		
		STANDARD SIM. UN 3789-01			
		DESCRIPTIONS CONSISTING OF T-BAR,			
		WITH TWO CLAMPS,			
		SIM. TO UN 3789-04 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
100	KNB902D	ORDER-DESIGNATION GUIDE BRACKET	See Details		
		STANDARD SIM. UN 3789-01			
		DESCRIPTIONS CONSISTING OF T-BAR,			
		WITH TWO CLAMPS,			
		SIM. TO UN 3789-04 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
101	KNB903D	ORDER-DESIGNATION GUIDE BRACKET	See Details		
		STANDARD SIM. UN 3789-01			
		DESCRIPTIONS CONSISTING OF HE-B BAR,			
		WITH TWO CLAMPS,			
		SIM. TO UN 3789-04 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		HE-B BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
102	KNB953D	ORDER-DESIGNATION GUIDE BRACKET	See Details		
		STANDARD SIM. UN 3789-01			
		DESCRIPTIONS CONSISTING OF HE-B BAR,			
		WITH TWO CLAMPS,			
		SIM. TO UN 3789-04 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		HE-B BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
103	KNC901D	ORDER-DESIGNATION SUPPORT BRACKET	See Details		
		STANDARD SIM. UN 3789-01			
		DESCRIPTIONS CONSISTING OF T-BAR,			
		WITH TWO CLAMPS,			
		SIM. TO UN 3789-04 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
104	KNC902D	ORDER-DESIGNATION SUPPORT BRACKET	See Details		
		STANDARD SIM. UN 3789-01			
		DESCRIPTIONS CONSISTING OF T-BAR,			
		WITH TWO CLAMPS,			
		SIM. TO UN 3789-04 AND			
		MANUFACT. DRWG.			
		MATERIAL			
		T-BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
105	KNC903D	ORDER-DESIGNATION SUPPORT BRACKET	See Details		
		STANDARD SIM. UN 3789-01			
		DESCRIPTIONS CONSISTING OF HE-B BAR,			
		WITH TWO CLAMPS,			
		SIM. TO UN 3789-04 AND			
		MANUFACT. DRWG.			
		MATERIAL			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		HE-B BAR: 1.0038 RST 37-2			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
106	NAA001D	ORDER-DESIGNATION SUPPORT	See Details		
		STANDARD UN 3788-01			
		DESCRIPTIONS CONSISTING OF TWO			
		PIPES, ONE CLAMP,			
		ACC. TO UN 3788-03 AND			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: A53GR.B or 1.0254			
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A53/283,			
		EN 10217-1/10025			
107	NAA002D	ORDER-DESIGNATION SUPPORT	See Details		
		STANDARD UN 3788-01			
		DESCRIPTIONS CONSISTING OF TWO			
		PIPES, TWO CLAMPS,			
		ACC. TO UN 3788-03 AND			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: A53GR.B or 1.0254			
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A53/283,			
		EN 10217-1/10025			
108	NAA101D	ORDER-DESIGNATION SUPPORT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF ONE			
		PIPES, ONE CLAMP,			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
109	NAA102D	ORDER-DESIGNATION SUPPORT	See Details		
		STANDARD MANUFACT. DRWG.			
		DESCRIPTIONS CONSISTING OF ONE			
		PIPES, TWO CLAMPS,			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		CLAMP: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
110	NAC001D	ORDER-DESIGNATION SUPPORT	See Details		
		STANDARD UN 3788-01			
		DESCRIPTIONS CONSISTING OF TWO			
		PIPES, ONE CLAMP,			
		ACC. TO UN 3788-03			
		AND MANUFACT. DRWG.,			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		FIXED POINT	See Details		
		MATERIAL			
		PIPE: A53GR.B or 1.0254			
		CLAMP: A283GR.B or 1.0038			
		MAT. DELIV. COND. ASTM-A53/283,			
		EN 10217-1/10025			
111	NCX002D	ORDER-DESIGNATION SUPPORT			
		STANDARD UN 3788-01			
		DESCRIPTIONS CONSISTING OF TWO PIPES,			
		TOP-END PLATE ADJUSTABLE,			
		ACC. TO UN 3788-03			
		AND MANUFACT. DRWG.	See Details		
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		T.END PLATE: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
112	NSA001D	ORDER-DESIGNATION SUPPORT			
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE,			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT	See Details		
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
113	NUA001D	ORDER-DESIGNATION DUMMY SUPPORT			
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE,			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT	See Details		
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
114	NUG002D	ORDER-DESIGNATION TRUNNION			
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE, AND SHOE			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT	See Details		
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		SHOE: 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
115	NVA001D	ORDER-DESIGNATION DUMMY SUPPORT			
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE,			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT	See Details		
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		MAT. DELIV. COND. DIN 17100			

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
		TECH. DELIV. COND. DIN 1626,1629			
116	NWA001D	ORDER-DESIGNATION TRUNNION	See Details		
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE,			
		ACC. TO UN 3702-03 AND			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
117	NWG001D	ORDER-DESIGNATION TRUNNION	See Details		
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE AND SHOE			
		ACC. TO UN 3702-03 AND			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		SHOE : 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
118	NWG002D	ORDER-DESIGNATION TRUNNION	See Details		
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE AND SHOE			
		ACC. TO UN 3702-03 AND			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		SHOE : 1.0038 RST 37-2			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
119	NXA001D	ORDER-DESIGNATION TRUNNION	See Details		
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE,			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
120	NYC001D	ORDER-DESIGNATION TRUNNION	See Details		
		DESCRIPTIONS CONSISTING OF ONE			
		PIPE,			
		ACC. TO			
		MANUFACT. DRWG.,			
		LOOSE POINT			
		MATERIAL			
		PIPE: 1.0254 ST 37.0			
		MAT. DELIV. COND. DIN 17100			
		TECH. DELIV. COND. DIN 1626,1629			
121	WCA003D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
122	WCA004D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
123	WCA053D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		

Contract No. **66-6695-Nalco**

Enquiry No. **0183_Primary_Supports**

Sr.No.	Item Code	Specification	Item Details	Confirm to spec (Y/N)	Deviations
124	WCB005D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
125	WCB006D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
126	WCB055D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
127	WCC007D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
128	WDA001D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
129	WDA051D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
130	WDB001D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
131	WDB002D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
132	WDB051D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
133	WDC001D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
134	WDC002D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
135	WDC051D	ORDER-DESIGNATION WELDED PIPE SHOE	See Details		
136	WNA102D	ORDER-DESIGNATION TRUNNION	See Details		
137	WNC107D	ORDER-DESIGNATION TRUNNION			

Bidder's Signature & Stamp.

Date:

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
1	AAA001D	SAP Code Empty	PIPE SADDLE, UN 3786-01, CONSISTING OF PLATE, ACC. TO, UN 3786-03 AND MANUFACT., DRWG., LOOSE POINT, PLATE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	600	-	-	-	-	-		12	12
2	ABB001D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT, CONTACT SURFACE,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	15	-	-	-	-	-	3	22	25
3	ABB002D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570, CONTACT SURFACE,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	20	-	-	-	-	-		15	15
4	ABB002D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570, CONTACT SURFACE,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	25	-	-	-	-	-	38	222	260
5	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	40	-	-	-	-	-		68	68
6	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	50	-	-	-	-	-	23	291	314
7	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	80	-	-	-	-	-		533	533
8	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	100	-	-	-	-	-	4	451	455
9	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	150	-	-	-	-	-	5	321	326
10	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	200	-	-	-	-	-	60	354	414
11	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	250	-	-	-	-	-	3	114	117
12	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	300	-	-	-	-	-	10	64	74
13	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	350	-	-	-	-	-		29	29
14	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	400	-	-	-	-	-	5	77	82
15	ABB003D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF U-BOLT FORM A, DIN 3570,, ACC. TO UN 3786-03 AND, MANUFACT. DRWG., LONGITUDINAL, GUIDE, U-BOLT 1.0036 S235JRG1, MAT. DELIV. COND. EN 10025	500	-	-	-	-	-		71	71
16	ABC001D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF TWO U-BOLTS, CONTACT SURFACE,, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	15	-	-	-	-	-		1	1
17	ABC002D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF TWO U-BOLTS, FORM A DIN 3570, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	20	-	-	-	-	-		2	2
18	ABC002D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF TWO U-BOLTS, FORM A DIN 3570, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	25	-	-	-	-	-	3	27	30
19	ABC002D	SAP Code Empty	U-BOLT, UN 3786-01, CONSISTING OF TWO U-BOLTS, FORM A DIN 3570, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, U-BOLT 1.0036 S235JRG1, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	40	-	-	-	-	-		6	6
20	ABC003D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	50	-	-	-	-	-	6	35	41

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
21	ABC003D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	80	-	-	-	-	-		40	40
22	ABC004D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	100	-	-	-	-	-		61	61
23	ABC004D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	150	-	-	-	-	-		38	38
24	ABC004D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	200	-	-	-	-	-	6	53	59
25	ABC004D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	250	-	-	-	-	-		11	11
26	ABC004D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	300	-	-	-	-	-		10	10
27	ABC004D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	350	-	-	-	-	-		6	6
28	ABC004D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	400	-	-	-	-	-		8	8
29	ABC004D	SAP Code Empty	U-STRAP, UN 3786-01, CONSISTING OF TWO FLAT BARS, WITH STUD FOR WELDING, CONTACT, SURFACE, ACC. TO UN 3786-03, AND MANUFACT. DRWG., FIXED, POINT, FLAT BAR 1.0038 S235JRG2, CON.SURFACE 1.0038 S235JRG2, MAT. DELIV. COND. EN 10025	500	-	-	-	-	-		10	10
30	ACA003D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	300	-	3	-	-	-		49	49
31	ACA003D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	400	-	4	-	-	-		3	3
32	ACA220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	80	-	191	-	-	-		2	2
33	ACA220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	166	-	-	-		7	7
34	ACA220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	206	-	-	-		12	12
35	ACA221D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	218	-	-	-		108	108
36	ACA221D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	258	-	-	-		182	182
37	ACA221D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	348	-	-	-		27	27
38	ACA221D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LOOSE POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	500	-	504	-	-	-		4	4

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

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Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
39	ACB005D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	300	-	3	-	-	-		37	37
40	ACB220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	80	-	131	-	-	-		1	1
41	ACB220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	146	-	-	-		14	14
42	ACB220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	166	-	-	-		2	2
43	ACB220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	206	-	-	-		6	6
44	ACB221D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	218	-	-	-		161	161
45	ACB221D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	258	-	-	-		112	112
46	ACB221D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, LONGITUDINAL GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	348	-	-	-		12	12
47	ACC007D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF PLATES, WITH TWO, CLAMPS, TWO FLAT BARS ,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG.,, FIXED POINT, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	300	-	3	-	-	-		1	1
48	ACC220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, FIXED POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	166	-	-	-		1	1
49	ACC220D	SAP Code Empty	SLOPE PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, FIXED POINT, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	100	-	206	-	-	-		1	1
50	ACD003D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	300	-	3	-	-	-		6	6
51	ACD003D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A283 / EN 10025	500	-	4	-	-	-		1	1
52	ACD053D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS, SHEET LINER,, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, PLATE A283GR.B or 1.0038, CLAMP A283GR.B or 1.0038, SHEET LINER A240GR.321or 1.4541, MAT. DELIV. COND. ASTM-A283/240,, EN 10025/10088-2	250	-	3	-	-	-		1	1
53	ACD221D	SAP Code Empty	SLOPE PIPE SHOE WITH STOP, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, TRANSVERSALE GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	218	300	-	-		4	4
54	ACD221D	SAP Code Empty	SLOPE PIPE SHOE WITH STOP, MANUFACT. DRWG., CONSISTING OF PLATES, WITH TWO, CLAMPS,, VERTICALLY ADJUSTABLE,, ACC. TO MANUFACT. DRWG.,, TRANSVERSALE GUIDE, CLAMP 1.0045 S355JR, PLATE 1.0045 S355JR, MAT. DELIV. COND. EN 10025-1/-2	200	-	258	300	-	-		4	4
55	ADA001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1	-	-	-		11	11
56	ADA001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	1	-	-	-		594	594

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
57	ADA001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	3	-	-	-		1	1
58	ADA001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	1	-	-	-		391	391
59	ADA001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	2	-	-	-		1	1
60	ADA002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	2	-	-	-	1	37	38
61	ADA002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	3	-	-	-		149	149
62	ADA002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	2	-	-	-		6	6
63	ADA002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	3	-	-	-		91	91
64	ADA051D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, SHEET LINER,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	50	-	1	-	-	-		12	12
65	ADA051D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, SHEET LINER,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	100	-	1	-	-	-		5	5
66	ADA052D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, SHEET LINERS,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., LOOSE POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	200	-	2	-	-	-		5	5
67	ADB001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	25	-	1	-	-	-		8	8
68	ADB001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1	-	-	-		76	76
69	ADB001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	1	-	-	-		544	544
70	ADB001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	2	-	-	-		1	1
71	ADB001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	1	-	-	-		410	410
72	ADB002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	2	-	-	-		31	31
73	ADB002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	3	-	-	-		123	123
74	ADB002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	2	-	-	-		54	54

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
75	ADB002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	3	-	-	-		172	172
76	ADB051D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, SHEET LINER,, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	50	-	1	-	-	-		9	9
77	ADB052D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, SHEET LINERS,, FLAT BAR GUIDES, ACC., TO UN 3786-04 AND MANUFACT., DRWG., LONGITUDINAL GUIDE, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	200	-	2	-	-	-		16	16
78	ADC001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1	-	-	-		14	14
79	ADC001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	1	-	-	-		52	52
80	ADC001D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	1	-	-	-		50	50
81	ADC002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	2	-	-	-		5	5
82	ADC002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	3	-	-	-		20	20
83	ADC002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	2	-	-	-		15	15
84	ADC002D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	3	-	-	-		31	31
85	ADC051D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH ONE, CLAMP, SHEET LINER,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	50	-	1	-	-	-		1	1
86	ADC052D	SAP Code Empty	PIPE SHOE, UN 3786-01, CONSISTING OF T-BAR, WITH TWO, CLAMPS, SHEET LINERS,, ACC. TO UN 3786-04 AND, MANUFACT. DRWG., FIXED POINT, CLAMP 1.0038 S235JRG2, T-BAR 1.0038 S235JRG2, SHEET LINER 1.4541 X6CrNiTi18-10, MAT. DELIV. COND. EN 10025-1/-2/10088-2	200	-	2	-	-	-		2	2
87	ADD001D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO MANUFACT. DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	50	-	1	-	-	-		1	1
88	ADD001D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO MANUFACT. DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	80	-	1	-	-	-		19	19
89	ADD001D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH ONE, CLAMP, ACC. TO MANUFACT. DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	100	-	1	-	-	-		20	20
90	ADD002D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	150	-	2	-	-	-		1	1
91	ADD002D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	150	-	3	-	-	-		3	3
92	ADD002D	SAP Code Empty	PIPE SHOE, MANUFACT. DRWG., CONSISTING OF T-BAR, WITH TWO, CLAMPS, ACC. TO MANUFACT.DRWG., TRANSVERSE GUIDE, T-BAR A36 or 1.0038, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A36/283 / EN 10025	200	-	2	-	-	-		3	3
93	AEB001D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	15	-	200	-	-	-	2	12	14

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
94	AEB001D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	15	-	150	-	-	-		182	182
95	AEB001D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	40	-	150	-	-	-		5	5
96	AEB001D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	40	-	200	-	-	-		48	48
97	AEB002D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	20	-	200	-	-	-		2	2
98	AEB002D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	25	-	150	-	-	-	1	9	10
99	AEB002D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	25	-	200	-	-	-	12	20	32
100	AEB003D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	200	-	-	-	2	18	20
101	AEB003D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	250	-	-	-	16	3	19
102	AEB004D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	200	-	-	-		1	1
103	AEB004D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	300	-	-	-		1	1
104	AEB005D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	200	-	-	-		2	2
105	AEB005D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG.,, LONGITUDINAL GUIDE, U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	300	-	-	-		1	1
106	AEX001D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG., U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	15	-	150	-	-	-		1	1
107	AEX001D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG., U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	15	-	200	-	-	-		44	44
108	AEX002D	SAP Code Empty	HORIZONTAL PIPE SHOE, UN 3786-01, CONSISTING OF U-BAR, WITH ONE, CLAMP, ACC. TO UN 3786-05 AND, MANUFACT. DRWG., U-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	25	-	200	-	-	-		3	3
109	CS0001D	SAP Code Empty	PIPE SADDLE, MANUFACT. DRWG., PIPE SADDLE ACC. TO, MANUFACTURER DRAWING	250	-	-	-	-	-		46	46
110	CS0015D	SAP Code Empty	U-BOLT, MANUFACT. DRWG., U-BOLT ACC. TO, MANUFACTURER DRAWING	250	-	-	-	-	-		37	37
111	CS02051	SAP Code Empty	PLATE, MANUFACT. DRWG., PLATE	1	-	-	-	-	-		7	7
112	CS02052	SAP Code Empty	PLATE, MANUFACT. DRWG., PLATE	2	-	-	-	-	-		4	4
113	CS02054	SAP Code Empty	PLATE FOR SECONDARY SUPPORT, MANUFACT. DRWG., PLATE	1	-	-	-	-	-		85	85
114	CS02055	SAP Code Empty	PLATE FOR SECONDARY SUPPORT, MANUFACT. DRWG., PLATE	2	-	-	-	-	-		667	667
115	CS02056	SAP Code Empty	PLATE FOR SECONDARY SUPPORT, MANUFACT. DRWG., PLATE	3	-	-	-	-	-		92	92
116	CS02058-2	SAP Code Empty	PLATE FOR INSTRUMENT SUPPORT	50	-	-	-	-	-		2	2
117	CS02058-2S	SAP Code Empty	PLATE FOR INSTRUMENT SUPPORT	50	-	-	-	-	-		18	18
118	CS02058-6	SAP Code Empty	PLATE FOR INSTRUMENT SUPPORT	150	-	-	-	-	-		57	57
119	CS03000-01	SAP Code Empty	PTFE- SS FRICTION PLATE, MANUFACT. DRWG., PTFE GUIDE	1	-	-	-	-	-		2	2
120	CS03000-02	SAP Code Empty	PTFE- SS FRICTION PLATE, MANUFACT. DRWG., PTFE GUIDE	2	-	-	-	-	-		6	6
121	CS03000-03	SAP Code Empty	PTFE- SS FRICTION PLATE, MANUFACT. DRWG., PTFE GUIDE	3	-	-	-	-	-		21	21

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
122	CS03002-03	SAP Code Empty	GRAPHITE SLIDE PLATE, MANUFACT. DRWG., GRAPHITE SLIDE PLATE	8	-	-	-	-	-		366	366
123	CS03003	SAP Code Empty	ROLLER SUPPORT, MANUFACT. DRWG., ROLLER SUPPORT	1	-	-	-	-	-		4	4
124	CS03005	SAP Code Empty	STAINLESS STEEL SHEET, MANUFACT. DRWG., STAINLESS STEEL SHEET	1	-	-	-	-	-		271	271
125	CS03007	SAP Code Empty	STAINLESS STEEL SHEET, MANUFACT. DRWG., STAINLESS STEEL SHEET	4	-	-	-	-	-		116	116
126	CS03007	SAP Code Empty	STAINLESS STEEL SHEET, MANUFACT. DRWG., STAINLESS STEEL SHEET	8	-	-	-	-	-		2	2
127	CS04003-01S	SAP Code Empty	PIPE SHOE WELDED	80	-	131	-	-	-		9	9
128	CS04003-11	SAP Code Empty	PIPE SHOE WELDED	80	-	50	-	-	-		83	83
129	CS04003-12	SAP Code Empty	PIPE SHOE WELDED	80	-	70	-	-	-		2	2
130	CS04004-02S	SAP Code Empty	PIPE SHOE WELDED	100	-	166	-	-	-		7	7
131	CS04004-11	SAP Code Empty	PIPE SHOE WELDED	100	-	50	-	-	-		85	85
132	CS04004-12	SAP Code Empty	PIPE SHOE WELDED	100	-	70	-	-	-		1	1
133	CS04006-02S	SAP Code Empty	SLOPE PIPE SHOE WELDED	150	-	193	-	-	-		1	1
134	CS04006-12	SAP Code Empty	PIPE SHOE WELDED	150	-	70	-	-	-		24	24
135	CS04006-13	SAP Code Empty	PIPE SHOE WELDED	150	-	110	-	-	-		45	45
136	CS04008-02S	SAP Code Empty	SLOPE PIPE SHOE WELDED	200	-	218	-	-	-		51	51
137	CS04008-03S	SAP Code Empty	SLOPE PIPE SHOE WELDED	200	-	258	-	-	-		82	82
138	CS04008-11	SAP Code Empty	PIPE SHOE WELDED	200	-	110	-	-	-		18	18
139	CS04008-12	SAP Code Empty	PIPE SHOE WELDED	200	-	70	-	-	-		2	2
140	CS04008-12S	SAP Code Empty	PIPE SHOE WELDED	200	-	218	-	-	-		5	5
141	CS04008-13S	SAP Code Empty	PIPE SHOE WELDED	200	-	218	-	-	-		2	2
142	CS04010-03S	SAP Code Empty	SLOPE PIPE SHOE WELDED	250	-	285	-	-	-		57	57
143	CS04010-13	SAP Code Empty	PIPE SHOE WELDED	250	-	110	-	-	-		67	67
144	CS04010-23	SAP Code Empty	PIPE SHOE WELDED	250	-	110	-	-	-		1	1
145	CS04012-03S	SAP Code Empty	SLOPE PIPE SHOE WELDED	300	-	310	-	-	-		74	74
146	CS04012-13	SAP Code Empty	PIPE SHOE WELDED	300	-	110	-	-	-		14	14
147	CS04014-03S	SAP Code Empty	SLOPE PIPE SHOE WELDED	350	-	326	-	-	-		84	84
148	CS04014-13	SAP Code Empty	PIPE SHOE WELDED	350	-	110	-	-	-		14	14
149	CS04016-04S	SAP Code Empty	SLOPE PIPE SHOE WELDED	400	-	344	-	-	-		75	75
150	CS04016-05S	SAP Code Empty	SLOPE PIPE SHOE WELDED	400	-	404	-	-	-		1	1
151	CS04016-12	SAP Code Empty	PIPE SHOE WELDED	400	-	70	-	-	-		3	3
152	CS04016-13	SAP Code Empty	PIPE SHOE WELDED	400	-	110	-	-	-		2	2
153	CS04018-15	SAP Code Empty	PIPE SHOE WELDED	450	-	110	-	-	-		5	5
154	CS04020-04S	SAP Code Empty	SLOPE PIPE SHOE WELDED	500	-	394	-	-	-		32	32
155	CS04020-05S	SAP Code Empty	SLOPE PIPE SHOE WELDED	500	-	454	-	-	-		1	1
156	CS04024-03S	SAP Code Empty	PIPE SHOE WELDED	600	-	445	-	-	-		1	1
157	CS04024-13	SAP Code Empty	PIPE SHOE WELDED	600	-	110	-	-	-		31	31
158	CS04030-13	SAP Code Empty	PIPE SHOE WELDED	750	-	110	-	-	-		59	59
159	CS05020	SAP Code Empty	PIPE SHOE WELDED	2	-	-	-	-	-		263	263
160	CS05020	SAP Code Empty	PIPE SHOE WELDED	3	-	-	-	-	-		30	30
161	CS06041	SAP Code Empty	ADJUSTABLE SUPPORT, MANUFACT. DRWG., ADJUSTABLE SUPPORT	1	-	-	-	-	-	2	5	7
162	CS06043	SAP Code Empty	ADJUSTABLE SUPPORT, MANUFACT. DRWG., ADJUSTABLE SUPPORT	2	-	-	-	-	-	2		2
163	HAX003D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	40	-	1500	-	-	-		1	1
164	HAX003D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	40	-	2250	-	-	-		1	1
165	HAX003D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1000	-	-	-		1	1
166	HAX003D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1250	-	-	-		1	1
167	HAX003D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1500	-	-	-		3	3
168	HAX003D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	1750	-	-	-		2	2
169	HAX003D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	2750	-	-	-		2	2
170	HAX003D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	1000	-	-	-		1	1
171	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	2500	-	-	-		1	1
172	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	300	-	1750	-	-	-		1	1
173	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	300	-	2250	-	-	-		1	1
174	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	350	-	1000	-	-	-		2	2
175	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	350	-	2000	-	-	-		2	2
176	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	350	-	2500	-	-	-		1	1
177	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	400	-	1500	-	-	-		1	1

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
178	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	400	-	2250	-	-	-		1	1
179	HAX004D	SAP Code Empty	HANGER, UN 3787-01, WITH ANCHOR CLIP, CLAMP,, ACC. TO UN 3787-03 AND, MANUFACT. DRWG., CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	400	-	2750	-	-	-		1	1
180	KNB002D	SAP Code Empty	GUIDE BRACKET, UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, ACC. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	400	-	-	-		8	8
181	KNB901D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	400	-	-	-		13	13
182	KNB901D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	600	-	-	-		2	2
183	KNB901D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	400	-	-	-		5	5
184	KNB901D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	600	-	-	-		1	1
185	KNB902D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	400	-	-	-		27	27
186	KNB902D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	600	-	-	-		1	1
187	KNB902D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	800	-	-	-		1	1
188	KNB902D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	1000	-	-	-		2	2
189	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	400	-	-	-		8	8
190	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	600	-	-	-		1	1
191	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	800	-	-	-		1	1
192	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	1000	-	-	-		1	1
193	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	400	-	-	-		2	2
194	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	600	-	-	-		1	1
195	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	800	-	-	-		3	3
196	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	400	-	-	-		1	1
197	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	600	-	-	-		2	2
198	KNB903D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	800	-	-	-		6	6
199	KNB953D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	400	-	-	-		4	4

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
200	KNB953D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	600	-	-	-		2	2
201	KNB953D	SAP Code Empty	GUIDE BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	250	-	1000	-	-	-		2	2
202	KNC003D	SAP Code Empty	SUPPORT BRACKET, UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, ACC. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	800	-	-	-	1		1
203	KNC901D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	400	-	-	-		25	25
204	KNC901D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	50	-	600	-	-	-		6	6
205	KNC901D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	400	-	-	-		36	36
206	KNC901D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	80	-	600	-	-	-		5	5
207	KNC902D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	400	-	-	-		23	23
208	KNC902D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	600	-	-	-		15	15
209	KNC902D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF T-BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., T-BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	100	-	800	-	-	-		2	2
210	KNC903D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	400	-	-	-		3	3
211	KNC903D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	150	-	600	-	-	-		1	1
212	KNC903D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	400	-	-	-		1	1
213	KNC903D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	600	-	-	-		1	1
214	KNC903D	SAP Code Empty	SUPPORT BRACKET, SIM. UN 3789-01, CONSISTING OF HE-B BAR,, WITH TWO CLAMPS,, SIM. TO UN 3789-04 AND, MANUFACT. DRWG., HE-B BAR 1.0038 RST 37-2, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100	200	-	800	-	-	-		1	1
215	NAA001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	25	-	400	-	-	-		63	63
216	NAA001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	25	-	600	-	-	-		3	3
217	NAA001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	40	-	400	-	-	-		1	1
218	NAA001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	40	-	500	-	-	-		4	4
219	NAA001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	40	-	600	-	-	-		1	1

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
220	NAA001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	40	-	800	-	-	-		10	10
221	NAA001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	50	-	400	-	-	-		35	35
222	NAA002D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, TWO CLAMPS,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	100	-	400	-	-	-		2	2
223	NAA002D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, TWO CLAMPS,, ACC. TO UN 3788-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	150	-	1000	-	-	-		4	4
224	NAA101D	SAP Code Empty	SUPPORT, MANUFACT. DRWG., CONSISTING OF ONE, PIPES, ONE CLAMP,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	50	-	150	-	-	-		1	1
225	NAA102D	SAP Code Empty	SUPPORT, MANUFACT. DRWG., CONSISTING OF ONE, PIPES, TWO CLAMPS,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, CLAMP 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	300	-	-	-		1	1
226	NAC001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03, AND MANUFACT. DRWG.,, FIXED POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	25	-	400	-	-	-		47	47
227	NAC001D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO, PIPES, ONE CLAMP,, ACC. TO UN 3788-03, AND MANUFACT. DRWG.,, FIXED POINT, PIPE A53GR.B or 1.0254, CLAMP A283GR.B or 1.0038, MAT. DELIV. COND. ASTM-A53/283,, EN 10217-1/10025	50	-	400	-	-	-		35	35
228	NCX002D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO PIPES,, TOP-END PLATE ADJUSTABLE,, ACC. TO UN 3788-03, AND MANUFACT. DRWG., PIPE 1.0254 ST 37.0, T.END PLATE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	600	-	-	-		1	1
229	NCX002D	SAP Code Empty	SUPPORT, UN 3788-01, CONSISTING OF TWO PIPES,, TOP-END PLATE ADJUSTABLE,, ACC. TO UN 3788-03, AND MANUFACT. DRWG., PIPE 1.0254 ST 37.0, T.END PLATE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	600	-	-	-		1	1
230	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	50	-	250	-	-	-		2	2
231	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	250	-	-	-		3	3
232	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	250	-	-	-		1	1
233	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	300	-	-	-		1	1
234	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	350	-	-	-		6	6
235	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	250	-	-	-		6	6
236	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	400	-	-	-		20	20
237	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	300	-	-	-		1	1
238	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	400	-	-	-		7	7
239	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	300	-	-	-		1	1
240	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	400	-	-	-		2	2
241	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	500	-	-	-		1	1

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
242	NSA001D	SAP Code Empty	SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	350	-	-	-		4	4
243	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	300	-	-	-		3	3
244	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	250	-	-	-		2	2
245	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	350	-	-	-		2	2
246	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	300	-	-	-		13	13
247	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	350	-	-	-		1	1
248	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	400	-	-	-		3	3
249	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	300	-	-	-	1	10	11
250	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	400	-	-	-		2	2
251	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	600	-	-	-		5	5
252	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	350	-	-	-		14	14
253	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	400	-	-	-		14	14
254	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	600	-	-	-		6	6
255	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	350	-	-	-		1	1
256	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	400	-	-	-		2	2
257	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	500	-	-	-		1	1
258	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	600	-	-	-		12	12
259	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	400	-	-	-	1	4	5
260	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	500	-	-	-		1	1
261	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	600	-	-	-		1	1
262	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	500	-	400	-	-	-		3	3
263	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	600	-	500	-	-	-		1	1
264	NTA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	600	-	800	-	-	-		1	1
265	NUA001D	SAP Code Empty	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	300	-	-	-		3	3
266	NUA001D	SAP Code Empty	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	500	-	-	-		1	1
267	NUA001D	SAP Code Empty	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	400	-	-	-		2	2
268	NUA001D	SAP Code Empty	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	600	-	-	-		1	1

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
269	NUG002D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE, AND SHOE, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	3	800	-	-		1	1
270	NVA001D	SAP Code Empty	DUMMY SUPPORT, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	1000	-	-	-		1	1
271	NWA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	600	-	-	-		1	1
272	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	1	300	-	-		2	2
273	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	1	400	-	-		15	15
274	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	1	800	-	-		1	1
275	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	1	1000	-	-		1	1
276	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	3	400	-	-		1	1
277	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	400	-	-		3	3
278	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	500	-	-		1	1
279	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	800	-	-		6	6
280	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	1000	-	-		2	2
281	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	1	1200	-	-		1	1
282	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	400	-	-		1	1
283	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	500	-	-		1	1
284	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	800	-	-		4	4
285	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	1000	-	-		2	2
286	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	1200	-	-		5	5

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
287	NWG001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	2	1500	-	-		2	2
288	NWG002D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE AND SHOE, ACC. TO UN 3702-03 AND, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, SHOE 1.0038 RST 37-2, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	4	1200	-	-		1	1
289	NXA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	300	-	-	-		1	1
290	NXA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	500	-	-	-		1	1
291	NXA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	500	-	1000	-	-	-		2	2
292	NXA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	600	-	500	-	-	-		1	1
293	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	50	-	300	-	-	-		1	1
294	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	80	-	300	-	-	-		2	2
295	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	300	-	-	-		6	6
296	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	100	-	400	-	-	-		1	1
297	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	400	-	-	-	2		2
298	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	800	-	-	-	2		2
299	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	300	-	-	-		1	1
300	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	500	-	-	-		1	1
301	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	150	-	600	-	-	-		4	4
302	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	500	-	-	-	2	2	4
303	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	300	-	-	-		3	3
304	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	400	-	-	-		3	3
305	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	200	-	600	-	-	-		2	2
306	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	300	-	-	-		1	1
307	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	500	-	-	-		1	1
308	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	600	-	-	-		3	3
309	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	300	-	800	-	-	-		2	2
310	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	400	-	-	-		7	7
311	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	350	-	600	-	-	-		1	1
312	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	400	-	-	-		3	3

Contract N 66-6695-Nalco

Enquiry N 0183_Primary_Supports

Bidder Name:

Offer

Generate Un-priced Bid & Lock Spec Sheet

Unlock Spec Sheet

Sr.No.	Item Code	SAP Code	Specification	Size 1	Size 2	OD 1	Thk 1	OD 2	Thk 2	67012P Qty.	57012R Qty.	Total Qty.
313	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	600	-	-	-		1	1
314	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	800	-	-	-		7	7
315	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	400	-	1000	-	-	-		1	1
316	NYA001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	600	-	500	-	-	-		2	2
317	NYC001D	SAP Code Empty	TRUNNION, CONSISTING OF ONE, PIPE,, ACC. TO, MANUFACT. DRWG.,, LOOSE POINT, PIPE 1.0254 ST 37.0, MAT. DELIV. COND. DIN 17100, TECH. DELIV. COND. DIN 1626,1629	250	-	600	-	-	-		2	2
318	WCA003D	SAP Code Empty	WELDED PIPE SHOE	200	-	2	-	-	-		72	72
319	WCA003D	SAP Code Empty	WELDED PIPE SHOE	200	-	3	-	-	-		77	77
320	WCA003D	SAP Code Empty	WELDED PIPE SHOE	250	-	3	-	-	-		93	93
321	WCA003D	SAP Code Empty	WELDED PIPE SHOE	300	-	3	-	-	-		14	14
322	WCA003D	SAP Code Empty	WELDED PIPE SHOE	350	-	3	-	-	-		52	52
323	WCA004D	SAP Code Empty	WELDED PIPE SHOE	600	-	4	-	-	-		108	108
324	WCA004D	SAP Code Empty	WELDED PIPE SHOE	750	-	4	-	-	-		158	158
325	WCA053D	SAP Code Empty	WELDED PIPE SHOE	350	-	3	-	-	-		2	2
326	WCA053D	SAP Code Empty	WELDED PIPE SHOE	400	-	4	-	-	-		10	10
327	WCA053D	SAP Code Empty	WELDED PIPE SHOE	500	-	4	-	-	-		2	2
328	WCB005D	SAP Code Empty	WELDED PIPE SHOE	200	-	2	-	-	-		68	68
329	WCB005D	SAP Code Empty	WELDED PIPE SHOE	200	-	3	-	-	-		69	69
330	WCB005D	SAP Code Empty	WELDED PIPE SHOE	250	-	3	-	-	-		194	194
331	WCB005D	SAP Code Empty	WELDED PIPE SHOE	300	-	3	-	-	-		17	17
332	WCB005D	SAP Code Empty	WELDED PIPE SHOE	350	-	3	-	-	-		80	80
333	WCB005D	SAP Code Empty	WELDED PIPE SHOE	400	-	4	-	-	-		7	7
334	WCB006D	SAP Code Empty	WELDED PIPE SHOE	600	-	4	-	-	-		29	29
335	WCB006D	SAP Code Empty	WELDED PIPE SHOE	750	-	4	-	-	-		37	37
336	WCB055D	SAP Code Empty	WELDED PIPE SHOE	400	-	4	-	-	-		7	7
337	WCC007D	SAP Code Empty	WELDED PIPE SHOE	200	-	2	-	-	-		8	8
338	WCC007D	SAP Code Empty	WELDED PIPE SHOE	350	-	3	-	-	-		6	6
339	WDA001D	SAP Code Empty	WELDED PIPE SHOE	25	-	1	-	-	-		183	183
340	WDA001D	SAP Code Empty	WELDED PIPE SHOE	40	-	1	-	-	-		3	3
341	WDA001D	SAP Code Empty	WELDED PIPE SHOE	50	-	1	-	-	-		6	6
342	WDA001D	SAP Code Empty	WELDED PIPE SHOE	80	-	3	-	-	-		48	48
343	WDA001D	SAP Code Empty	WELDED PIPE SHOE	100	-	3	-	-	-		16	16
344	WDA051D	SAP Code Empty	WELDED PIPE SHOE	100	-	1	-	-	-		1	1
345	WDB001D	SAP Code Empty	WELDED PIPE SHOE	25	-	1	-	-	-		610	610
346	WDB001D	SAP Code Empty	WELDED PIPE SHOE	50	-	1	-	-	-		6	6
347	WDB001D	SAP Code Empty	WELDED PIPE SHOE	80	-	1	-	-	-		21	21
348	WDB001D	SAP Code Empty	WELDED PIPE SHOE	80	-	3	-	-	-		58	58
349	WDB001D	SAP Code Empty	WELDED PIPE SHOE	100	-	3	-	-	-		14	14
350	WDB002D	SAP Code Empty	WELDED PIPE SHOE	150	-	2	-	-	-		43	43
351	WDB002D	SAP Code Empty	WELDED PIPE SHOE	150	-	3	-	-	-		44	44
352	WDB051D	SAP Code Empty	WELDED PIPE SHOE	50	-	1	-	-	-		2	2
353	WDB051D	SAP Code Empty	WELDED PIPE SHOE	80	-	1	-	-	-		3	3
354	WDB051D	SAP Code Empty	WELDED PIPE SHOE	80	-	3	-	-	-		3	3
355	WDC001D	SAP Code Empty	WELDED PIPE SHOE	25	-	1	-	-	-		331	331
356	WDC001D	SAP Code Empty	WELDED PIPE SHOE	80	-	1	-	-	-		25	25
357	WDC001D	SAP Code Empty	WELDED PIPE SHOE	80	-	3	-	-	-		8	8
358	WDC001D	SAP Code Empty	WELDED PIPE SHOE	100	-	1	-	-	-		1	1
359	WDC001D	SAP Code Empty	WELDED PIPE SHOE	100	-	3	-	-	-		1	1
360	WDC002D	SAP Code Empty	WELDED PIPE SHOE	150	-	2	-	-	-		9	9
361	WDC002D	SAP Code Empty	WELDED PIPE SHOE	150	-	3	-	-	-		9	9
362	WDC051D	SAP Code Empty	WELDED PIPE SHOE	25	-	1	-	-	-		1	1
363	WNA102D	SAP Code Empty	TRUNNION	50	-	250	-	-	-		1	1
364	WNA102D	SAP Code Empty	TRUNNION	50	-	400	-	-	-		1	1
365	WNA102D	SAP Code Empty	TRUNNION	80	-	300	-	-	-		18	18
366	WNA102D	SAP Code Empty	TRUNNION	100	-	150	-	-	-		1	1
367	WNA102D	SAP Code Empty	TRUNNION	100	-	200	-	-	-		3	3
368	WNA102D	SAP Code Empty	TRUNNION	100	-	250	-	-	-		2	2
369	WNA102D	SAP Code Empty	TRUNNION	100	-	300	-	-	-		1	1
370	WNA102D	SAP Code Empty	TRUNNION	150	-	400	-	-	-		1	1
371	WNA102D	SAP Code Empty	TRUNNION	200	-	400	-	-	-		21	21
372	WNA102D	SAP Code Empty	TRUNNION	500	-	500	-	-	-		5	5
373	WNA102D	SAP Code Empty	TRUNNION	500	-	600	-	-	-		5	5
374	WNC107D	SAP Code Empty	TRUNNION	40	-	200	-	-	-		1	1
375	WNC107D	SAP Code Empty	TRUNNION	100	-	250	-	-	-		1	1
										213	13425	13638

*** Note : Unit of Measurement for Pipe is Metre and for Other Items is Number**

1) Only Green shade cells are editable to bidder.

2) For Unpriced Bid, Use notation 'Q' for Quoted and 'NQ' for Not-Quoted

3) For detail instructions, please refer ITB enclosed.

Bidder'

Date:

tkIS India / Vendor

Category Codes (Submission Purpose)

- ☐ 1 For Approval
- ☐ 2 For Review / Comments
- ☐ 3 For Information
- ☐ 4 For Engineering
- ☐ 5 For Enquiry
- ☐ 6 For Order Placement
- ☐ 7 Final & Approved
- ☐ 8 Released for Construction

Acceptance Codes (Approval Codes)

- ☐ 1 Approved
- ☐ 2 Approved for Manufacturing / Fabrication with Comments as marked
- ☐ 3 Not Approved / Resubmit
- ☐ 4 Retained for Information / Records
- ☐ 5 Reviewed
- ☐ 6 Reviewed as Noted / Resubmit

Remarks for AC2 : This marked-up drawings is hereby approved for fabrication / manufacturing and shall be re-sbumitted after revision. This drawing should be revised only to the extent of tkIS India / Owner / Client comments. Any other changes made by you will not be considered unless clearly highlighted in covering letter asking for approval.

This approval / review does not absolve the supplier from the full responsibility for design and fabrication.

Date : ___/___/_____ Name : _____

tkIS India / Owner / Client

Category Codes (Submission Purpose)

- ☐ 1 For Approval
- ☐ 2 For Review / Comments
- ☐ 3 For Information
- ☐ 4 For Engineering
- ☐ 5 For Enquiry
- ☐ 6 For Order Placement
- ☐ 7 Final & Approved
- ☐ 8 Released for Construction

Acceptance Codes (Approval Codes)

- ☐ 1 Approved
- ☐ 2 Approved for Manufacturing / Fabrication with Comments as marked
- ☐ 3 Not Approved / Resubmit
- ☐ 4 Retained for Information / Records
- ☐ 5 Reviewed
- ☐ 6 Reviewed as Noted / Resubmit

Date : ___/___/_____ Name : _____

Rev.	Status	Description	Date	Prepared	Date	Checked	Date	Approved	AC
02	IFE	Updaed as per Client comment	22.06.2020	PVG	22.06.2020	SNR	22.06.2020	SJP / GGM	-
01	IFE	Updaed as per Client Requirement	11.06.2020	PVG	11.06.2020	SNR	11.06.2020	SJP / GGM	-
00	IFR	First Issue	16.10.2017	AKK	18.10.2017	SNR / PVG	16.10.2017	SJP / WAR	-

Barcode

Category Code: 3

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1. Scope

This procedure shall apply to the EPC/LSTK Contractors and EPCM Vendors (including project partners) contractually obliged to supply project material and associated drawings and project related services, documents including complete set of final documentation for their scope of supply / work for the following contract.

EPCM Contractor Project Code : NALCO-ALUMINA REFINERY PROJECT

EPCM Contractor Contract No.: 66-6695

These requirements shall be practiced for components with equipment number (Equipment Tag), material with item number, components with TAG number (electrical / instrumentation material) and completely engineered systems and equipment packages (package units).

These requirements shall not apply to piping components with an item number requiring quality certificates below 3.1 acc. to. EN 10204 and to individually ordered bolts and nuts.

2. Aim / purpose

This procedure shall provide instructions for preparation, handling of EPC/LSTK contractor's and Vendor's document, drawings and compiled sets of documentation to facilitate handover of documentation to customer.

This procedure shall guide EPC/LSTK contractor / vendor to follow uniform concepts in addition to the purchase order documents, the "Discipline-Specific Requirements, and technical information requirement indicated in the Technical Specifications / Datasheets.

Purchase order execution shall not be deemed to be complete until after all requirements for the documentation are satisfied.

3. Abbreviations and Definitions

Client	Means recipient of a product, e.g. plant or services NALCO
EPCM Consultant	thyssenkrupp Industrial Solutions (India) Private Limited and other offices of EPCM Contractor responsible for execution of the project wherever applicable
Vendor / Contractor	EPC/LSTK Contractor or Vendor shall mean the bidder during the bidding phase and the supplier / contractor after purchase order award. The Vendor supplies the equipment and/or services as specified by EPCM Contractor.
Construction Documentation (CD)	The Construction Documentation shall mean latest revisions of vendor's documents required for construction, erection and on-site preservation of equipment / machinery.
Final Vendor Documentation (FD)	The Final Vendor Documentation shall mean latest revisions of vendor's all technical documents (including As-Built - i.e. as fabricated at vendor's works), spare parts list, list of special tools and other manufacturer instructions / procedures (QA / testing plans / procedures and storage, installation, maintenance, operation instructions etc.).
Manufacturer's Data Report (MDR)	The MDR comprises the quality assurance documentation consisting material test certificates, inspection records / reports, as well as all other reports and certificates as indicated in Order Specification in accordance with sections 8.2 of this document.
Doc-ID Code / Doc-ID Number	EPCM Contractor document identification number
Document	Individual document (or Drawing) as described in purchase order, order specifications / data sheets or any other contractual document etc.
Documentation	Documents compiled in files as per the sequence / guidelines given and issued for specific purpose (i.e. "for Construction")

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TAG	Equipment designation identified as per the numbering system of NALCO

4. Procedure: Preparation of Documents

4.1 General

Documents shall follow the industry practice for preparation of technical drawings and documents based on relevant standards.

As a rule, a separate document shall be prepared for each itemised Equipment TAG. The presentation of several equipment items with different item numbers in a single document shall not be allowed. Exceptions from this rule are flow diagrams, common arrangement drawings etc. as well as standby machines if these are identical with the main machine (same type, construction, material, dimensions, weight, accessories, connections etc.). For this, conformation is to be obtained from the person In-Charge (i.e. Lead Engineer) before preparation of the drawing / document.

If one TAG and/or Item number includes more than one drawing, these additional drawing numbers / document identification numbers shall be listed on the general arrangement drawing. Each of these additional drawings shall contain cross-references to the general arrangement drawing.

All information submitted through Drawings / Documents shall be explicit, rule out misinterpretations and relate to the specific application or operating conditions of the equipment supplied. The number of documents shall be kept to a minimum, i.e. as much information as possible should be incorporated in one document. Exceptionally long documents shall be split into logical parts / sections.

4.2 Document identification and attributes

For the unique identification of a document all documents shall be unambiguously marked by the following information at least.

- EPCM Consultant's Contract number,
- EPCM Consultant's Doc-ID code wherever applicable,
- Revision No.

In addition to the above mentioned information for the document identification all documents shall bear

- the document title,
- the vendor Name,
- the purchase order number,
- the applicable TAG / Item / Part Number and its description,
- the revision date,

4.3 Document layout

The drawings / documents shall be prepared using EPCM Consultant supplied templates. Vendors shall adopt the native files of the drawing / document templates to the Engineering tool being used for execution. Vendors can use their own title block in addition to the EPCM Consultant provided title block. However, to avoid any inconsistency, revision index must be single (Common).

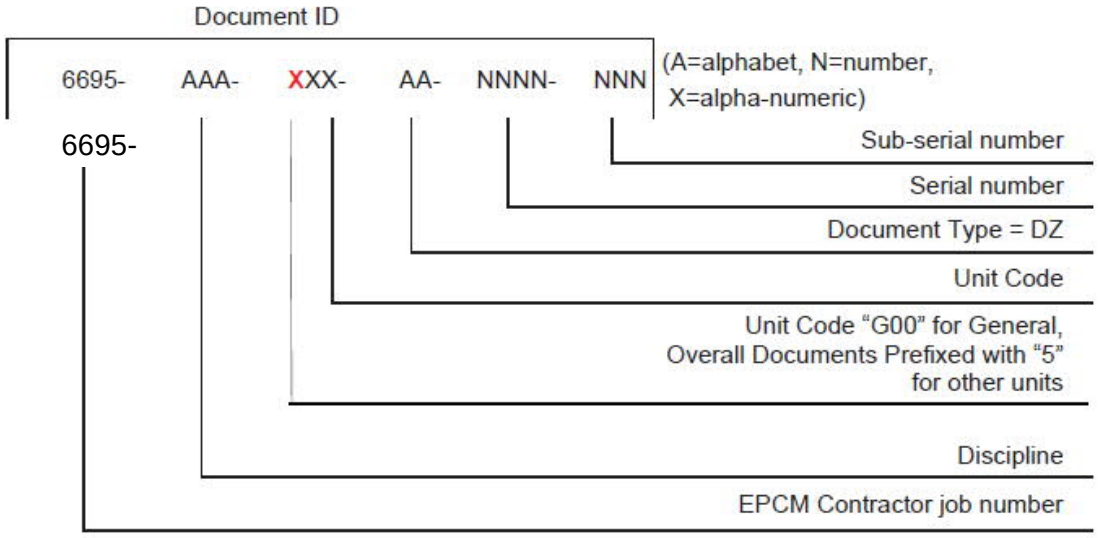
The information for the documents identification and the corresponding attributes as listed in chapter 4.24.2 shall be mentioned at the specified location in the drawing title-block or on the cover page of the document.

Alternatively, the information listed in chapter 4.2 shall be incorporated with contract-specific mark-up on the first page of the standard document / manual / brochures or typical drawings clearly indicating the exact applicable type / model and/or relevant dimensions.

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4.4 Doc-ID code (EPCM consultant document identification number)

All documents to be submitted shall be marked by a defined Doc-ID code pre-determined and given by EPCM consultant. The structure of the Doc-ID shall be as given below;



The vendor shall submit the "Master Document Index" (list of deliverables) for each of the ordered TAG / Item to EPCM Consultant as per format attached as attachment-A0, immediately after the equipment / item is ordered with the letter-of-intent / purchase order. EPCM consultant shall review this list and inform vendor the vendor document series for each TAG / Item indicating the EPCM consultant Doc-IDs for the documents listed in Master Document Index. For any new / additional documents vendor shall allocate subsequent incremental sub-serial numbers and update the Master Document Index. Vendor shall indicate the EPCM consultant Doc-ID on all drawings / documents submitted to EPCM consultant. EPCM consultant may reject the drawings / documents submission if the formal aspects are not fulfilled according to this instruction. This Master Document Index shall be submitted by vendor to EPCM consultant along with the monthly status reports.

4.5 Revision index

The revision index shall also be indicated on each document. The level of progress shall be indicated unambiguously by the revision index on the title block.

The first issue of a document shall also indicate the revision index appropriately.

The content of the modification/purpose shall be briefly stated in the revision column. For example, the following descriptions shall be used:

Rev. 00 First issue

Rev. 01 EPCM consultant's comments / remarks incorporated

Rev. 02 Issued for Fabrication / Construction

The terms "last revision" or "total revision" shall not be used.

Each document modification and distribution, whether internal for vendor or for external distribution to EPCM consultant, shall increase the revision index by one counter.

All revisions of the Vendor documents shall have passed the Vendor's internal review and approval procedure. The date of review and approval shall be indicated on the document. With this vendor confirms that the documents have been checked for conformance with the requirements of the purchase order documents.

Each revised drawing / document shall be prepared, checked, approved and distributed like the first issue of the document. Each document revision shall be submitted to EPCM consultant only once. While re-submission of the revised documents all triangles and clouds relating to the previous revision shall be removed. In the case of revision, the complete document affected by the revision shall be resubmitted as one pdf document. The submission of part document with specific revised content individually shall not be allowed.

All modifications, contained in the latest revision as compared to the previous one, shall be clearly marked in the document. (The revision index shall be indicated in a triangle following the modification.) Modified parts of a drawing shall be marked by enclosing them in "clouds" with revision index triangle. Any intermediate

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revisions not submitted to EPCM consultant shall also be submitted for information along with the latest revision. This is to enable EPCM consultant to track changes happened during intermediate revisions. However, review of the revised documents shall be limited to the marked revisions and EPCM consultant shall provide approval/comments/receipt-confirmation only on the last revision submitted.

As-Built documents shall not show any revision triangles and clouds and shall be indicated as "As-Built" in the revision index. As-Built Drawings / documents shall be submitted as part of Final Documentation.

4.6 Contractual language

All documents to be submitted shall be prepared in English language.

4.7 Document formats

The sheet sizes of drawings and documents shall correspond to ISO standards generally followed as per the industry practice. The contractual sheet sizes are listed in Attachment 01 "Contract-specific requirements".

Text documents shall generally be prepared in the A4 format. Documents, consisting of several pages shall exclusively include the A4 and/or A3 formats with cover page). Page number and total number of pages shall generally be shown on each page of vendor's documents. As general rule, information on the back side of the document shall not be allowed. Exceptions shall be limited only for standard printed product catalogues, printed manuals or large calculations or voluminous data from a software tool.

All documents greater than A4 shall be folded to A4 so that the title block shall be visible on top. The location of the title block is given in the templates.

All documents, except the reduced sizes of documents which are implemented in the operation and maintenance instruction, have to be delivered in the original size.

By using colours in documents the substance of information shall not be lost in black and white copies.

4.8 Document quality

Copies of drawings and documents shall be made on white paper on good quality commercially available paper of having minimum thickness of at-least 70g/m2 (gsm).

All documents shall have a 2 cm free margin and 4-hole punching. The 4-hole-punched paper of documents greater than A3 shall either be fitted with hole reinforcements or adhesive reinforcing strips.

5. Procedure: Handling of documents and documentation binders

5.1 Submission of documents and documentation binders

The number and scope of the documents and documentation binders to be submitted shall be as specified in the "Summary of Engineering Documents" / "Document Request Form" attached to the technical specification of the purchase order. The minimum number of documentation is indicated in Attachment 02 "Number of copies". Each TON of a purchase order requires an independent documentation (per TON at least one binder), exceptions to be advised during Engineering Phase by EPCM consultant.

The vendor shall submit the documents and documentation binders to EPCM Contractor at the dates indicated in the said annexure "Summary of Engineering Documents" / "Document Request Form" to ensure further engineering and proper review and/or forwarding.

Documents and documentation binders shall be submitted with an accompanying letter (transmittal), which shall contain:

- EPCM consultant Contract number, Transmittal-ID
- EPCM consultant Doc-ID Code, Revision No., Document title of the attached documents / documentation binders
- The purpose of transmission ("for information/action", "for review", "for approval"),
- and in the case of the submission of documentation binders the purpose of the binders, e.g. "for construction" or "final documentation" etc.

5.2 Guidelines for documentation binders

In order to ensure a uniform appearance of the documentation binders, the vendor shall use binders as specified in Attachment A01 "Contract-specific requirements". The binders shall only be filled to a maximum level of 90 % to leave space for revisions or amendments.

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For the delivery of the documentation binders, the binders shall be placed into parcels in suitable position and sent via courier service to the delivery address of the documentation as indicated in Attachment 01 "Contract-specific requirements".

The vendor shall submit the first edition of the documentation binders (one set draft or master file) of the construction/final documentation binders including index to EPCM consultant for approval through transmittal listing the Table of Contents.

After the review of the construction/final documentation binders EPCM consultant shall provide approval/review comments, the Table of Contents and the spine labels for each approved/commented binders back to the vendor also through transmittal listing the Table of Contents.

Only after EPCM consultant approval the required number of binders shall be submitted by vendor in line with the Table of Contents (documentation grouping and sequence) and considering EPCM consultant approval/review comments. Direct submission of final copies without approval from EPCM consultant will not be accepted and the vendor will have to submit all required number of binders again after incorporating the changes given by EPCM consultant.

5.3 Guidelines for expediting documents

Expediting documents shall be submitted as specified and must be clearly identified. Material delivery schedules, fabrication and construction time schedules shall be submitted not later than on the date of the first drawing submittal for review. Updated versions shall thereafter be submitted monthly without specific request by EPCM consultant. The expediting document shall show all schedule-critical materials and the critical path, regardless of whether they have been ordered or not. Moreover, the material delivery schedules of subcontractors or manufacturers of key equipment shall be shown. The expediting documents shall show the scheduled completion dates as indicated in the original time schedule and the actual status together with the updated time schedule. Expediting documents are for EPCM consultant information only.

5.4 Guidelines for generation of electronic files

In case documents are exchanged via e-mail or a collaboration tool, vendor shall submit only soft copies in PDF file format to EPCM consultant. Vendor shall ensure that PDF files shall not be encrypted or password protected to allow access, modification and management.

Native Files shall be submitted only along with Final / As-Built Documentation if required. Native files submission during the engineering phase for approval if any shall be as per the specific instructions of the technical responsible Lead Engineer.

Separate pdf files shall be submitted for each individual documents identified with one Doc-ID Code. Multiple drawings / documents with several Doc-IDs merged to one single pdf file shall not be accepted. All drawings / documents greater than A3 shall have individual single page pdf files with individual Doc-IDs. A4 and A3 size documents can be multi-page pdf files.

The orientation of pdf files shall be in reading orientation for all sizes irrespective of the size of document and number of pages.

Name of the pdf file shall be:

Doc-ID Code_000_Rev.pdf

For Example: 6695-EQS-09-DZ-0003-005_000_04.pdf

Following restrictions shall be taken into account naming of pdf files for electronic transfers.

- Length of file name must not exceed 128 characters. The whole length of path name and file name together must not exceed 200 characters.
- Blanks are not allowed (use underscore "_" instead of blank to separate parts of the file name)
- Special characters (e.g. / , \ , : , * , ? , " , < , > , !) and umlauts are not allowed

5.5 Electronic submission

In case that documents are exchanged electronically in pdf format through e-mail or a collaboration tool., the details regarding the handling of the collaboration tool are described in a contract-specific annexure as listed in Attachment 01 "Contract-specific requirements".

Transmittal as well as drawings / documents shall be submitted electronically. Whenever collaboration tool does not generate automatic intimations to the recipient's e-mail intimation shall be sent by the originator to recipient. E-mail transfer of individual documents without transmittal / reference details is not allowed.

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Date of receipt of document will be considered only when EPCM consultant can open and view the documents and transmittal properly. If EPCM consultant can't open or view the documents submission, it will be treated as invalid / void / rejected.

All files submitted on CD / DVD or other data carrier as part of Final / As-Built Documentation must be accompanied by a table of contents and a structure description for native files if applicable. (Description of layer allocation, pin allocation, list of fonts applied). The files shall be named according the file naming convention explained in this procedure (refer to chapter 6.4).

6. Approvals by EPCM consultant

EPCM consultant shall review the documents to be submitted by vendor with respect to the requirements specified in the purchase order / technical specifications. EPCM consultant will provide review comments and return the document with acceptance code. The acceptance code will be clearly marked on the in-built CC-AC Code Block or Electronic stamp on the drawings / document. (In case of Physical documents the documents will be Rubber Stamped, clearly indicating the Acceptance Code).

EPCM consultant shall check/comment the documents within a period of ten (10) working days after receipt. Vendor shall consider this review period in his manufacturing schedule. However, in exceptional situations, for critical documents and considering the urgency for schedule the review cycle can be reduced to five (5) working days based on the specific requests from vendor substantiating with the reason thereof. Such exceptional situations/urgency for schedule to be agreed with Project Manager during Project Execution and to be clearly indicated on Transmittal Subject line as "Urgent Approval Required – Approve in 5 days by dd/mm/yyyy".

Once the commented Documents are received by vendor, Vendor will submit the revised Drawings/ Documents with next revision within a period of ten (10) working days.

6.1 Category Codes

Category Codes are the codes followed to indicate the Document Submission Requirements or the Document Status. Following are the Category Codes;

1 for Approval
2 for Review / Comments
3 for Information
4 for Engineering
5 for Enquiry
6 for Order Placement
7 Final & Approved
8 Released for Construction

6.2 Acceptance Codes

Acceptance Codes are the codes followed to indicate the Document Approval Status confirmed by the Approving Authority. Following are the Acceptance Codes;

1 Approved
2 Approved for Manufacturing / Fabrication with comments as marked
3 Not Approved / Resubmit
4 Retained for Information / Records
5 Reviewed
6 Reviewed as noted

Note: The Category Codes and Acceptance Codes will be abbreviated in the footer of the Transmittal.

6.3 General

Approval or review of the vendor's drawings and documents, shall not relief the vendor of his responsibility for the correctness of drawings and documents.

If the vendor starts the fabrication without approved drawings/documents by EPCM consultant, he has the full responsibility without releasing him from any obligations e.g. modification or repetition of the work in a later stage after receiving the approval of EPCM consultant. Cost related to consequences due to the start of fabrication without approved documents/drawings shall be borne by the vendor.

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If within the period agreed no remark / approval shall be received by the vendor, he shall contact EPCM consultant accordingly in written form.

6.4 Documentation binders as part of final inspection

Final documentation binders are part of successful final inspection by EPCM consultant.

A waiver of inspection with regard to equipment does not include a waiver of inspection of the related documentation.

No purchase order shall be considered completed until data and documents/documentation required by the purchase order have been received by EPCM consultant / client.

7. Structure of documentation binders

The documentation binders shall be structured in sections A, B and C as described in the following table (CON = Construction Documentation / FIN = Final Documentation, also refer to Attachment A04 "Structure of the vendor's documentation".)

Section A, Design documents

Group No.	Examples for the documents which are part of the defined group no.	Part of Documentation	
01	Block diagrams, flow diagrams, piping and instrumentation diagrams (PIDs), process flow diagrams (PFDs), overview diagrams (as applicable)	CD	FD
02	Foundation data, fixing plate details, anchoring data, mounting details (as applicable)	CD	FD
03	Overall arrangement diagrams, general arrangement drawings, overall layout, plot plan etc. (as applicable)	CD	FD
04	Detailed drawings, part lists, detailed assembly drawings, sectional views, calculations (as applicable)	CD	FD
05	Fabrication instructions / procedures, welding instructions, heat treatment instructions and other fabrication instructions (as applicable)	CD	FD
06	Packing / transportation, storage and preservation instructions (as applicable)	CD	FD
07	Electrical and instrumentation documents, switching and control diagrams, interlocking diagrams, wiring / circuit and terminal diagram, hook-ups (as applicable)	CD	FD
08	Special documents / product catalogues, catalogues of installed single components, hydraulic diagrams (as applicable)	CD	FD

Section B, Operating and maintenance instructions

Group No.	Current Group Description	Part of Documentation	
09	Installation and erection instructions, sequence of assembly and erection, installation drawings	CD	FD
10	Operating and maintenance instructions or user manuals incl. recommended spare parts and lubricants	-	FD
12	Spare Parts List (unpriced)	-	FD
13	List of Lubricants / Feedstocks	-	FD

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Section C, Fabrication verification and inspection documents

Group No.	Current Group Description	Part of Documentation	
11	Test certificates and inspection reports, fabrication and inspection documents manufacturer's declaration, declaration of conformity, evidence of origin, test reports and material test certificates, EPCM consultant non-conformance report	-	FD

7.1 Documentation structure for package units and heavy machinery

Package units are understood to mean independent and operative plant sections consisting of several components. As a rule, the PU are designed, manufactured, erected and commissioned as complete units by the manufacturer.

If advised by the responsible lead engineer, documentation structure for these units shall be as follows:

1.) All general documents of a package unit (e.g. PIDs of the unit, user instructions of the unit, instrumentation, bulk material, equipment without TAG number, etc.) shall be sorted according to the following sections:

- Section A, Design documents
- Section B, Operating and maintenance instructions
- Section C, Fabrication verification and inspection documents

2.) The documentation for the individual equipment items within the package unit shall be sorted accordingly as substructure within the package unit documentation or as advised by the responsible Lead Engineer.

7.2 Test Certificates and inspection reports submitted as part of section C

Fabrication verification and inspection documents shall be submitted with a cover sheet and a table of contents including page numbers for a completeness check.

Examples for inspection documents applicable according to Code of Process Vessels and Heat Exchangers belonging to one TAG are given below:

- Inspection release note
- Approved QAP / approved-signed test procedures
- Weld plan and WPS/PQR
- Factory acceptance test reports / certificates
- Manufacturer's test certificate, guarantee certificate, certificate of compliance and performance test reports, declaration of conformity etc.
- Statutory / authority approval documents / third party approval records
- Material certificates & material heat charts
- Material traceability lists
- Inspection reports
- Dimensional check records
- UT-test reports
- MP-test reports
- PT-test reports
- X-ray-test reports
- Hydrostatic test reports
- Air test reports
- Record of production test plates
- Records of tube to tube sheet examination
- NDT drawings / logs
- Welds map indicating welder's qualification

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- Heat treatment diagrams
- Results of corrosion tests
- Evidence of origin
- EPCM Contractor non-conformance report
- EPCM Contractor quality certificate

Files containing documents with original notified body-sign / stamps shall be marked "Original" and to be hand-delivered to EPCM consultant's project manager / inspection lead-engineer.

***

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Attachment 01: Contract Specific Requirements

Shipping address

f documentation according to protocol of negotiations for placement of purchase order:

thyssenkrupp Industrial Solutions (India) Private Limited (EPCM consultant)	thyssenkrupp Industrial Solutions (India) Private Limited Attn. Mr. Girish G. Masurkar Project Manager Uhde House, L.B. Shastri Marg, Mumbai - 400083 India.

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Admissible sheet sizes:

A0 landscape format / separate Doc-ID required per sheet (Exceptional case only)
A1 landscape format / separate Doc-ID required per sheet
A2 landscape format / separate Doc-ID required per sheet
A3 landscape format
A4 portrait / landscape format
For drawing formats larger than A2, a minimum character height of 2.5 mm shall be used.

Contractual language of documentation:

English

Operating manual language:

English

Symbols / units of measurement:

Metric and US units

Types of lever arch files to be used for the documentation:

Black colour File (Folder/Binder), made from plastic or Cardboard laminated with polypropylene film, 4-ring lever arch file (double DIN A5 Cross-wise storage), with edge protection and grip holes (locking eyelets), 70 mm wide (back width), with transparent plastic spine pocket for insertion of interchangeable labels.

Dividers:

Paper weight	@ 160g/m²
Dimensions	240mm * 105mm
Colour	white

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Attachment 02: Number of copies

During engineering approval, the drawings / documents shall be submitted via e-mail to the taskforce e-mail-ID or through the collaboration tool. In addition to hard-copies (paper prints) shall be submitted according to the. "Summary of Engineering Documents" / "Document Request Form" attached to technical specification and/or as per the protocol of negotiations for placement of purchase order.

Minimum number of paper copies of documentation files:

Documentation Type	Number of Sets
Documentation submission by EPCM Vendors	
draft Construction Documentation (for approval)	Electronic Submission (through email / tkIS Cryptshare document transfer platform)
Construction Documentation (after approval)	4 Hard copy Sets + 3 CD/DVDs (to project construction site)
draft Final Documentation (for approval)	Electronic Submission (through email / tkIS Cryptshare document transfer platform)
Final Documentation (after approval)	6 Hard Copy Sets + 3 CD/DVDs (Refer Note 1 below)
Documentation submission by LSTK Contractors	
draft Construction Documentation (for approval)	Electronic Submission through cFolders
Construction Documentation (after approval)	4 Hard Copy Sets (to project construction site) + Electronic copy through cFolders
draft Final Documentation (for approval)	Electronic Submission through cFolders
Final Documentation (after approval)	6 Hard Copy Sets + 3 Nos. USB Drives / External USB Hard-Discs of reputed make (Refer Note 2 below)

Notes :

(1) EPCM vendors to handover final documentation (Engineering, Vendor & Sub-Vendor Documentation) to tkIS in CD/DVD. tkIS to provide consolidated Final documentation of EPCM Scope one time as Final Hand-over in USB drives / External Hard disc of reputed make to NALCO.

(2) LSTK Contractors to handover complete Final Documentation (Engineering, Vendor & Sub-Vendor Documentation) one time as Final Hand-over in USB Drives / External USB Hard-Discs of reputed make to NALCO / tkIS

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Attachment 03: Instructions for submission of drawings / documents electronically to EPCM Contractor

- Vendor shall submit only soft copies (pdf) to EPCM consultant for review. Hard copies shall be submitted to EPCM consultant only for Construction / Final / As-Built Documentation.
- As far as possible Vendor shall prepare pdf file directly from the source/native file/application. In exceptional cases scanned pdf files shall be accepted. Care shall be taken that e-mail size (Total data size for drawings, documents and transmittals for one submission) does not exceed 5 MB.
- pdf file of document shall be sent through authorized e-mail-ID of the vendor as agreed during Kick-off-meeting. Vendor to maintain the Original signed copy as master copy and to be offered for verification for EPCM Contractor's / Third party Approval Agency's inspector upon request / during audit.
- Name of the pdf file shall be: Doc-ID_Rev_TON_short description.

  For example, for equipment TON 24F001 General Arrangement Rev.00 file name shall be;

  NNNNA-AA-XXX-DZ-NNNNN-NNN_00_24F001_GA.pdf

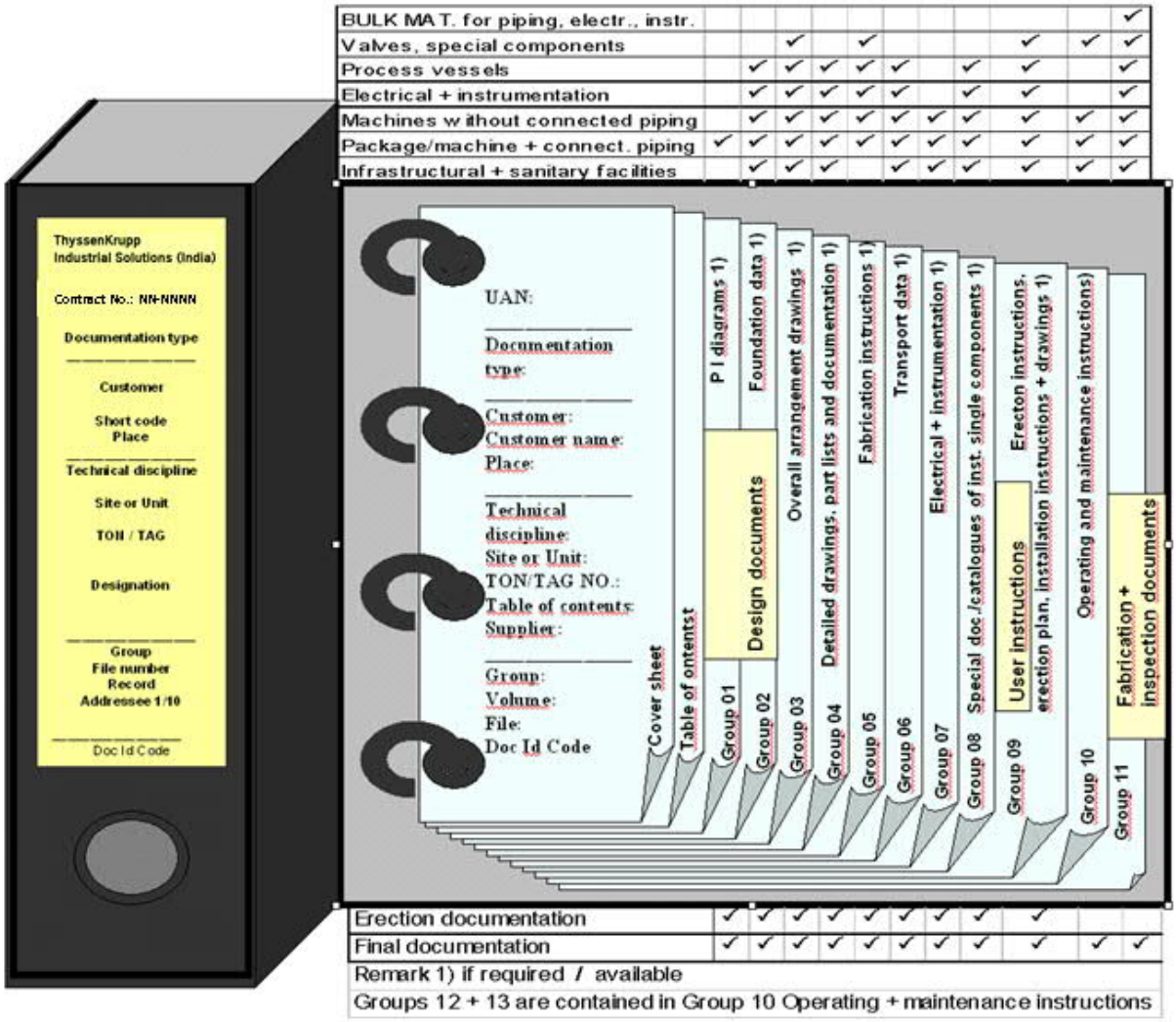
  Following restrictions shall be taken into account to avoid problems while transfer of documents through e-mail / ftp server.

  - Length of file name must not exceed 128 characters. The whole length of path name and file name together must not exceed 200 characters.
  - Blanks are not allowed (use underscore "_" instead of blank to separate parts of names)
  - Special characters (e.g. / , \ , : , * , ? , " , < , > , !) and umlauts are not allowed
- Transmittal shall be prepared for documents to be sent to EPCM consultant clearly indicating EPCM consultant Contract No., PO No., TAG No., EPCM consultant Document ID, Revision and document description.
- pdf files shall be sent to EPCM consultant by e-mail to EPCM consultant's Task Force e-mail-ID or to be uploaded in the collaboration folder as advised.
- Each e-mail should contain files related to one transmittal only. Separate e-mails shall be sent for 2 different transmittals. Subject of the transmittal shall indicate EPCM consultant's Project No. at the start and followed by the transmittal reference number.
- Date of receipt of document shall be considered only when EPCM consultant can open and view the documents and transmittal properly. If EPCM consultant can't open or view the documents submission will be treated as invalid / void. Vendor shall ensure that pdf files shall not be encrypted or protected.
- After reviewing document EPCM consultant shall return approved/commented documents with transmittal by e-mail. No hard copy shall be sent. Once the commented documents are received by vendor, vendor will submit the revised documents with next revision within a period of ten (10) working days. As far as possible vendor shall not change the position of details in the drawing / document in next revision.
- In-case documents are not received back with approval / comments within 2 weeks of submission to EPCM Contractor, vendor to send expediting/follow-up mail to EPCM consultant's Taskforce e-mail-ID
- Vendor shall maintain document index with EPCM consultant's Doc. ID-Code, date of submission & date of return. The same shall be sent for EPCM consultant's information on monthly interval.

***

B 66-6695-10615226 BD 000 02 FC 23.06.2020

Attachment 04: Structure of documentation binder



***

B 66-6695-10615226 BD 000 02 FC 23.06.2020

Plant	Client	Contract Code	Document ID	Contract No.
1.0 MTPA ALUMINA REFINERY STREAM-5	**NALCO**	**NAL**	**6695-PIP-G00-TB-0026**	**66-6695**

thyssenkrupp

Support Fabrication Drawings- Primary Supports

नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

tkIS India / Vendor

Category Codes (Submission Purpose)

- ☐ 1 For Approval
- ☐ 2 For Review / Comments
- ☐ 3 For Information
- ☐ 4 For Engineering
- ☐ 5 For Enquiry
- ☐ 6 For Order Placement
- ☐ 7 Final & Approved
- ☐ 8 Released for Construction

Acceptance Codes (Approval Codes)

- ☐ 1 Approved
- ☐ 2 Approved for Manufacturing / Fabrication with Comments as marked
- ☐ 3 Not Approved / Resubmit
- ☐ 4 Retained for Information / Records
- ☐ 5 Reviewed
- ☐ 6 Reviewed as Noted / Resubmit

Remarks for AC2 : This marked-up drawings is hereby approved for fabrication / manufacturing and shall be re-sbumitted after revision. This drawing should be revised only to the extent of tkIS India / Owner / Client comments. Any other changes made by you will not be considered unless clearly highlighted in covering letter asking for approval.

This approval / review does not absolve the supplier from the full responsibility for design and fabrication.

Date : ___/___/_____ Name : _____

tkIS India / Owner / Client

Category Codes (Submission Purpose)

- ☐ 1 For Approval
- ☐ 2 For Review / Comments
- ☐ 3 For Information
- ☐ 4 For Engineering
- ☐ 5 For Enquiry
- ☐ 6 For Order Placement
- ☐ 7 Final & Approved
- ☐ 8 Released for Construction

Acceptance Codes (Approval Codes)

- ☐ 1 Approved
- ☐ 2 Approved for Manufacturing / Fabrication with Comments as marked
- ☐ 3 Not Approved / Resubmit
- ☐ 4 Retained for Information / Records
- ☐ 5 Reviewed
- ☐ 6 Reviewed as Noted / Resubmit

Date : ___/___/_____ Name : _____

Classification: Confidential

Rev.	Status	Description	Date	Prepared	Date	Checked	Date	Approved	AC
05	IFI	REVISED AND RE-ISSUED FOR ENQUIRY/ORDER	28.04.25	PTE	28.04.25	NNG	15.04.25	MLN	-
04	IFI	REVISED AND RE-ISSUED FOR ENQUIRY/ORDER	31.12.24	PTE	31.12.24	NNG	31.12.24	MLN	-
03	IFI	REVISED AND RE-ISSUED FOR ENQUIRY/ORDER	16.02.24	PTE	16.02.24	SHK	16.02.24	MLN	-
02	IFI	REVISED AND RE-ISSUED FOR ENQUIRY/ORDER	27.01.22	PTE	27.01.22	SHK	27.01.22	MLN	-
01	IFI	REVISED AND RE-ISSUED FOR ENQUIRY/ORDER	07.06.21	PTE	07.06.21	SHK	07.06.21	MLN	-
00	IFI	ISSUED FOR ENQUIRY/ORDER	22.10.20	PTE	22.10.20	SHK	22.10.20	MLN	-

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Barcode

Category Code: -5&6

LIST OF ANNEXURES:

ANNEXURE 1:	Index of Support Fabrication Drawings – Primary Supports (16 Pages)
ANNEXURE 2:	Fabrication Drawings (921 Pages)
ANNEXURE 3:	Enclosure for Fabrication Drawings (115 Pages)
APPENDIX 1:	Instructions to vendors (1 Page)
APPENDIX 2:	Equivalent for Din Sections Used In Support Standard (13 Pages)
APPENDIX 3:	DIN/ASTM/IS material equivalent (1 Page)
APPENDIX 4:	UN Standards (100 Pages) UN 3786-03 E (2008-06) UN 3786-12 E (2009-08) UN 3790-25 E (2009-08) UN 3790-26 E (2009-08)

ANNEXURE-I

Index for Primary Supports

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
1	AAA001D	600			PIPE SADDLE
2	AAA001D	900			PIPE SADDLE
3	ABB001D	15			U-BOLT
4	ABB002D	25			U-BOLT
5	ABB003D	40			U-BOLT
6	ABB003D	50			U-BOLT
7	ABB003D	80			U-BOLT
8	ABB003D	100			U-BOLT
9	ABB003D	150			U-BOLT
10	ABB003D	200			U-BOLT
11	ABB003D	250			U-BOLT
12	ABB003D	300			U-BOLT
13	ABB003D	350			U-BOLT
14	ABB003D	400			U-BOLT
15	ABB003D	450			U-BOLT
16	ABB003D	500			U-BOLT
17	ABC001D	15			U-BOLT
18	ABC002D	25			U-BOLT
19	ABC002D	40			U-BOLT
20	ABC003D	50			U-STRAP
21	ABC003D	80			U-STRAP
22	ABC004D	100			U-STRAP
23	ABC004D	150			U-STRAP
24	ABC004D	200			U-STRAP
25	ABC004D	250			U-STRAP
26	ABC004D	300			U-STRAP
27	ABC004D	350			U-STRAP
28	ABC004D	400			U-STRAP
29	ABC004D	500			U-STRAP
30	ACA003D	250	3		PIPE SHOE
31	ACA003D	300	3		PIPE SHOE
32	ACA003D	350	3		PIPE SHOE
33	ACA003D	400	4		PIPE SHOE
34	ACA003D	400	6		PIPE SHOE
35	ACA003D	450	4		PIPE SHOE
36	ACA003D	500	4		PIPE SHOE
37	ACA004D	600	4		PIPE SHOE
38	ACA004D	750	4		PIPE SHOE
39	ACA004D	750	5		PIPE SHOE
40	ACA004D	750	6		PIPE SHOE
41	ACA053D	250	3		PIPE SHOE
42	ACA220D	50	117		SLOPE PIPE SHOE
43	ACA220D	50	137		SLOPE PIPE SHOE
44	ACA220D	80	151		SLOPE PIPE SHOE
45	ACA220D	80	191		SLOPE PIPE SHOE
46	ACA220D	100	146		SLOPE PIPE SHOE
47	ACA220D	100	166		SLOPE PIPE SHOE
48	ACA220D	100	206		SLOPE PIPE SHOE
49	ACA221D	150	193		SLOPE PIPE SHOE
50	ACA221D	150	233		SLOPE PIPE SHOE
51	ACA221D	150	323		SLOPE PIPE SHOE
52	ACA221D	200	218		SLOPE PIPE SHOE
53	ACA221D	200	258		SLOPE PIPE SHOE
54	ACA221D	200	348		SLOPE PIPE SHOE
55	ACA221D	250	285		SLOPE PIPE SHOE
56	ACA221D	250	385		SLOPE PIPE SHOE
57	ACA221D	300	310		SLOPE PIPE SHOE
58	ACA221D	300	410		SLOPE PIPE SHOE
59	ACA221D	350	326		SLOPE PIPE SHOE
60	ACA221D	400	344		SLOPE PIPE SHOE

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
61	ACA221D	400	404		SLOPE PIPE SHOE
62	ACA221D	400	454		SLOPE PIPE SHOE
63	ACA221D	500	394		SLOPE PIPE SHOE
64	ACA221D	500	454		SLOPE PIPE SHOE
65	ACA221D	500	504		SLOPE PIPE SHOE
66	ACA222D	600	555		SLOPE PIPE SHOE
67	ACA222D	750	631		SLOPE PIPE SHOE
68	ACB005D	250	3		PIPE SHOE
69	ACB005D	300	3		PIPE SHOE
70	ACB005D	350	3		PIPE SHOE
71	ACB005D	400	4		PIPE SHOE
72	ACB005D	450	4		PIPE SHOE
73	ACB005D	500	4		PIPE SHOE
74	ACB006D	600	4		PIPE SHOE
75	ACB055D	250	3		PIPE SHOE
76	ACB220D	25	102		SLOPE PIPE SHOE
77	ACB220D	100	146		SLOPE PIPE SHOE
78	ACB220D	100	166		SLOPE PIPE SHOE
79	ACB220D	100	206		SLOPE PIPE SHOE
80	ACB221D	150	193		SLOPE PIPE SHOE
81	ACB221D	150	233		SLOPE PIPE SHOE
82	ACB221D	150	323		SLOPE PIPE SHOE
83	ACB221D	200	218		SLOPE PIPE SHOE
84	ACB221D	200	258		SLOPE PIPE SHOE
85	ACB221D	200	348		SLOPE PIPE SHOE
86	ACB221D	250	285		SLOPE PIPE SHOE
87	ACB221D	250	385		SLOPE PIPE SHOE
88	ACB221D	300	310		SLOPE PIPE SHOE
89	ACB221D	300	410		SLOPE PIPE SHOE
90	ACB221D	350	326		SLOPE PIPE SHOE
91	ACB222D	400	344		SLOPE PIPE SHOE
92	ACB222D	400	404		SLOPE PIPE SHOE
93	ACB222D	400	454		SLOPE PIPE SHOE
94	ACB222D	500	394		SLOPE PIPE SHOE
95	ACB222D	500	454		SLOPE PIPE SHOE
96	ACB222D	500	504		SLOPE PIPE SHOE
97	ACC007D	300	3		PIPE SHOE
98	ACC007D	350	3		PIPE SHOE
99	ACC007D	500	4		PIPE SHOE
100	ACC007D	500	6		PIPE SHOE
101	ACC008D	600	4		PIPE SHOE
102	ACC008D	600	6		PIPE SHOE
103	ACC057D	250	3		PIPE SHOE
104	ACC220D	100	146		SLOPE PIPE SHOE
105	ACC220D	100	206		SLOPE PIPE SHOE
106	ACC221D	200	258		PIPE SHOE VERTICALLY ADJUST.
107	ACD003D	250	3		PIPE SHOE
108	ACD003D	300	3		PIPE SHOE
109	ACD003D	350	3		PIPE SHOE
110	ACD003D	400	4		PIPE SHOE
111	ACD003D	450	4		PIPE SHOE
112	ACD003D	500	4		PIPE SHOE
113	ACD004D	600	4		PIPE SHOE
114	ACD004D	750	6		PIPE SHOE
115	ACD053D	250	3		PIPE SHOE
116	ACD220D	25	102	230	SLOPE PIPE SHOE WITH STOP
117	ACD220D	25	162	230	SLOPE PIPE SHOE WITH STOP
118	ACD220D	80	151	230	SLOPE PIPE SHOE WITH STOP
119	ACD220D	100	146	230	SLOPE PIPE SHOE WITH STOP
120	ACD220D	100	166	340	SLOPE PIPE SHOE WITH STOP

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
121	ACD221D	200	258	440	SLOPE PIPE SHOE WITH STOP
122	ACD222D	400	344	400	SLOPE PIPE SHOE WITH STOP
123	ADA001D	20	1		PIPE SHOE
124	ADA001D	20	2		PIPE SHOE
125	ADA001D	20	3		PIPE SHOE
126	ADA001D	25	1		PIPE SHOE
127	ADA001D	25	3		PIPE SHOE
128	ADA001D	40	1		PIPE SHOE
129	ADA001D	40	2		PIPE SHOE
130	ADA001D	50	1		PIPE SHOE
131	ADA001D	50	2		PIPE SHOE
132	ADA001D	50	3		PIPE SHOE
133	ADA001D	80	1		PIPE SHOE
134	ADA001D	80	2		PIPE SHOE
135	ADA001D	80	3		PIPE SHOE
136	ADA001D	100	1		PIPE SHOE
137	ADA001D	100	2		PIPE SHOE
138	ADA001D	100	3		PIPE SHOE
139	ADA002D	150	2		PIPE SHOE
140	ADA002D	150	3		PIPE SHOE
141	ADA002D	200	2		PIPE SHOE
142	ADA002D	200	3		PIPE SHOE
143	ADA051D	25	1		PIPE SHOE
144	ADA051D	50	1		PIPE SHOE
145	ADA051D	80	1		PIPE SHOE
146	ADA051D	100	1		PIPE SHOE
147	ADA051D	100	2		PIPE SHOE
148	ADA052D	150	2		PIPE SHOE
149	ADA052D	200	2		PIPE SHOE
150	ADB001D	20	3		PIPE SHOE
151	ADB001D	25	1		PIPE SHOE
152	ADB001D	25	2		PIPE SHOE
153	ADB001D	25	3		PIPE SHOE
154	ADB001D	40	1		PIPE SHOE
155	ADB001D	40	2		PIPE SHOE
156	ADB001D	50	1		PIPE SHOE
157	ADB001D	50	3		PIPE SHOE
158	ADB001D	80	1		PIPE SHOE
159	ADB001D	80	2		PIPE SHOE
160	ADB001D	80	3		PIPE SHOE
161	ADB001D	100	1		PIPE SHOE
162	ADB001D	100	2		PIPE SHOE
163	ADB001D	100	3		PIPE SHOE
164	ADB002D	150	2		PIPE SHOE
165	ADB002D	150	3		PIPE SHOE
166	ADB002D	200	2		PIPE SHOE
167	ADB002D	200	3		PIPE SHOE
168	ADB051D	25	1		PIPE SHOE
169	ADB051D	25	2		PIPE SHOE
170	ADB051D	50	1		PIPE SHOE
171	ADB051D	50	3		PIPE SHOE
172	ADB051D	80	1		PIPE SHOE
173	ADB051D	100	1		PIPE SHOE
174	ADB051D	100	2		PIPE SHOE
175	ADB052D	200	2		PIPE SHOE
176	ADB052D	200	3		PIPE SHOE
177	ADC001D	25	1		PIPE SHOE
178	ADC001D	25	3		PIPE SHOE
179	ADC001D	50	1		PIPE SHOE
180	ADC001D	80	1		PIPE SHOE

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
181	ADC001D	100	1		PIPE SHOE
182	ADC001D	100	3		PIPE SHOE
183	ADC002D	150	2		PIPE SHOE
184	ADC002D	150	3		PIPE SHOE
185	ADC002D	200	2		PIPE SHOE
186	ADC002D	200	3		PIPE SHOE
187	ADC051D	50	1		PIPE SHOE
188	ADC051D	100	1		PIPE SHOE
189	ADC052D	200	2		PIPE SHOE
190	ADD001D	25	1		PIPE SHOE
191	ADD001D	50	1		PIPE SHOE
192	ADD001D	80	1		PIPE SHOE
193	ADD001D	80	3		PIPE SHOE
194	ADD001D	100	1		PIPE SHOE
195	ADD001D	100	2		PIPE SHOE
196	ADD001D	100	3		PIPE SHOE
197	ADD002D	150	2		PIPE SHOE
198	ADD002D	150	3		PIPE SHOE
199	ADD002D	200	2		PIPE SHOE
200	ADD002D	200	3		PIPE SHOE
201	ADD051D	25	1		PIPE SHOE
202	ADD051D	25	2		PIPE SHOE
203	ADD051D	50	1		PIPE SHOE
204	ADD051D	80	1		PIPE SHOE
205	ADD051D	100	1		PIPE SHOE
206	ADD051D	100	2		PIPE SHOE
207	ADD052D	200	2		PIPE SHOE
208	AEB001D	15	150		HORIZONTAL PIPE SHOE
209	AEB001D	15	200		HORIZONTAL PIPE SHOE
210	AEB001D	40	150		HORIZONTAL PIPE SHOE
211	AEB001D	40	200		HORIZONTAL PIPE SHOE
212	AEB002D	25	150		HORIZONTAL PIPE SHOE
213	AEB002D	25	200		HORIZONTAL PIPE SHOE
214	AEB003D	50	200		HORIZONTAL PIPE SHOE
215	AEB004D	80	300		HORIZONTAL PIPE SHOE
216	AEB005D	100	200		HORIZONTAL PIPE SHOE
217	AEX001D	15	150		HORIZONTAL PIPE SHOE
218	AEX001D	15	200		HORIZONTAL PIPE SHOE
219	AEX001D	40	200		HORIZONTAL PIPE SHOE
220	AEX002D	25	150		HORIZONTAL PIPE SHOE
221	AEX002D	25	200		HORIZONTAL PIPE SHOE
222	CS0001D	250			PIPE SADDLE
223	CS0015D	250			U-BOLT
224	CS05101	15			PIPE SHOE, LONGITUDINAL GUIDE
225	CS05104	15			PIPE SHOE, FIXED POINT
226	HAX003D	25	1000		HANGER
227	HAX003D	25	2000		HANGER
228	HAX003D	40	1000		HANGER
229	HAX003D	50	1000		HANGER
230	HAX003D	50	1250		HANGER
231	HAX003D	50	1500		HANGER
232	HAX003D	50	1750		HANGER
233	HAX003D	50	2000		HANGER
234	HAX003D	50	2250		HANGER
235	HAX003D	80	1000		HANGER
236	HAX003D	80	1250		HANGER
237	HAX003D	80	1500		HANGER
238	HAX003D	80	1750		HANGER
239	HAX003D	80	2000		HANGER
240	HAX003D	80	2250		HANGER

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
241	HAX003D	80	2500		HANGER
242	HAX003D	100	1000		HANGER
243	HAX003D	150	1250		HANGER
244	HAX003D	200	1750		HANGER
245	HAX004D	300	1000		HANGER
246	HAX004D	300	2000		HANGER
247	HAX004D	300	2500		HANGER
248	KNB001D	80	400		GUIDE BRACKET
249	KNB001D	80	600		GUIDE BRACKET
250	KNB002D	100	400		GUIDE BRACKET
251	KNB002D	100	600		GUIDE BRACKET
252	KNB003D	150	600		GUIDE BRACKET
253	KNB003D	200	400		GUIDE BRACKET
254	KNB003D	200	600		GUIDE BRACKET
255	KNB004D	500	1200		GUIDE BRACKET
256	KNB052D	100	400		GUIDE BRACKET
257	KNB053D	200	400		GUIDE BRACKET
258	KNB053D	250	400		GUIDE BRACKET
259	KNB054D	300	600		GUIDE BRACKET
260	KNB901D	50	400		GUIDE BRACKET
261	KNB901D	50	600		GUIDE BRACKET
262	KNB901D	80	400		GUIDE BRACKET
263	KNB901D	80	600		GUIDE BRACKET
264	KNB901D	80	800		GUIDE BRACKET
265	KNB902D	100	400		GUIDE BRACKET
266	KNB902D	100	600		GUIDE BRACKET
267	KNB903D	150	400		GUIDE BRACKET
268	KNB903D	150	600		GUIDE BRACKET
269	KNB903D	150	800		GUIDE BRACKET
270	KNB903D	200	400		GUIDE BRACKET
271	KNB904D	300	600		GUIDE BRACKET
272	KNB904D	350	800		GUIDE BRACKET
273	KNB904D	350	1000		GUIDE BRACKET
274	KNB951D	50	400		GUIDE BRACKET
275	KNB953D	200	600		GUIDE BRACKET
276	KNC001D	50	400		SUPPORT BRACKET
277	KNC001D	80	400		SUPPORT BRACKET
278	KNC001D	80	600		SUPPORT BRACKET
279	KNC002D	100	400		SUPPORT BRACKET
280	KNC002D	100	600		SUPPORT BRACKET
281	KNC003D	200	600		SUPPORT BRACKET
282	KNC052D	100	400		SUPPORT BRACKET
283	KNC053D	200	400		SUPPORT BRACKET
284	KNC054D	300	600		SUPPORT BRACKET
285	KNC901D	50	400		SUPPORT BRACKET
286	KNC901D	50	600		SUPPORT BRACKET
287	KNC901D	80	400		SUPPORT BRACKET
288	KNC901D	80	600		SUPPORT BRACKET
289	KNC901D	80	800		SUPPORT BRACKET
290	KNC901D	80	1000		SUPPORT BRACKET
291	KNC902D	100	400		SUPPORT BRACKET
292	KNC902D	100	600		SUPPORT BRACKET
293	KNC902D	100	800		SUPPORT BRACKET
294	KNC902D	100	1000		SUPPORT BRACKET
295	KNC903D	150	400		SUPPORT BRACKET
296	KNC903D	150	800		SUPPORT BRACKET
297	KNC903D	200	600		SUPPORT BRACKET
298	KNC904D	300	600		SUPPORT BRACKET
299	NAA001D	25	600		SUPPORT
300	NAA001D	25	800		SUPPORT

ANNEXURE-I

Index for Primary Supports

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
301	NAA001D	25	1000		SUPPORT
302	NAA001D	50	400		SUPPORT
303	NAA001D	50	600		SUPPORT
304	NAA002D	80	500		SUPPORT
305	NAA002D	100	800		SUPPORT
306	NAA002D	100	1000		SUPPORT
307	NAA002D	150	400		SUPPORT
308	NAA002D	150	500		SUPPORT
309	NAA002D	150	600		SUPPORT
310	NAA003D	200	600		SUPPORT
311	NAA003D	200	1200		SUPPORT
312	NAA004D	250	1000		SUPPORT
313	NCX002D	150	400		SUPPORT
314	NCX002D	150	600		SUPPORT
315	NCX002D	250	400		SUPPORT
316	NCX002D	250	800		SUPPORT
317	NMB001D	25	3		PIPE SHOE
318	NMB001D	50	1		PIPE SHOE
319	NMB001D	100	1		PIPE SHOE
320	NMB002D	250	3		PIPE SHOE
321	NMB002D	300	3		PIPE SHOE
322	NMB002D	350	3		PIPE SHOE
323	NSA001D	50	250		SUPPORT
324	NSA001D	80	250		SUPPORT
325	NSA001D	100	250		SUPPORT
326	NSA001D	100	300		SUPPORT
327	NSA001D	100	350		SUPPORT
328	NSA001D	150	250		SUPPORT
329	NSA001D	150	300		SUPPORT
330	NSA001D	150	350		SUPPORT
331	NSA001D	150	400		SUPPORT
332	NSA001D	200	300		SUPPORT
333	NSA001D	200	400		SUPPORT
334	NSA001D	250	350		SUPPORT
335	NSA001D	250	400		SUPPORT
336	NSA001D	300	400		SUPPORT
337	NSA001D	300	500		SUPPORT
338	NSA001D	350	350		SUPPORT
339	NSA001D	350	600		SUPPORT
340	NSA001D	400	600		SUPPORT
341	NSA001D	500	500		SUPPORT
342	NTA001D	50	250		TRUNNION
343	NTA001D	80	250		TRUNNION
344	NTA001D	100	250		TRUNNION
345	NTA001D	100	300		TRUNNION
346	NTA001D	150	250		TRUNNION
347	NTA001D	150	300		TRUNNION
348	NTA001D	150	350		TRUNNION
349	NTA001D	150	400		TRUNNION
350	NTA001D	200	300		TRUNNION
351	NTA001D	200	350		TRUNNION
352	NTA001D	200	400		TRUNNION
353	NTA001D	250	300		TRUNNION
354	NTA001D	250	400		TRUNNION
355	NTA001D	250	500		TRUNNION
356	NTA001D	250	600		TRUNNION
357	NTA001D	300	350		TRUNNION
358	NTA001D	300	400		TRUNNION
359	NTA001D	300	500		TRUNNION
360	NTA001D	300	600		TRUNNION

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
361	NTA001D	350	350		TRUNNION
362	NTA001D	350	400		TRUNNION
363	NTA001D	350	500		TRUNNION
364	NTA001D	350	600		TRUNNION
365	NTA001D	400	400		TRUNNION
366	NTA001D	400	500		TRUNNION
367	NTA001D	400	600		TRUNNION
368	NTA001D	450	400		TRUNNION
369	NTA001D	450	600		TRUNNION
370	NTA001D	500	400		TRUNNION
371	NTA001D	500	500		TRUNNION
372	NTA001D	500	600		TRUNNION
373	NTA001D	600	500		TRUNNION
374	NUA001D	400	1500		SUPPORT
375	NUG002D	250	3	800	TRUNNION
376	NVA001D	50	300		SUPPORT
377	NVA001D	150	800		SUPPORT
378	NVA001D	250	1200		SUPPORT
379	NWA001D	80	300		TRUNNION
380	NWA001D	200	400		TRUNNION
381	NWA001D	200	600		TRUNNION
382	NWA001D	400	800		TRUNNION
383	NWA001D	500	1500		TRUNNION
384	NXA001D	50	400		TRUNNION
385	NXA001D	100	300		TRUNNION
386	NXA001D	100	500		TRUNNION
387	NXA001D	150	300		TRUNNION
388	NXA001D	150	400		TRUNNION
389	NXA001D	150	500		TRUNNION
390	NXA001D	200	1000		TRUNNION
391	NXA001D	300	400		TRUNNION
392	NXA001D	300	1000		TRUNNION
393	NXA001D	350	400		TRUNNION
394	NXA001D	400	400		TRUNNION
395	NXA001D	600	500		TRUNNION
396	NYA001D	50	300		TRUNNION
397	NYA001D	50	400		TRUNNION
398	NYA001D	50	500		TRUNNION
399	NYA001D	80	300		TRUNNION
400	NYA001D	100	300		TRUNNION
401	NYA001D	100	400		TRUNNION
402	NYA001D	100	500		TRUNNION
403	NYA001D	100	600		TRUNNION
404	NYA001D	100	800		TRUNNION
405	NYA001D	150	300		TRUNNION
406	NYA001D	150	400		TRUNNION
407	NYA001D	150	500		TRUNNION
408	NYA001D	150	600		TRUNNION
409	NYA001D	150	800		TRUNNION
410	NYA001D	200	300		TRUNNION
411	NYA001D	200	400		TRUNNION
412	NYA001D	200	500		TRUNNION
413	NYA001D	200	600		TRUNNION
414	NYA001D	200	800		TRUNNION
415	NYA001D	200	1000		TRUNNION
416	NYA001D	250	300		TRUNNION
417	NYA001D	250	400		TRUNNION
418	NYA001D	250	500		TRUNNION
419	NYA001D	250	600		TRUNNION
420	NYA001D	250	800		TRUNNION

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
421	NYA001D	250	1000		TRUNNION
422	NYA001D	300	400		TRUNNION
423	NYA001D	300	500		TRUNNION
424	NYA001D	300	600		TRUNNION
425	NYA001D	300	800		TRUNNION
426	NYA001D	300	1000		TRUNNION
427	NYA001D	350	400		TRUNNION
428	NYA001D	350	600		TRUNNION
429	NYA001D	350	800		TRUNNION
430	NYA001D	350	1000		TRUNNION
431	NYA001D	400	400		TRUNNION
432	NYA001D	400	600		TRUNNION
433	NYA001D	400	800		TRUNNION
434	NYA001D	400	1000		TRUNNION
435	NYA001D	450	1000		TRUNNION
436	NYA001D	500	1000		TRUNNION
437	NYA001D	500	1200		TRUNNION
438	NYA001D	600	500		TRUNNION
439	NYC001D	50	400		TRUNNION
440	NYC001D	50	500		TRUNNION
441	NYC001D	80	500		TRUNNION
442	NYC001D	80	600		TRUNNION
443	NYC001D	100	300		TRUNNION
444	NYC001D	100	500		TRUNNION
445	NYC001D	150	500		TRUNNION
446	NYC001D	200	300		TRUNNION
447	NYC001D	200	500		TRUNNION
448	NYC001D	250	600		TRUNNION
449	WCA003D	200	2		WELDED PIPE SHOE
450	WCA003D	200	3		WELDED PIPE SHOE
451	WCA003D	250	3		WELDED PIPE SHOE
452	WCA003D	300	3		WELDED PIPE SHOE
453	WCA003D	350	3		WELDED PIPE SHOE
454	WCA003D	400	4		WELDED PIPE SHOE
455	WCA003D	400	6		WELDED PIPE SHOE
456	WCA003D	450	4		WELDED PIPE SHOE
457	WCA003D	500	4		WELDED PIPE SHOE
458	WCA003D	500	6		WELDED PIPE SHOE
459	WCA004D	600	4		WELDED PIPE SHOE
460	WCA004D	700	4		WELDED PIPE SHOE
461	WCA004D	750	4		WELDED PIPE SHOE
462	WCA004D	900	4		WELDED PIPE SHOE
463	WCA053D	200	2		WELDED PIPE SHOE
464	WCA053D	200	3		WELDED PIPE SHOE
465	WCA053D	350	3		WELDED PIPE SHOE
466	WCA053D	400	4		WELDED PIPE SHOE
467	WCA053D	500	4		WELDED PIPE SHOE
468	WCB005D	200	2		WELDED PIPE SHOE
469	WCB005D	200	3		WELDED PIPE SHOE
470	WCB005D	250	3		WELDED PIPE SHOE
471	WCB005D	300	3		WELDED PIPE SHOE
472	WCB005D	350	3		WELDED PIPE SHOE
473	WCB005D	400	4		WELDED PIPE SHOE
474	WCB005D	400	5		WELDED PIPE SHOE
475	WCB005D	400	6		WELDED PIPE SHOE
476	WCB005D	450	4		WELDED PIPE SHOE
477	WCB005D	500	4		WELDED PIPE SHOE
478	WCB005D	500	6		WELDED PIPE SHOE
479	WCB006D	600	4		WELDED PIPE SHOE
480	WCB006D	700	4		WELDED PIPE SHOE

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
481	WCB006D	750	4		WELDED PIPE SHOE
482	WCB006D	900	4		WELDED PIPE SHOE
483	WCB055D	200	2		WELDED PIPE SHOE
484	WCB055D	400	4		WELDED PIPE SHOE
485	WCC007D	200	2		WELDED PIPE SHOE
486	WCC007D	250	3		WELDED PIPE SHOE
487	WCC007D	300	3		WELDED PIPE SHOE
488	WCC007D	350	3		WELDED PIPE SHOE
489	WCC007D	400	4		WELDED PIPE SHOE
490	WCC007D	500	4		WELDED PIPE SHOE
491	WCC008D	600	4		WELDED PIPE SHOE
492	WCC008D	900	4		WELDED PIPE SHOE
493	WDA001D	25	1		WELDED PIPE SHOE
494	WDA001D	25	2		WELDED PIPE SHOE
495	WDA001D	25	3		WELDED PIPE SHOE
496	WDA001D	40	1		WELDED PIPE SHOE
497	WDA001D	40	3		WELDED PIPE SHOE
498	WDA001D	50	1		WELDED PIPE SHOE
499	WDA001D	50	2		WELDED PIPE SHOE
500	WDA001D	50	3		WELDED PIPE SHOE
501	WDA001D	80	1		WELDED PIPE SHOE
502	WDA001D	80	2		WELDED PIPE SHOE
503	WDA001D	80	3		WELDED PIPE SHOE
504	WDA001D	100	1		WELDED PIPE SHOE
505	WDA001D	100	2		WELDED PIPE SHOE
506	WDA001D	100	3		WELDED PIPE SHOE
507	WDA002D	150	2		WELDED PIPE SHOE
508	WDA002D	150	3		WELDED PIPE SHOE
509	WDA051D	100	1		WELDED PIPE SHOE
510	WDB001D	25	1		WELDED PIPE SHOE
511	WDB001D	25	2		WELDED PIPE SHOE
512	WDB001D	25	3		WELDED PIPE SHOE
513	WDB001D	40	1		WELDED PIPE SHOE
514	WDB001D	40	2		WELDED PIPE SHOE
515	WDB001D	40	3		WELDED PIPE SHOE
516	WDB001D	50	1		WELDED PIPE SHOE
517	WDB001D	50	2		WELDED PIPE SHOE
518	WDB001D	50	3		WELDED PIPE SHOE
519	WDB001D	80	1		WELDED PIPE SHOE
520	WDB001D	80	2		WELDED PIPE SHOE
521	WDB001D	80	3		WELDED PIPE SHOE
522	WDB001D	100	1		WELDED PIPE SHOE
523	WDB001D	100	2		WELDED PIPE SHOE
524	WDB001D	100	3		WELDED PIPE SHOE
525	WDB002D	150	2		WELDED PIPE SHOE
526	WDB002D	150	3		WELDED PIPE SHOE
527	WDB051D	80	1		WELDED PIPE SHOE
528	WDB051D	80	3		WELDED PIPE SHOE
529	WDC001D	25	1		WELDED PIPE SHOE
530	WDC001D	25	2		WELDED PIPE SHOE
531	WDC001D	25	3		WELDED PIPE SHOE
532	WDC001D	40	3		WELDED PIPE SHOE
533	WDC001D	50	1		WELDED PIPE SHOE
534	WDC001D	80	1		WELDED PIPE SHOE
535	WDC001D	80	2		WELDED PIPE SHOE
536	WDC001D	80	3		WELDED PIPE SHOE
537	WDC001D	100	1		WELDED PIPE SHOE
538	WDC002D	150	2		WELDED PIPE SHOE
539	WDC002D	150	3		WELDED PIPE SHOE
540	WNA102D	150	200		TRUNNION

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
541	WNA102D	150	250		TRUNNION
542	WNA102D	150	300		TRUNNION
543	WNA102D	200	250		TRUNNION
544	WNA102D	250	300		TRUNNION
545	WNA102D	350	400		TRUNNION
546	WNC107D	25	150		TRUNNION
547	WNC107D	25	200		TRUNNION
548	WNC107D	100	300		TRUNNION
549	ABB002D	20			U-BOLT UN 3786-01 1.0036
550	ABC002D	20			U-BOLT UN 3786-01 1.0036
551	ACB220D	50	117		SLOPE PIPE SHOE MANUFACT. DRWG. 1.0045
552	ACD220D	100	166	230	SLOPE PIPE SHOE WITH STOP MANUFACT. DRWG.
553	ACD222D	300	310	440	SLOPE PIPE SHOE WITH STOP MANUFACT. DRWG.
554	ACD222D	300	410	440	SLOPE PIPE SHOE WITH STOP MANUFACT. DRWG.
555	ACD222D	400	344	440	SLOPE PIPE SHOE WITH STOP MANUFACT. DRWG.
556	ADA001D	65	3		PIPE SHOE UN 3786-01 1.0038
557	ADA002D	125	2		PIPE SHOE UN 3786-01 1.0038
558	ADB001D	20	1		PIPE SHOE UN 3786-01 1.0038
559	ADB052D	150	2		PIPE SHOE UN 3786-01 1.0038
560	ADC001D	20	1		PIPE SHOE UN 3786-01 1.0038
561	ADC001D	25	2		PIPE SHOE UN 3786-01 1.0038
562	ADC001D	40	1		PIPE SHOE UN 3786-01 1.0038
563	ADC051D	80	1		PIPE SHOE UN 3786-01 1.0038
564	ADC052D	150	2		PIPE SHOE UN 3786-01 1.0038
565	ADD001D	50	3		PIPE SHOE MANUFACT. DRWG. A36
566	AEB002D	20	150		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
567	AEB002D	20	200		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
568	AEB003D	50	250		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
569	AEB004D	80	250		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
570	AEB005D	100	300		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
571	AEX001D	40	150		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
572	AEX002D	20	150		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
573	AEX003D	50	200		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
574	AEX052D	25	150		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
575	AEX052D	25	200		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
576	AEX053D	50	200		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
577	AEX053D	50	250		HORIZONTAL PIPE SHOE UN 3786-01 1.0038
578	CS00024	200			ADJUSTABLE SUPP. LOAD TRANSFER
579	CS02051	1			PLATE MANUFACT. DRWG.
580	CS02052	2			PLATE MANUFACT. DRWG.
581	CS02053	3			PLATE MANUFACT. DRWG.
582	CS03000-01	1			PTFE- SS FRICTION PLATE MANUFACT. DRWG.
583	CS03000-02	2			PTFE- SS FRICTION PLATE MANUFACT. DRWG.
584	CS03000-03	3			PTFE- SS FRICTION PLATE MANUFACT. DRWG.
585	CS03001-01	4			PTFE- SS FRICTION PLATE MANUFACT. DRWG.
586	CS03001-02	5			PTFE- SS FRICTION PLATE MANUFACT. DRWG.
587	CS03001-03	6			PTFE- SS FRICTION PLATE MANUFACT. DRWG.
588	CS03003	1			ROLLER SUPPORT MANUFACT. DRWG.
589	CS04003-01S	80	131		PIPE SHOE WELDED
590	CS04003-02S	80	151		PIPE SHOE WELDED
591	CS04003-11	80	50		PIPE SHOE WELDED
592	CS04004-02S	100	166		PIPE SHOE WELDED
593	CS04004-11	100	50		PIPE SHOE WELDED
594	CS04004-12	100	70		PIPE SHOE WELDED
595	CS04006-02S	150	193		SLOPE PIPE SHOE WELDED
596	CS04006-03S	150	233		SLOPE PIPE SHOE WELDED
597	CS04006-12	150	70		PIPE SHOE WELDED
598	CS04006-12S	150	193		PIPE SHOE WELDED
599	CS04006-13	150	110		PIPE SHOE WELDED
600	CS04006-13S	150	193		PIPE SHOE WELDED
601	CS04008-01	200	50		PIPE SHOE WELDED

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
602	CS04008-02S	200	218		SLOPE PIPE SHOE WELDED
603	CS04008-03	200	110		PIPE SHOE WELDED
604	CS04008-03S	200	258		SLOPE PIPE SHOE WELDED
605	CS04008-11	200	110		PIPE SHOE WELDED
606	CS04008-12	200	70		PIPE SHOE WELDED
607	CS04008-12S	200	218		PIPE SHOE WELDED
608	CS04008-13	200	110		PIPE SHOE WELDED
609	CS04008-13S	200	218		PIPE SHOE WELDED
610	CS04008-14	200	170		PIPE SHOE WELDED
611	CS04010-03S	250	285		SLOPE PIPE SHOE WELDED
612	CS04010-13	250	110		PIPE SHOE WELDED
613	CS04010-13S	250	285		PIPE SHOE WELDED
614	CS04010-23	250	110		PIPE SHOE WELDED
615	CS04012-03S	300	310		SLOPE PIPE SHOE WELDED
616	CS04012-13	300	110		PIPE SHOE WELDED
617	CS04012-13S	300	310		PIPE SHOE WELDED
618	CS04014-03S	350	326		SLOPE PIPE SHOE WELDED
619	CS04014-13	350	110		PIPE SHOE WELDED
620	CS04014-16	350	110		PIPE SHOE WELDED
621	CS04016-03	400	110		PIPE SHOE WELDED
622	CS04016-04S	400	344		SLOPE PIPE SHOE WELDED
623	CS04016-05S	400	404		SLOPE PIPE SHOE WELDED
624	CS04016-06S	400	454		SLOPE PIPE SHOE WELDED
625	CS04016-12	400	70		PIPE SHOE WELDED
626	CS04016-13	400	110		PIPE SHOE WELDED
627	CS04016-13S	400	344		PIPE SHOE WELDED
628	CS04018-03	450	110		PIPE SHOE WELDED
629	CS04018-04S	450	369		SLOPE PIPE SHOE WELDED
630	CS04018-13	450	110		PIPE SHOE WELDED
631	CS04018-15	450	110		PIPE SHOE WELDED
632	CS04020-03S	500	394		SLOPE PIPE SHOE WELDED
633	CS04020-04S	500	394		SLOPE PIPE SHOE WELDED
634	CS04020-13	500	110		PIPE SHOE WELDED
635	CS04020-13S	500	394		SLOPE PIPE SHOE WELDED
636	CS04020-14S	500	394		SLOPE PIPE SHOE WELDED
637	CS04024-03S	600	445		PIPE SHOE WELDED
638	CS04024-13	600	110		PIPE SHOE WELDED
639	CS04024-13S	600	445		PIPE SHOE WELDED
640	CS04028-13	700	110		PIPE SHOE WELDED
641	CS04030-13	750	110		PIPE SHOE WELDED
642	CS04036-11	900	110		PIPE SHOE WELDED
643	CS04036-13	900	110		PIPE SHOE WELDED
644	CS06041	1			ADJUSTABLE SUPPORT MANUFACT. DRWG.
645	CS06043	2			ADJUSTABLE SUPPORT MANUFACT. DRWG.
646	CS06602-02	50	2		PIPE SHOE UN 3786-01 1.0038
647	CS07010-01	250	160		PIPE SHOE, LOOSE POINT MANUFACT. DRWG.
648	CS07010-02	250	160		PIPE SHOE, LONGITUDINAL GUIDE
649	HAX003D	25	1250		HANGER UN 3787-01 1.0038
650	HAX003D	25	1500		HANGER UN 3787-01 1.0038
651	HAX003D	25	1750		HANGER UN 3787-01 1.0038
652	HAX003D	25	2500		HANGER UN 3787-01 1.0038
653	HAX003D	40	1250		HANGER UN 3787-01 1.0038
654	HAX003D	40	2000		HANGER UN 3787-01 1.0038
655	HAX003D	50	2500		HANGER UN 3787-01 1.0038
656	HAX003D	100	1250		HANGER UN 3787-01 1.0038
657	HAX003D	100	1500		HANGER UN 3787-01 1.0038
658	HAX003D	100	1750		HANGER UN 3787-01 1.0038
659	HAX003D	100	2000		HANGER UN 3787-01 1.0038
660	HAX003D	150	1000		HANGER UN 3787-01 1.0038
661	HAX003D	150	1750		HANGER UN 3787-01 1.0038
662	HAX003D	150	2250		HANGER UN 3787-01 1.0038
663	HAX003D	200	1000		HANGER UN 3787-01 1.0038

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
664	HAX003D	200	2500		HANGER UN 3787-01 1.0038
665	HAX004D	300	1750		HANGER UN 3787-01 1.0038
666	HAX004D	300	2250		HANGER UN 3787-01 1.0038
667	HAX053D	50	1500		HANGER UN 3787-01 1.0038
668	HAX053D	100	1500		HANGER UN 3787-01 1.0038
669	HAX053D	200	1250		HANGER UN 3787-01 1.0038
670	KNB001D	50	400		GUIDE BRACKET UN 3789-01 1.0038
671	KNB001D	80	800		GUIDE BRACKET UN 3789-01 1.0038
672	KNB003D	150	400		GUIDE BRACKET UN 3789-01 1.0038
673	KNB003D	200	800		GUIDE BRACKET UN 3789-01 1.0038
674	KNB053D	150	400		GUIDE BRACKET UN 3789-01 1.0038
675	KNB053D	250	800		GUIDE BRACKET UN 3789-01 1.0038
676	KNB902D	100	800		GUIDE BRACKET SIM. UN 3789-01 1.0038
677	KNB903D	200	600		GUIDE BRACKET SIM. UN 3789-01 1.0038
678	KNB903D	200	800		GUIDE BRACKET SIM. UN 3789-01 1.0038
679	KNB903D	200	1000		GUIDE BRACKET SIM. UN 3789-01 1.0038
680	KNB903D	250	600		GUIDE BRACKET SIM. UN 3789-01 1.0038
681	KNB903D	250	800		GUIDE BRACKET SIM. UN 3789-01 1.0038
682	KNB951D	50	600		GUIDE BRACKET SIM. UN 3789-01 1.0038
683	KNB951D	50	800		GUIDE BRACKET SIM. UN 3789-01 1.0038
684	KNB951D	80	400		GUIDE BRACKET SIM. UN 3789-01 1.0038
685	KNB951D	80	600		GUIDE BRACKET SIM. UN 3789-01 1.0038
686	KNB952D	100	400		GUIDE BRACKET SIM. UN 3789-01 1.0038
687	KNC001D	80	800		SUPPORT BRACKET UN 3789-01 1.0038
688	KNC003D	150	400		SUPPORT BRACKET UN 3789-01 1.0038
689	KNC003D	150	600		SUPPORT BRACKET UN 3789-01 1.0038
690	KNC003D	200	800		SUPPORT BRACKET UN 3789-01 1.0038
691	KNC053D	150	400		SUPPORT BRACKET UN 3789-01 A36
692	KNC053D	250	800		SUPPORT BRACKET UN 3789-01 A36
693	KNC903D	150	600		SUPPORT BRACKET SIM. UN 3789-01 1.0038
694	KNC903D	150	1000		SUPPORT BRACKET SIM. UN 3789-01 1.0038
695	KNC903D	150	1200		SUPPORT BRACKET SIM. UN 3789-01 1.0038
696	KNC903D	200	400		SUPPORT BRACKET SIM. UN 3789-01 1.0038
697	KNC903D	200	1000		SUPPORT BRACKET SIM. UN 3789-01 1.0038
698	KNC903D	250	800		SUPPORT BRACKET SIM. UN 3789-01 1.0038
699	KNC904D	350	1400		SUPPORT BRACKET SIM. UN 3789-01 1.0038
700	NAA003D	200	400		SUPPORT UN 3788-01 A53GR.B
701	NAA003D	200	800		SUPPORT UN 3788-01 1.0254
702	NAA004D	300	400		SUPPORT UN 3788-01 A53GR.B
703	NAA004D	300	600		SUPPORT UN 3788-01 A53GR.B
704	NAA101D	25	200		SUPPORT MANUFACT. DRWG. 1.0254
705	NAA101D	50	200		SUPPORT MANUFACT. DRWG. 1.0254
706	NCX002D	100	400		SUPPORT UN 3788-01 1.0254
707	NCX002D	200	400		SUPPORT UN 3788-01 1.0254
708	NMB002D	200	2		PIPE SHOE 1.0038
709	NSA001D	250	300		SUPPORT 1.0254
710	NSA001D	300	350		SUPPORT 1.0254
711	NSA001D	300	600		SUPPORT 1.0254
712	NSA001D	350	400		SUPPORT 1.0254
713	NSA001D	350	500		SUPPORT 1.0254
714	NSA001D	400	400		SUPPORT 1.0254
715	NTA001D	100	350		TRUNNION 1.0254
716	NTA001D	250	350		TRUNNION 1.0254
717	NTA001D	600	800		TRUNNION 1.0254
718	NUA001D	100	600		SUPPORT 1.0254
719	NUA001D	150	400		SUPPORT 1.0254
720	NUA001D	200	600		SUPPORT 1.0254
721	NUG001D	100	1	300	TRUNNION 1.0254
722	NVA001D	100	400		SUPPORT 1.0254
723	NVA001D	150	600		SUPPORT 1.0254
724	NVA001D	300	800		SUPPORT 1.0254
725	NVA001D	400	600		SUPPORT 1.0254

ANNEXURE-I

Index for Primary Supports

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
726	NVA001D	400	1200		SUPPORT 1.0254
727	NVG001D	150	3	400	SUPPORT
728	NVG001D	150	3	500	SUPPORT
729	NVG001D	150	3	800	SUPPORT
730	NVG001D	200	2	400	SUPPORT
731	NWA001D	150	300		TRUNNION 1.0254
732	NWA001D	300	800		TRUNNION 1.0254
733	NWA001D	400	400		TRUNNION 1.0254
734	NWA001D	400	1000		TRUNNION 1.0254
735	NWG001D	200	2	400	TRUNNION 1.0254
736	NXA001D	100	400		TRUNNION 1.0254
737	NXA001D	250	300		TRUNNION 1.0254
738	NXA001D	250	400		TRUNNION 1.0254
739	NXA001D	250	600		TRUNNION 1.0254
740	NXA001D	400	600		TRUNNION 1.0254
741	NXA001D	400	800		TRUNNION 1.0254
742	NYA001D	300	1200		TRUNNION 1.0254
743	NYA001D	450	400		TRUNNION 1.0254
744	NYA001D	500	600		TRUNNION 1.0254
745	NYC001D	100	400		TRUNNION 1.0254
746	NYC001D	250	400		TRUNNION 1.0254
747	WCA004D	600	5		WELDED PIPE SHOE
748	WCA004D	600	6		WELDED PIPE SHOE
749	WCA004D	750	5		WELDED PIPE SHOE
750	WCA004D	750	6		WELDED PIPE SHOE
751	WCB005D	500	5		WELDED PIPE SHOE
752	WCB006D	600	6		WELDED PIPE SHOE
753	WCB006D	750	5		WELDED PIPE SHOE
754	WCB006D	750	6		WELDED PIPE SHOE
755	WCC007D	200	3		WELDED PIPE SHOE
756	WDB051D	50	1		WELDED PIPE SHOE
757	WDC051D	25	1		WELDED PIPE SHOE
758	WNA102D	50	250		TRUNNION
759	WNA102D	80	300		TRUNNION
760	WNA102D	100	150		TRUNNION
761	WNA102D	200	400		TRUNNION
762	WNC102D	25	200		TRUNNION
763	WNC102D	25	250		TRUNNION
764	WNC102D	50	200		TRUNNION
765	WNC102D	50	250		TRUNNION
766	WNC107D	25	250		TRUNNION
767	WNC107D	25	300		TRUNNION
768	WNC107D	25	350		TRUNNION
769	WNC107D	25	400		TRUNNION
770	ABB002D	20			U-BOLT
771	ABC002D	20			U-BOLT
772	ACA003D	450	4		PIPE SHOE
773	ACB005D	450	4		PIPE SHOE
774	ACB220D	80	131		SLOPE PIPE SHOE
775	ACC220D	100	166		SLOPE PIPE SHOE
776	ACD003D	450	4		PIPE SHOE
777	ACD221D	200	218	300	SLOPE PIPE SHOE WITH STOP
778	ACD221D	200	258	300	SLOPE PIPE SHOE WITH STOP
779	ADC001D	25	2		PIPE SHOE
780	AEB004D	80	200		HORIZONTAL PIPE SHOE
781	AEB004D	80	300		HORIZONTAL PIPE SHOE
782	AEB005D	100	300		HORIZONTAL PIPE SHOE
783	AEX002D	20	150		HORIZONTAL PIPE SHOE
784	AEX003D	50	200		HORIZONTAL PIPE SHOE
785	HAX003D	25	1750		HANGER
786	HAX003D	40	1250		HANGER
787	HAX003D	40	1500		HANGER

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
788	HAX003D	40	2250		HANGER
789	HAX003D	50	2500		HANGER
790	HAX003D	100	1250		HANGER
791	HAX003D	100	1500		HANGER
792	HAX003D	100	2750		HANGER
793	HAX003D	150	1750		HANGER
794	HAX003D	150	2250		HANGER
795	HAX004D	250	2500		HANGER
796	HAX004D	350	1000		HANGER
797	HAX004D	350	2000		HANGER
798	HAX004D	350	2500		HANGER
799	HAX004D	400	1500		HANGER
800	HAX004D	400	2250		HANGER
801	HAX004D	400	2750		HANGER
802	HAX053D	100	1500		HANGER
803	HAX053D	200	1250		HANGER
804	KNB001D	50	400		GUIDE BRACKET
805	KNB001D	80	800		GUIDE BRACKET
806	KNB003D	150	400		GUIDE BRACKET
807	KNB053D	250	800		GUIDE BRACKET
808	KNB902D	100	1000		GUIDE BRACKET
809	KNB903D	150	1000		GUIDE BRACKET
810	KNB903D	200	400		GUIDE BRACKET
811	KNB903D	250	400		GUIDE BRACKET
812	KNB903D	250	600		GUIDE BRACKET
813	KNB903D	250	800		GUIDE BRACKET
814	KNB951D	50	600		GUIDE BRACKET
815	KNB951D	50	800		GUIDE BRACKET
816	KNB953D	250	400		GUIDE BRACKET
817	KNB953D	250	600		GUIDE BRACKET
818	KNB953D	250	1000		GUIDE BRACKET
819	KNC001D	80	800		SUPPORT BRACKET
820	KNC003D	150	400		SUPPORT BRACKET
821	KNC053D	250	800		SUPPORT BRACKET
822	KNC903D	200	400		SUPPORT BRACKET
823	KNC903D	200	800		SUPPORT BRACKET
824	KNC903D	250	800		SUPPORT BRACKET
825	NAA001D	25	400		SUPPORT
826	NAA001D	40	400		SUPPORT
827	NAA001D	40	500		SUPPORT
828	NAA001D	40	600		SUPPORT
829	NAA001D	40	800		SUPPORT
830	NAA002D	100	400		SUPPORT
831	NAA002D	150	1000		SUPPORT
832	NAA003D	200	400		SUPPORT
833	NAA004D	300	400		SUPPORT
834	NAA004D	300	600		SUPPORT
835	NAA101D	25	200		SUPPORT
836	NAA101D	50	150		SUPPORT
837	NAA101D	50	200		SUPPORT
838	NAA102D	80	300		SUPPORT
839	NAC001D	25	400		SUPPORT
840	NAC001D	50	400		SUPPORT
841	NCX002D	80	600		SUPPORT
842	NCX002D	100	400		SUPPORT
843	NCX002D	200	600		SUPPORT
844	NSA001D	250	300		SUPPORT
845	NSA001D	250	500		SUPPORT
846	NSA001D	300	600		SUPPORT
847	NSA001D	350	500		SUPPORT
848	NUA001D	100	600		SUPPORT
849	NUA001D	200	600		SUPPORT

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
850	NUA001D	250	300		SUPPORT
851	NUA001D	300	500		SUPPORT
852	NUA001D	350	400		SUPPORT
853	NUA001D	350	600		SUPPORT
854	NUG002D	350	3	800	TRUNNION
855	NVA001D	100	400		SUPPORT
856	NVA001D	150	1000		SUPPORT
857	NVA001D	300	800		SUPPORT
858	NVA001D	400	600		SUPPORT
859	NVG001D	150	3	400	SUPPORT
860	NVG001D	150	3	500	SUPPORT
861	NVG001D	150	3	800	SUPPORT
862	NVG001D	200	2	400	SUPPORT
863	NWA001D	150	300		TRUNNION
864	NWA001D	400	600		TRUNNION
865	NWA001D	400	1000		TRUNNION
866	NWG001D	80	1	300	TRUNNION
867	NWG001D	80	1	400	TRUNNION
868	NWG001D	80	1	800	TRUNNION
869	NWG001D	80	1	1000	TRUNNION
870	NWG001D	80	3	400	TRUNNION
871	NWG001D	100	1	400	TRUNNION
872	NWG001D	100	1	500	TRUNNION
873	NWG001D	100	1	800	TRUNNION
874	NWG001D	100	1	1000	TRUNNION
875	NWG001D	100	1	1200	TRUNNION
876	NWG001D	150	2	400	TRUNNION
877	NWG001D	150	2	500	TRUNNION
878	NWG001D	150	2	800	TRUNNION
879	NWG001D	150	2	1000	TRUNNION
880	NWG001D	150	2	1200	TRUNNION
881	NWG001D	150	2	1500	TRUNNION
882	NWG001D	200	2	400	TRUNNION
883	NWG002D	400	4	1200	TRUNNION
884	NXA001D	80	300		TRUNNION
885	NXA001D	400	800		TRUNNION
886	NXA001D	500	1000		TRUNNION
887	NYA001D	450	400		TRUNNION
888	NYA001D	500	600		TRUNNION
889	NYC001D	250	400		TRUNNION
890	WCC007D	200	3		WELDED PIPE SHOE
891	WDB001D	50	2		WELDED PIPE SHOE
892	WDC001D	80	3		WELDED PIPE SHOE
893	WDC001D	100	3		WELDED PIPE SHOE
894	WDC051D	25	1		WELDED PIPE SHOE
895	WNA102D	50	250		TRUNNION
896	WNA102D	50	400		TRUNNION
897	WNA102D	80	300		TRUNNION
898	WNA102D	100	150		TRUNNION
899	WNA102D	100	200		TRUNNION
900	WNA102D	100	250		TRUNNION
901	WNA102D	100	300		TRUNNION
902	WNA102D	150	200		TRUNNION
903	WNA102D	150	400		TRUNNION
904	WNA102D	200	250		TRUNNION
905	WNA102D	200	400		TRUNNION
906	WNA102D	500	500		TRUNNION
907	WNA102D	500	600		TRUNNION
908	WNC102D	25	250		TRUNNION
909	WNC102D	50	250		TRUNNION
910	WNC107D	25	200		TRUNNION
911	WNC107D	25	300		TRUNNION

ANNEXURE-I

Index for Primary Supports

Sr.no.	Component number	Size 1	Size 2	Size 3	Component description
912	WNC107D	25	350		TRUNNION
913	WNC107D	25	400		TRUNNION
914	WNC107D	40	200		TRUNNION
915	WNC107D	100	250		TRUNNION
916	NYA001D	150	800		TRUNNION
917	CS03002-03	8			GRAPHITE SLIDE PLATE
918	CS03007	8			STAINLESS STEEL SHEET
919	CS04003-12	80	70		PIPE SHOE WELDED
920	CS04020-05S	500	454		SLOPE PIPE SHOE WELDED
921	CS05020	3			PIPE SHOE WELDED
922	CS02054	1			PLATE FOR SECONDARY SUPPORT
923	CS02055	2			PLATE FOR SECONDARY SUPPORT
924	CS02056	3			PLATE FOR SECONDARY SUPPORT
925	CS02058-2	50			PLATE FOR INSTRUMENT SUPPORT
926	CS02058-2S	50			PLATE FOR INSTRUMENT SUPPORT
927	CS02058-6	150			PLATE FOR INSTRUMENT SUPPORT
928	CS03005	1			STAINLESS STEEL SHEET
929	CS05020	2			PIPE SHOE WELDED
930	KNC003D	150	800		SUPPORT BRACKET

ANNEXURE 2:Fabrication Drawings(921Pages)

ANNEXURE 3: Enclosure for Fabrication Drawings

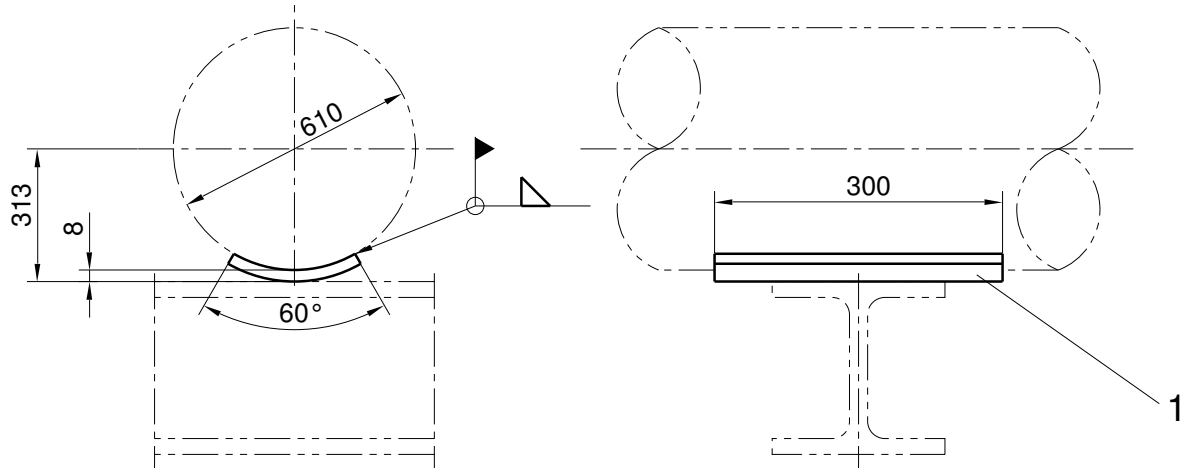
APPENDIX 1: Instructions to vendors (1 Page)
APPENDIX 2: Equivalent for Din Sections Used In Support Standard (13 Pages)
APPENDIX 3: DIN/ASTM/IS material equivalent (1 Page)
APPENDIX 4: UN Standards (100 Pages)
UN 3786-03 E (2008-06)
UN 3786-12 E (2009-08)
UN 3790-25 E (2009-08)
UN 3790-26 E (2009-08)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AAA001D Marking : 600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	PLATE 8 x 300 x 320	EN 10029	A283GR.B	GB0001D

Remarks: Total weight = 6,030 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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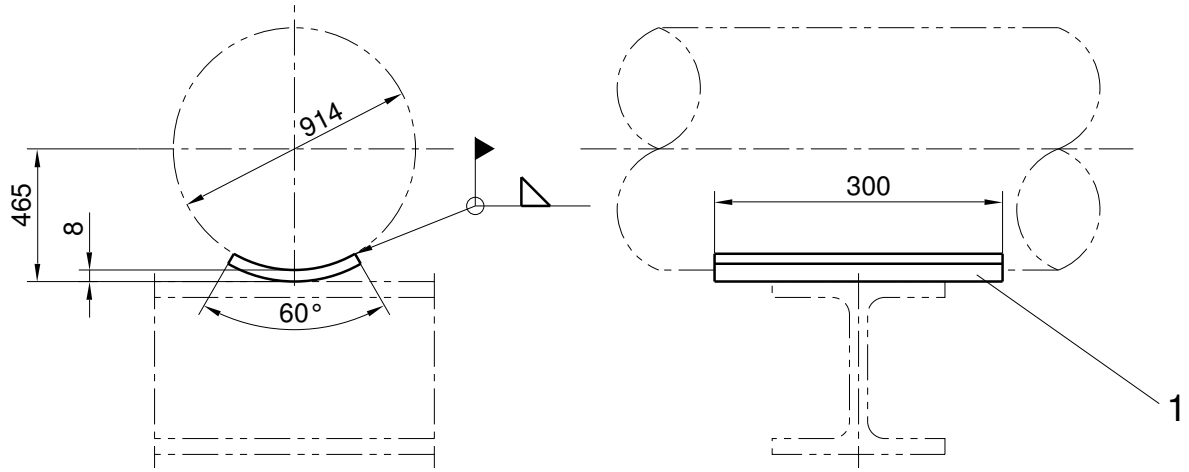
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AAA001D Marking : 900

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	PLATE 8 x 300 x 480	EN 10029	A283GR.B	GB0001D

Remarks: Total weight = 9,050 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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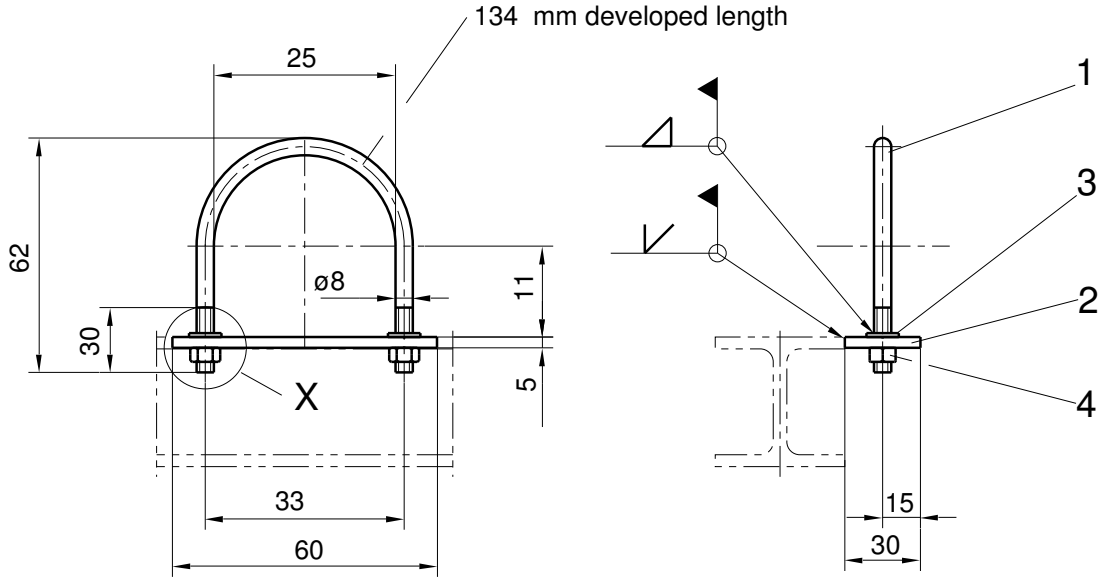
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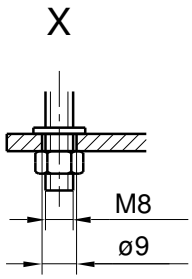
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABB001D Marking : 15

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEXAGON NUT M 8	DIN 555	5	MM0001D
3	2	WASHER 9	DIN 126	100 HV	MU0001D
2	1	FLAT BAR 30 x 5 x 60	DIN 1017 P. 1	1.0038	GF0011D
1	1	U-BOLT 25 / 62 / 30	UN 3786-03	1.0036	MA0111D

Remarks: Total weight = 0,120 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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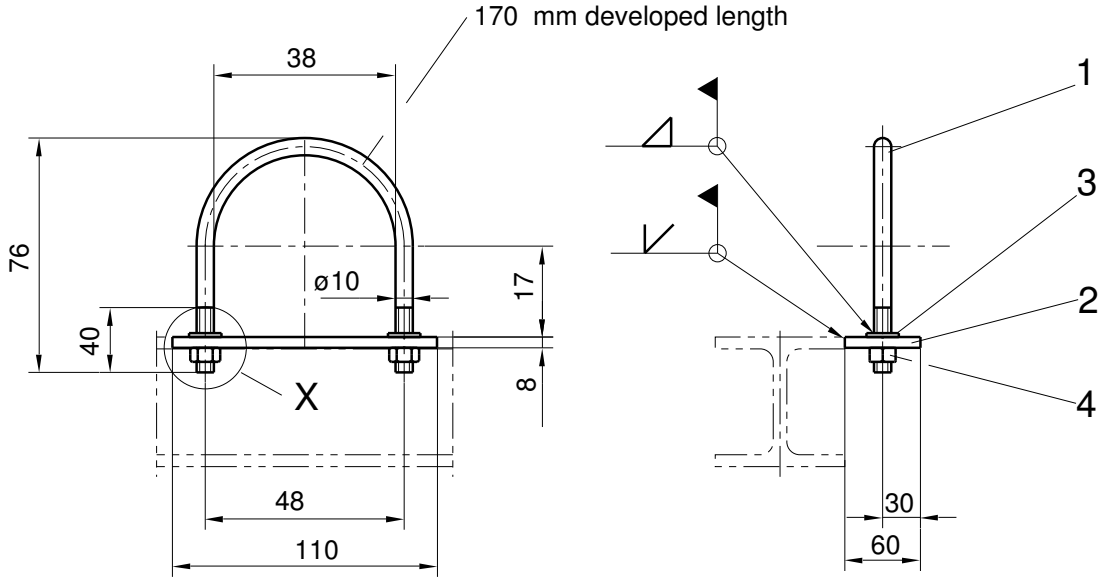
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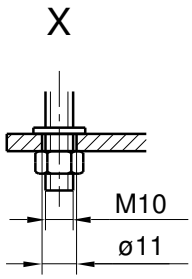
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABB002D Marking : 25

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
3	2	WASHER 11	DIN 126	100 HV	MU0001D
2	1	FLAT BAR 60 x 8 x 110	DIN 1017 P. 1	1.0038	GF0011D
1	1	U-BOLT FORM A A38	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 0,550 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

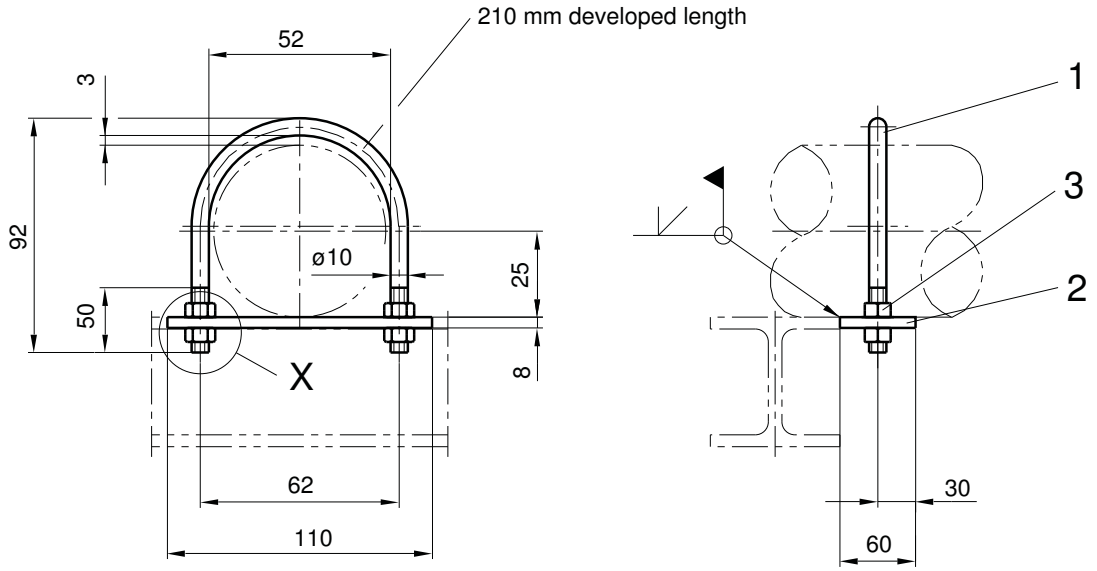
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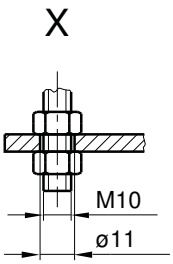
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Pipe support

Code No.:ABB003D **Marking:** 40

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 10	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 60 x 8 x 110	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A52	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 0,580 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

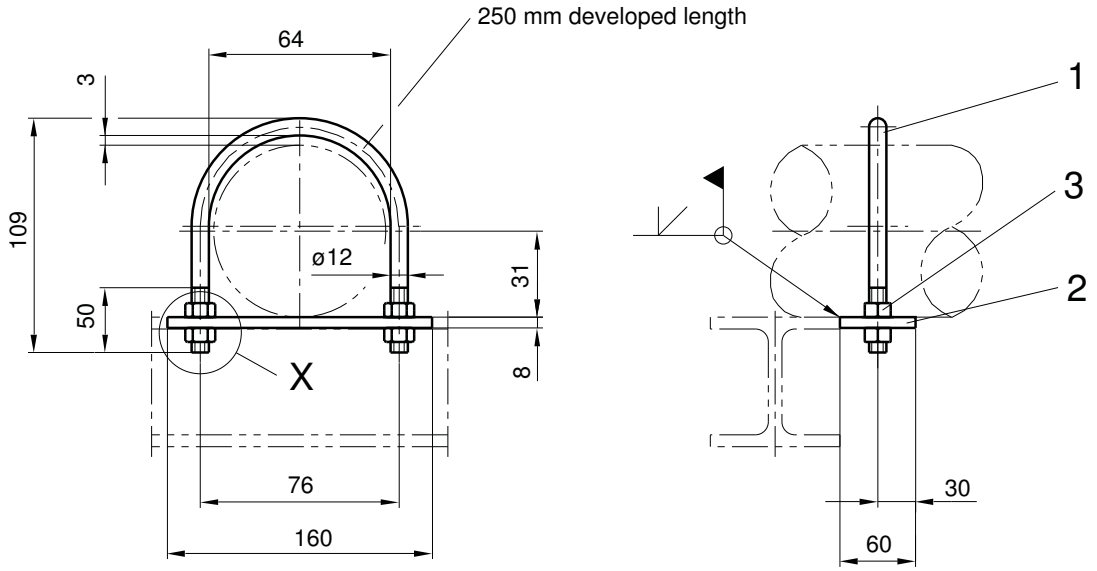
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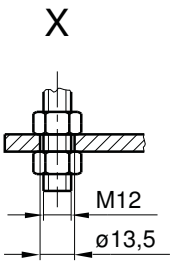
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Pipe support

Code No.:ABB003D **Marking:** 50

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 12	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 60 x 8 x 160	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A64	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 0,860 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

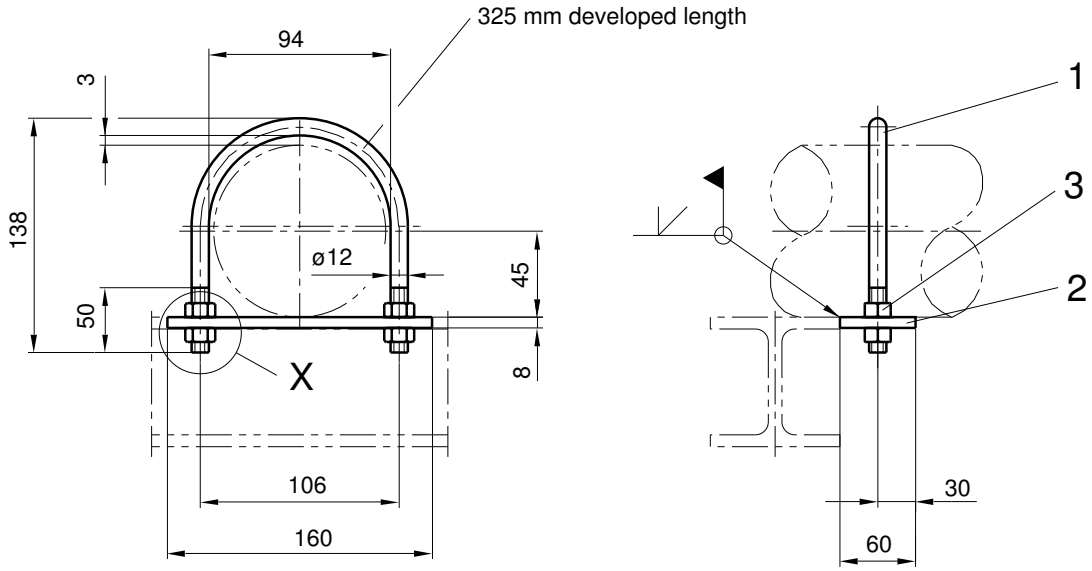
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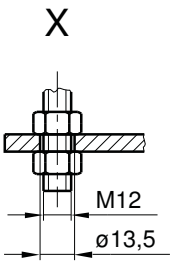
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Pipe support

Code No.:ABB003D **Marking:** 80

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 12	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 60 x 8 x 160	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A94	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 0,930 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

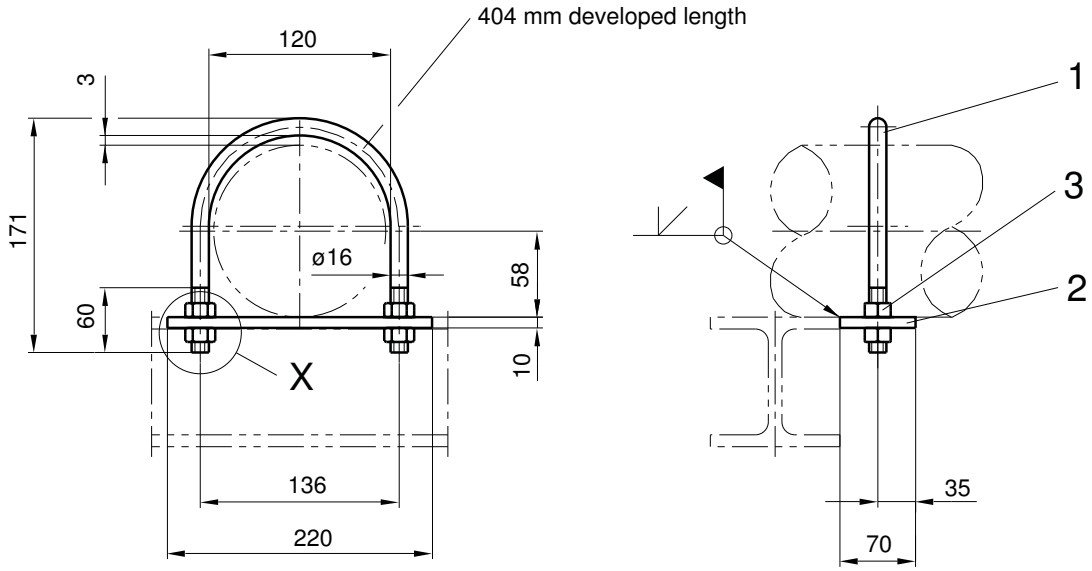
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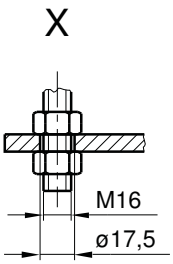
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Pipe support

Code No.:ABB003D **Marking:** 100

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 16	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 70 x 10 x 220	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A120	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 1,970 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
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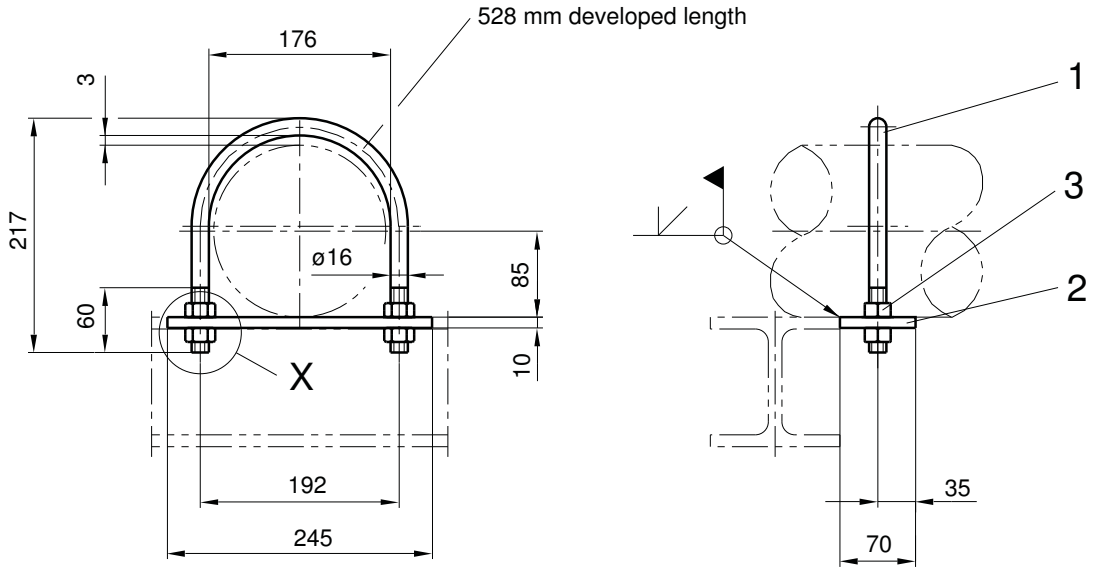
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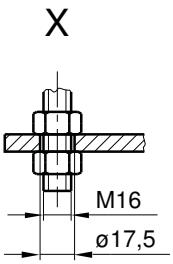
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Pipe support

Code No.:ABB003D **Marking:** 150

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 16	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 70 x 10 x 245	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A176	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 2,290 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

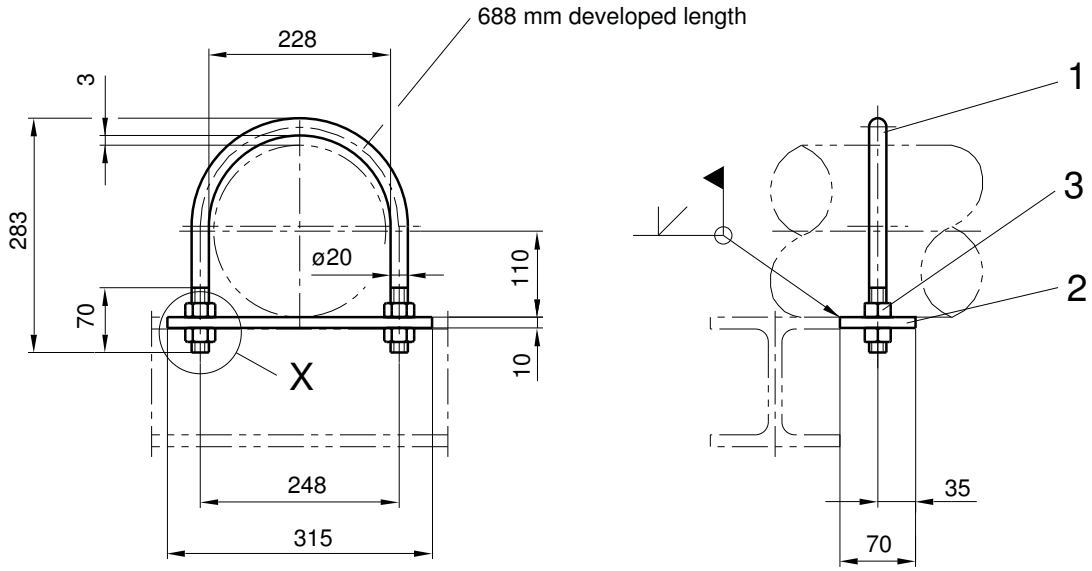
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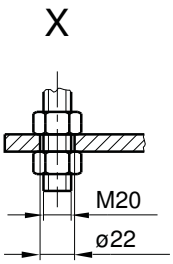
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Pipe support

Code No.:ABB003D **Marking:** 200

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 20	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 70 x 10 x 315	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A228	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 3,670 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

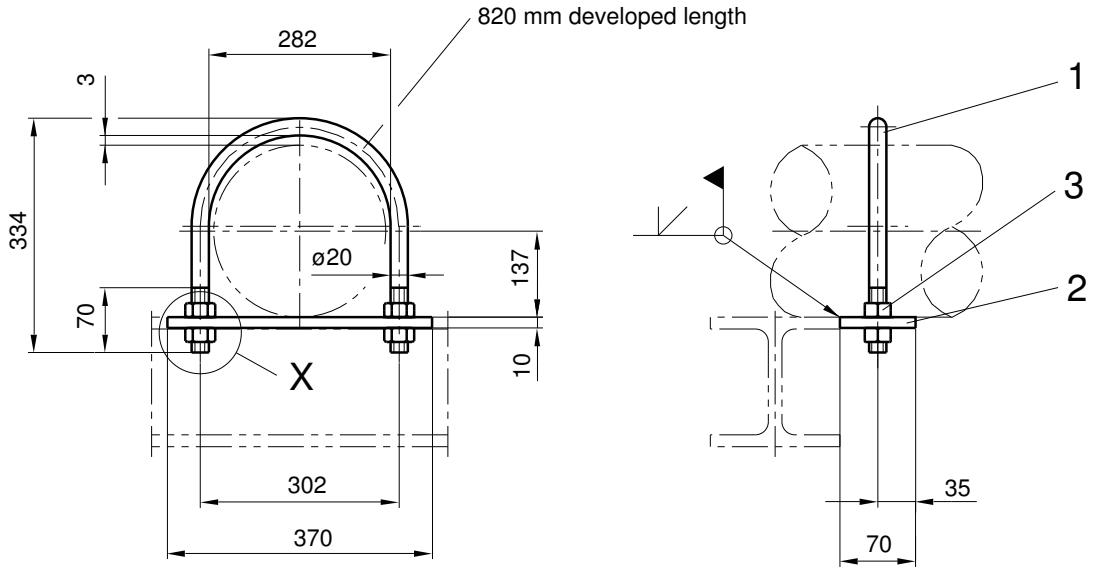
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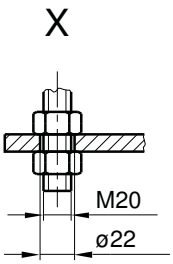
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Pipe support

Code No.:ABB003D **Marking:** 250

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 20	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 70 x 10 x 370	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A282	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 4,300 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

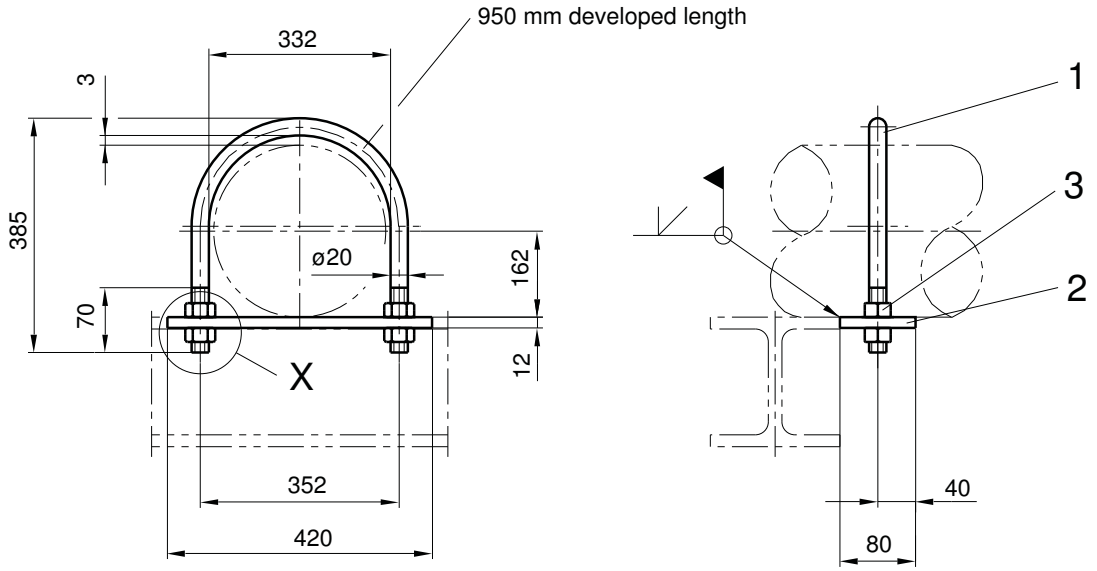
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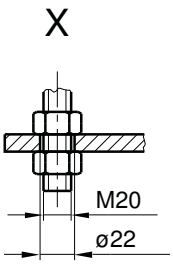
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Pipe support

Code No.:ABB003D **Marking:** 300

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 20	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 80 x 12 x 420	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A332	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 5,750 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

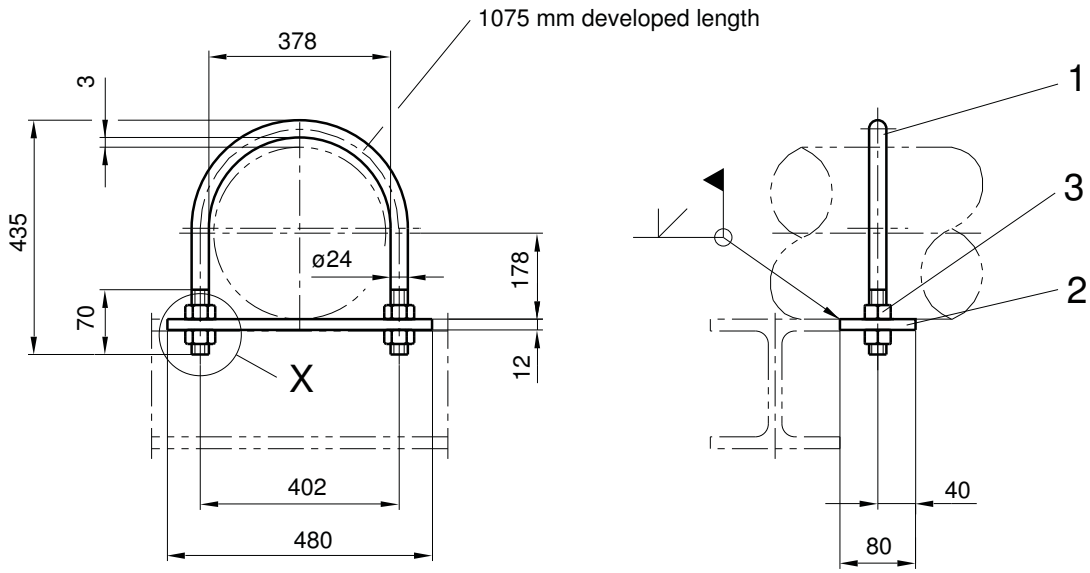
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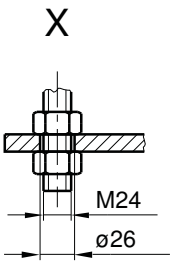
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Pipe support

Code No.:ABB003D **Marking:** 350

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 24	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 80 x 12 x 480	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A378	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 7,840 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

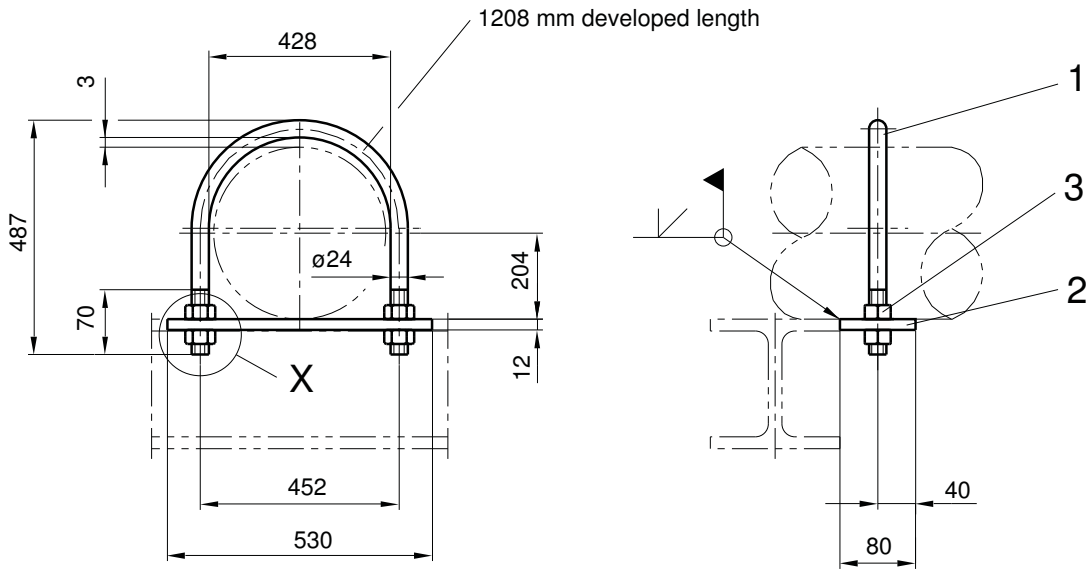
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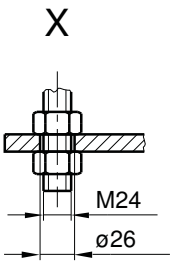
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Pipe support

Code No.:ABB003D **Marking:** 400

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 24	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 80 x 12 x 530	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A428	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 8,690 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

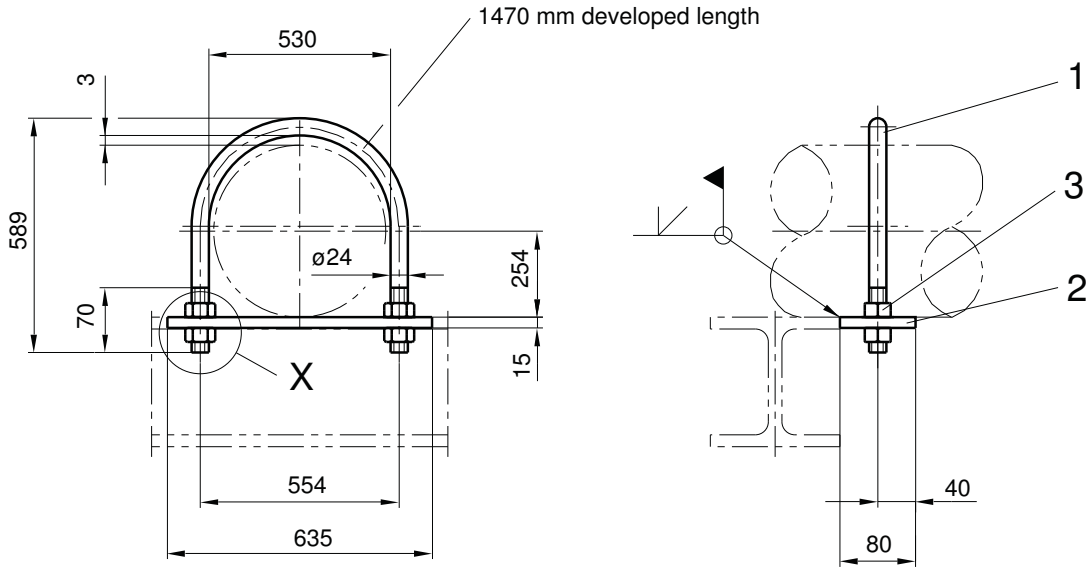
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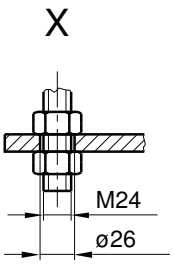
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Pipe support

Code No.:ABB003D **Marking:** 500

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 24	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 80 x 15 x 635	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A A530	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 11,600 kg

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

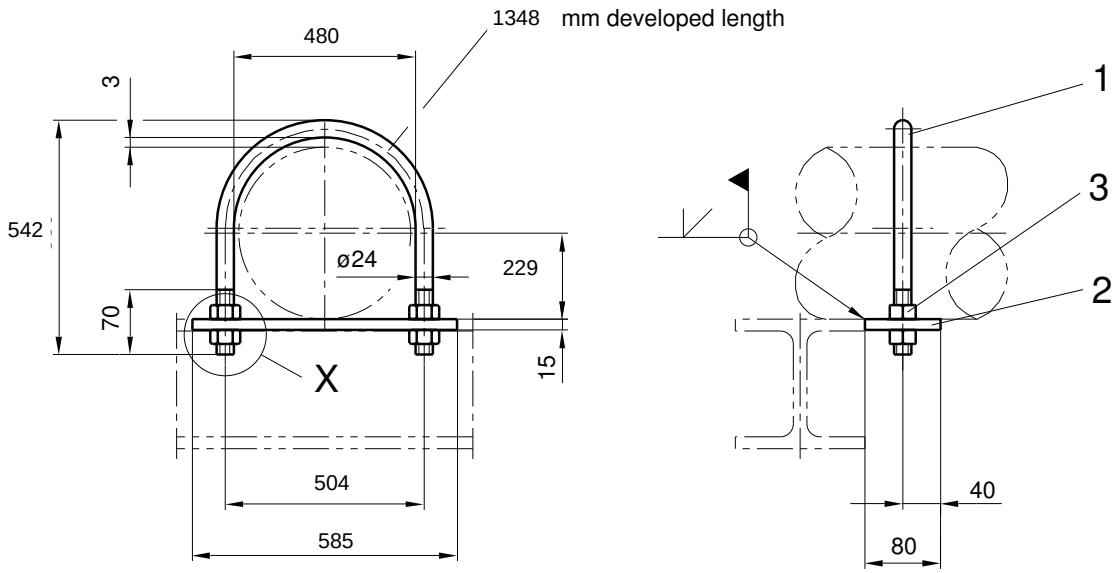
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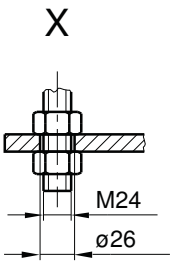
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Pipe support

Code No.:ABB003D **Marking:** 450

Manufacturing drawing





Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
3	4	HEXAGON NUT M 24	EN ISO 4034	5	MM0001D
2	1	FLAT BAR 80 x 15 x 585	EN 10058	1.0038	GF0011D
1	1	U-BOLT FORM A 430	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 11,600 kg

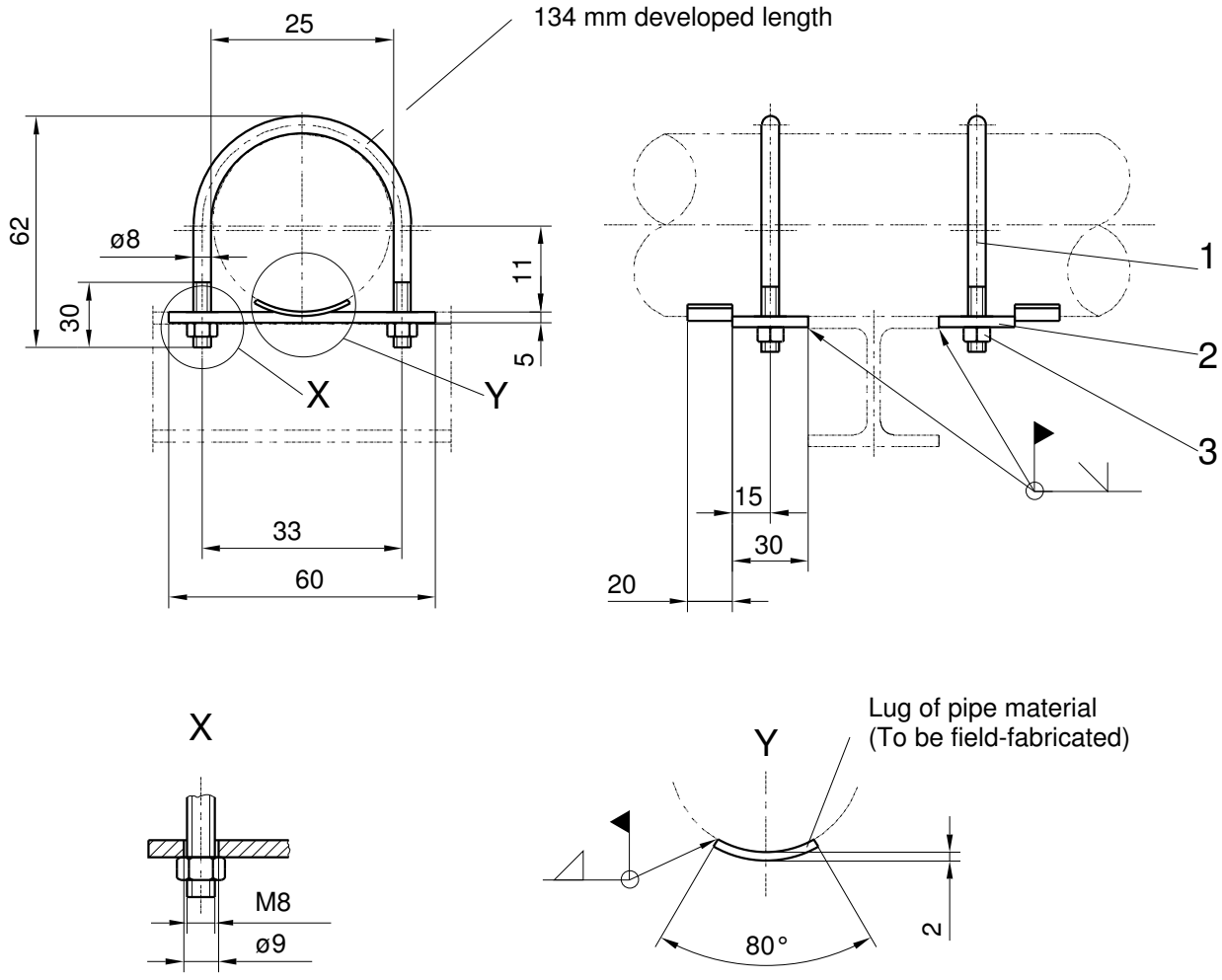
Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

tkIS	Code	Page	UAN	V	L S
	Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC001D Marking : 15

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEXAGON NUT M 8	DIN 555	5	MM0001D
2	2	FLAT BAR 30 x 5 x 60	DIN 1017 P. 1	1.0038	GF0011D
1	2	U-BOLT 25 / 62 / 30	UN 3786-03	1.0036	MA0111D

Remarks: Total weight = 0,240 kg

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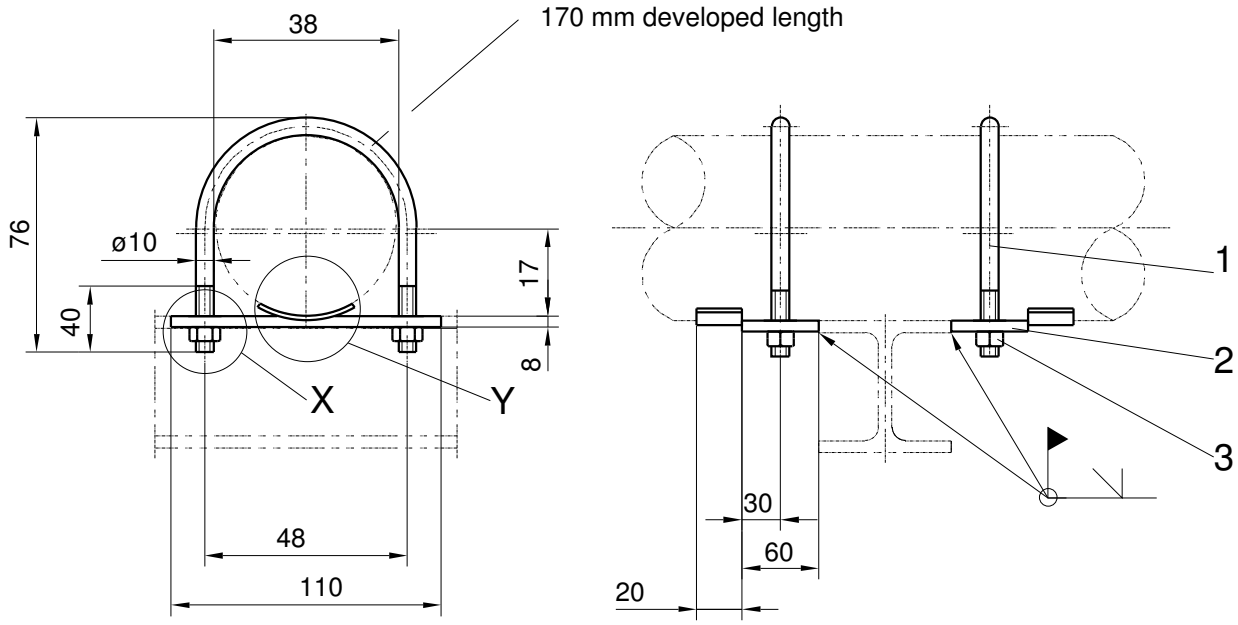
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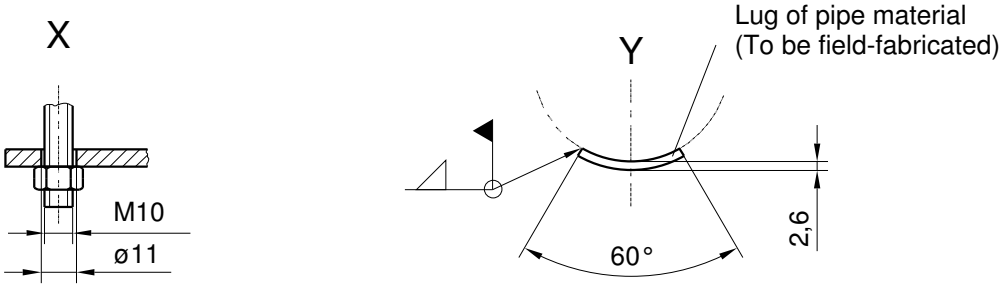
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC002D Marking : 25

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEXAGON NUT M 10	DIN 555	5	MM0001D
2	2	FLAT BAR 60 x 8 x 110	DIN 1017 P. 1	1.0038	GF0011D
1	2	U-BOLT FORM A A38	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 1,060 kg

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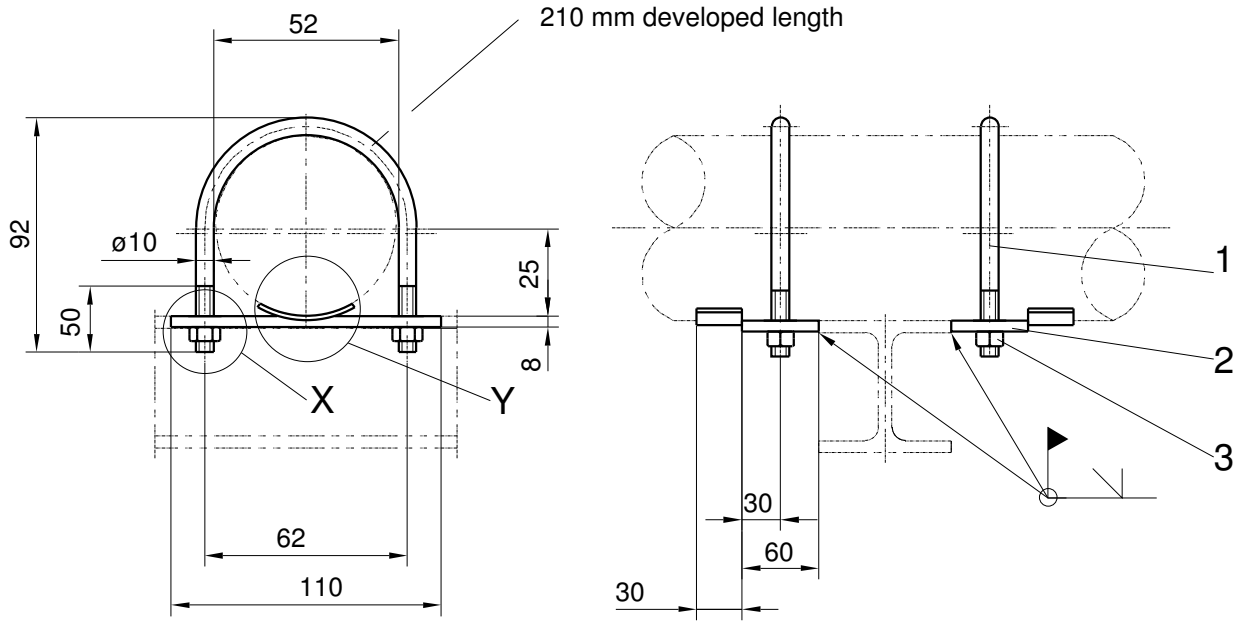
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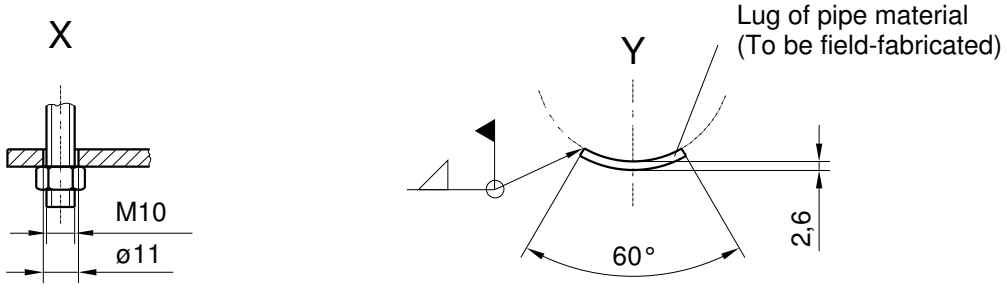
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC002D Marking : 40

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEXAGON NUT M 10	DIN 555	5	MM0001D
2	2	FLAT BAR 60 x 8 x 110	DIN 1017 P. 1	1.0038	GF0011D
1	2	U-BOLT FORM A A52	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 1,120 kg

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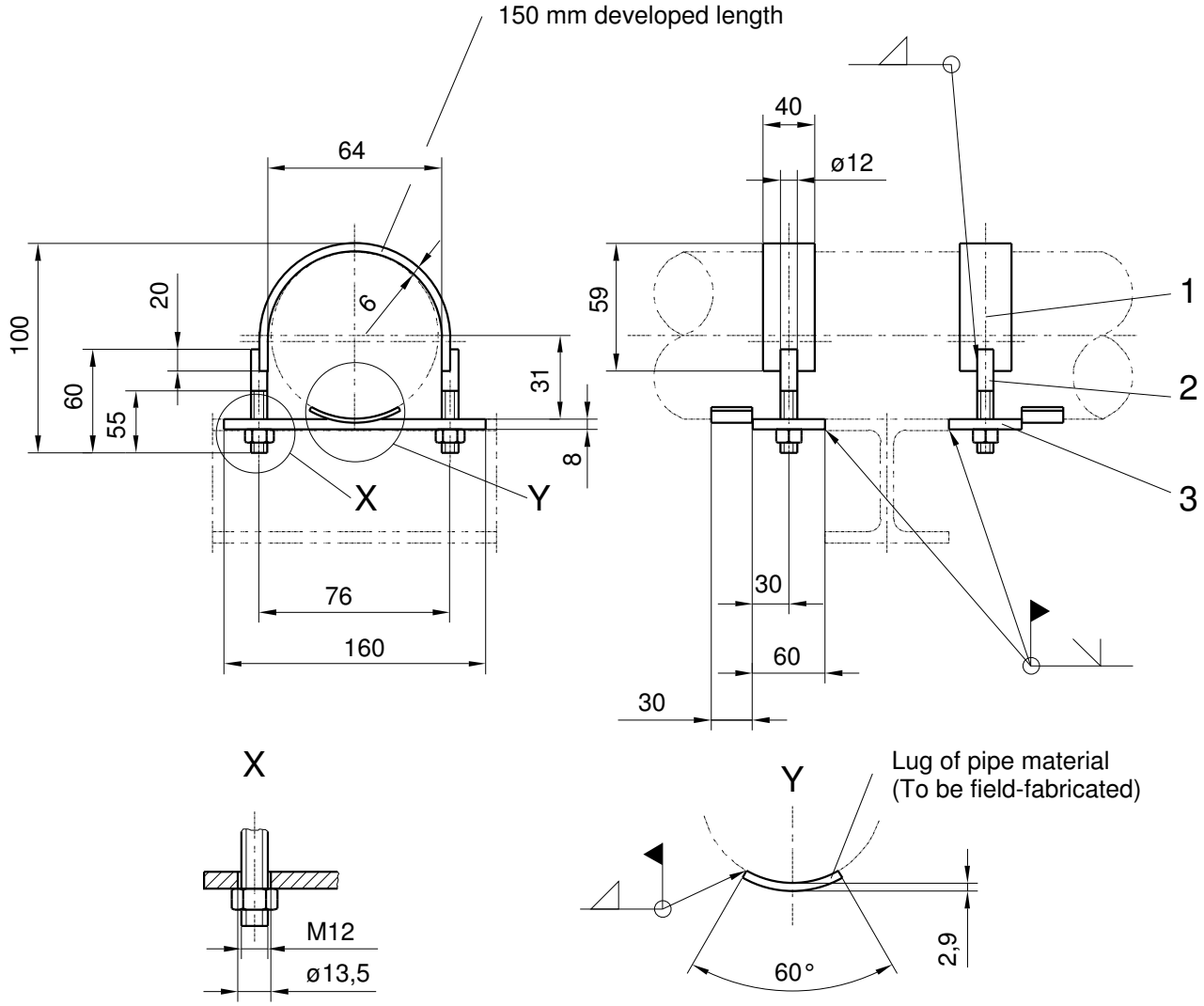
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC003D Marking : 50

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	FLAT BAR 60 x 8 x 160	DIN 1017 P. 1	1.0038	GF0011D
2	4	STUD FOR WELDING WITH HEX.NUT M 12 x 60 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 40 x 6 x 150	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 2,000 kg

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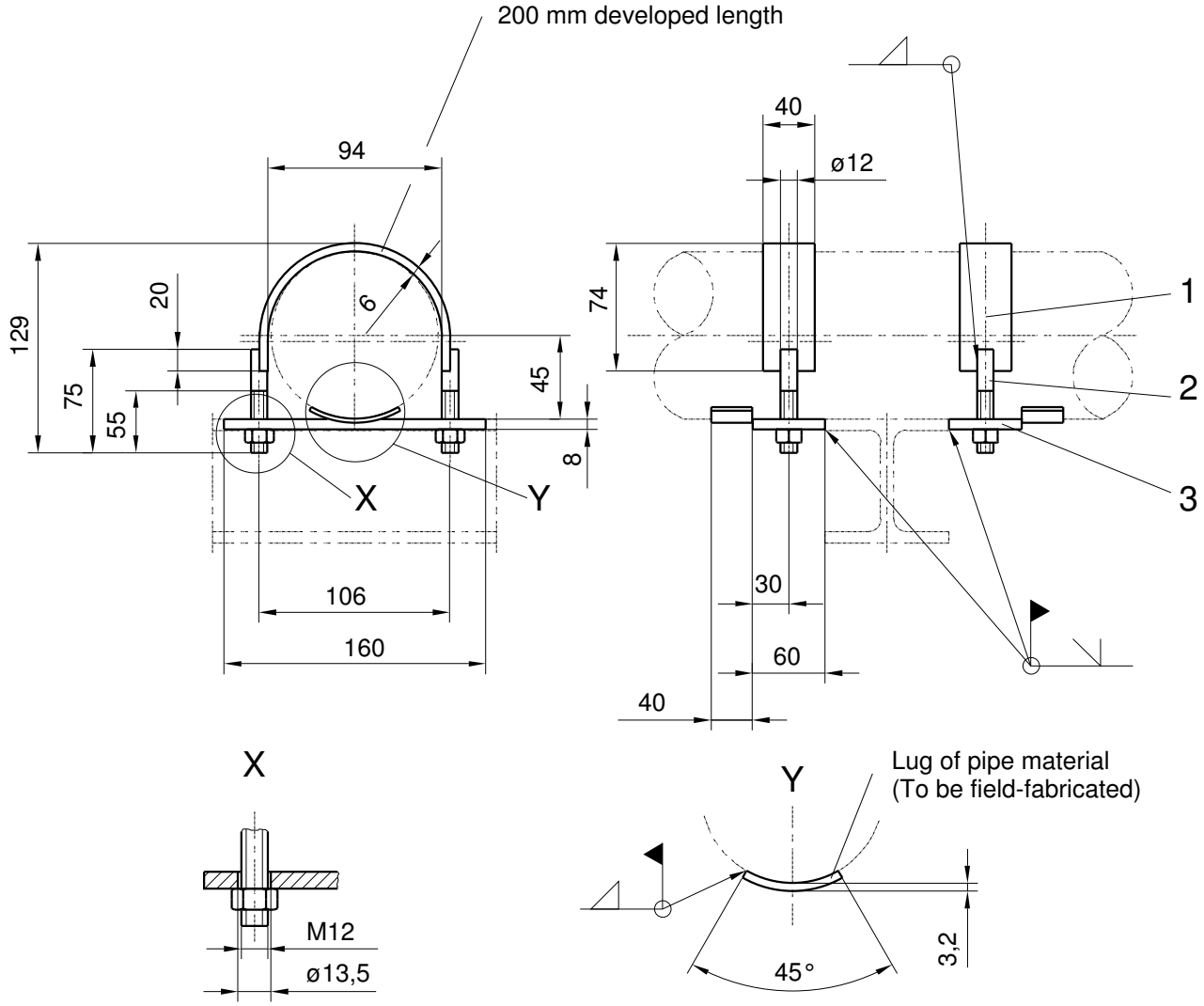
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC003D Marking : 80

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	FLAT BAR 60 x 8 x 160	DIN 1017 P. 1	1.0038	GF0011D
2	4	STUD FOR WELDING WITH HEX.NUT M 12 x 75 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 40 x 6 x 200	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 2,220 kg

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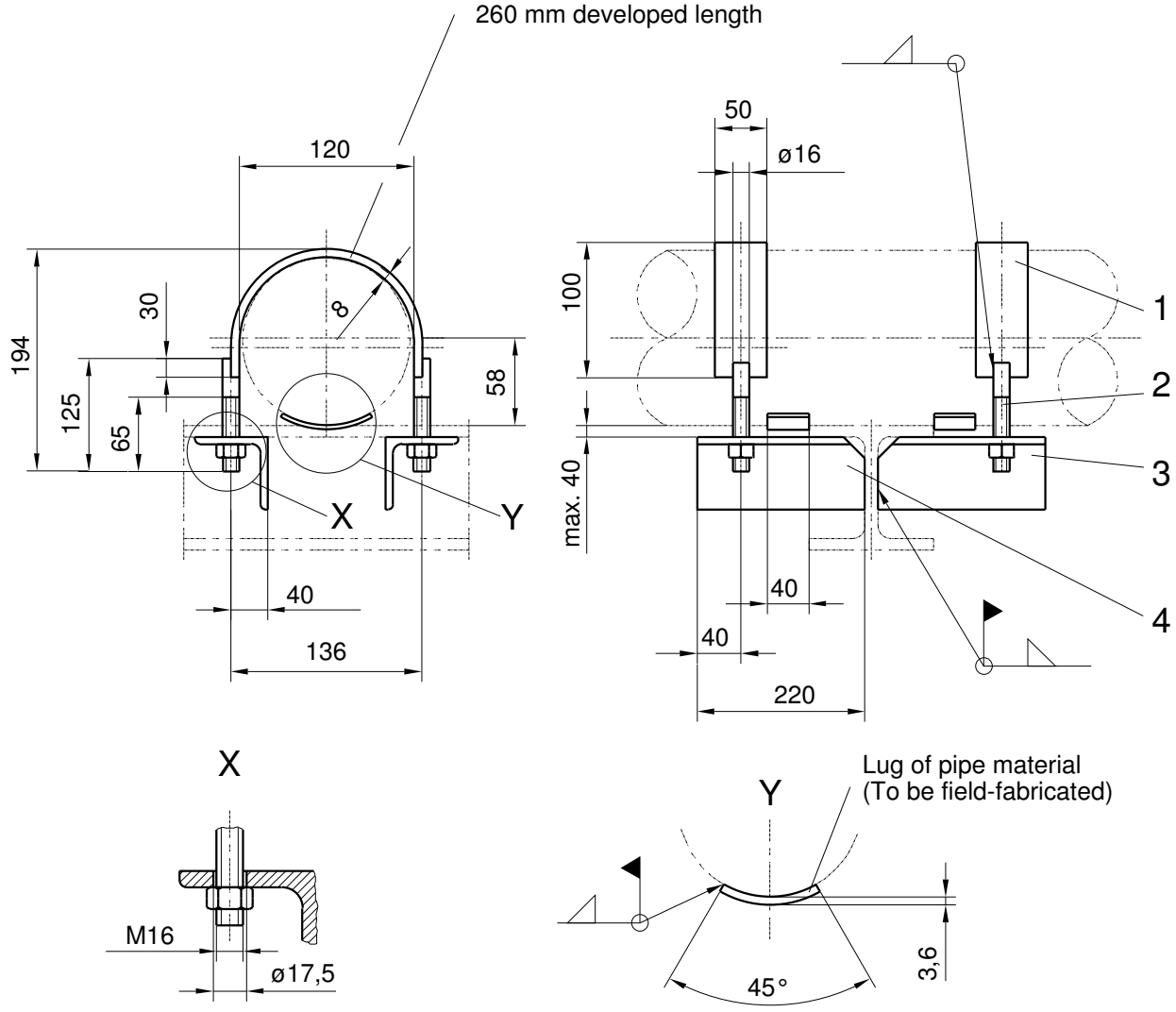
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC004D Marking : 100

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	L-BAR L 70 x 7 x 220	DIN 1028	1.0038	GL0002D
3	2	L-BAR L 70 x 7 x 220	DIN 1028	1.0038	GL0001D
2	4	STUD FOR WELDING WITH HEX.NUT M 16 x 125 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 50 x 8 x 260	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 9,000 kg

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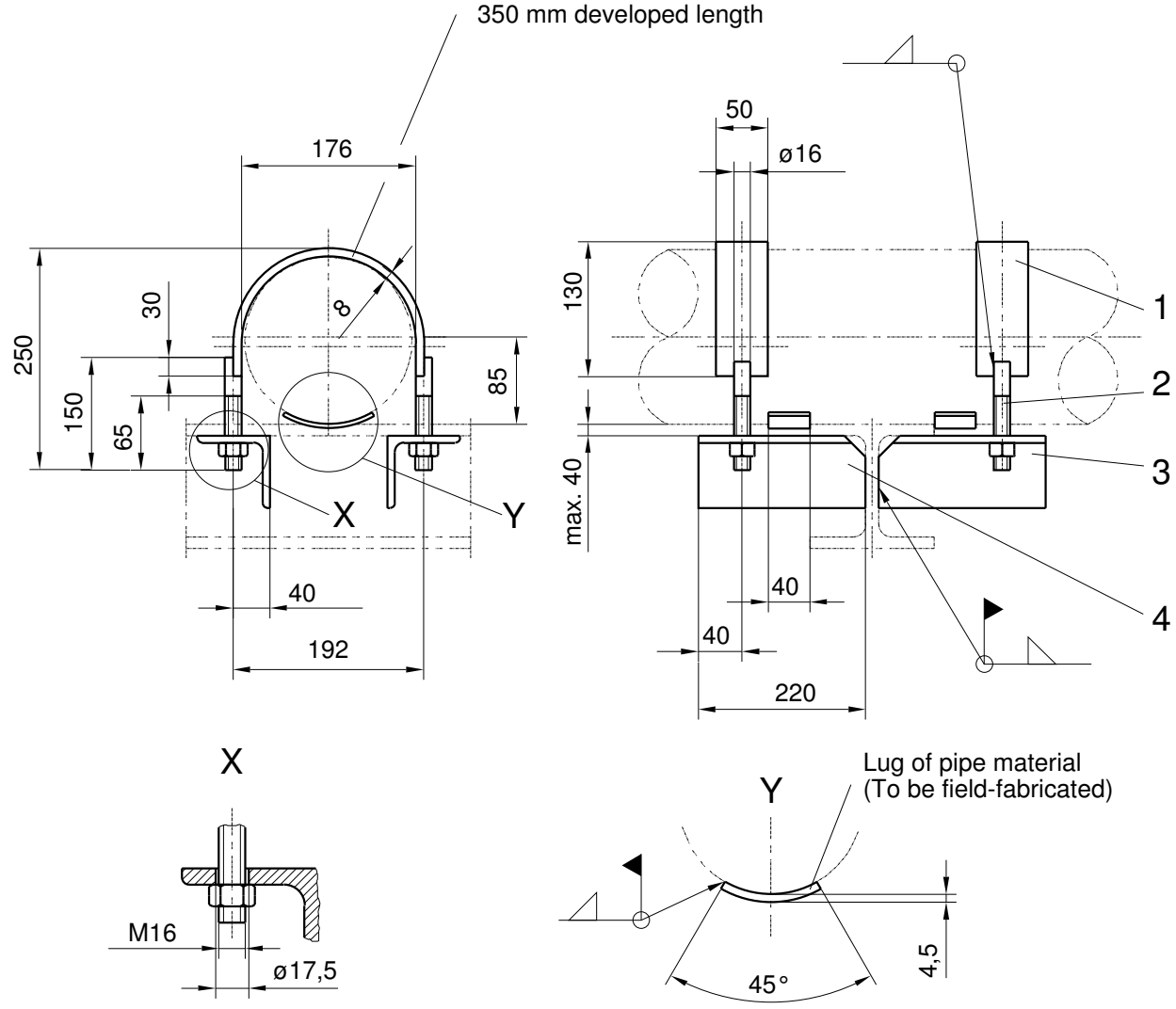
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC004D Marking : 150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	L-BAR L 70 x 7 x 220	DIN 1028	1.0038	GL0002D
3	2	L-BAR L 70 x 7 x 220	DIN 1028	1.0038	GL0001D
2	4	STUD FOR WELDING WITH HEX.NUT M 16 x 150 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 50 x 8 x 350	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 9,720 kg

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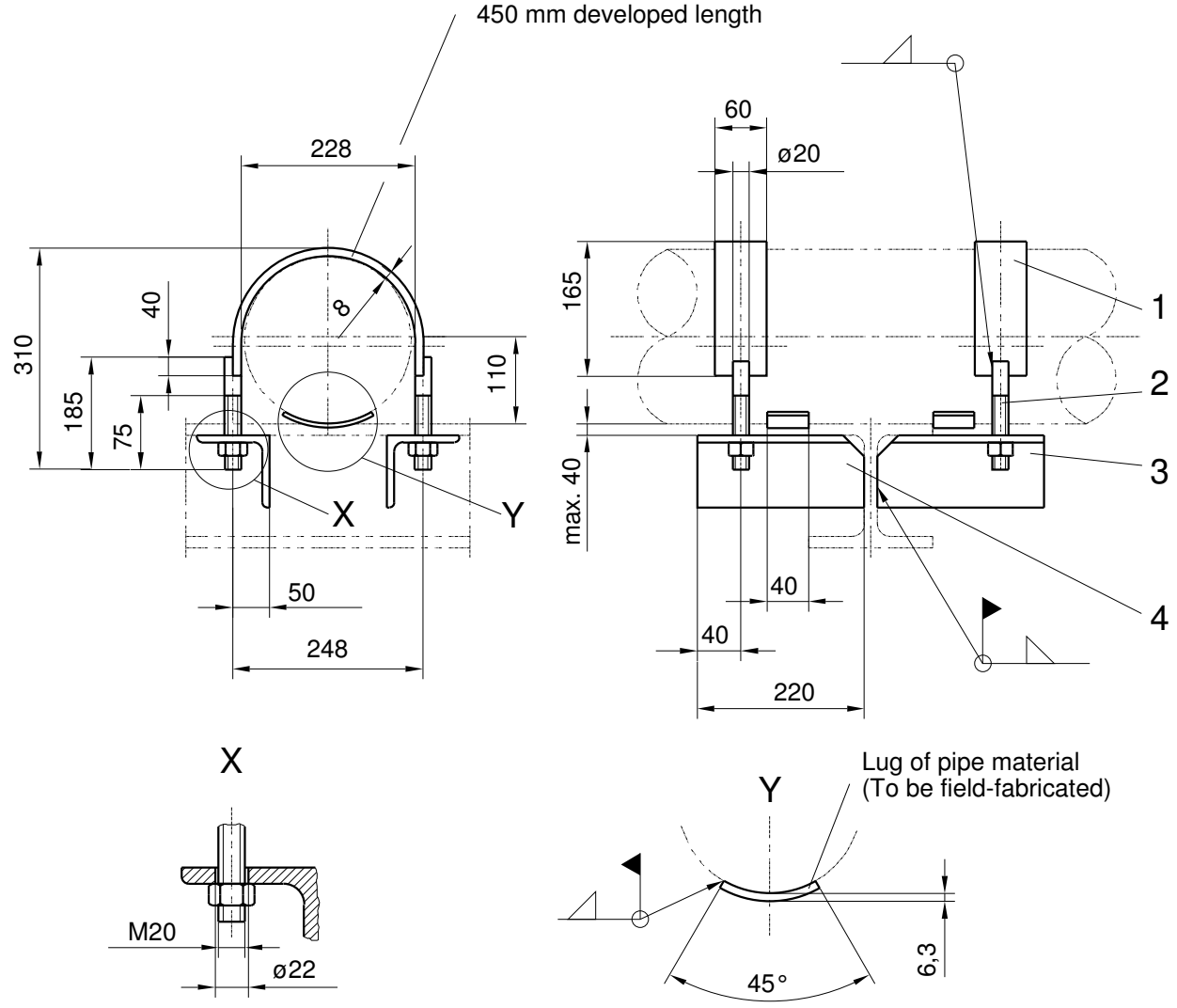
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC004D Marking : 200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0002D
3	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0001D
2	4	STUD FOR WELDING WITH HEX.NUT M 20 x 185 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 60 x 8 x 450	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 16,120 kg

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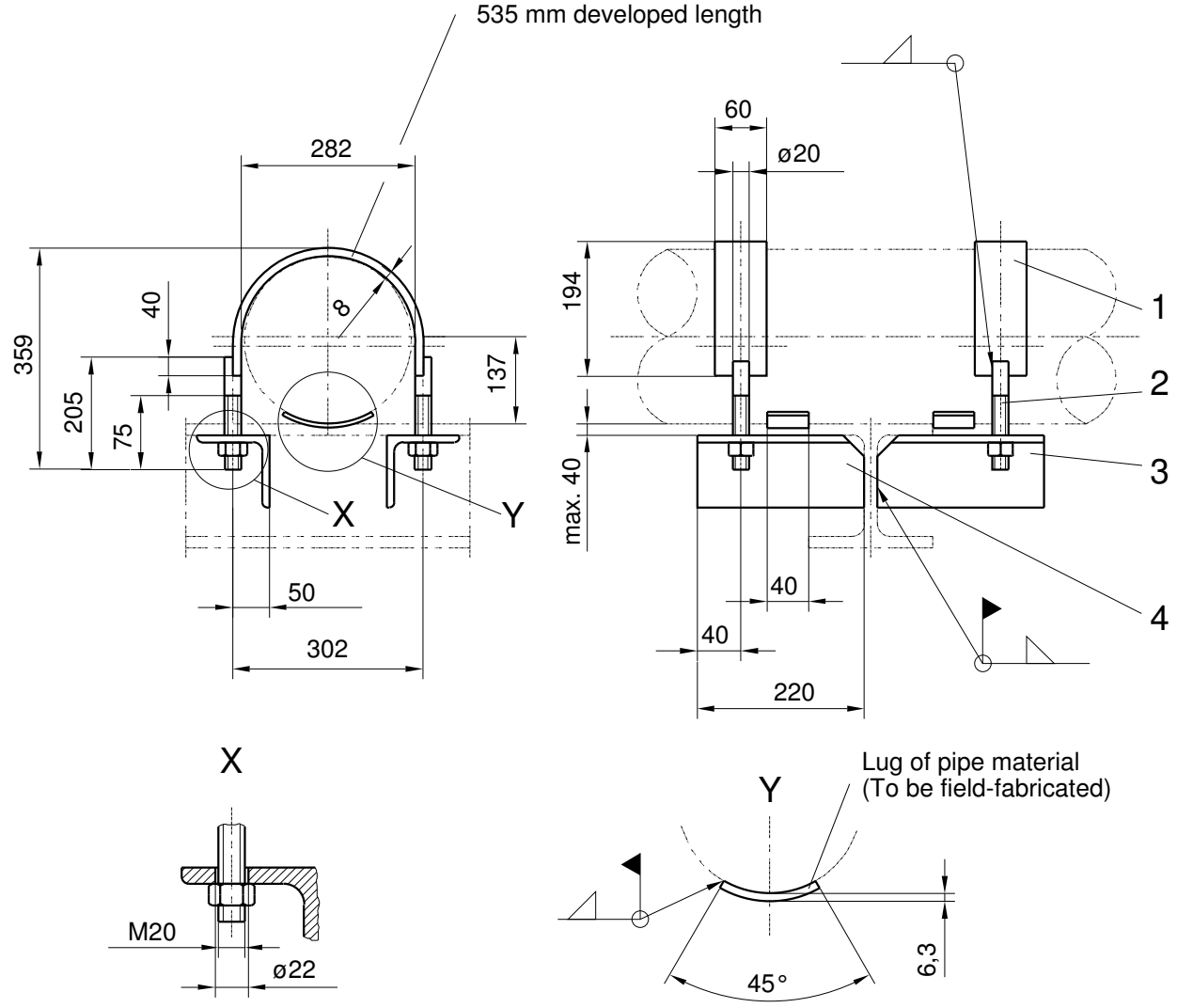
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC004D Marking : 250

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0002D
3	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0001D
2	4	STUD FOR WELDING WITH HEX.NUT M 20 x 205 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 60 x 8 x 535	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 16,960 kg

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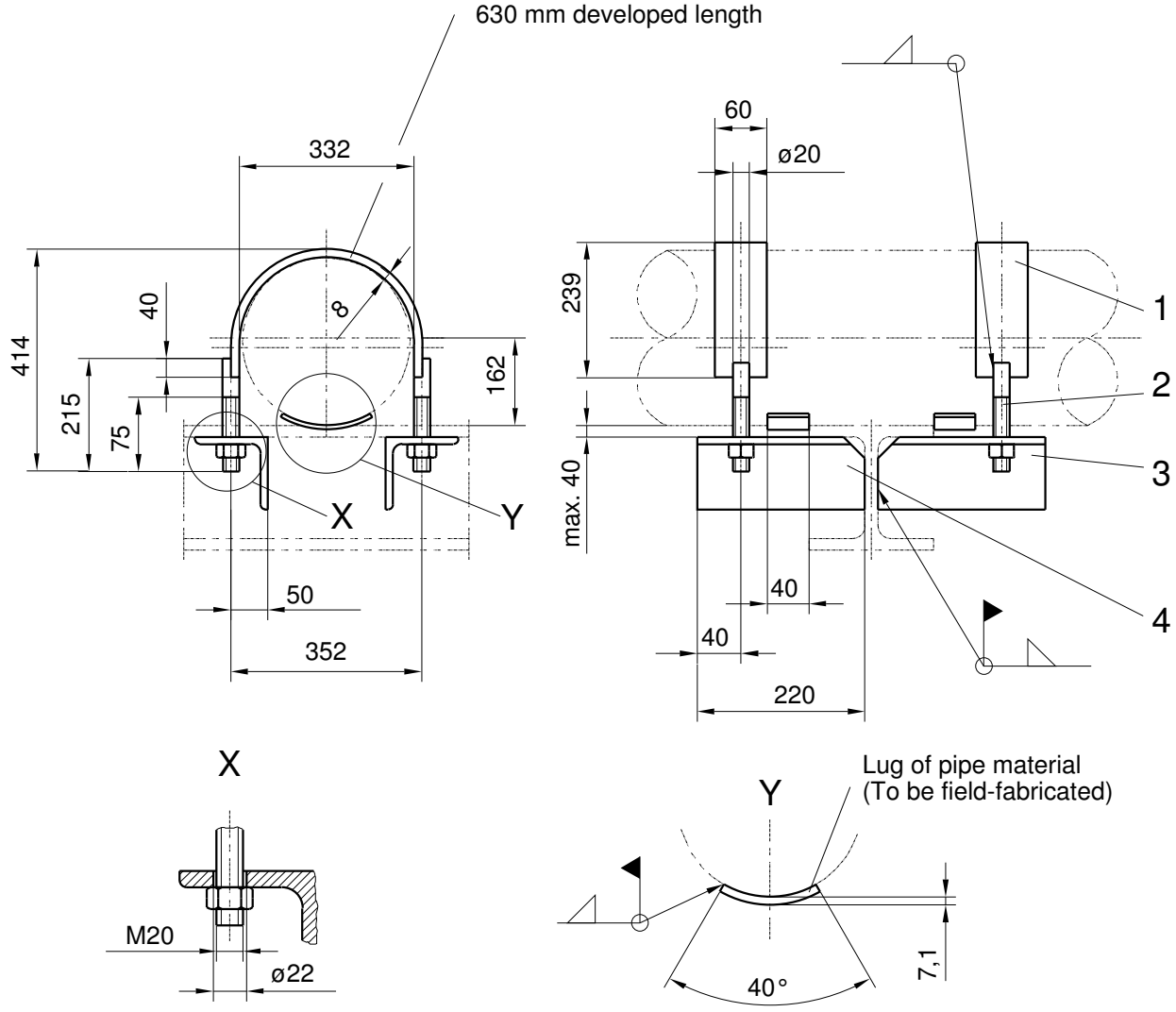
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC004D Marking : 300

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0002D
3	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0001D
2	4	STUD FOR WELDING WITH HEX.NUT M 20 x 215 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 60 x 8 x 630	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 17,740 kg

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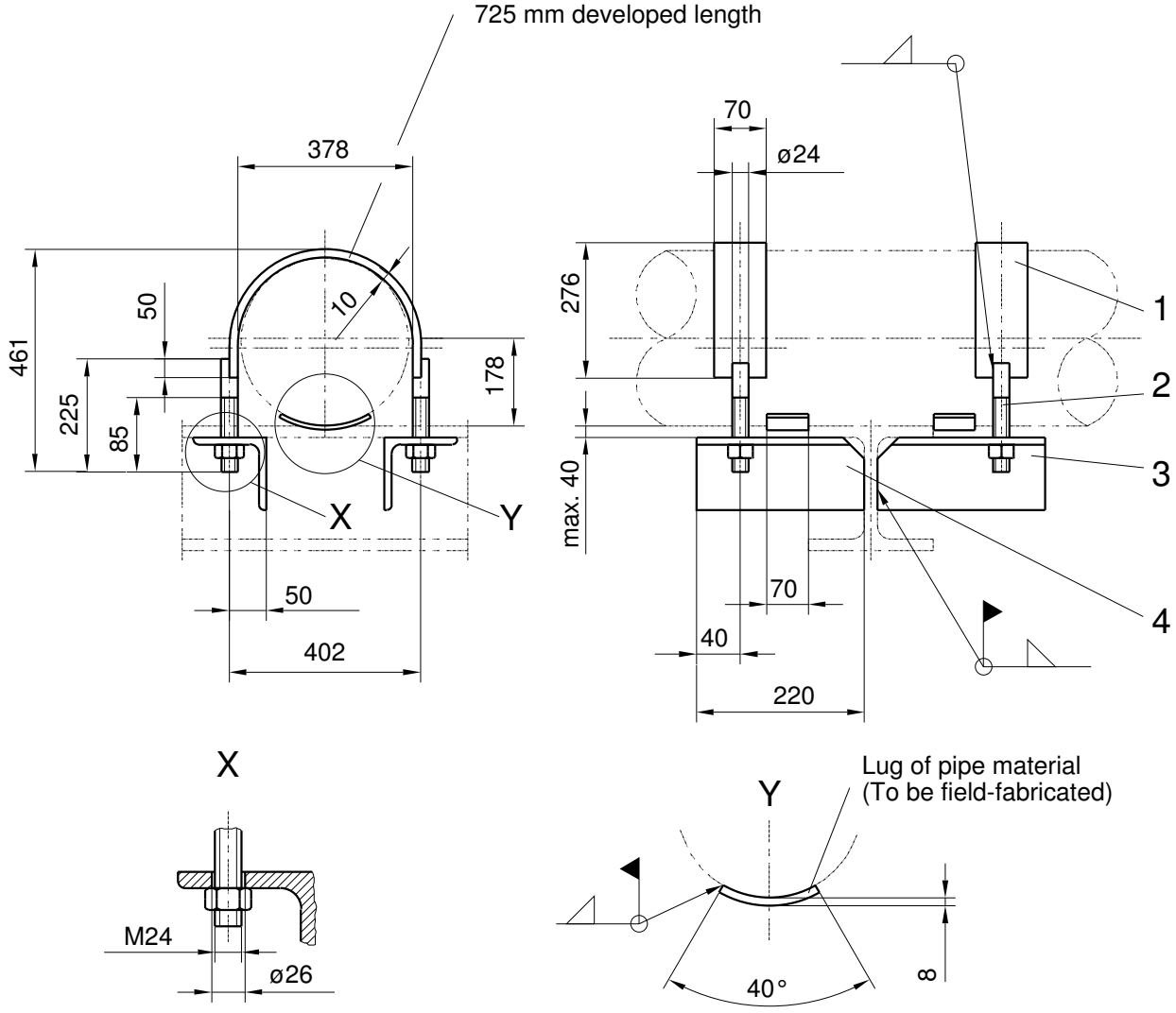
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC004D Marking : 350

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0002D
3	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0001D
2	4	STUD FOR WELDING WITH HEX.NUT M 24 x 225 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 70 x 10 x 725	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 22,240 kg

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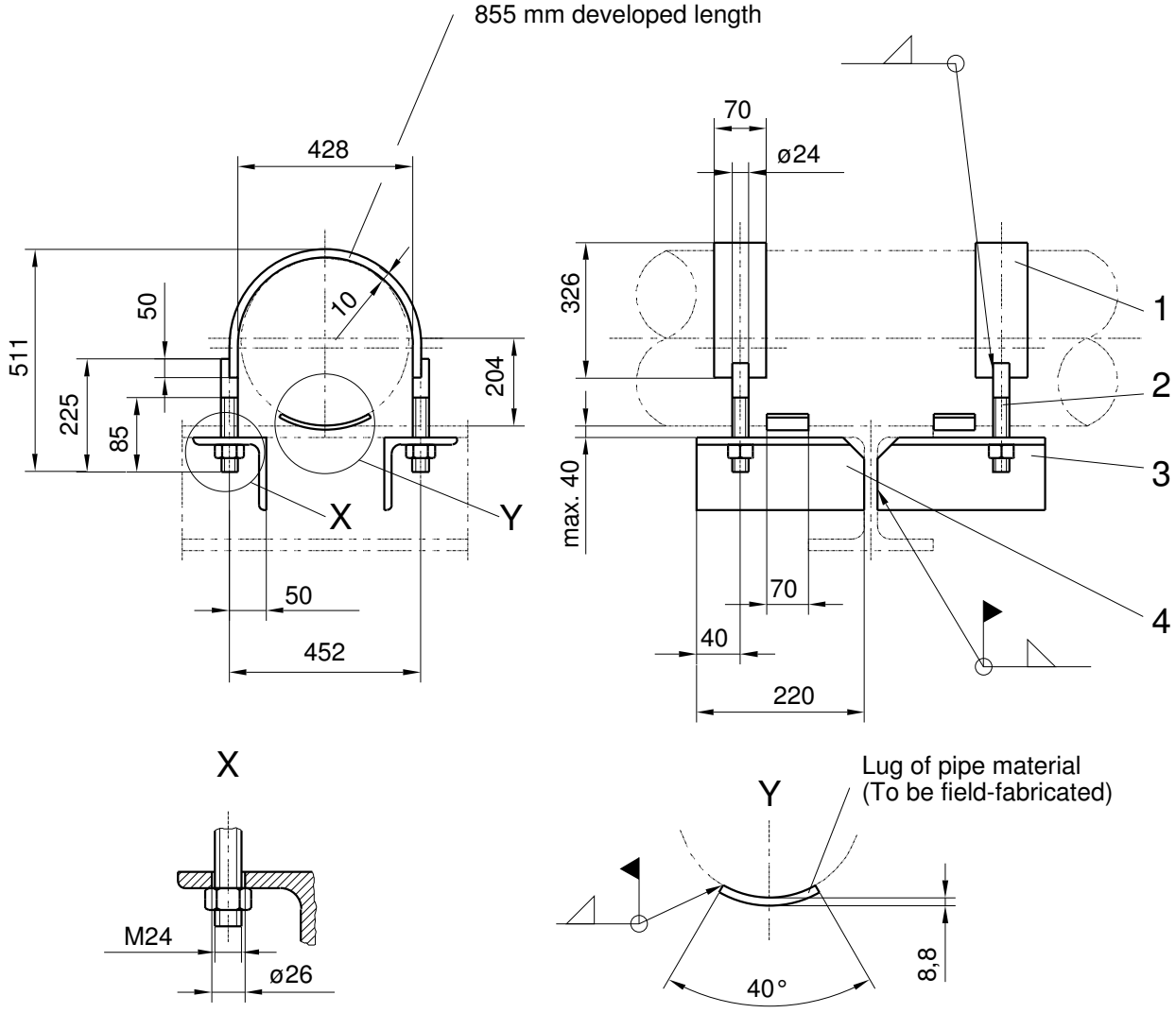
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC004D Marking : 400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0002D
3	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0001D
2	4	STUD FOR WELDING WITH HEX.NUT M 24 x 225 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 70 x 10 x 855	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 23,680 kg

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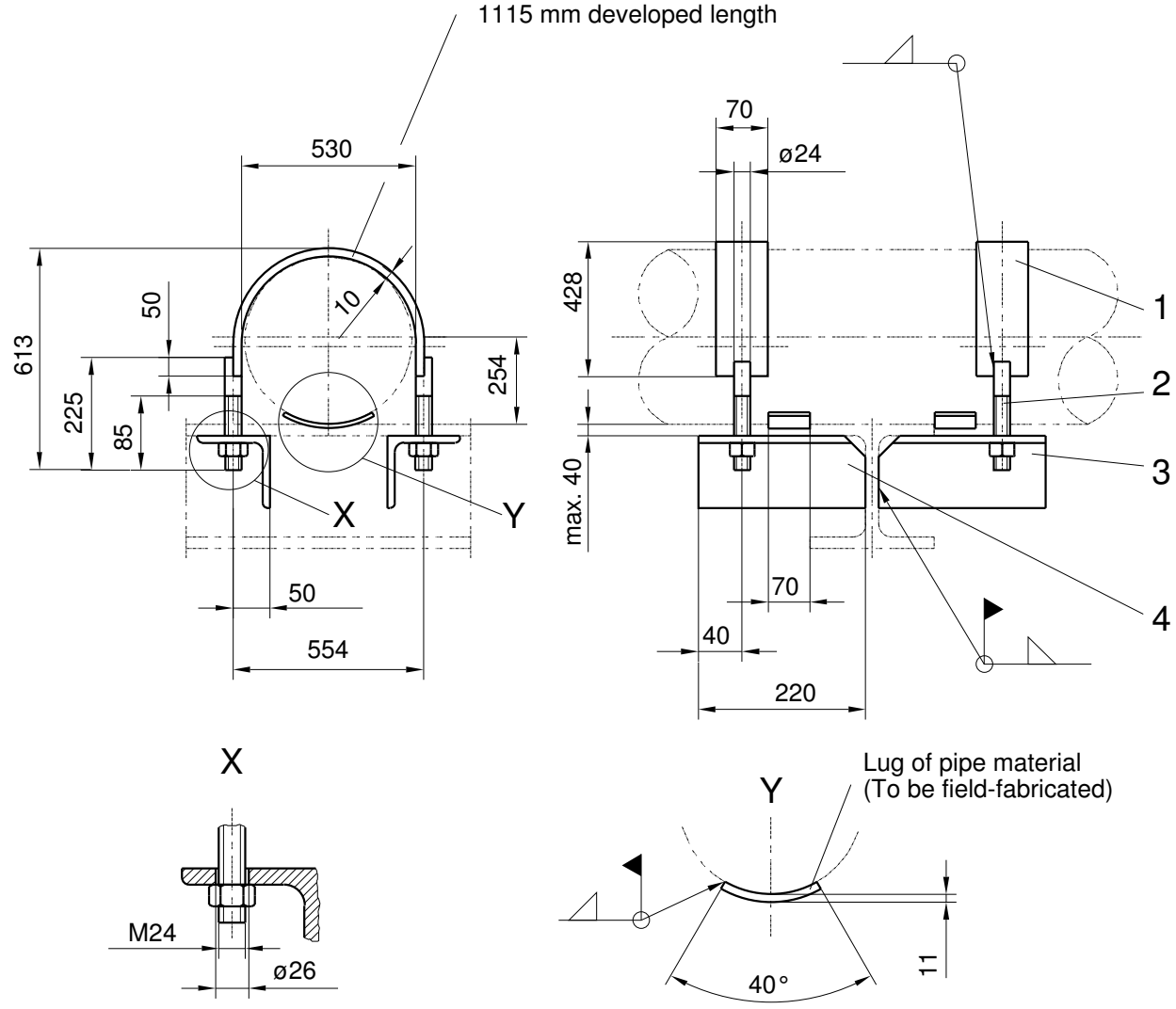
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC004D Marking : 500

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0002D
3	2	L-BAR L 90 x 9 x 220	DIN 1028	1.0038	GL0001D
2	4	STUD FOR WELDING WITH HEX.NUT M 24 x 225 / MU	DIN 525/555	3.6/5	MB0101D
1	2	FLAT BAR 70 x 10 x 1115	DIN 1017 P. 1	A283GR.B	GF0001D

Remarks: Total weight = 26,540 kg

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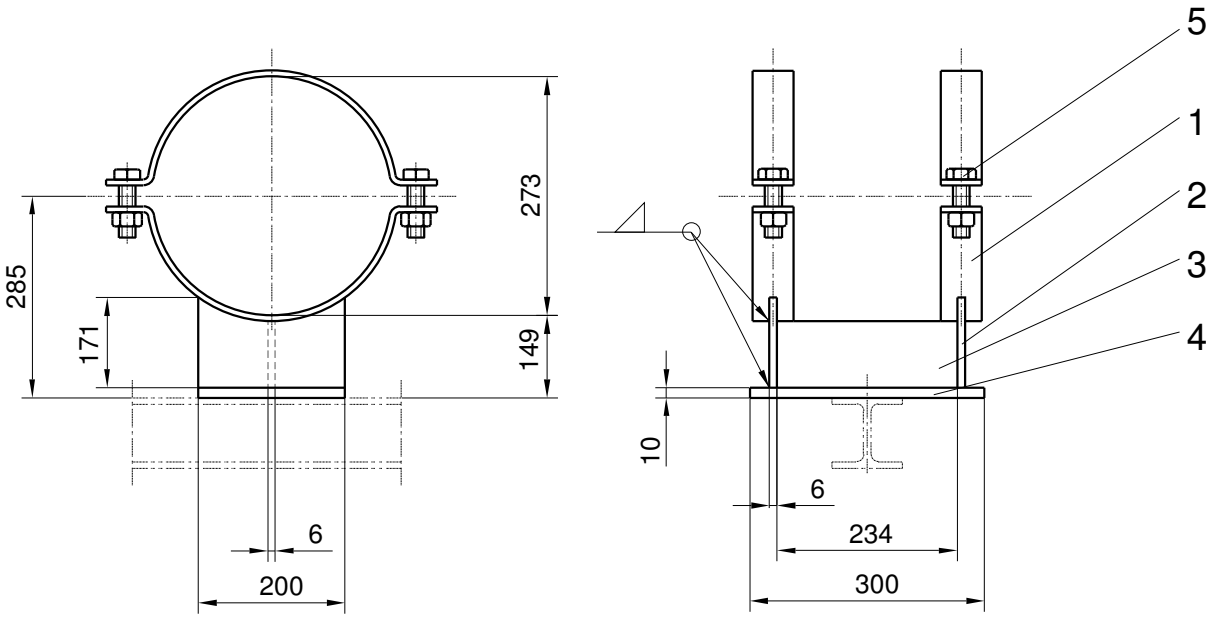
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA003D Marking : 250/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 131 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 171 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 18,460 kg

1) A193GR.B7/A194GR.2H

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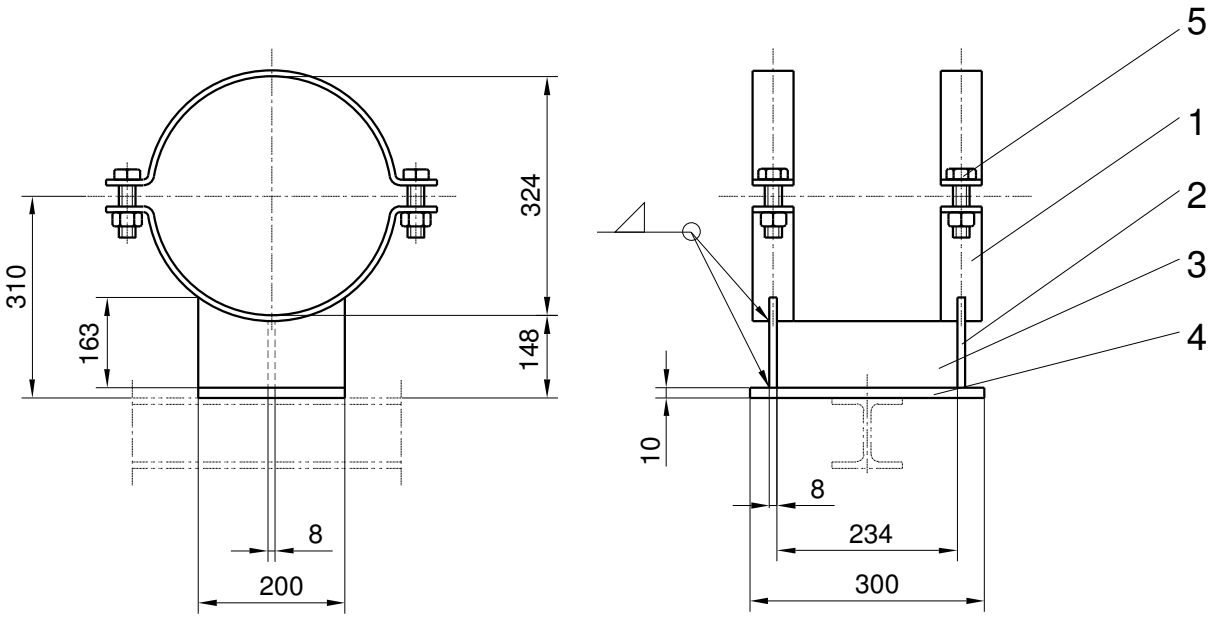
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA003D Marking : 300/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 130 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 163 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,980 kg

1) A193GR.B7/A194GR.2H

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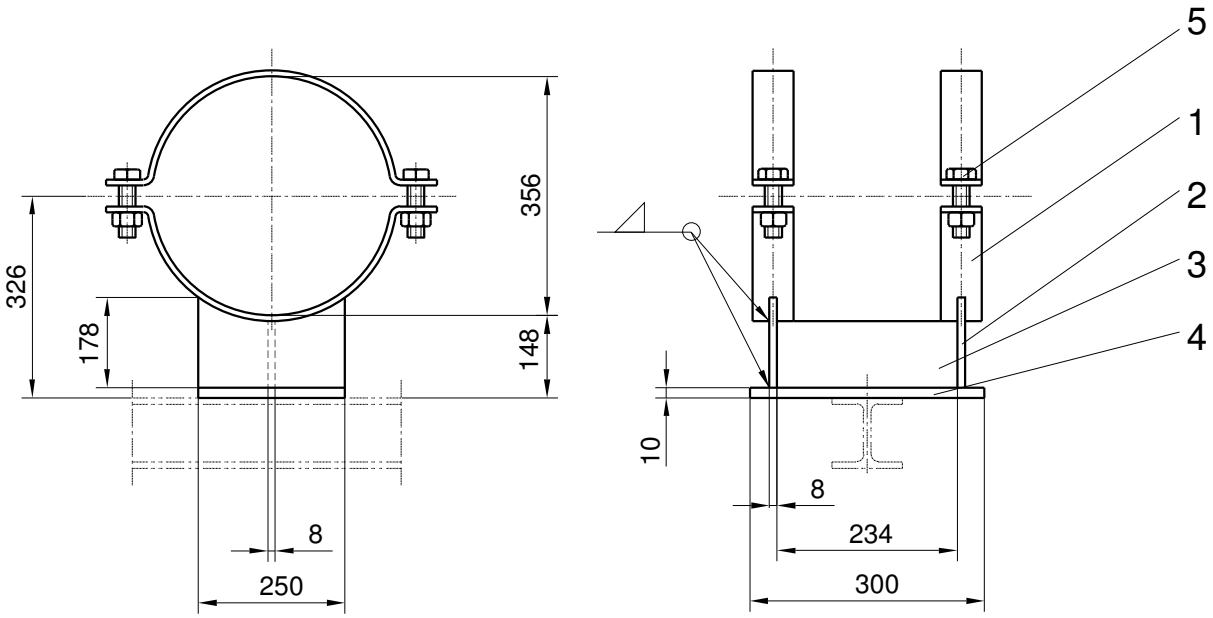
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA003D Marking : 350/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 250 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 130 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 178 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 356	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 24,410 kg

1) A193GR.B7/A194GR.2H

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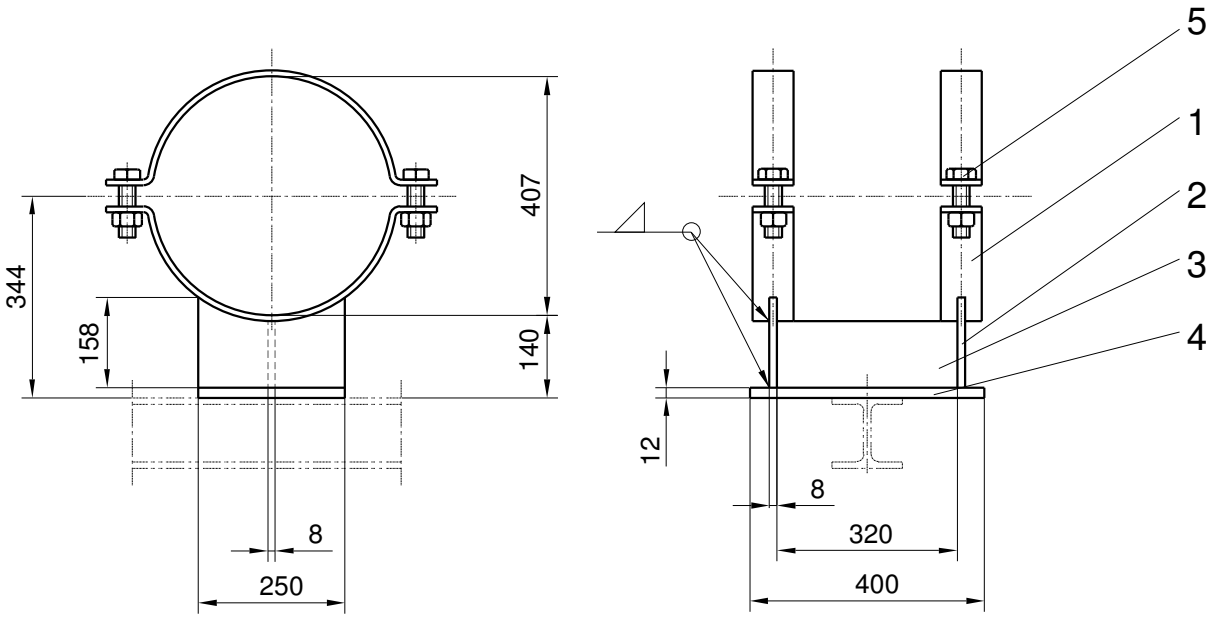
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA003D Marking : 400/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 158 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 35,450 kg

1) A193GR.B7/A194GR.2H

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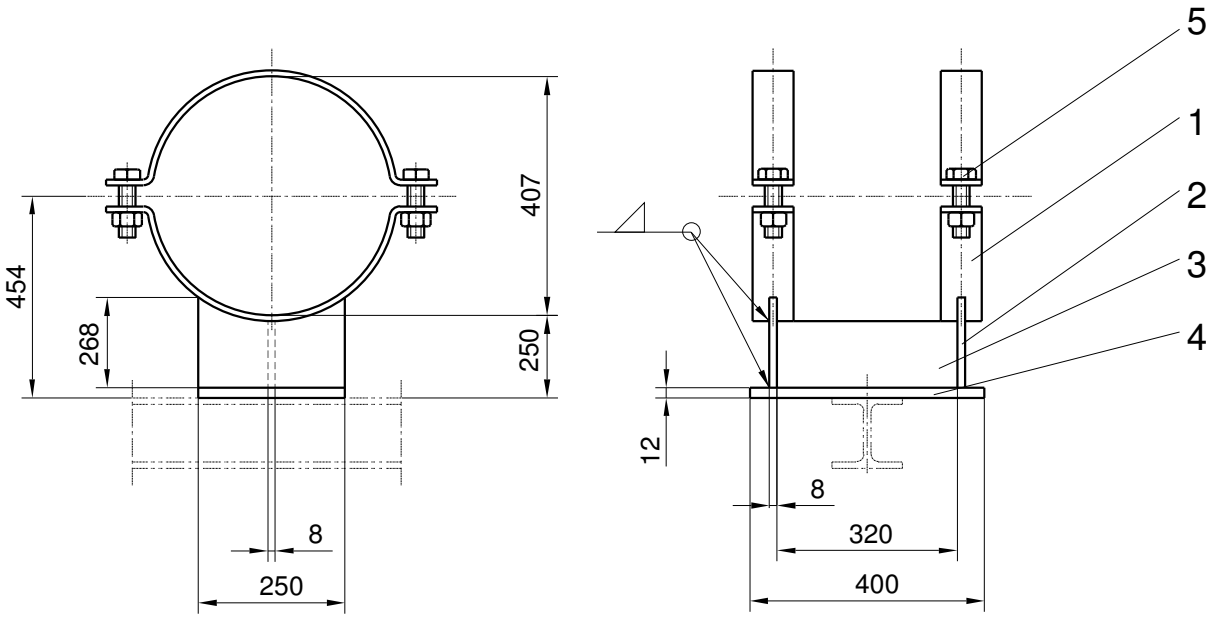
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA003D Marking : 400/6

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 228 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 268 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 41,100 kg

1) A193GR.B7/A194GR.2H

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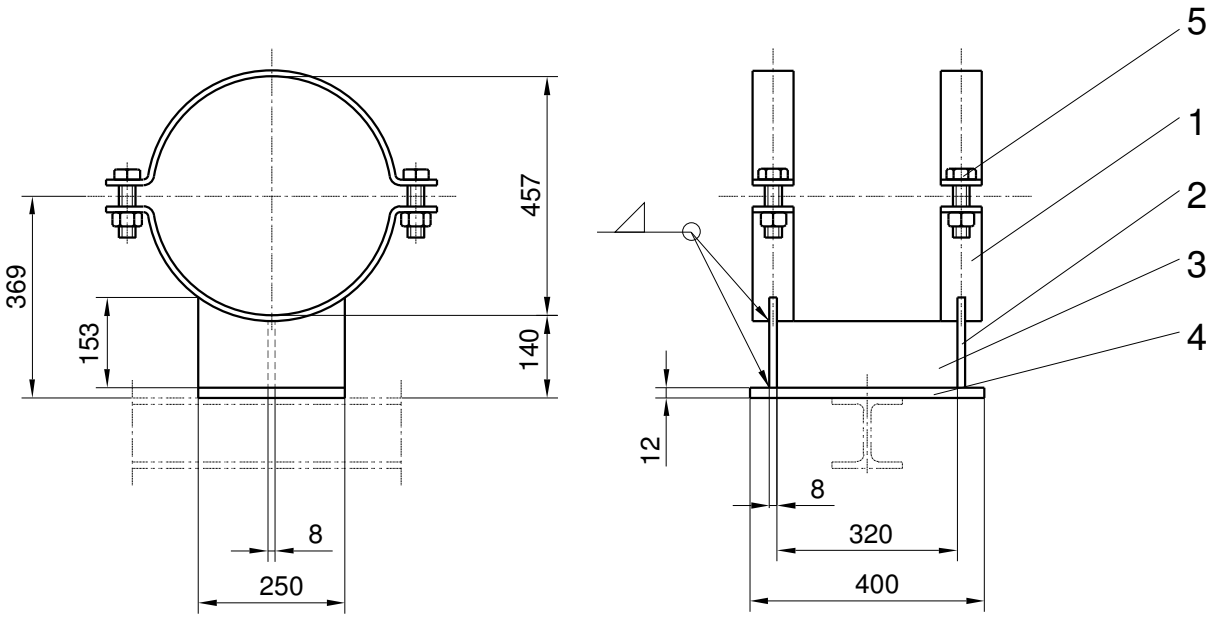
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA003D Marking : 450/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 153 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 457	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 37,010 kg

1) A193GR.B7/A194GR.2H

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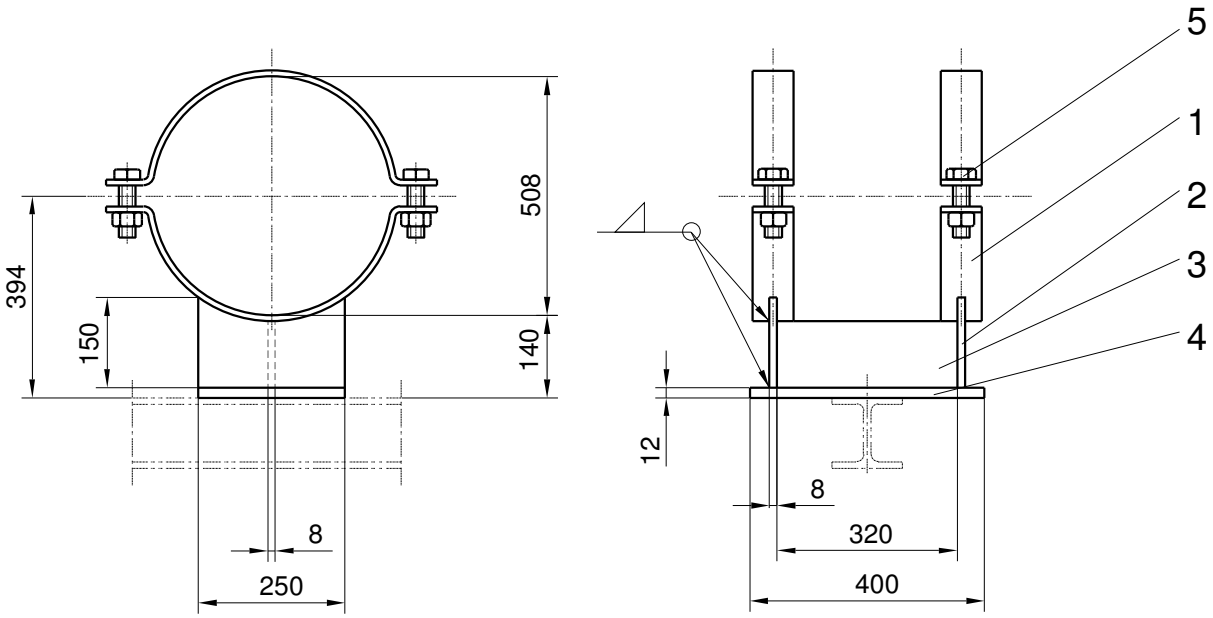
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA003D Marking : 500/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 150 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 38,670 kg

1) A193GR.B7/A194GR.2H

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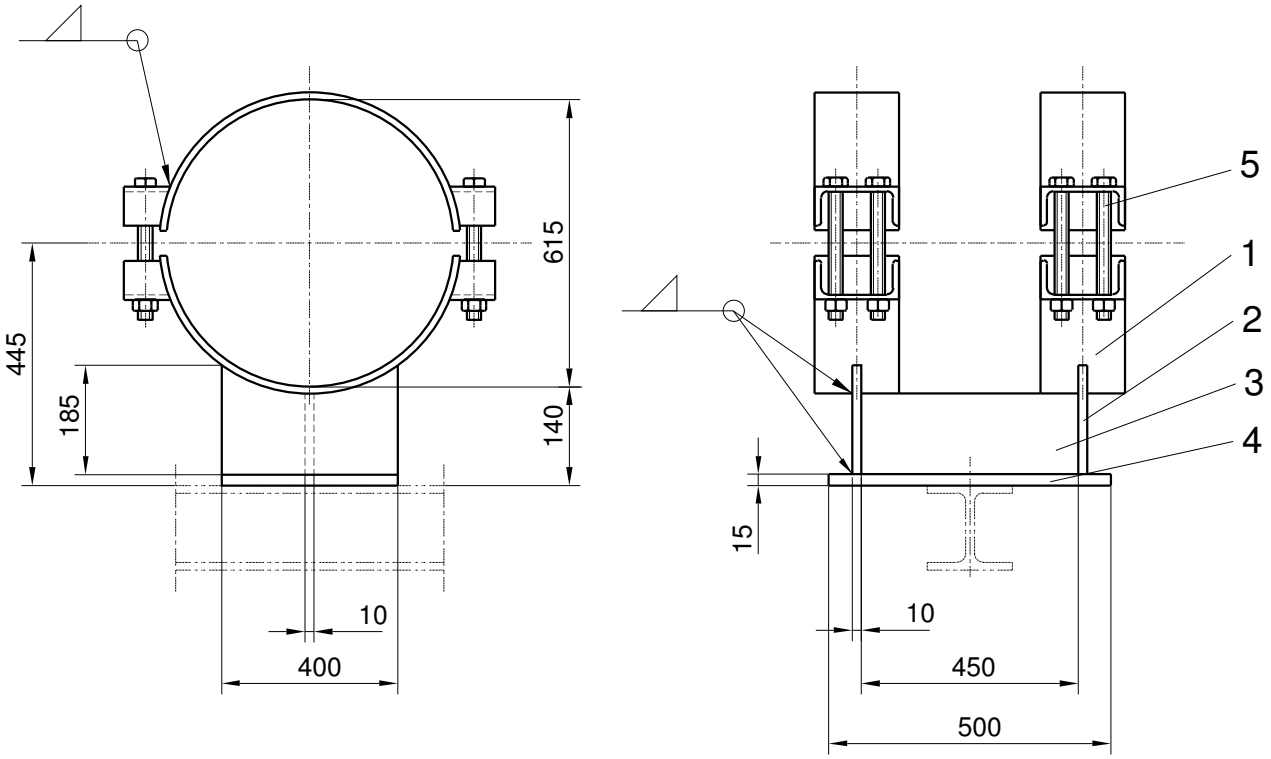
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA004D Marking : 600/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 115 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 185 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 615	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 86,390 kg

1) A193GR.B7/A194GR.2H

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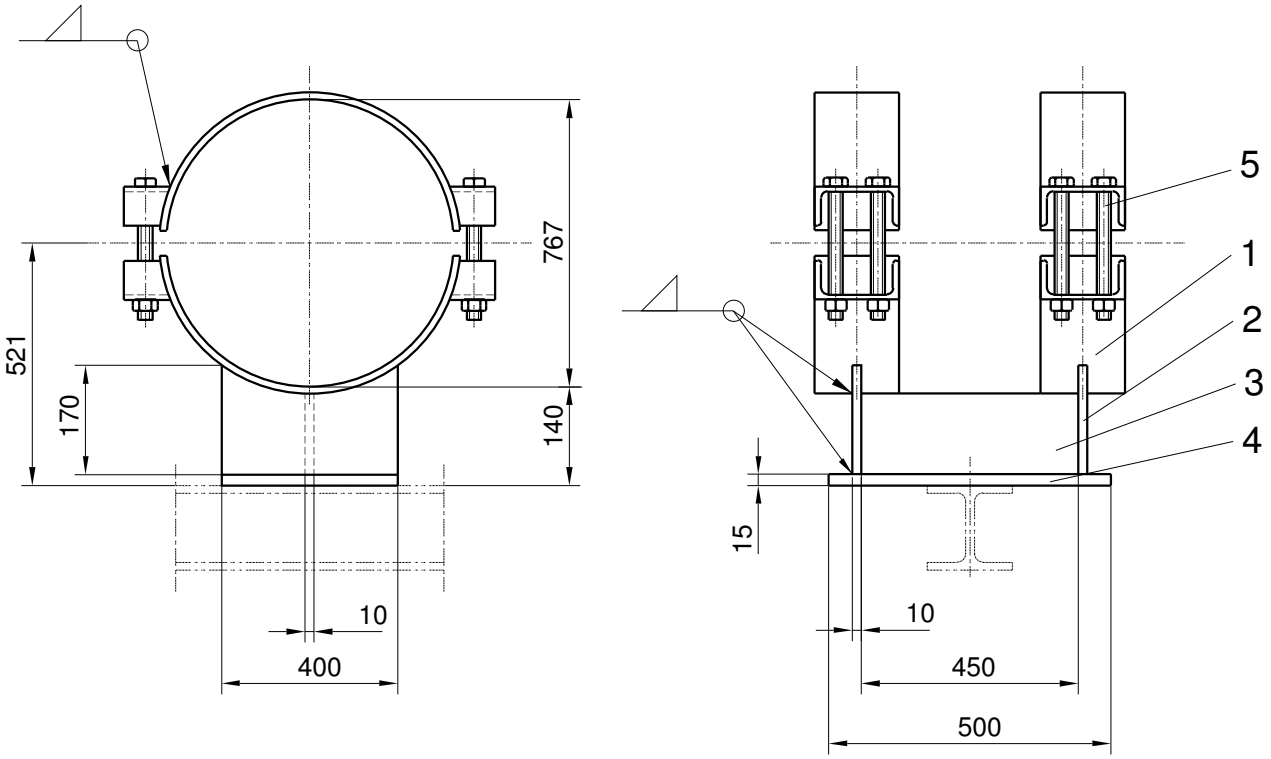
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA004D Marking : 750/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 115 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 170 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 767	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 0,100 kg

1) A193GR.B7/A194GR.2H

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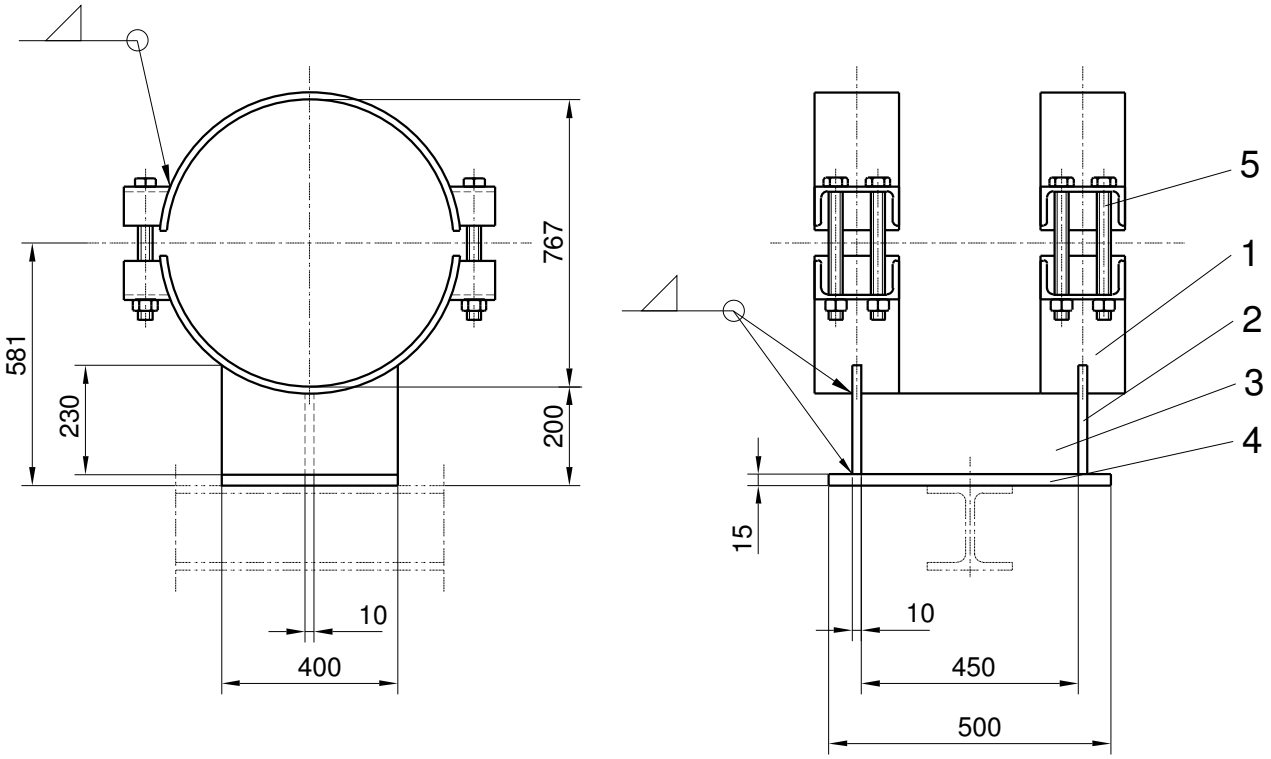
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA004D Marking : 750/5

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 175 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 230 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 767	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 0,100 kg

1) A193GR.B7/A194GR.2H

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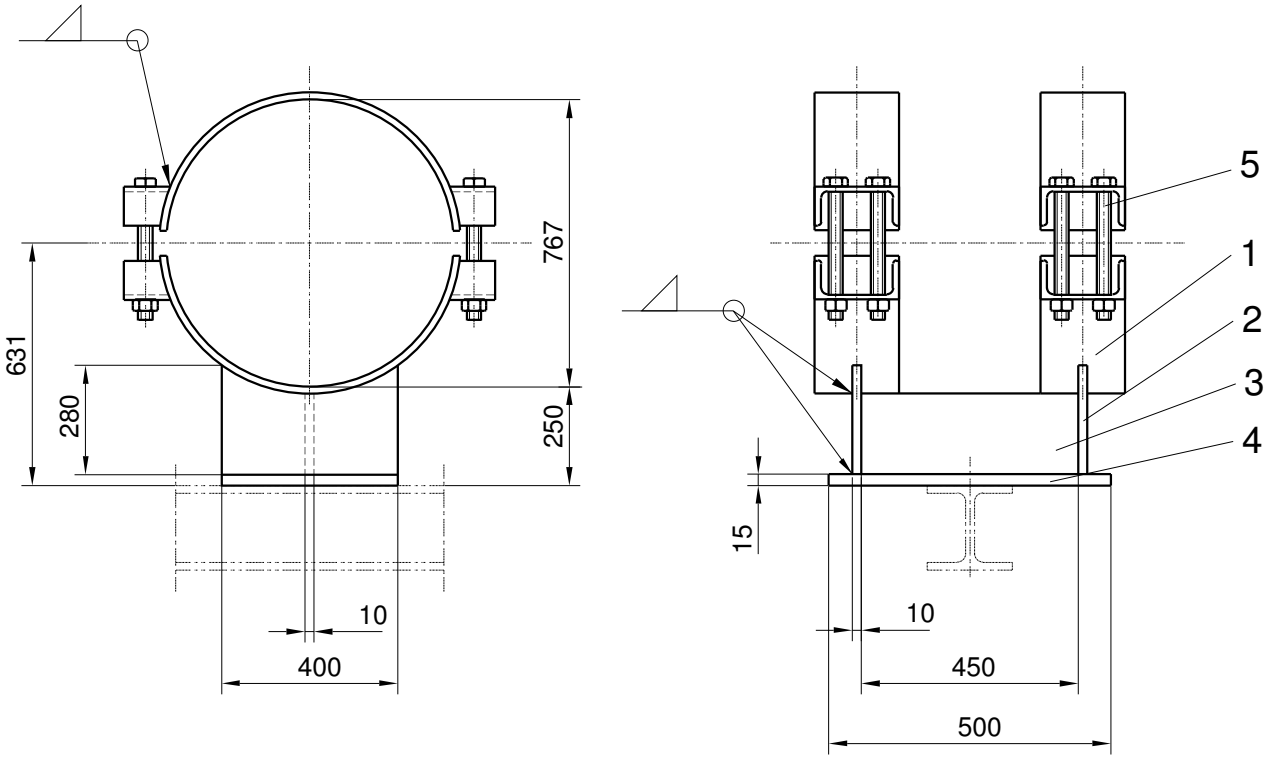
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA004D Marking : 750/6

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 225 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 280 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 767	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 0,100 kg

1) A193GR.B7/A194GR.2H

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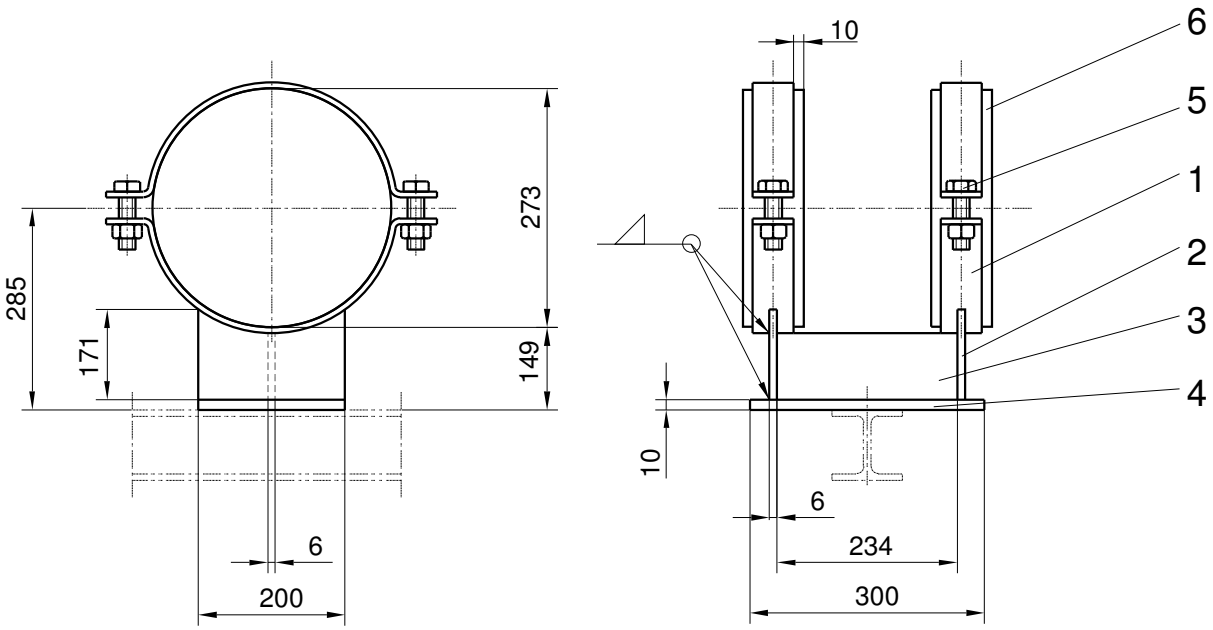
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA053D Marking : 250/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 131 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 171 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,020 kg

1) A193GR.B7/A194GR.2H

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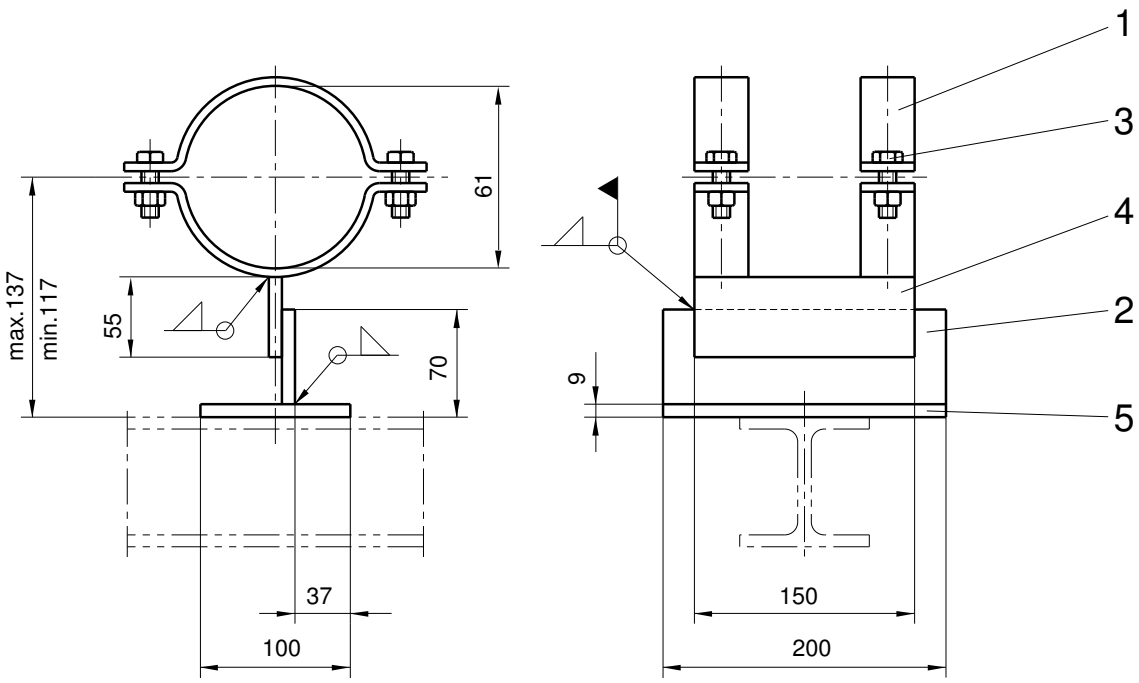
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA220D Marking : 50/117

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 9 x 100 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,340 kg

1) A193GR.B7/A194GR.2H

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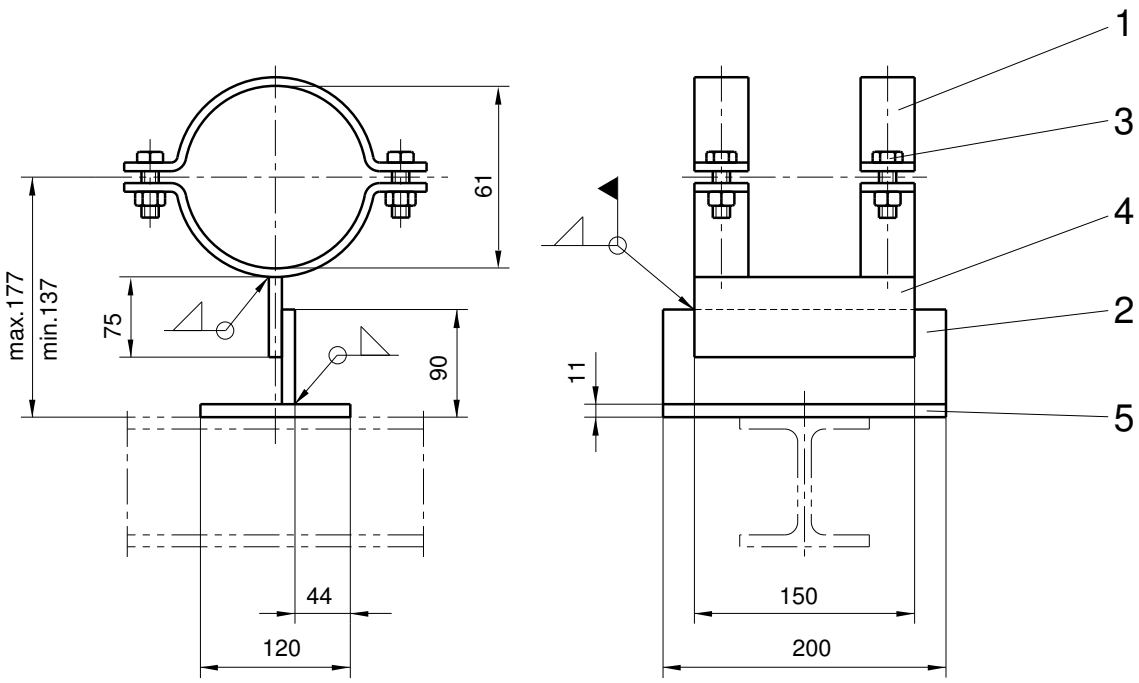
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PIPE SUPPORT

Code No.: ACA220D Marking : 50/137

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 11 x 120 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 11 x 75 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 11 x 79 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,890 kg

1) A193GR.B7/A194GR.2H

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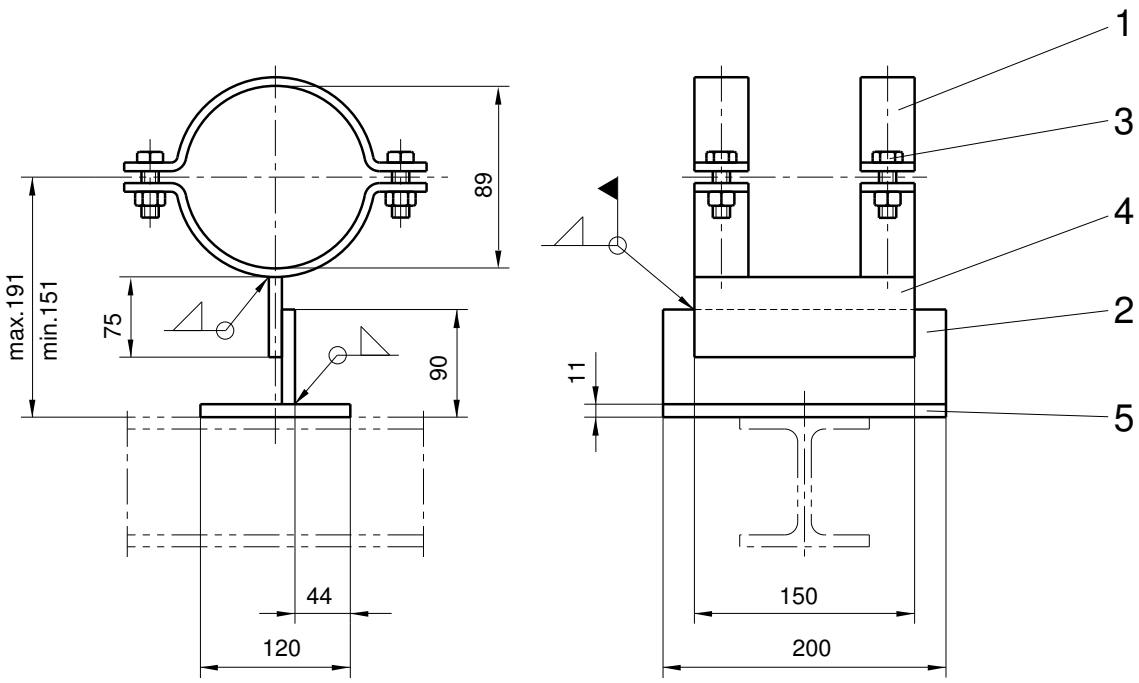
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA220D Marking : 80/151

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 11 x 120 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 11 x 75 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 11 x 79 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 6,230 kg

1) A193GR.B7/A194GR.2H

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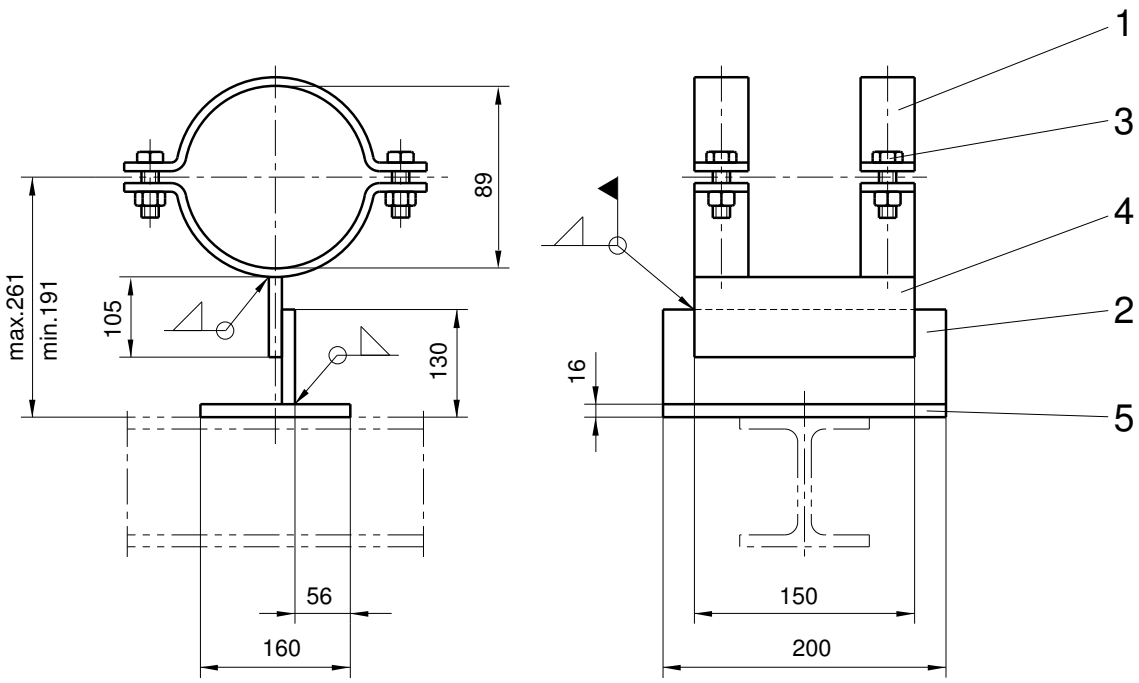
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA220D Marking : 80/191

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 16 x 160 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 16 x 105 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 16 x 114 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,680 kg

1) A193GR.B7/A194GR.2H

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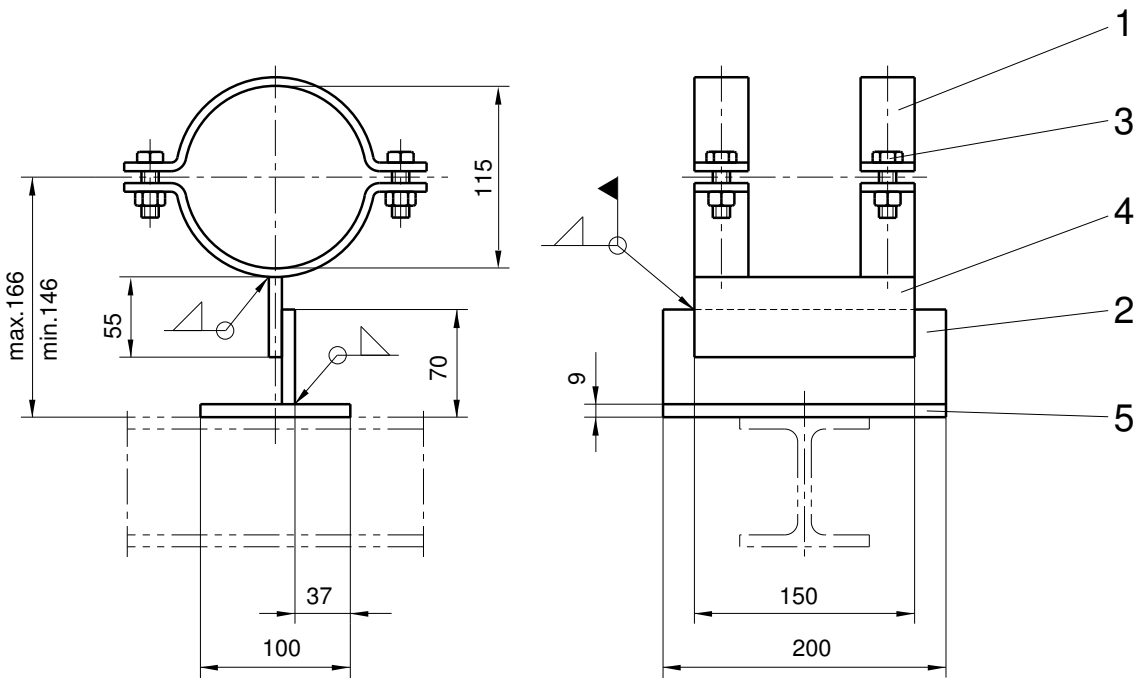
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA220D Marking : 100/146

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 9 x 100 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 6,820 kg

1) A193GR.B7/A194GR.2H

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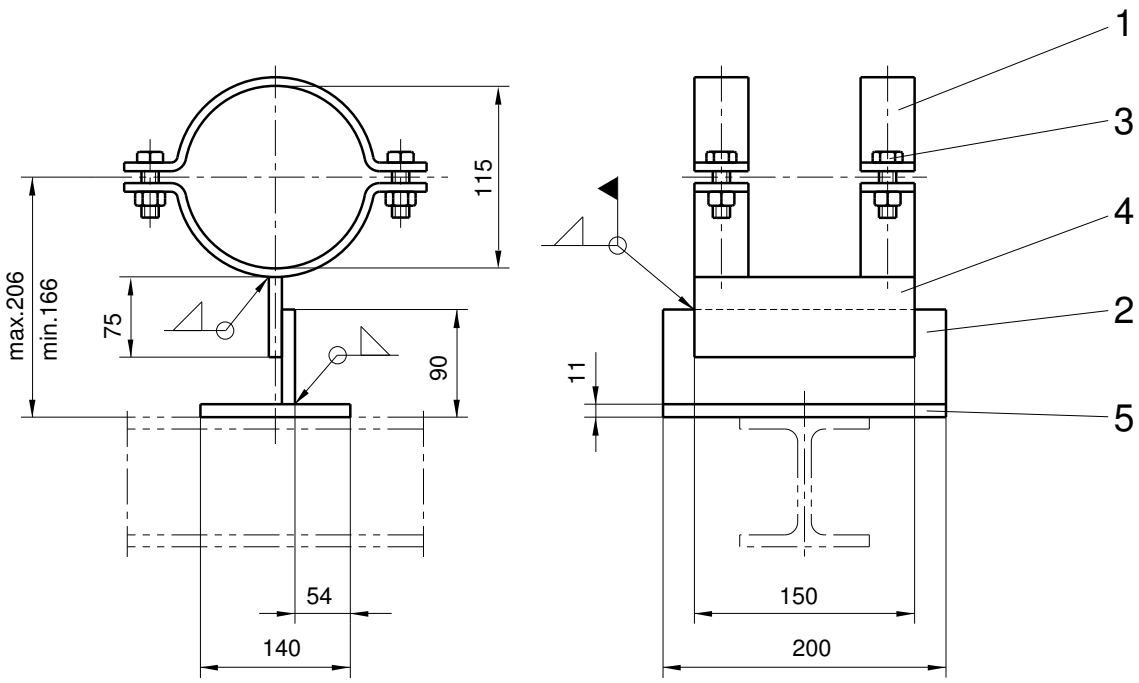
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACA220D Marking : 100/166

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 11 x 140 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 11 x 75 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 11 x 79 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,710 kg

1) A193GR.B7/A194GR.2H

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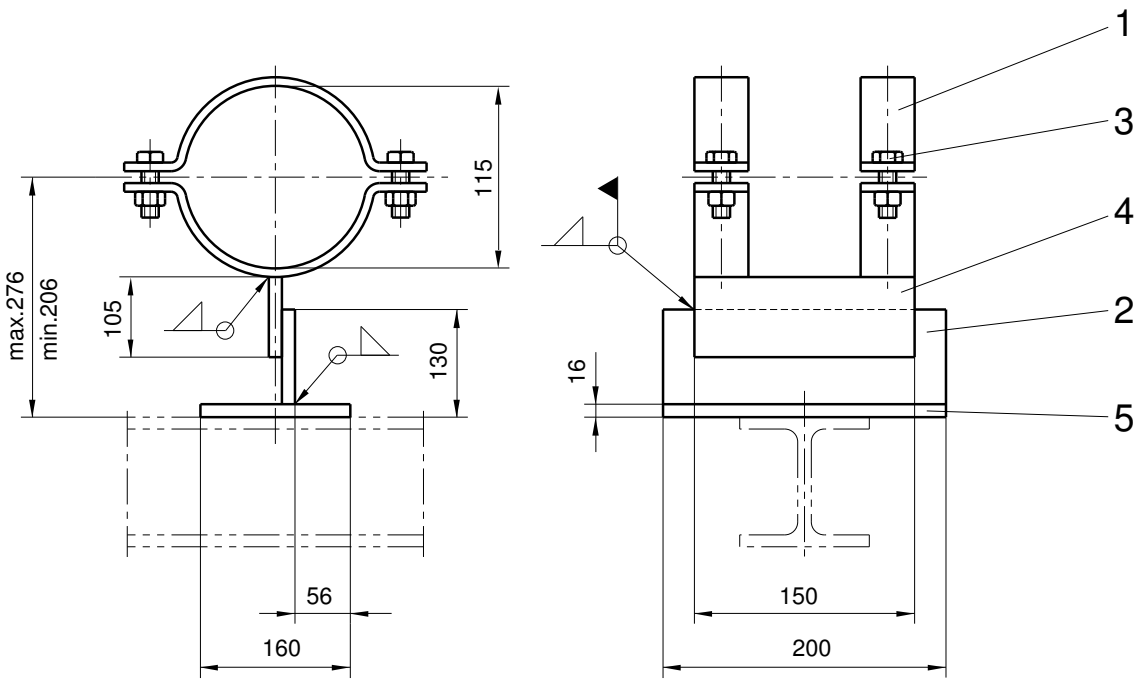
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA220D Marking : 100/206

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 16 x 160 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 16 x 105 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 16 x 114 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 12,820 kg

1) A193GR.B7/A194GR.2H

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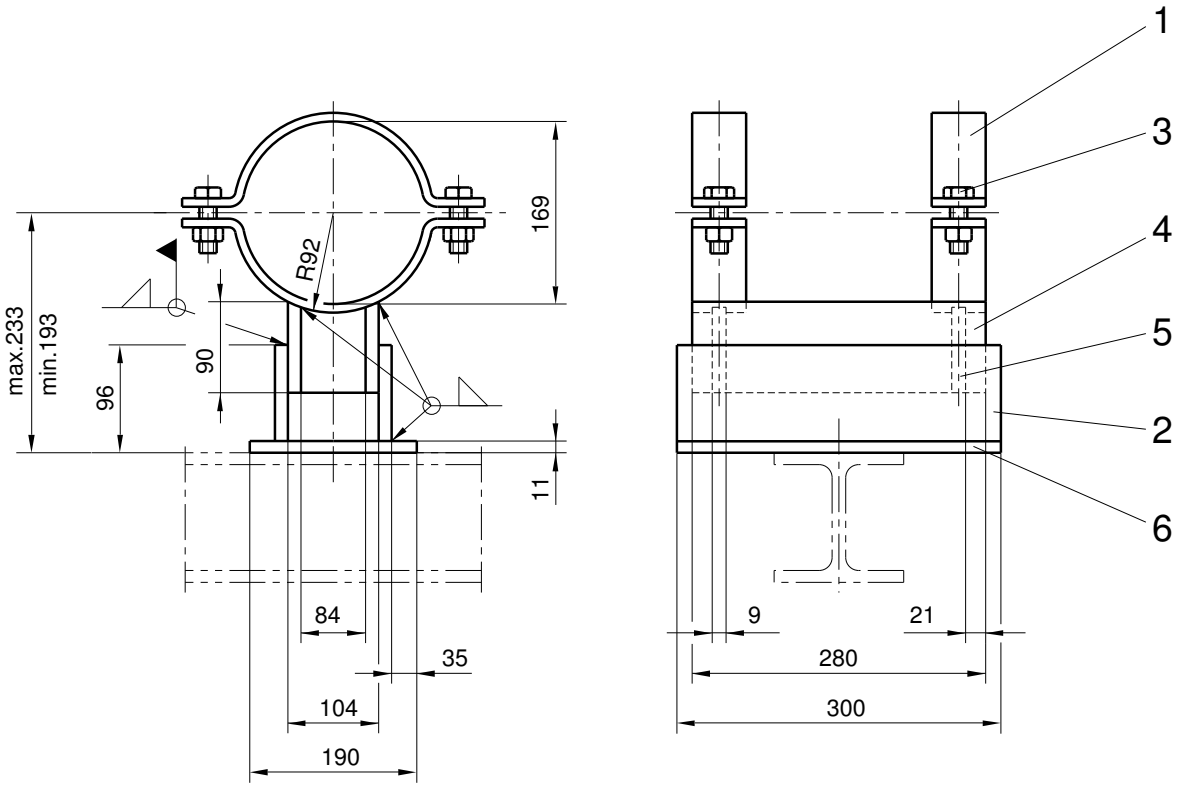
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 150/193

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 85	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 90 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 85 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 18,190 kg

1) A193GR.B7/A194GR.2H

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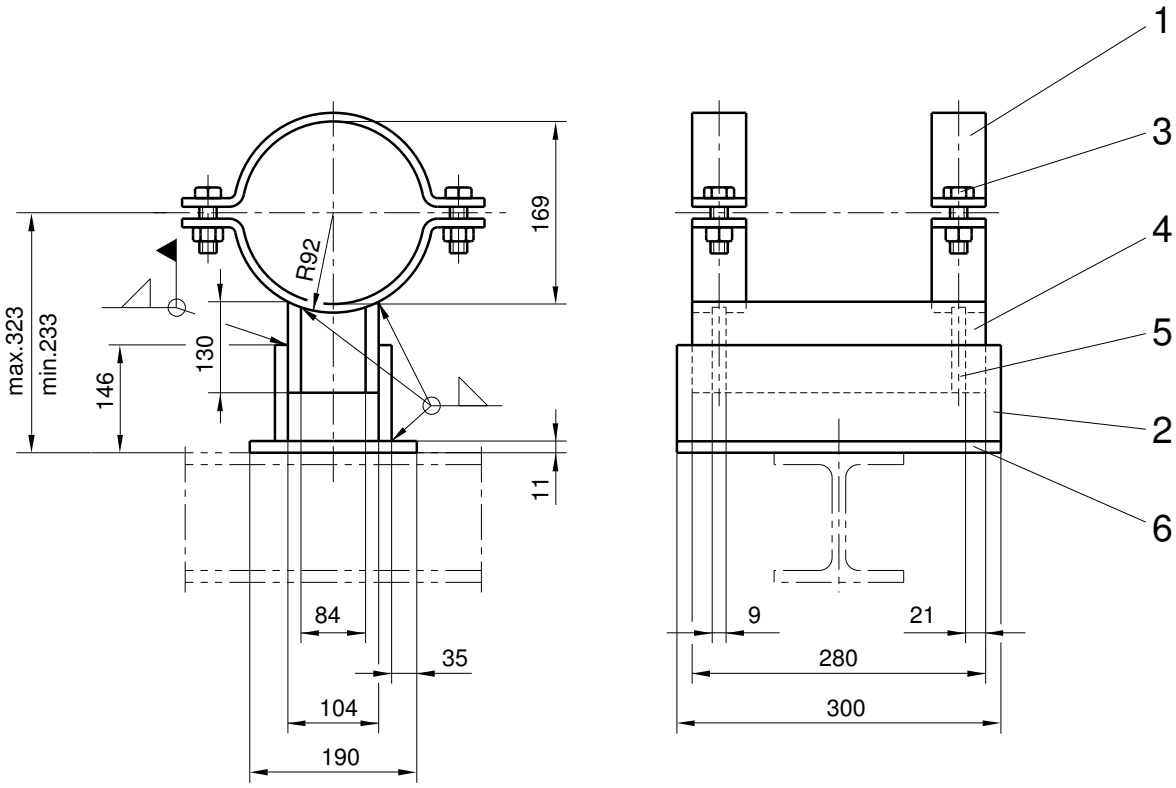
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 150/233

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 125	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 130 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 135 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 22,370 kg

1) A193GR.B7/A194GR.2H

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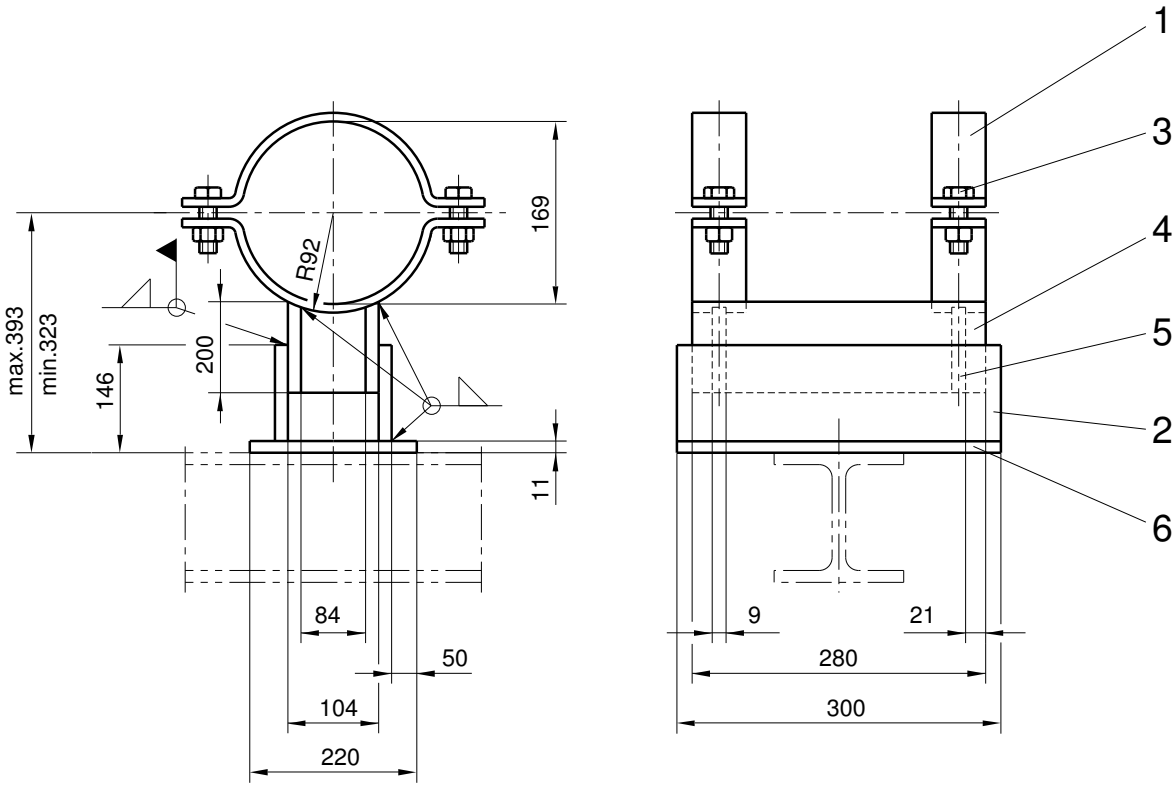
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 150/323

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 220 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 195	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 200 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 135 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 26,750 kg

1) A193GR.B7/A194GR.2H

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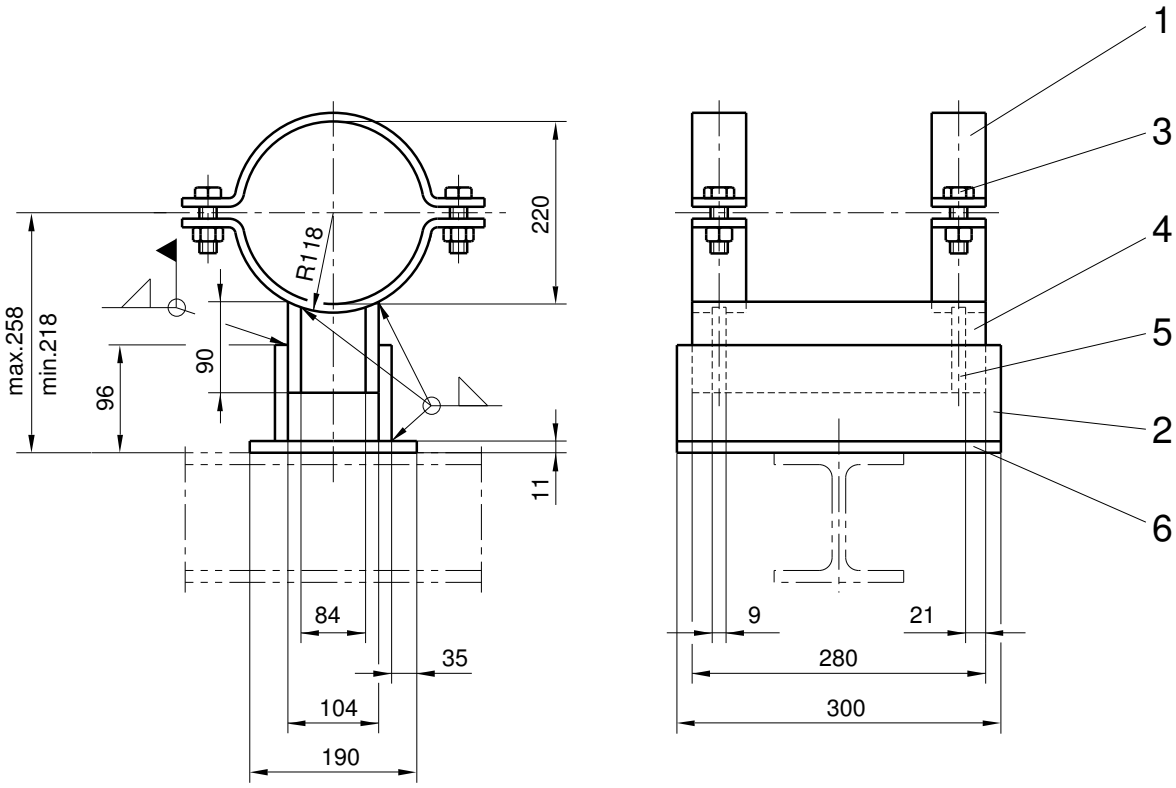
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 200/218

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 86	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 90 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 85 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,190 kg

1) A193GR.B7/A194GR.2H

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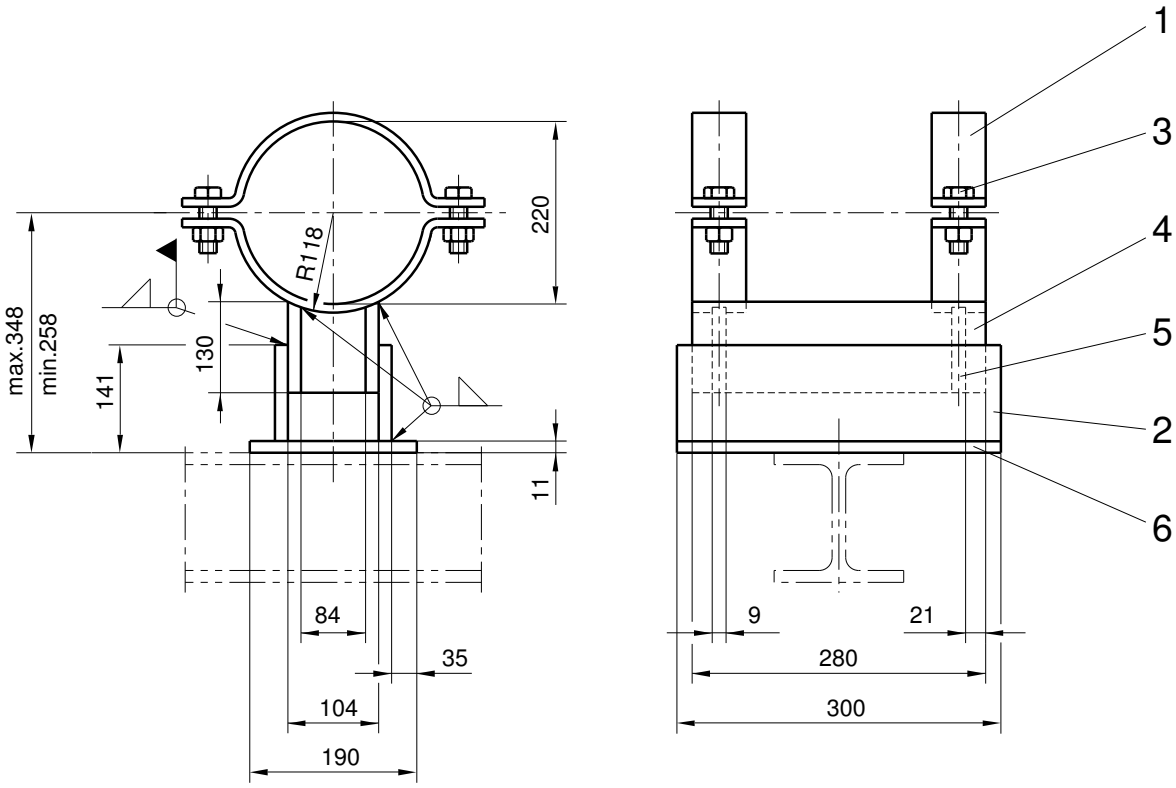
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 200/258

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 126	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 130 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 130 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 23,160 kg

1) A193GR.B7/A194GR.2H

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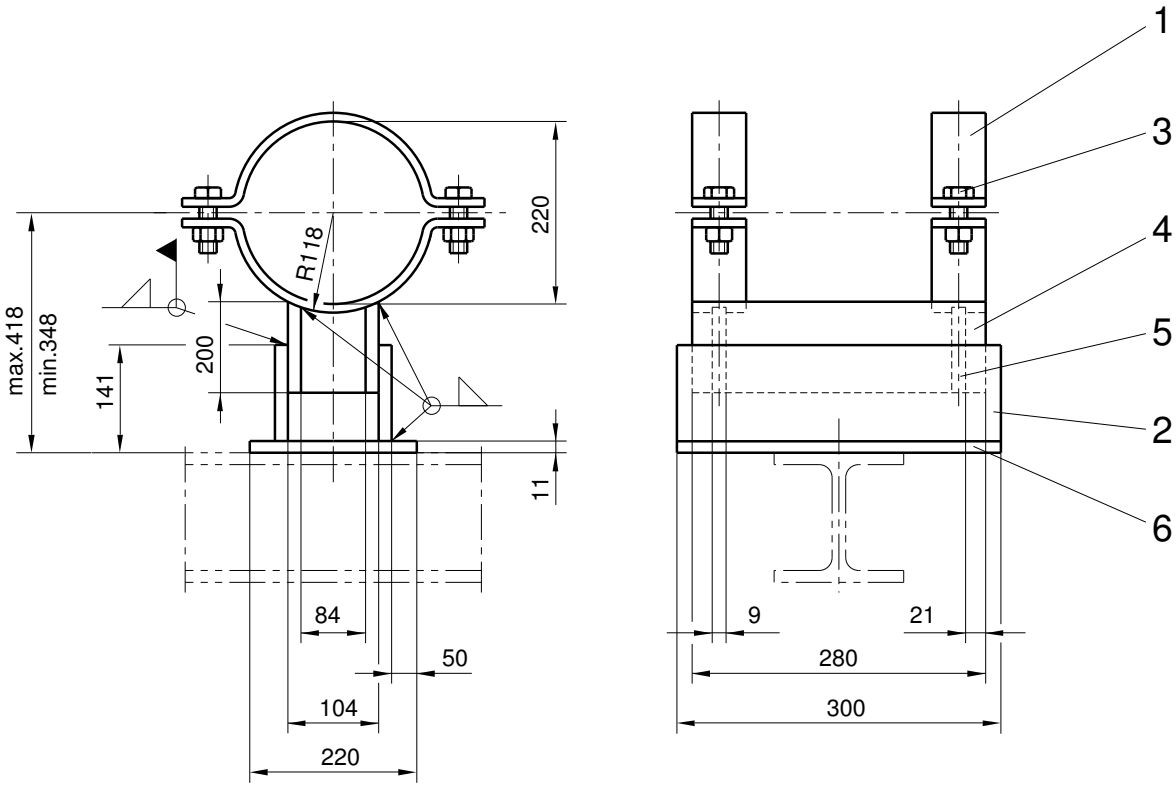
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 200/348

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 220 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 196	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 200 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 130 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 27,540 kg

1) A193GR.B7/A194GR.2H

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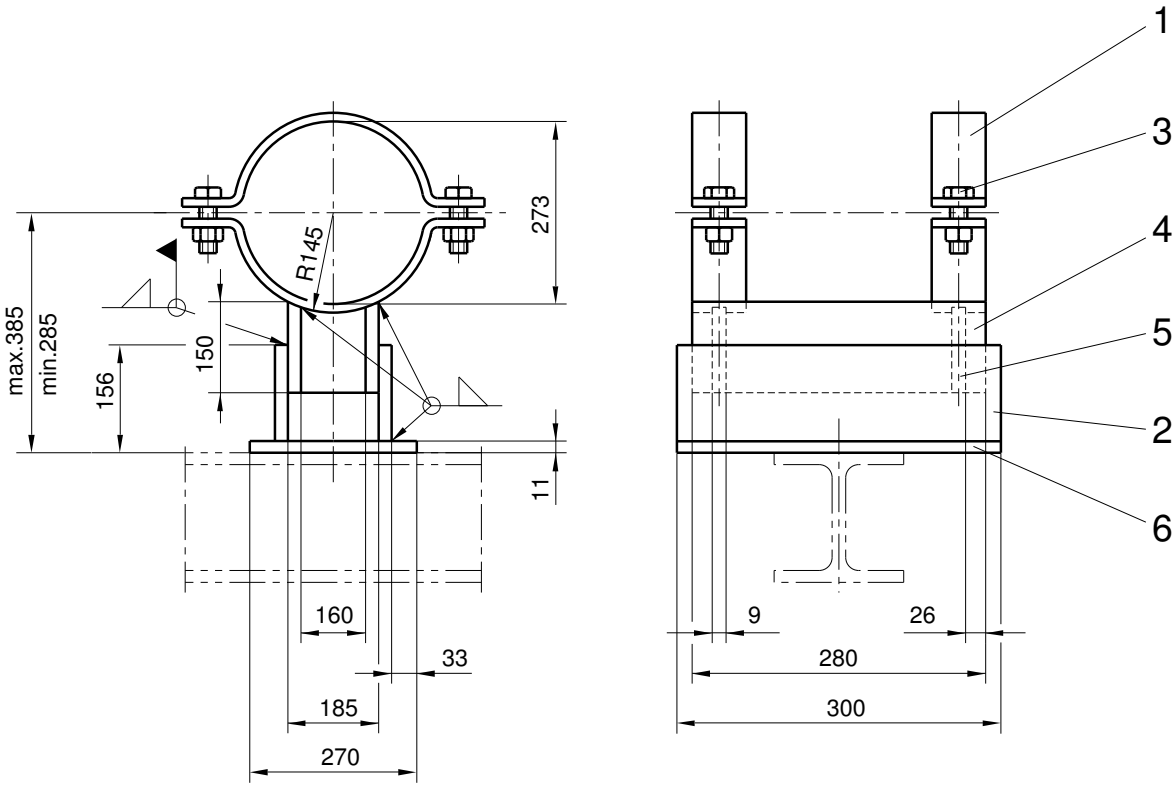
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 250/285

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 270 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 160 x 142	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 150 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 145 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 34,250 kg

1) A193GR.B7/A194GR.2H

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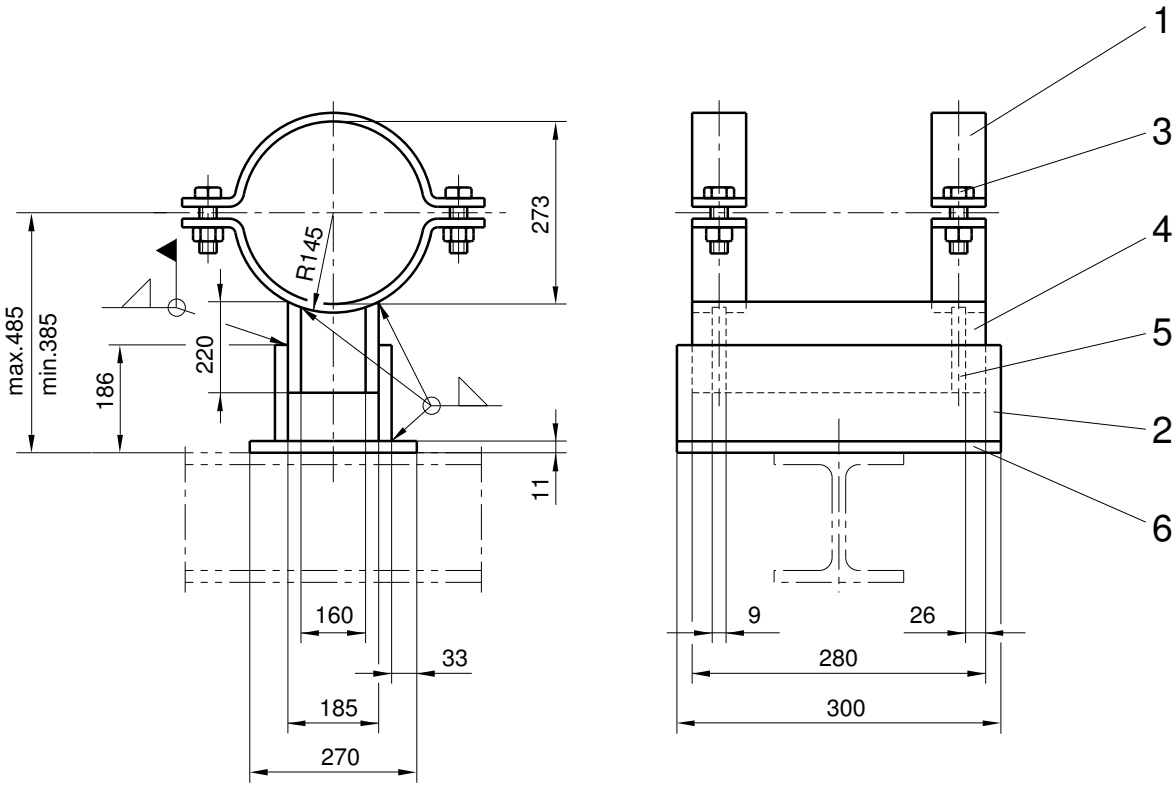
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 250/385

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 270 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 160 x 212	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 220 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 175 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 40,770 kg

1) A193GR.B7/A194GR.2H

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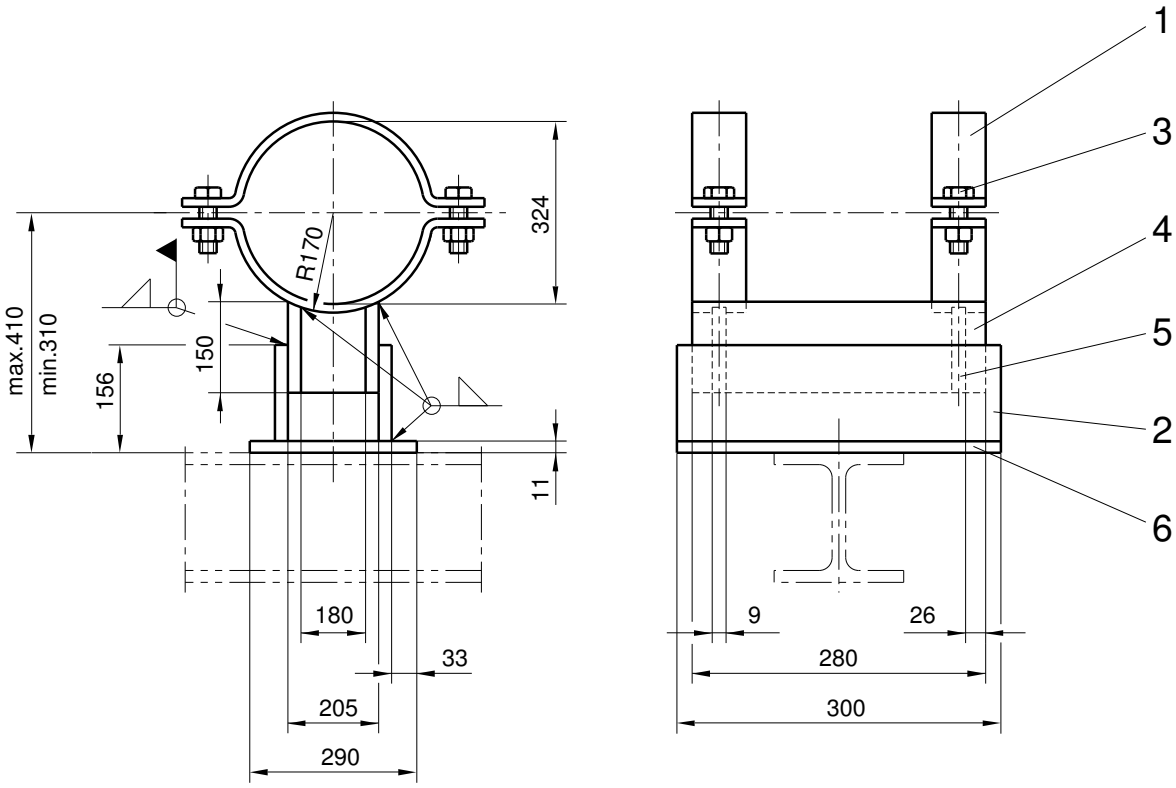
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 300/310

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 290 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 180 x 143	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 150 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 145 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 36,410 kg

1) A193GR.B7/A194GR.2H

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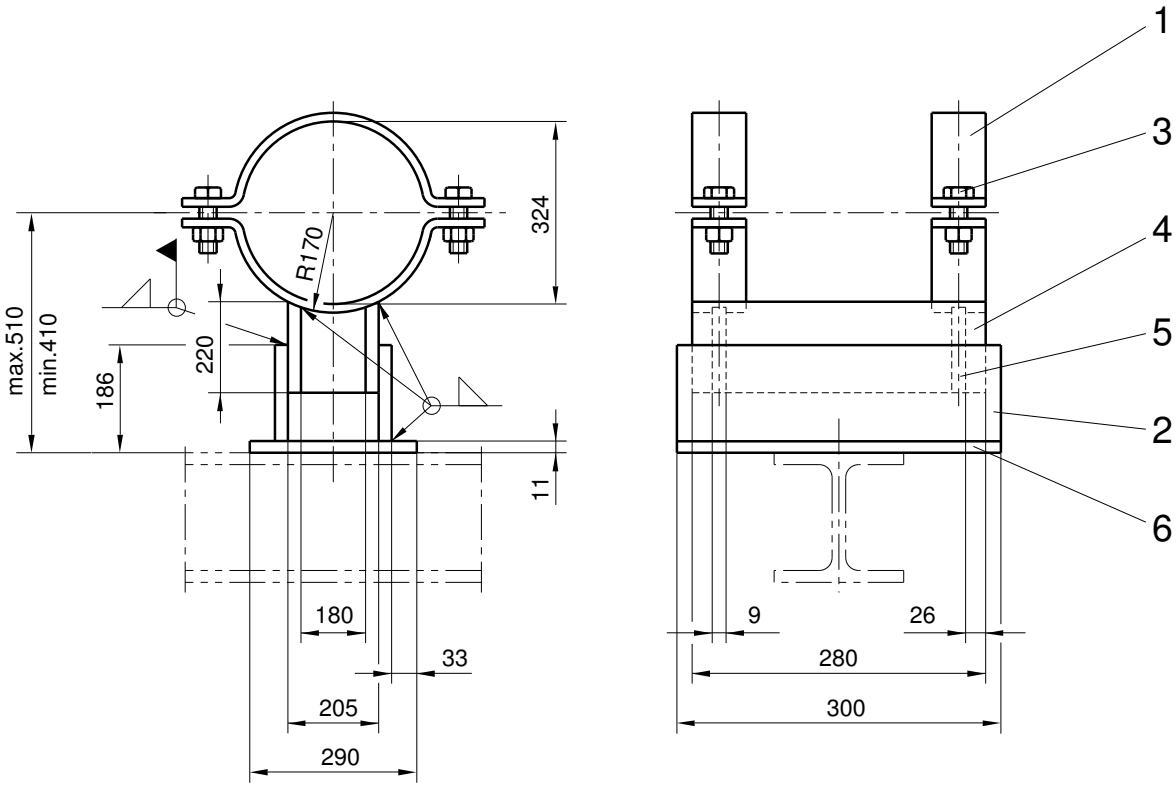
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 300/410

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 290 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 180 x 213	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 220 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 175 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 43,130 kg

1) A193GR.B7/A194GR.2H

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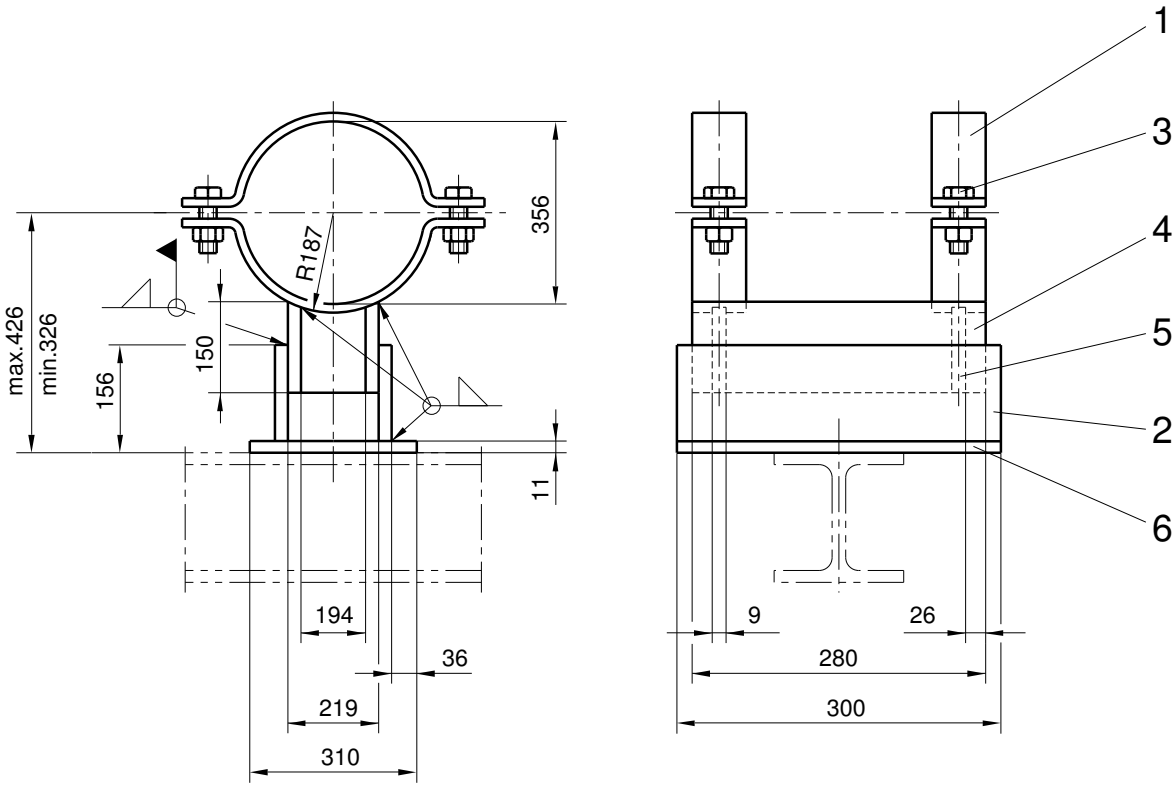
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 350/326

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 11 x 310 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 194 x 143	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 150 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 145 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 356	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 37,990 kg

1) A193GR.B7/A194GR.2H

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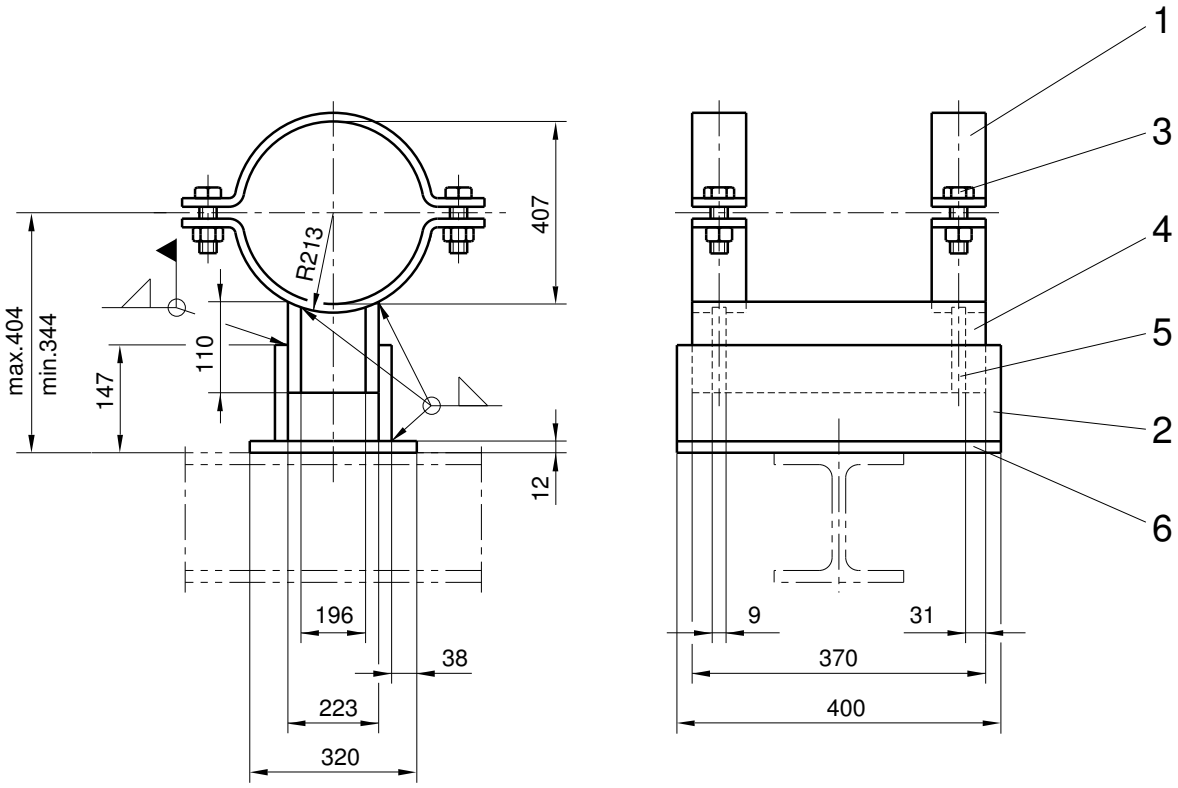
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 400/344

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 196 x 104	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 110 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 135 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 51,670 kg

1) A193GR.B7/A194GR.2H

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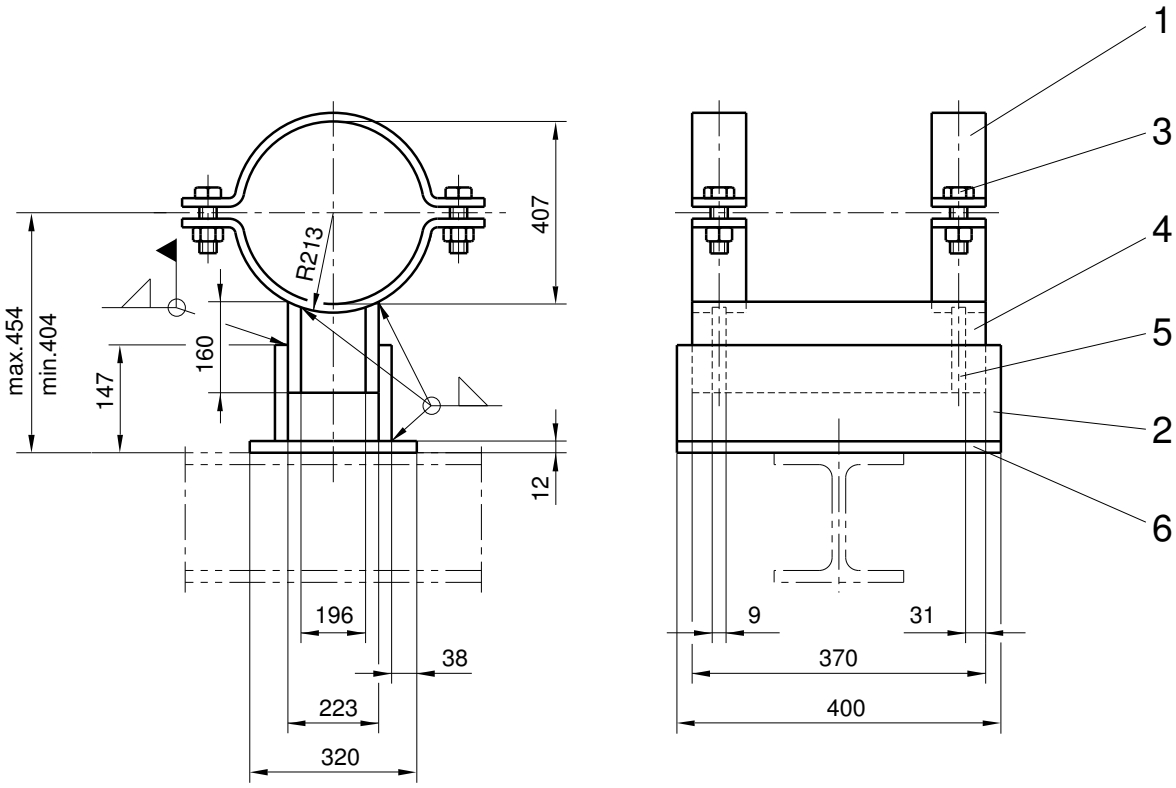
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 400/404

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 196 x 154	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 160 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 135 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 56,540 kg

1) A193GR.B7/A194GR.2H

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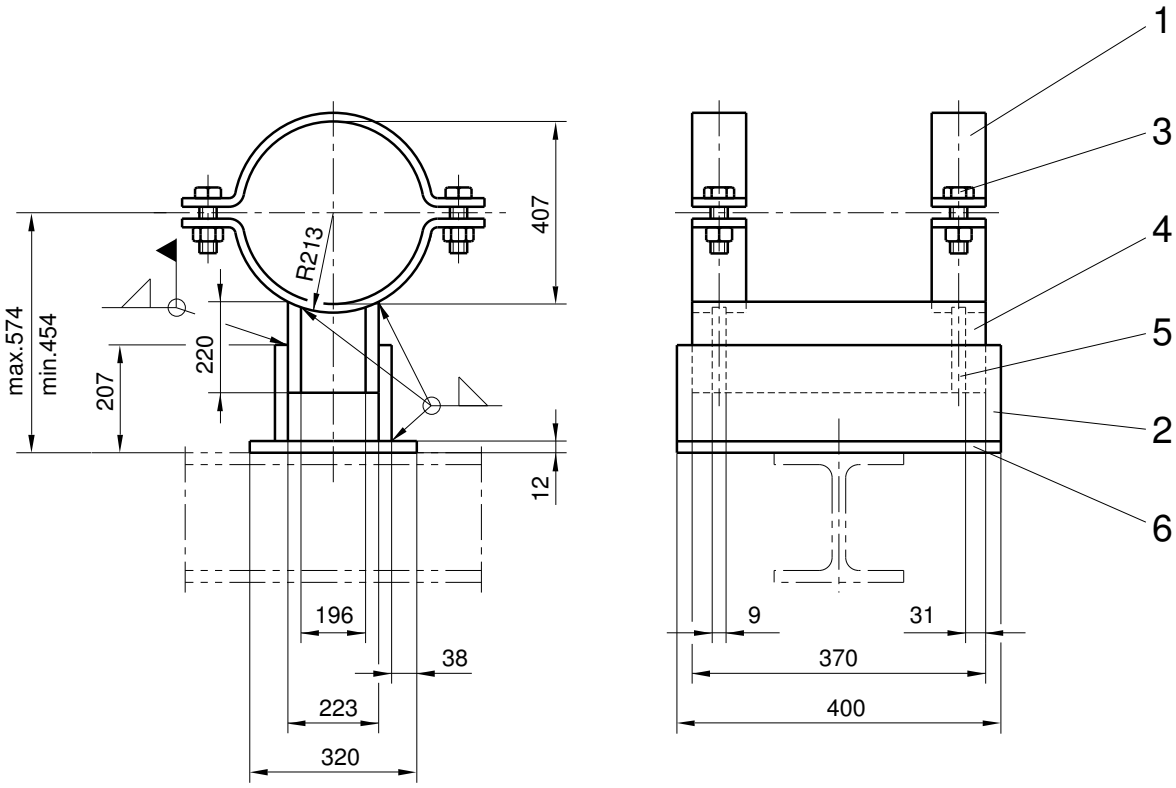
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 400/454

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 196 x 214	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 220 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 195 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 66,900 kg

1) A193GR.B7/A194GR.2H

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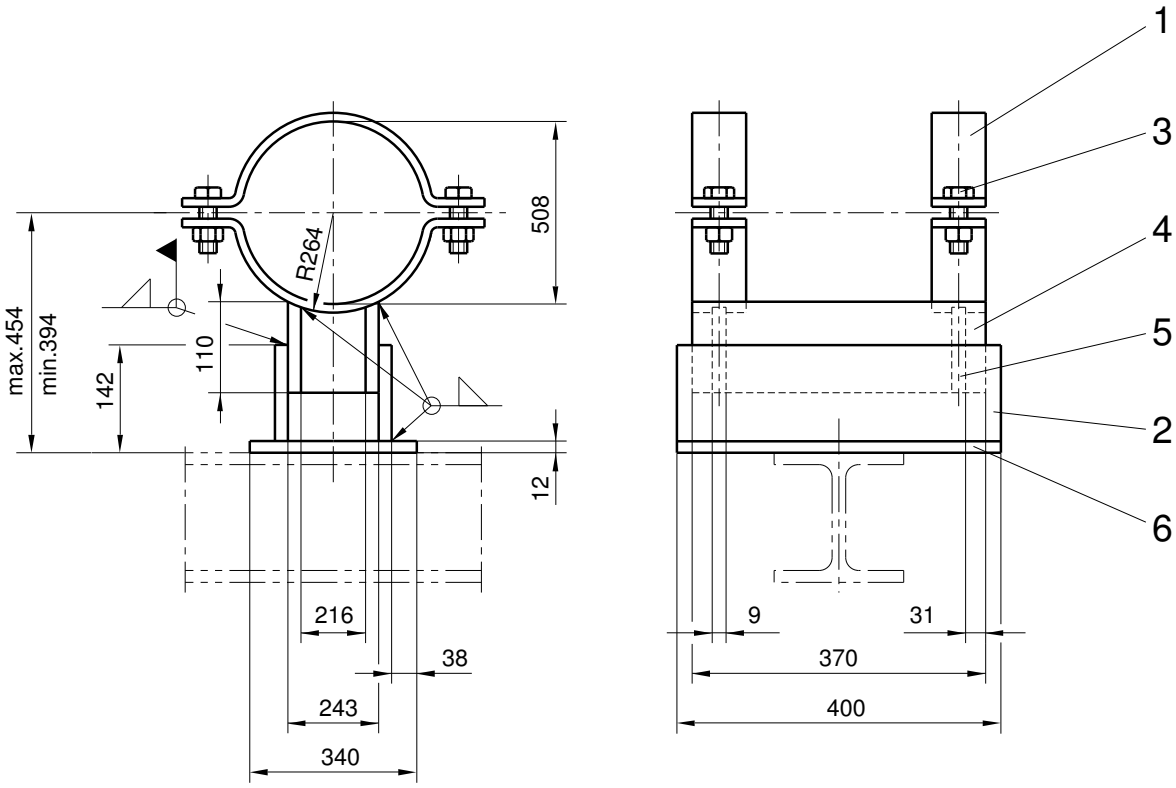
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 500/394

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 12 x 340 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 216 x 105	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 110 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 130 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 55,850 kg

1) A193GR.B7/A194GR.2H

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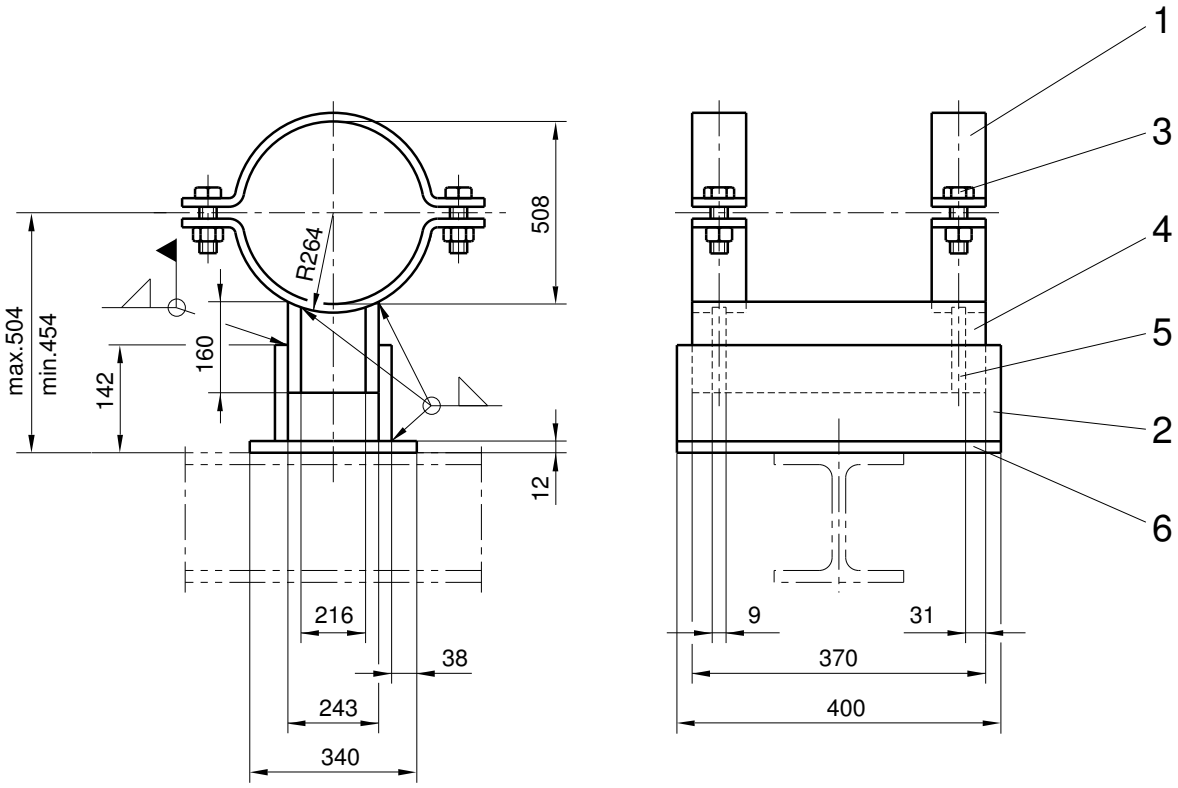
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA221D Marking : 500/454

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 12 x 340 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 216 x 155	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 160 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 130 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 60,860 kg

1) A193GR.B7/A194GR.2H

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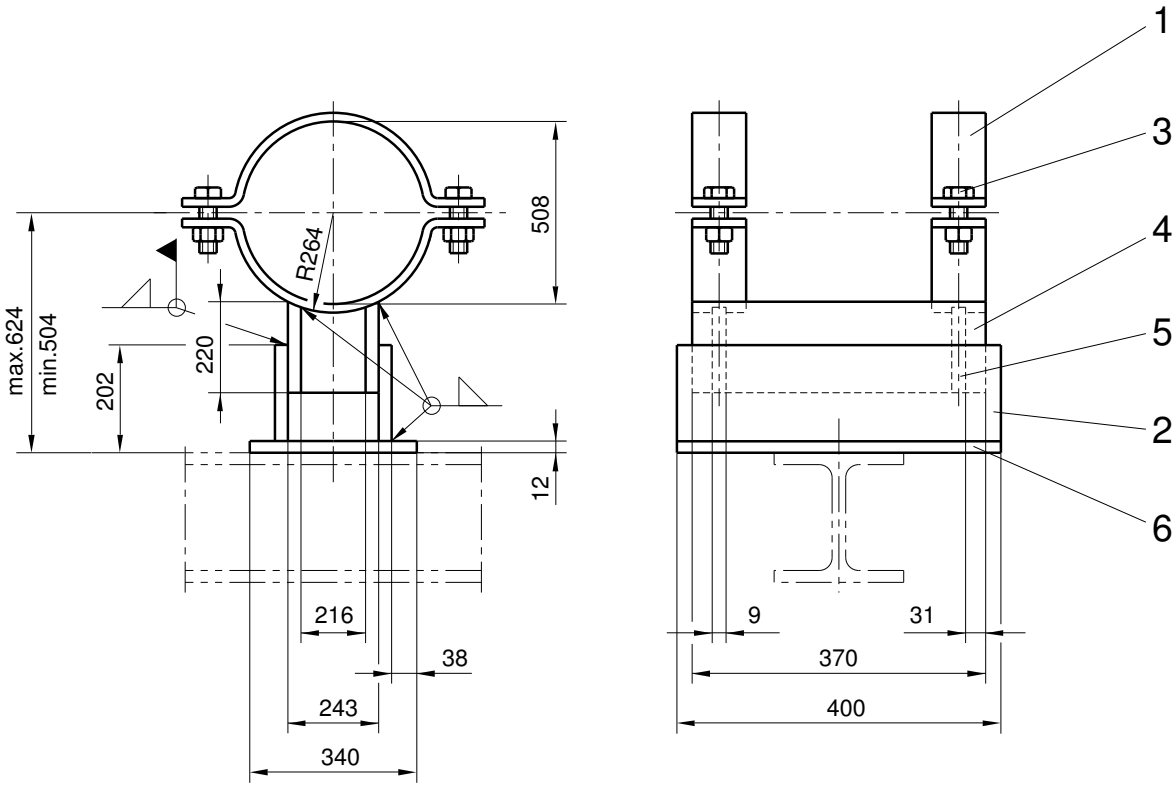
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACA221D Marking : 500/504

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 12 x 340 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 216 x 215	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 220 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 190 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 71,400 kg

1) A193GR.B7/A194GR.2H

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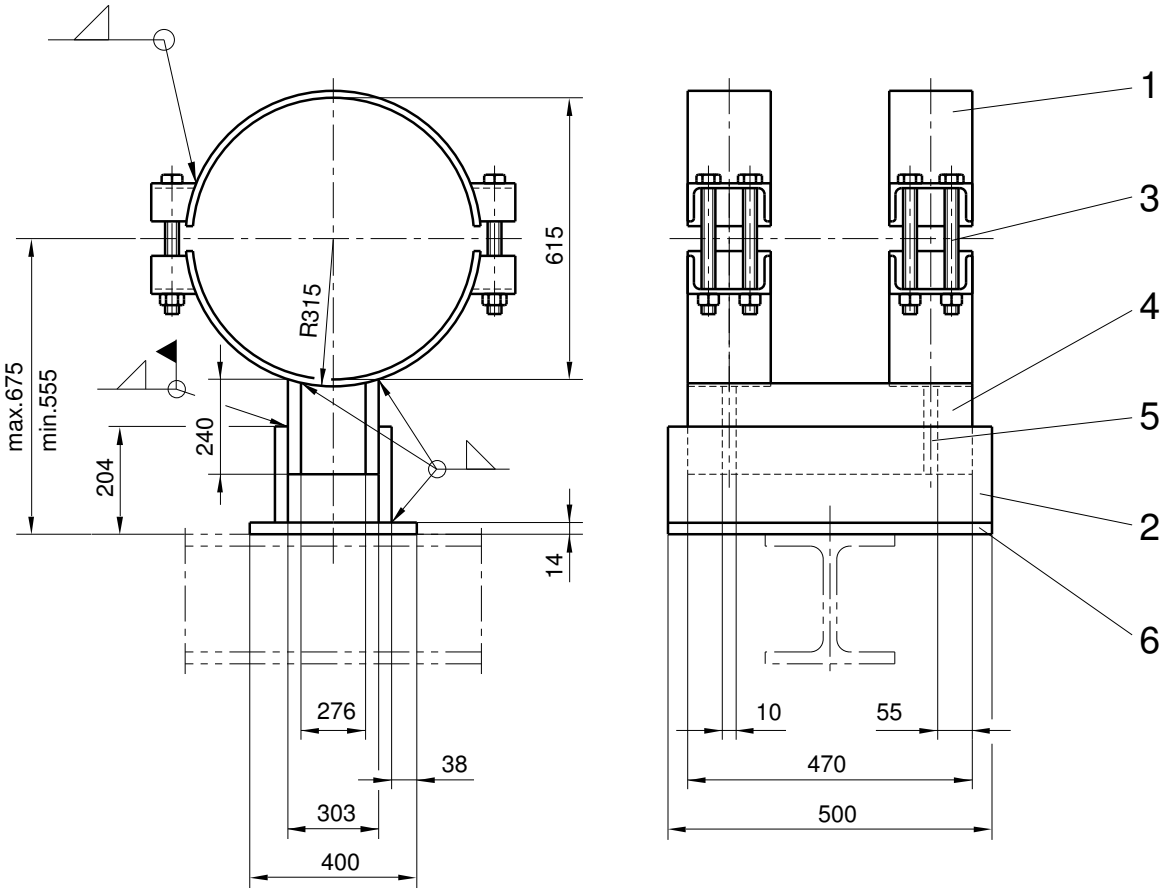
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA222D Marking : 600/555

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 14 x 400 x 500	EN 10029	A283GR.B	GB0001D
5	2	PLATE 10 x 276 x 233	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 240 x 470	EN 10029	A283GR.B	GB0001D
3	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 190 x 500	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM U DS 615	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 121,910 kg

1) A193GR.B7/A194GR.2H

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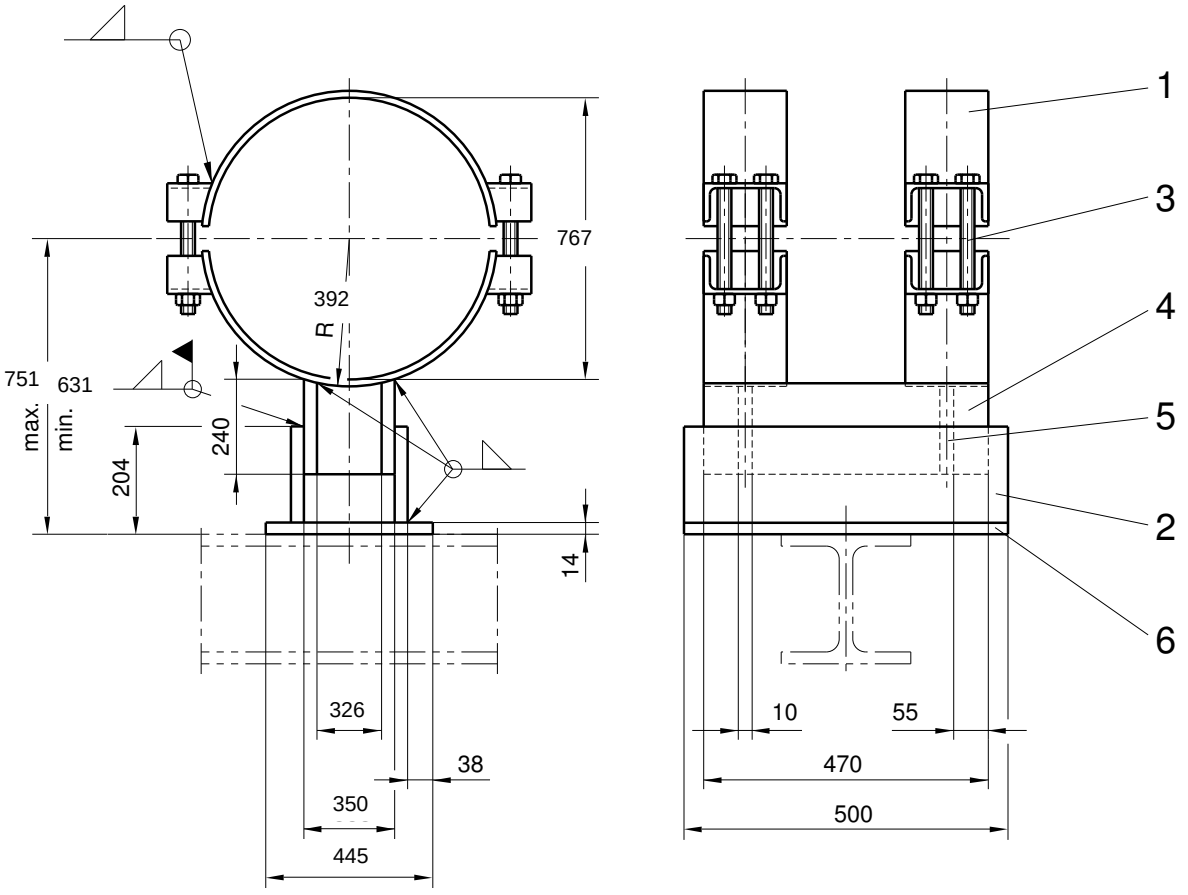
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA222D Marking : 750/631

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	1	PLATE 14x445x500	EN 10029	A283GR.B	GB0001D
5	2	PLATE 10x326x235	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 240 x 470	EN 10029	A283GR.B	GB0001D
3	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 190 x 500	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM U DS 767	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 131,170 kg

1) A193GR.B7/A194GR.2H

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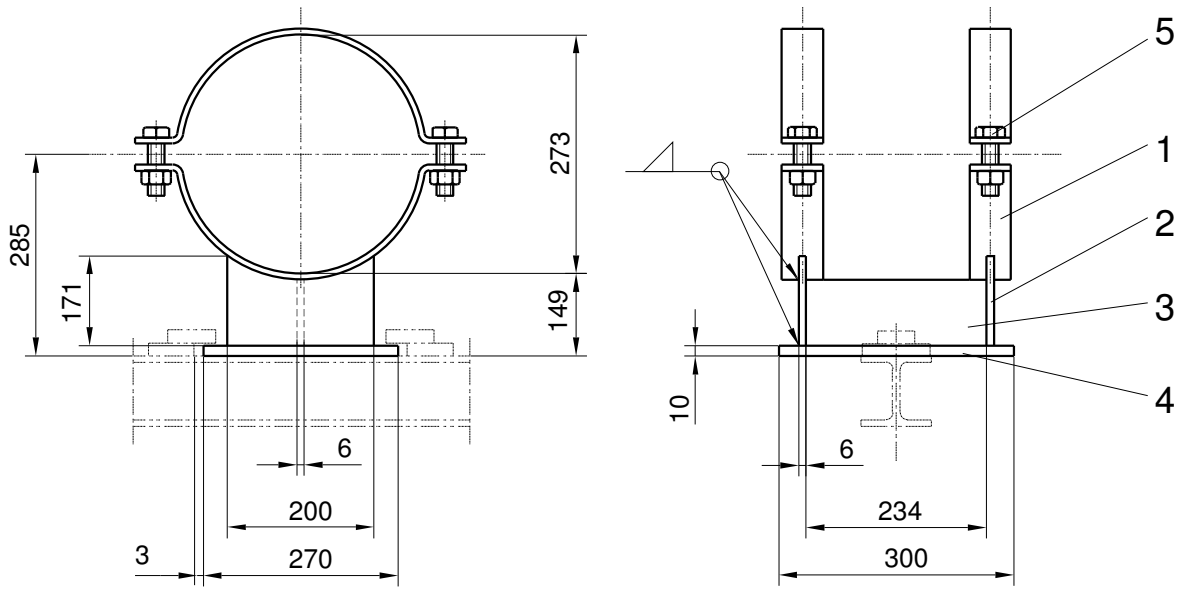
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB005D Marking : 250/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 270 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 131 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 171 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,100 kg

1) A193GR.B7/A194GR.2H

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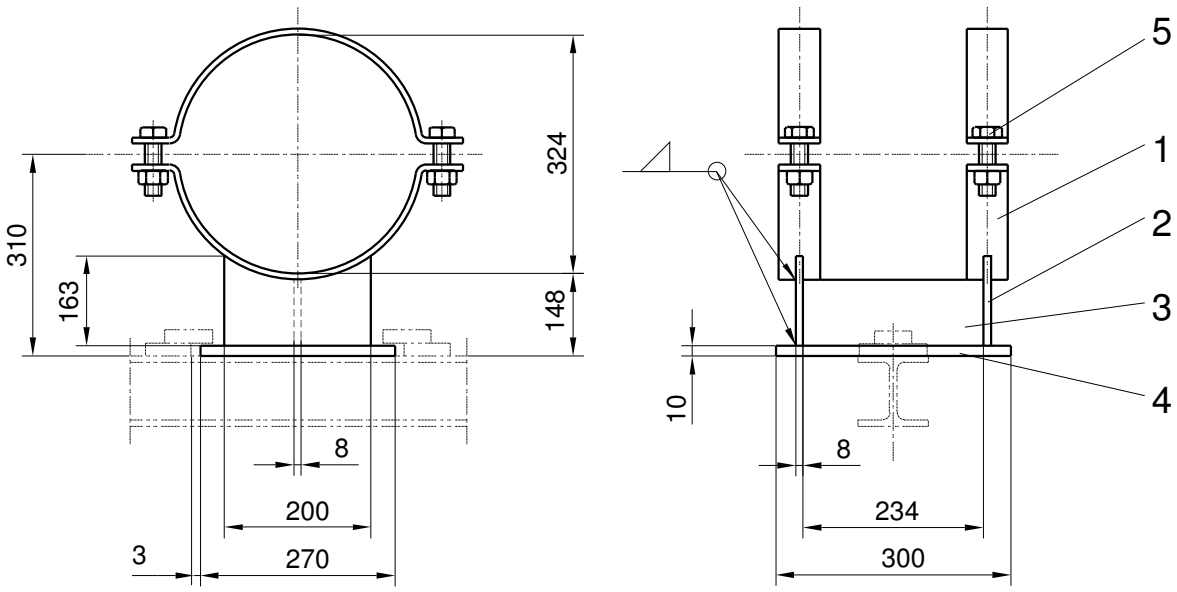
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB005D Marking : 300/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 270 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 130 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 163 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 22,630 kg

1) A193GR.B7/A194GR.2H

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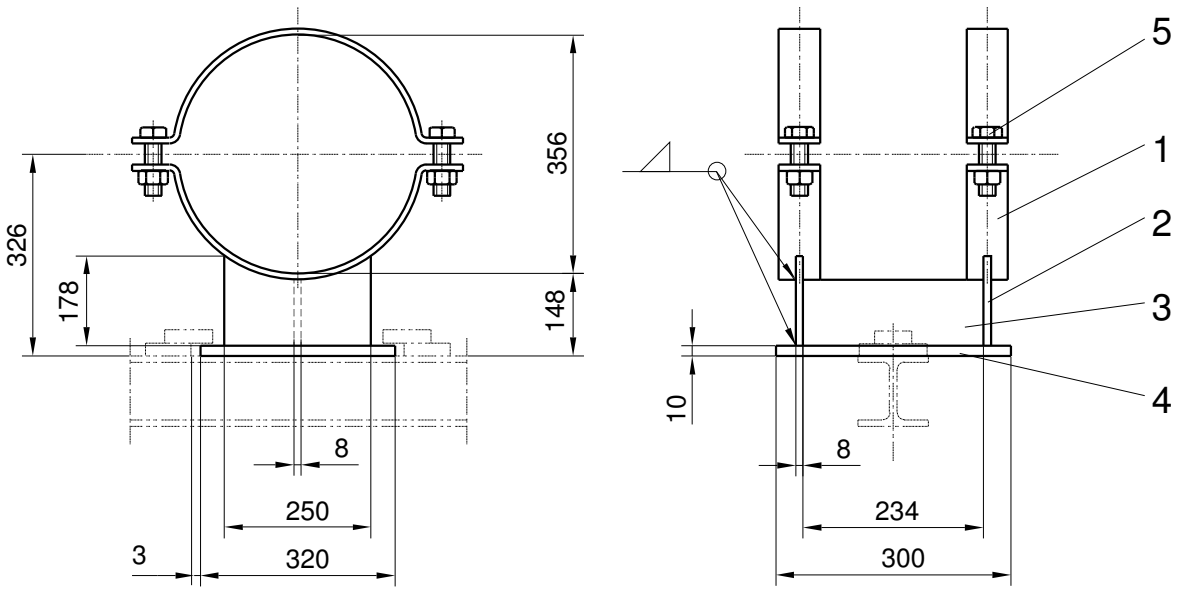
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB005D Marking : 350/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 320 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 130 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 178 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 356	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 26,060 kg

1) A193GR.B7/A194GR.2H

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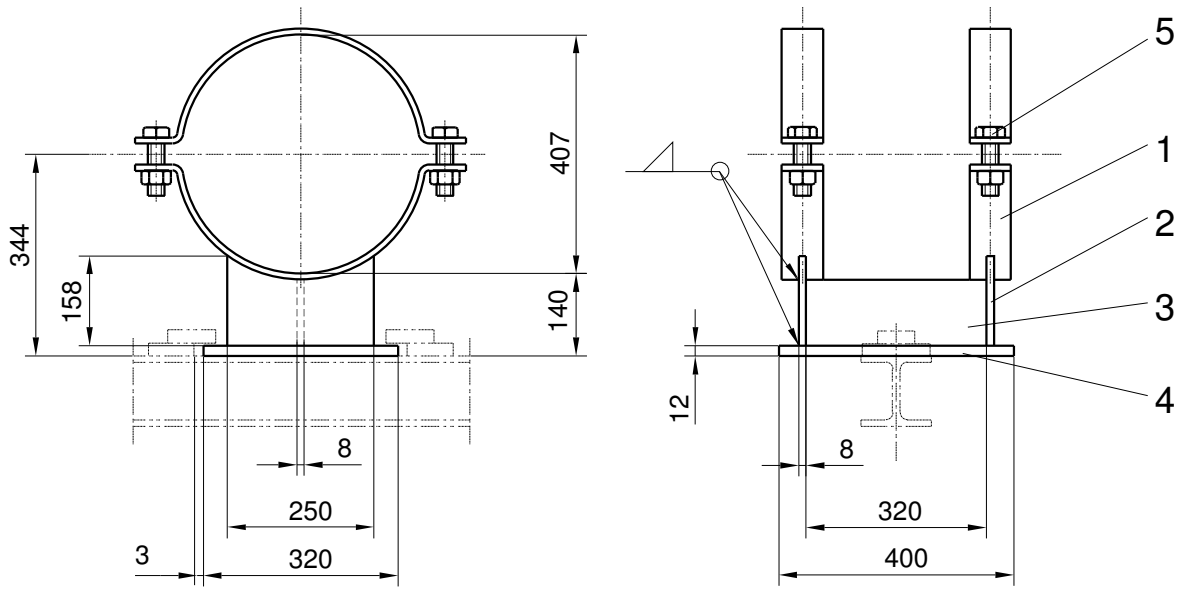
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACB005D Marking : 400/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 158 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 38,080 kg

1) A193GR.B7/A194GR.2H

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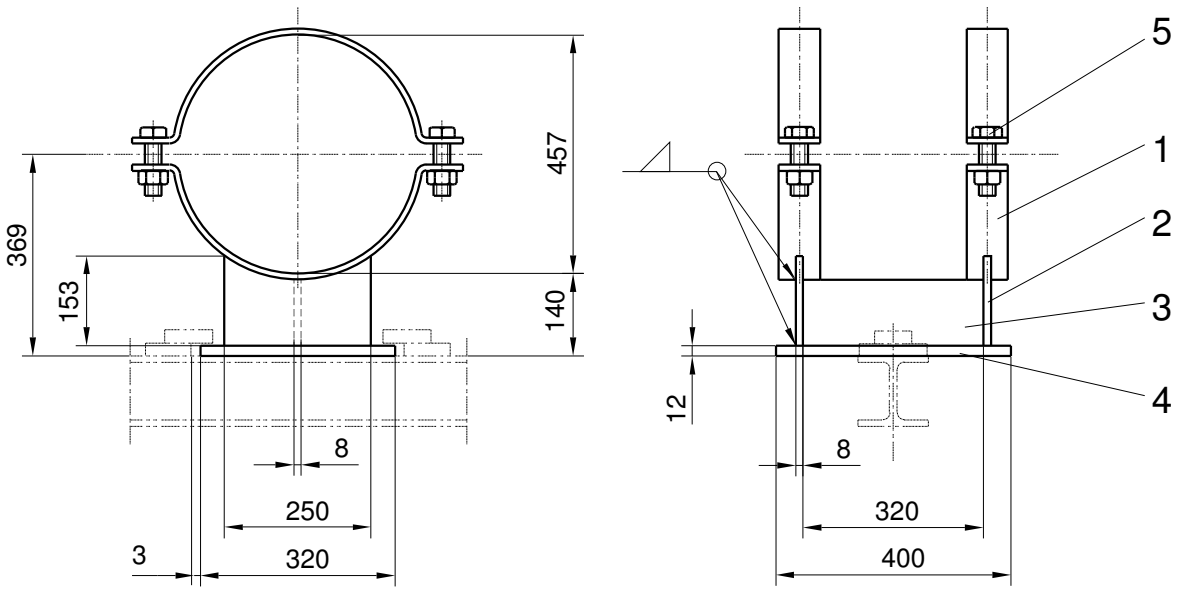
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB005D Marking : 450/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 153 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 457	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 39,640 kg

1) A193GR.B7/A194GR.2H

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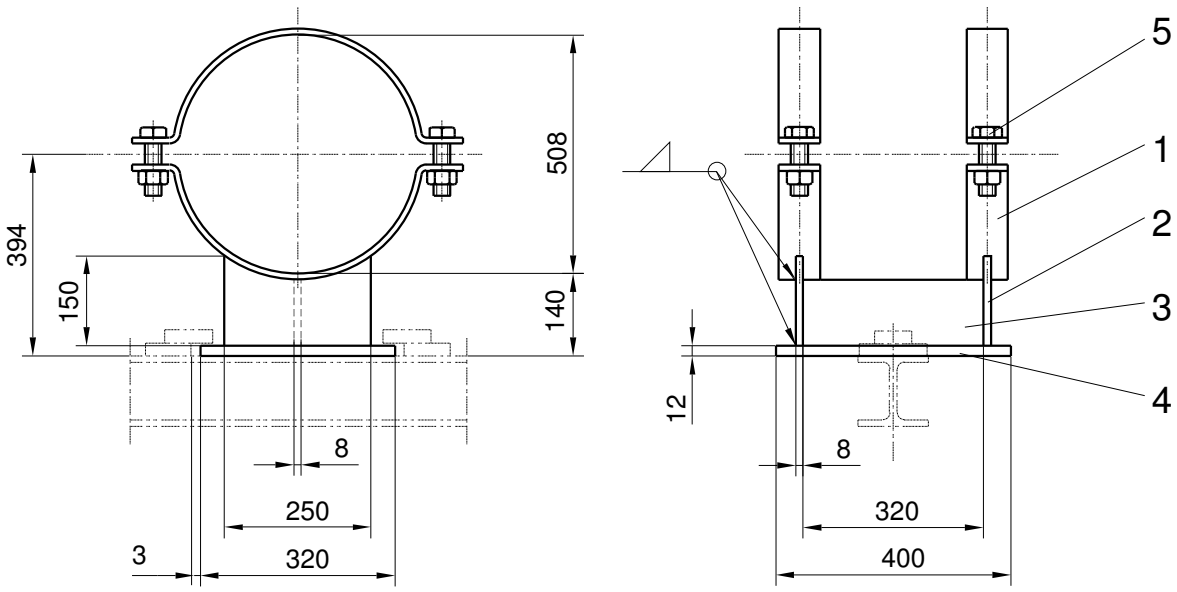
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB005D Marking : 500/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 150 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 41,300 kg

1) A193GR.B7/A194GR.2H

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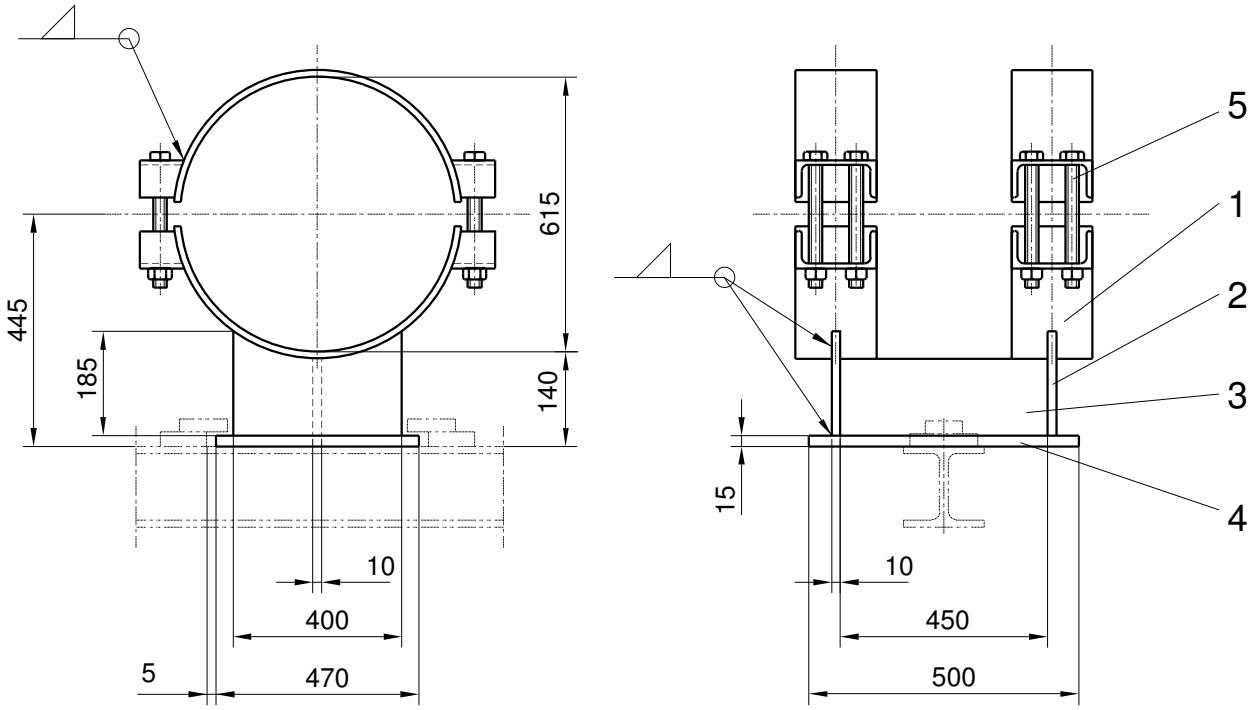
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACB006D Marking : 600/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 470 x 500	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 115 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 185 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 615	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 90,510 kg

1) A193GR.B7/A194GR.2H

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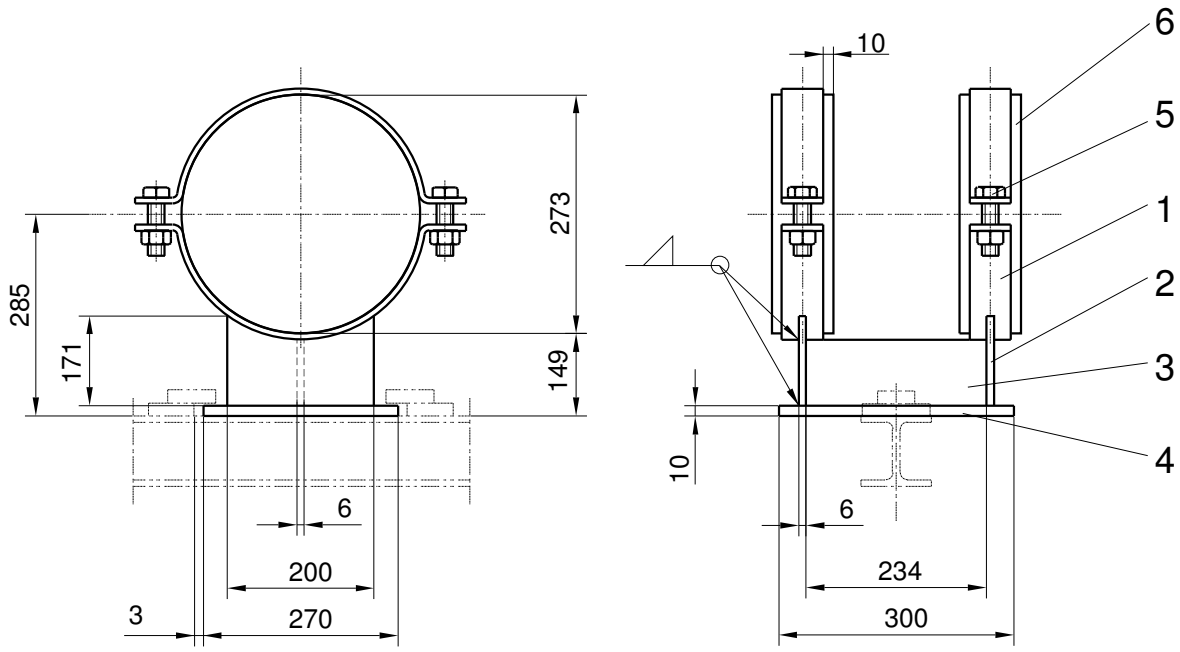
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB055D Marking : 250/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 270 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 131 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 171 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,660 kg

1) A193GR.B7/A194GR.2H

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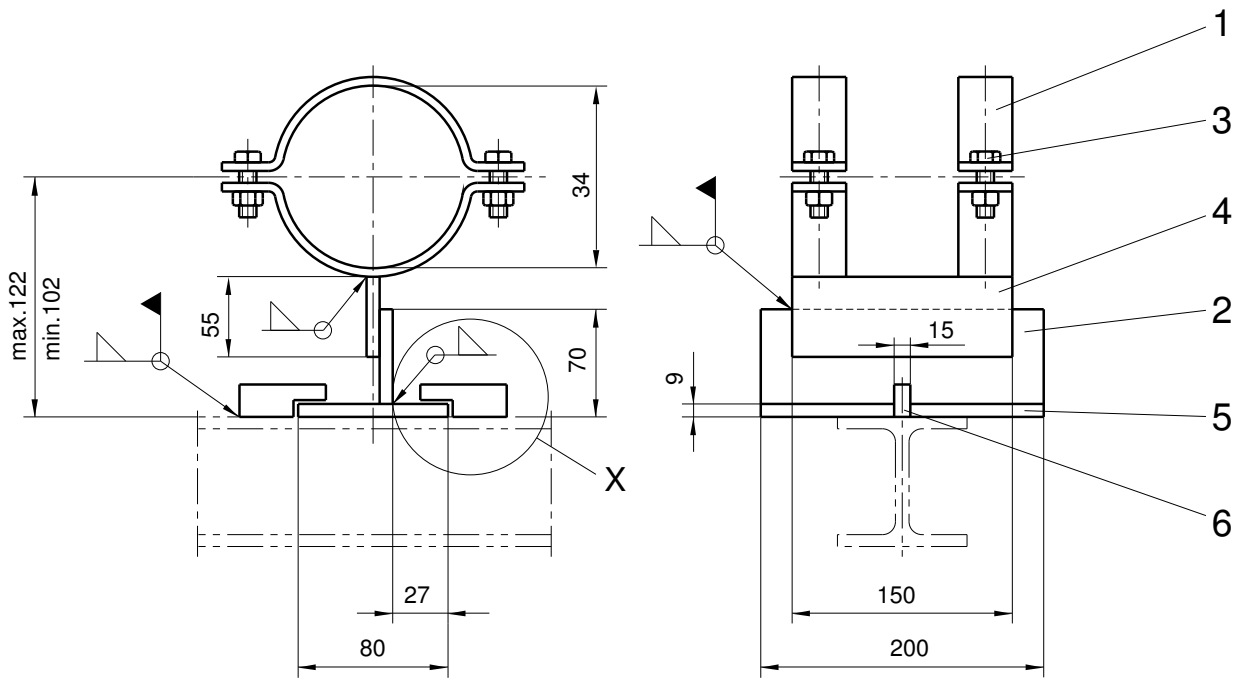
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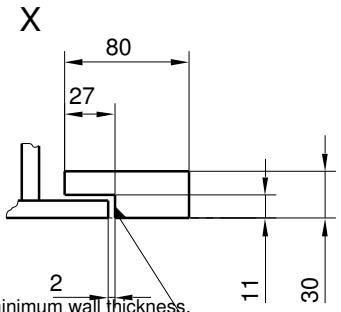
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB220D Marking : 25/102

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
5	1	PLATE 9 x 80 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,160 kg

1) A193GR.B7/A194GR.2H

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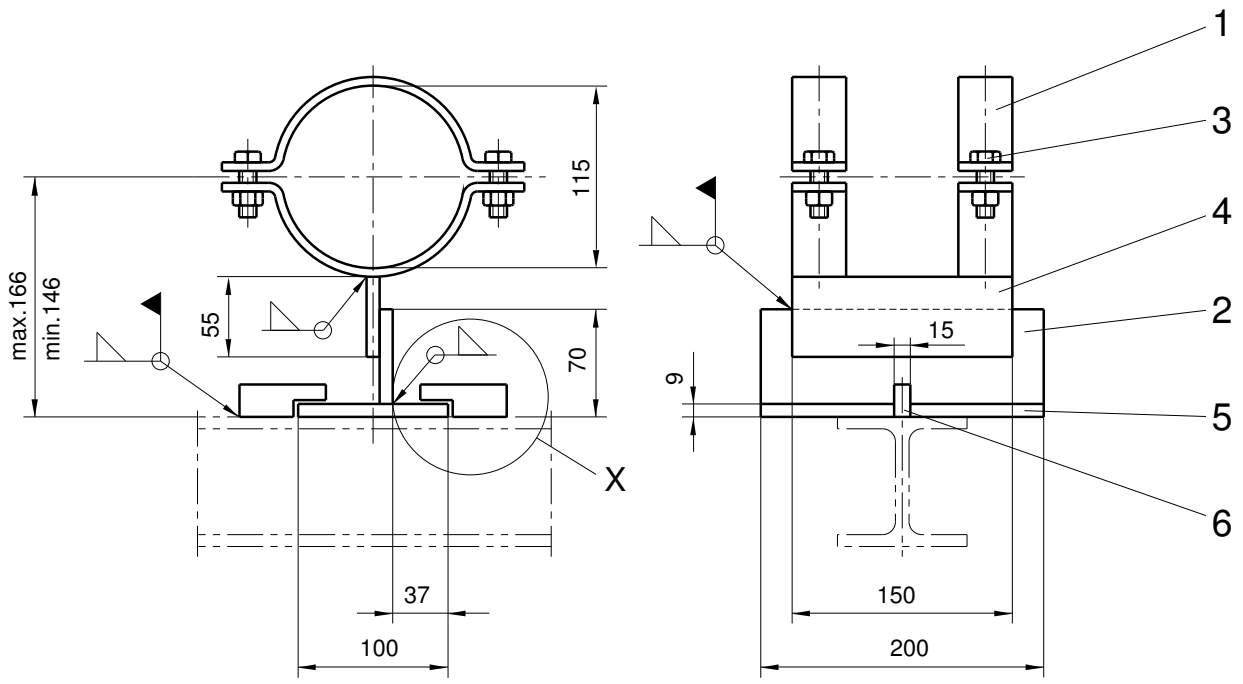
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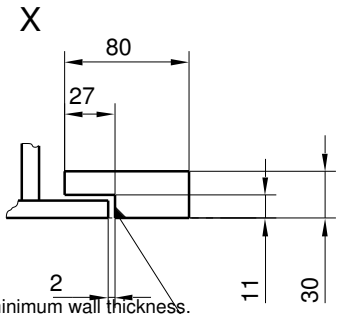
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB220D Marking : 100/146

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
5	1	PLATE 9 x 100 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,420 kg

1) A193GR.B7/A194GR.2H

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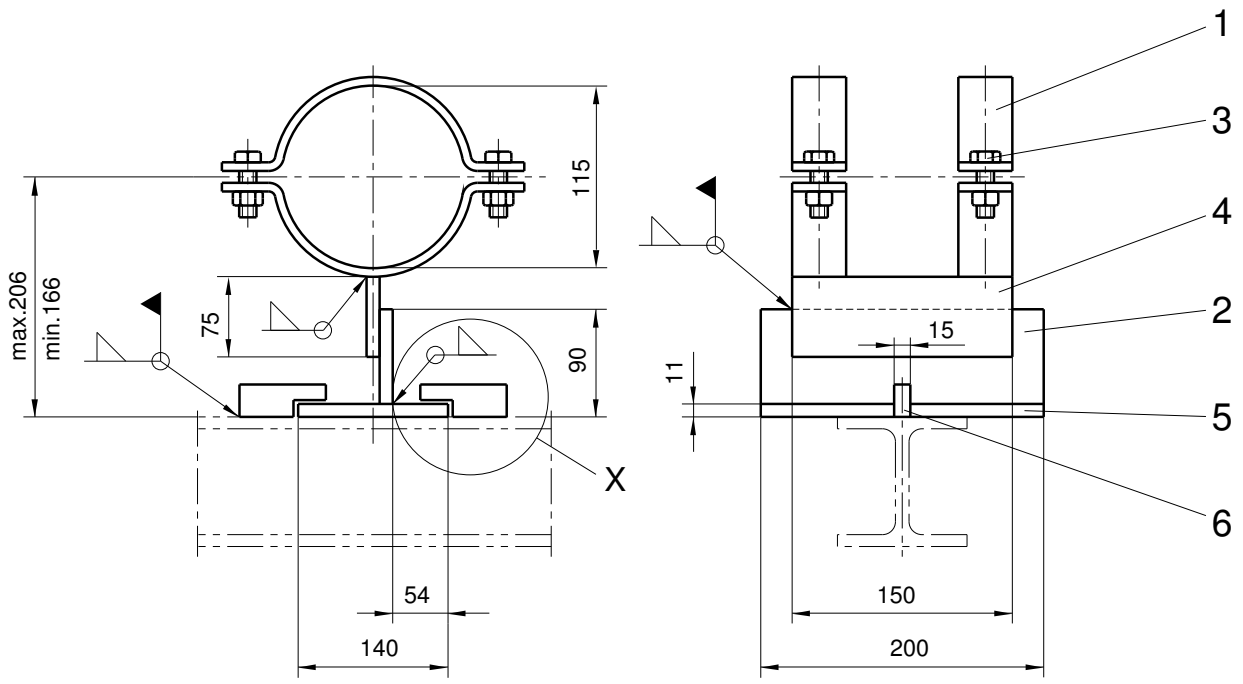
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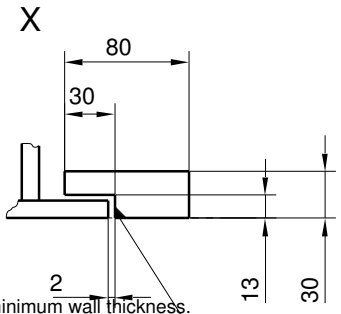
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB220D Marking : 100/166

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
5	1	PLATE 11 x 140 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 11 x 75 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 11 x 79 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 9,310 kg

1) A193GR.B7/A194GR.2H

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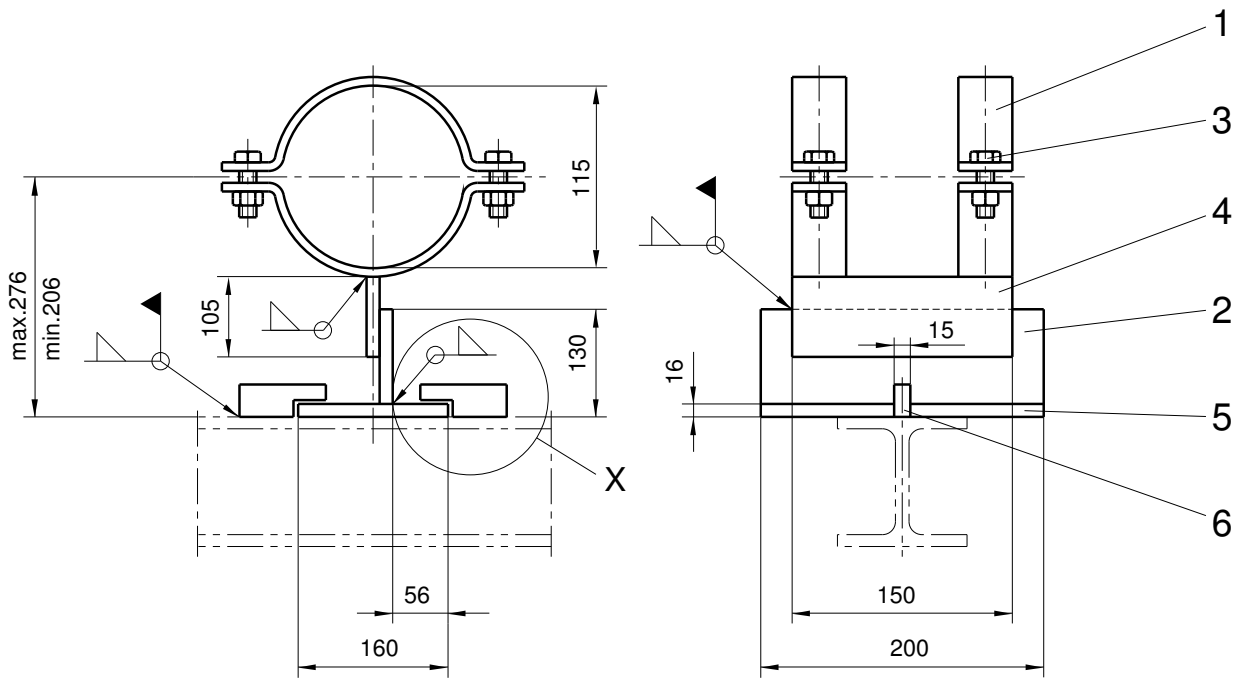
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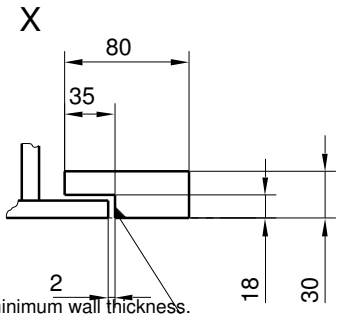
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB220D Marking : 100/206

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

seal weld only
To be chamfered

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
5	1	PLATE 16 x 160 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 16 x 105 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 16 x 114 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 13,420 kg

1) A193GR.B7/A194GR.2H

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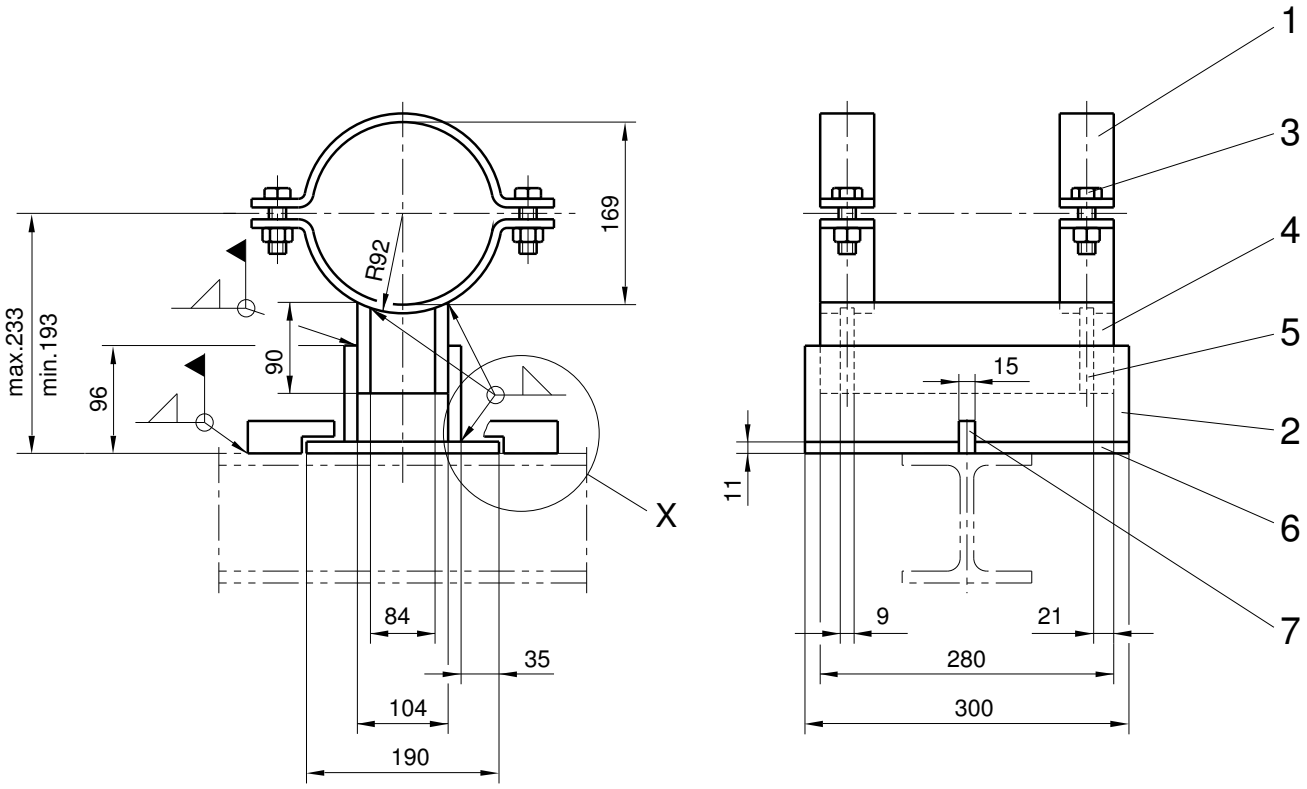
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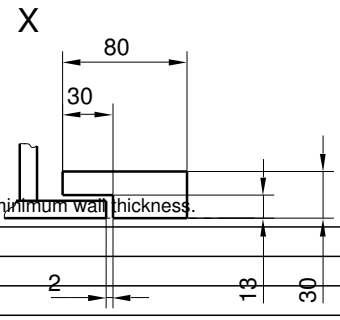
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 150/193

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 85	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 90 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 85 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,310 kg

1) A193GR.B7/A194GR.2H

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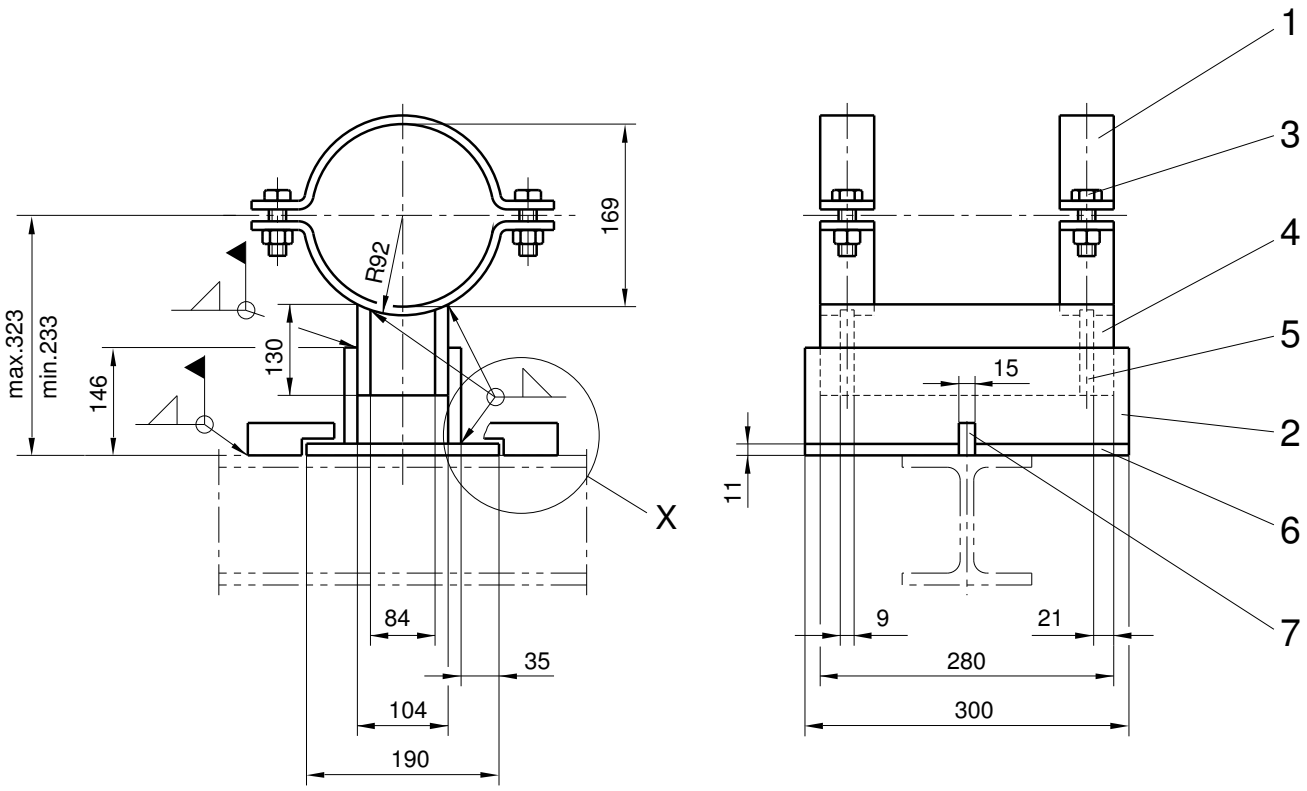
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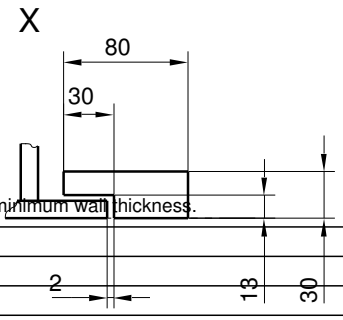
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 150/233

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 125	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 130 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 135 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 23,490 kg

1) A193GR.B7/A194GR.2H

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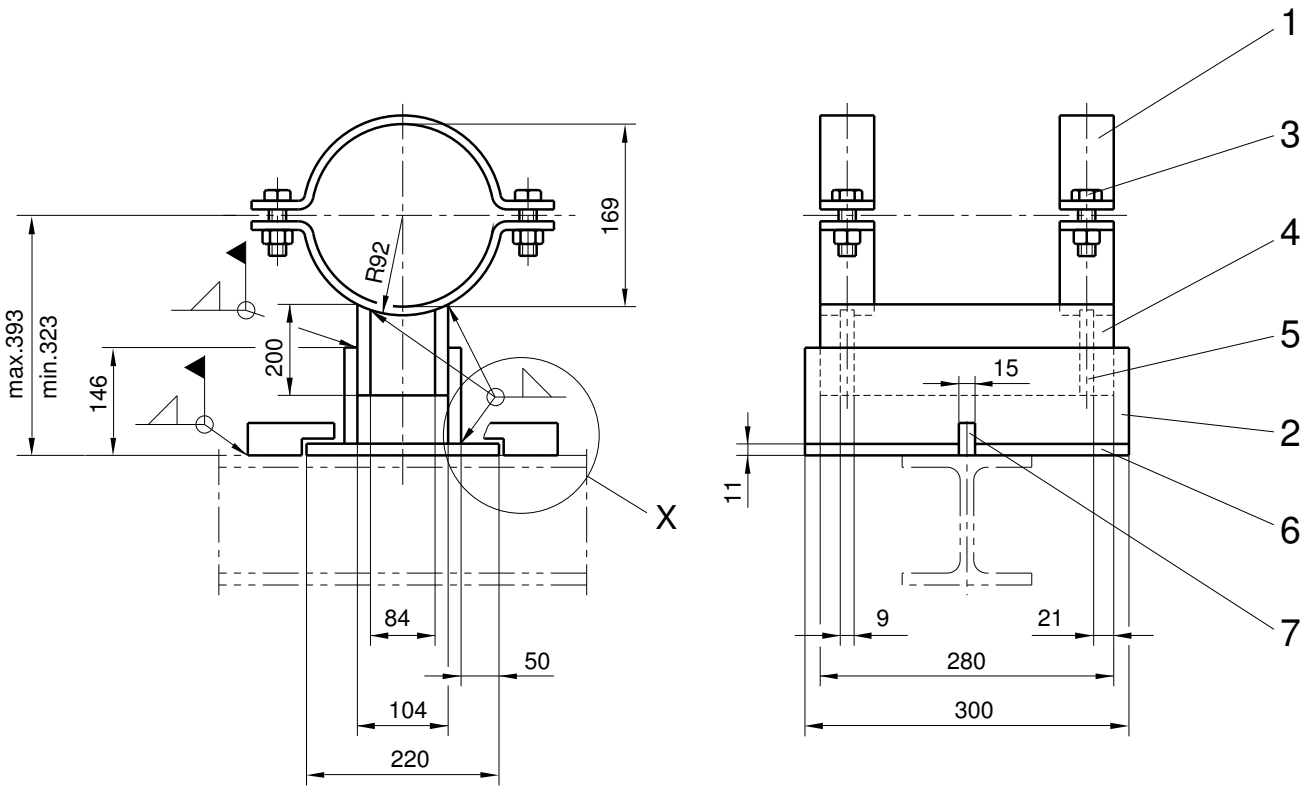
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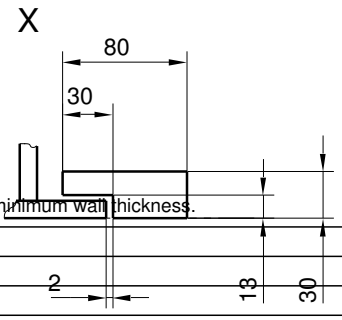
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 150/323

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 220 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 195	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 200 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 135 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 27,350 kg

1) A193GR.B7/A194GR.2H

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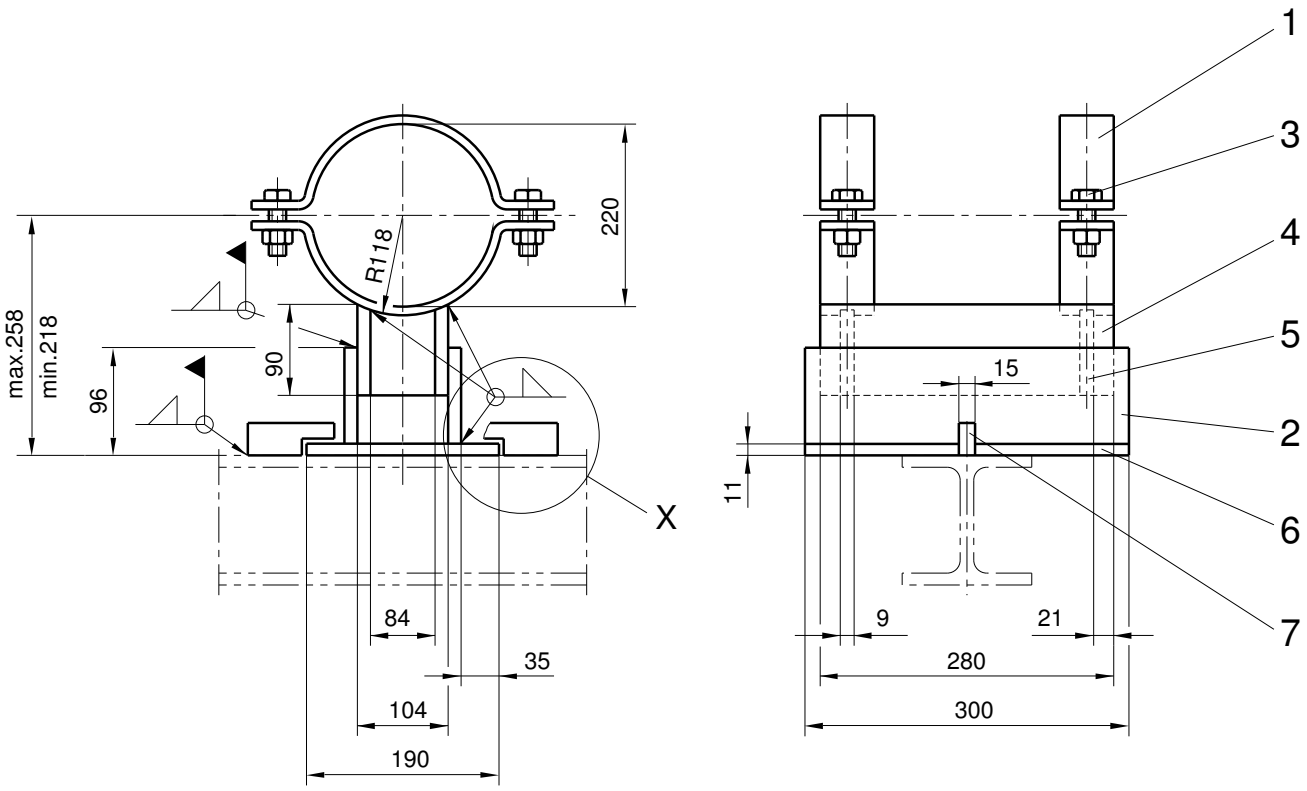
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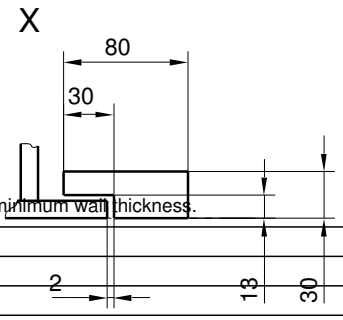
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 200/218

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 86	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 90 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 85 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,310 kg

1) A193GR.B7/A194GR.2H

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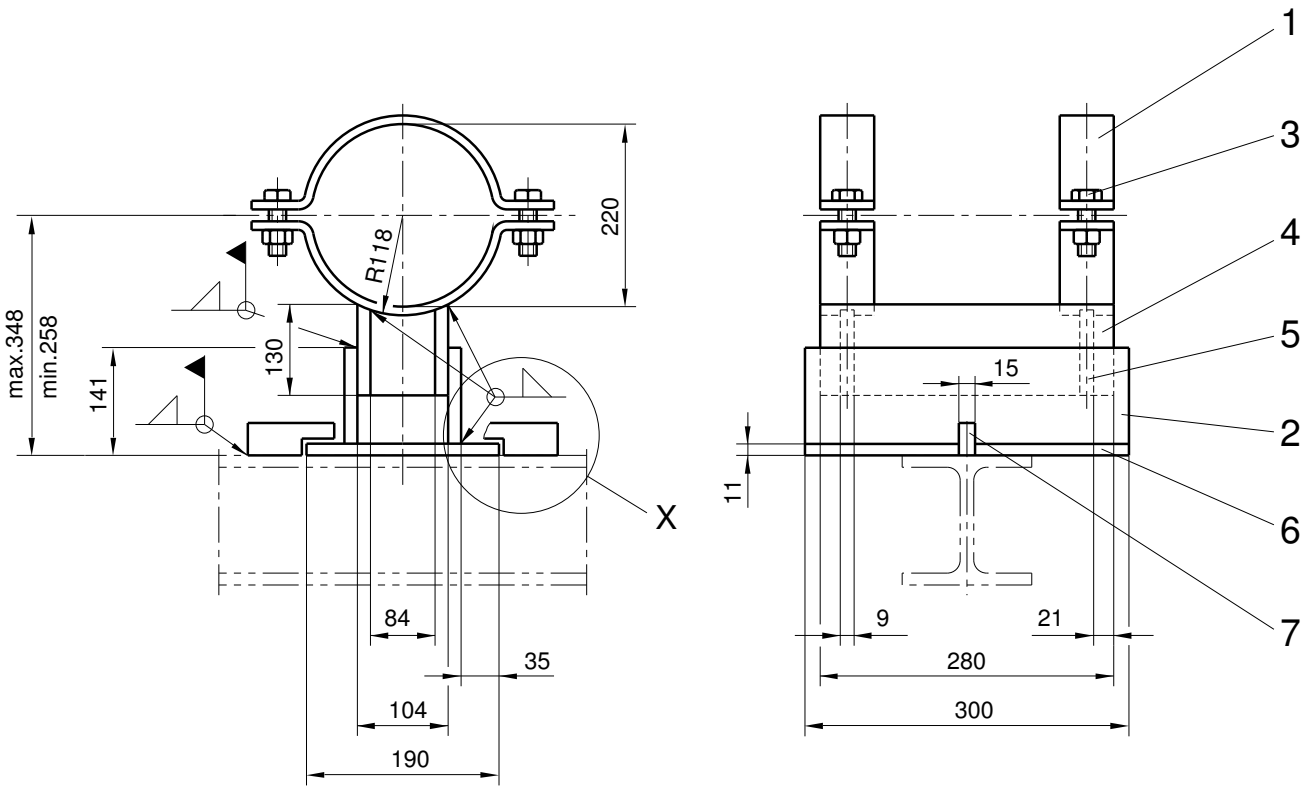
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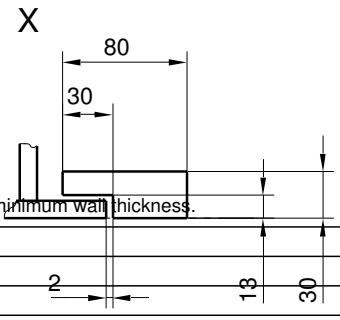
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 200/258

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 126	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 130 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 130 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 24,280 kg

1) A193GR.B7/A194GR.2H

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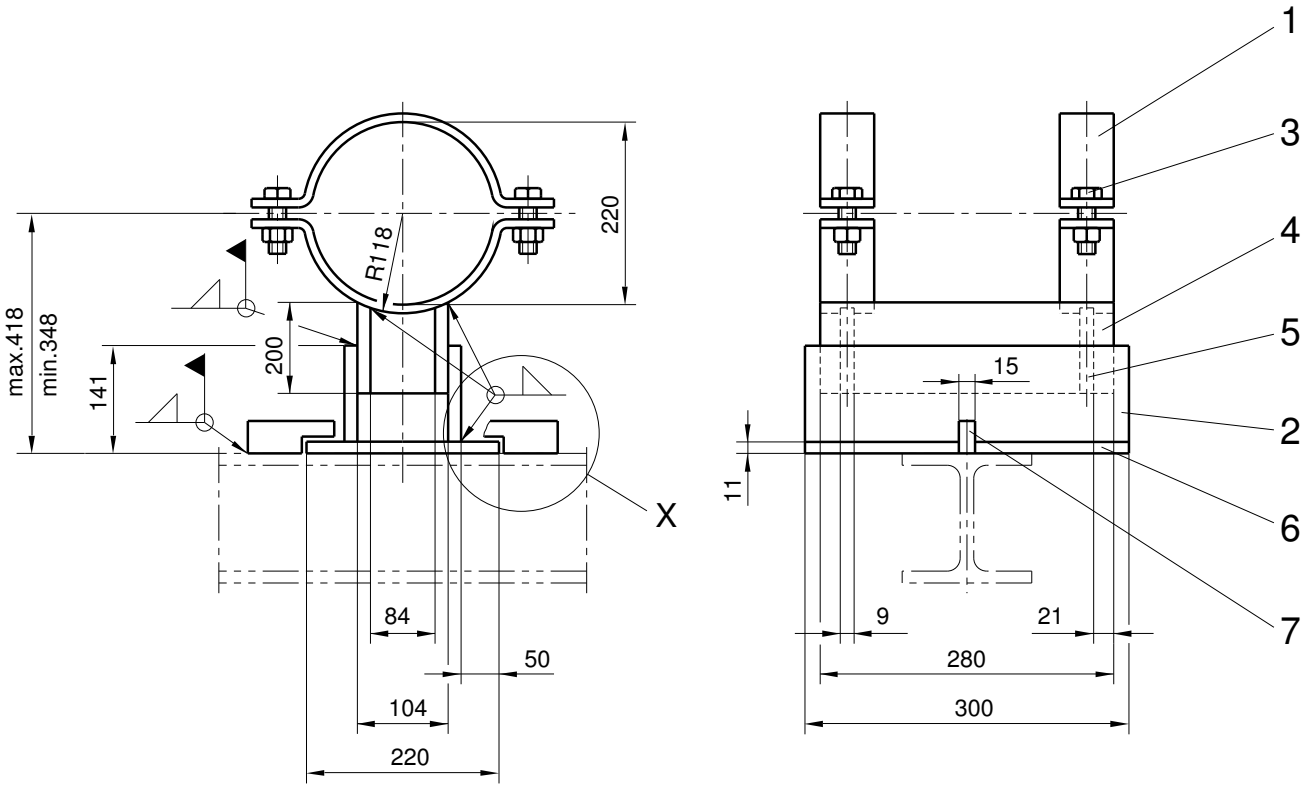
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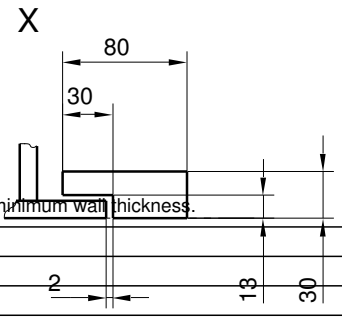
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 200/348

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 220 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 196	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 200 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 130 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 28,140 kg

1) A193GR.B7/A194GR.2H

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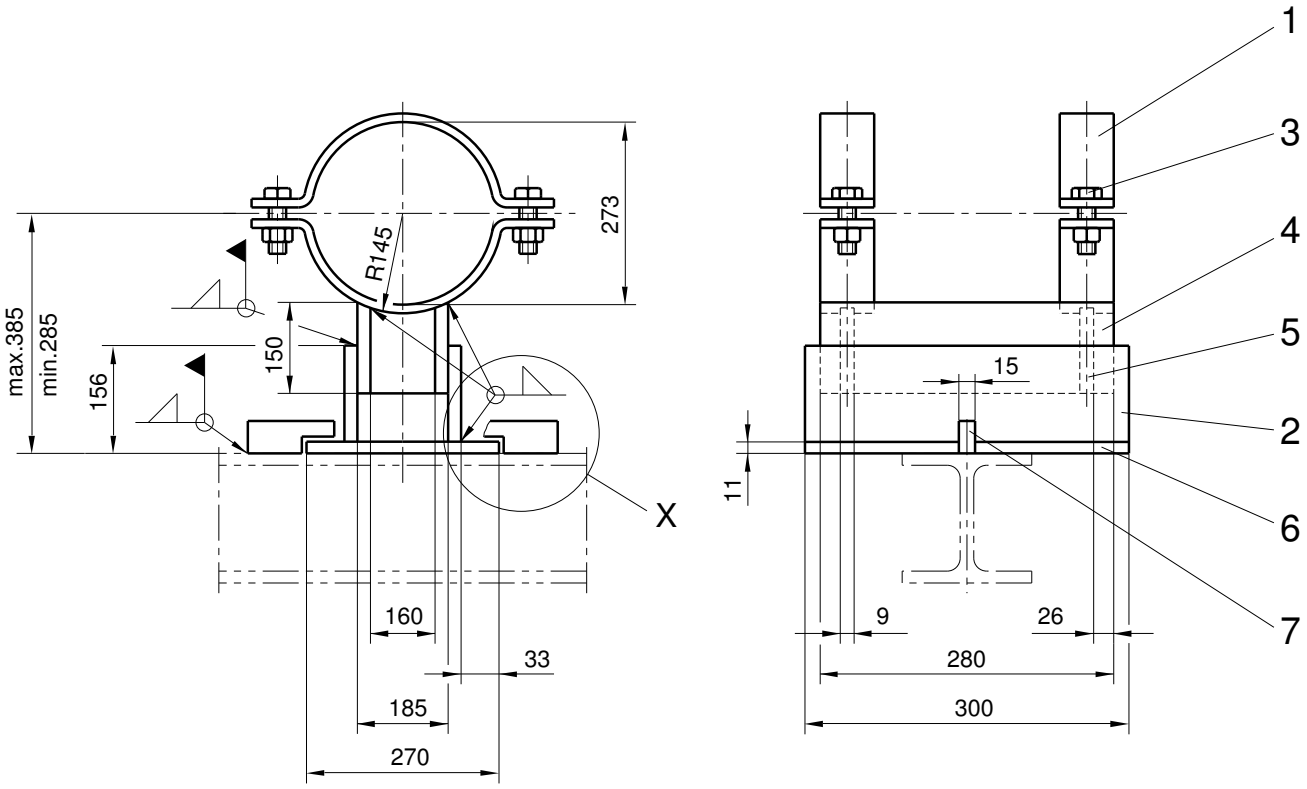
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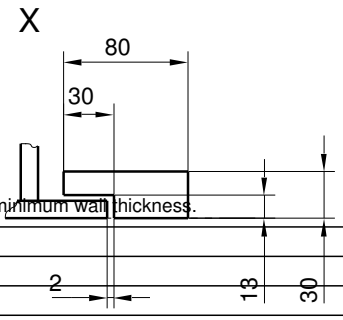
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 250/285

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 270 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 160 x 142	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 150 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 145 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 35,370 kg

1) A193GR.B7/A194GR.2H

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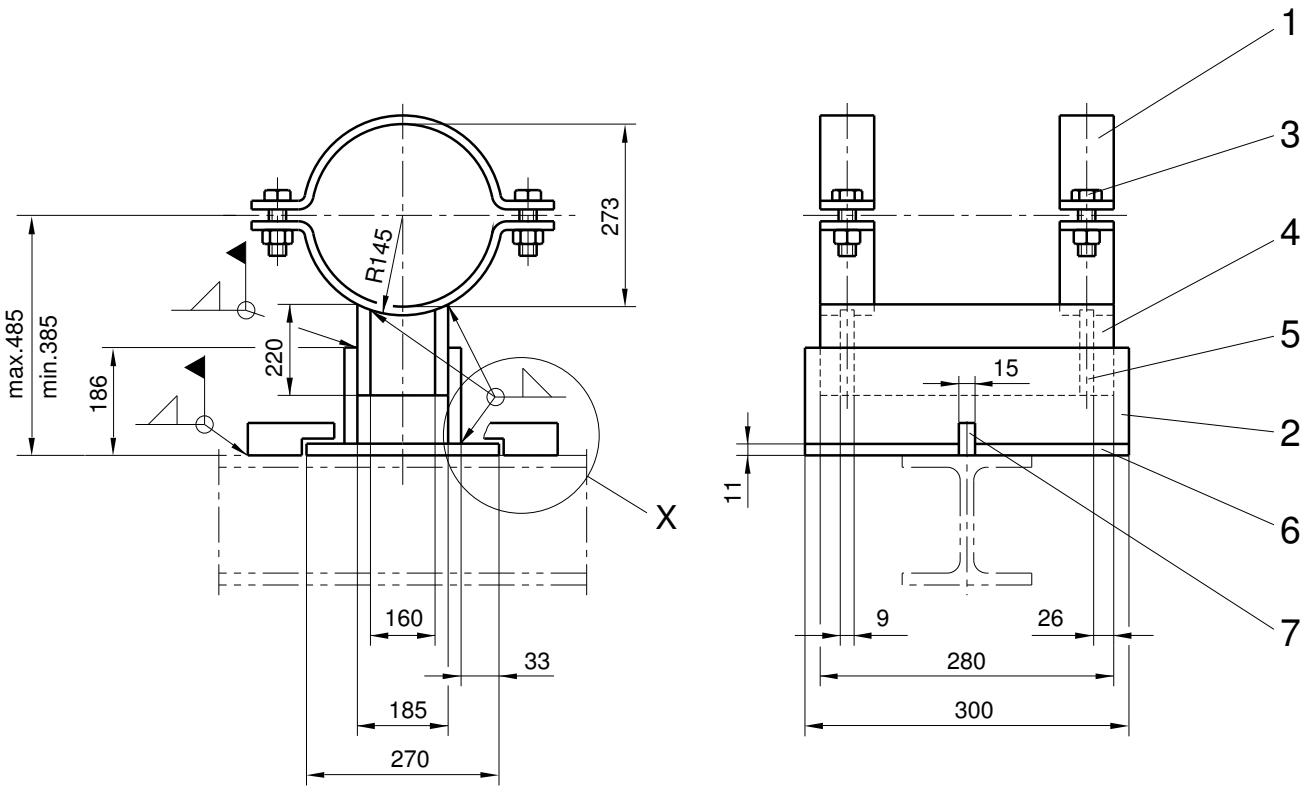
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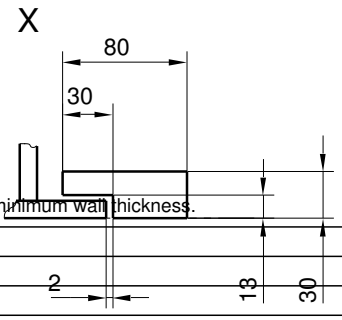
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 250/385

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 270 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 160 x 212	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 220 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 175 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 41,890 kg

1) A193GR.B7/A194GR.2H

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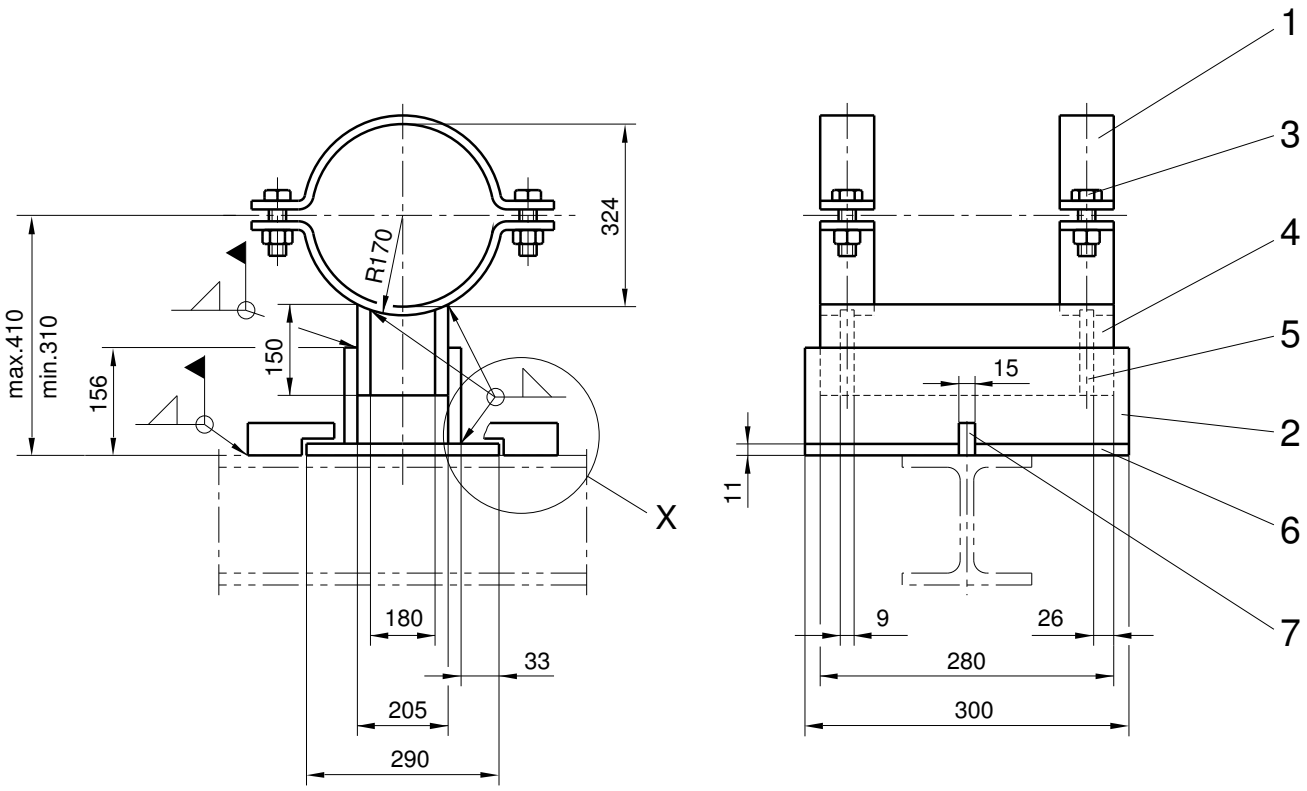
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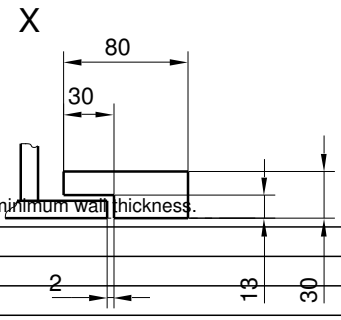
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 300/310

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 290 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 180 x 143	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 150 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 145 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 37,530 kg

1) A193GR.B7/A194GR.2H

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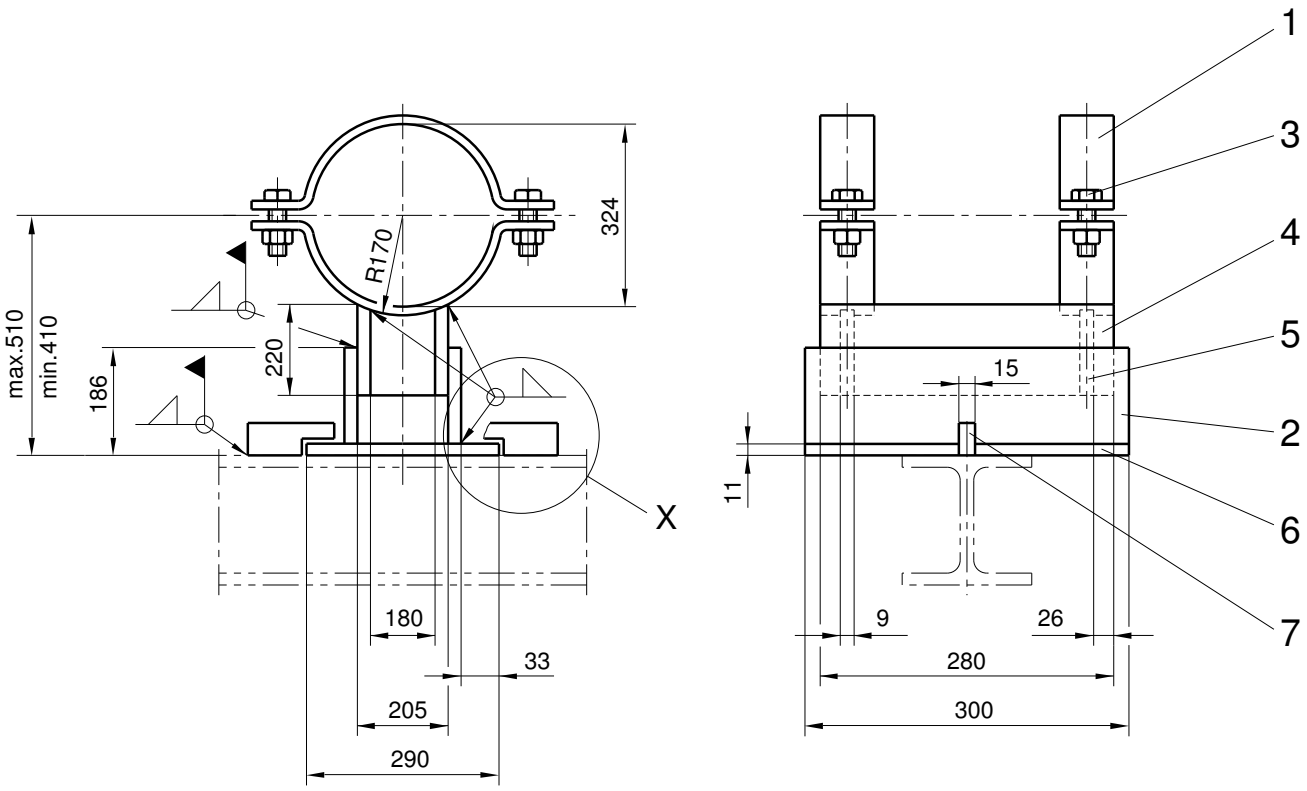
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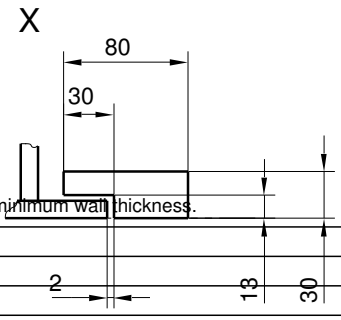
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 300/410

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 290 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 180 x 213	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 220 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 175 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 44,250 kg

1) A193GR.B7/A194GR.2H

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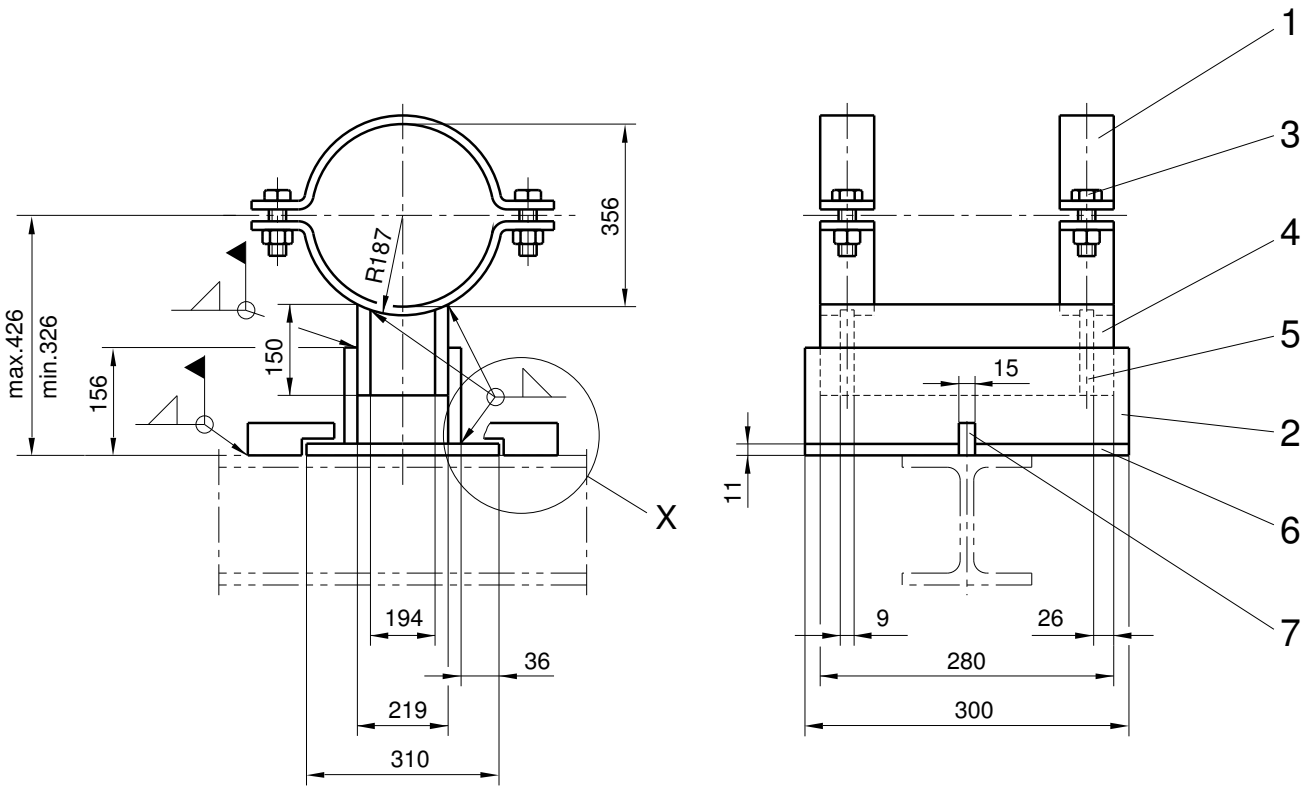
V = Process, TON (L = Line, S = Train, U = Unit, Item)

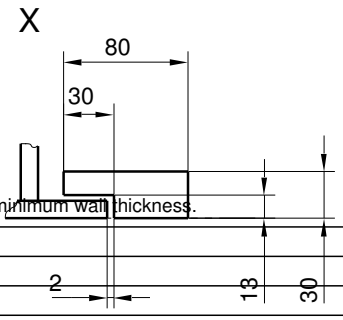
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB221D Marking : 350/326

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
6	1	PLATE 11 x 310 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 194 x 143	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 150 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 145 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 356	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 39,110 kg

1) A193GR.B7/A194GR.2H

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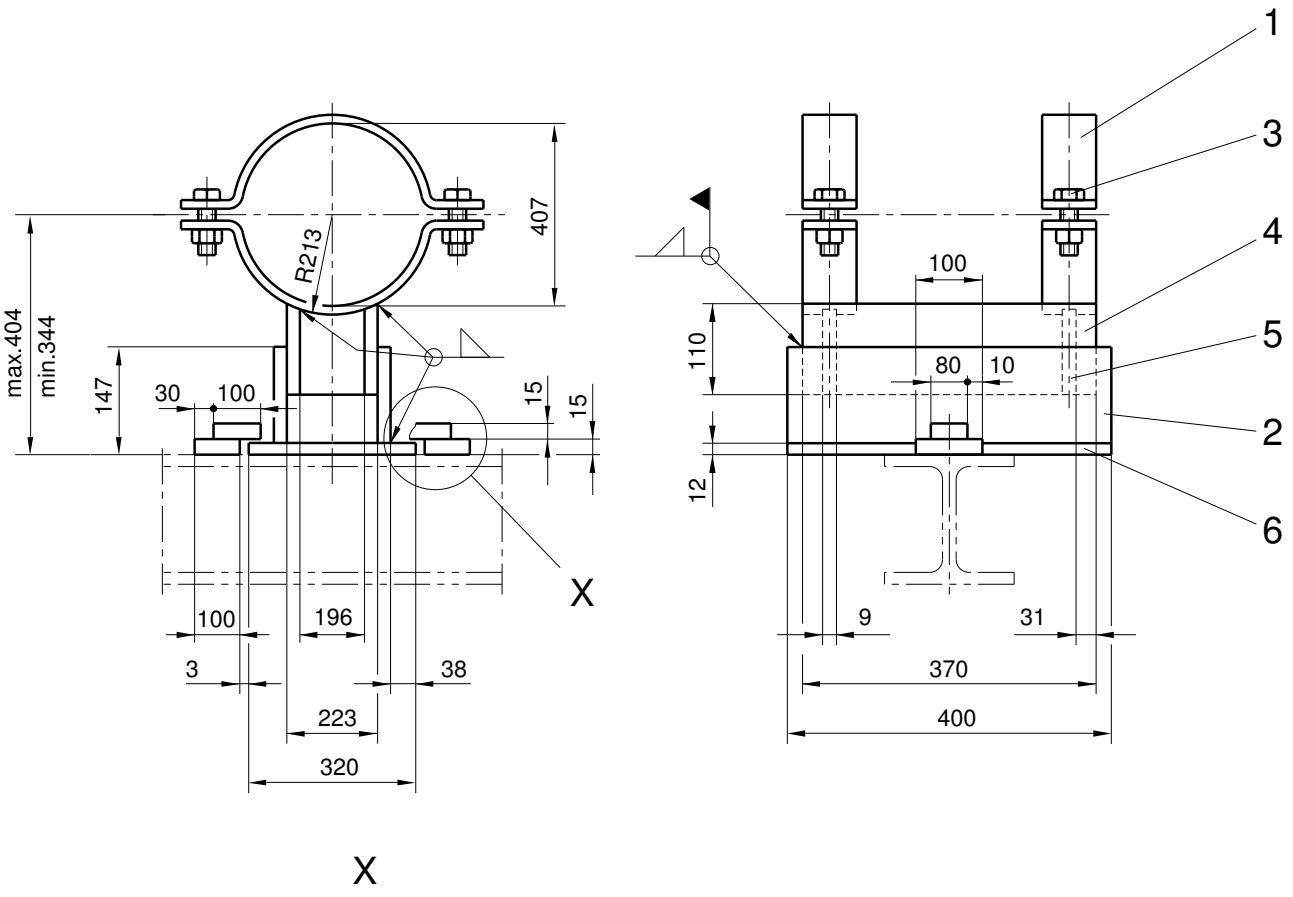
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
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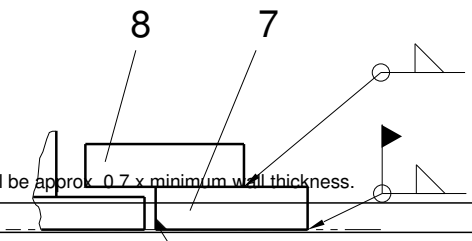
PIPE SUPPORT

Code No.: ACB222D Marking : 400/344

U Item



X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
8	2	PLATE 15 x 80 x 100	EN 10029	A283GR.B	GB0001D
7	2	PLATE 15 x 100 x 100	EN 10029	A283GR.B	GB0001D
6	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 196 x 104	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 110 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 135 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 56,940 kg

1) A193GR.B7/A194GR.2H

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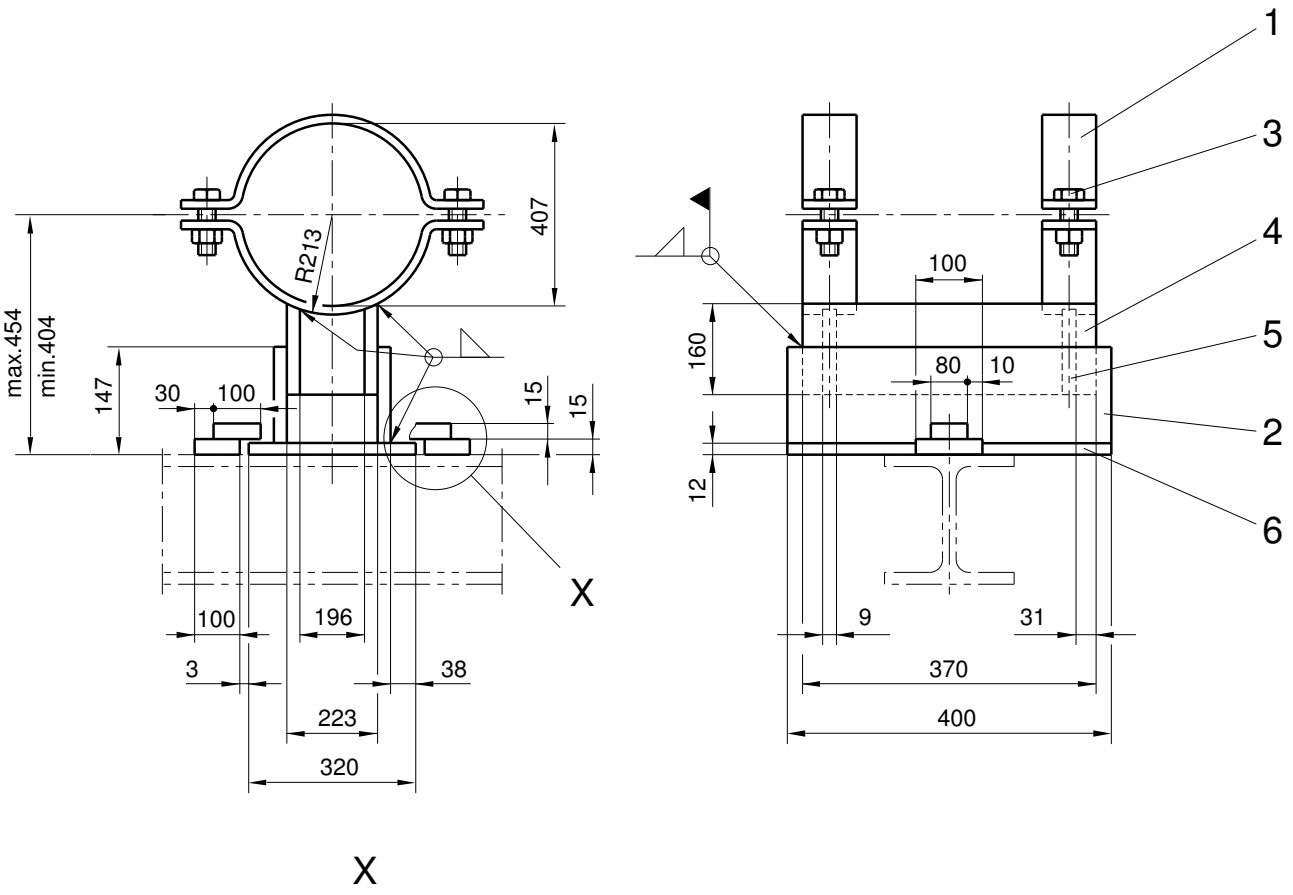
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tkIS		Code	Page	UAN	V	L S
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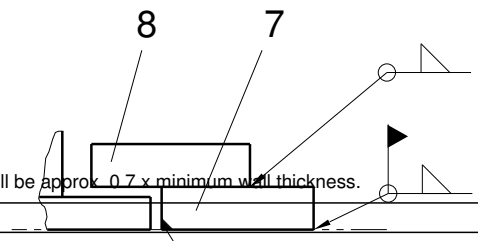
PIPE SUPPORT

Code No.: ACB222D Marking : 400/404

U Item



X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
8	2	PLATE 15 x 80 x 100	EN 10029	A283GR.B	GB0001D
7	2	PLATE 15 x 100 x 100	EN 10029	A283GR.B	GB0001D
6	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 196 x 154	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 160 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 135 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 61,810 kg

1) A193GR.B7/A194GR.2H

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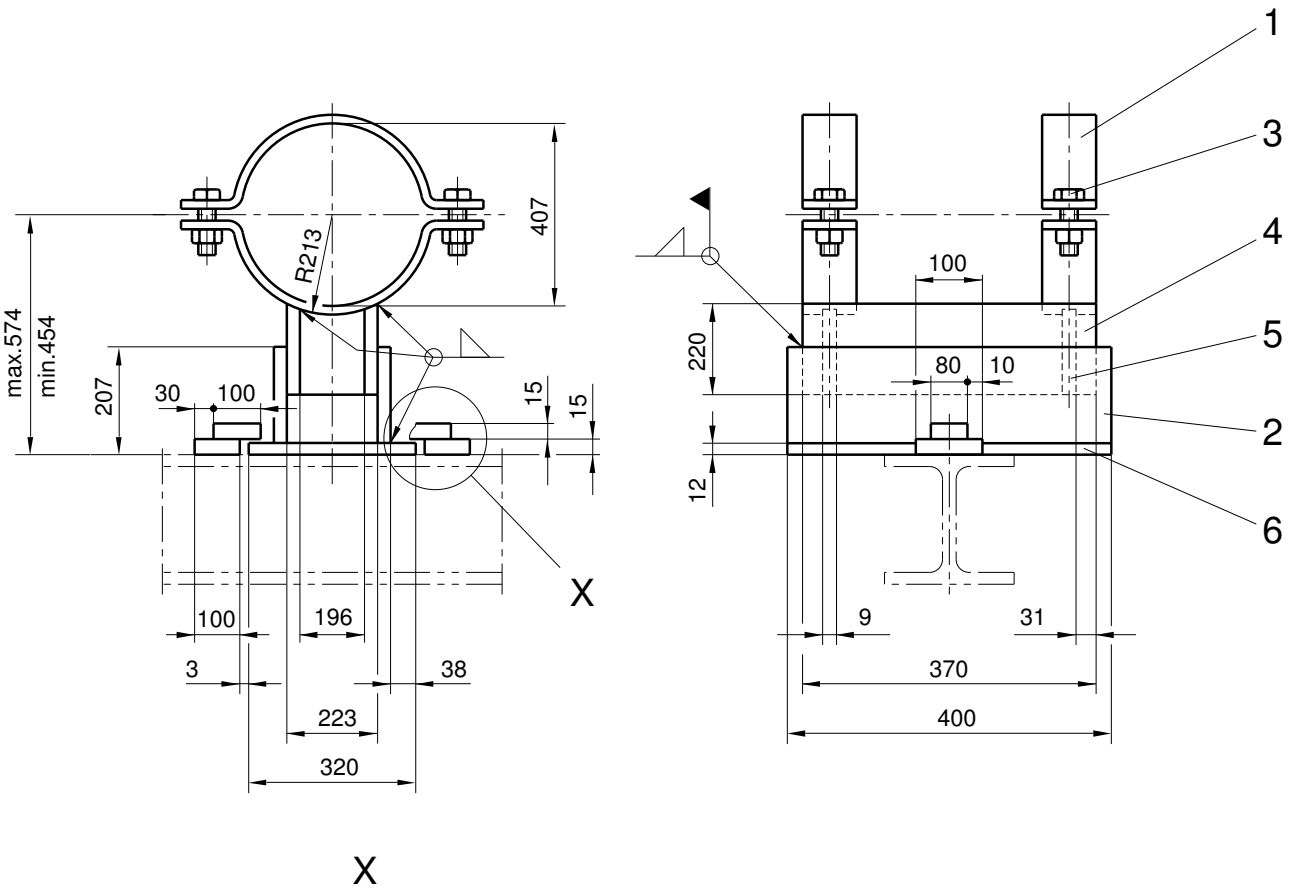
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tkIS		Code	Page	UAN	V	L S
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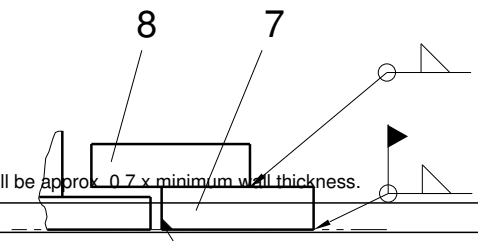
PIPE SUPPORT

Code No.: ACB222D Marking : 400/454

U Item



X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
8	2	PLATE 15 x 80 x 100	EN 10029	A283GR.B	GB0001D
7	2	PLATE 15 x 100 x 100	EN 10029	A283GR.B	GB0001D
6	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 196 x 214	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 220 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 195 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 72,180 kg

1) A193GR.B7/A194GR.2H

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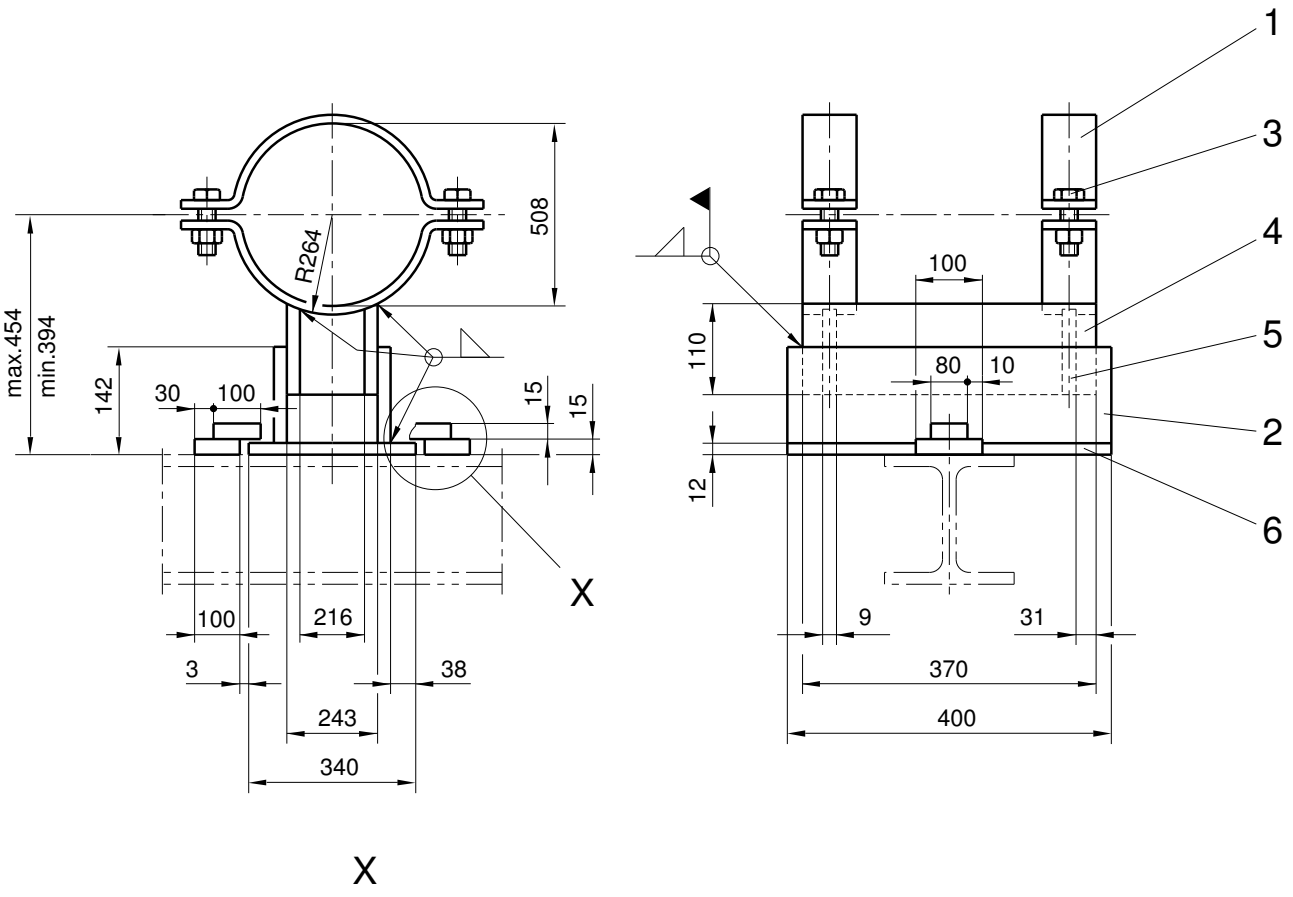
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tkIS		Code	Page	UAN	V	L S
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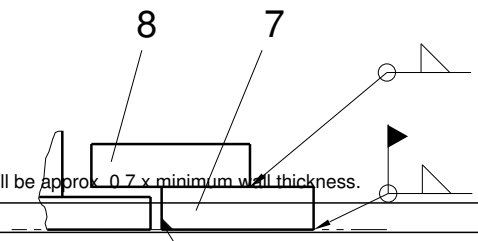
PIPE SUPPORT

Code No.: ACB222D Marking : 500/394

U Item



X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
8	2	PLATE 15 x 80 x 100	EN 10029	A283GR.B	GB0001D
7	2	PLATE 15 x 100 x 100	EN 10029	A283GR.B	GB0001D
6	1	PLATE 12 x 340 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 216 x 105	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 110 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 130 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 61,130 kg

1) A193GR.B7/A194GR.2H

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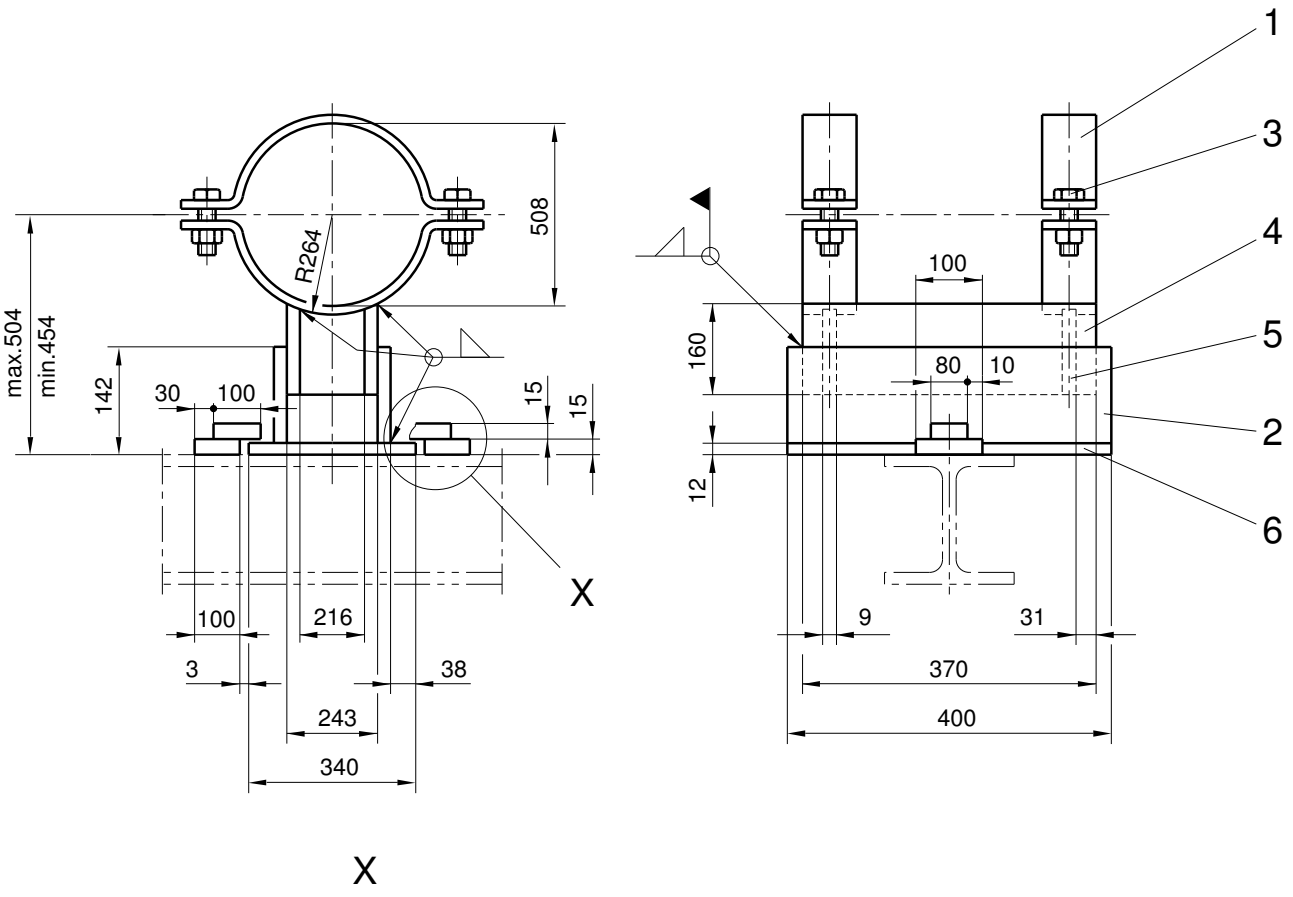
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tkIS		Code	Page	UAN	V	L S
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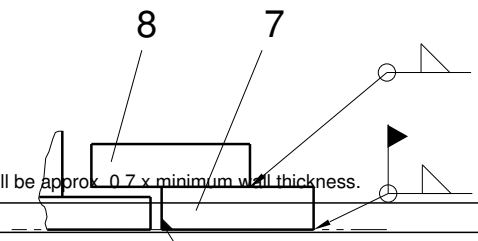
PIPE SUPPORT

Code No.: ACB222D Marking : 500/454

U Item



X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
8	2	PLATE 15 x 80 x 100	EN 10029	A283GR.B	GB0001D
7	2	PLATE 15 x 100 x 100	EN 10029	A283GR.B	GB0001D
6	1	PLATE 12 x 340 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 216 x 155	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 160 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 130 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 66,140 kg

1) A193GR.B7/A194GR.2H

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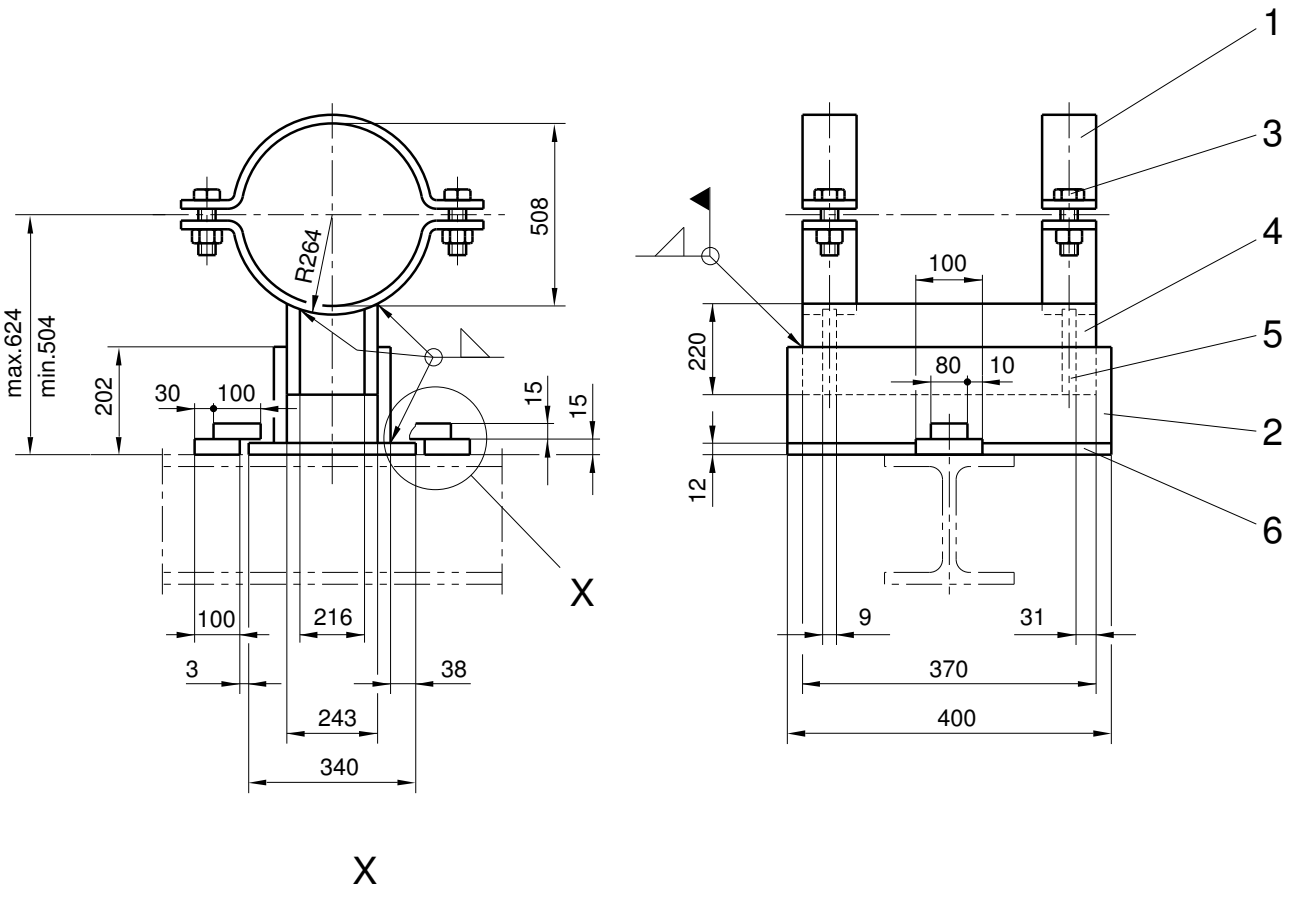
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
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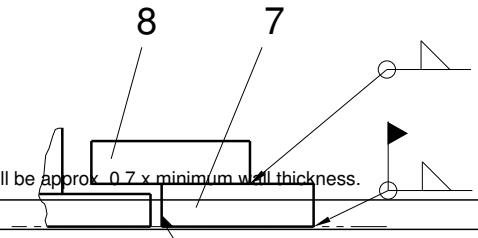
PIPE SUPPORT

Code No.: ACB222D Marking : 500/504

U Item



X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
8	2	PLATE 15 x 80 x 100	EN 10029	A283GR.B	GB0001D
7	2	PLATE 15 x 100 x 100	EN 10029	A283GR.B	GB0001D
6	1	PLATE 12 x 340 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 216 x 215	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 220 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 190 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 76,670 kg

1) A193GR.B7/A194GR.2H

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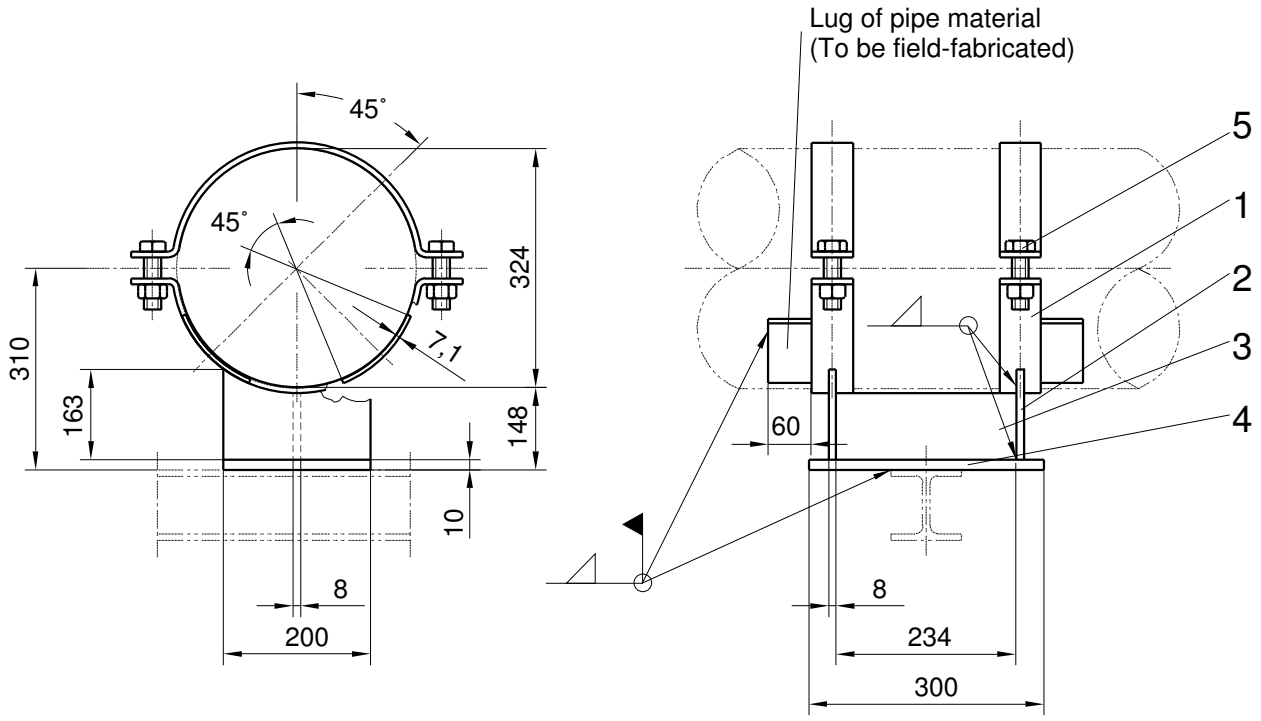
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC007D Marking : 300/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 130 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 163 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,980 kg

1) A193GR.B7/A194GR.2H

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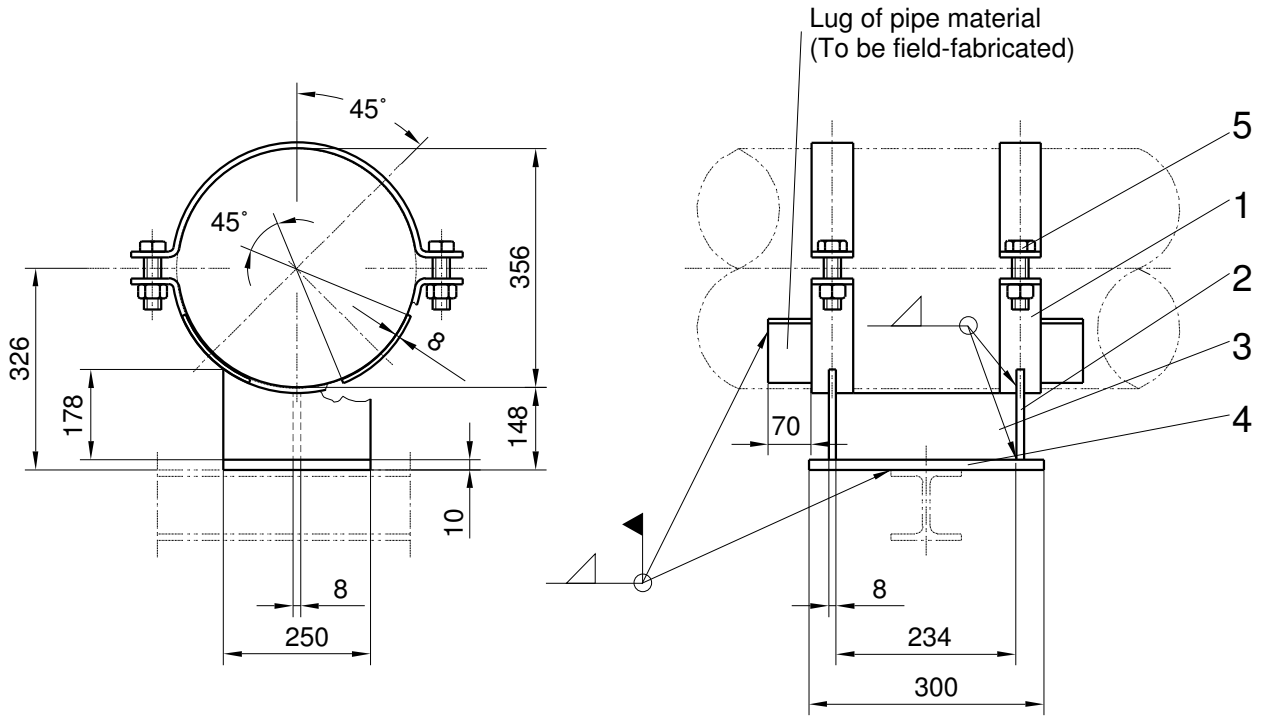
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC007D Marking : 350/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 250 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 130 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 178 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 356	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 24,410 kg

1) A193GR.B7/A194GR.2H

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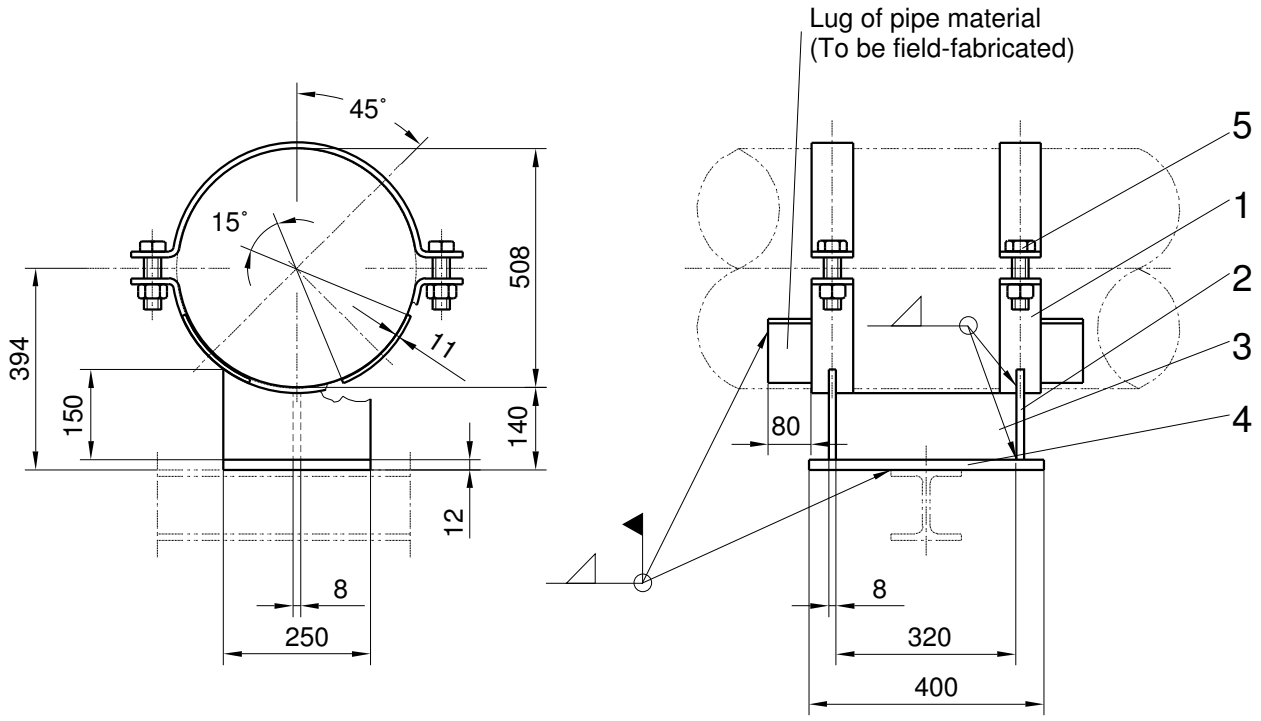
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACC007D Marking : 500/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 150 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 38,670 kg

1) A193GR.B7/A194GR.2H

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

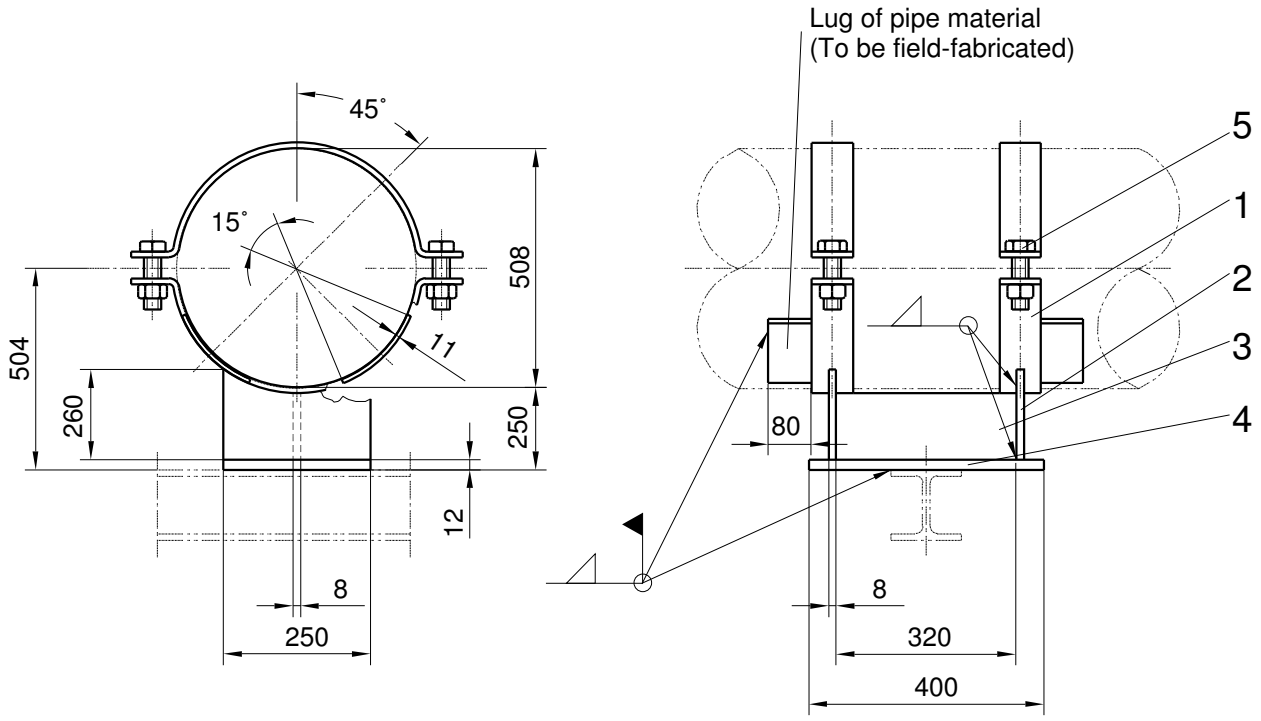
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACC007D Marking : 500/6

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 228 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 260 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 44,340 kg

1) A193GR.B7/A194GR.2H

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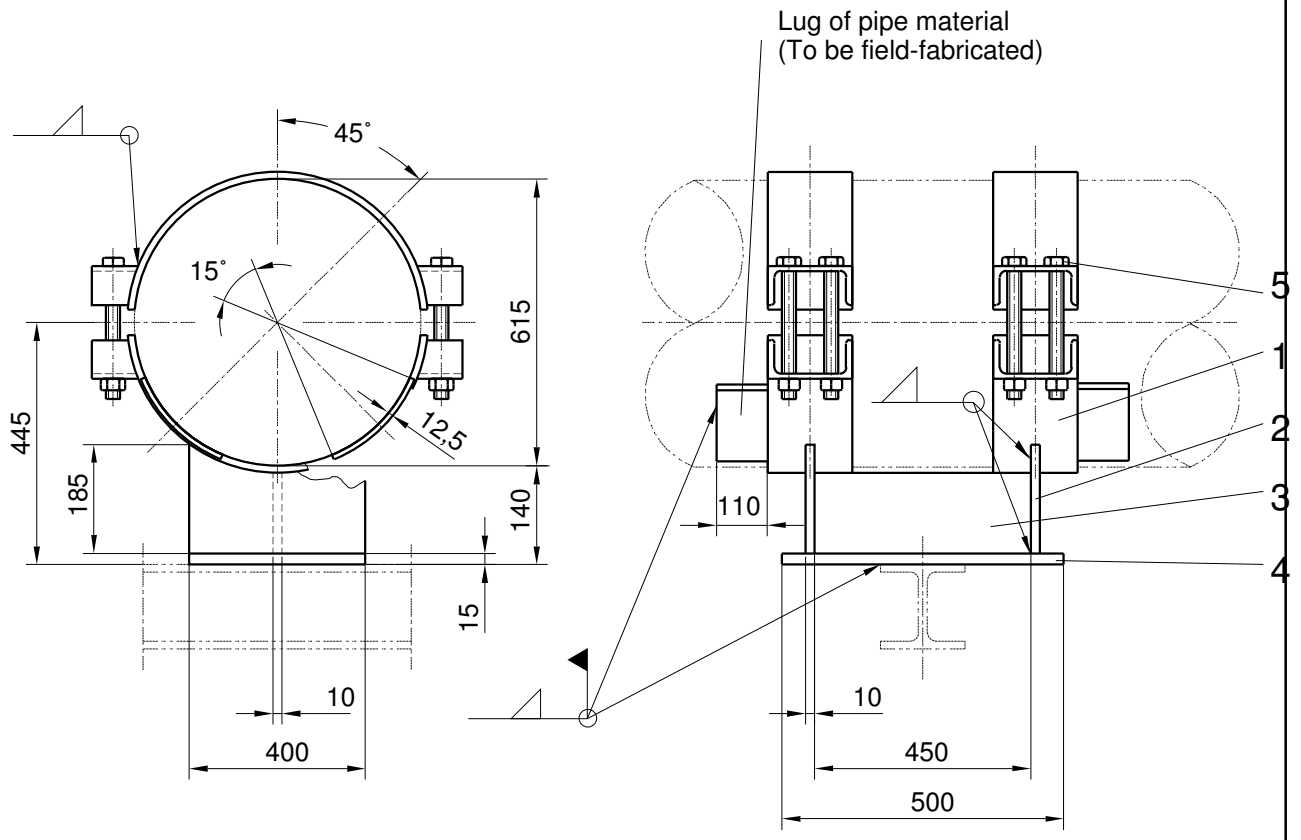
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC008D Marking : 600/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 115 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 185 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 615	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 86,390 kg

1) A193GR.B7/A194GR.2H

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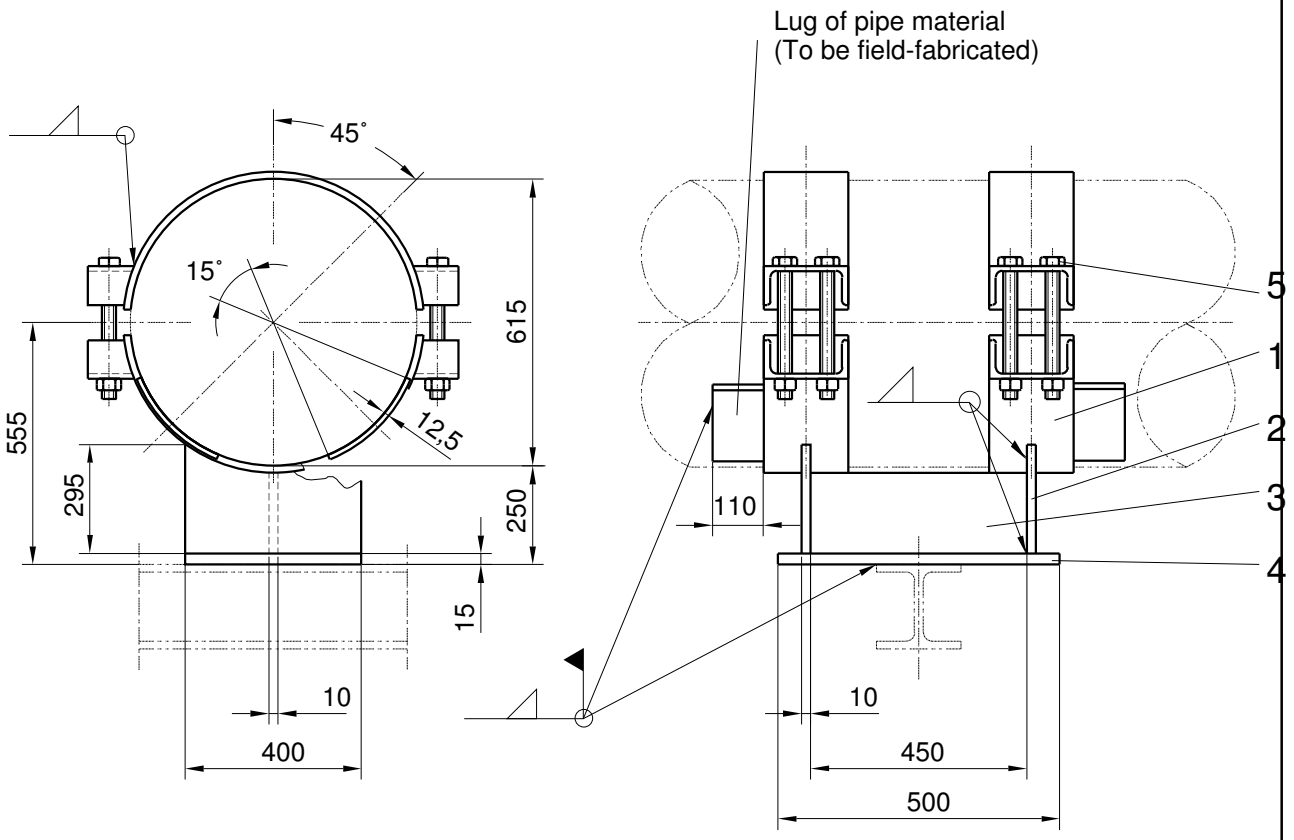
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC008D Marking : 600/6

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 225 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 295 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 615	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 97,180 kg

1) A193GR.B7/A194GR.2H

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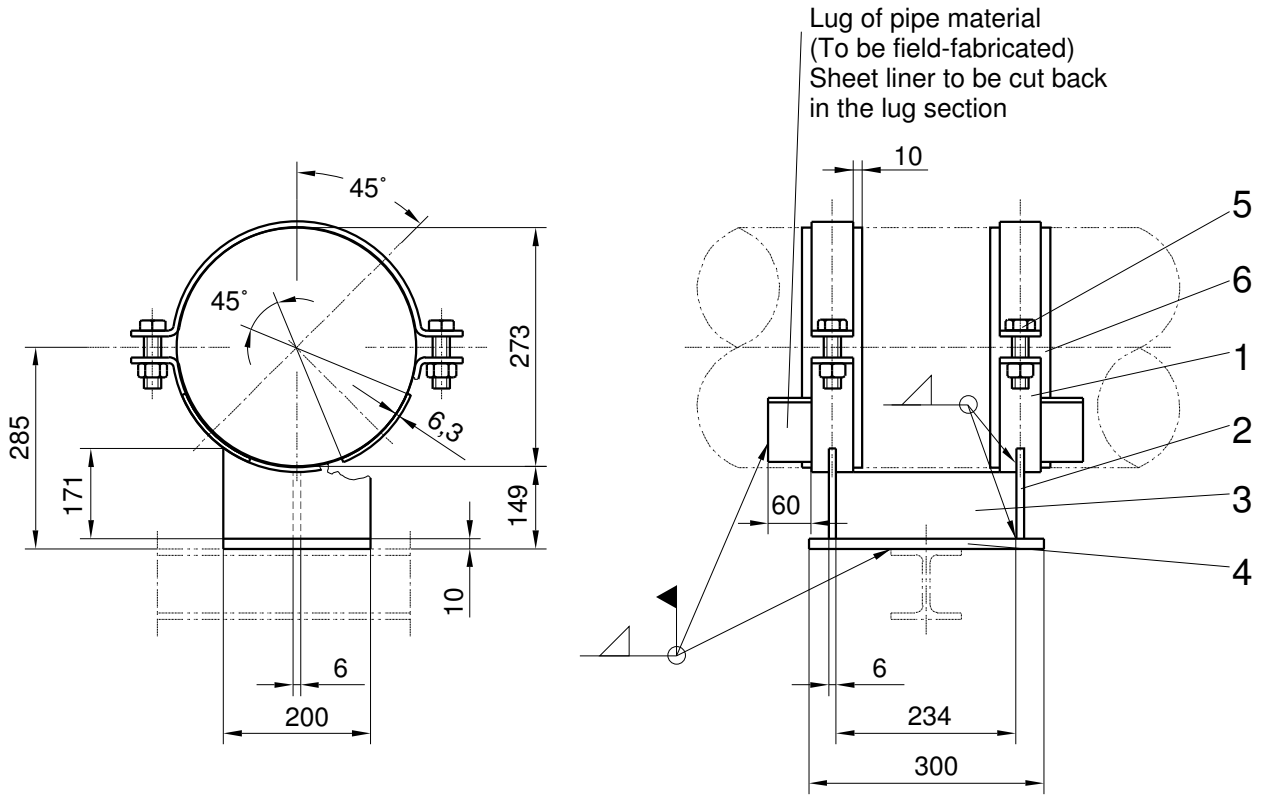
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC057D Marking : 250/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 131 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 171 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,020 kg

1) A193GR.B7/A194GR.2H

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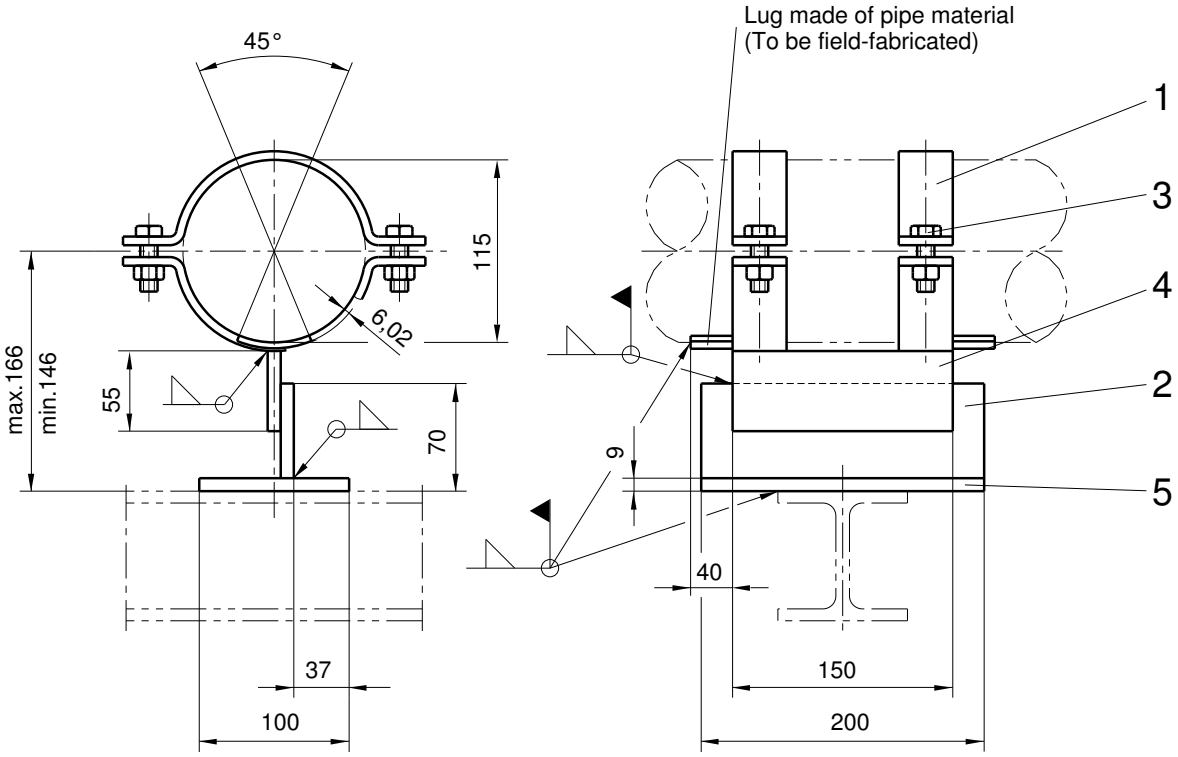
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC220D Marking : 100/146

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 9 x 100 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 6,820 kg

1) A193GR.B7/A194GR.2H

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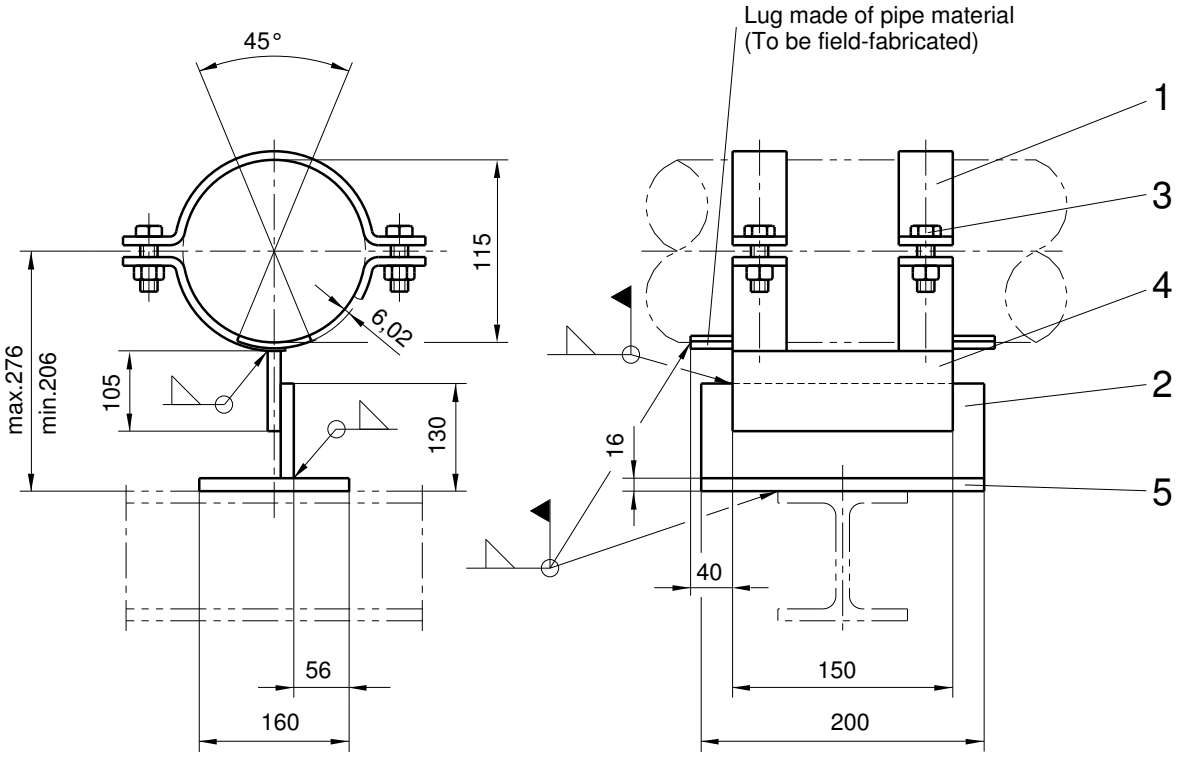
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC220D Marking : 100/206

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 16 x 160 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 16 x 105 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 16 x 114 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 12,820 kg

1) A193GR.B7/A194GR.2H

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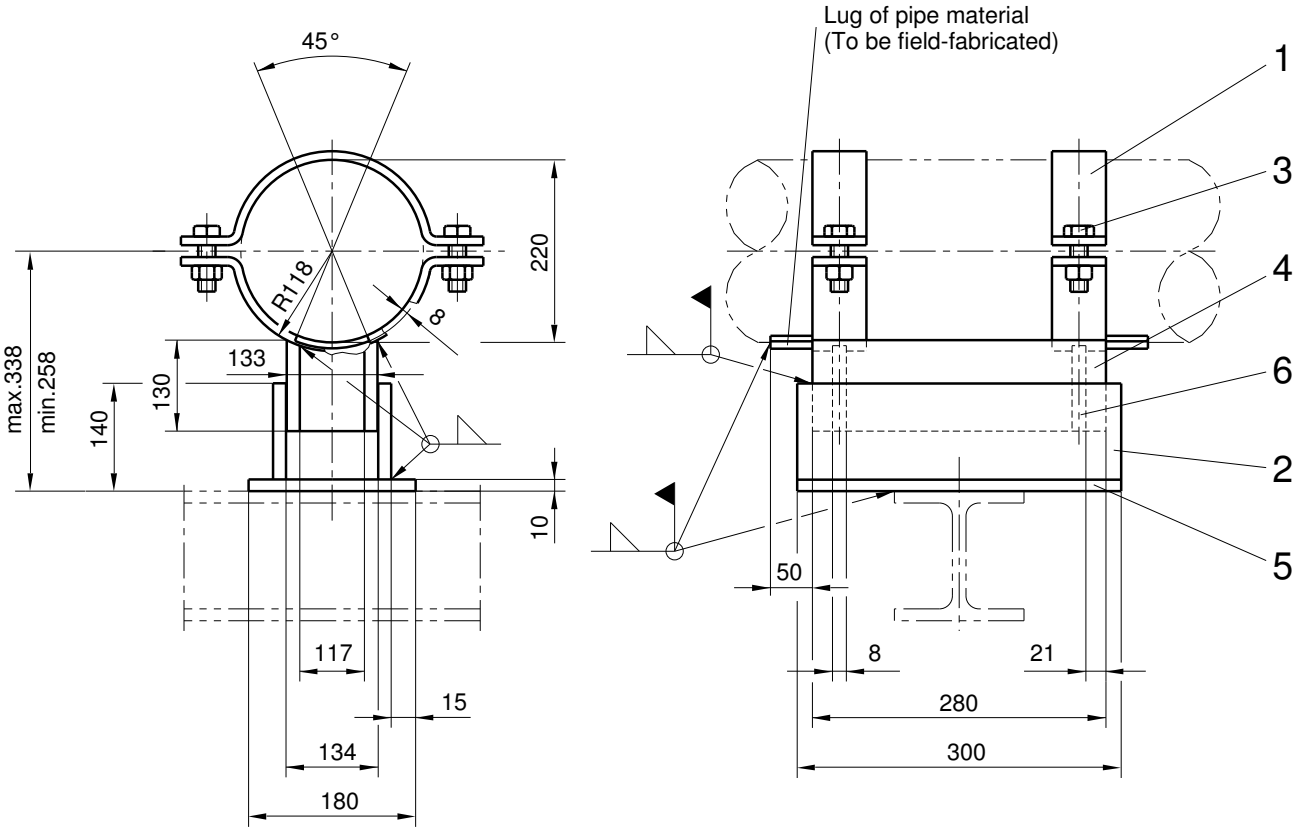
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC221D Marking : 200/258

U Item



Pos.	Quantity	Description	Standard	Material No.	Code No.
6	2	PLATE 8 x 117 x 130	EN 10029	A283GR.B	GB0011D
5	1	PLATE 10 x 180 x 300	EN 10029	A283GR.B	GB0001D
4	2	PLATE 8 x 130 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 8 x 130 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

1) A193GR.B7/A194GR.2H

Remarks: Total weight = 21,640 kg

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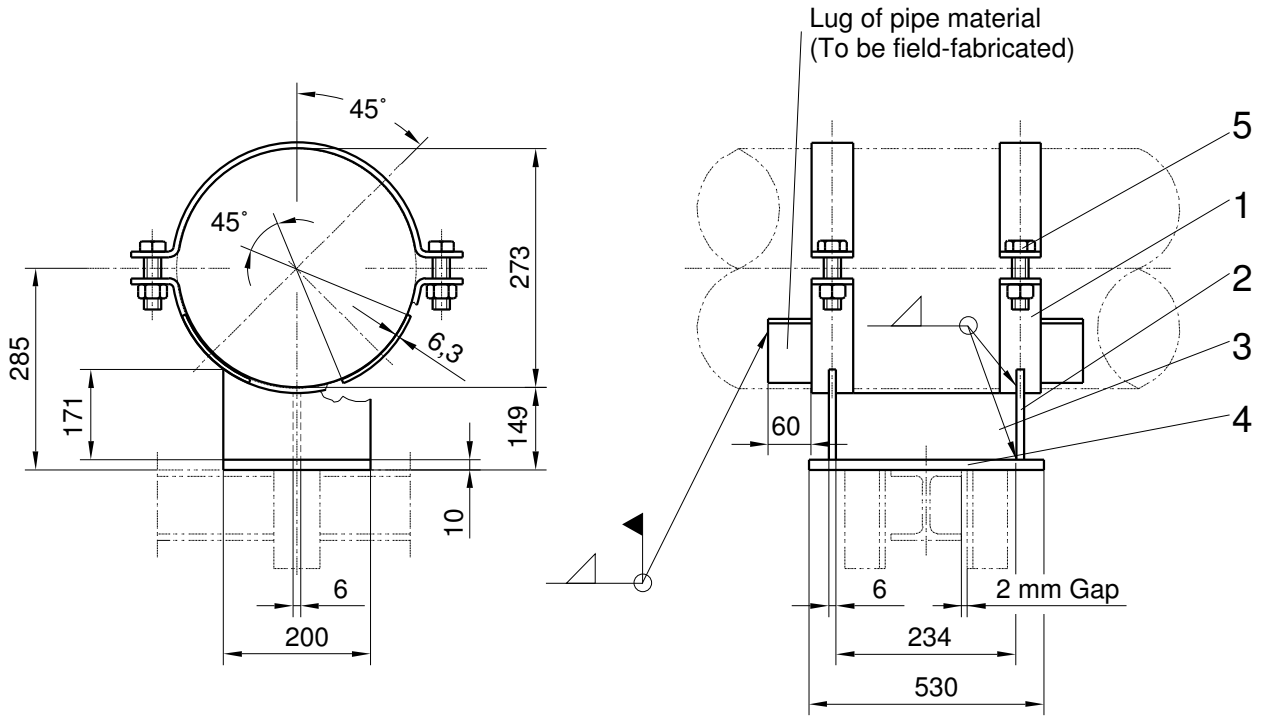
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD003D Marking : 250/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 200 x 530	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 131 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 171 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 22,070 kg

1) A193GR.B7/A194GR.2H

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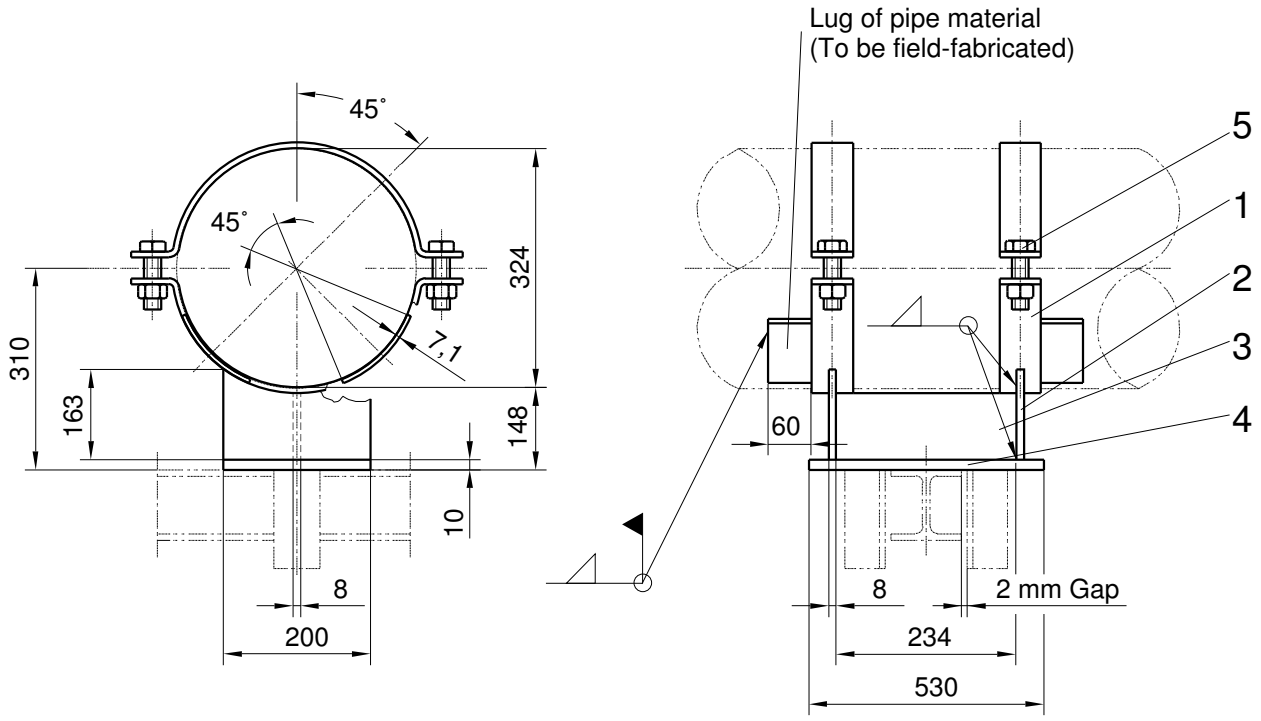
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD003D Marking : 300/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 200 x 530	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 130 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 163 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 24,610 kg

1) A193GR.B7/A194GR.2H

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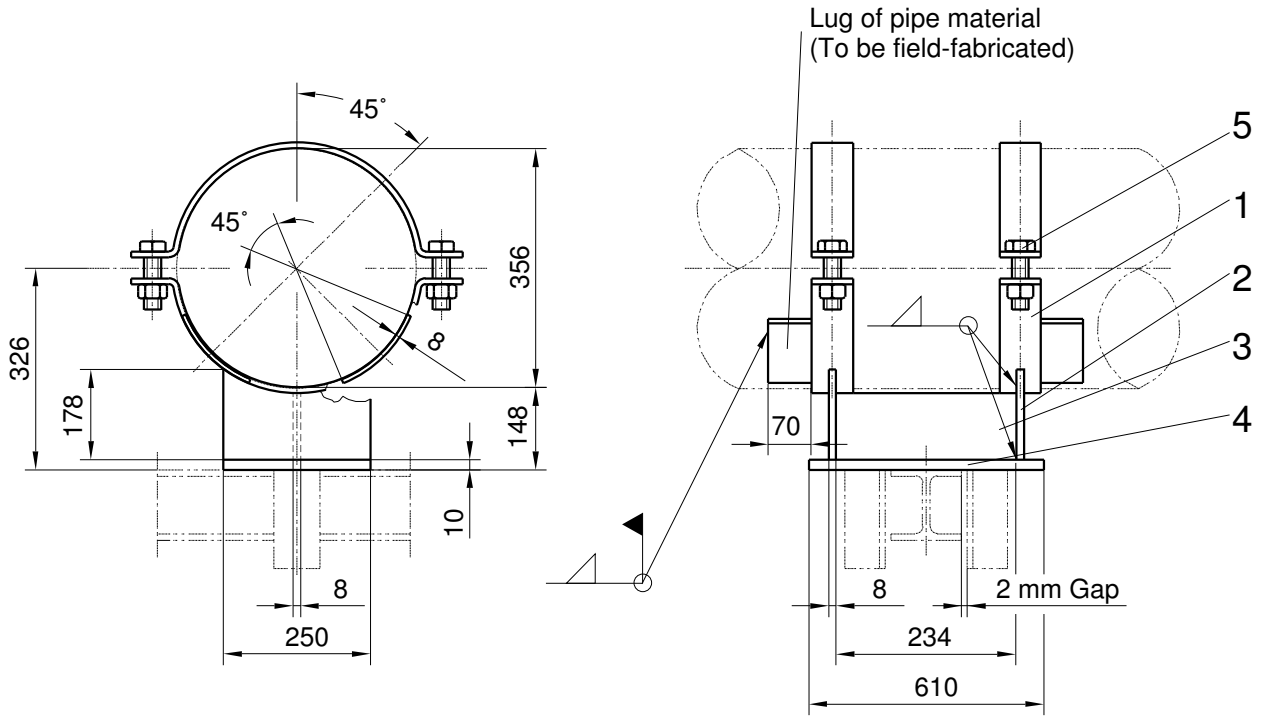
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD003D Marking : 350/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 250 x 610	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 130 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 178 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 356	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 30,510 kg

1) A193GR.B7/A194GR.2H

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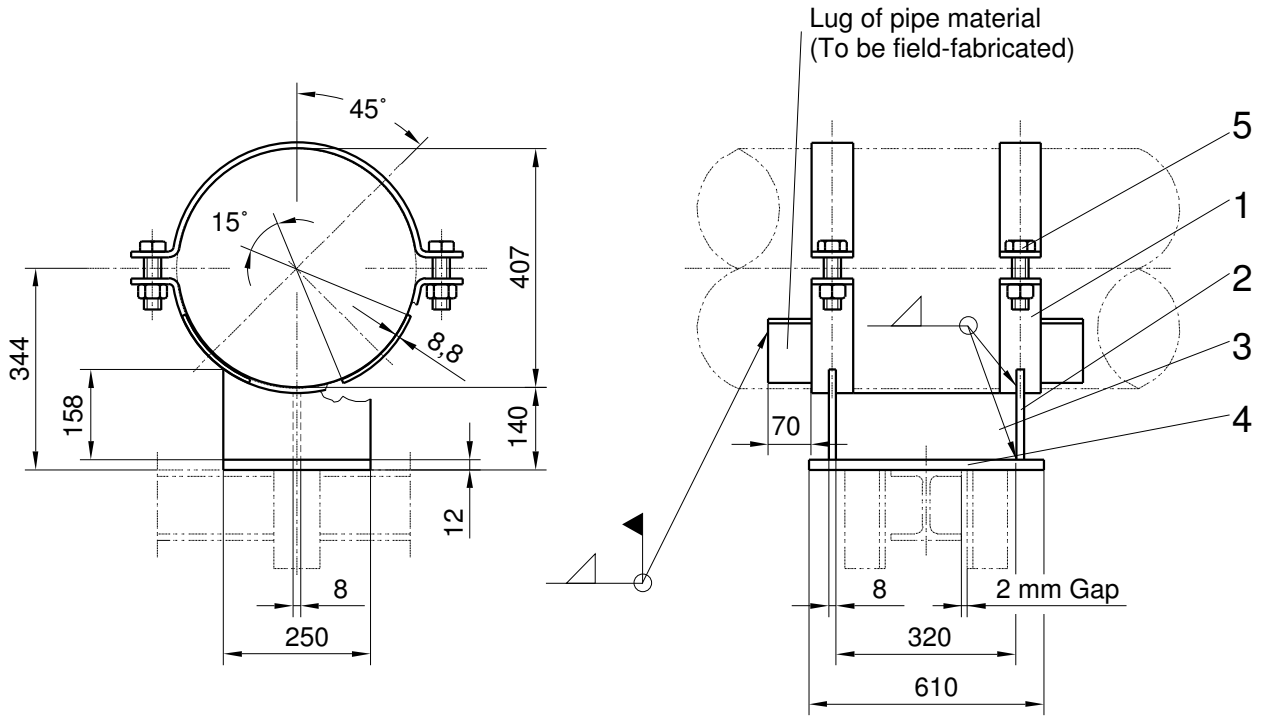
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACD003D Marking : 400/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 610	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 158 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 40,400 kg

1) A193GR.B7/A194GR.2H

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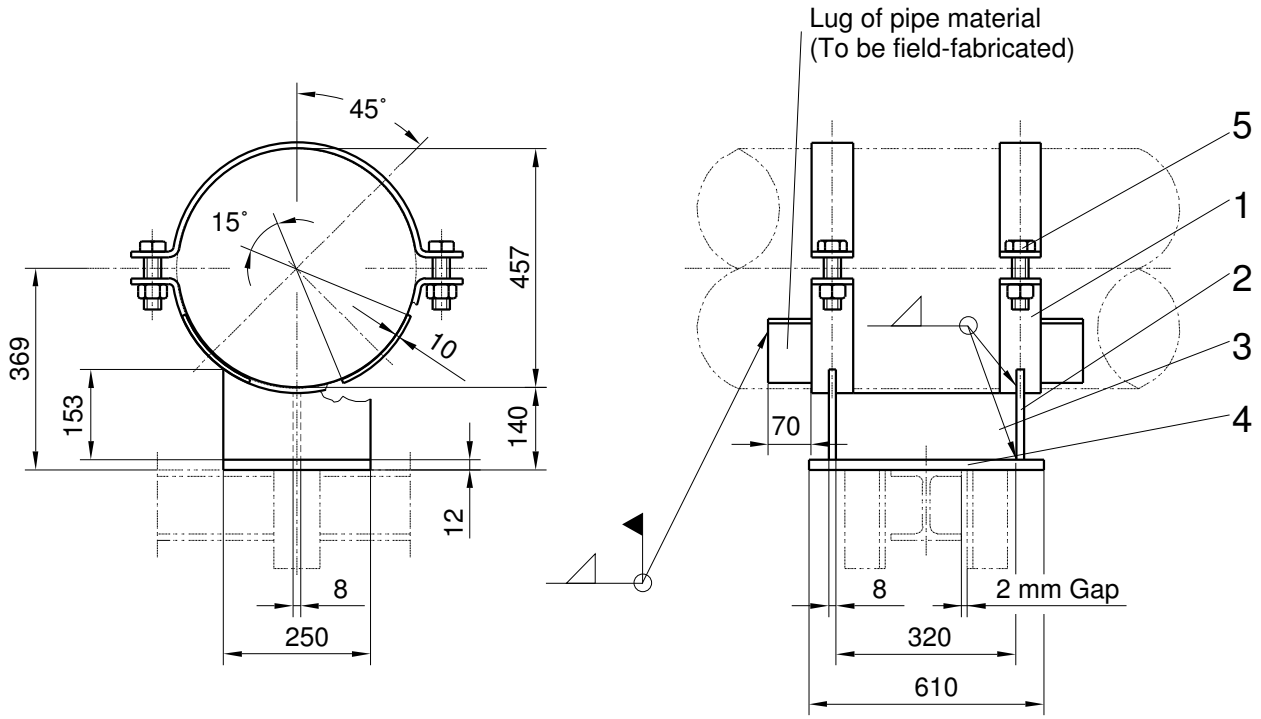
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACD003D Marking : 450/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 610	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 153 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 457	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 41,850 kg

1) A193GR.B7/A194GR.2H

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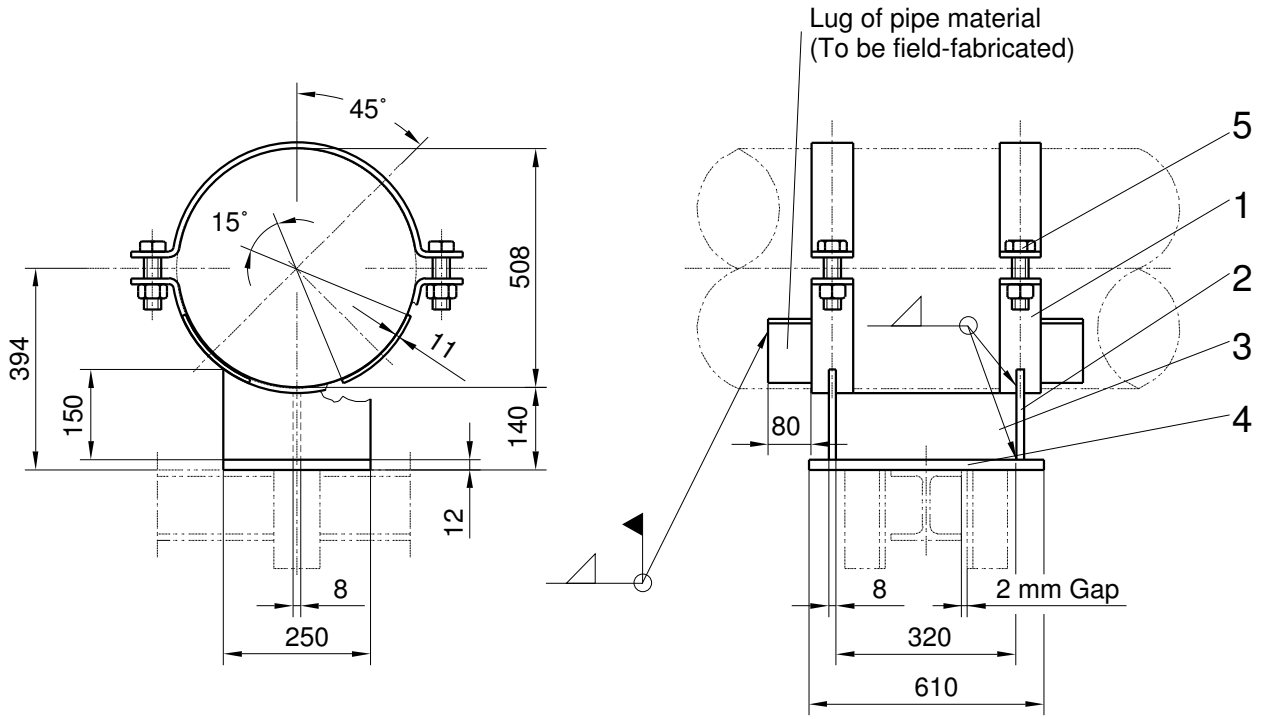
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD003D Marking : 500/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 610	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 150 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 508	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 43,630 kg

1) A193GR.B7/A194GR.2H

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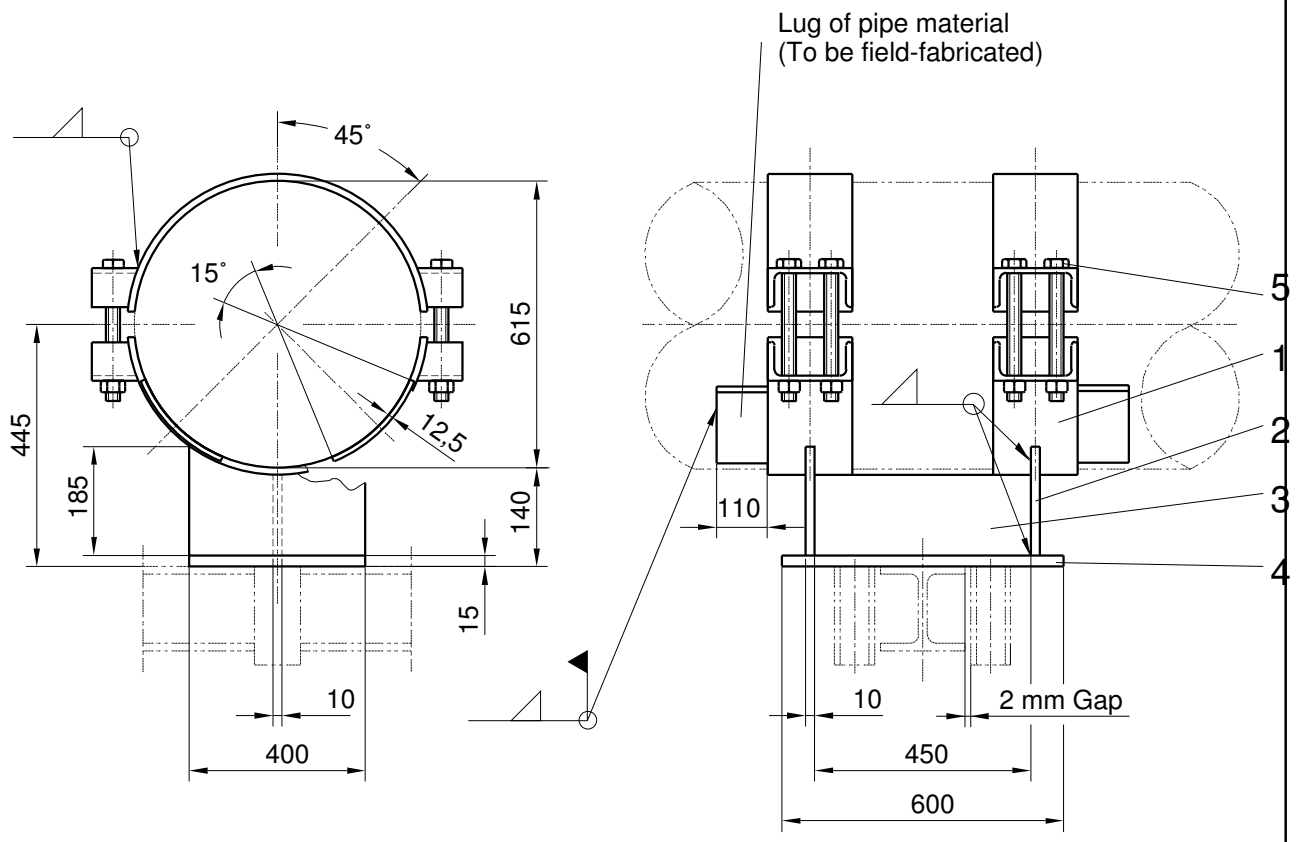
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD004D Marking : 600/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 400 x 600	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 115 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 185 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 615	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 91,100 kg

1) A193GR.B7/A194GR.2H

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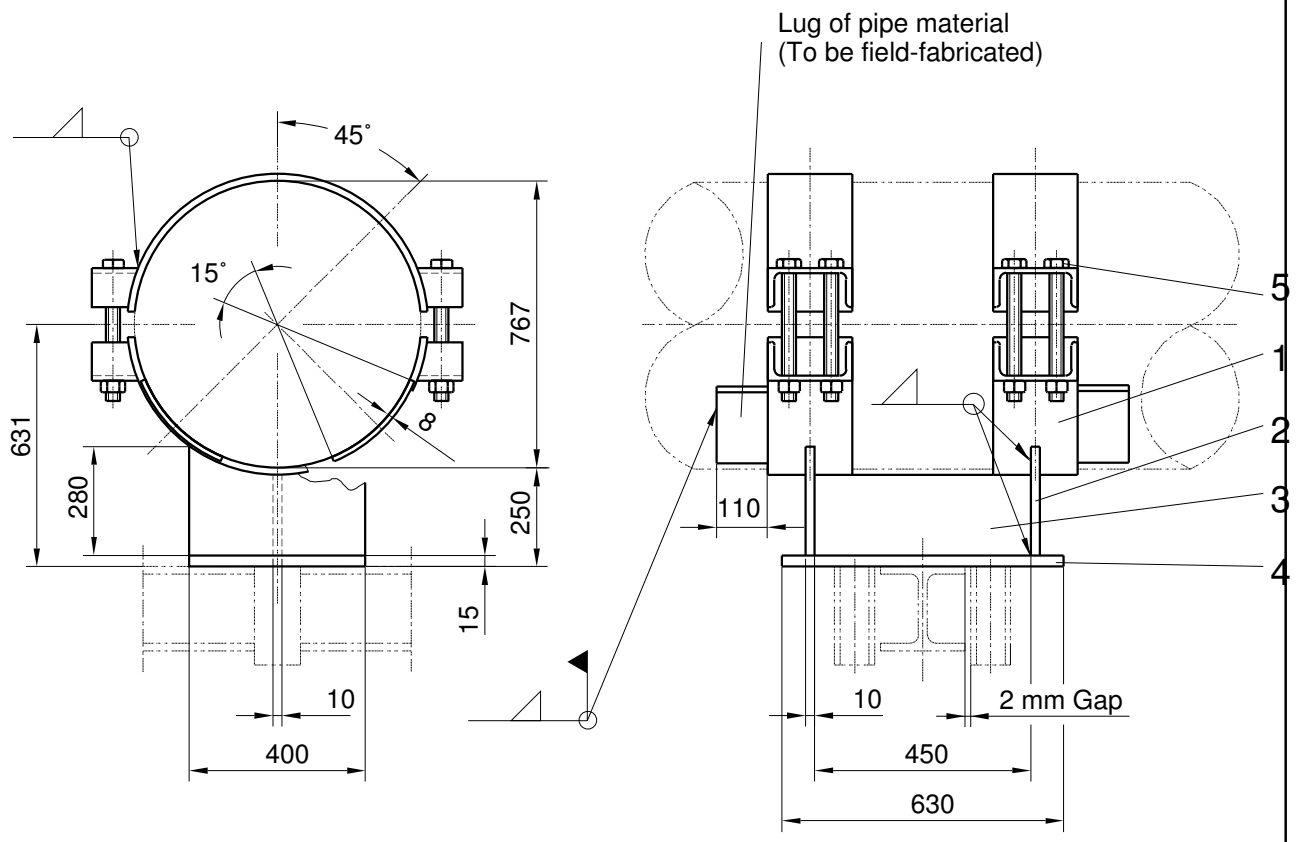
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD004D Marking : 750/6

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 180 / MU	ENISO 4016/4034	1)	MB0011D
4	1	PLATE 15 x 400 x 630	EN 10029	A283GR.B	GB0001D
3	1	PLATE 10 x 225 x 450	EN 10029	A283GR.B	GB0001D
2	2	PLATE 10 x 280 x 400	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM U DS 767	UN 3790-01	A283GR.B/A36	MS0011D

Remarks: Total weight = 0,000 kg

1) A193GR.B7/A194GR.2H

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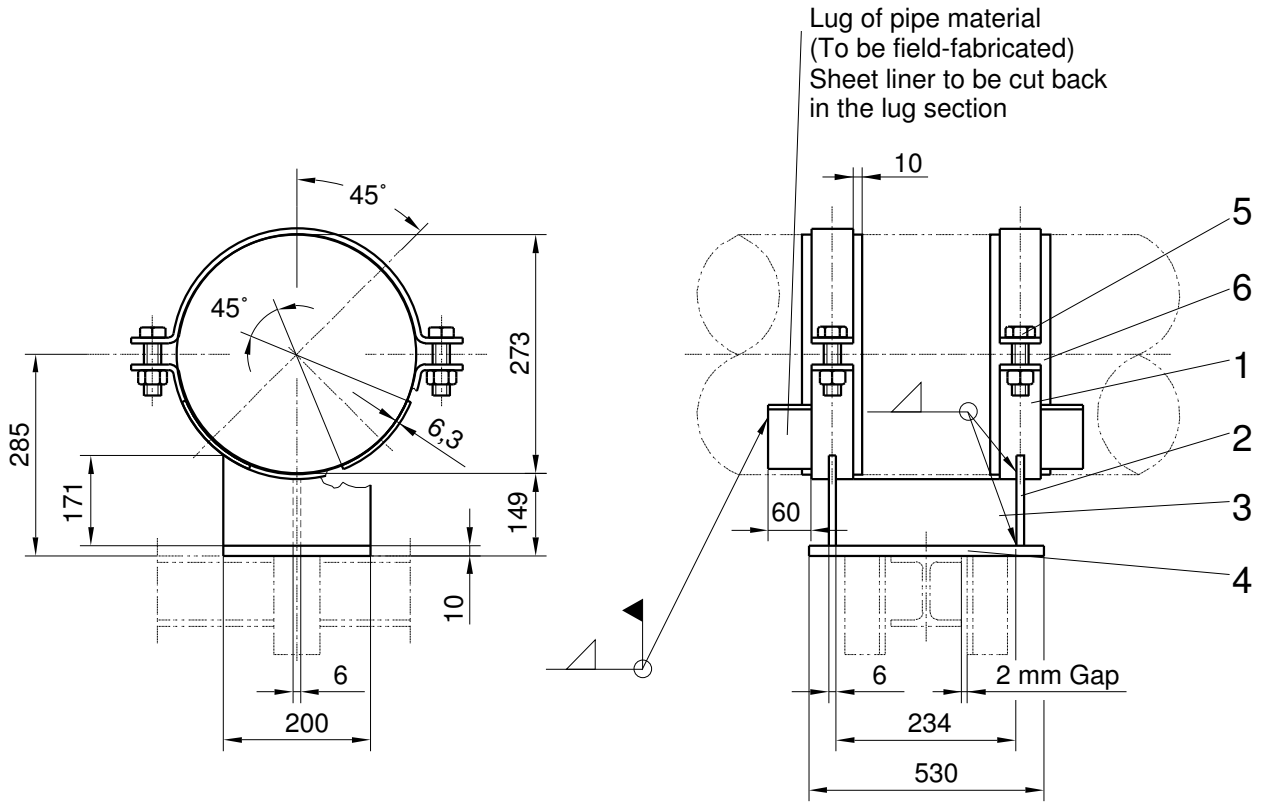
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD053D Marking : 250/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 200 x 530	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 131 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 171 x 200	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 22,630 kg

1) A193GR.B7/A194GR.2H

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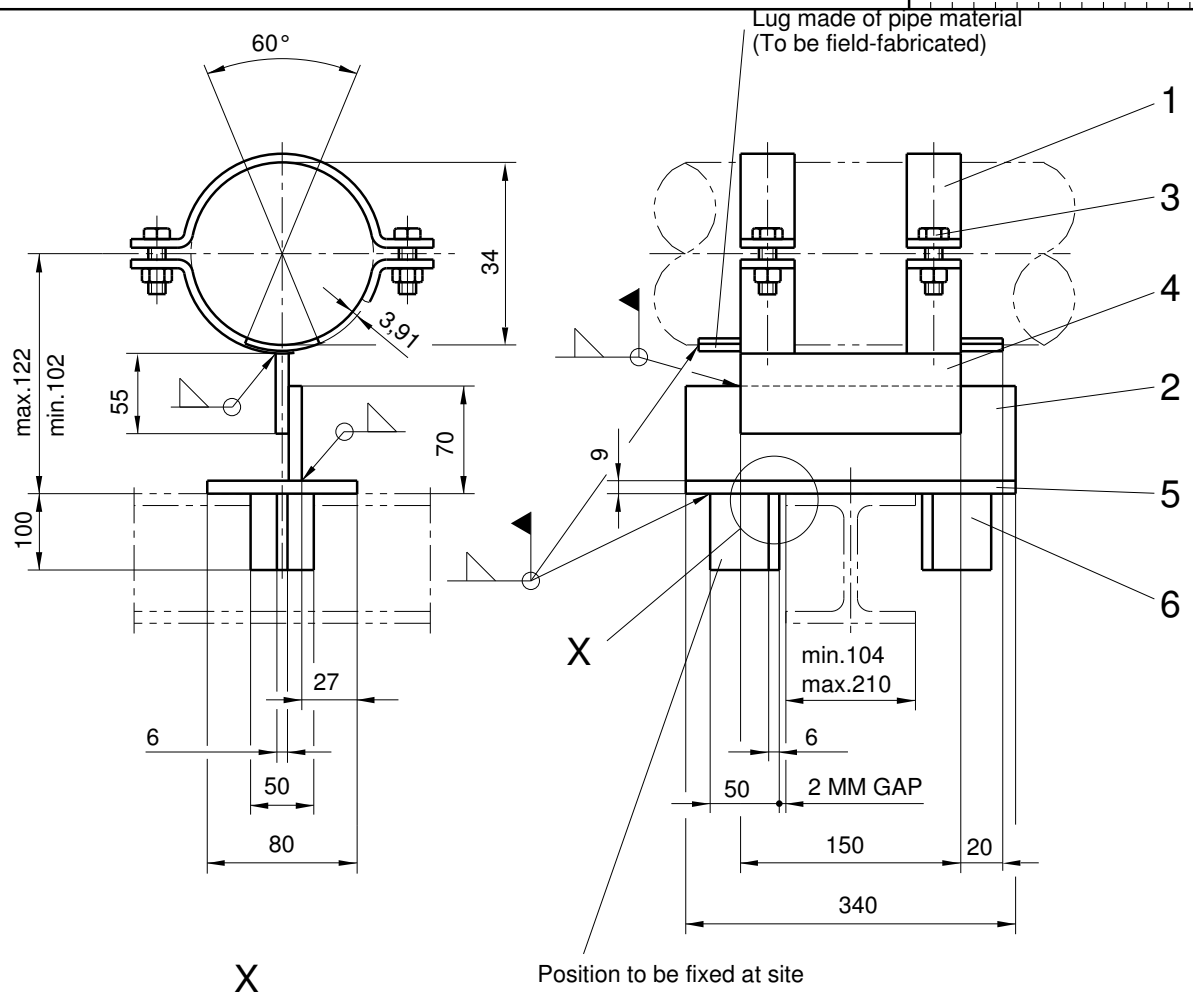
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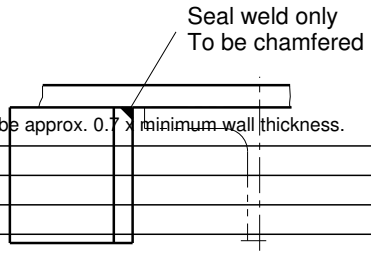
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD220D Marking : 25/102/340

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
5	1	PLATE 9 x 80 x 340	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 340	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,820 kg

1) A193GR.B7/A194GR.2H

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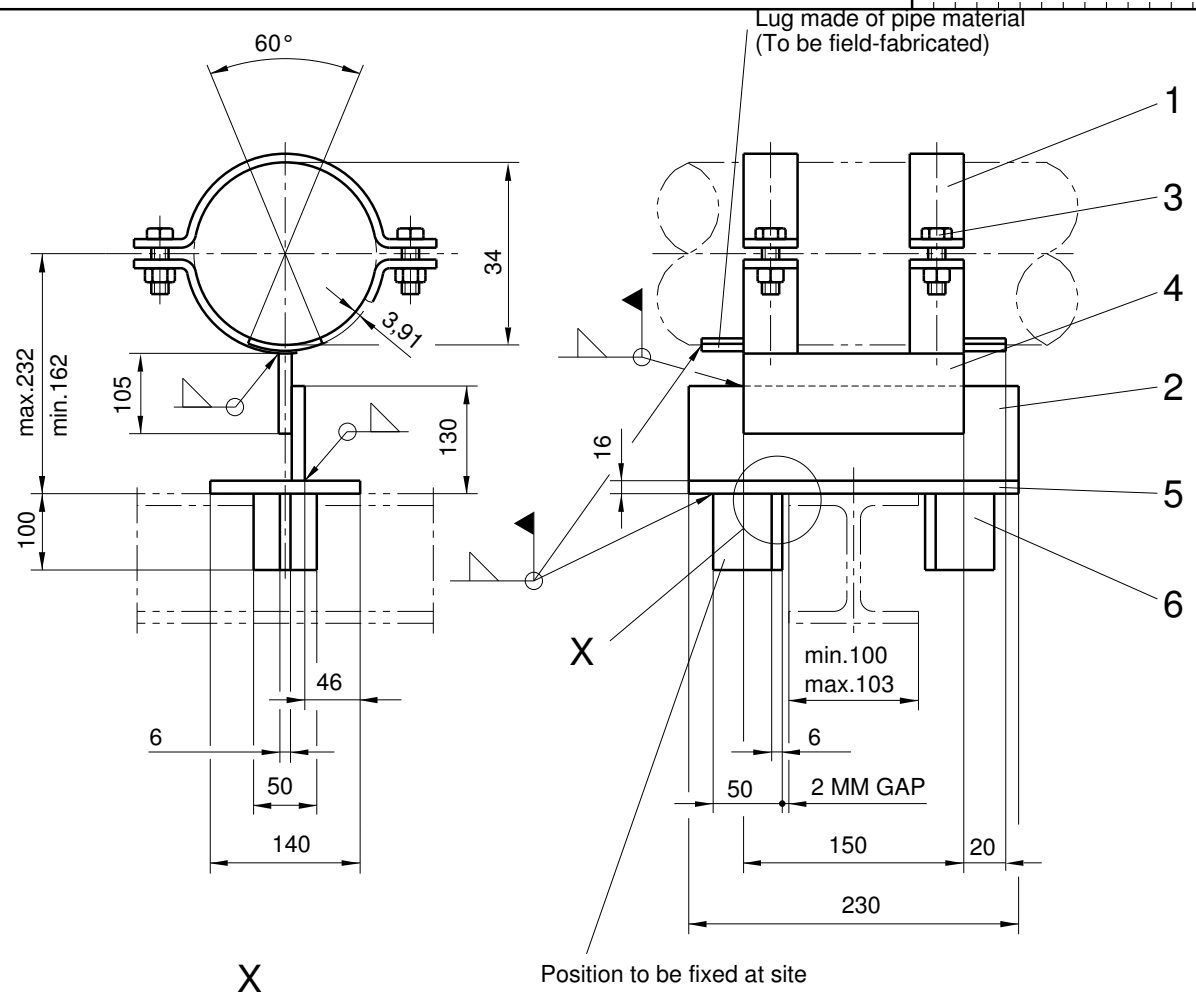
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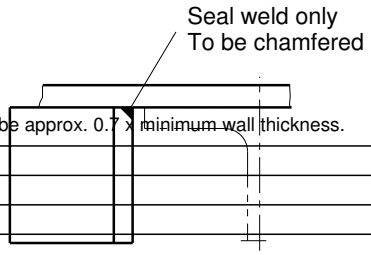
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD220D Marking : 25/162/230

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
5	1	PLATE 16 x 140 x 230	EN 10029	A283GR.B	GB0001D
4	1	PLATE 16 x 105 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 16 x 114 x 230	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,170 kg

1) A193GR.B7/A194GR.2H

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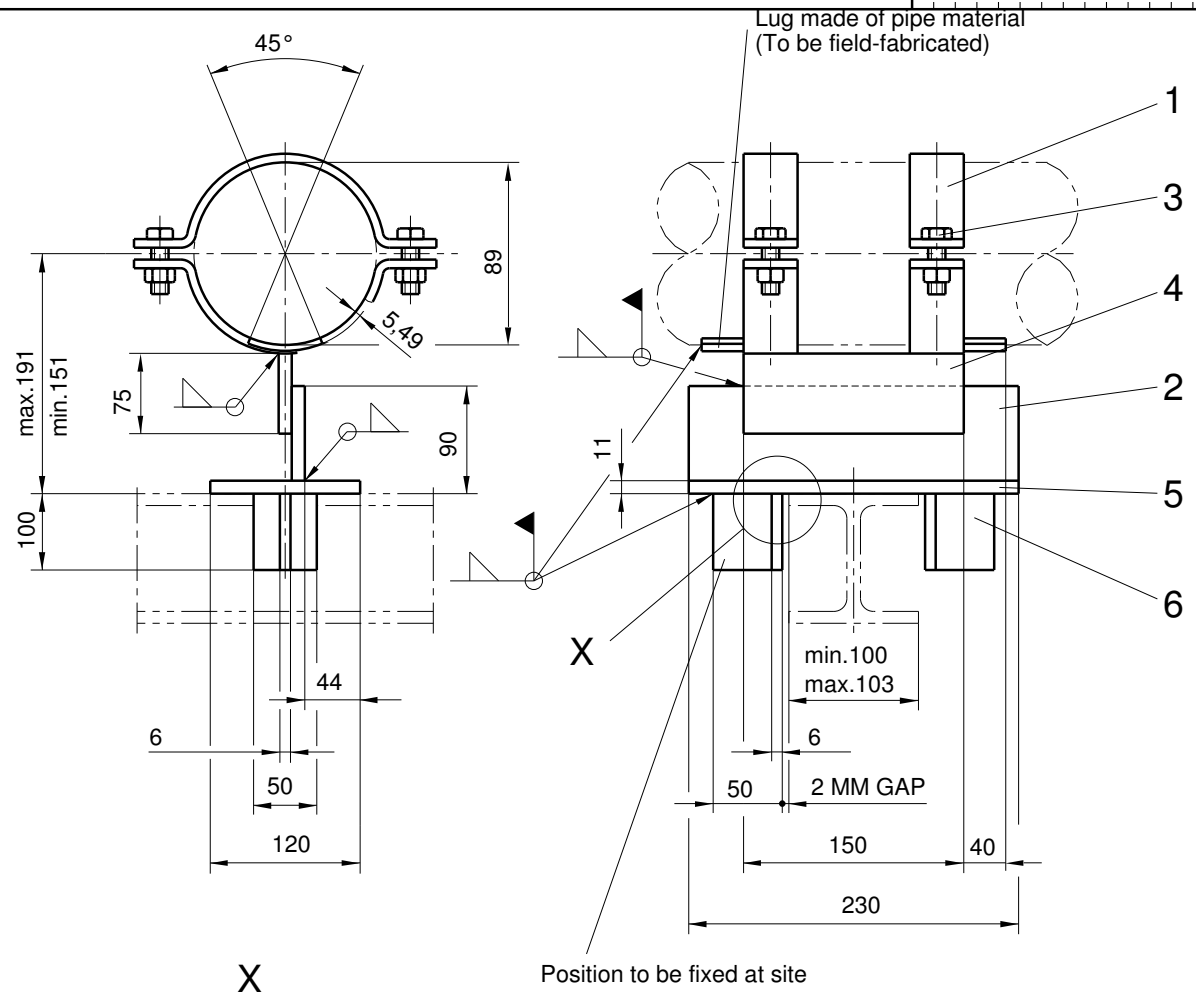
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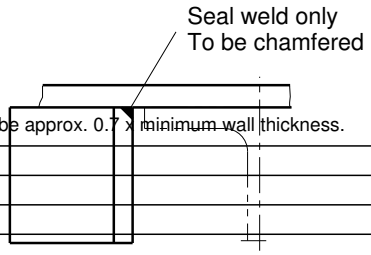
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD220D Marking : 80/151/230

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
5	1	PLATE 11 x 120 x 230	EN 10029	A283GR.B	GB0001D
4	1	PLATE 11 x 75 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 11 x 79 x 230	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,540 kg

1) A193GR.B7/A194GR.2H

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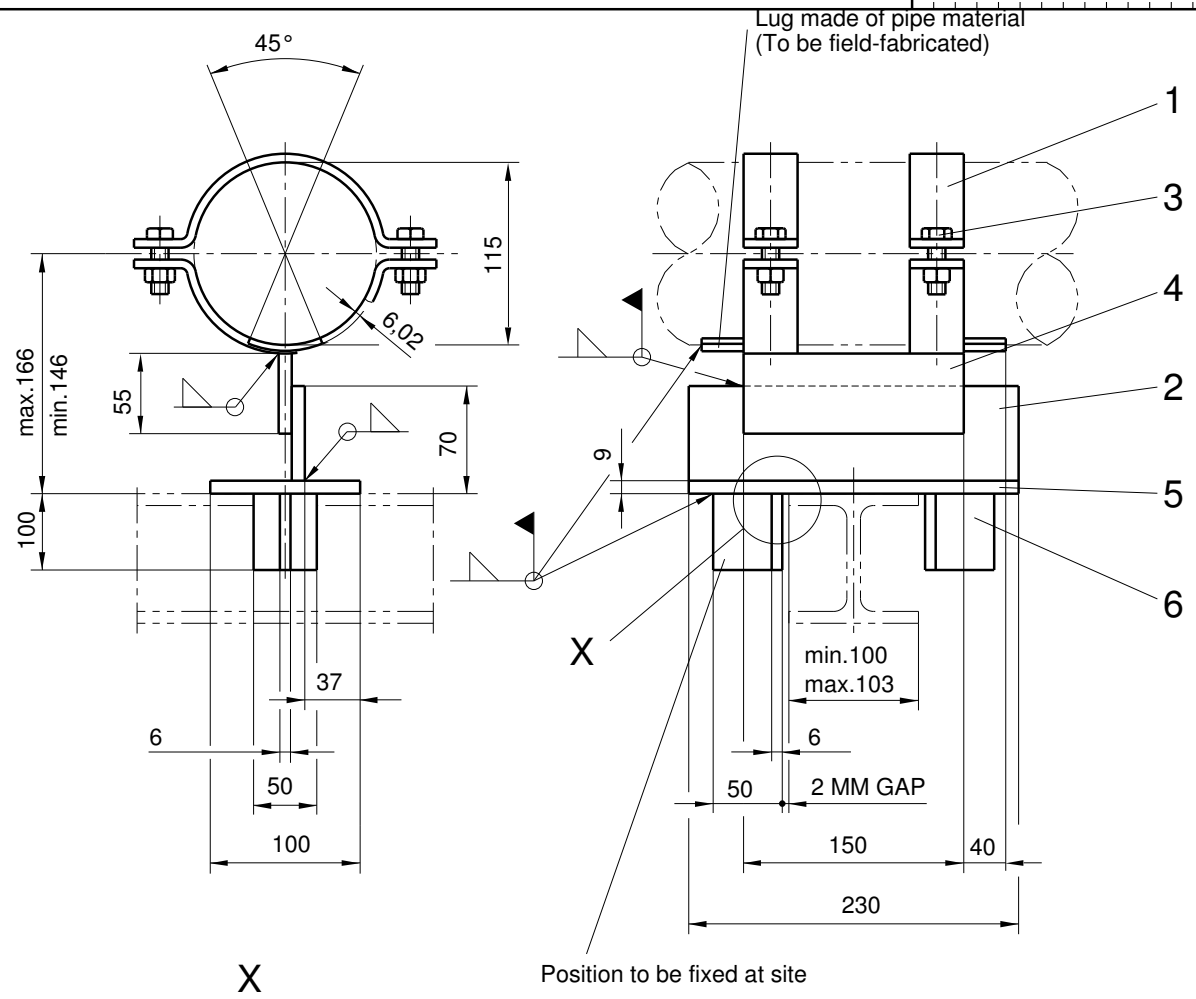
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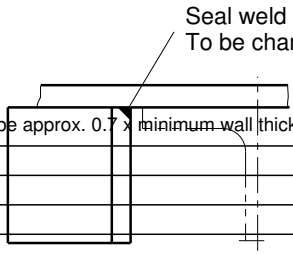
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD220D Marking : 100/146/230

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
5	1	PLATE 9 x 100 x 230	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 230	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,310 kg

1) A193GR.B7/A194GR.2H

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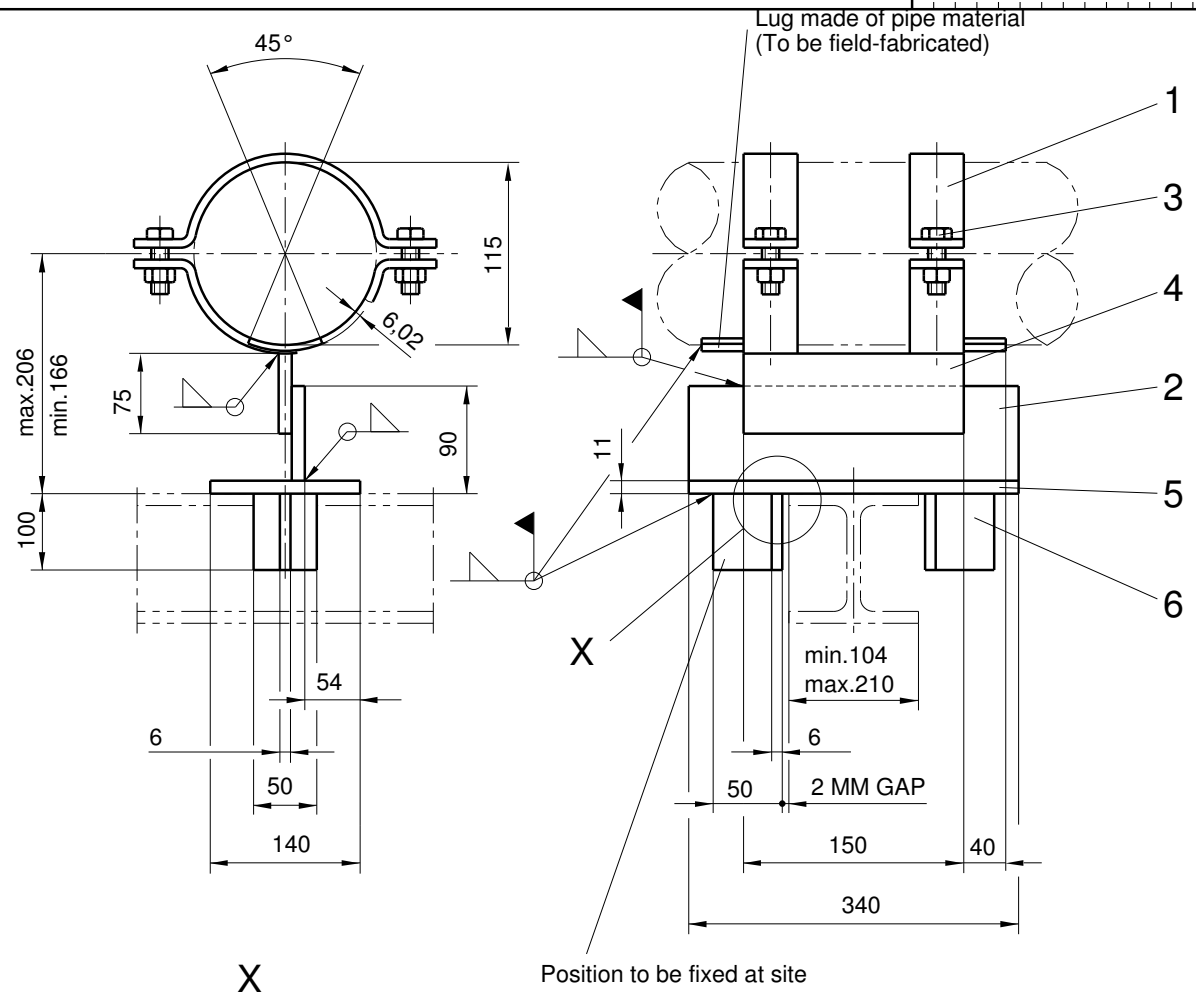
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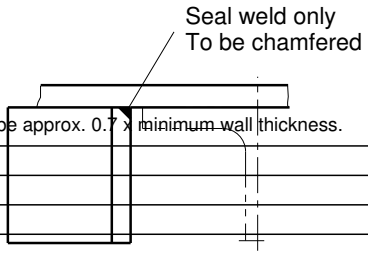
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD220D Marking : 100/166/340

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
5	1	PLATE 11 x 140 x 340	EN 10029	A283GR.B	GB0001D
4	1	PLATE 11 x 75 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 11 x 79 x 340	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 12,510 kg

1) A193GR.B7/A194GR.2H

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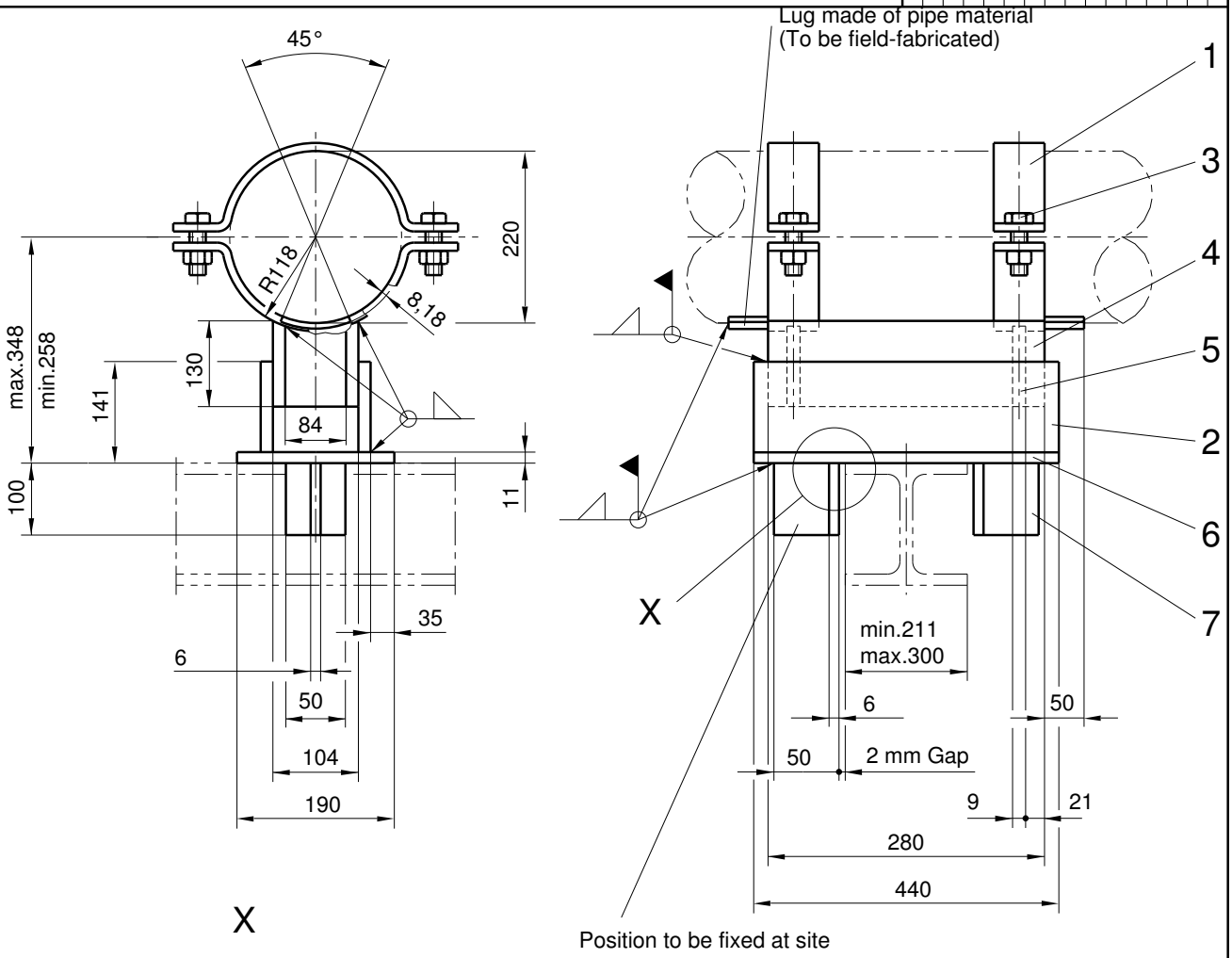
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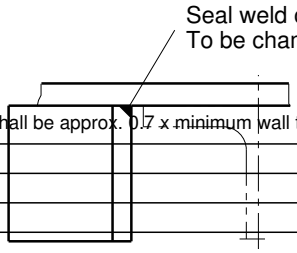
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: ACD221D Marking : 200/258/440





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
6	1	PLATE 11 x 190 x 440	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 126	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 130 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 130 x 440	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 29,180 kg

1) A193GR.B7/A194GR.2H

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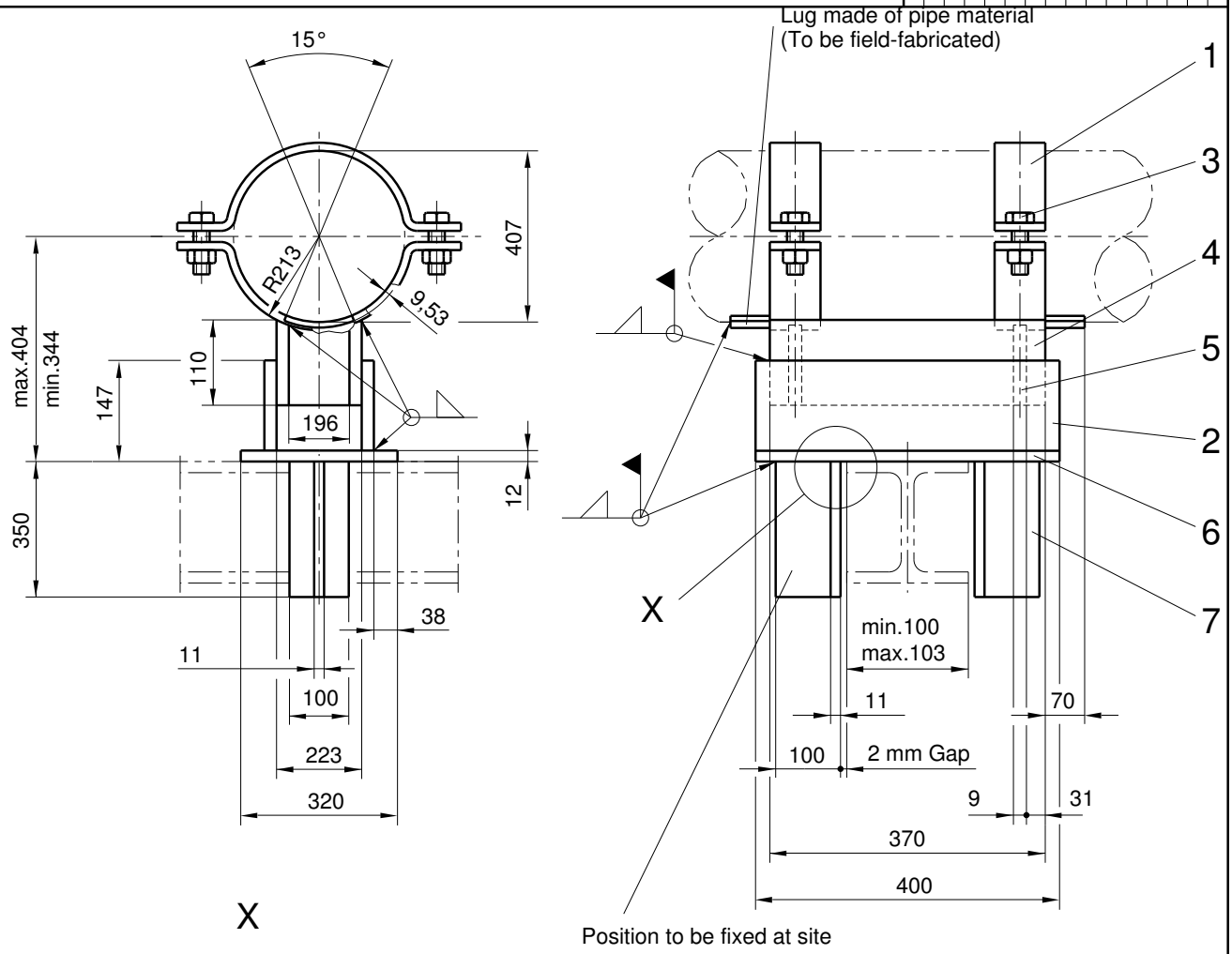
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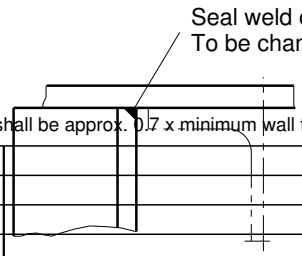
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD222D Marking : 400/344/400

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	T-BAR T 100 x 350	EN 10055	A36	GT0001D
6	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 196 x 104	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 110 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 135 x 400	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 63,570 kg

1) A193GR.B7/A194GR.2H

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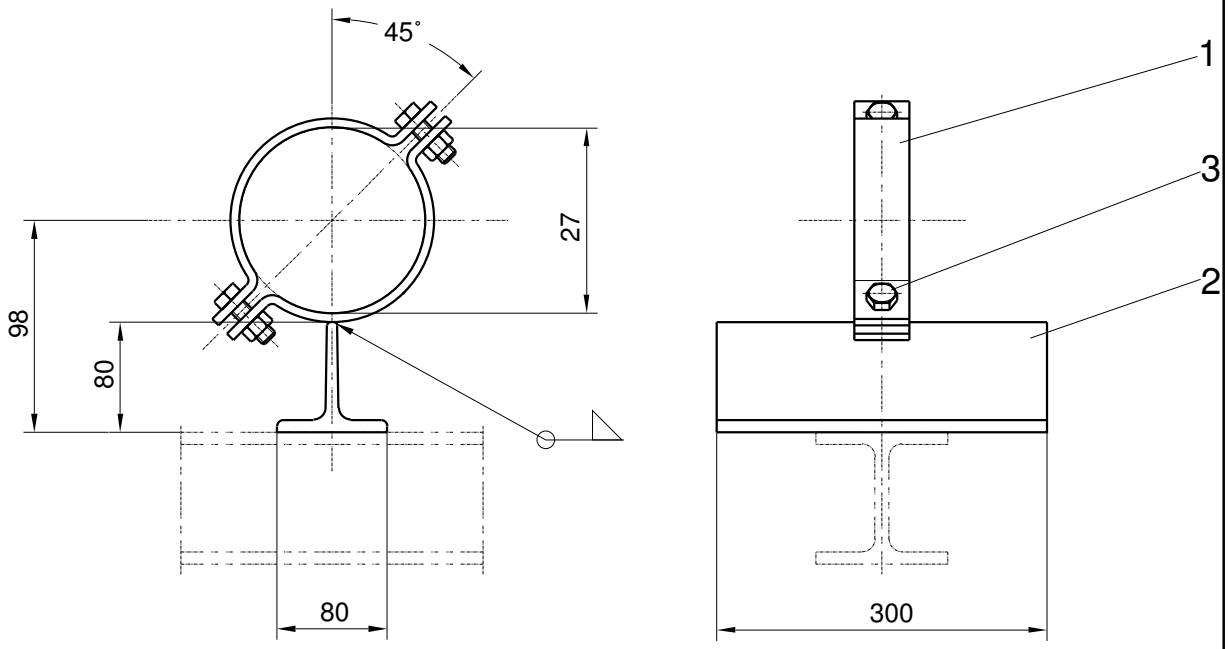
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: ADA001D Marking : 20/1



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,460 kg

1) A193GR.B7/A194GR.2H

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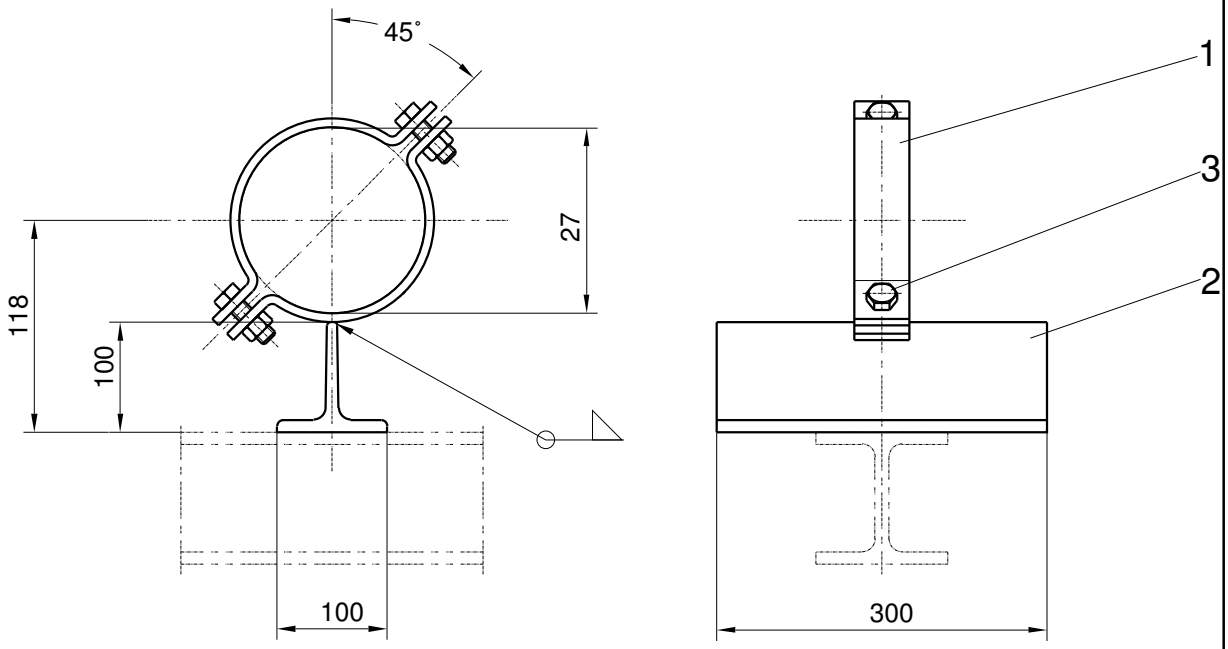
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 20/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,600 kg

1) A193GR.B7/A194GR.2H

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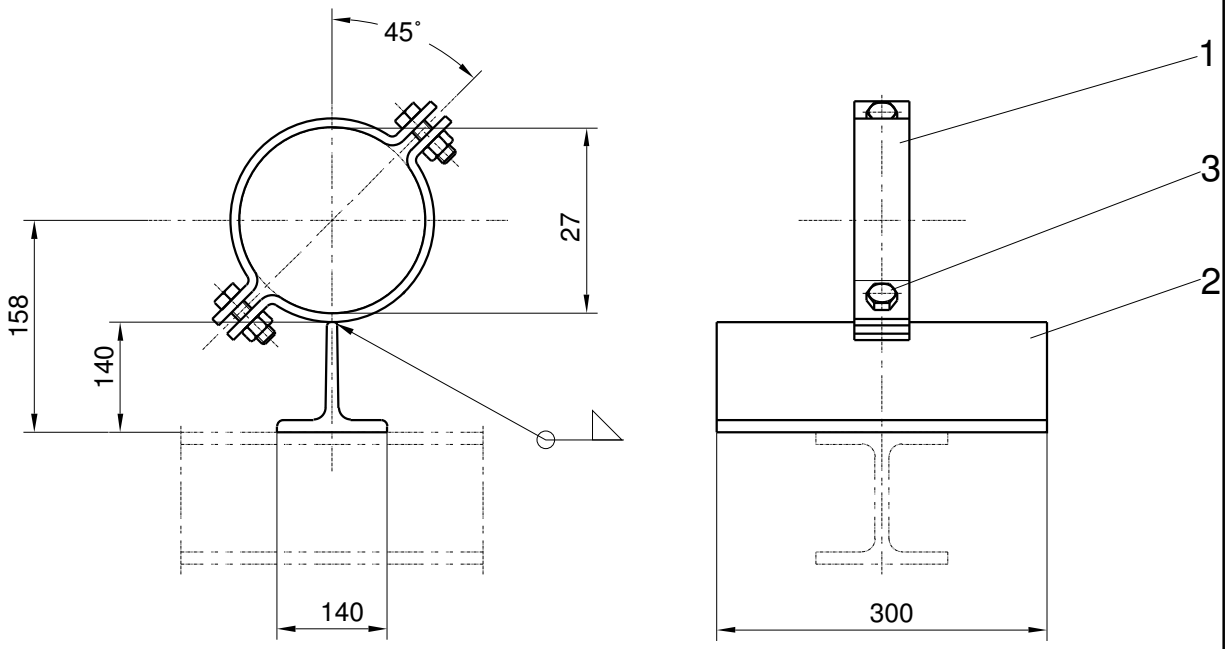
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 20/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 6,580 kg

1) A193GR.B7/A194GR.2H

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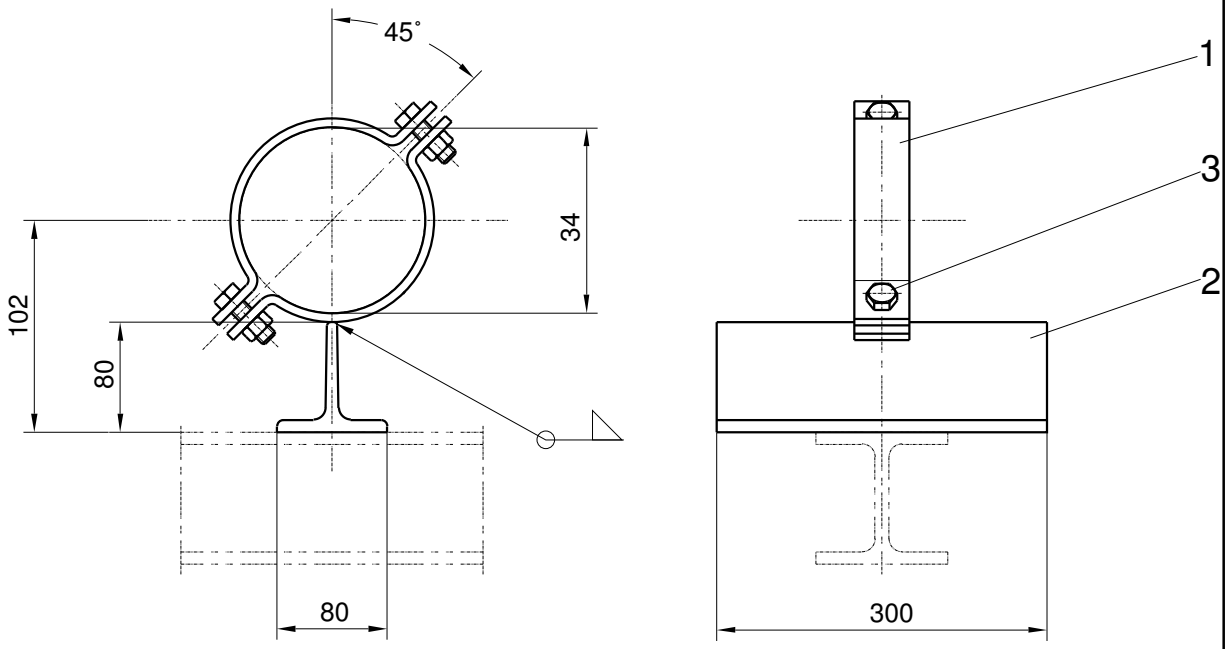
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 25/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,480 kg

1) A193GR.B7/A194GR.2H

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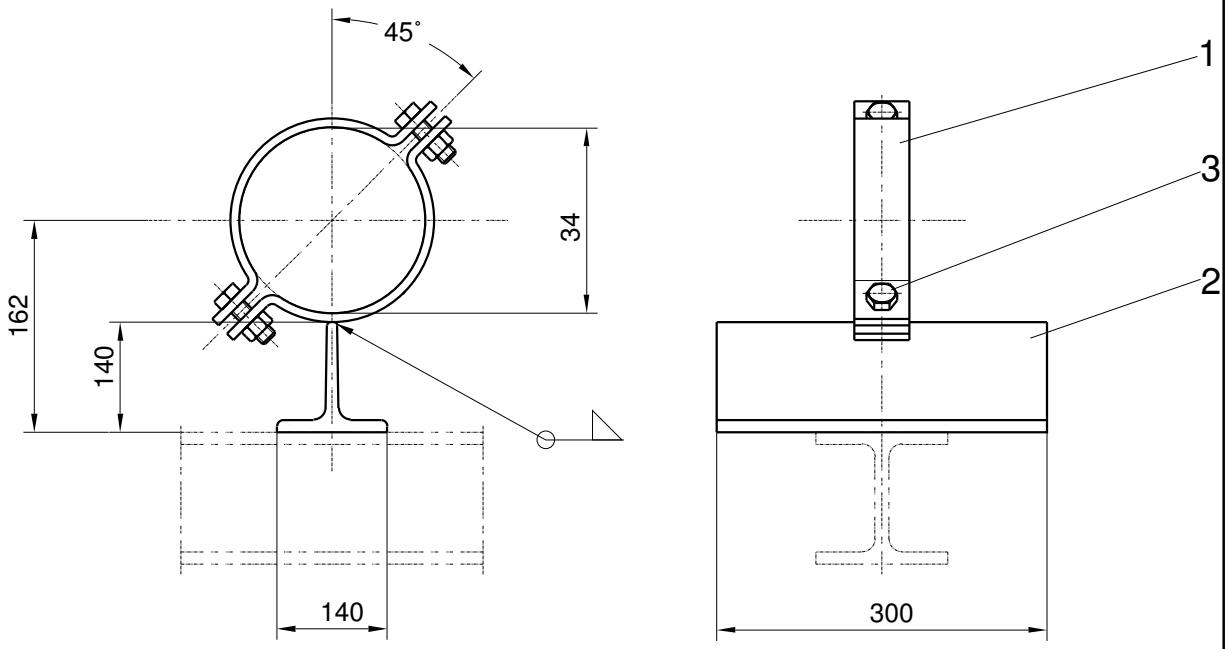
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 25/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 6,600 kg

1) A193GR.B7/A194GR.2H

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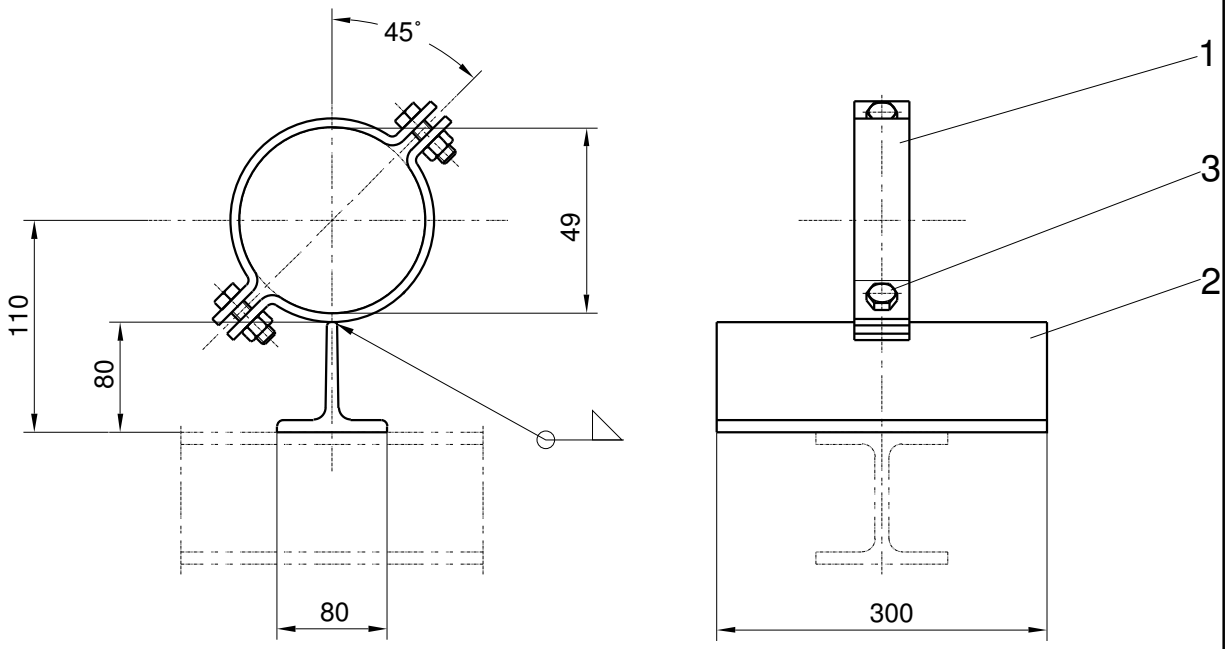
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 40/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,540 kg

1) A193GR.B7/A194GR.2H

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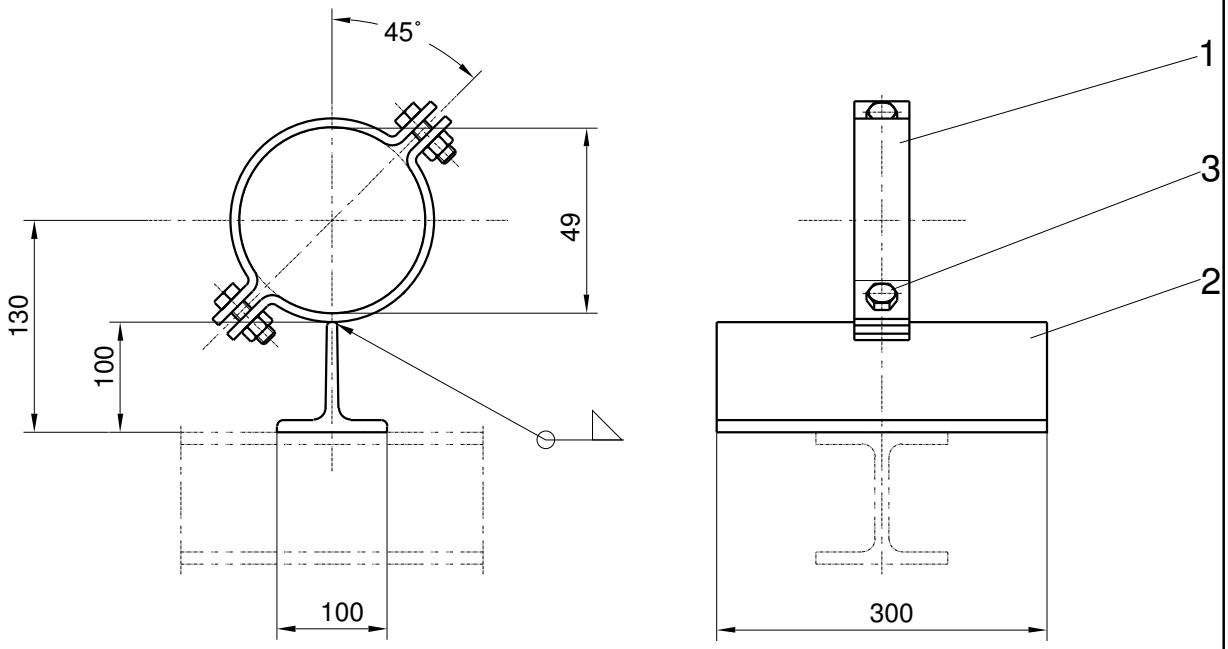
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 40/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,680 kg

1) A193GR.B7/A194GR.2H

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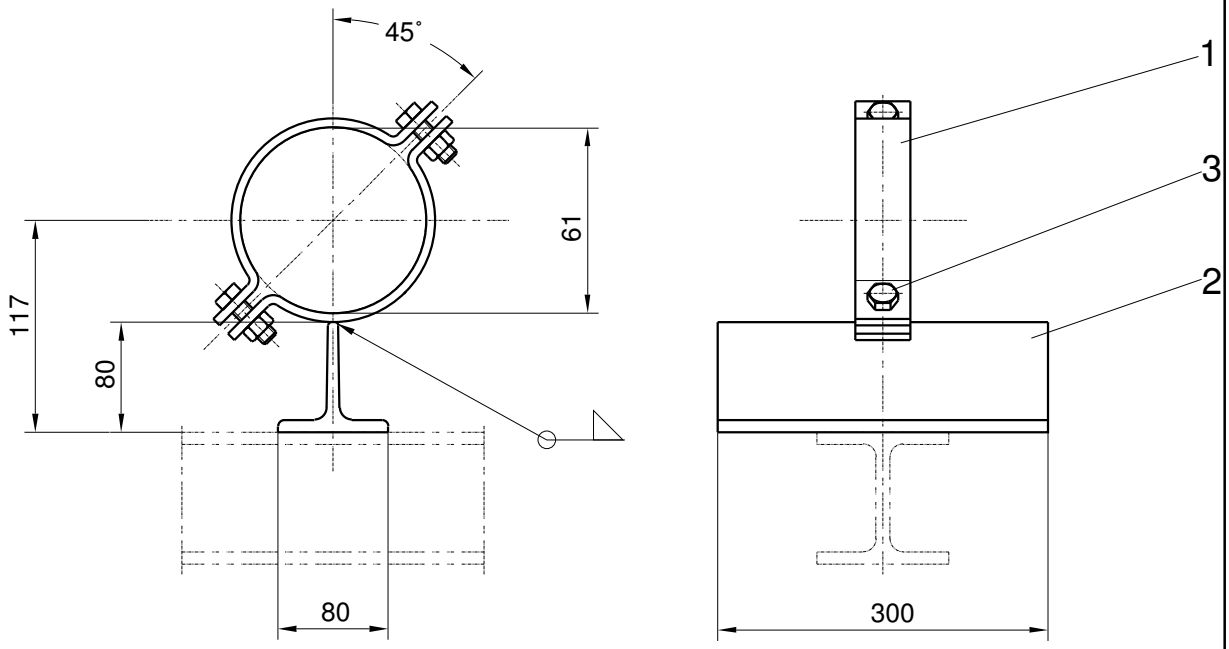
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,890 kg

1) A193GR.B7/A194GR.2H

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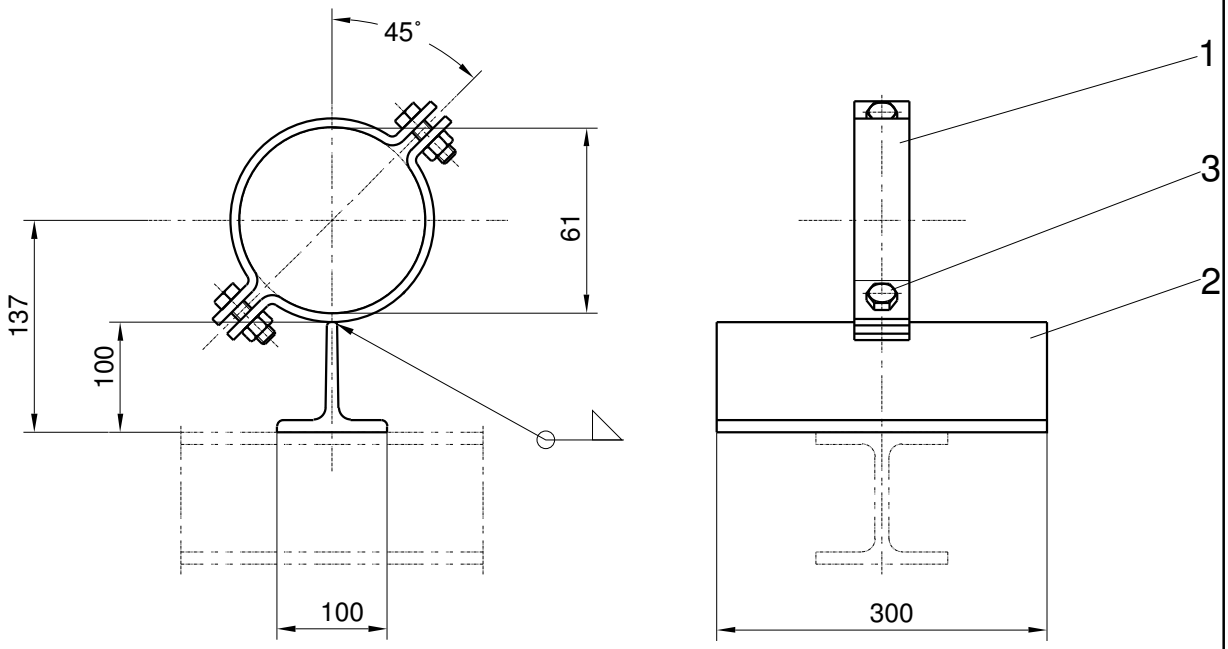
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 50/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,030 kg

1) A193GR.B7/A194GR.2H

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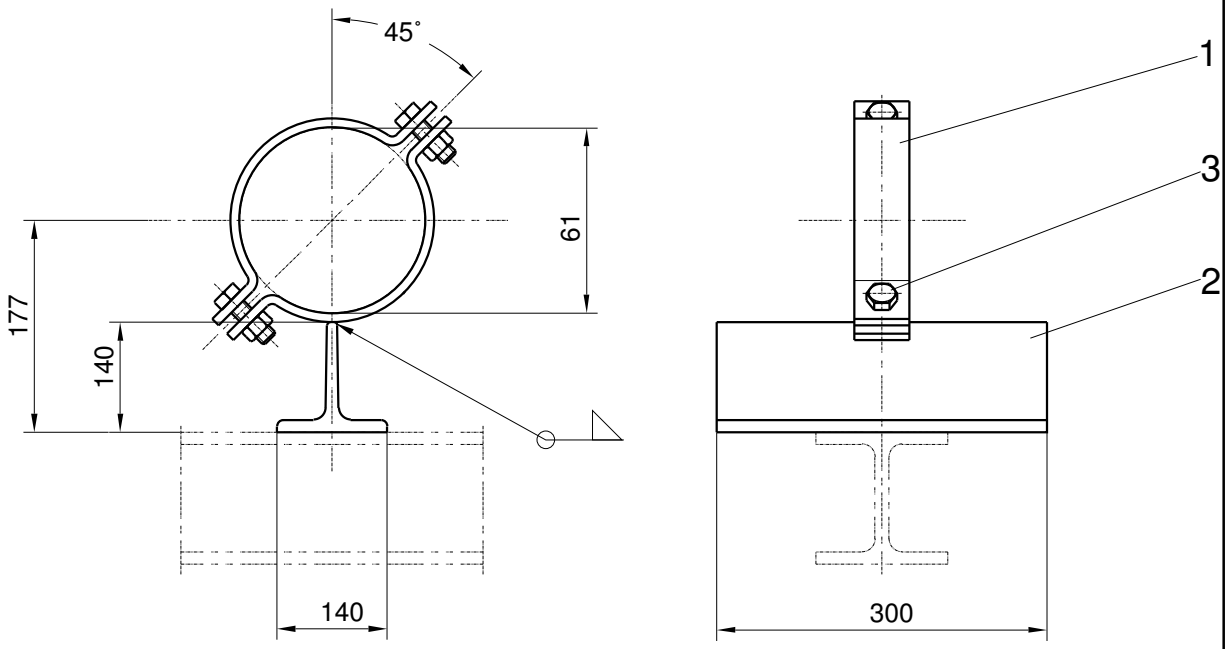
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 50/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,010 kg

1) A193GR.B7/A194GR.2H

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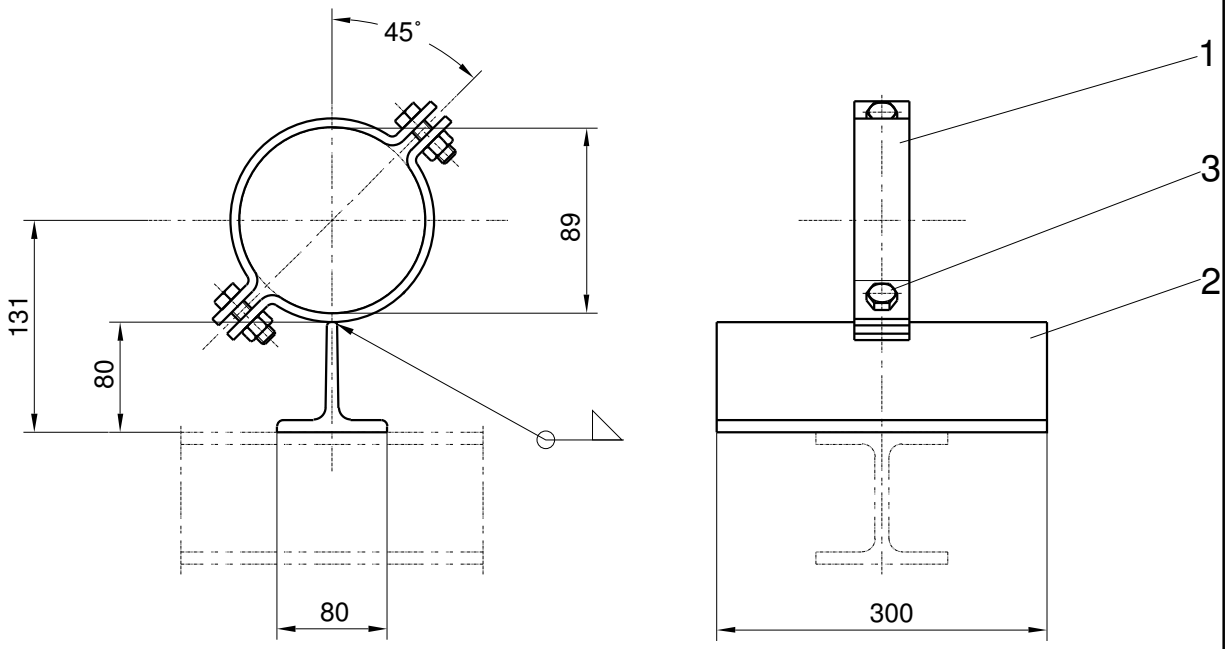
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADA001D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,040 kg

1) A193GR.B7/A194GR.2H

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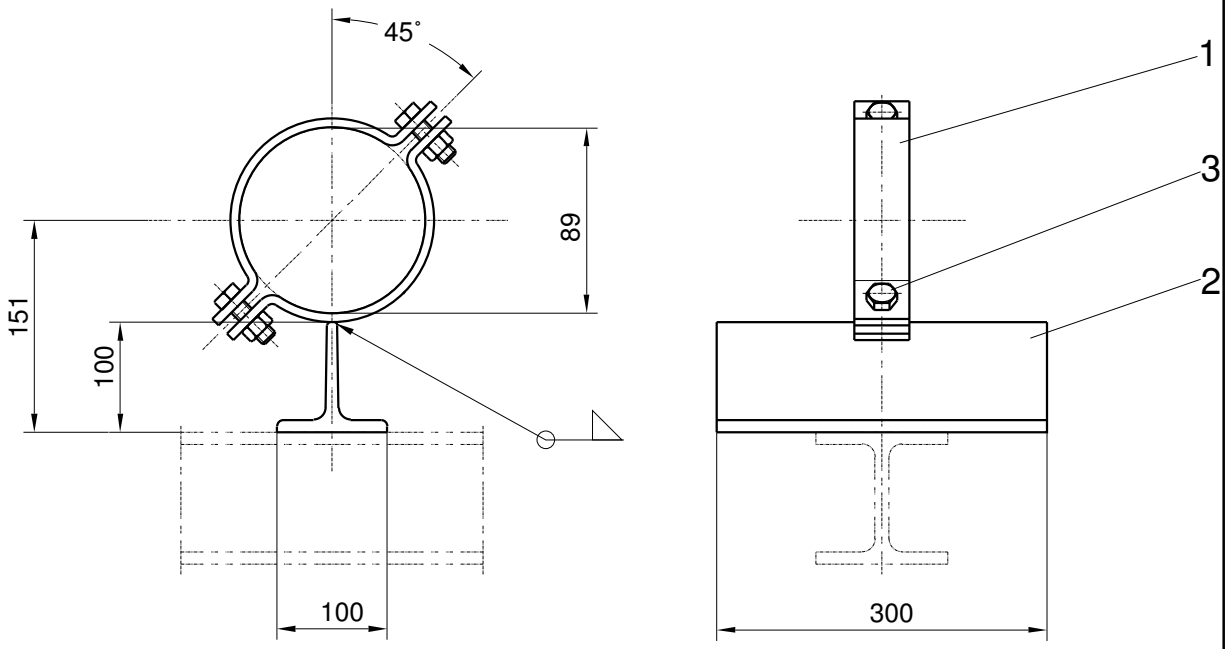
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 80/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,180 kg

1) A193GR.B7/A194GR.2H

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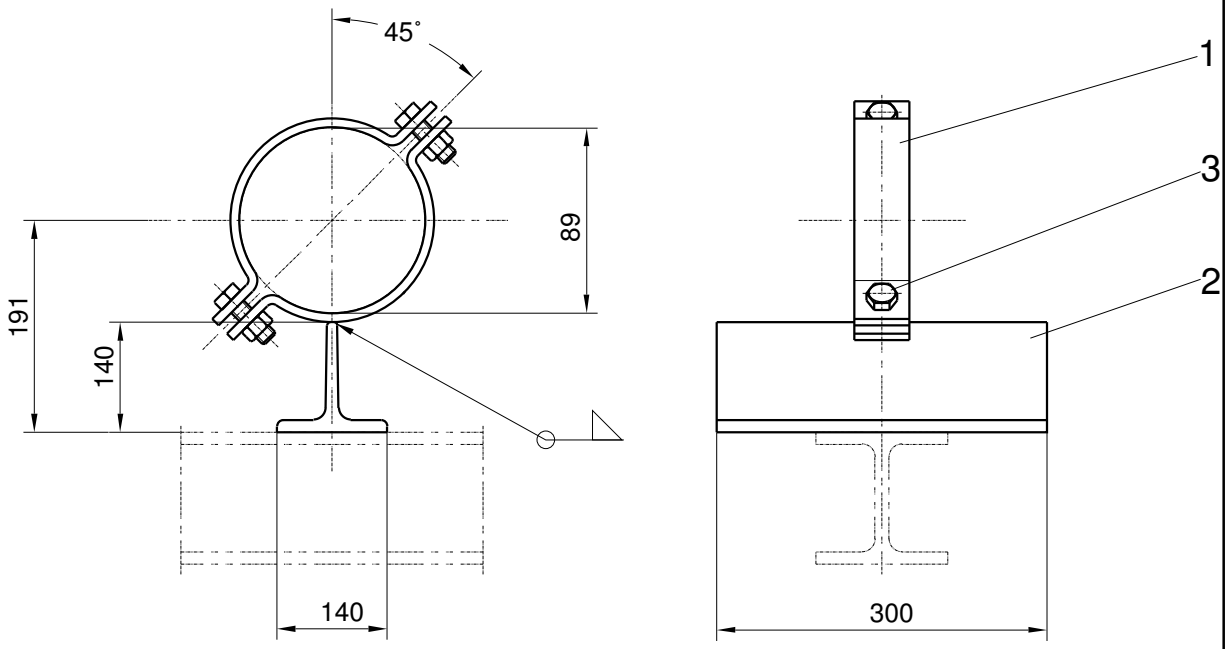
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 80/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,160 kg

1) A193GR.B7/A194GR.2H

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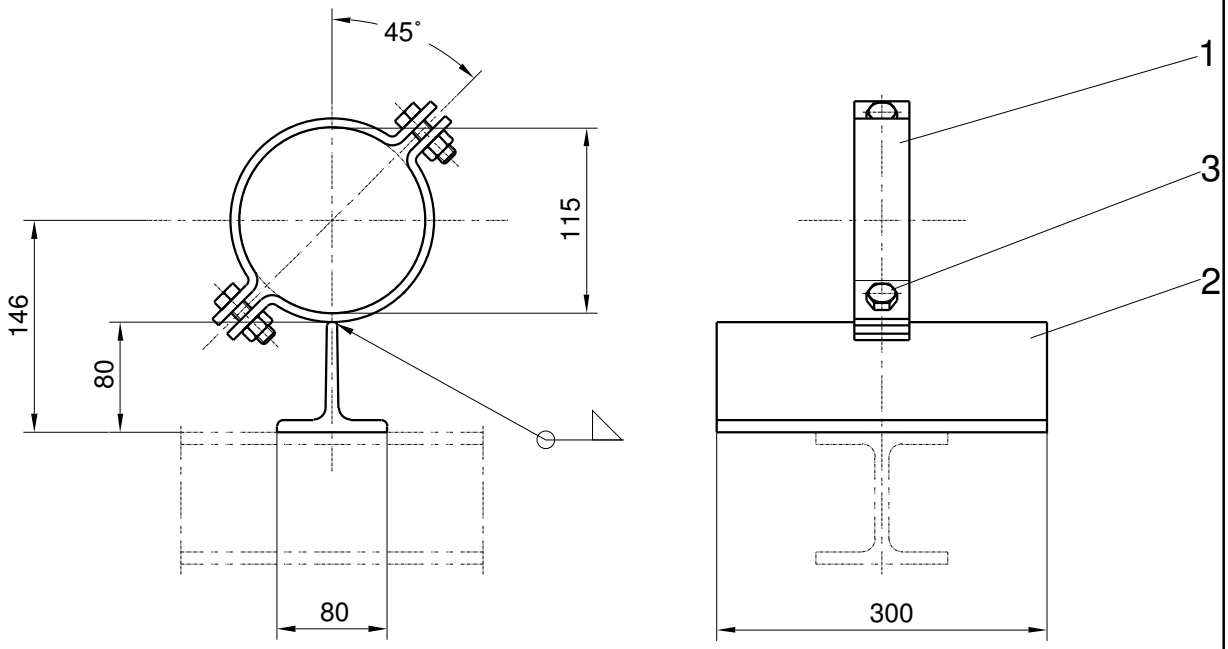
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,110 kg

1) A193GR.B7/A194GR.2H

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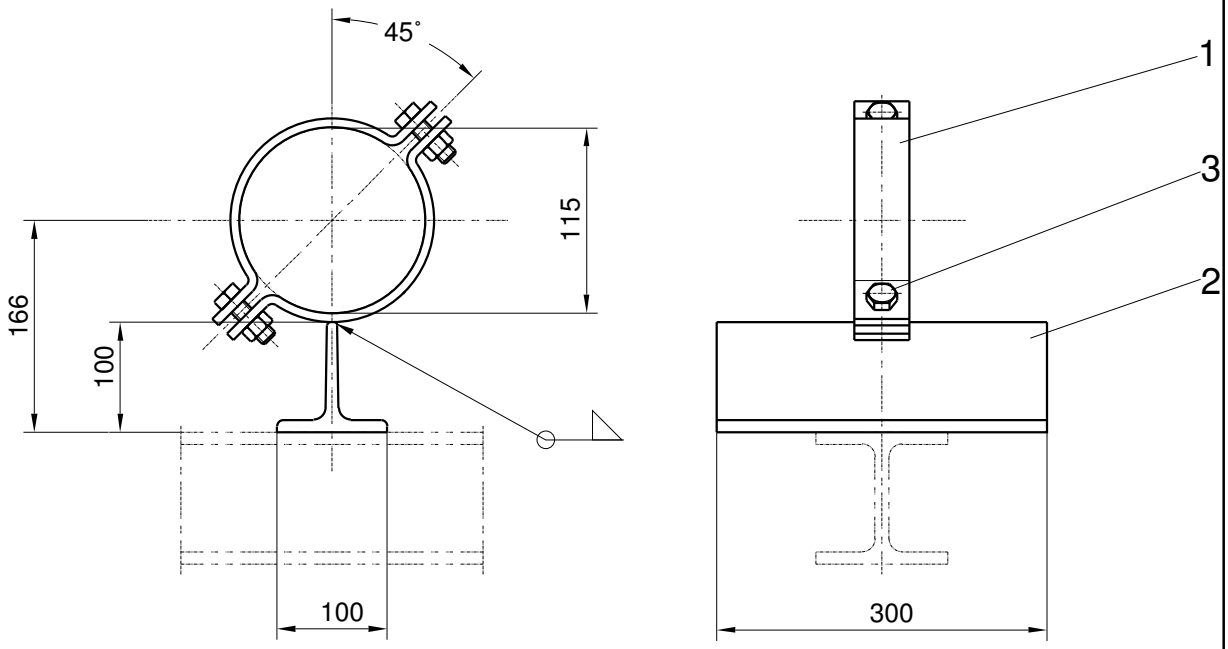
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 100/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,250 kg

1) A193GR.B7/A194GR.2H

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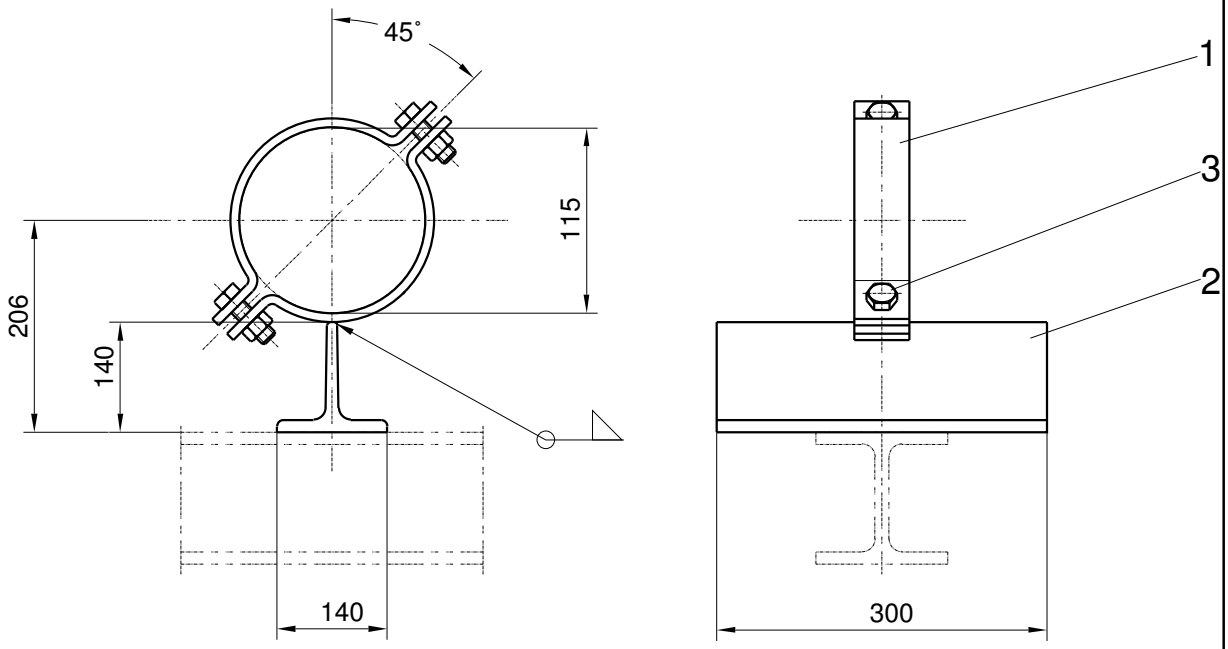
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 100/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,230 kg

1) A193GR.B7/A194GR.2H

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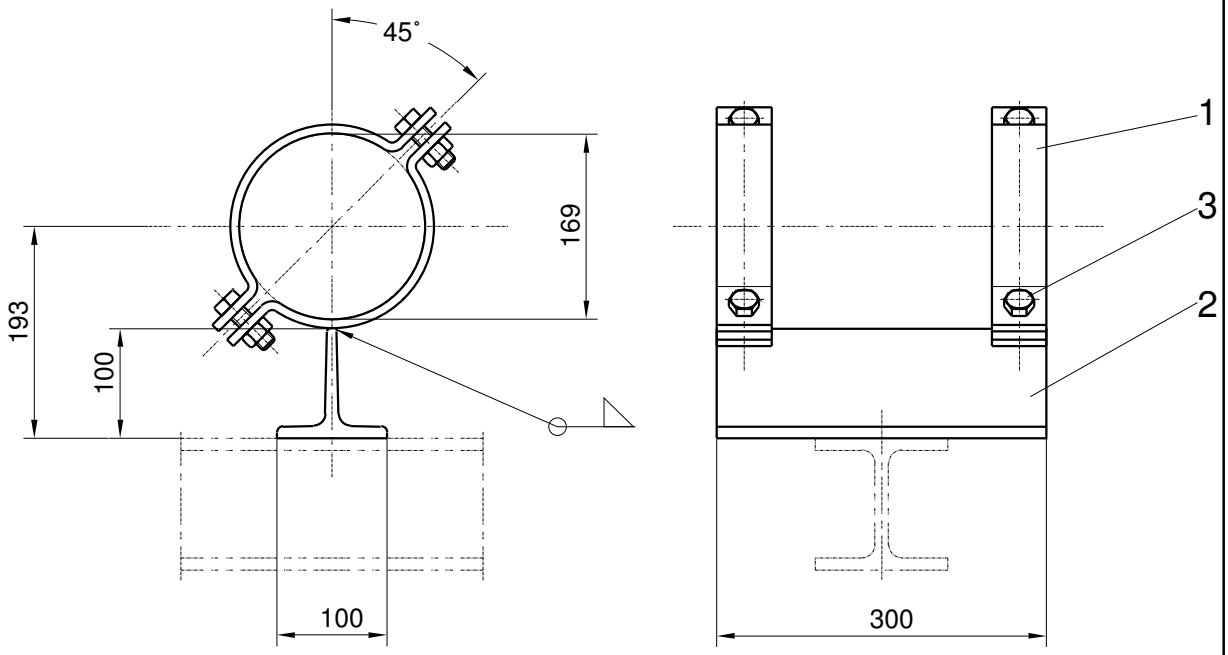
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA002D Marking : 150/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 9,940 kg

1) A193GR.B7/A194GR.2H

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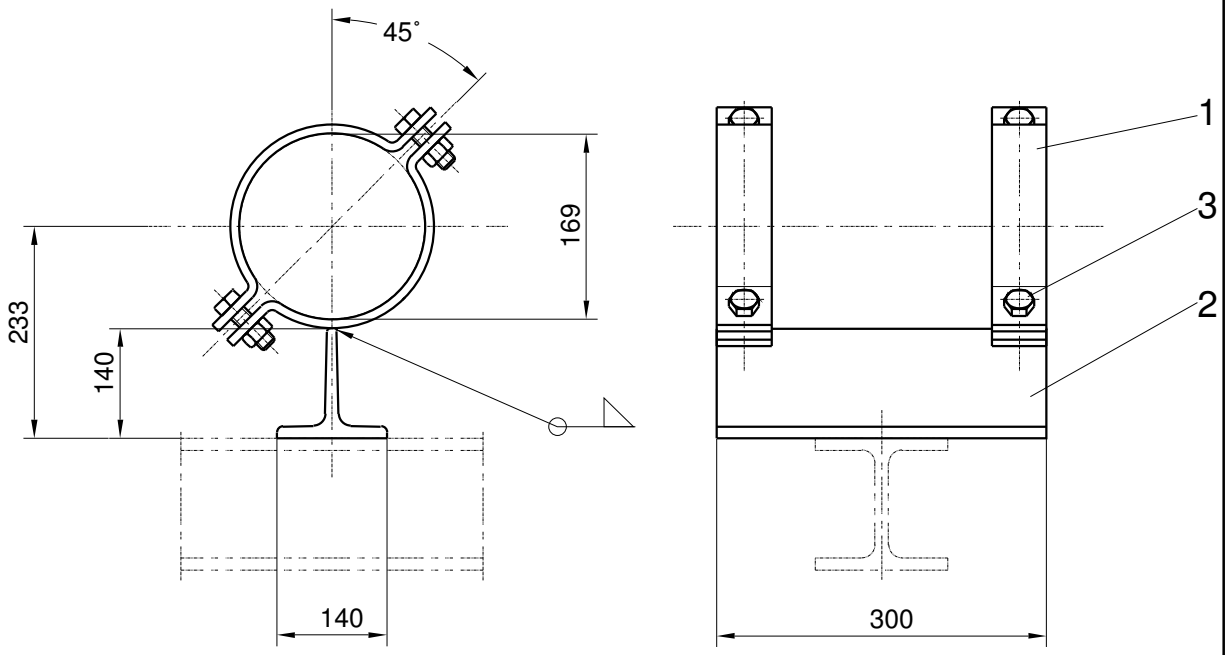
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA002D Marking : 150/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,410 kg

1) A193GR.B7/A194GR.2H

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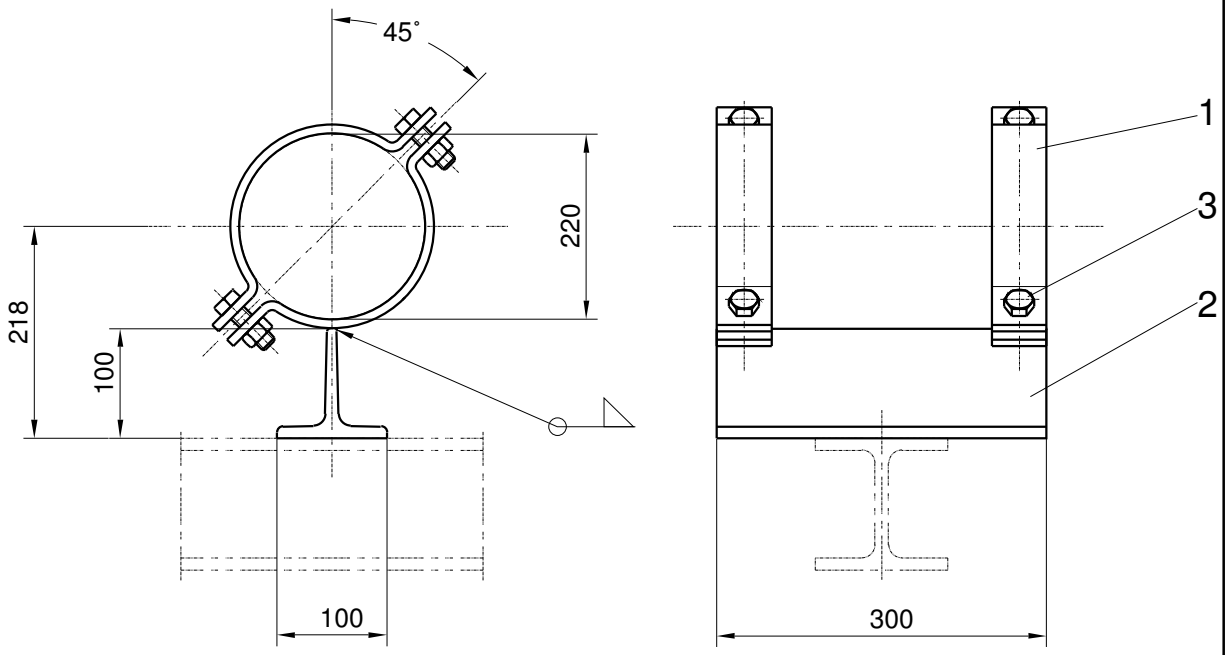
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA002D Marking : 200/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,940 kg

1) A193GR.B7/A194GR.2H

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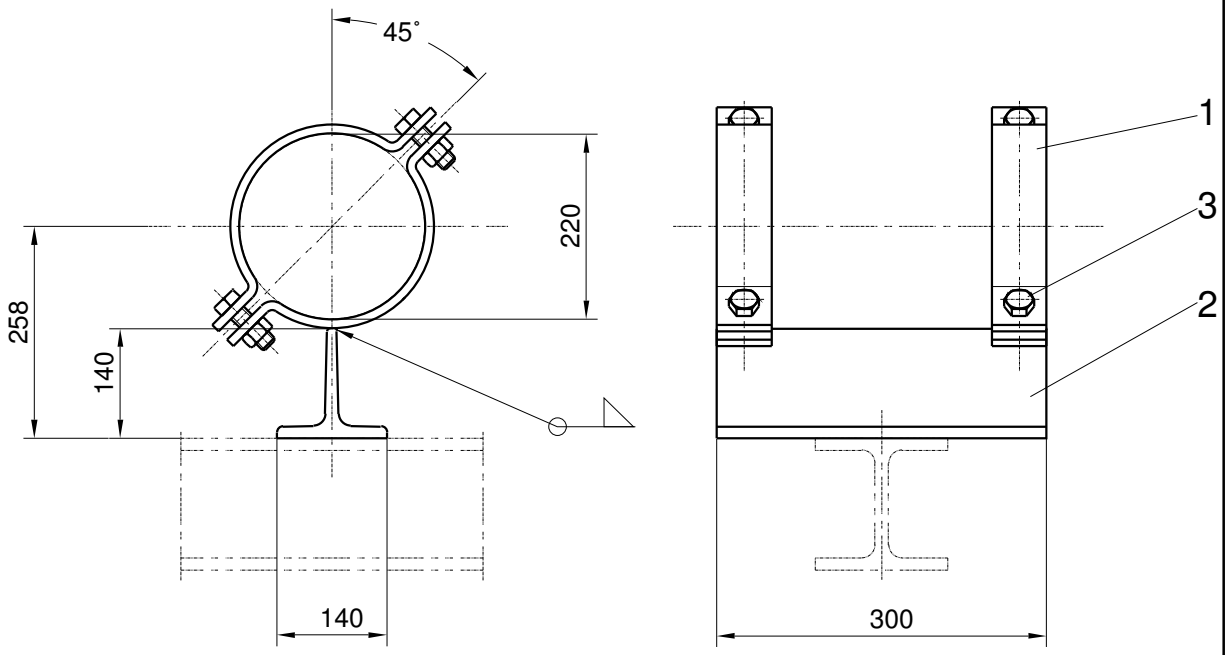
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA002D Marking : 200/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,410 kg

1) A193GR.B7/A194GR.2H

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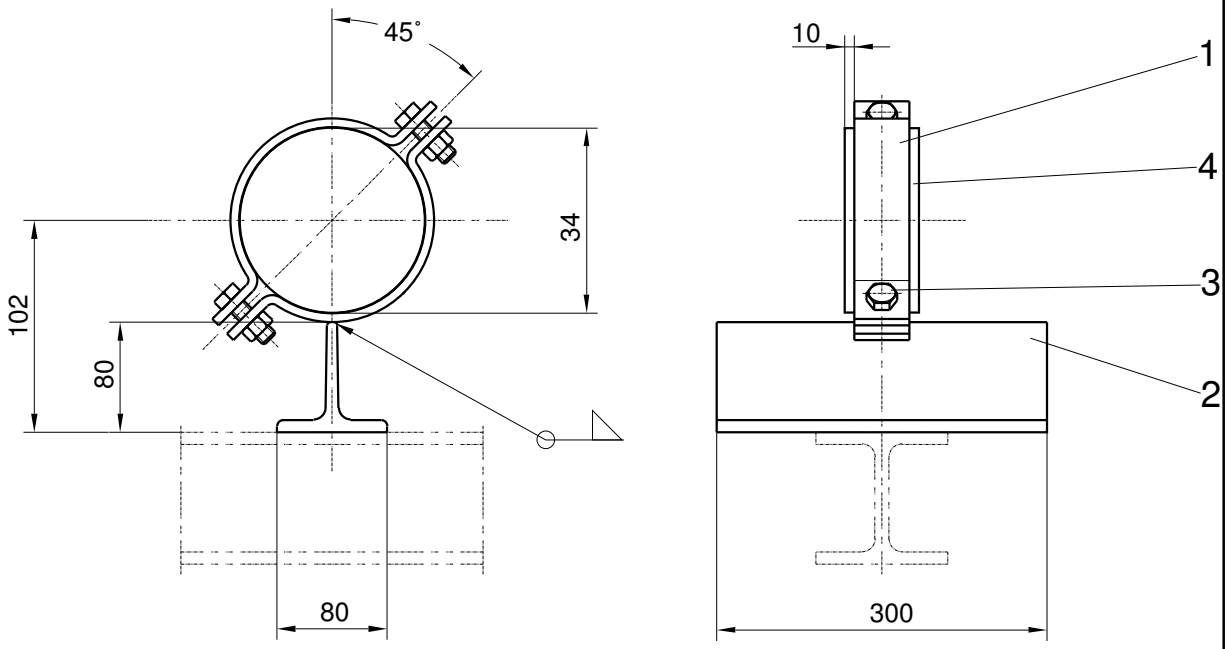
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADA051D Marking : 25/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	SHEET LINER 0,5 x 50 x 117	UN 3790-14	A240GR.321	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,500 kg

1) A193GR.B7/A194GR.2H

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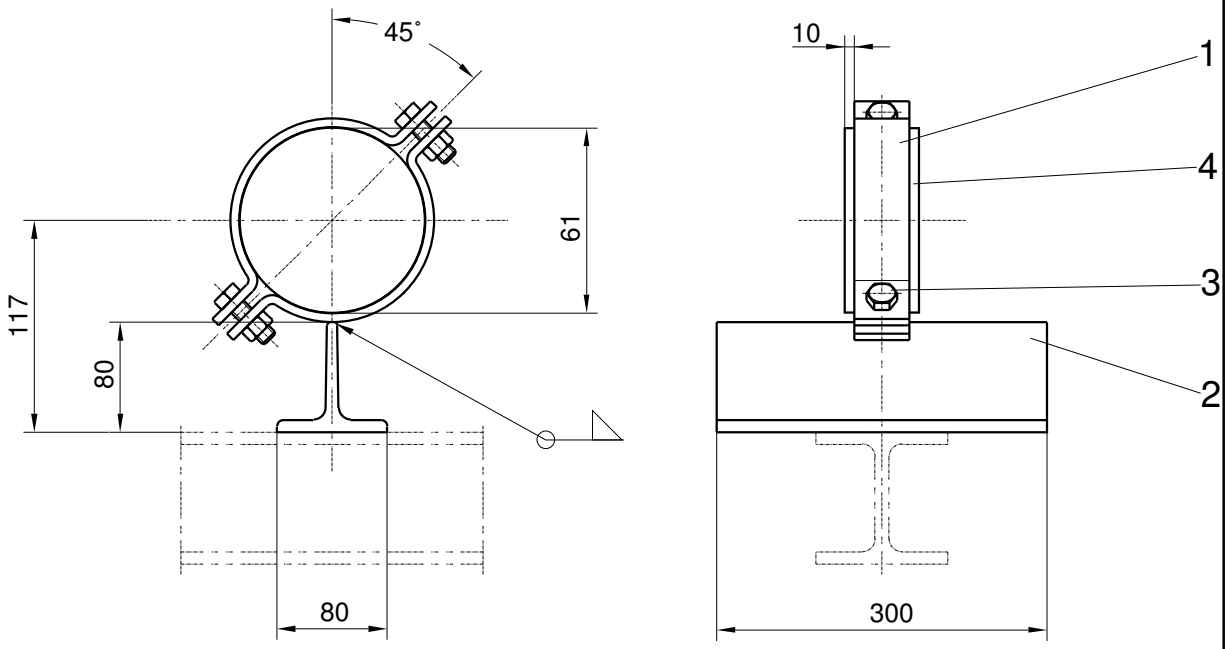
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADA051D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,940 kg

1) A193GR.B7/A194GR.2H

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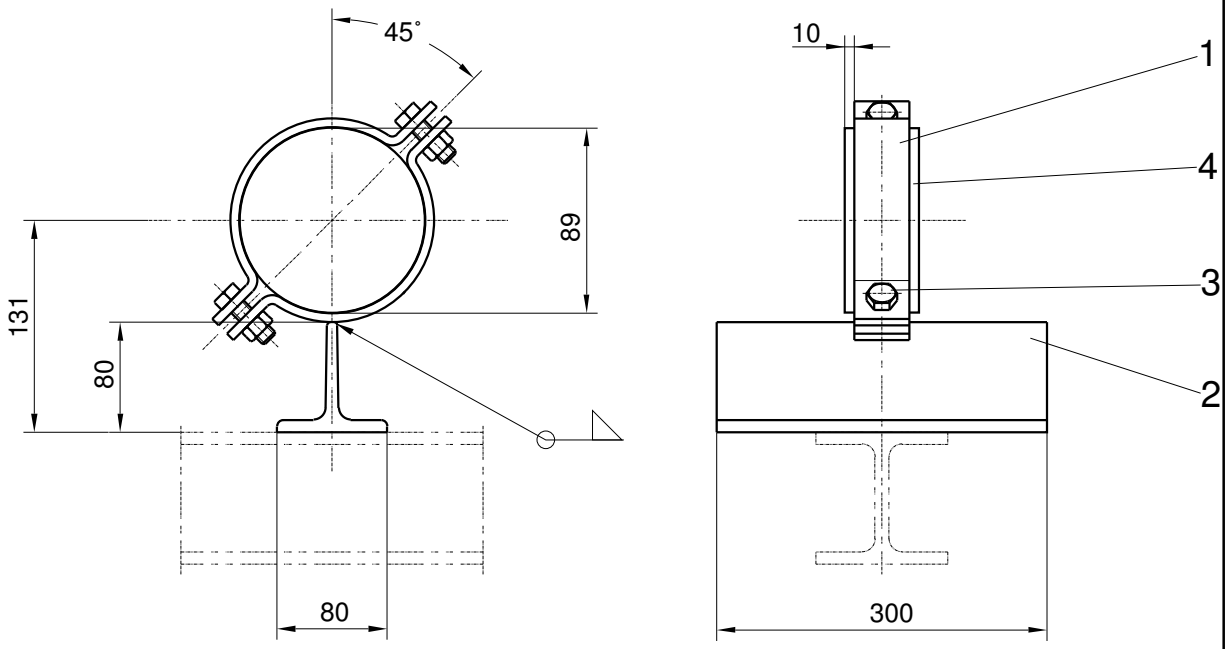
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA051D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	SHEET LINER 0,5 x 60 x 295	UN 3790-14	A240GR.321	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,110 kg

1) A193GR.B7/A194GR.2H

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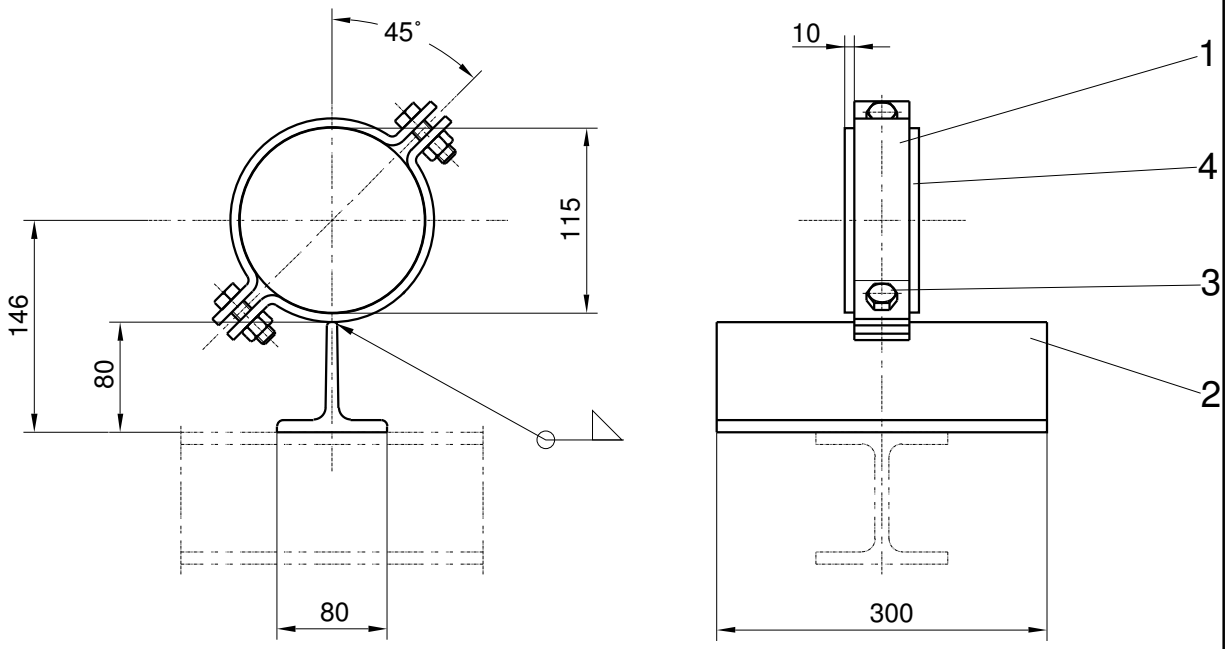
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADA051D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,210 kg

1) A193GR.B7/A194GR.2H

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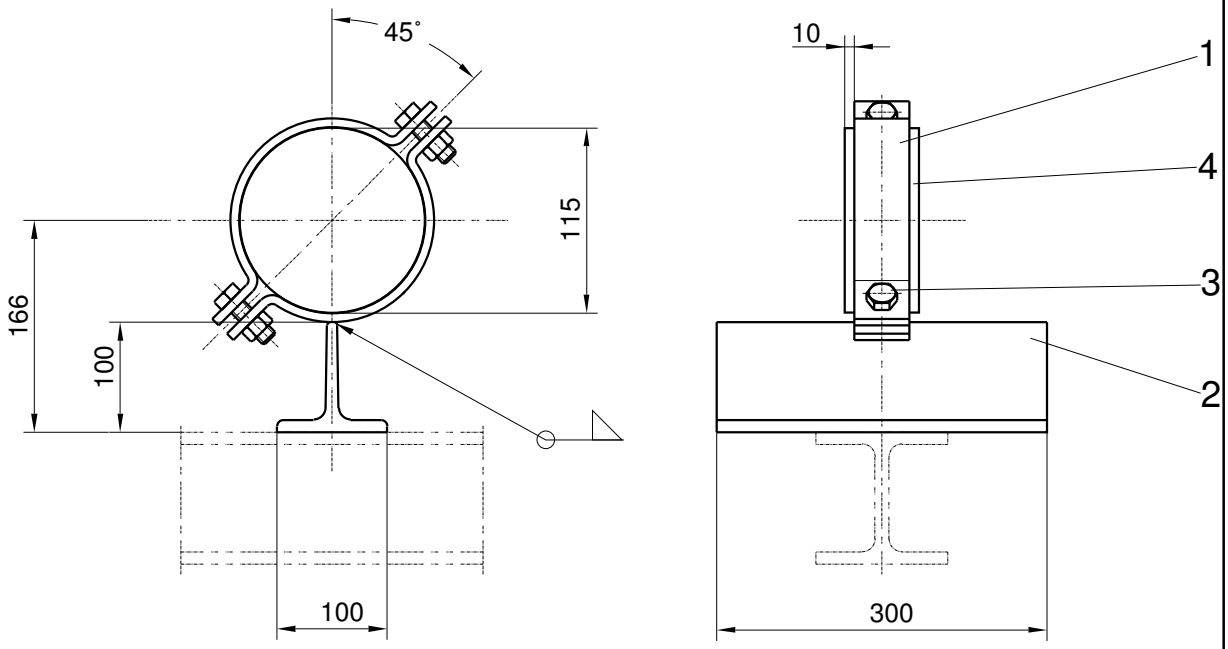
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADA051D Marking : 100/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,350 kg

1) A193GR.B7/A194GR.2H

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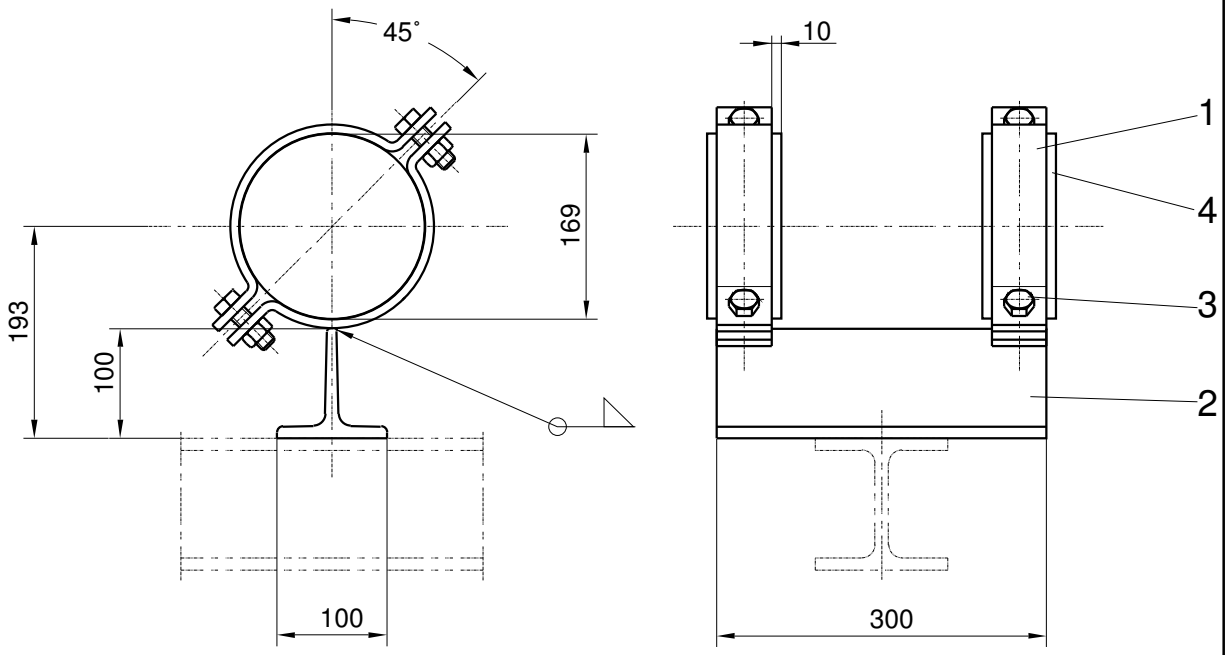
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA052D Marking : 150/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	SHEET LINER 0,5 x 70 x 551	UN 3790-14	A240GR.321	OE0041D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,240 kg

1) A193GR.B7/A194GR.2H

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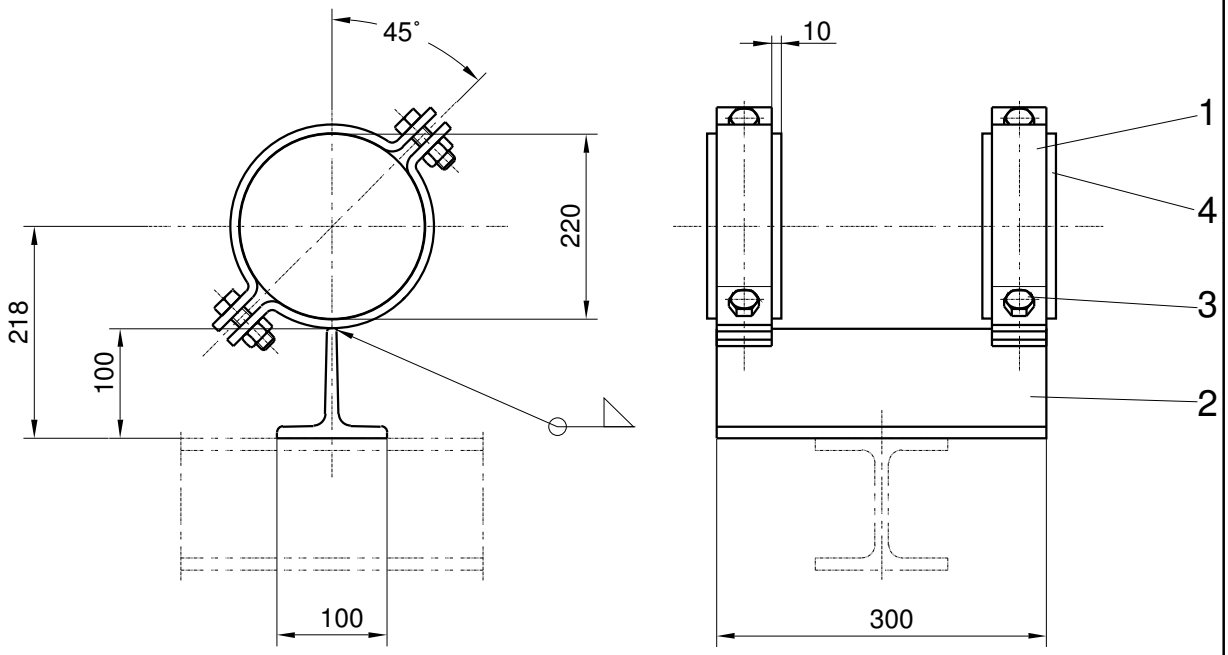
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA052D Marking : 200/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,340 kg

1) A193GR.B7/A194GR.2H

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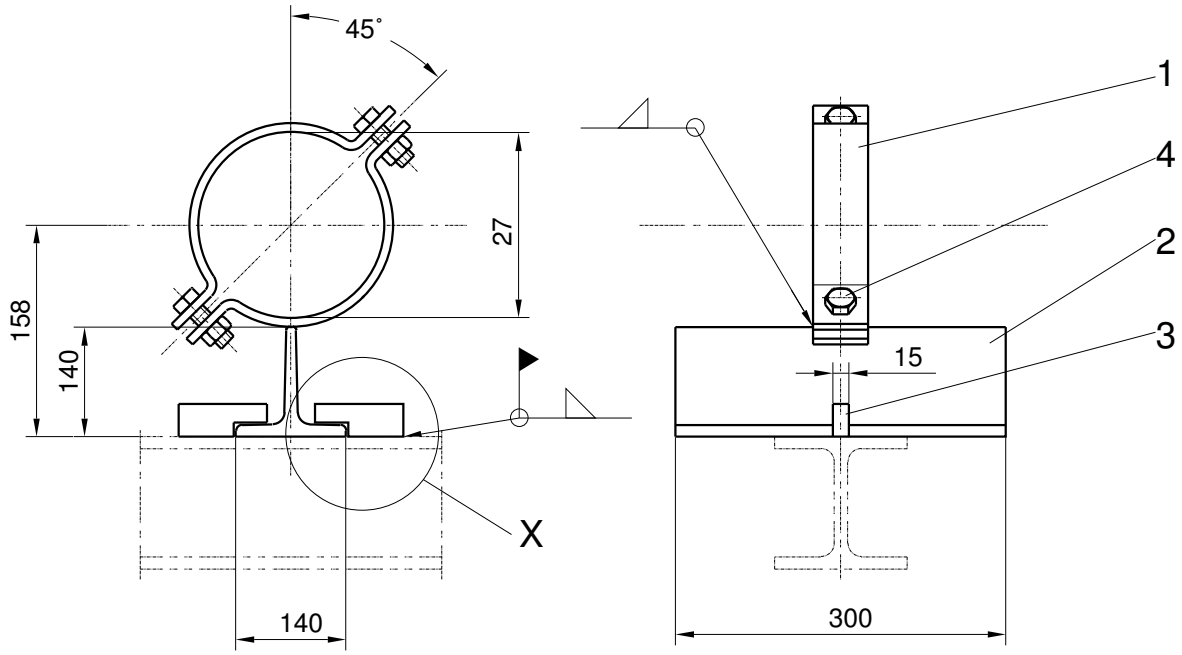
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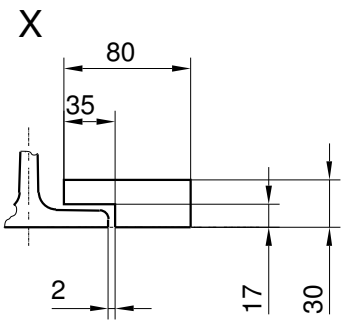
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 20/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 7,140 kg

1) A193GR.B7/A194GR.2H

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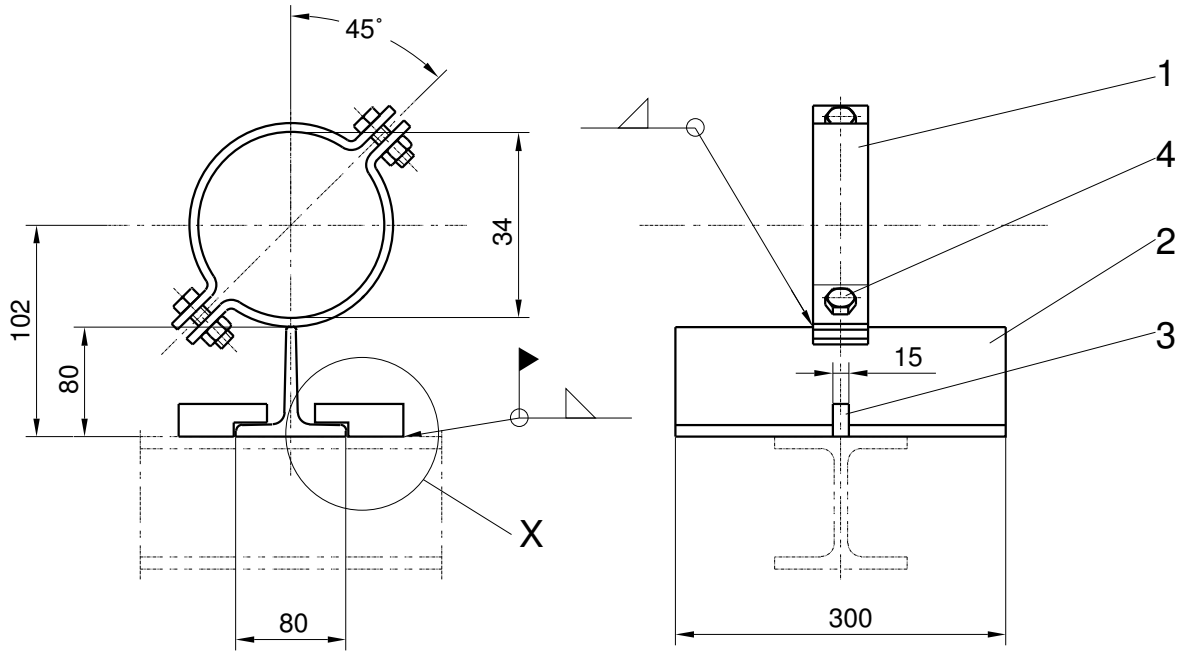
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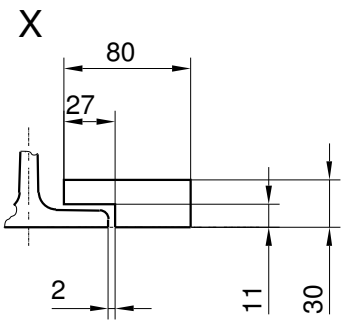
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 25/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 3,040 kg

1) A193GR.B7/A194GR.2H

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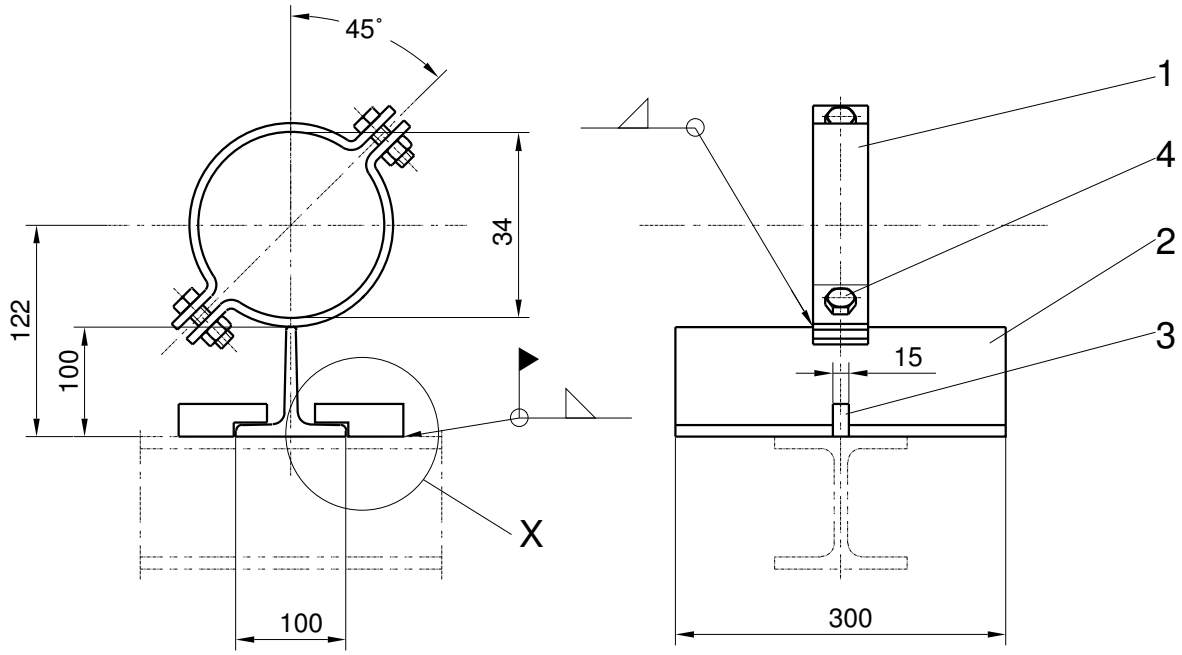
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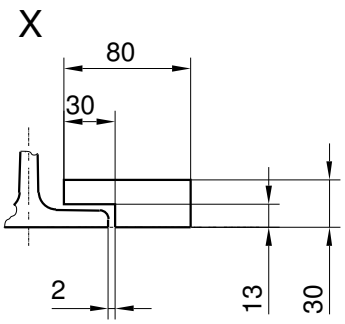
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 25/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,180 kg

1) A193GR.B7/A194GR.2H

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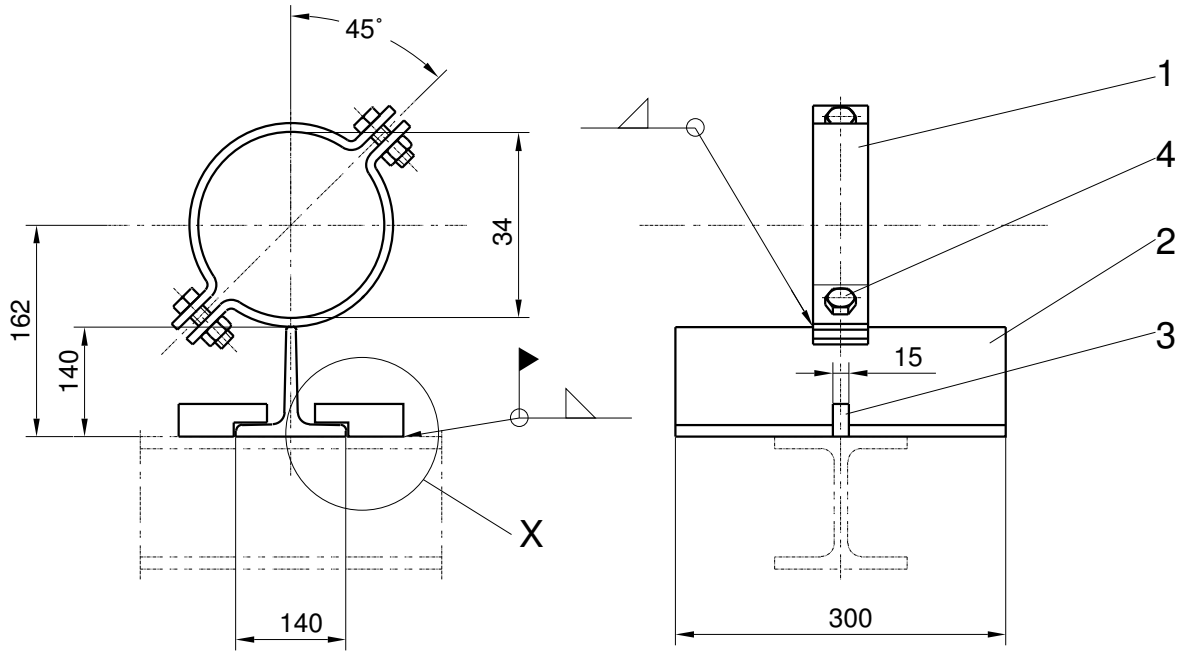
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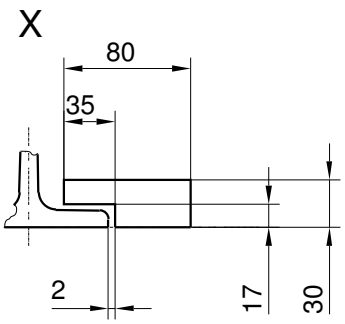
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 25/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 7,160 kg

1) A193GR.B7/A194GR.2H

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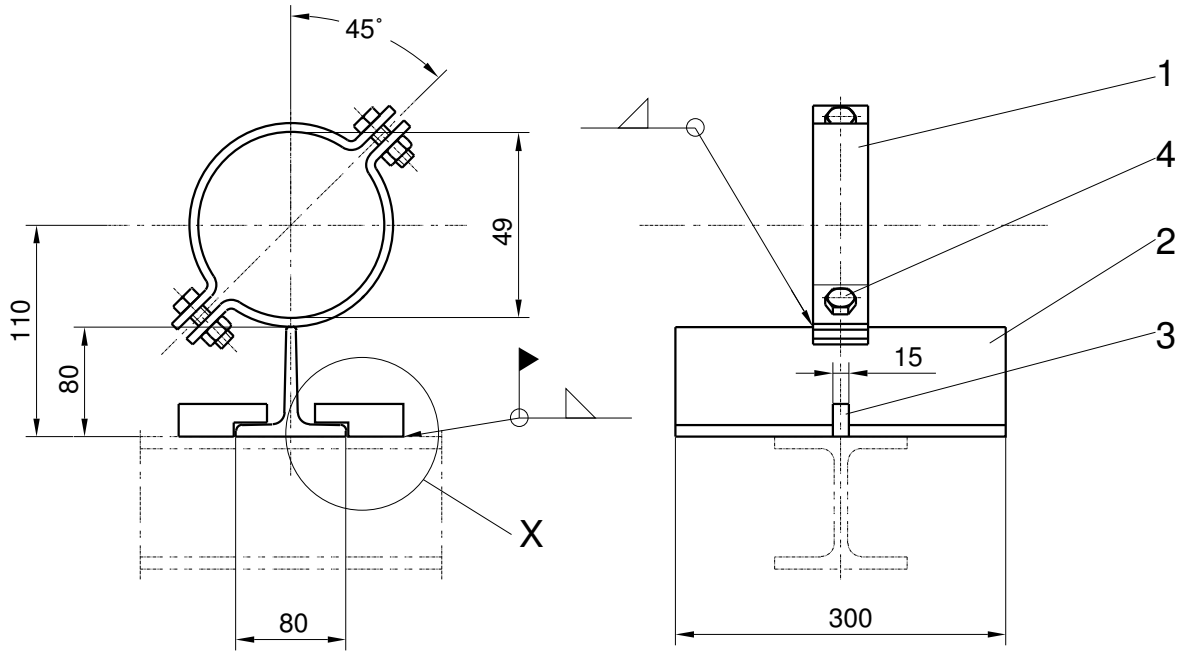
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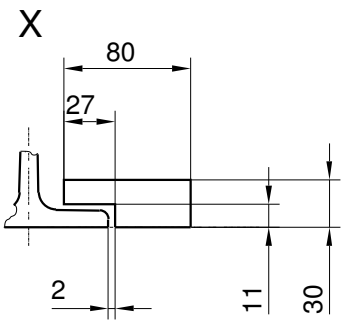
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 40/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,100 kg

1) A193GR.B7/A194GR.2H

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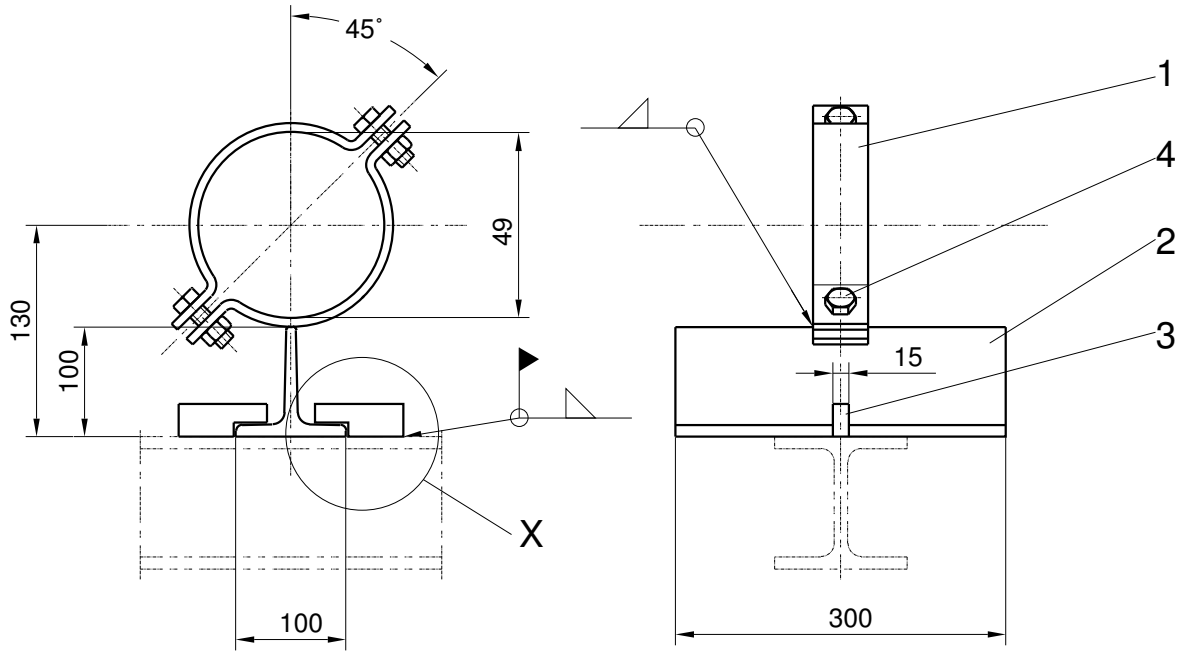
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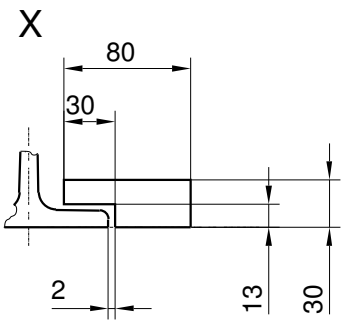
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 40/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,240 kg

1) A193GR.B7/A194GR.2H

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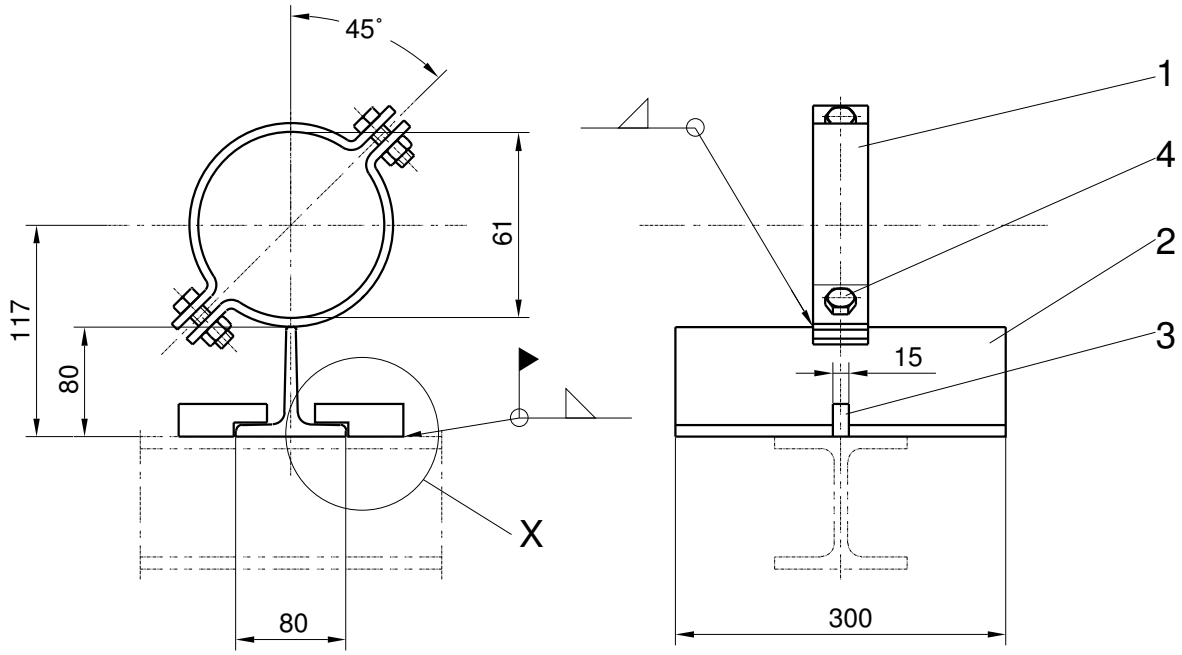
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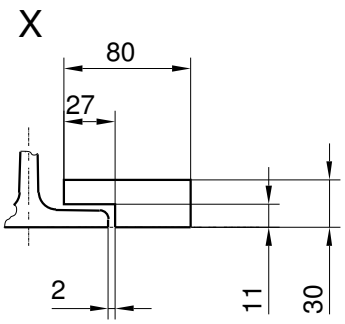
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 50/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 3,450 kg

1) A193GR.B7/A194GR.2H

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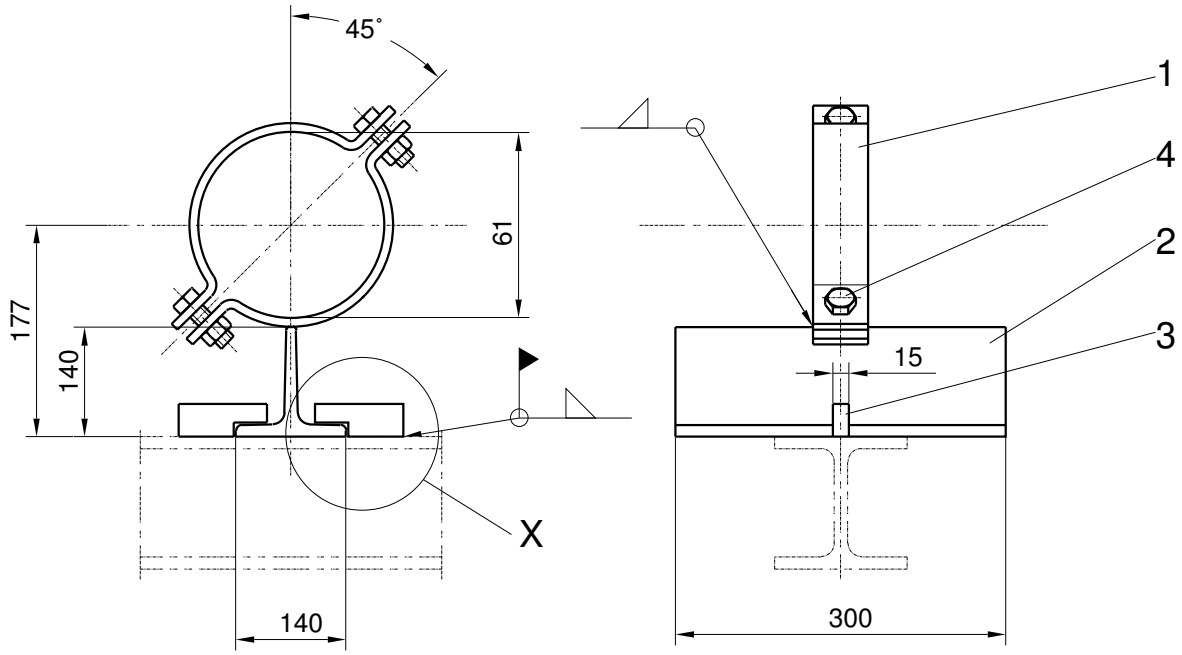
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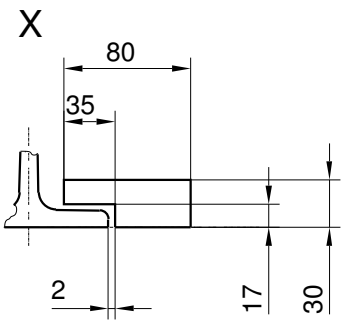
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 50/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,570 kg

1) A193GR.B7/A194GR.2H

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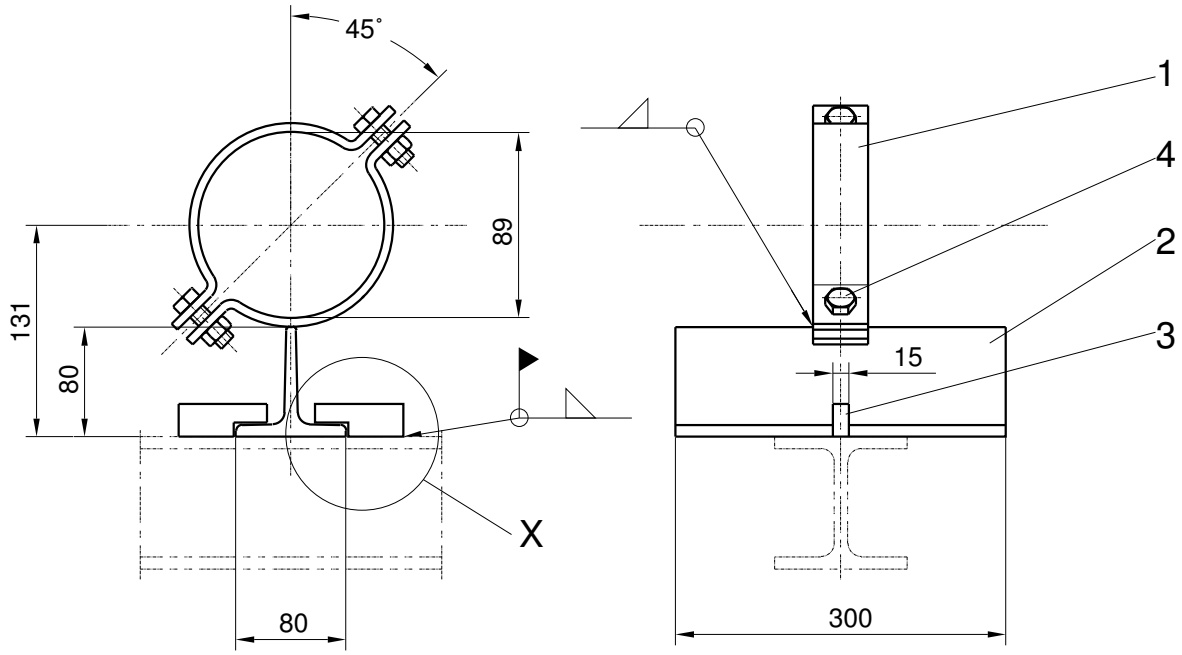
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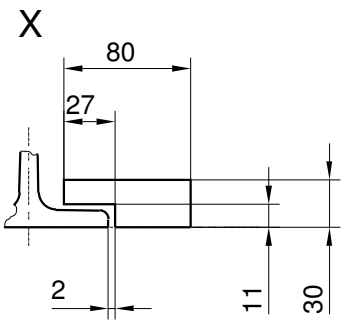
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 80/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 3,600 kg

1) A193GR.B7/A194GR.2H

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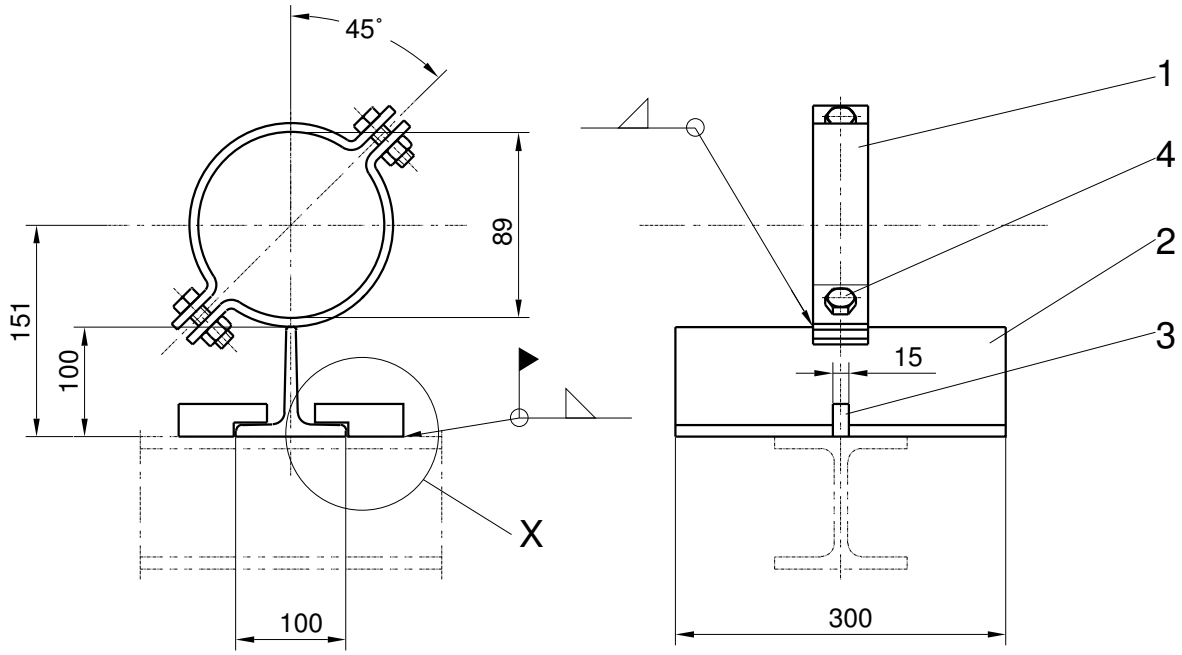
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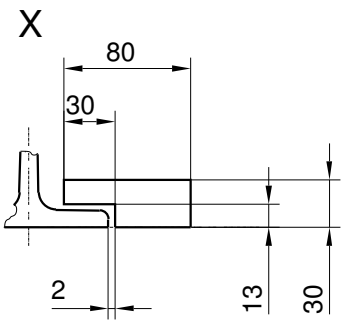
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 80/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,740 kg

1) A193GR.B7/A194GR.2H

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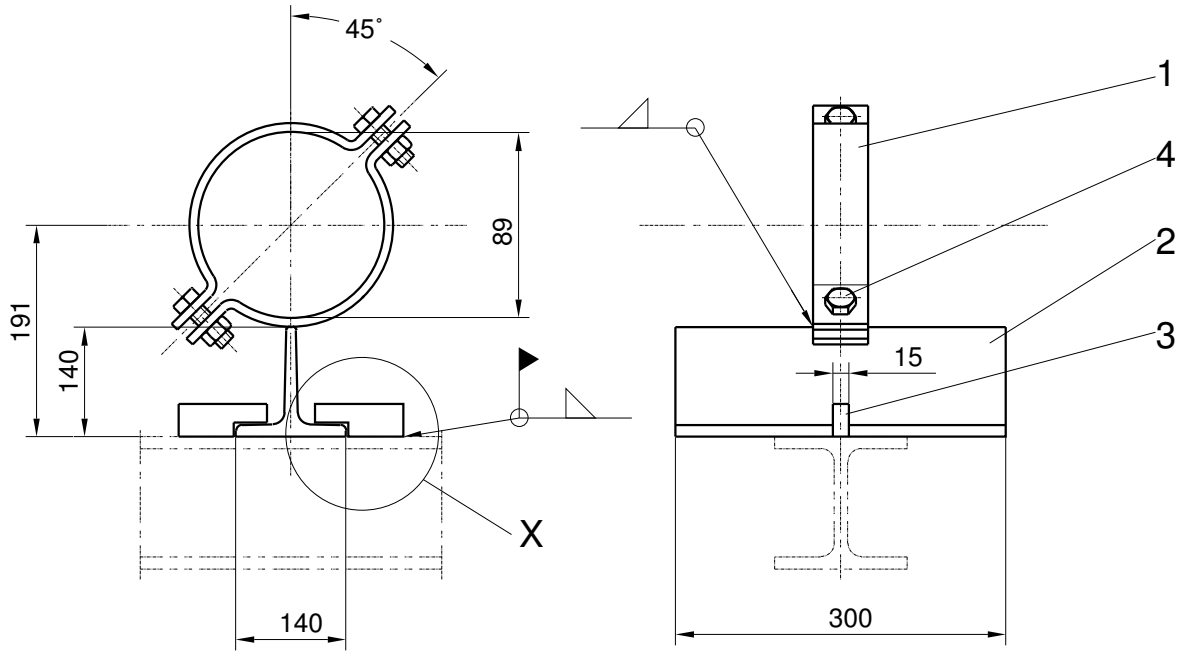
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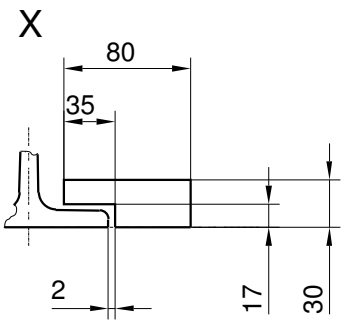
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 80/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 7,720 kg

1) A193GR.B7/A194GR.2H

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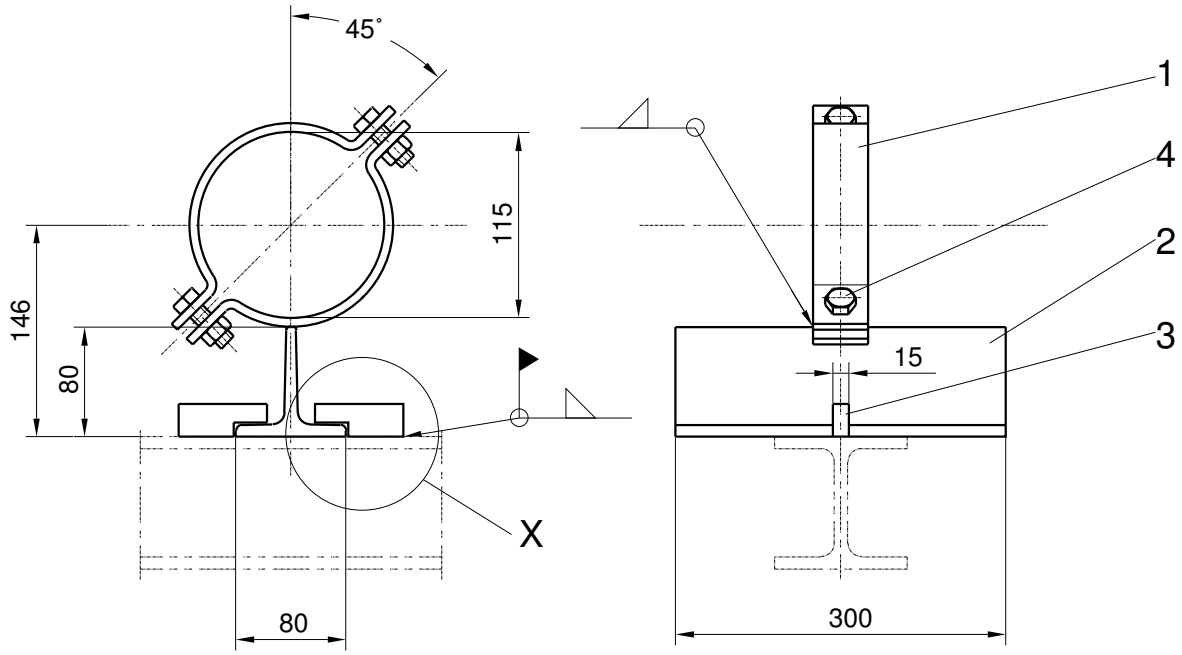
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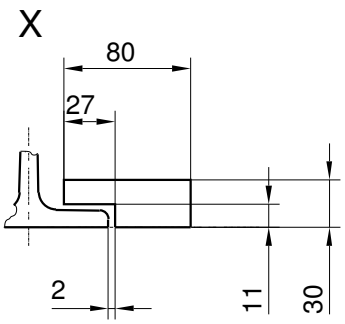
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 100/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 4,670 kg

1) A193GR.B7/A194GR.2H

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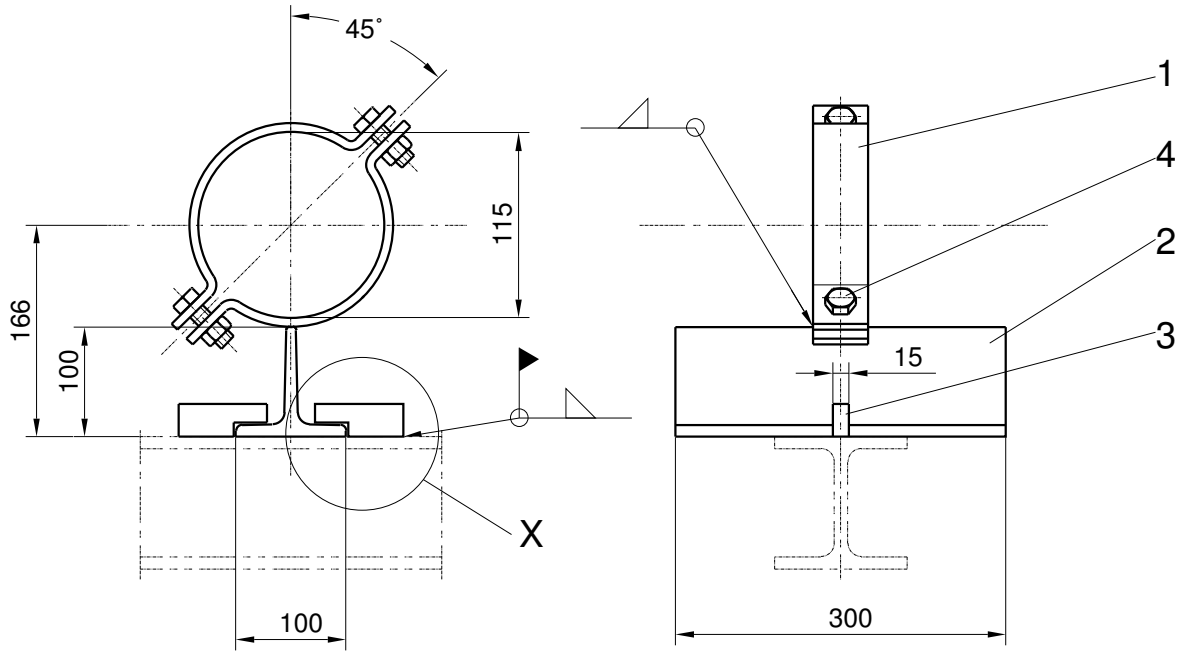
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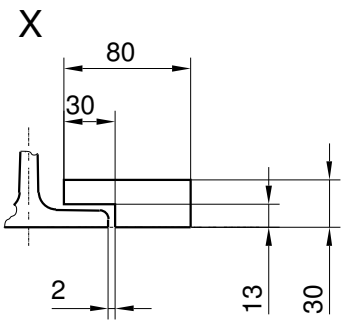
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 100/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,810 kg

1) A193GR.B7/A194GR.2H

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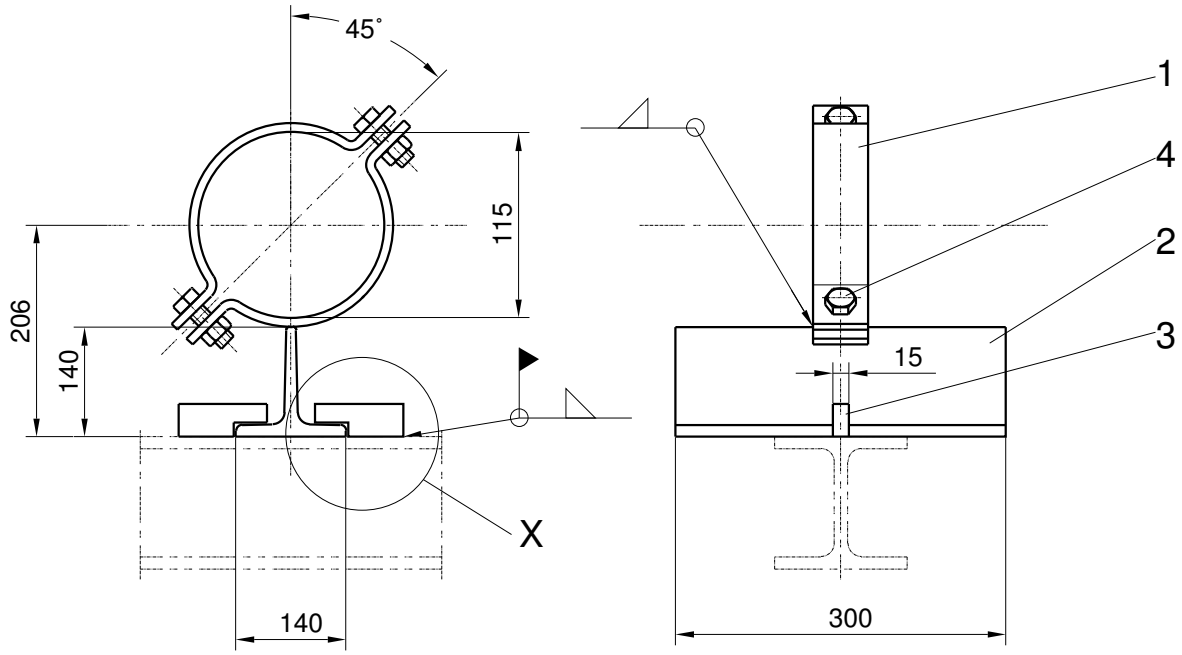
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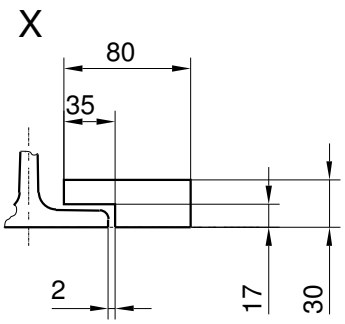
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 100/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 8,790 kg

1) A193GR.B7/A194GR.2H

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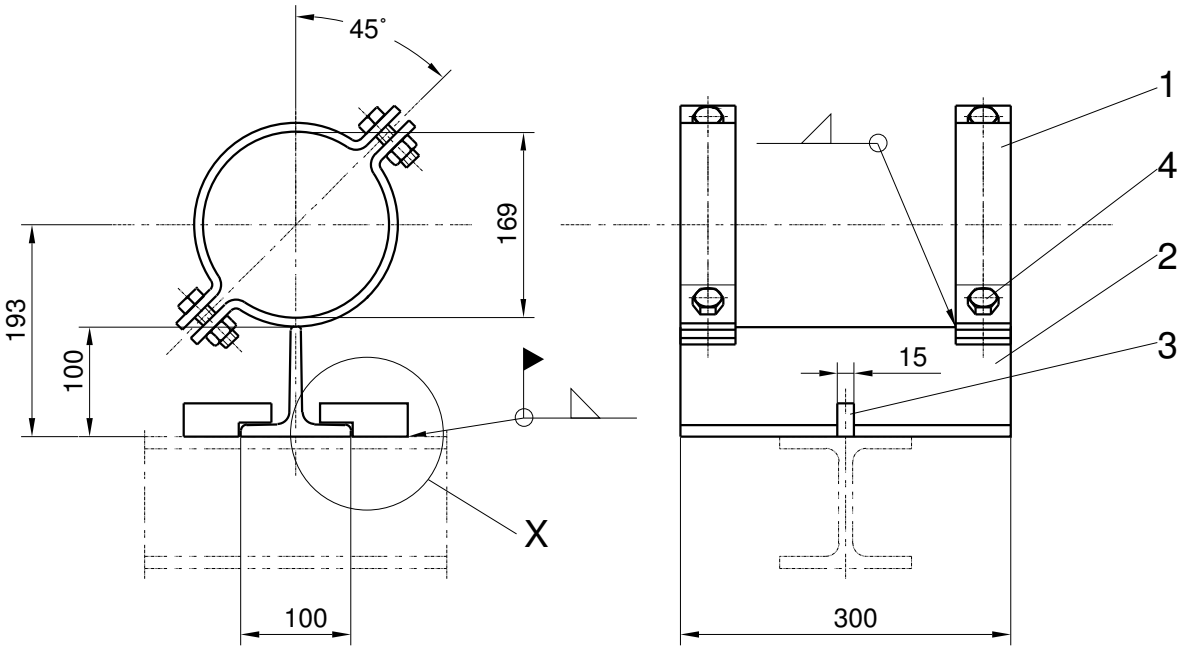
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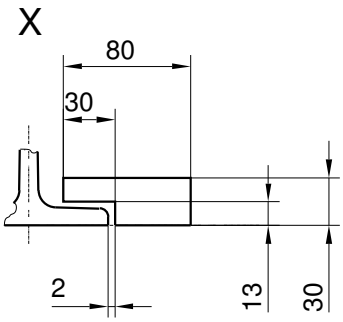
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB002D Marking : 150/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,500 kg

1) A193GR.B7/A194GR.2H

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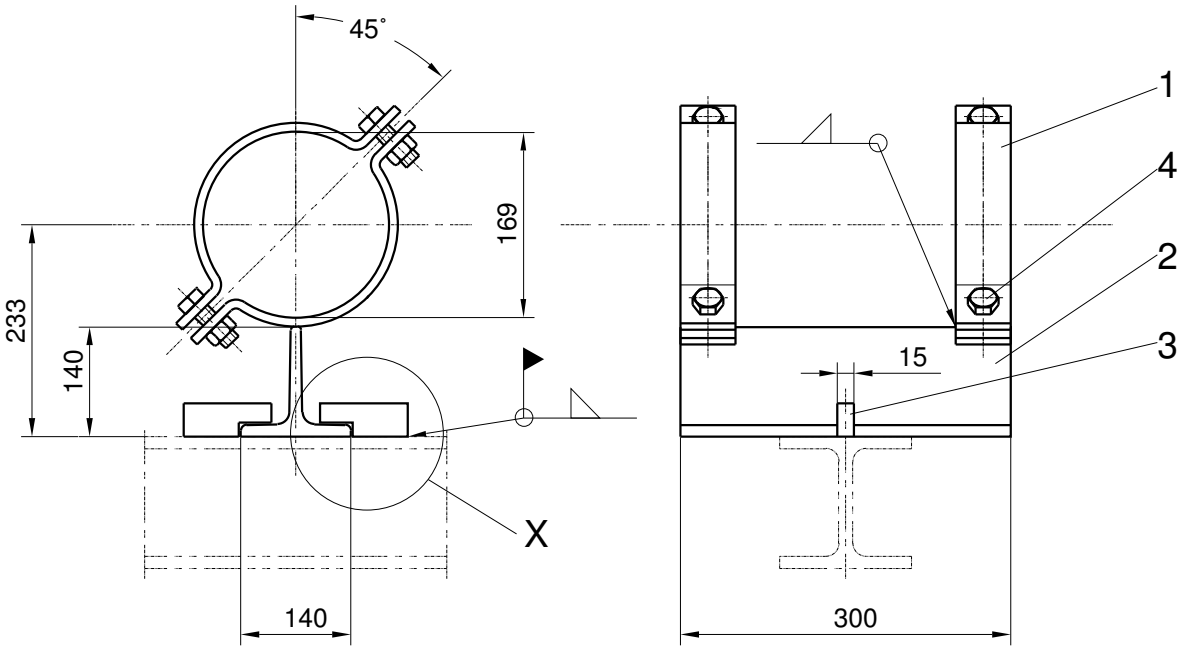
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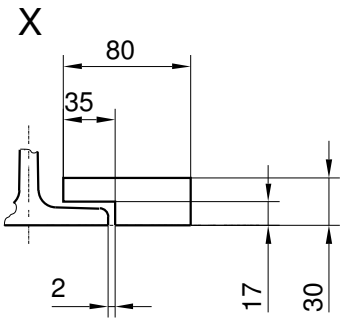
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB002D Marking : 150/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,970 kg

1) A193GR.B7/A194GR.2H

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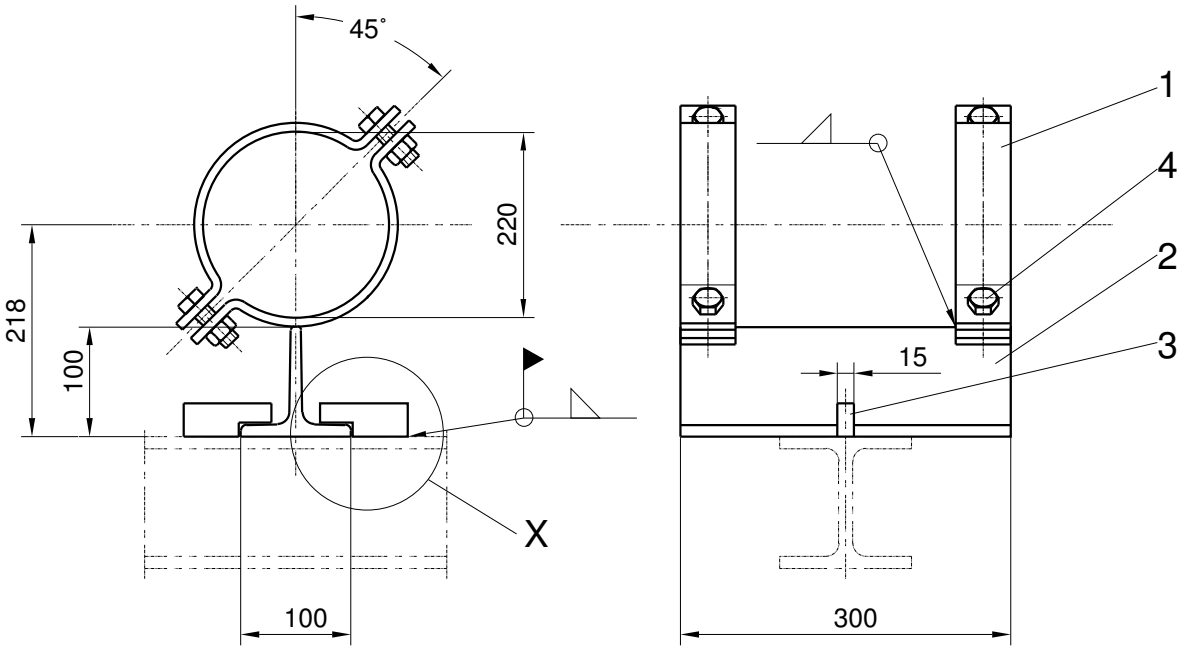
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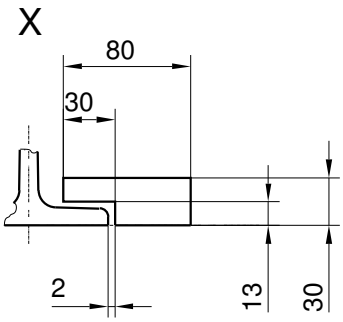
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB002D Marking : 200/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,500 kg

1) A193GR.B7/A194GR.2H

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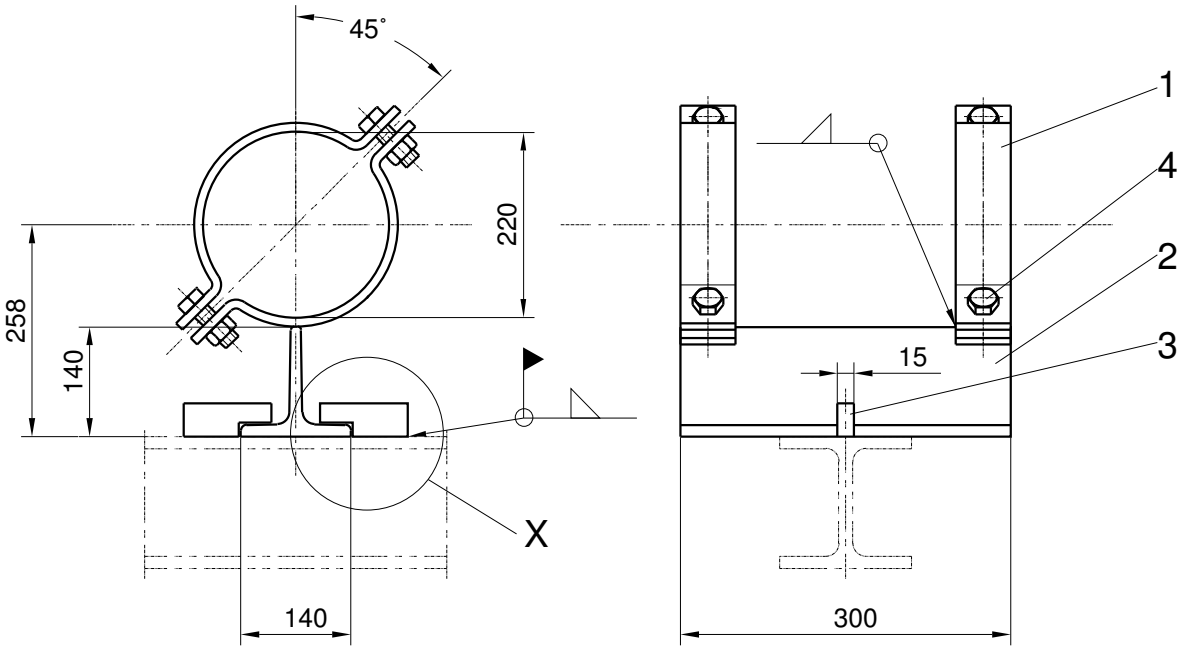
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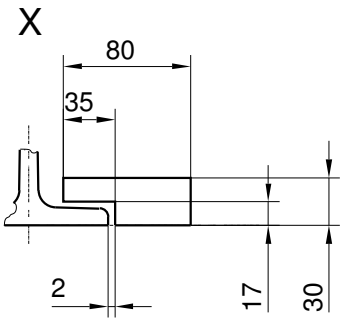
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB002D Marking : 200/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

4	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 15,970 kg

1) A193GR.B7/A194GR.2H

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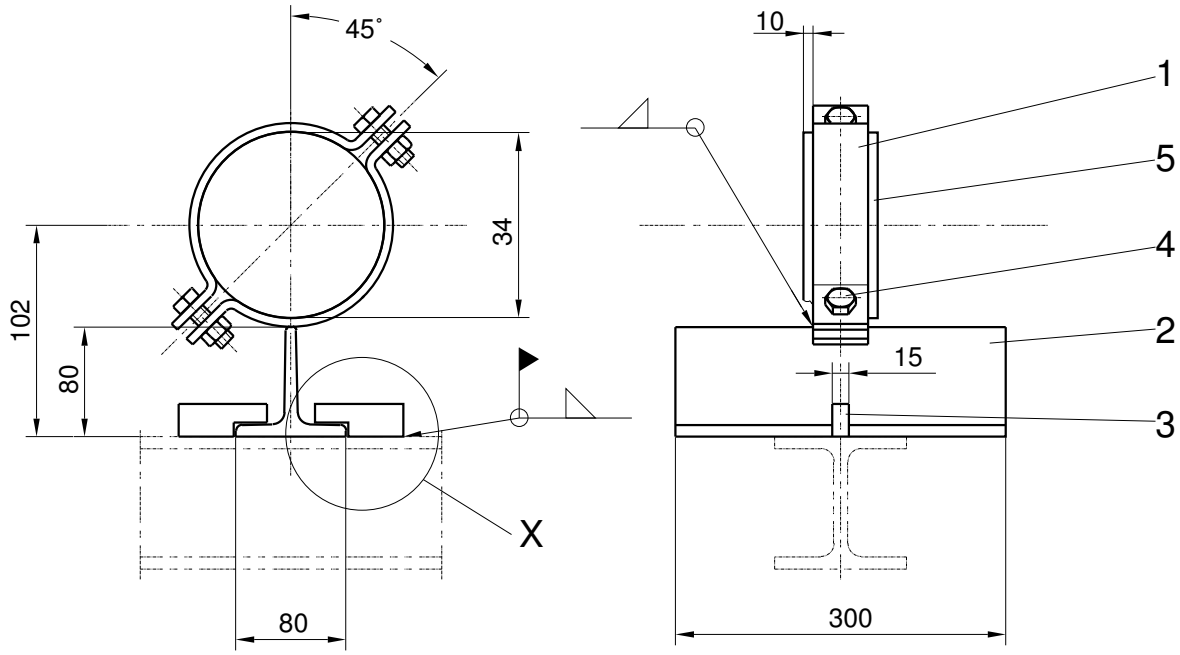
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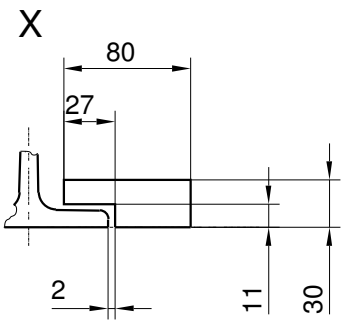
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB051D Marking : 25/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 50 x 117	UN 3790-14	A240GR.321	OE0041D
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,060 kg

1) A193GR.B7/A194GR.2H

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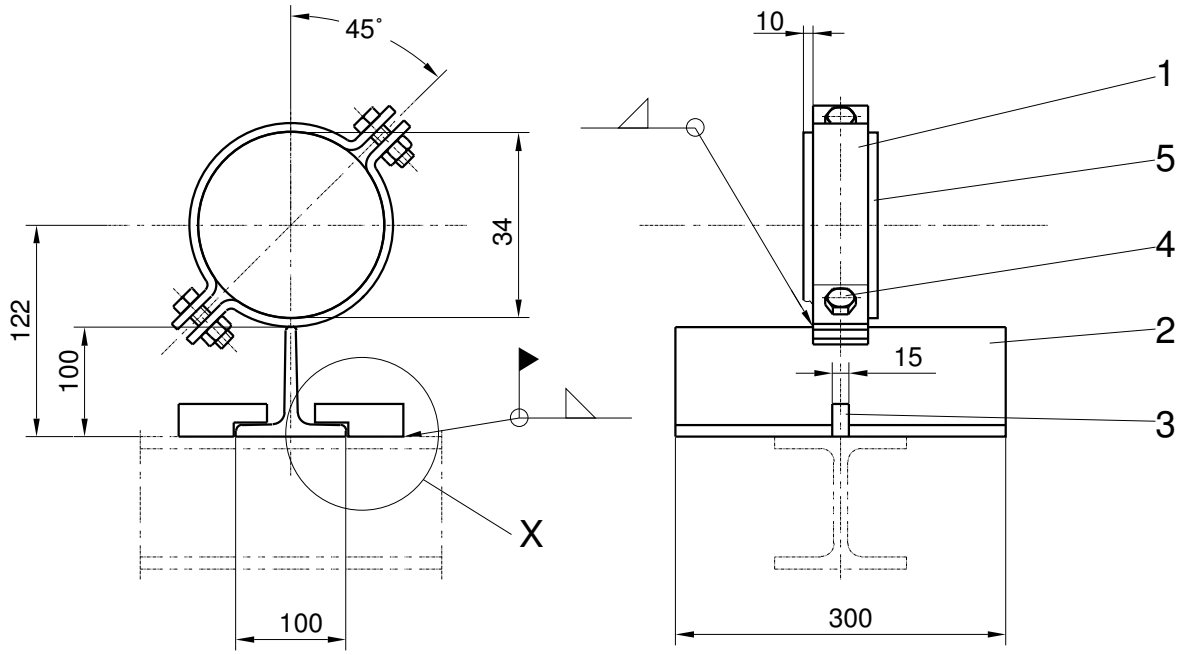
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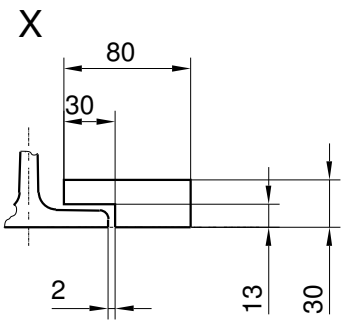
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB051D Marking : 25/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 50 x 117	UN 3790-14	A240GR.321	OE0041D
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,200 kg

1) A193GR.B7/A194GR.2H

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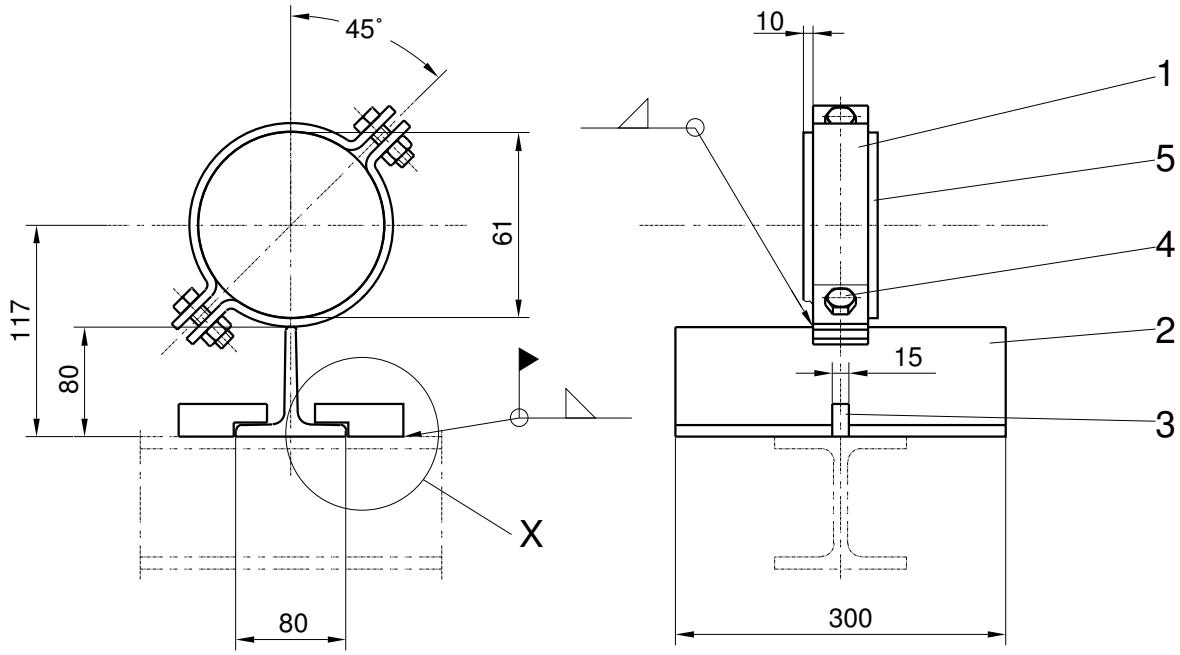
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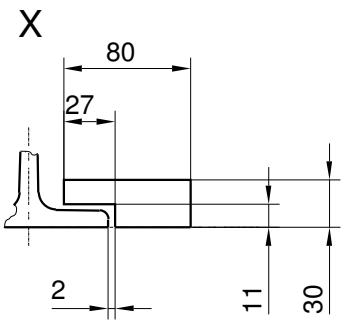
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB051D Marking : 50/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,500 kg

1) A193GR.B7/A194GR.2H

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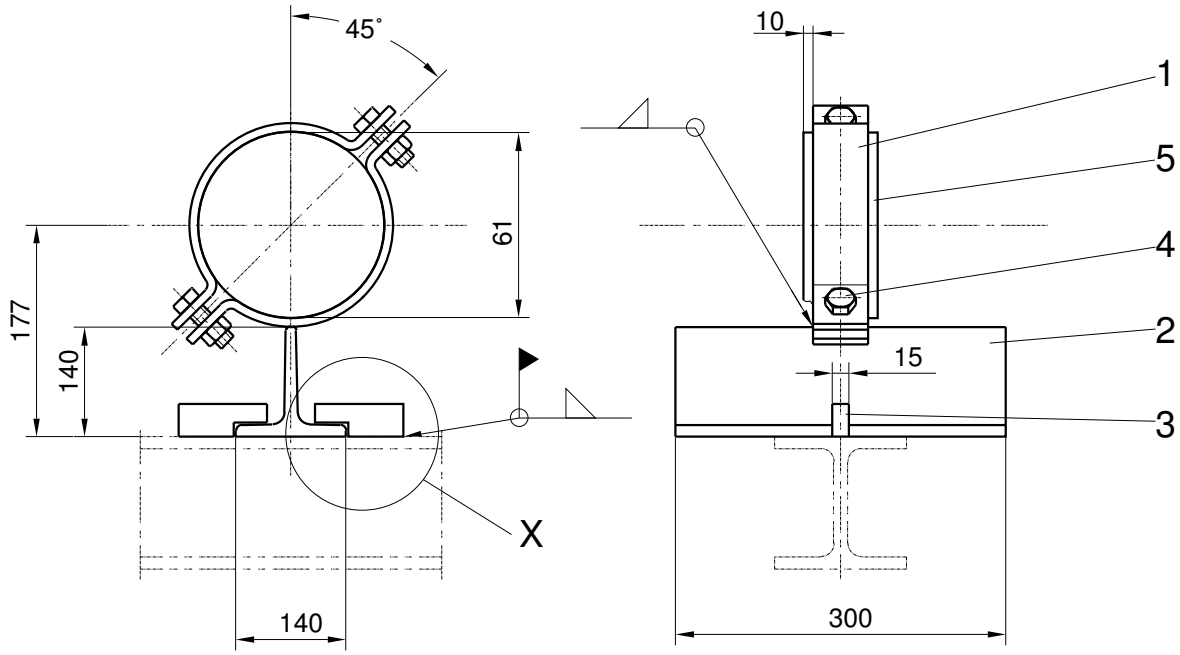
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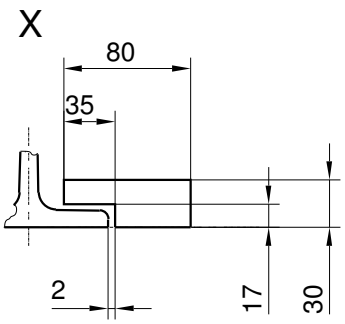
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB051D Marking : 50/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,620 kg

1) A193GR.B7/A194GR.2H

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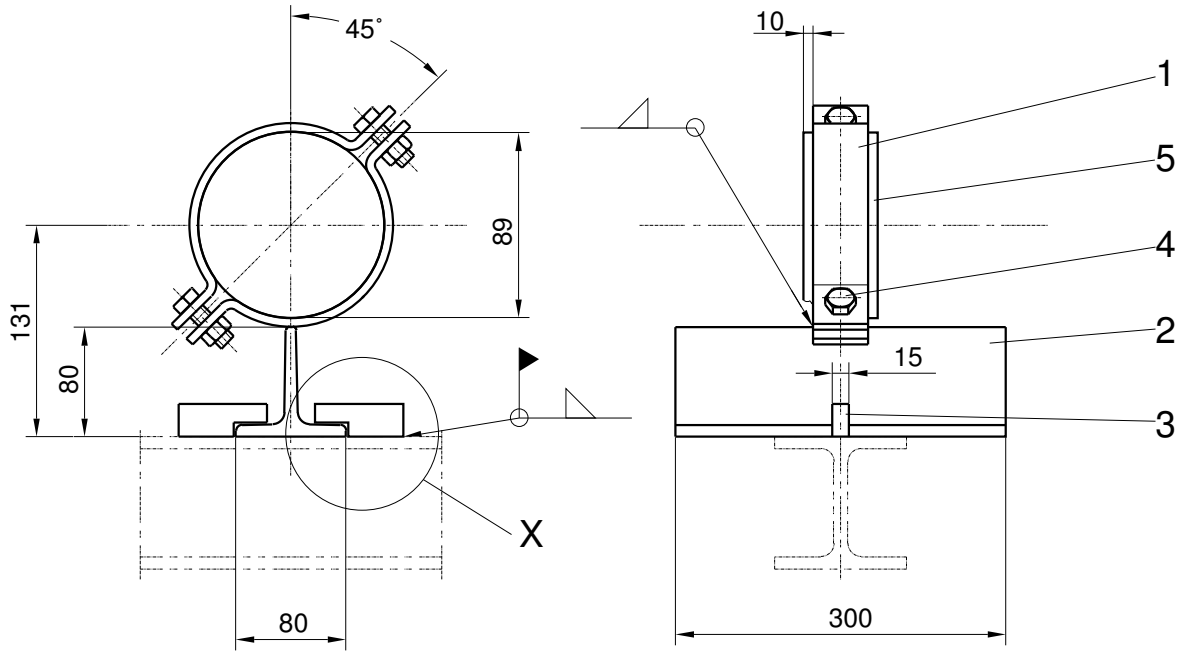
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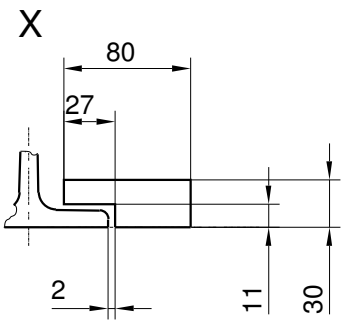
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB051D Marking : 80/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 60 x 295	UN 3790-14	A240GR.321	OE0041D
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,670 kg

1) A193GR.B7/A194GR.2H

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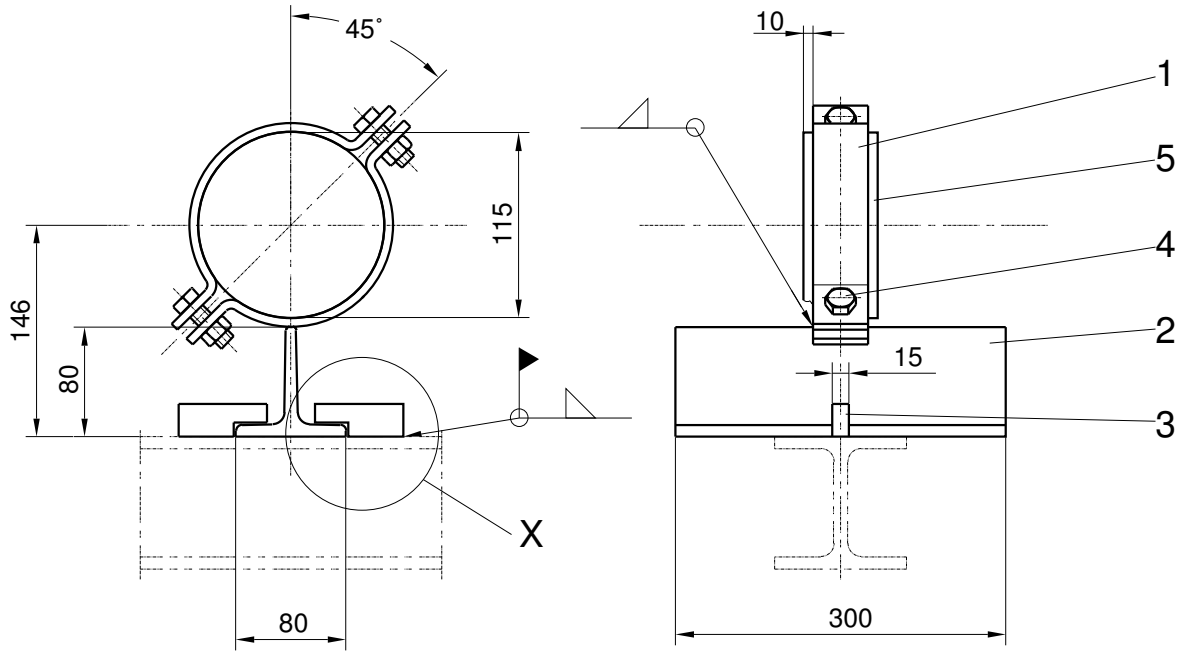
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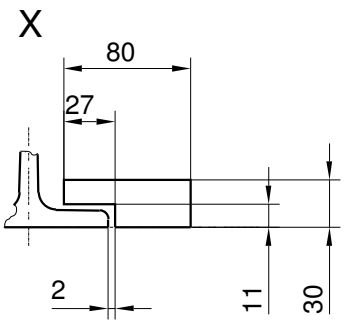
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB051D Marking : 100/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
4	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,770 kg

1) A193GR.B7/A194GR.2H

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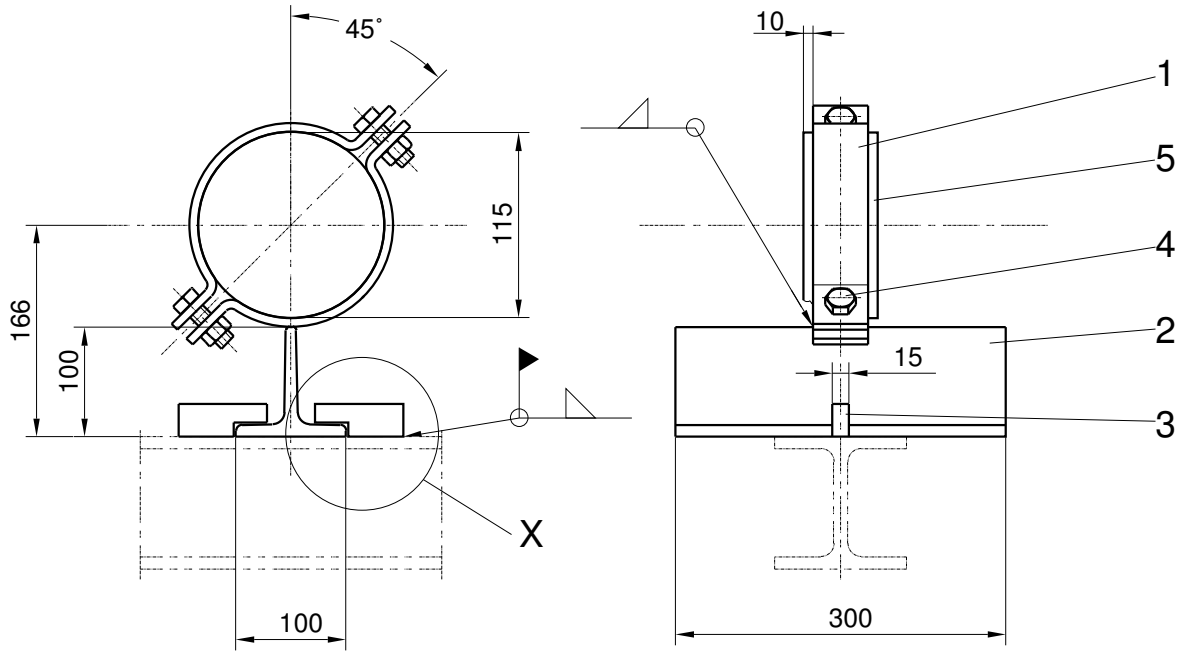
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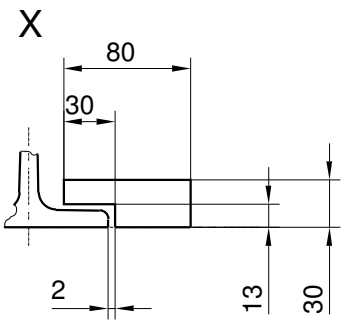
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB051D Marking : 100/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
4	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,910 kg

1) A193GR.B7/A194GR.2H

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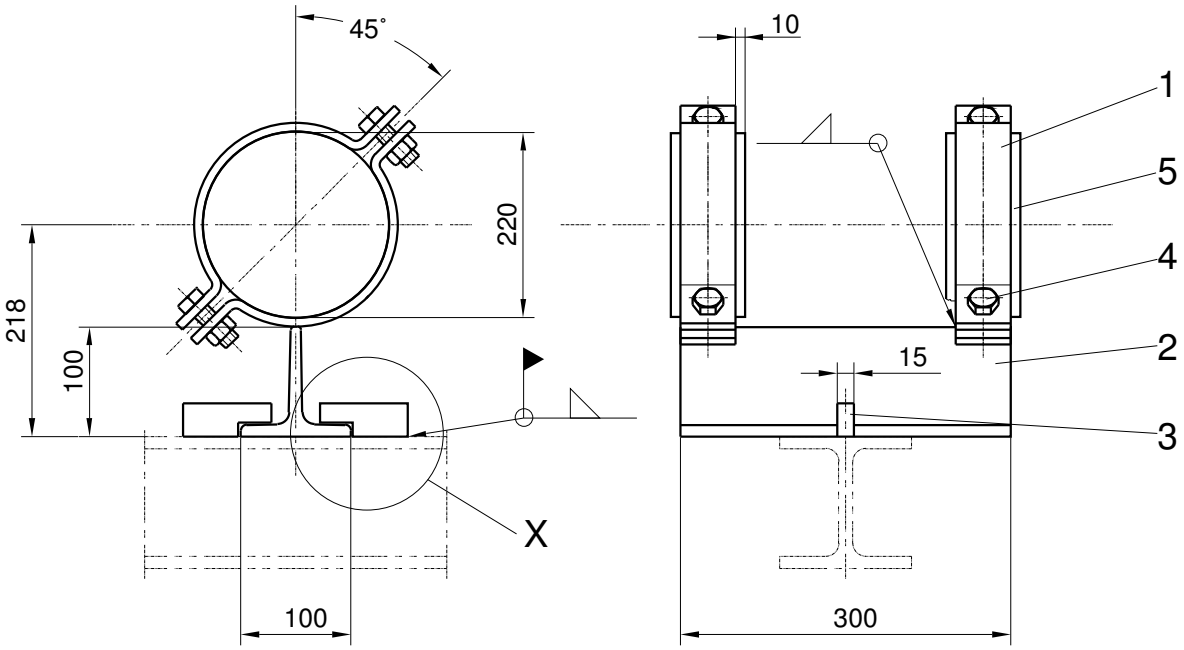
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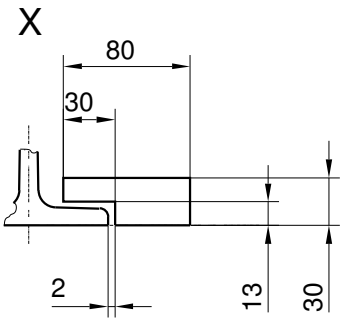
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB052D Marking : 200/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
4	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,900 kg

1) A193GR.B7/A194GR.2H

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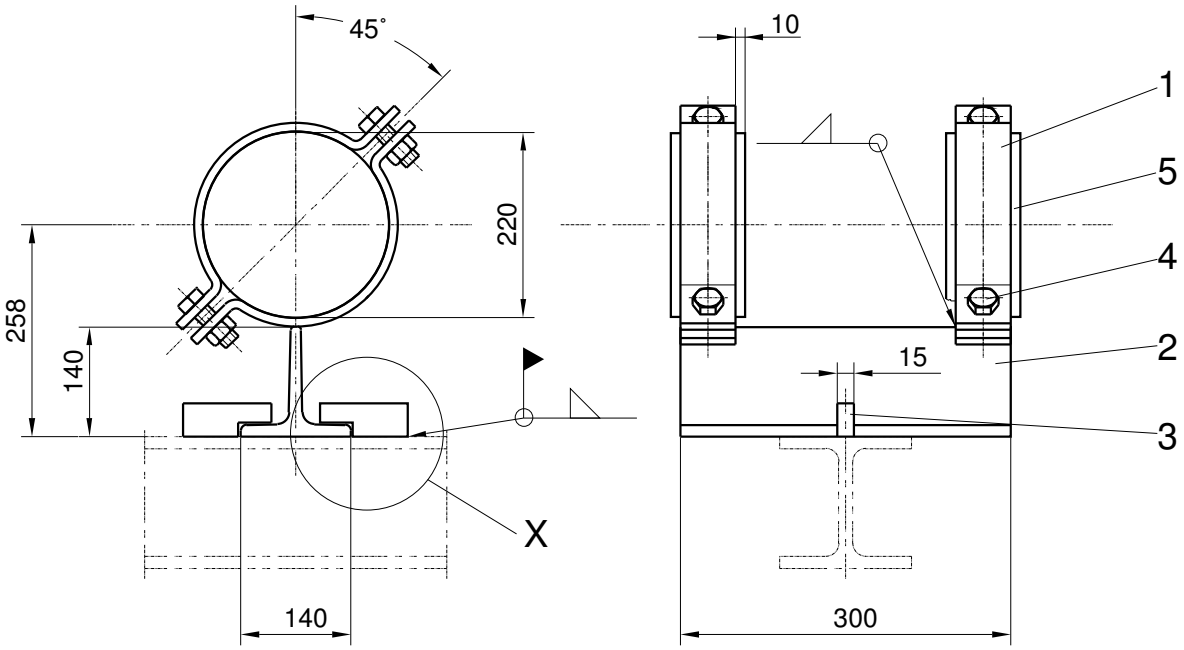
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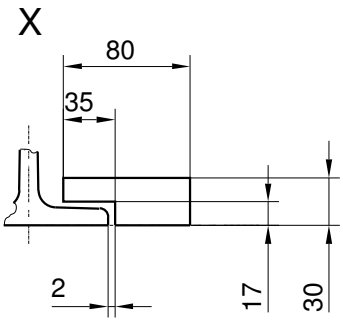
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB052D Marking : 200/3

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
4	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 16,370 kg

1) A193GR.B7/A194GR.2H

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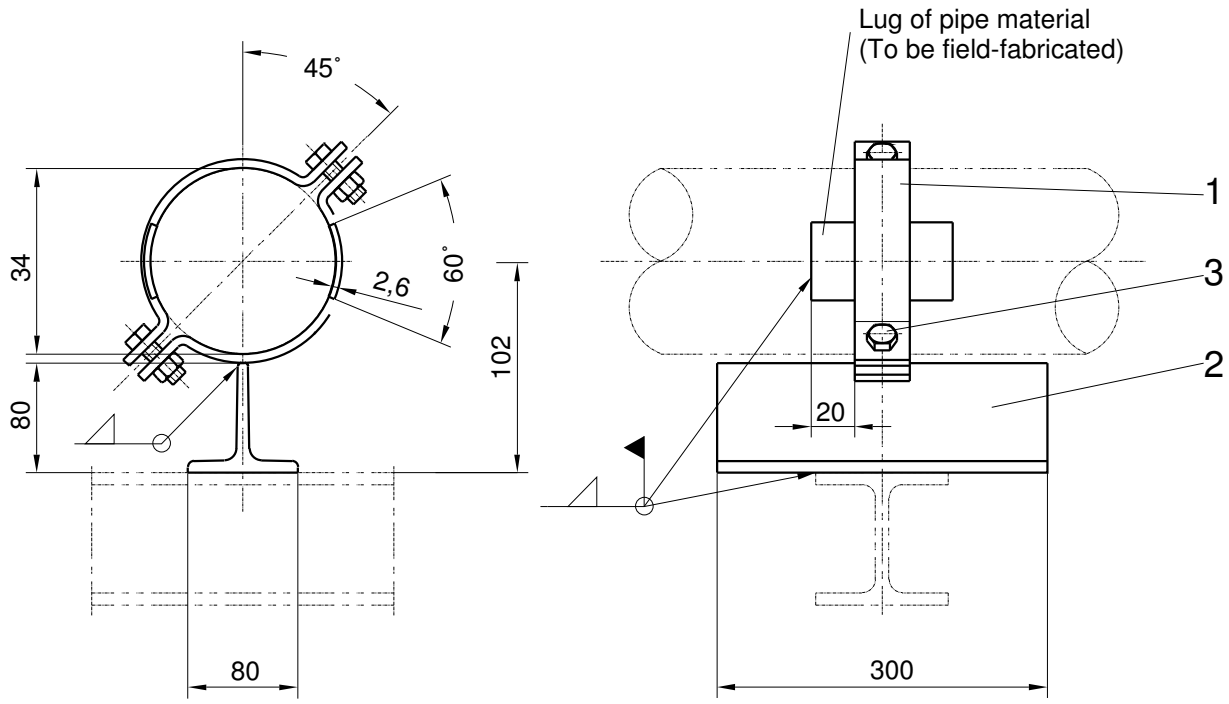
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADC001D Marking : 25/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,480 kg

1) A193GR.B7/A194GR.2H

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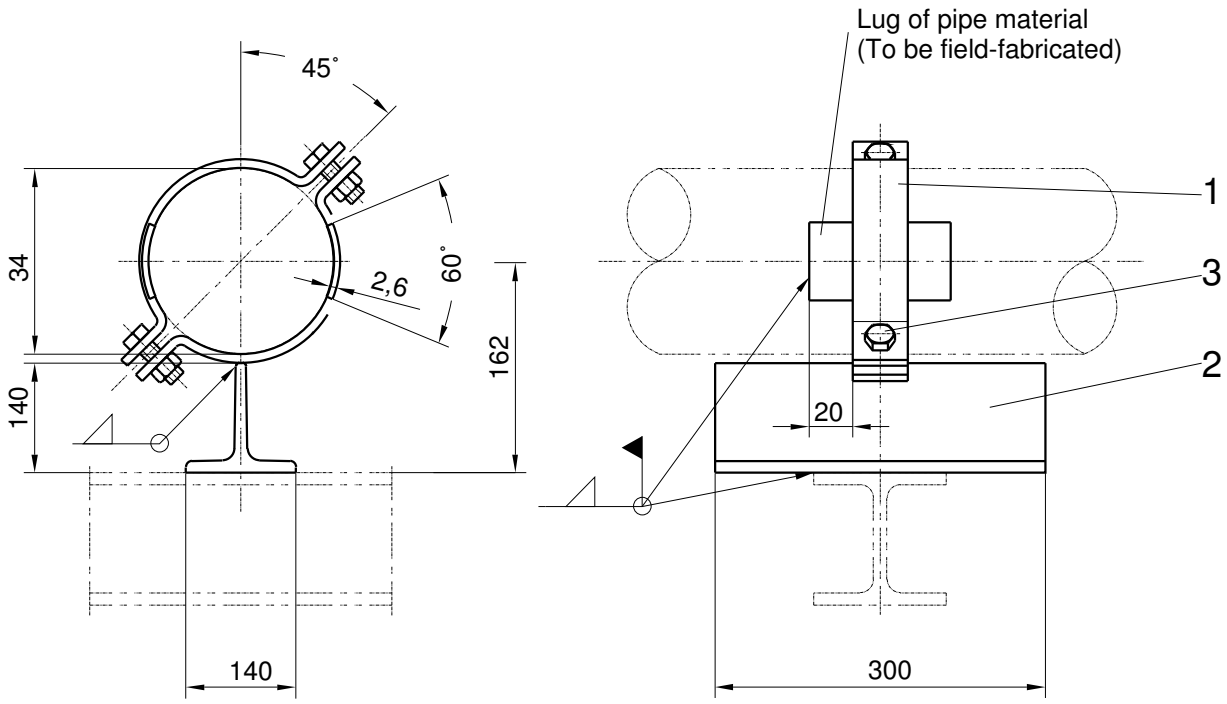
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: ADC001D Marking : 25/3



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 6,600 kg

1) A193GR.B7/A194GR.2H

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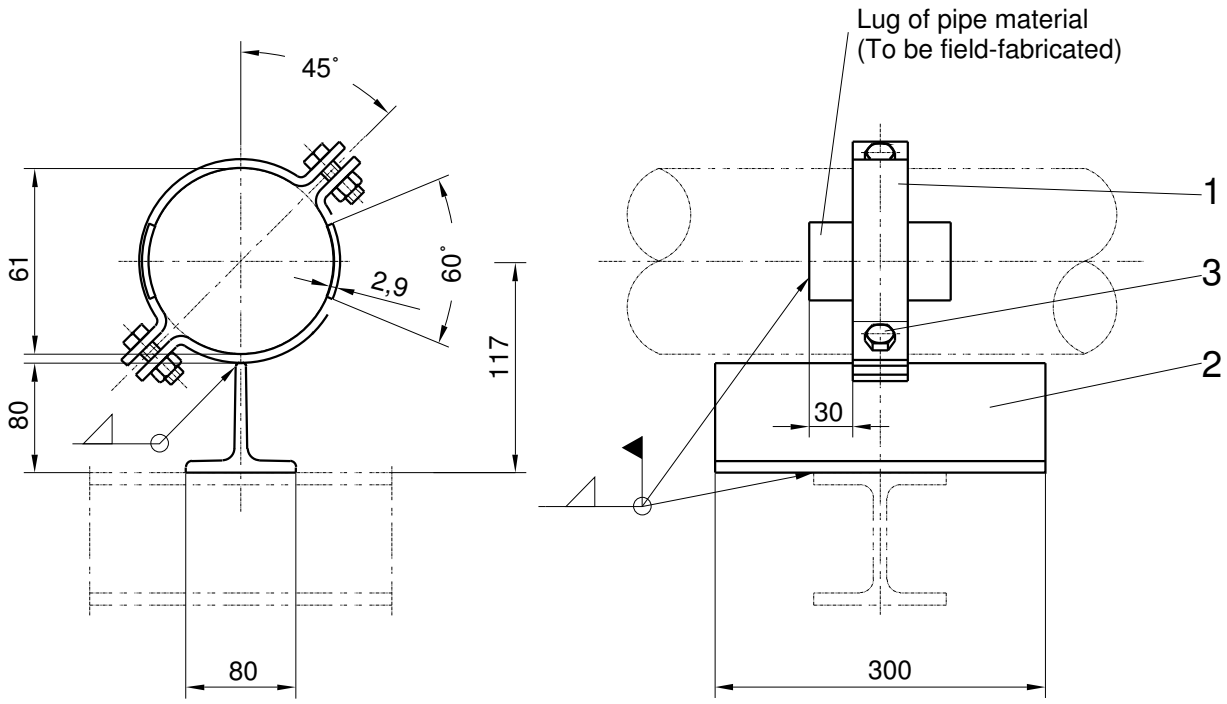
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADC001D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,890 kg

1) A193GR.B7/A194GR.2H

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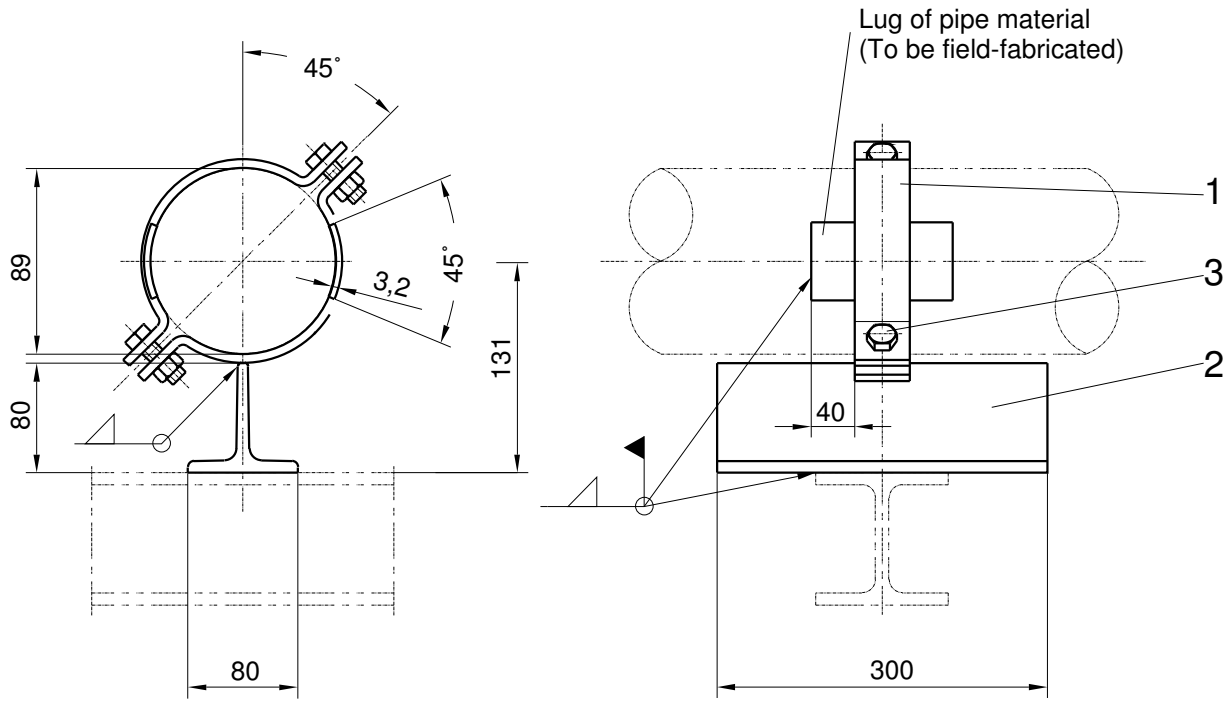
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PIPE SUPPORT

Code No.: ADC001D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,040 kg

1) A193GR.B7/A194GR.2H

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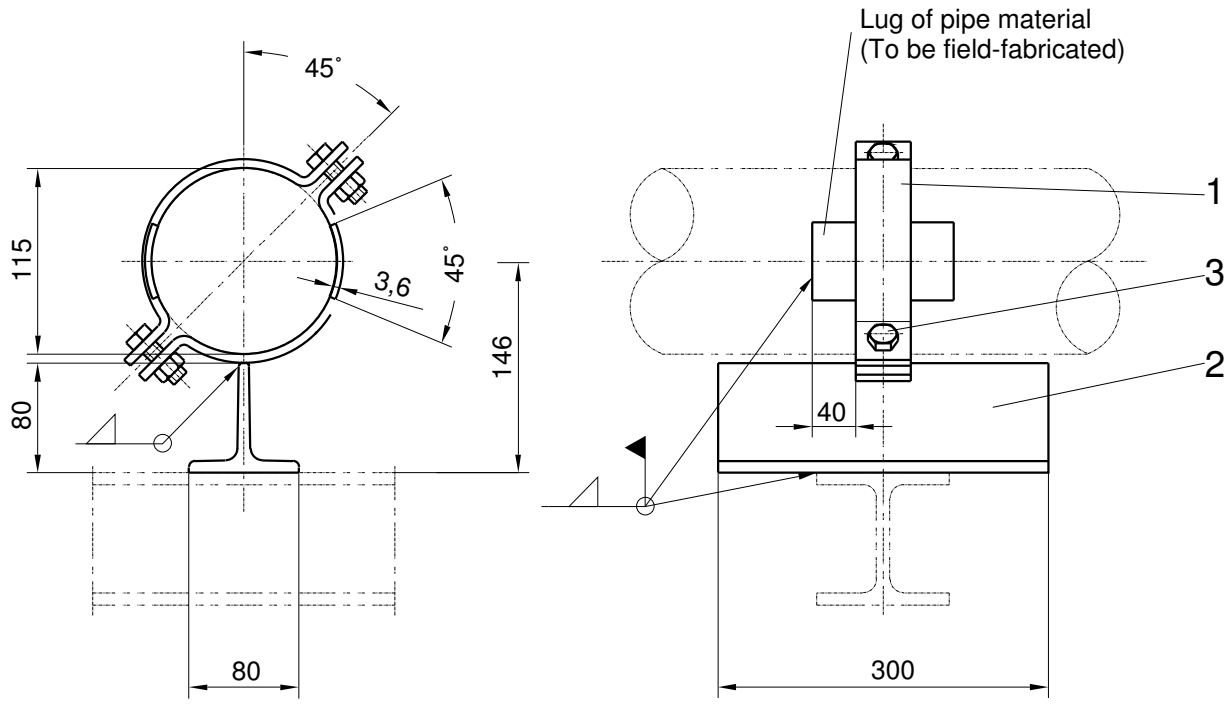
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADC001D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,110 kg

1) A193GR.B7/A194GR.2H

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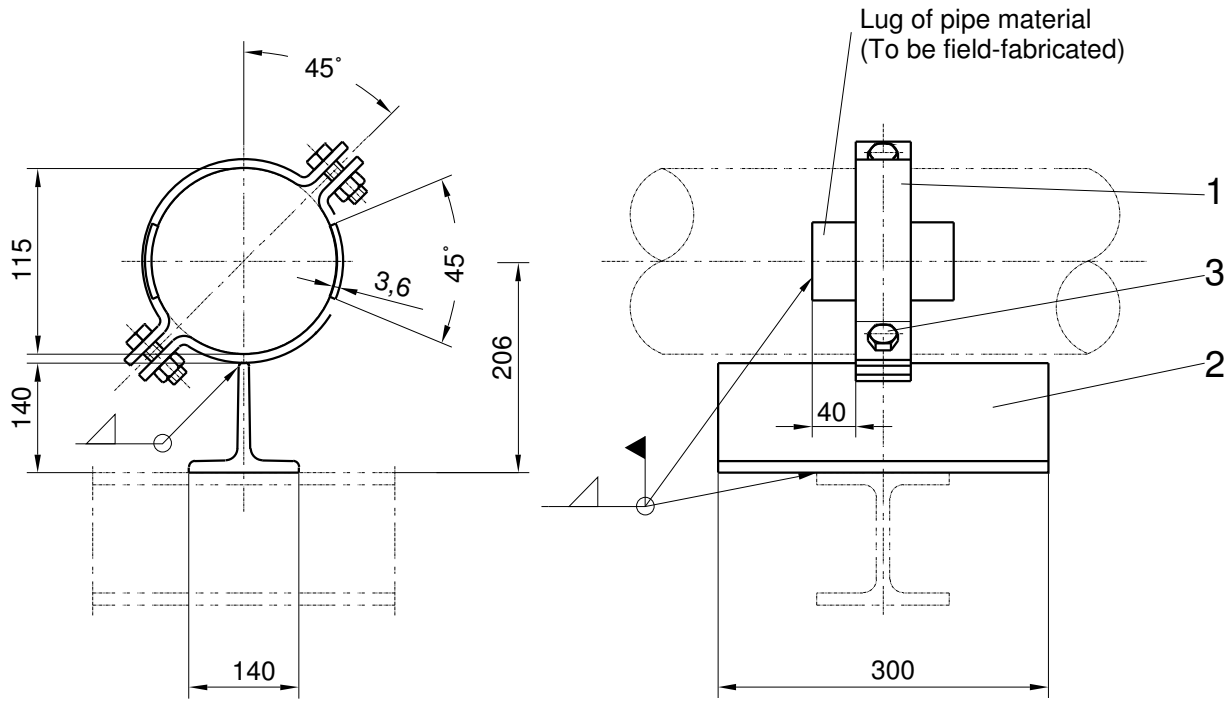
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: ADC001D Marking : 100/3



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,230 kg

1) A193GR.B7/A194GR.2H

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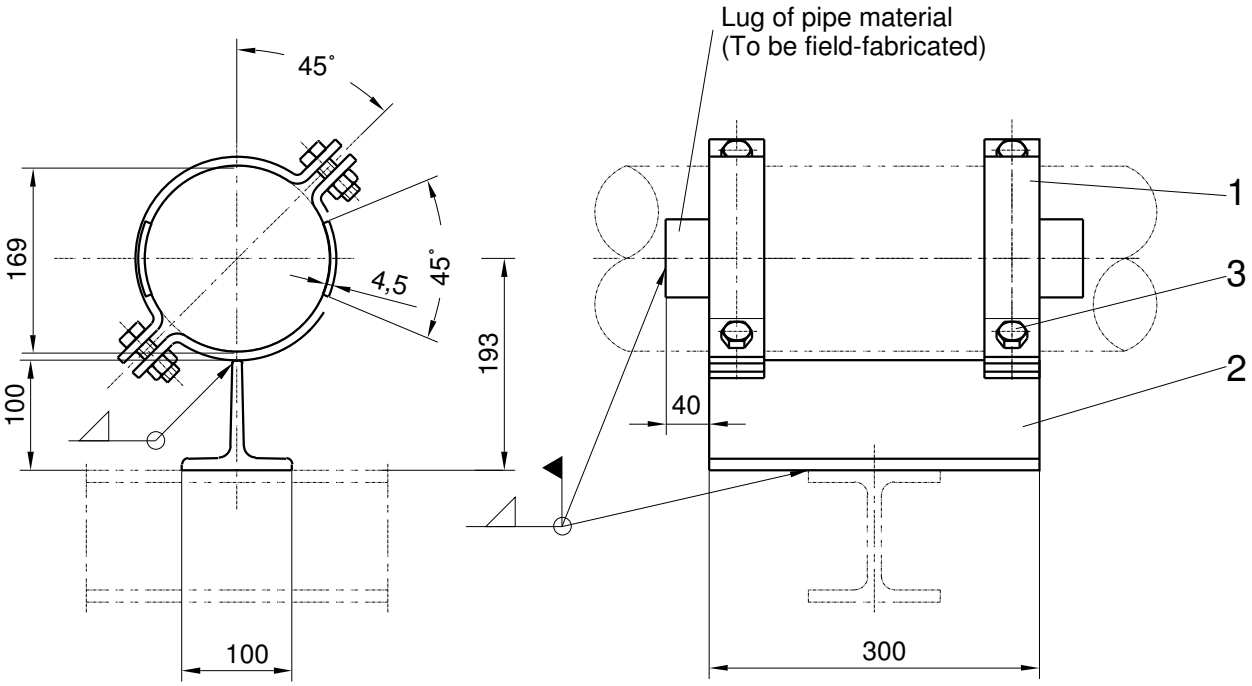
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADC002D Marking : 150/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 9,940 kg

1) A193GR.B7/A194GR.2H

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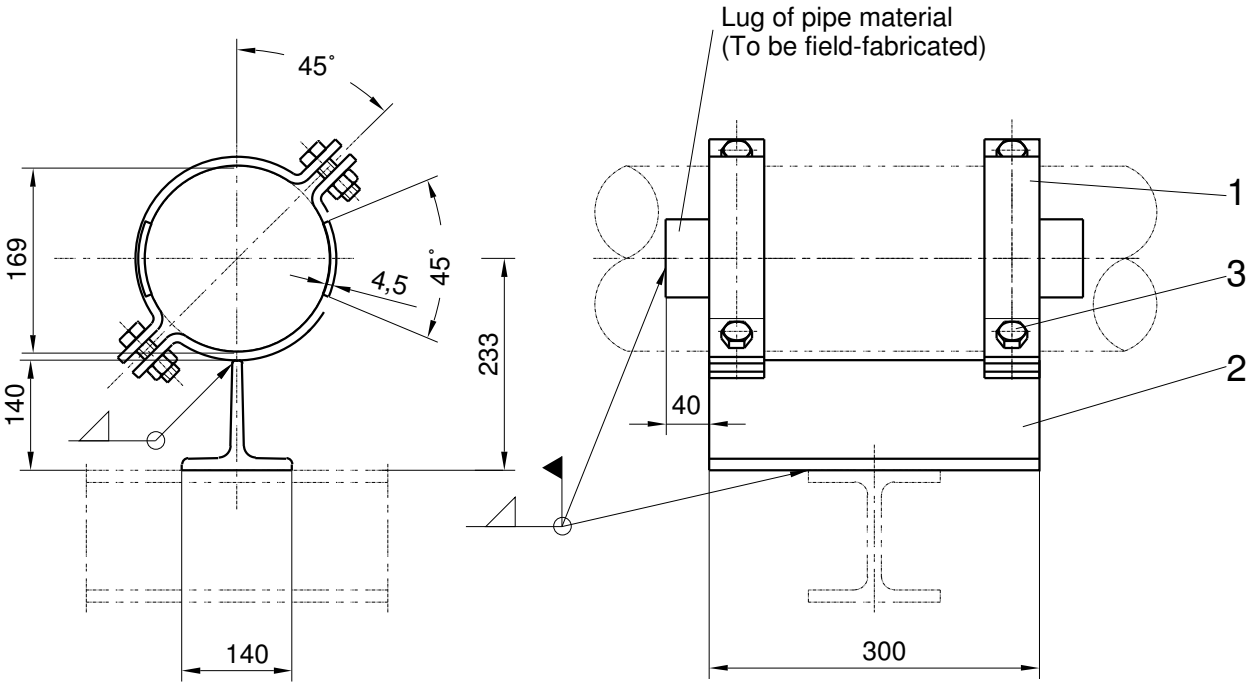
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADC002D Marking : 150/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,410 kg

1) A193GR.B7/A194GR.2H

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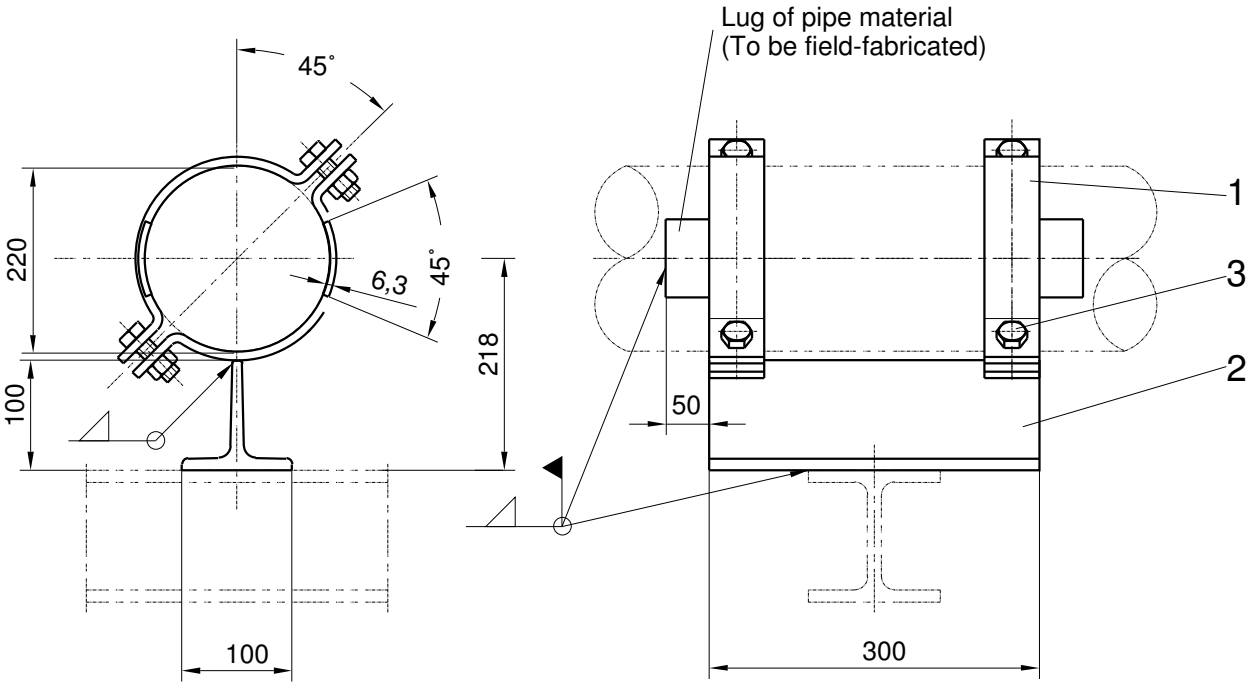
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADC002D Marking : 200/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,940 kg

1) A193GR.B7/A194GR.2H

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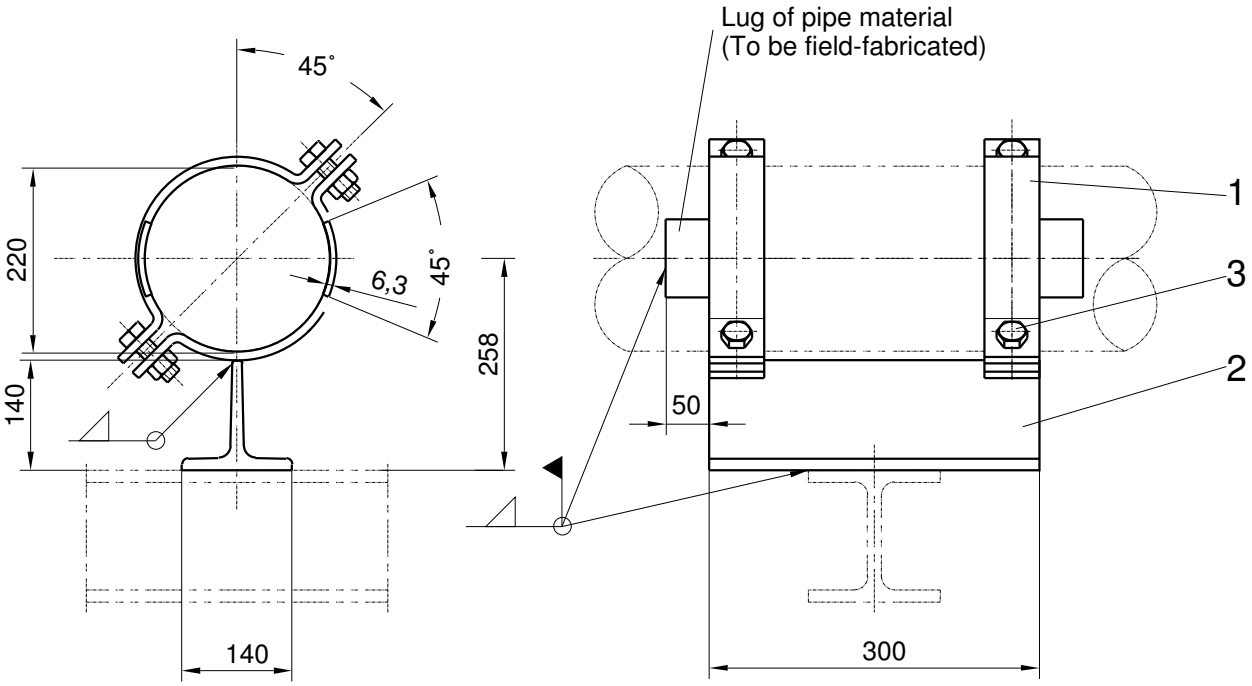
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PIPE SUPPORT

Code No.: ADC002D Marking : 200/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,410 kg

1) A193GR.B7/A194GR.2H

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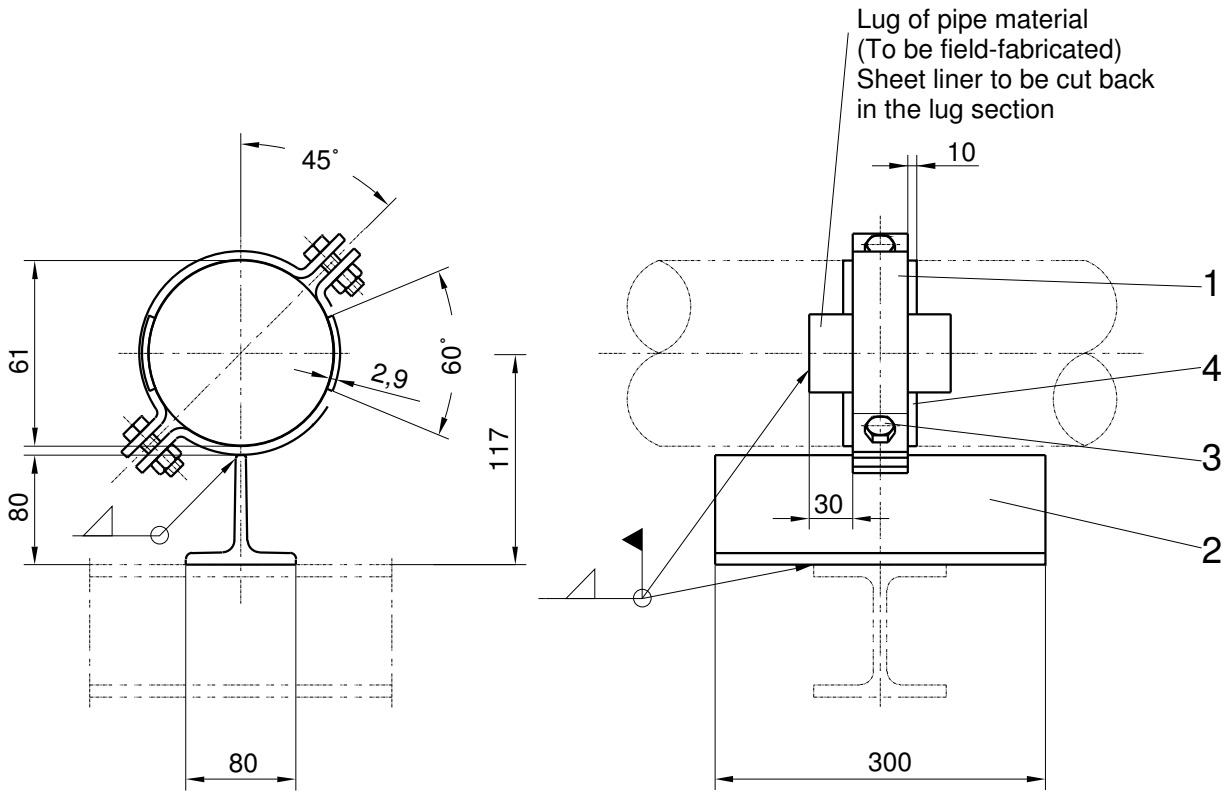
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADC051D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,940 kg

1) A193GR.B7/A194GR.2H

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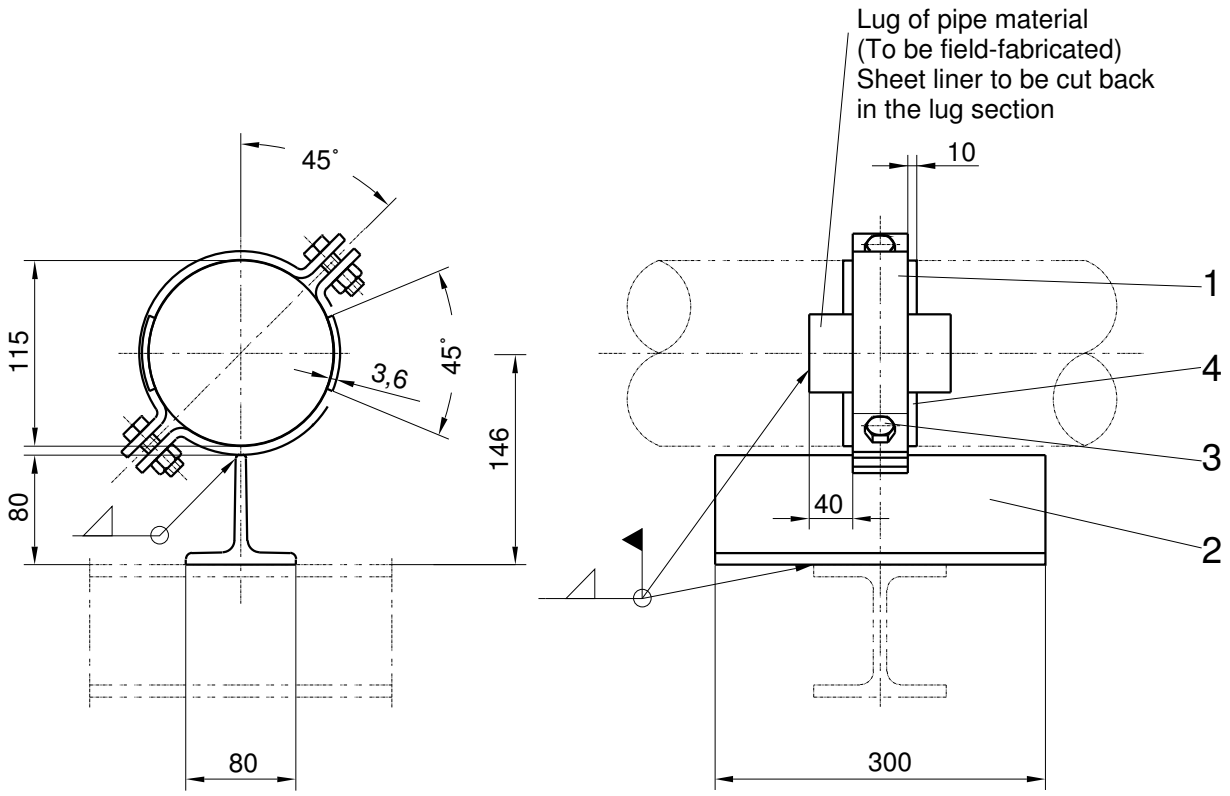
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADC051D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,210 kg

1) A193GR.B7/A194GR.2H

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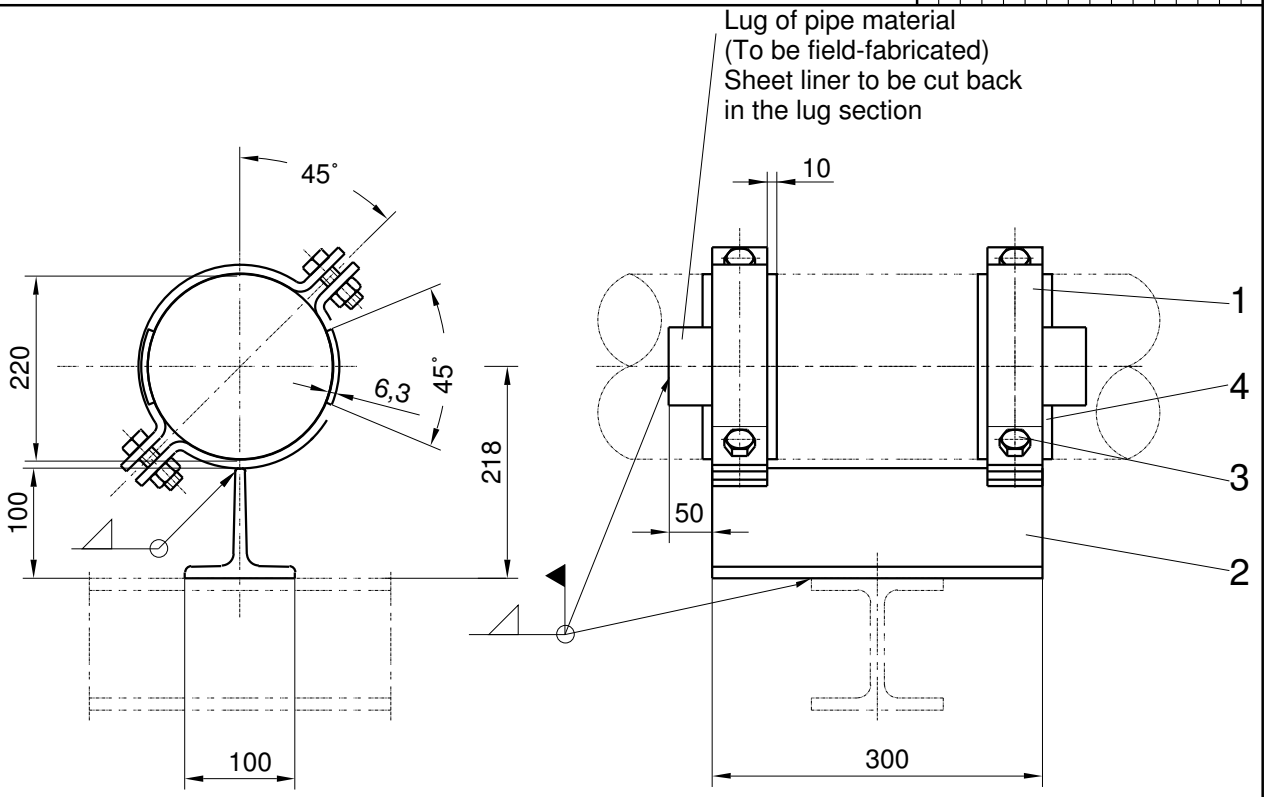
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADC052D Marking : 200/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,340 kg

1) A193GR.B7/A194GR.2H

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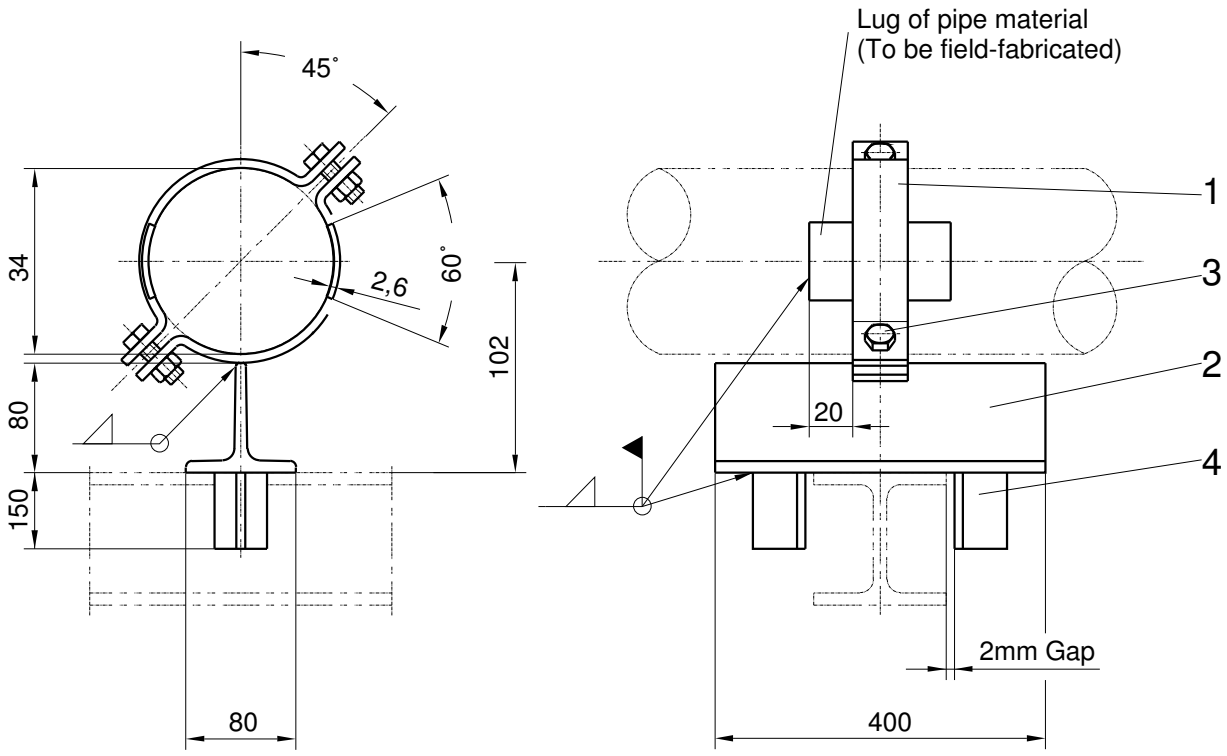
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: ADD001D Marking : 25/1



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	T-BAR T 40 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 400	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,510 kg

1) A193GR.B7/A194GR.2H

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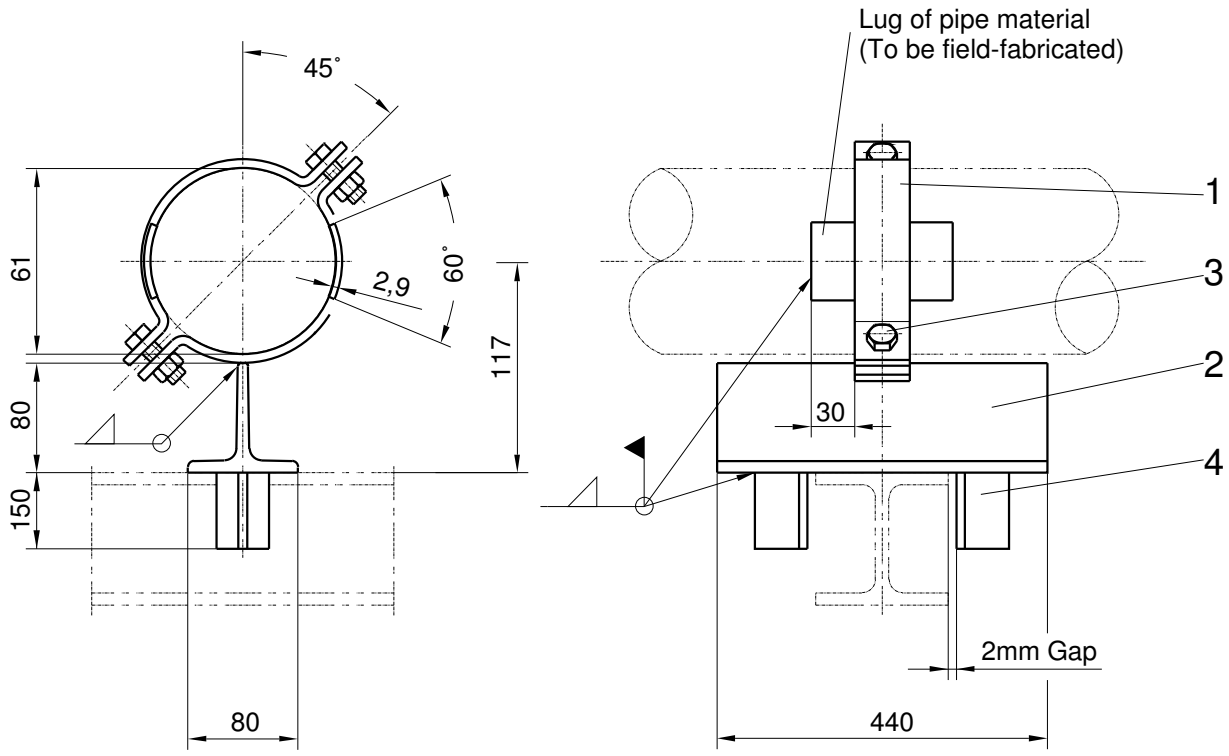
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADD001D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	T-BAR T 60 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 440	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,330 kg

1) A193GR.B7/A194GR.2H

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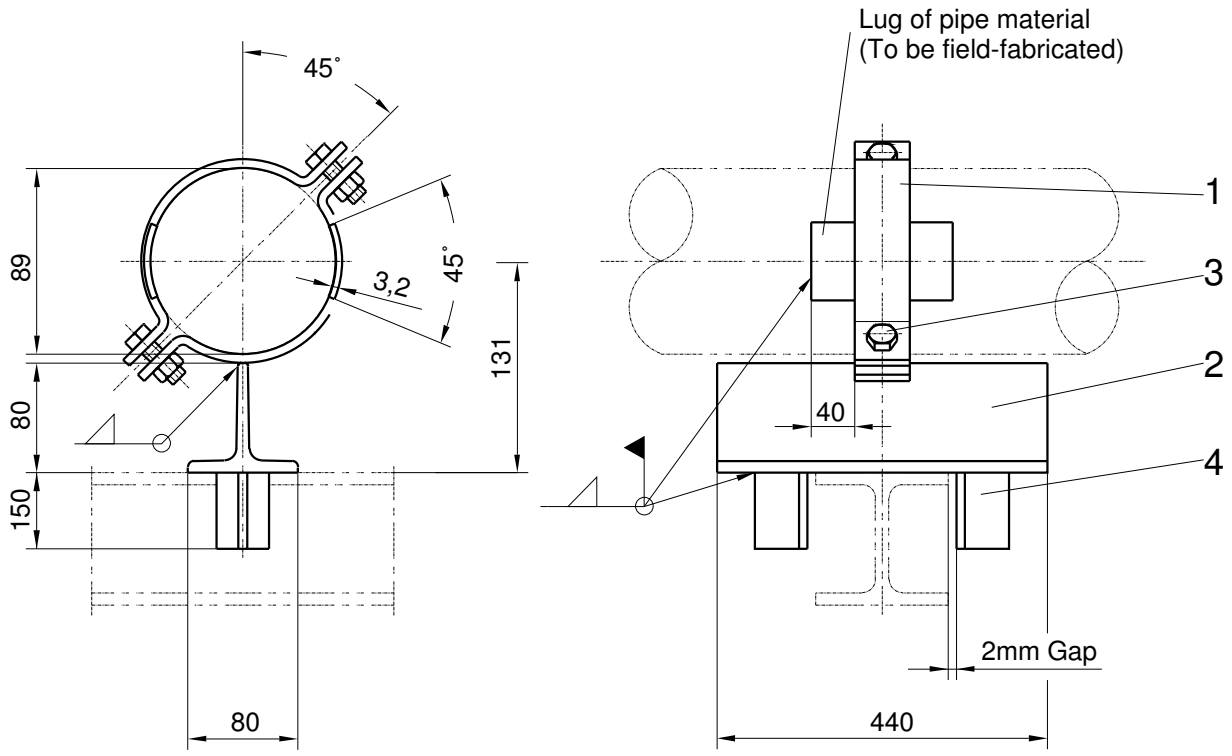
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PIPE SUPPORT

Code No.: ADD001D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	T-BAR T 60 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 440	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,480 kg

1) A193GR.B7/A194GR.2H

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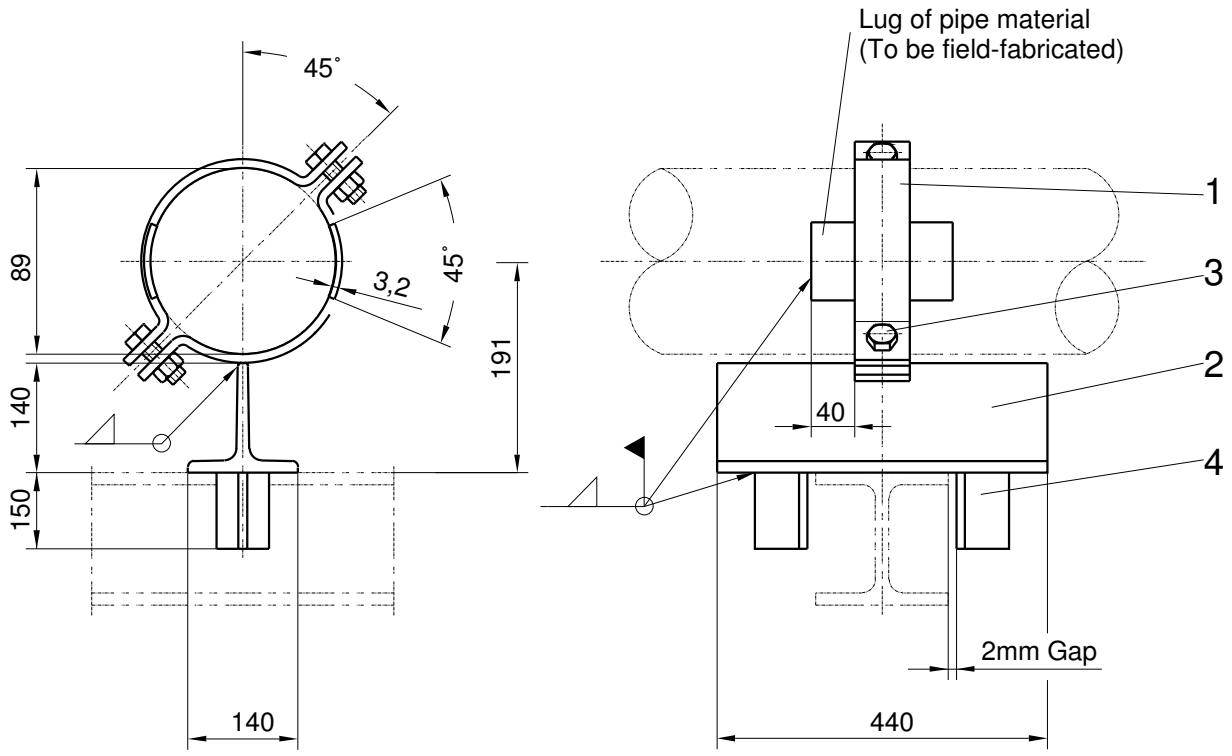
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tkIS		Code	Page	UAN	V	L S
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PIPE SUPPORT

Code No.: ADD001D Marking : 80/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	T-BAR T 60 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 440	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 16,540 kg

1) A193GR.B7/A194GR.2H

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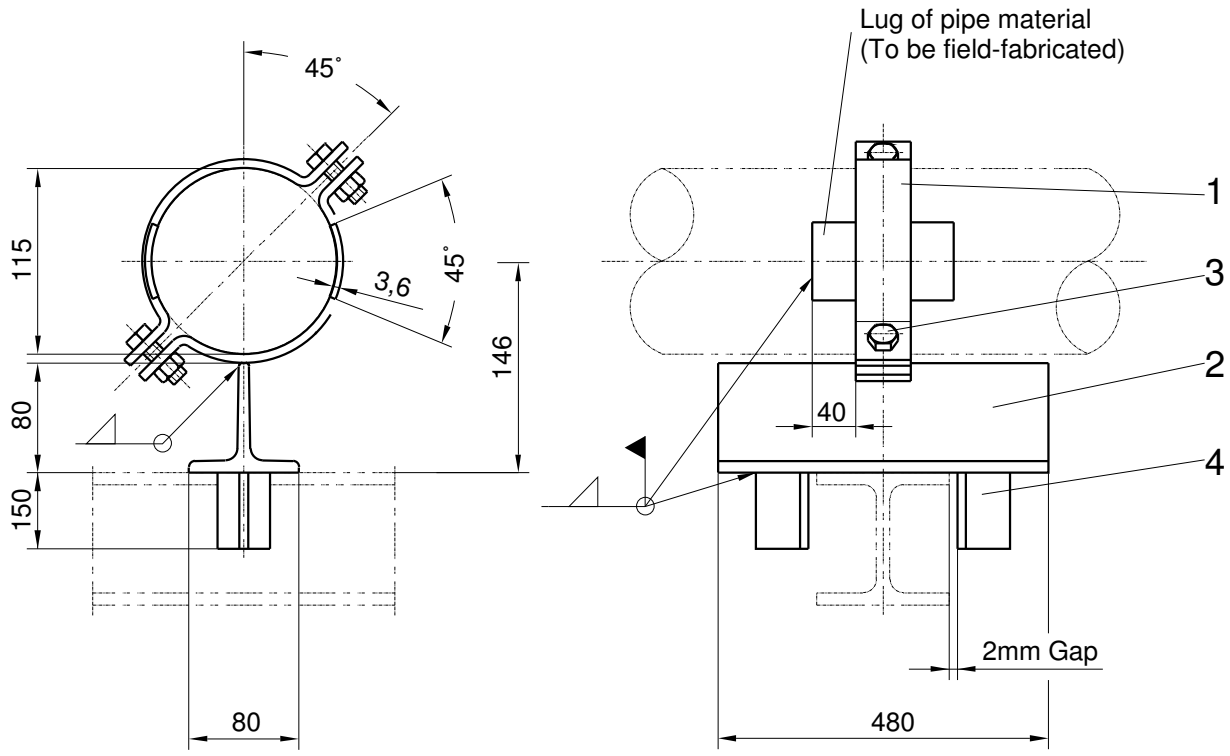
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADD001D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	T-BAR T 80 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 480	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,320 kg

1) A193GR.B7/A194GR.2H

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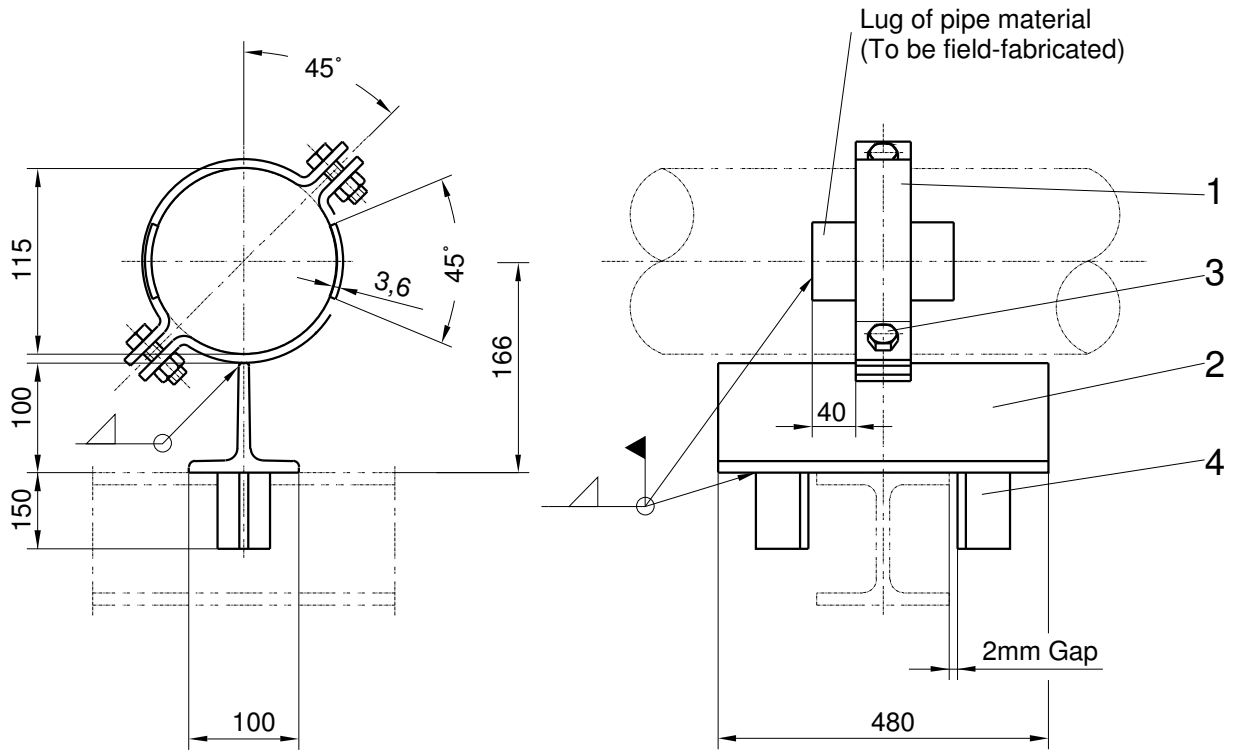
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD001D Marking : 100/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	T-BAR T 80 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 480	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 13,050 kg

1) A193GR.B7/A194GR.2H

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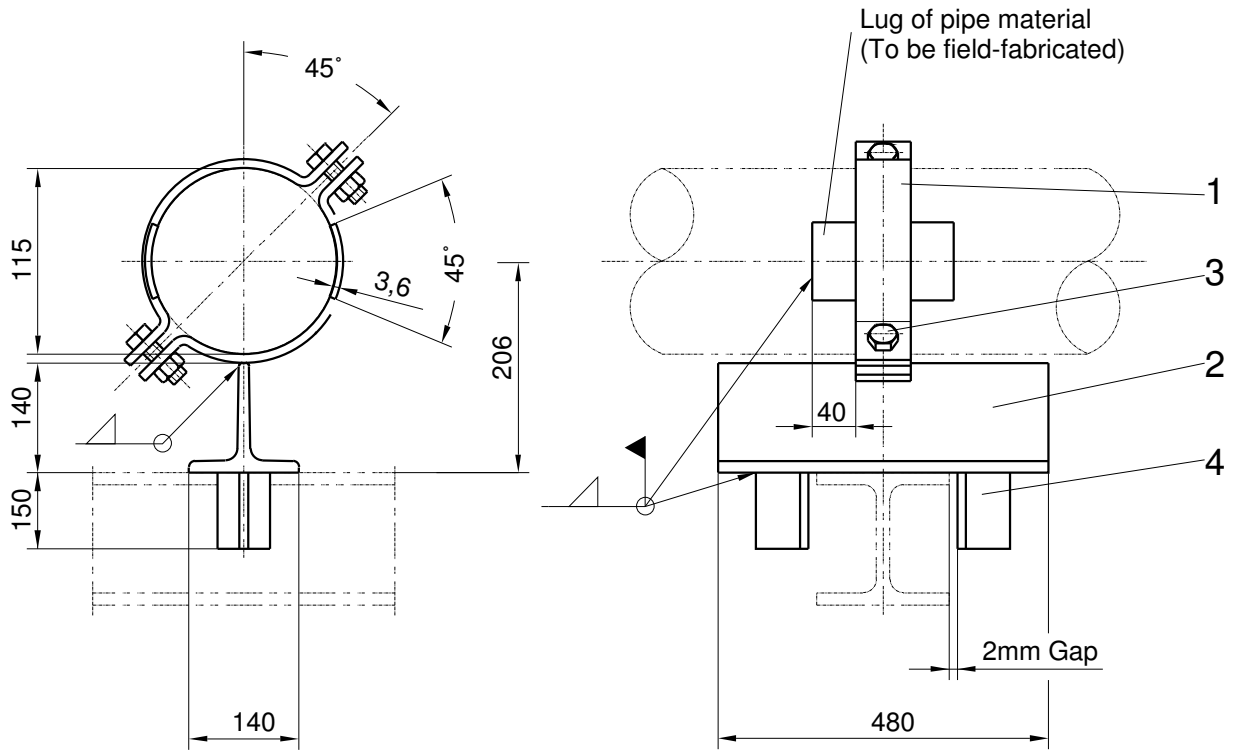
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD001D Marking : 100/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	T-BAR T 80 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 480	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,200 kg

1) A193GR.B7/A194GR.2H

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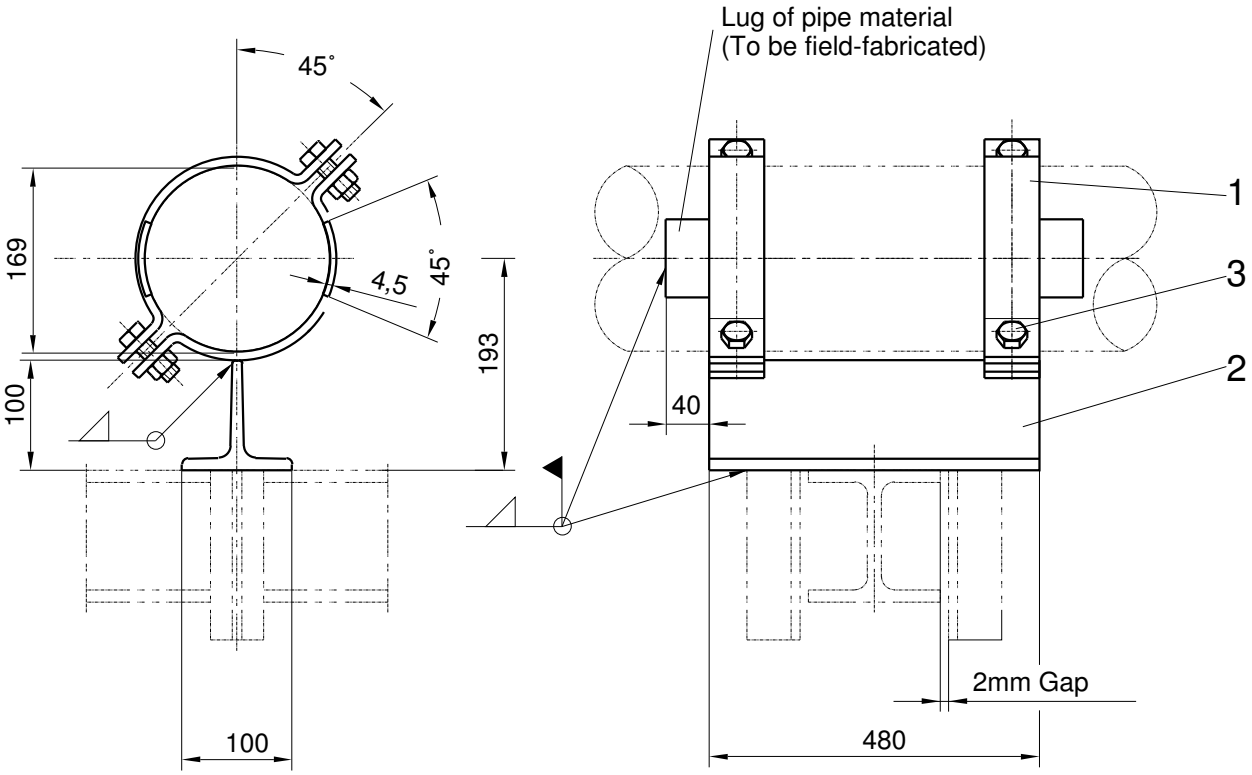
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD002D Marking : 150/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 480	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 18,330 kg

1) A193GR.B7/A194GR.2H

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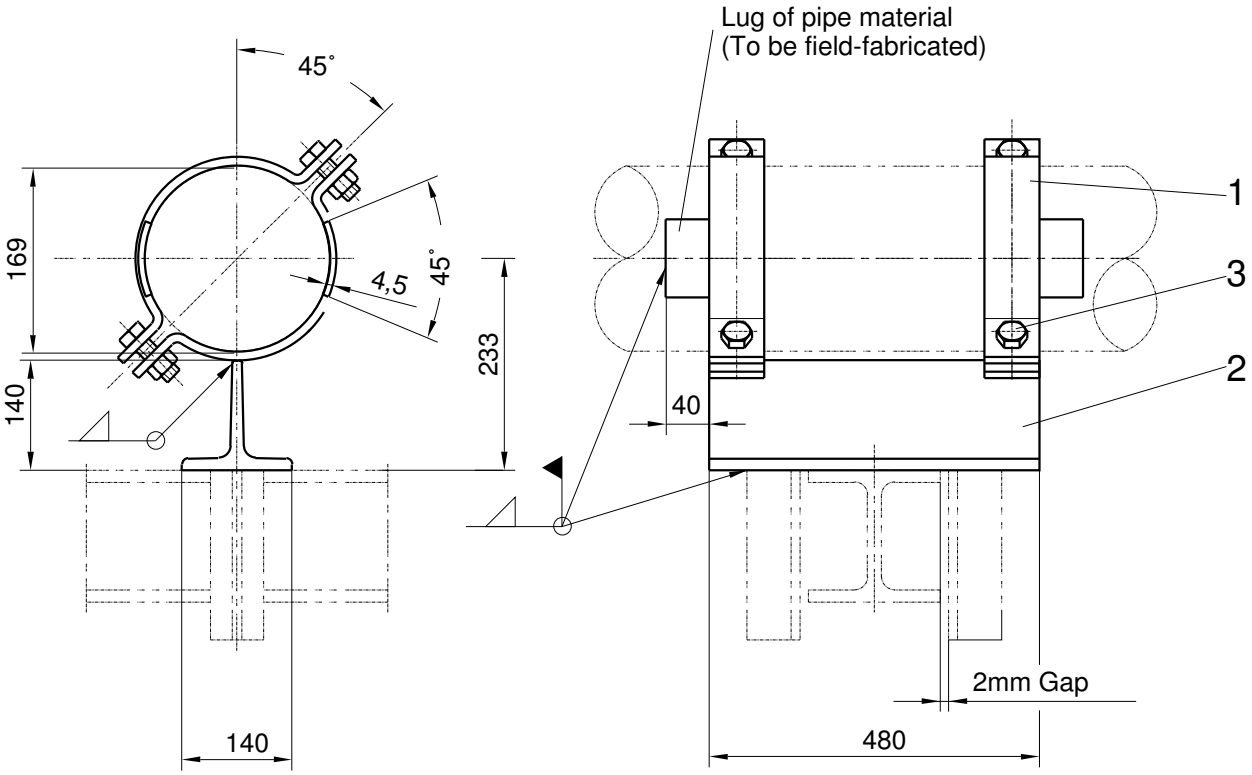
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD002D Marking : 150/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 480	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 25,480 kg

1) A193GR.B7/A194GR.2H

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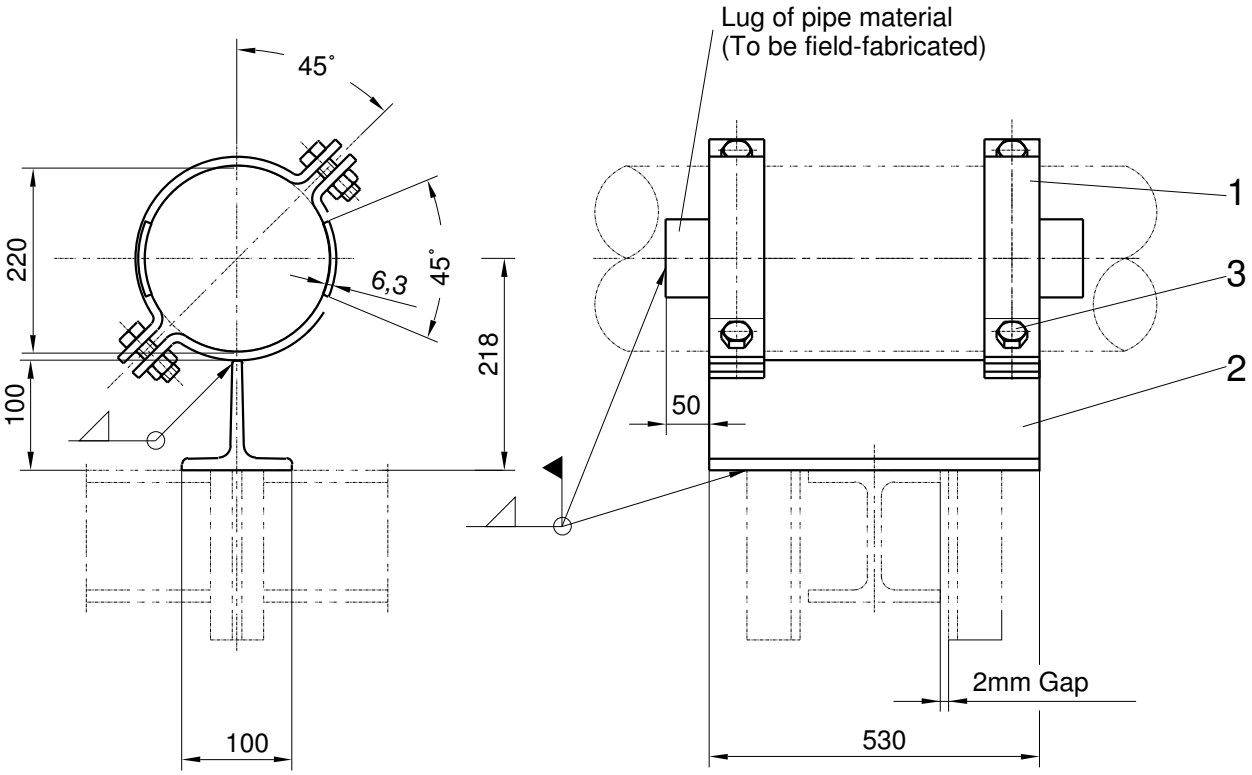
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD002D Marking : 200/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 530	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,930 kg

1) A193GR.B7/A194GR.2H

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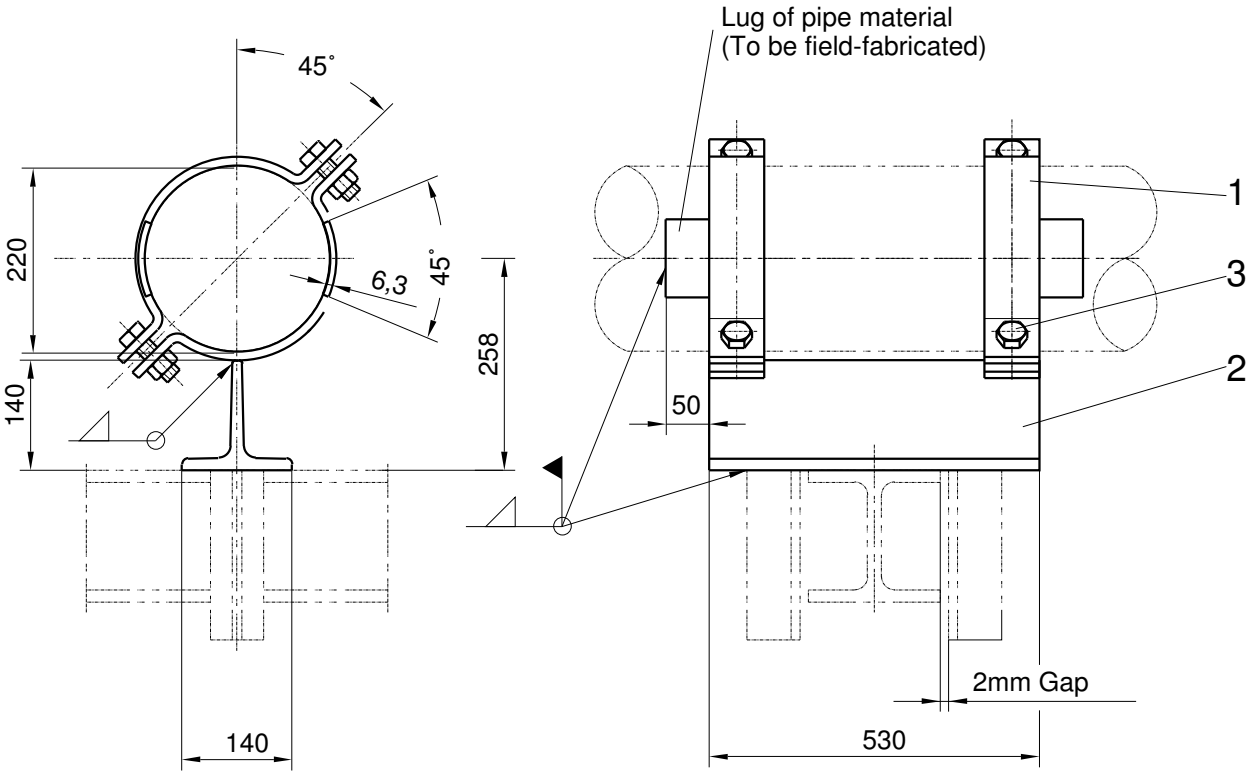
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: ADD002D Marking : 200/3



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 530	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 28,830 kg

1) A193GR.B7/A194GR.2H

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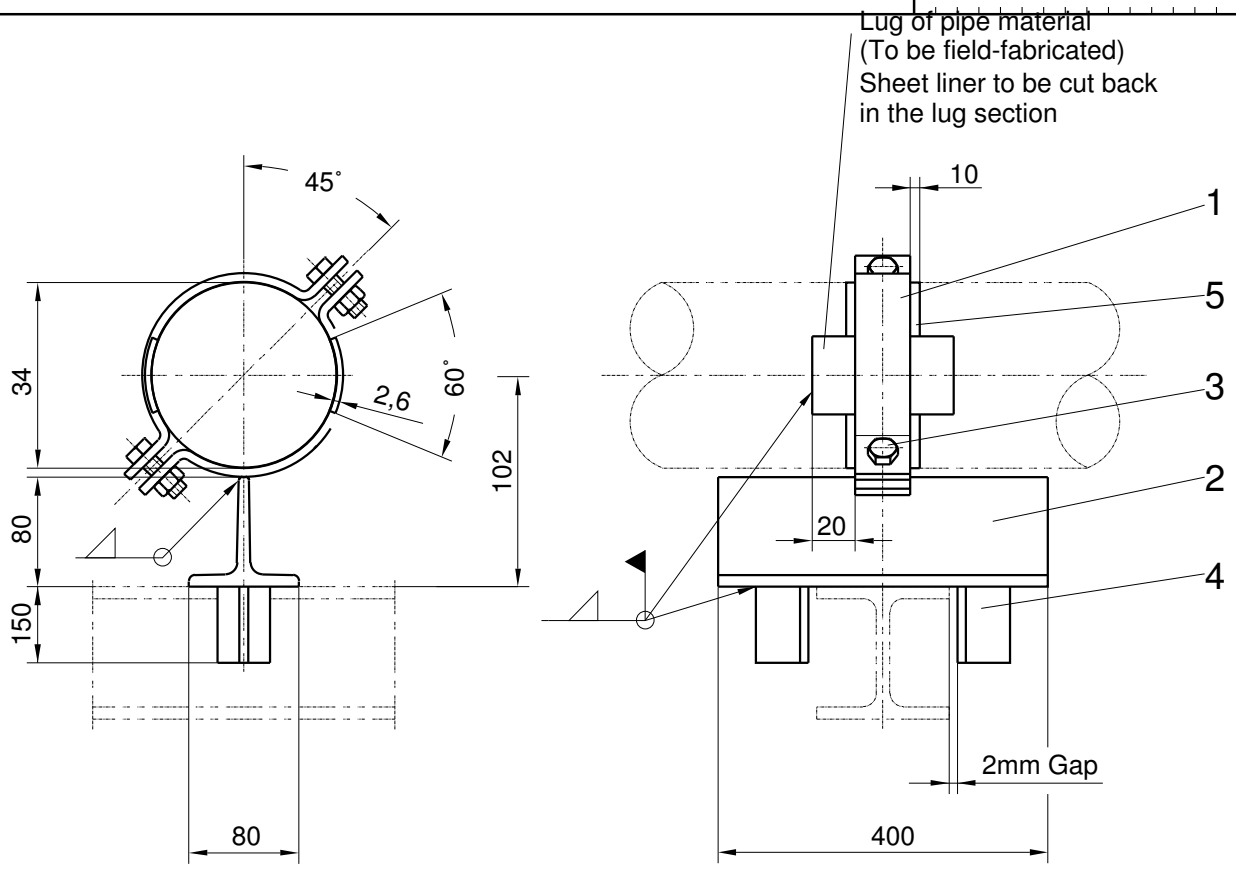
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: ADD051D Marking : 25/1



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 50 x 117	UN 3790-14	A240GR.321	OE0041D
4	2	T-BAR T 40 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 400	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,530 kg

1) A193GR.B7/A194GR.2H

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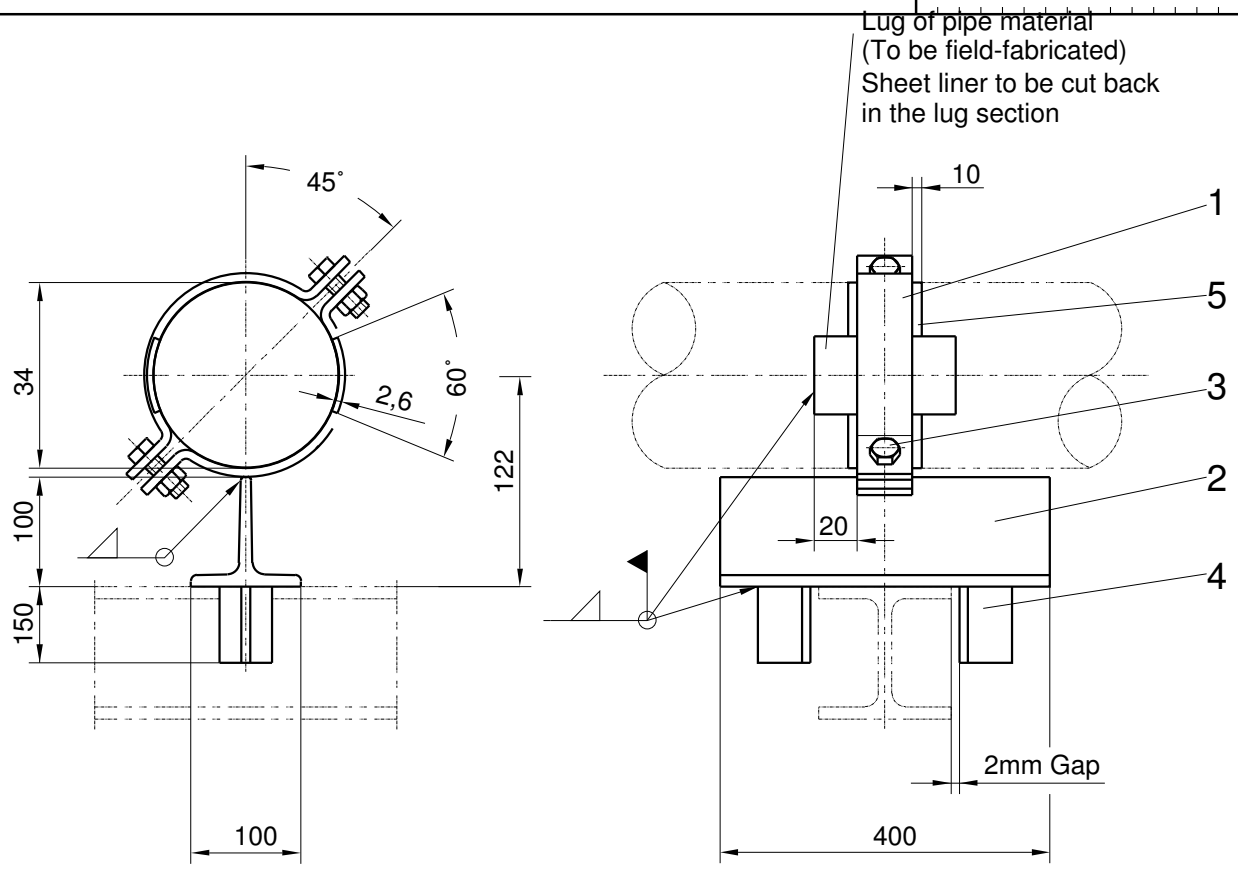
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: ADD051D Marking : 25/2



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 50 x 117	UN 3790-14	A240GR.321	OE0041D
4	2	T-BAR T 40 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 400	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,810 kg

1) A193GR.B7/A194GR.2H

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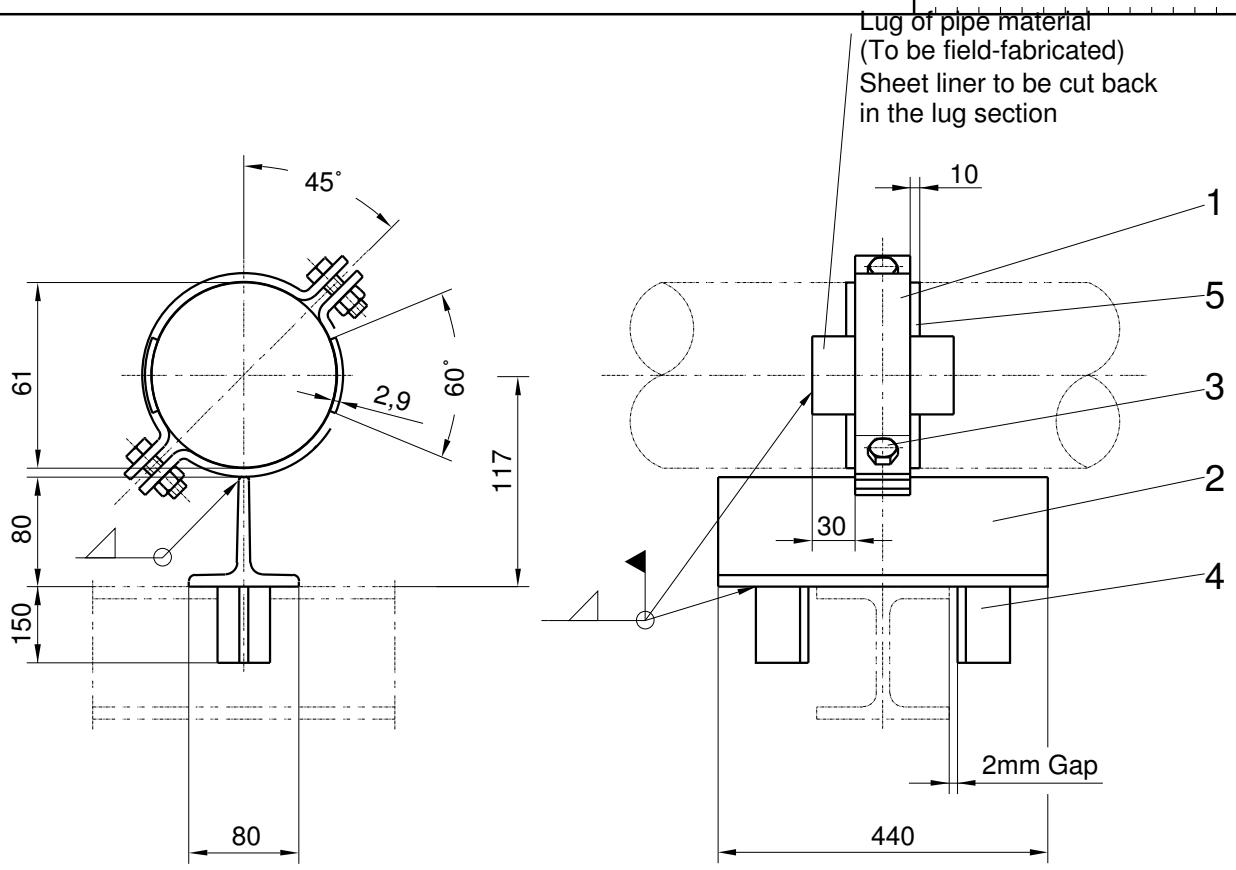
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD051D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
4	2	T-BAR T 60 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 440	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,380 kg

1) A193GR.B7/A194GR.2H

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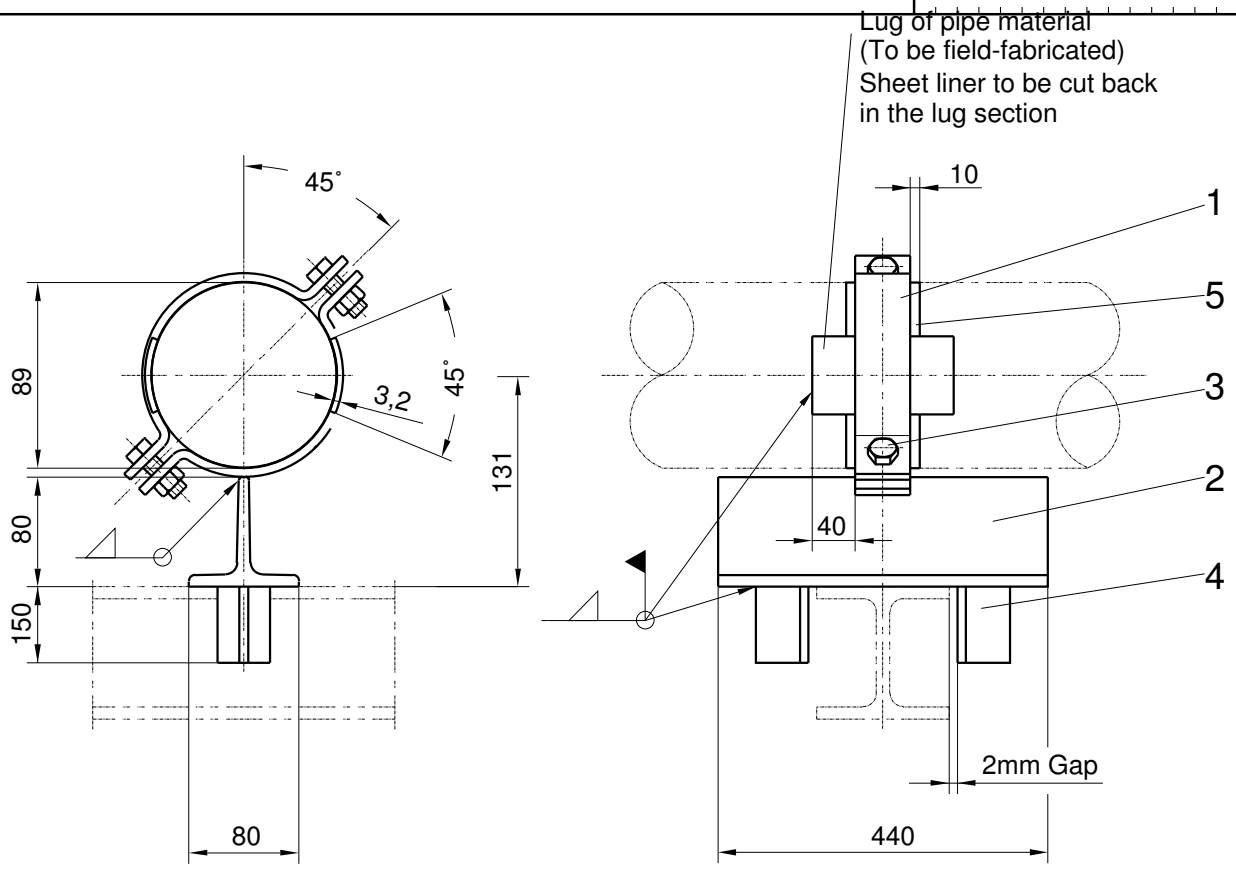
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD051D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 60 x 295	UN 3790-14	A240GR.321	OE0041D
4	2	T-BAR T 60 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 440	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,550 kg

1) A193GR.B7/A194GR.2H

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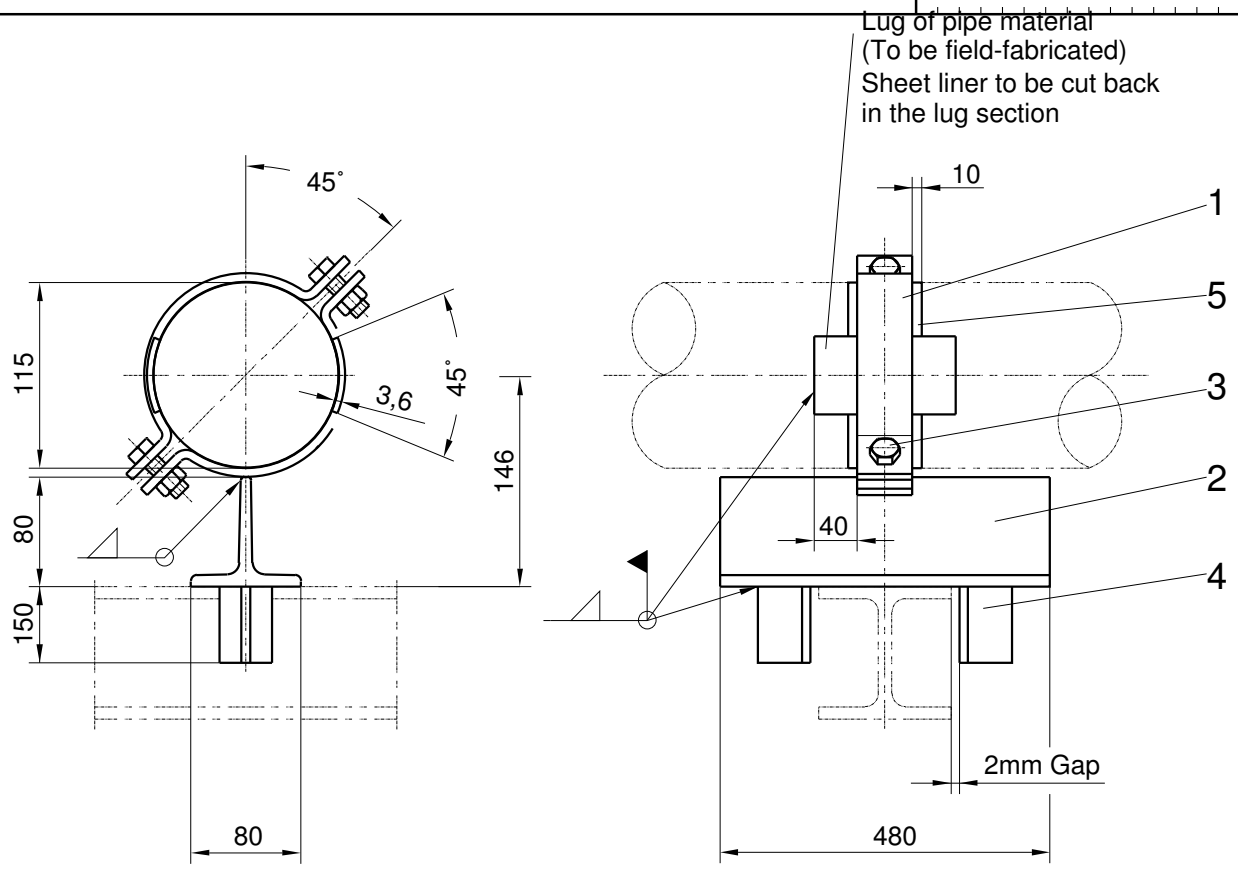
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD051D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
4	2	T-BAR T 80 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 480	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,430 kg

1) A193GR.B7/A194GR.2H

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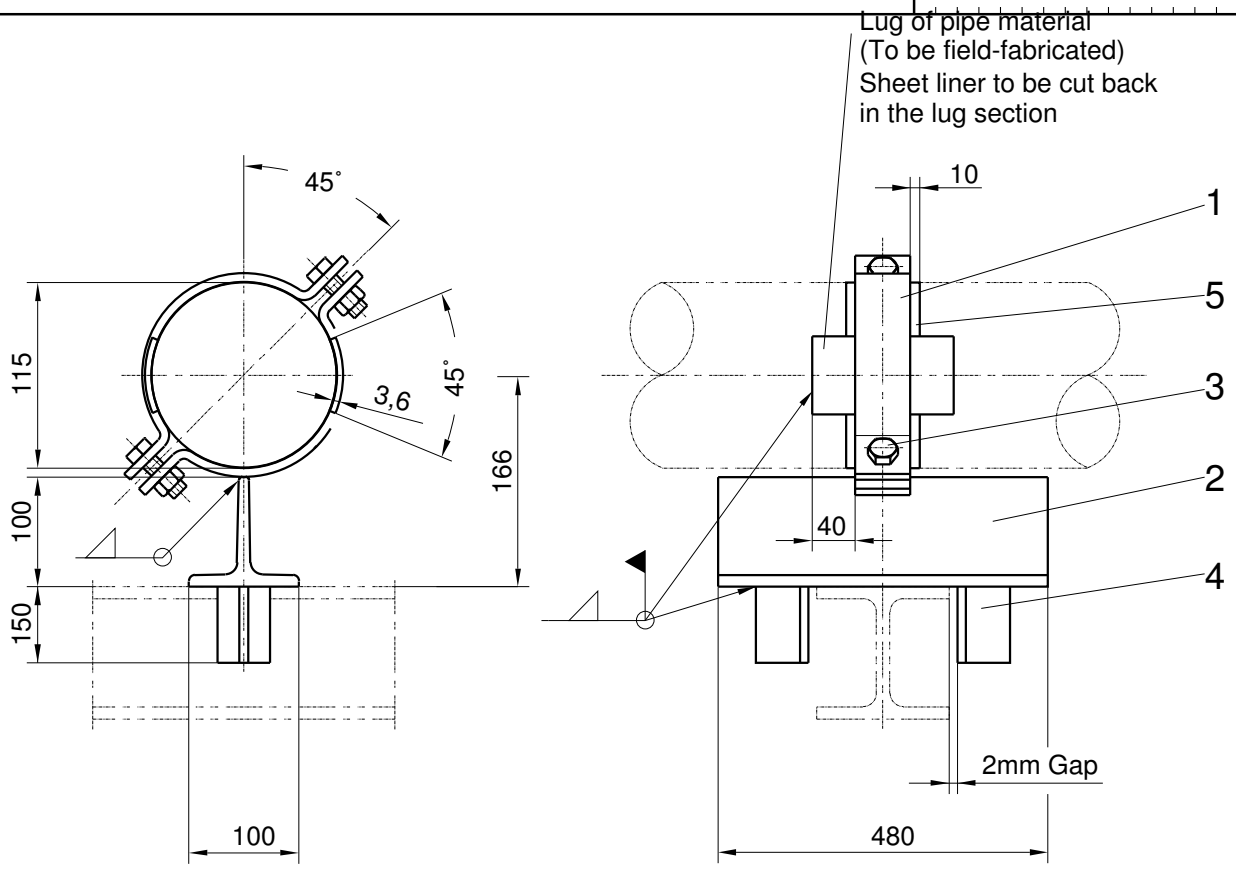
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD051D Marking : 100/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
4	2	T-BAR T 80 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 480	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 13,160 kg

1) A193GR.B7/A194GR.2H

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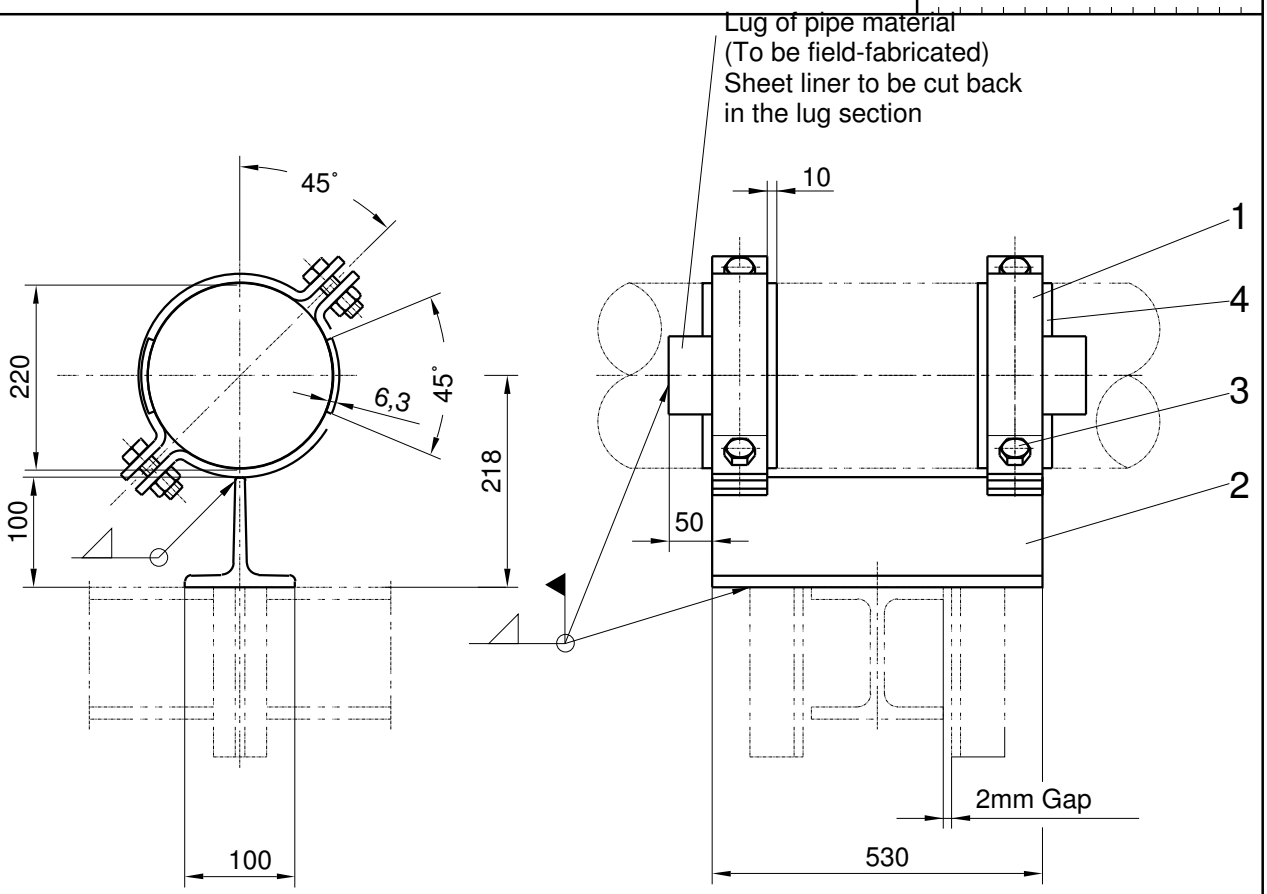
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADD052D Marking : 200/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 530	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 21,430 kg

1) A193GR.B7/A194GR.2H

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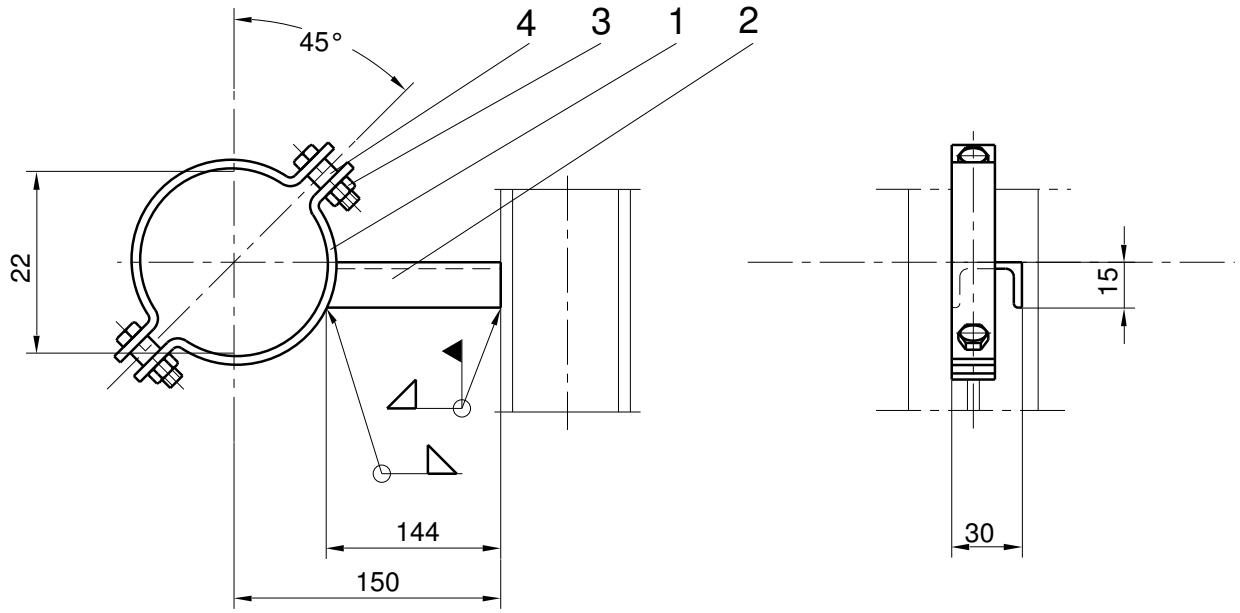
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB001D Marking : 15/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 17,2 x 1,8 x 8	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 30 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 30 x 15 x 144	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 22	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,570 kg

1) A193GR.B7/A194GR.2H

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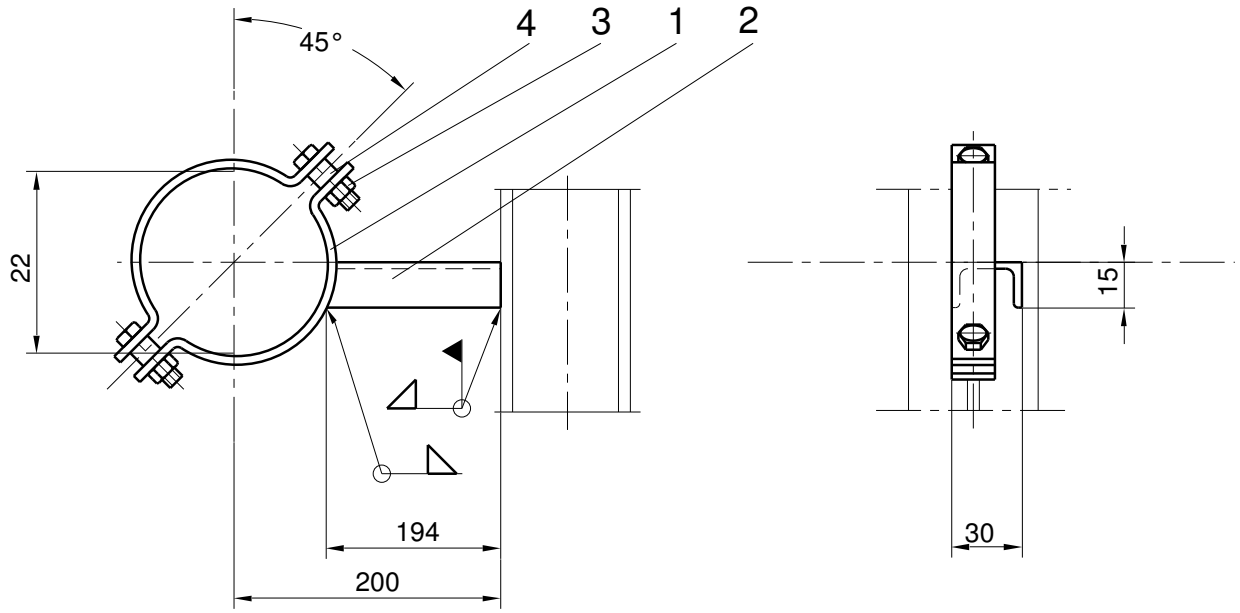
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEB001D Marking : 15/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 17,2 x 1,8 x 8	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 30 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 30 x 15 x 194	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 22	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,660 kg

1) A193GR.B7/A194GR.2H

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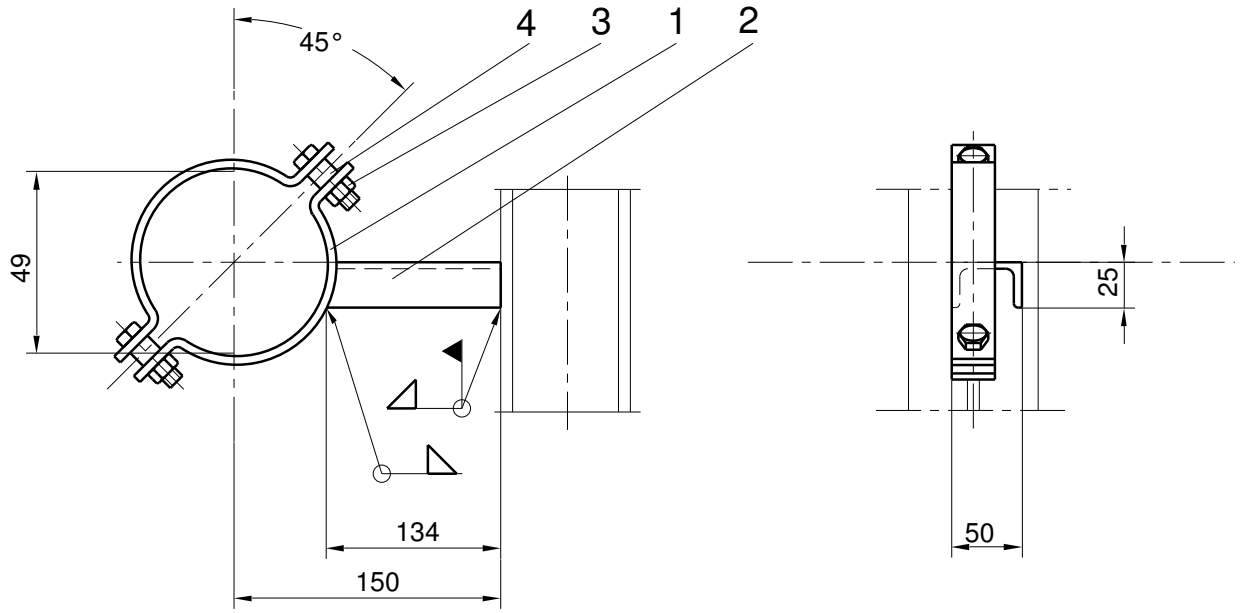
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEB001D Marking : 40/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 17,2 x 1,8 x 8	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 134	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,940 kg

1) A193GR.B7/A194GR.2H

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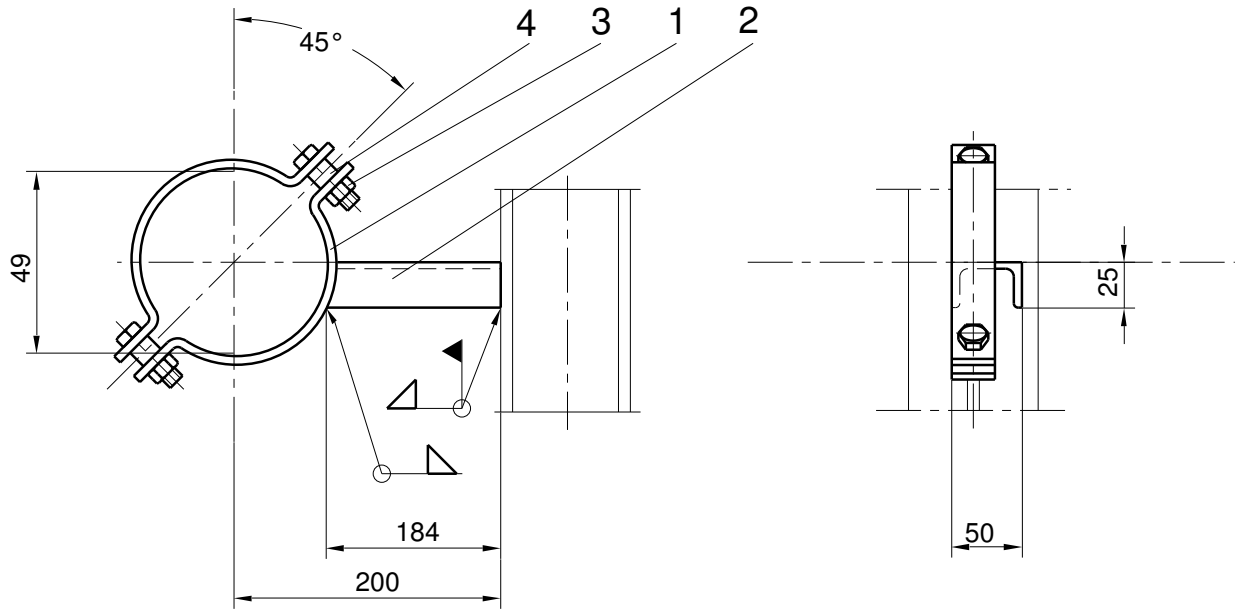
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEB001D Marking : 40/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 17,2 x 1,8 x 8	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 184	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,130 kg

1) A193GR.B7/A194GR.2H

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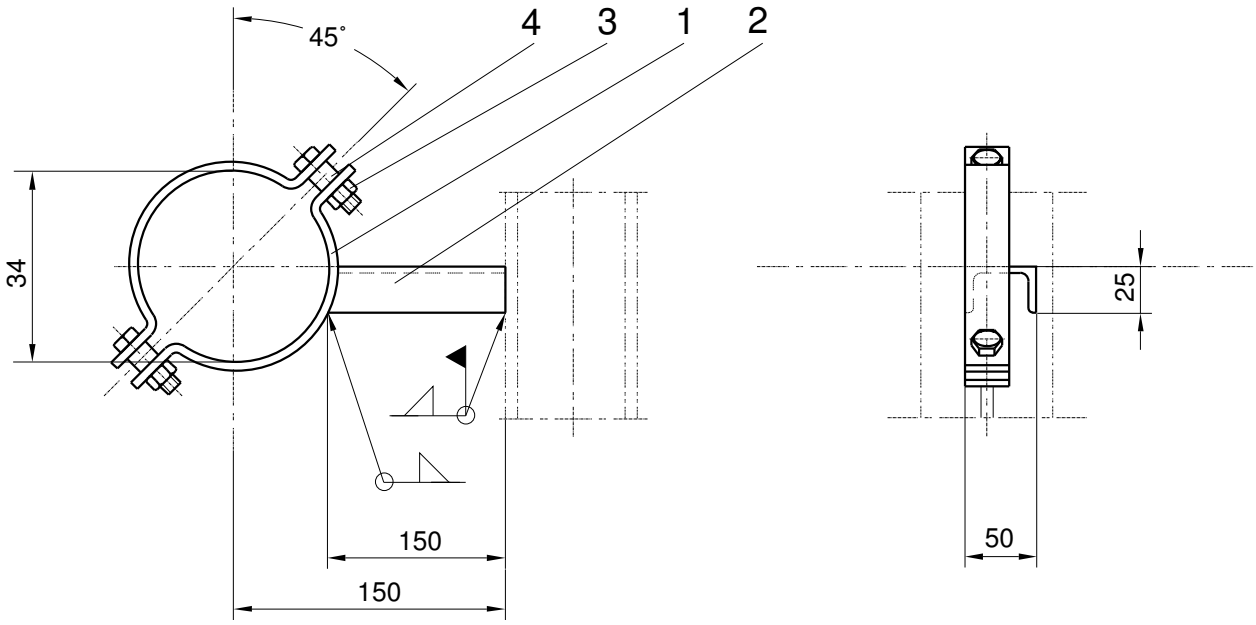
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB002D Marking : 25/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 17,2 x 1,8 x 8	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 150	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,940 kg

1) A193GR.B7/A194GR.2H

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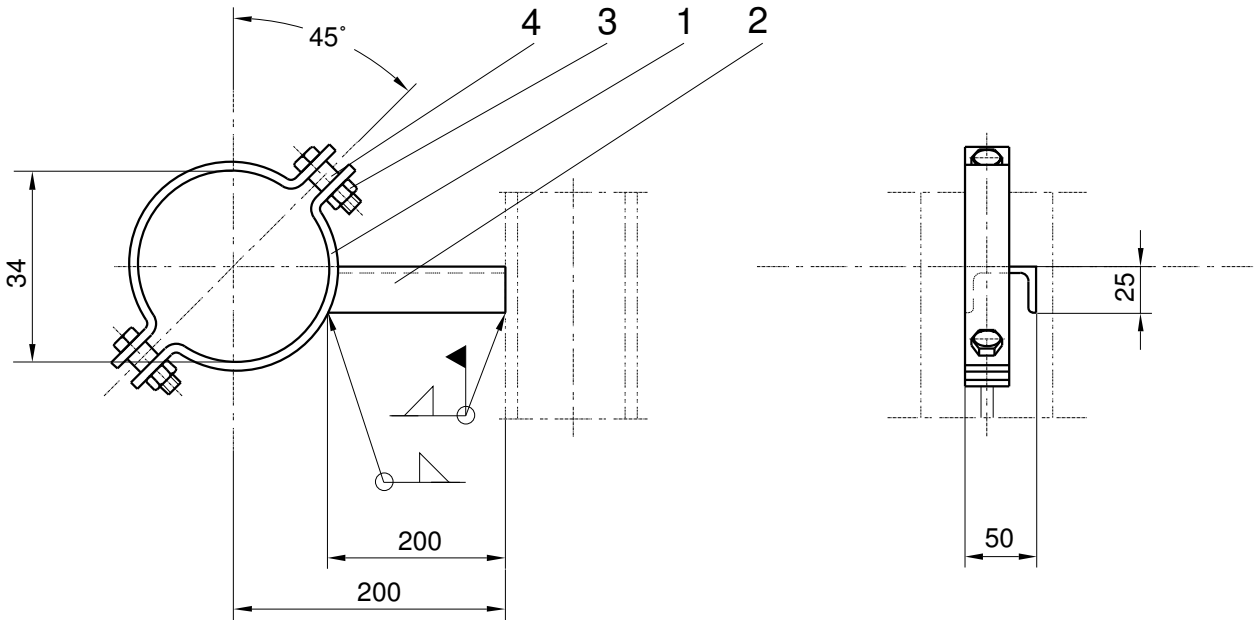
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB002D Marking : 25/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 17,2 x 1,8 x 8	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 200	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,130 kg

1) A193GR.B7/A194GR.2H

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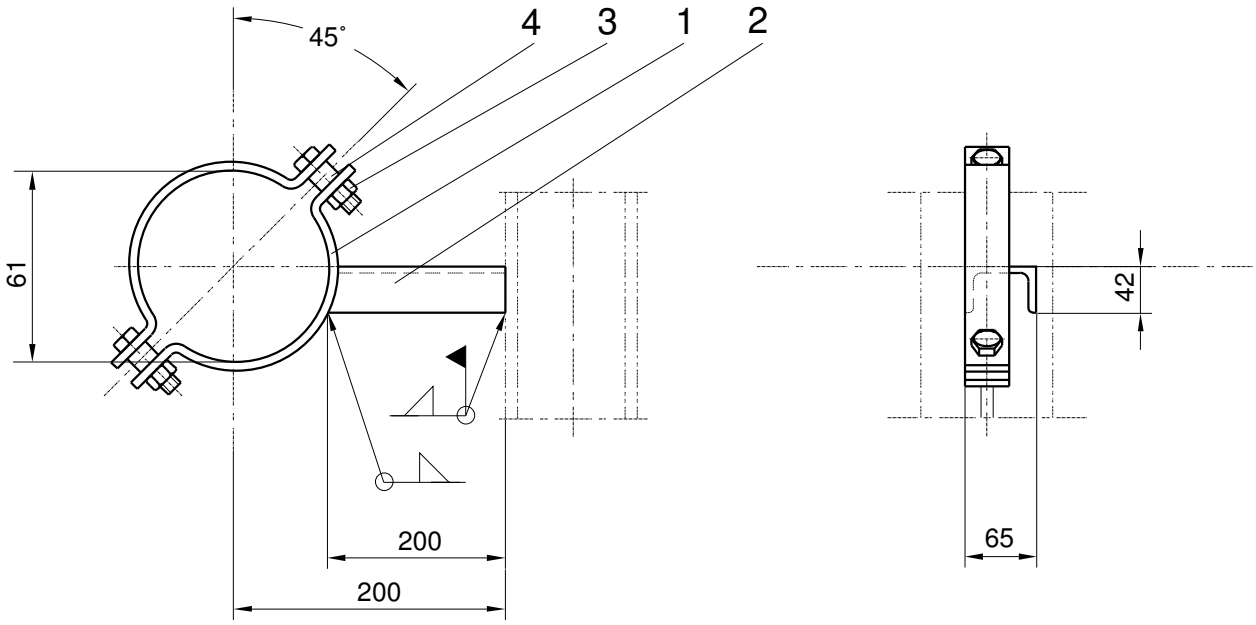
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB003D Marking : 50/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 200	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,190 kg

1) A193GR.B7/A194GR.2H

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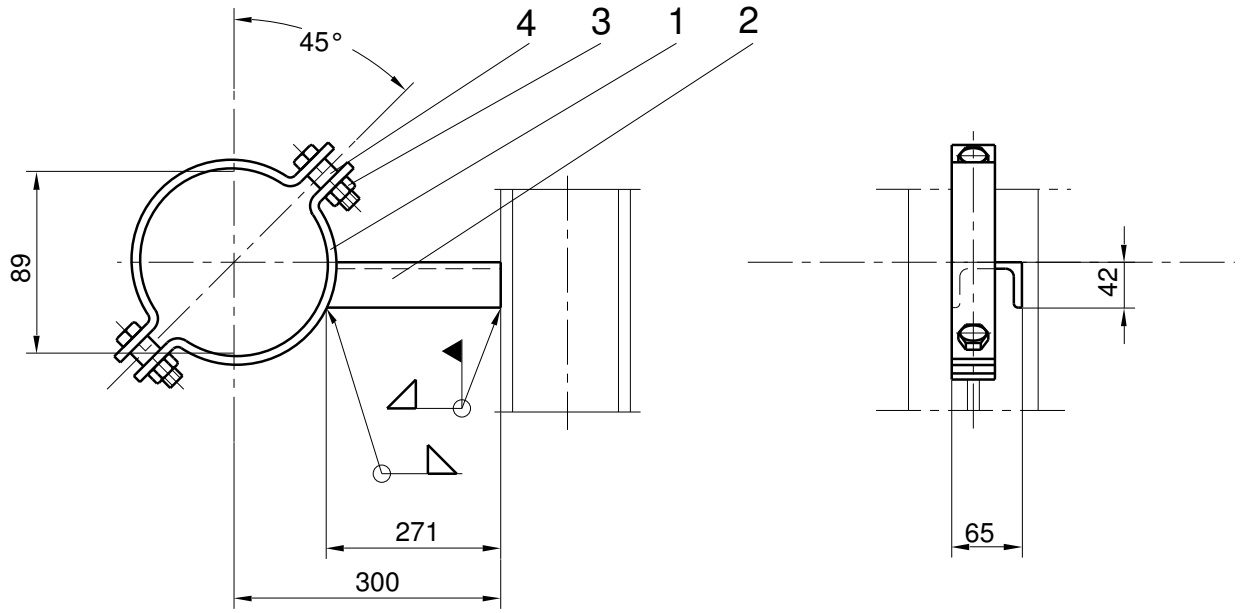
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEB004D Marking : 80/300

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 271	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,840 kg

1) A193GR.B7/A194GR.2H

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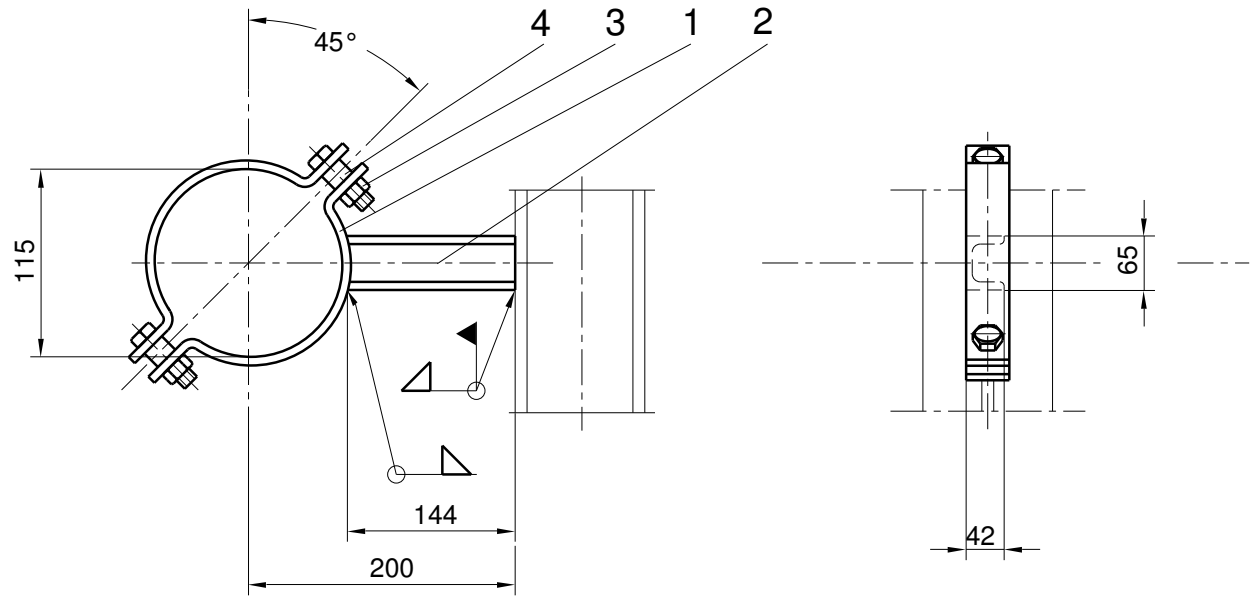
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB005D Marking : 100/200

U	Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 33,7 x 2,6 x 12	DIN 2448	1.0254	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 144	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,030 kg

1) A193GR.B7/A194GR.2H

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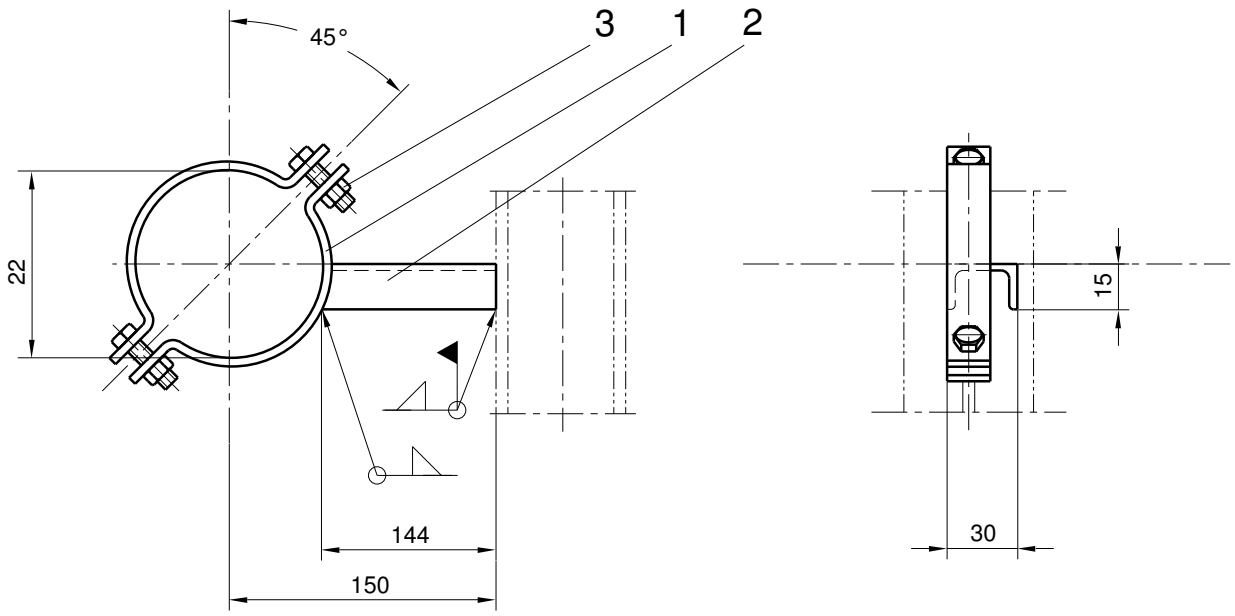
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEX001D Marking : 15/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 30 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 30 x 15 x 144	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 22	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,550 kg

1) A193GR.B7/A194GR.2H

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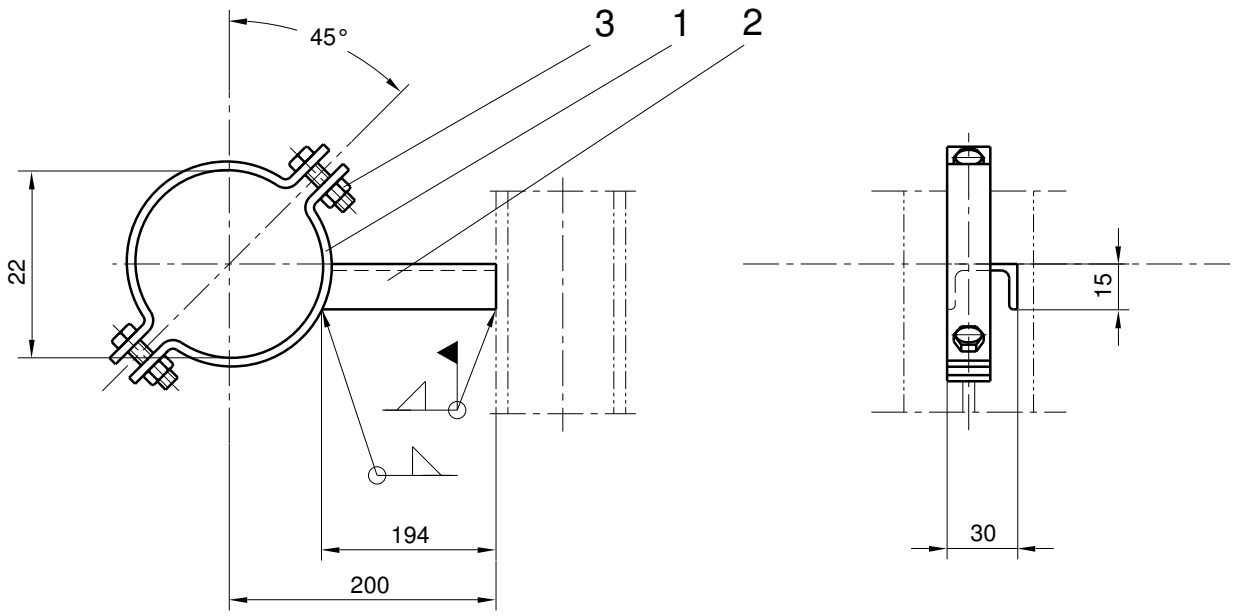
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEX001D Marking : 15/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 30 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 30 x 15 x 194	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 22	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,640 kg

1) A193GR.B7/A194GR.2H

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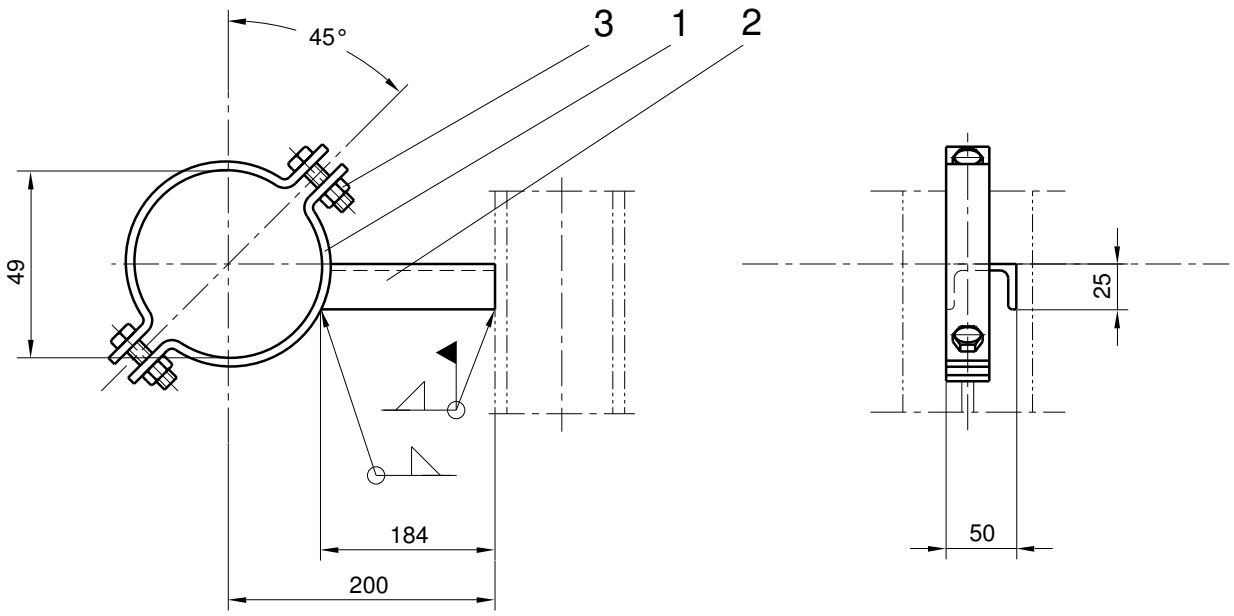
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEX001D Marking : 40/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 184	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,110 kg

1) A193GR.B7/A194GR.2H

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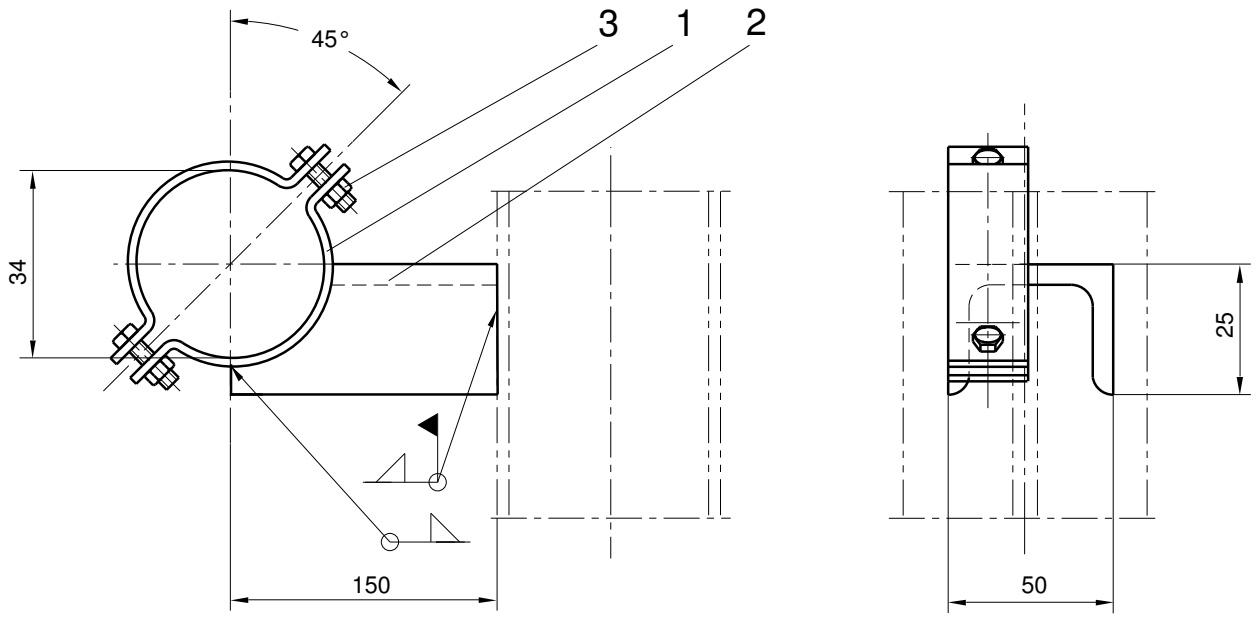
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEX002D Marking : 25/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 150	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,920 kg

1) A193GR.B7/A194GR.2H

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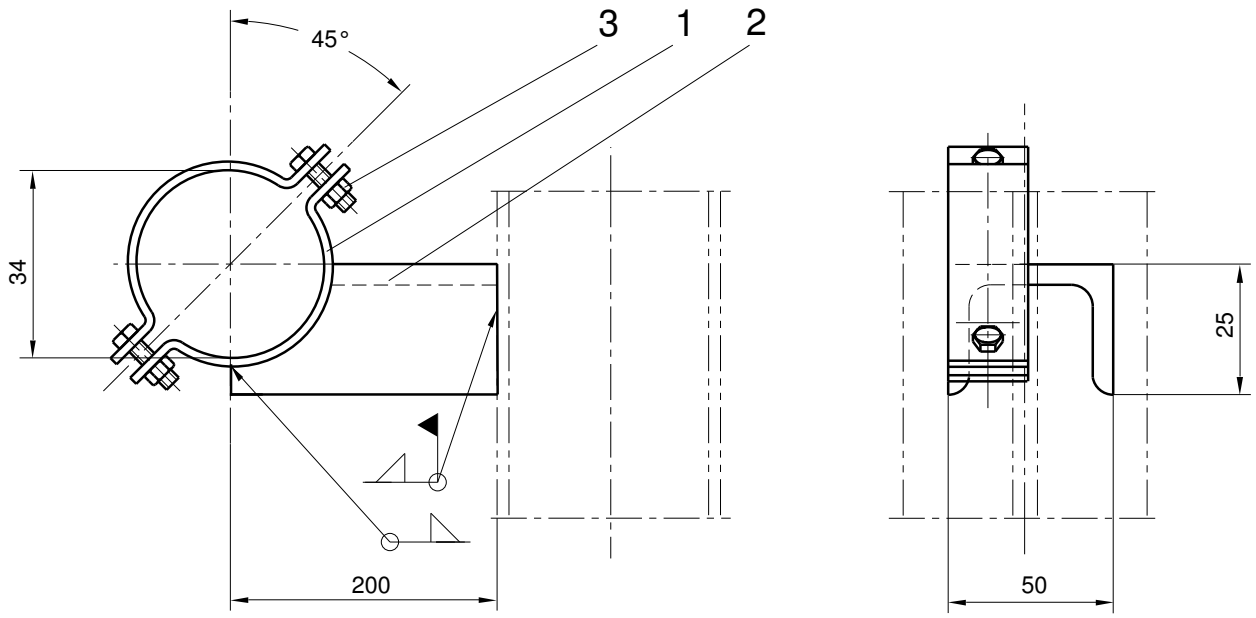
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEX002D Marking : 25/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 200	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,110 kg

1) A193GR.B7/A194GR.2H

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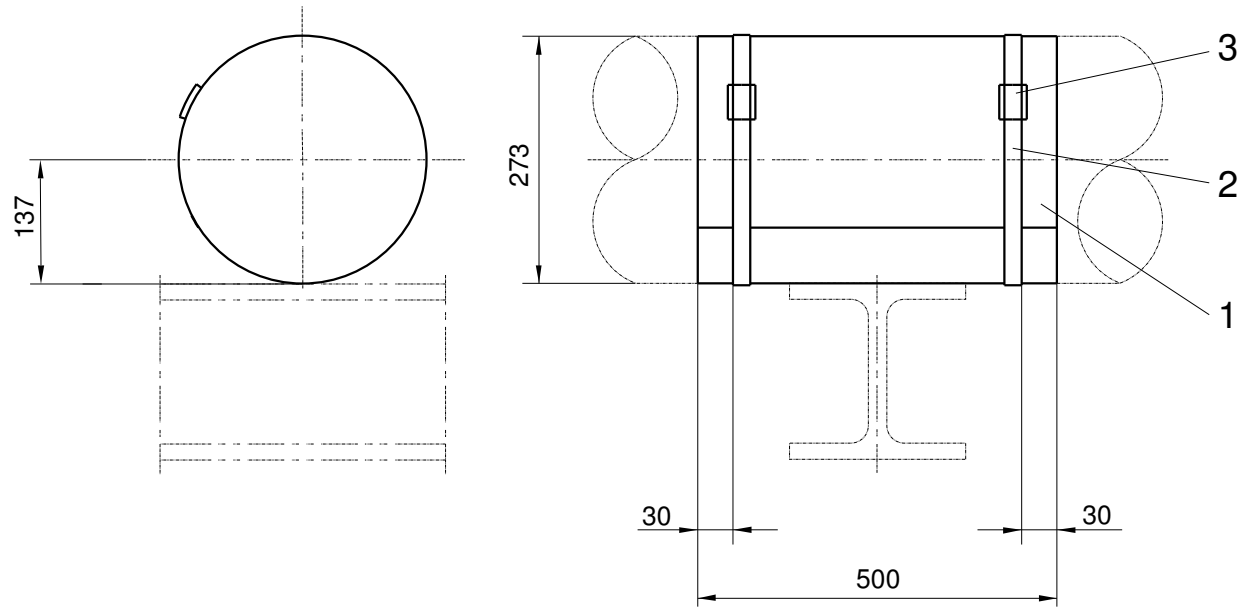
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: CS0001D Marking : 250

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	TURNBUCK. OR SIMPLE SNAP CATCH	MANUFACT. STD.	SS	MC0010D
2	2	BANDING 0,4 x >=10 x 980	MANUFACT. STD.	SS	OU0001D
1	1	STAINLESS STEEL SHEET 0,5 x 500 x 888	EN 10259	A240GR.304	GB1002D

Remarks: Total weight = 2,030 kg

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

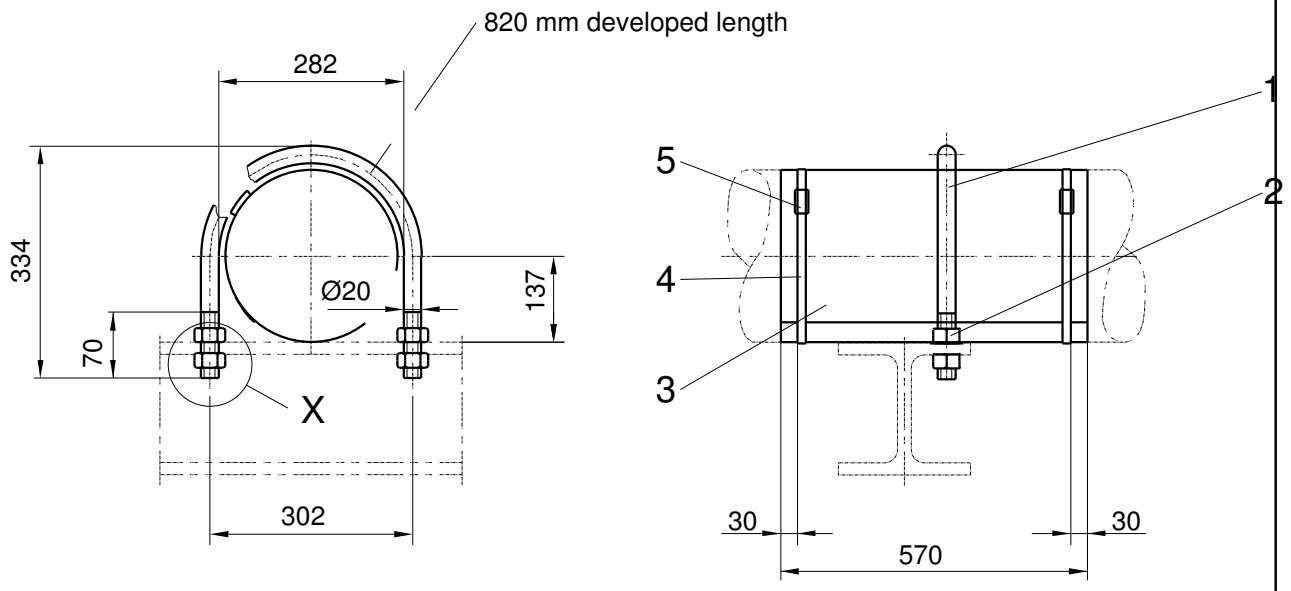
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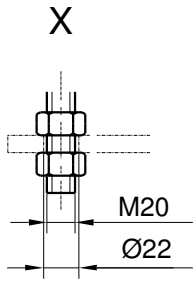
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: CS0015D Marking : 250

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	TURNBUCK. OR SIMPLE SNAP CATCH	MANUFACT. STD.	SS	MC0010D
4	2	BANDING 0,4 x >=10 x 980	MANUFACT. STD.	SS	OU0001D
3	1	STAINLESS STEEL SHEET 0,5 x 570 x 888	EN 10259	A240GR.304	GB1002D
2	4	HEXAGON NUT M 20	DIN 555	5	MM0001D
1	1	U-BOLT FORM A A282	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 4,550 kg

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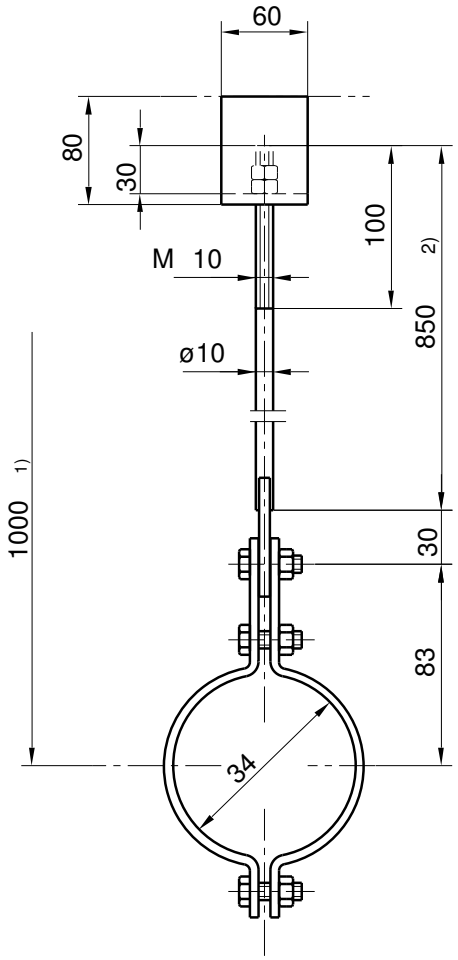
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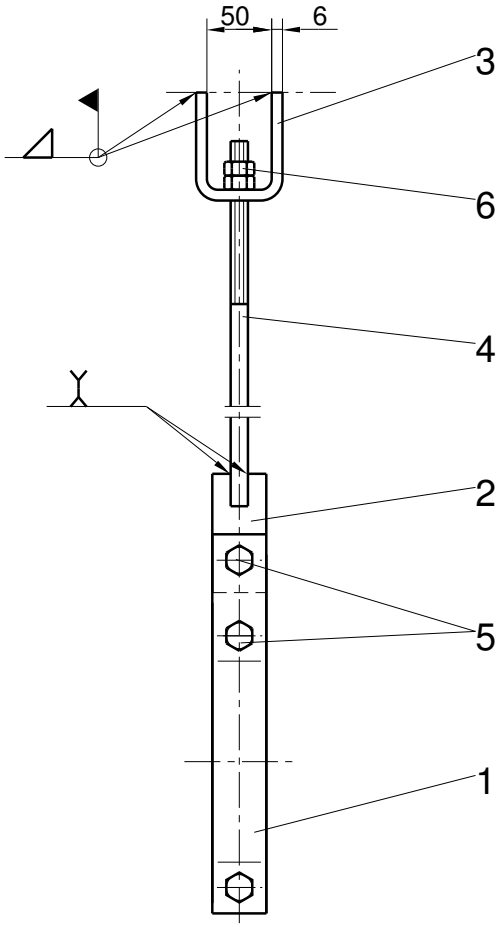
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 25/1000





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 850	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 34	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 1,700 kg

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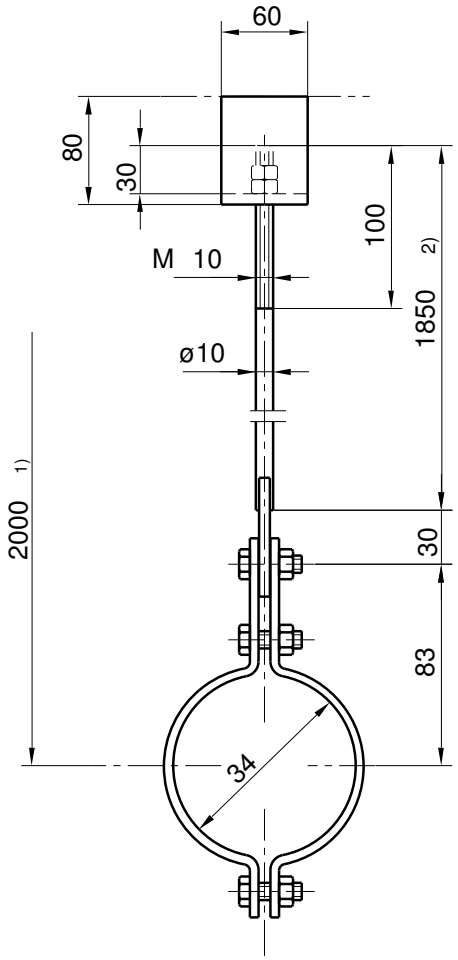
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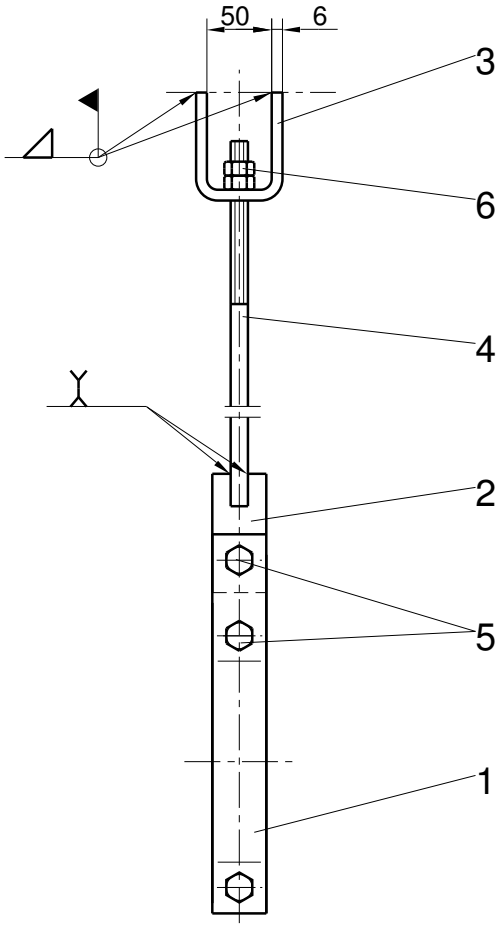
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 25/2000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1850	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 34	UN 3790-11	1.0038	MS0061D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 2,320 kg

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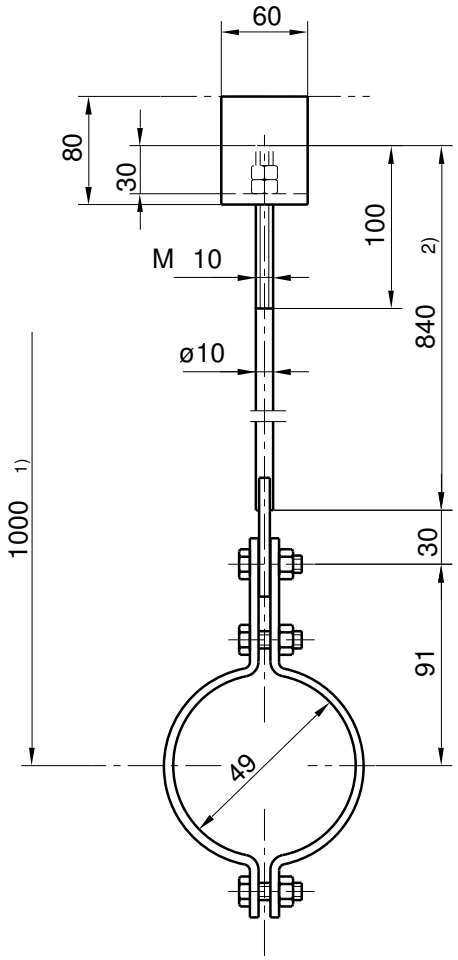
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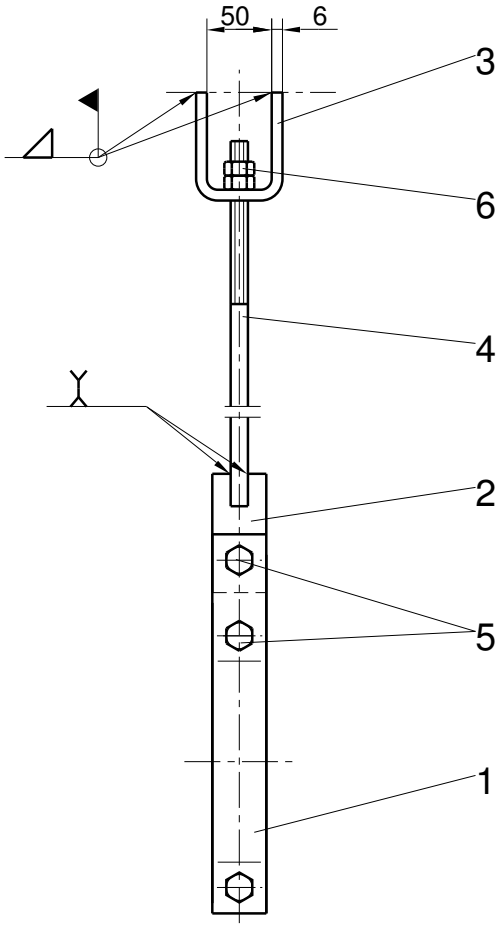
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 40/1000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 840	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 49	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 1,750 kg

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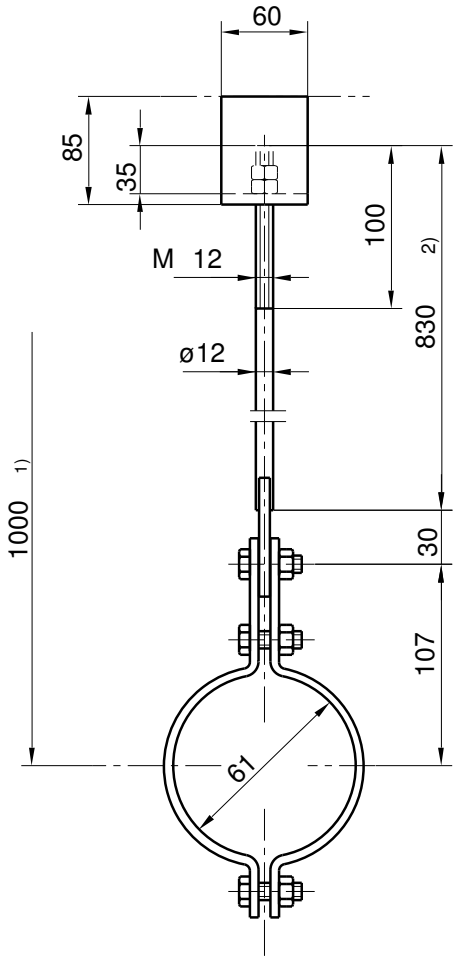
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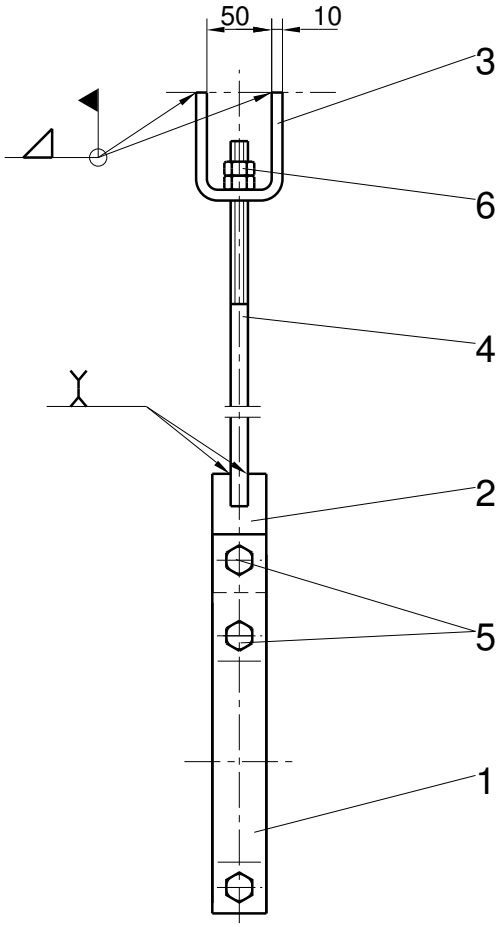
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 50/1000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 830	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 2,950 kg

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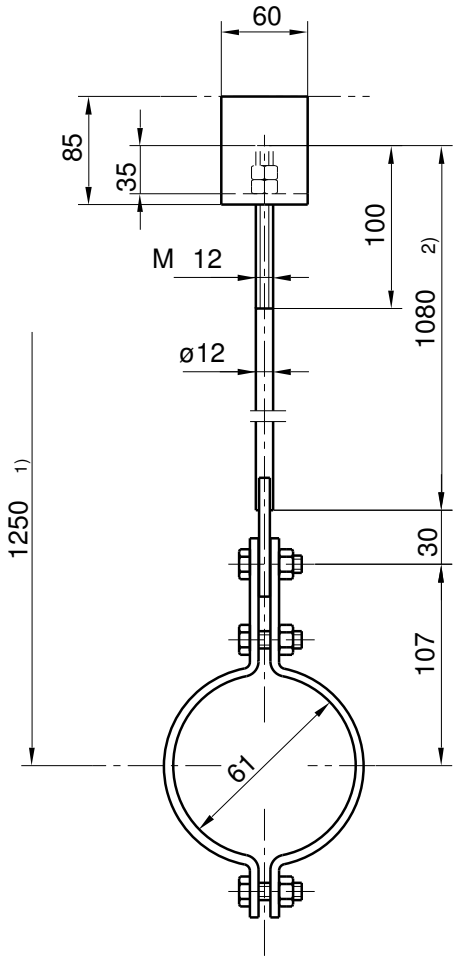
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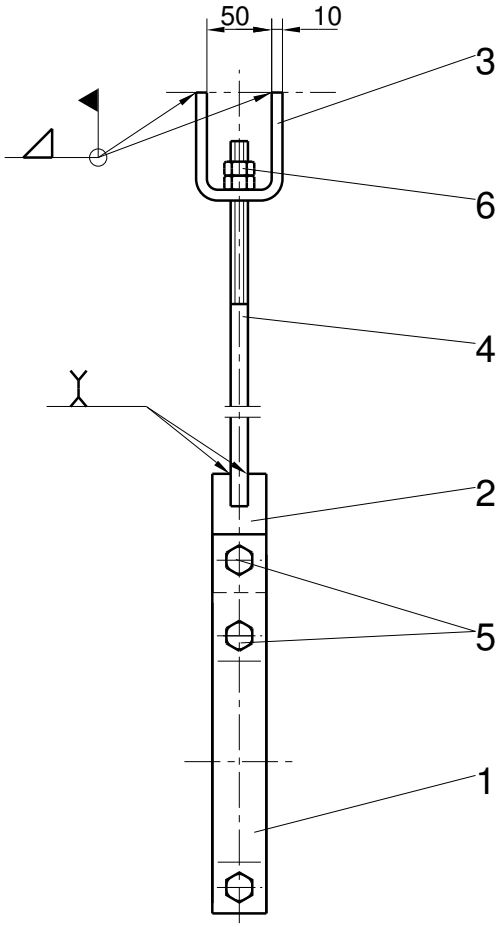
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 50/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1080	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 3,170 kg

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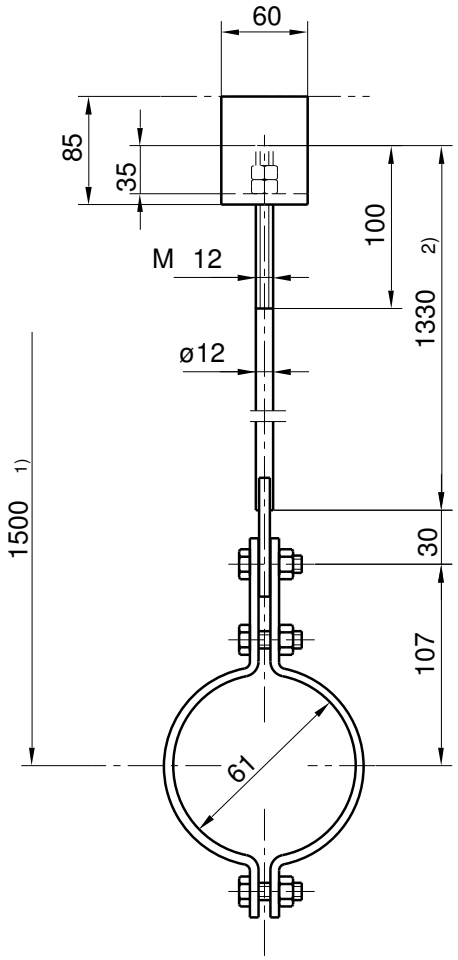
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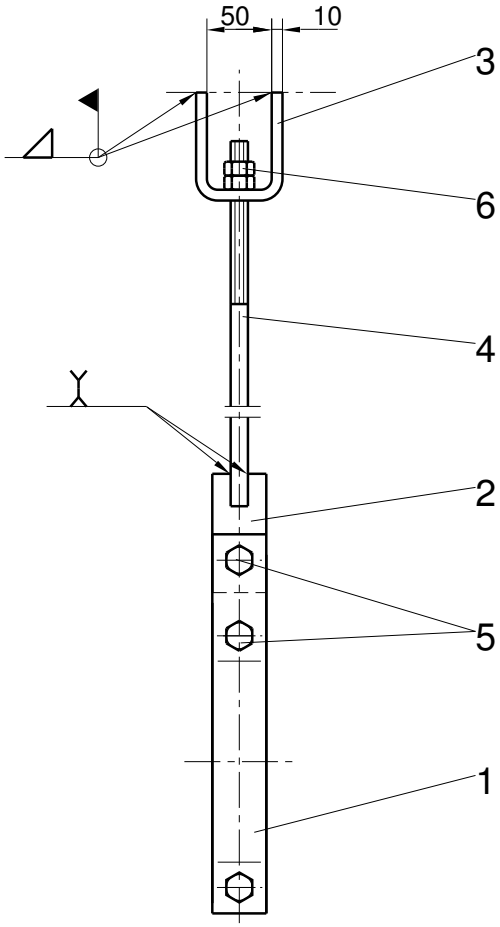
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 50/1500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1330	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,390 kg

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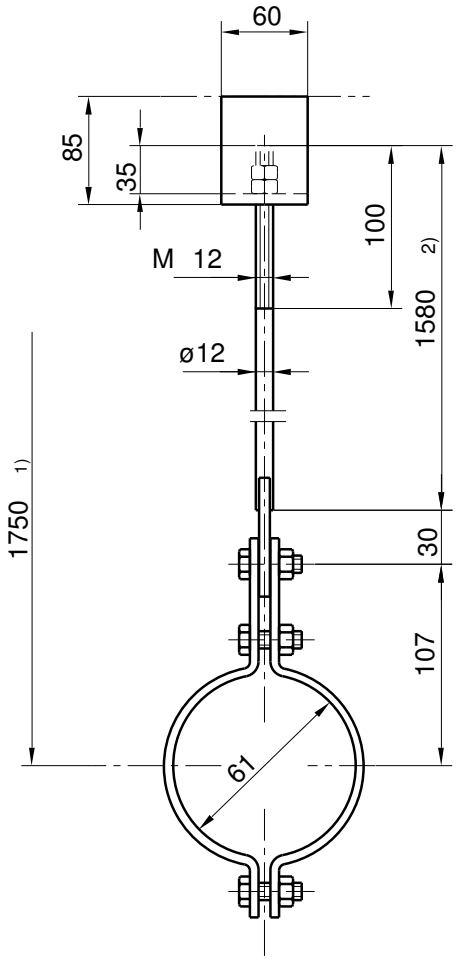
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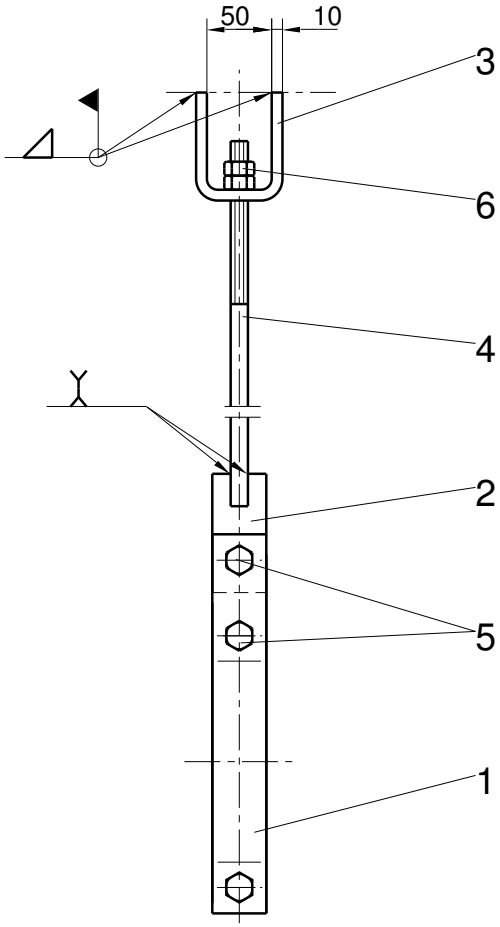
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 50/1750





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1580	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,610 kg

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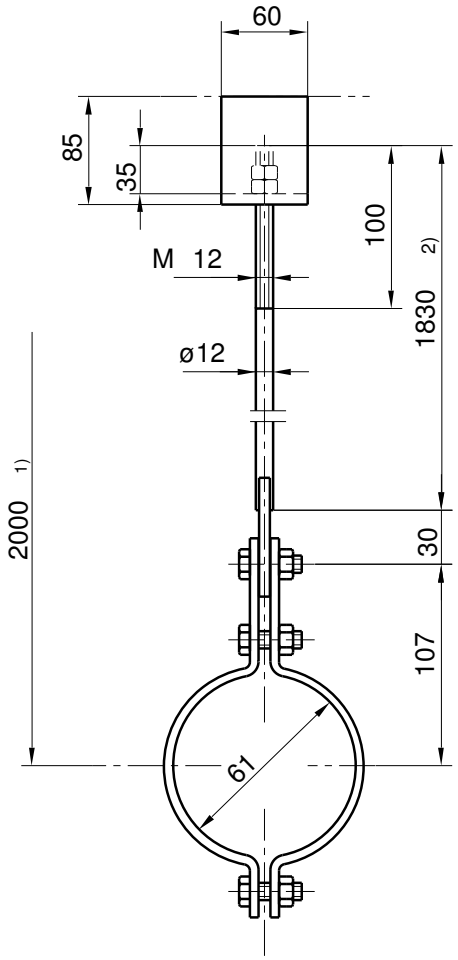
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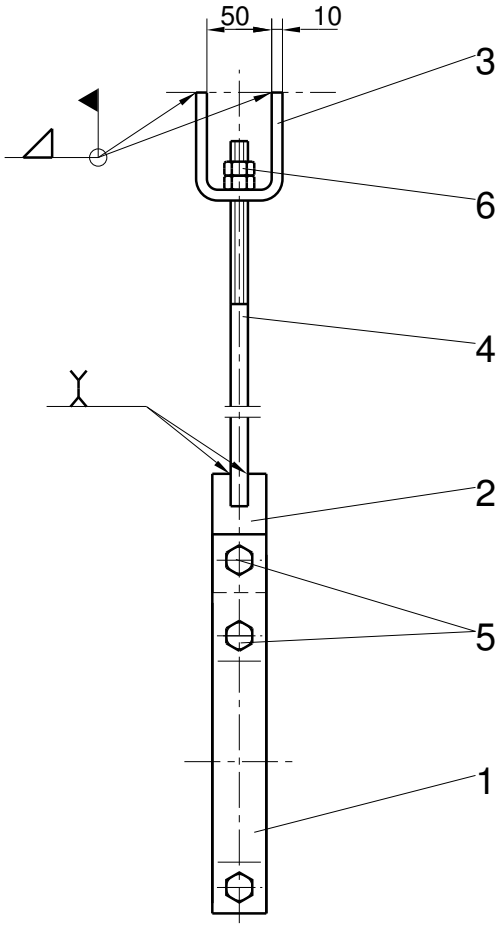
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 50/2000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1830	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,830 kg

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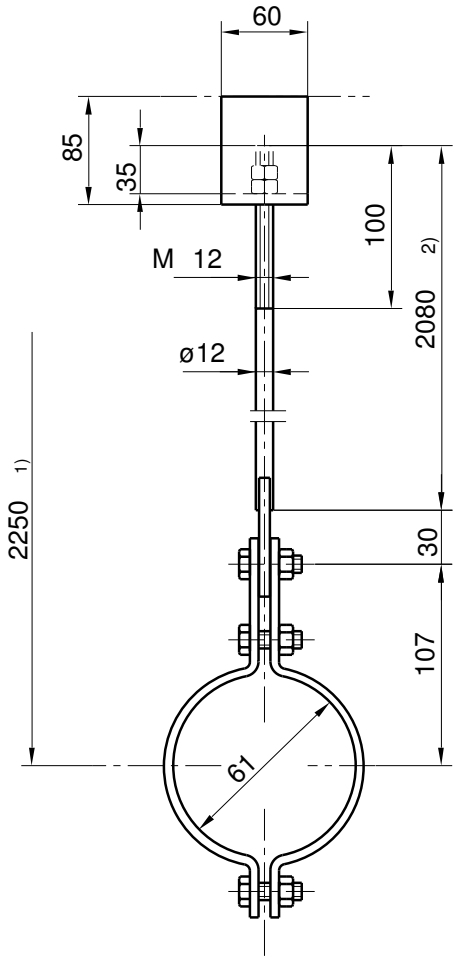
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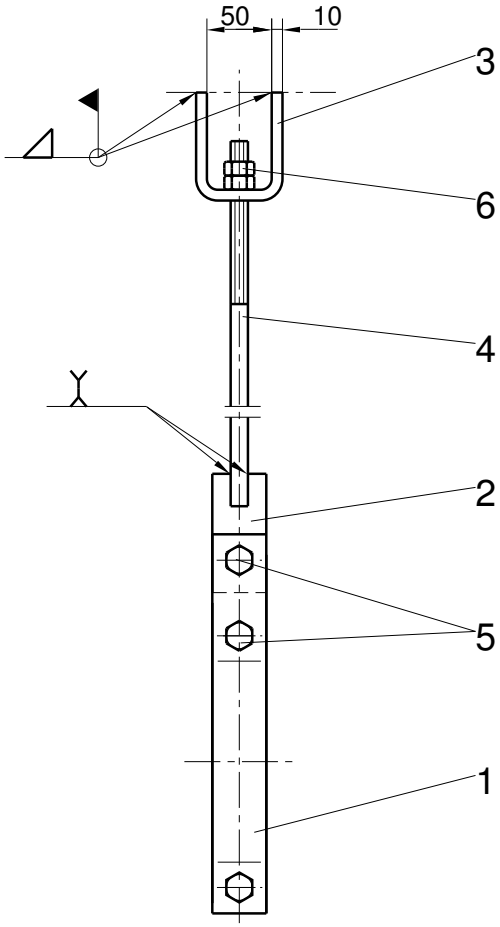
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 50/2250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 2080	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 4,060 kg

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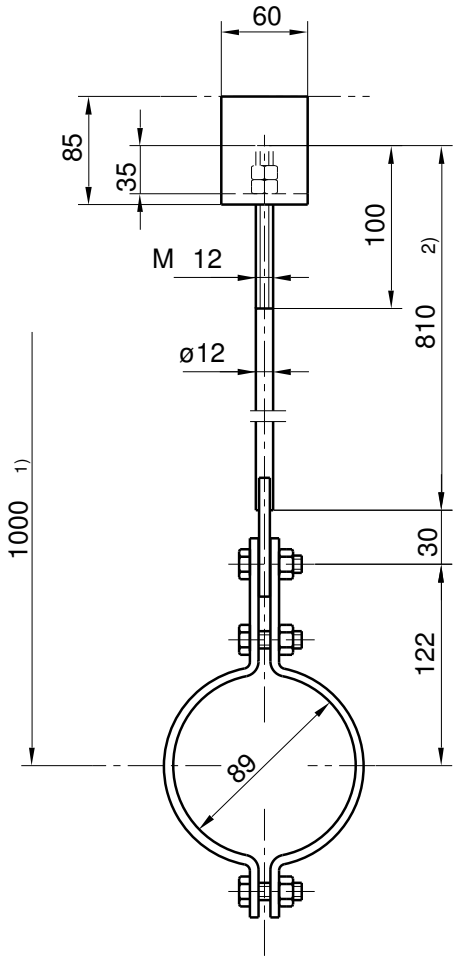
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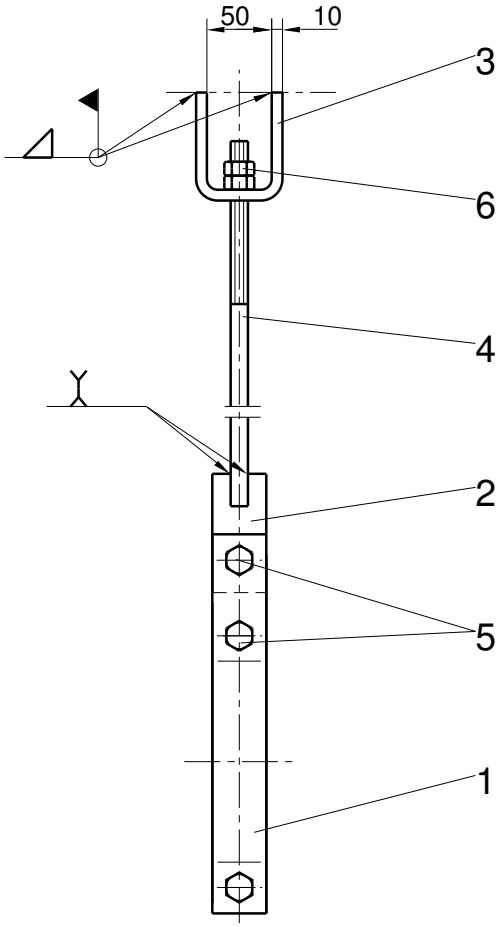
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 80/1000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 810	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 89	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,100 kg

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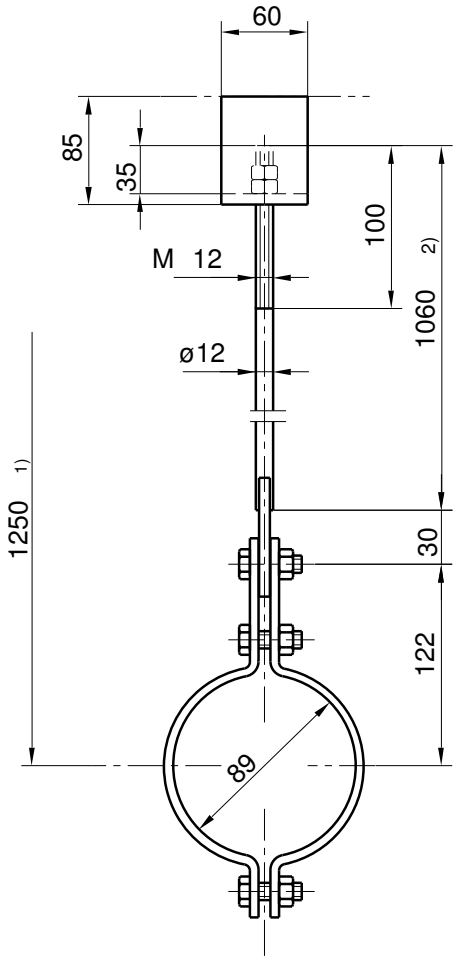
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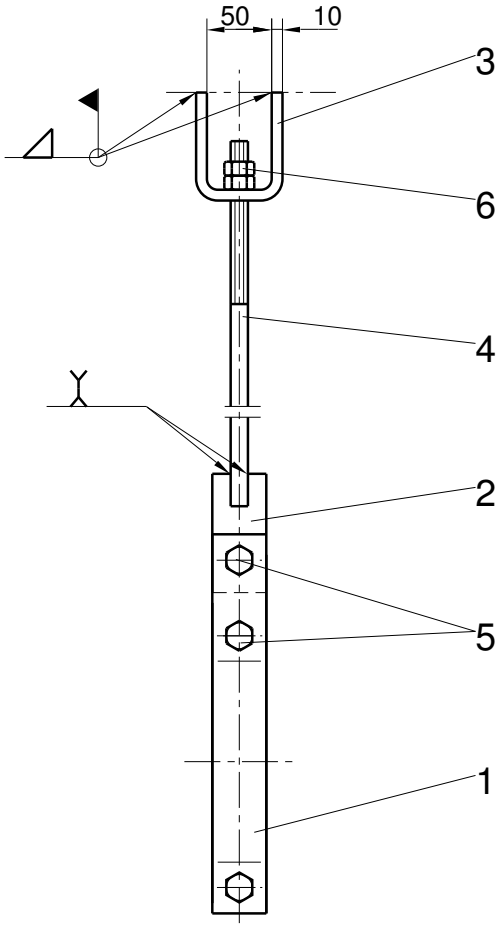
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 80/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1060	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 89	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,320 kg

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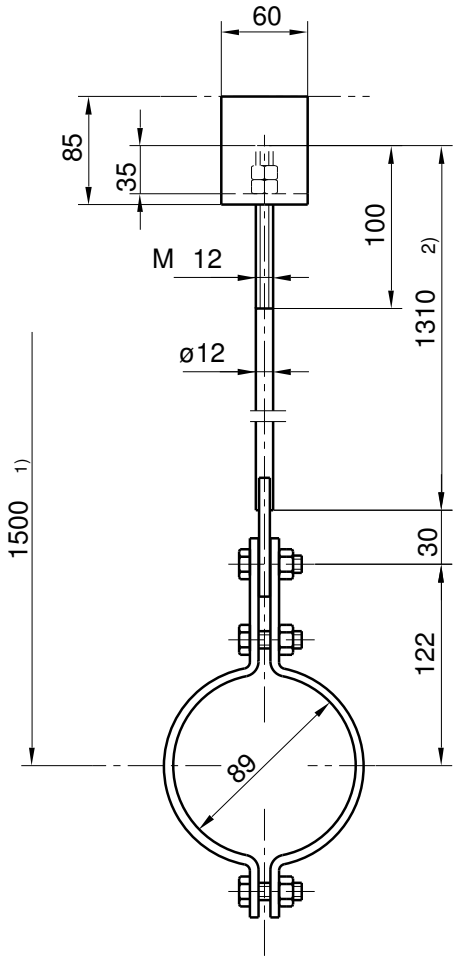
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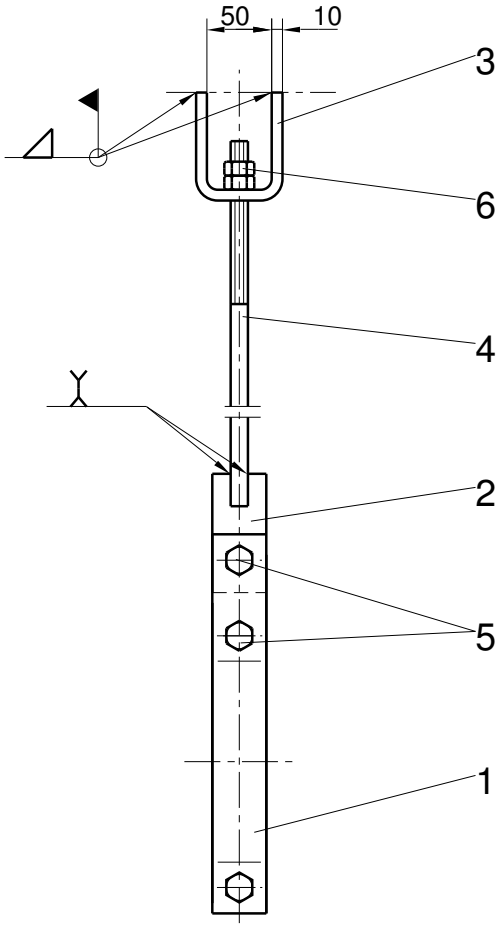
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 80/1500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1310	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 89	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,540 kg

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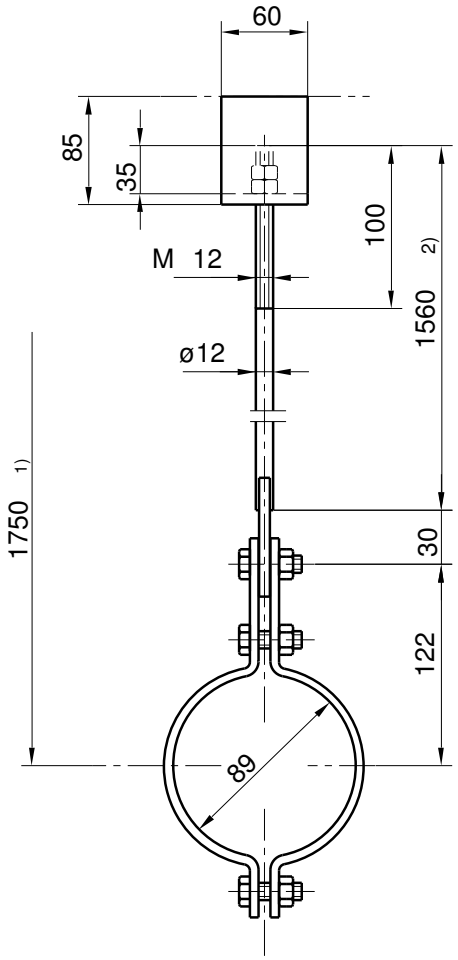
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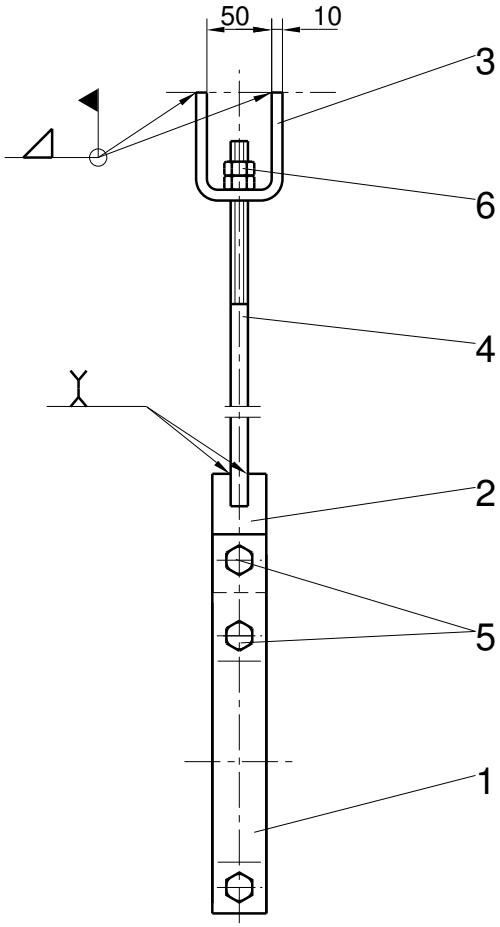
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 80/1750





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1560	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 89	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,760 kg

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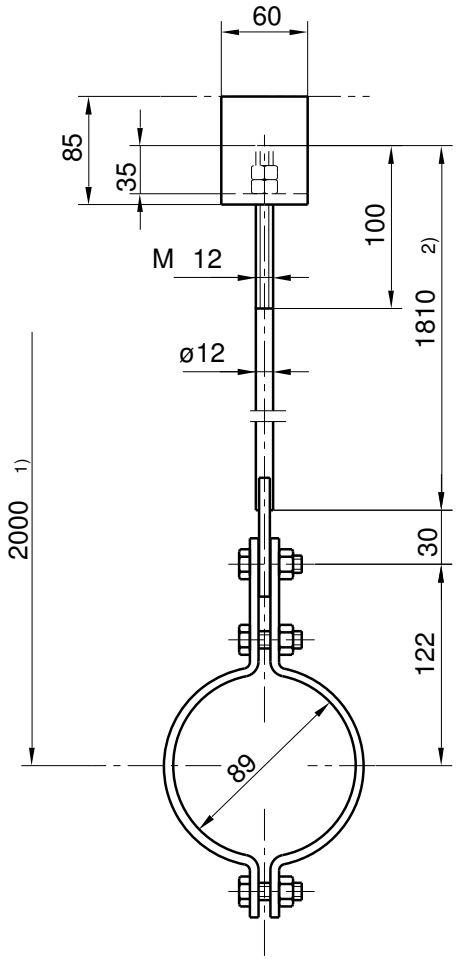
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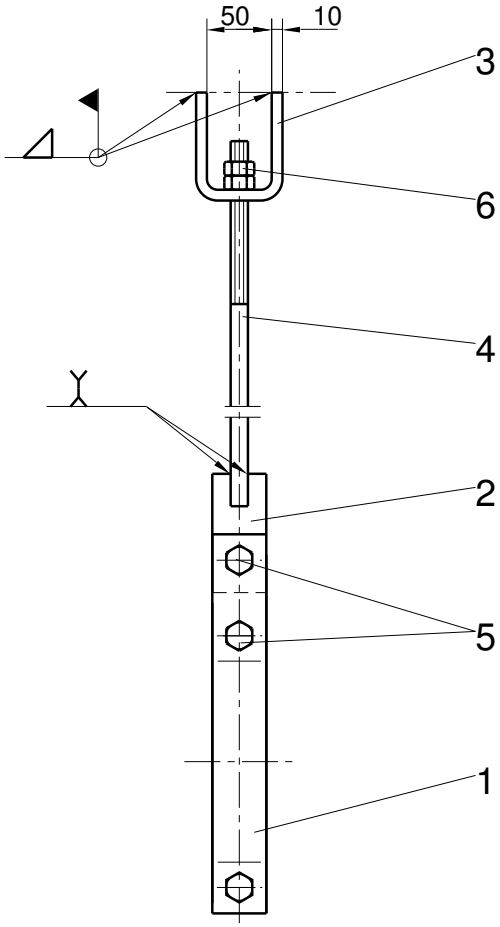
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 80/2000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1810	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 89	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,990 kg

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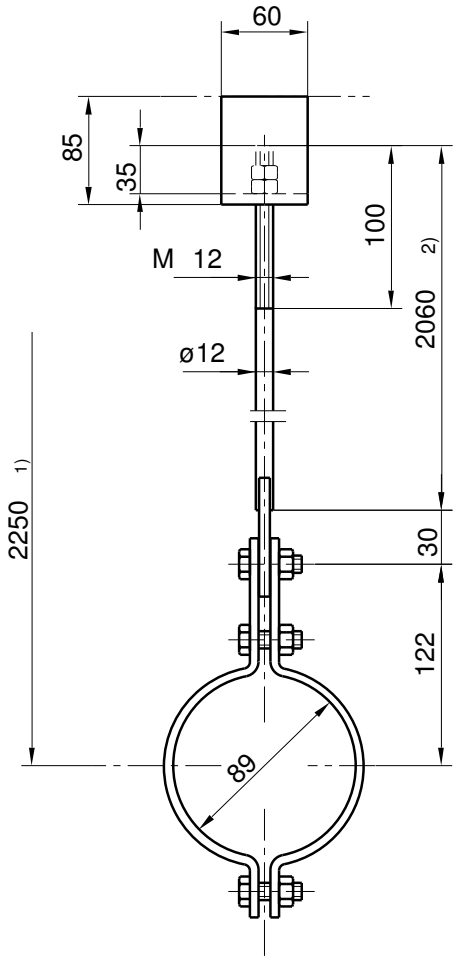
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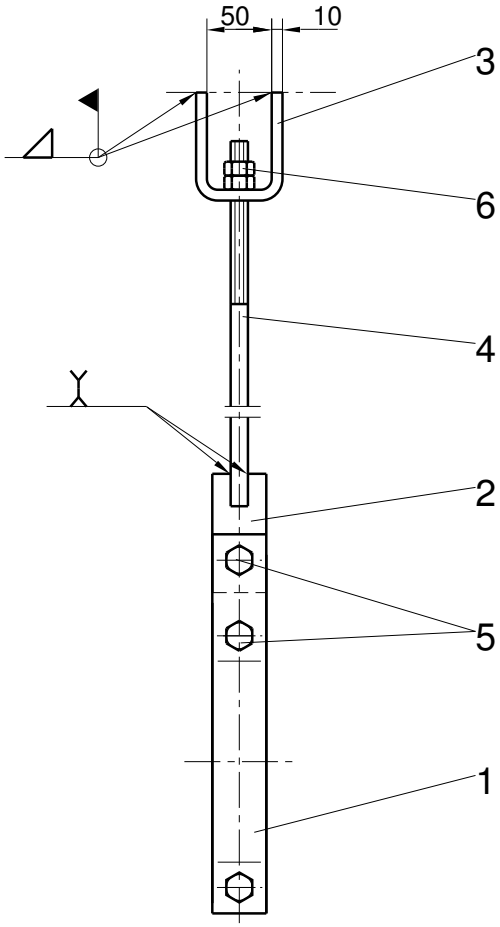
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 80/2250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 2060	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 89	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 4,210 kg

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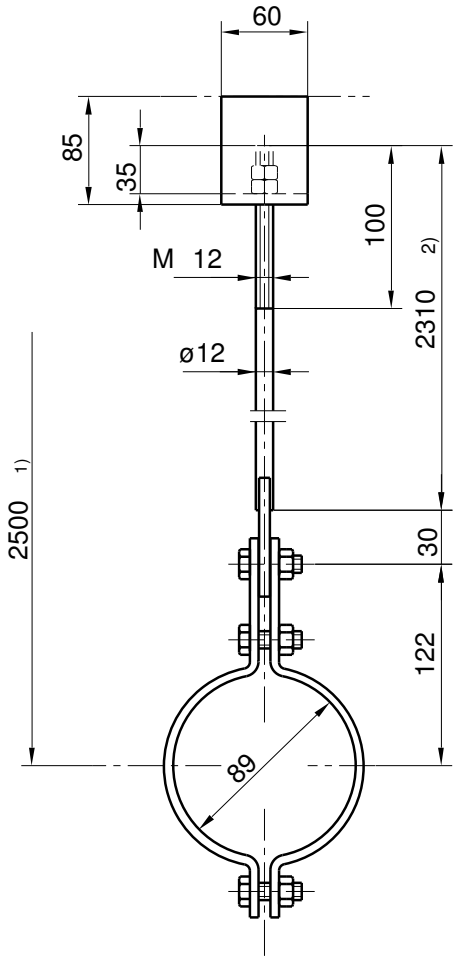
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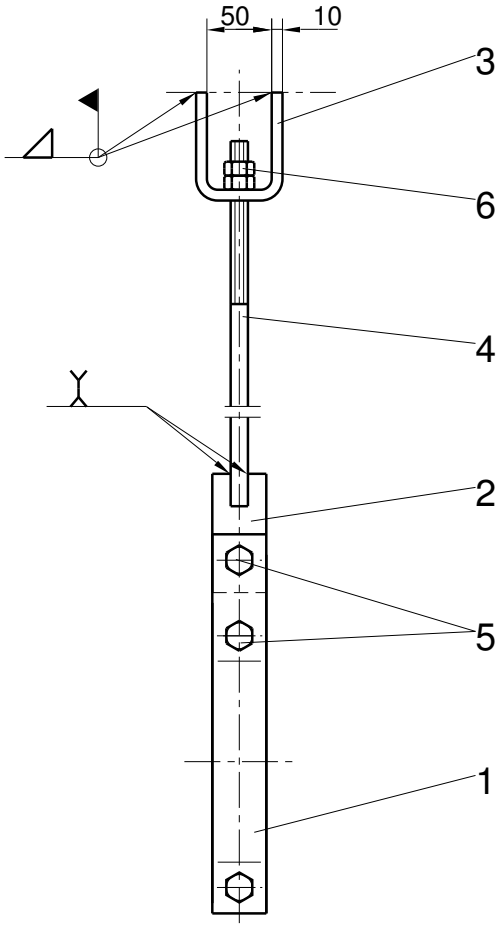
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 80/2500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 2310	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 89	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 4,430 kg

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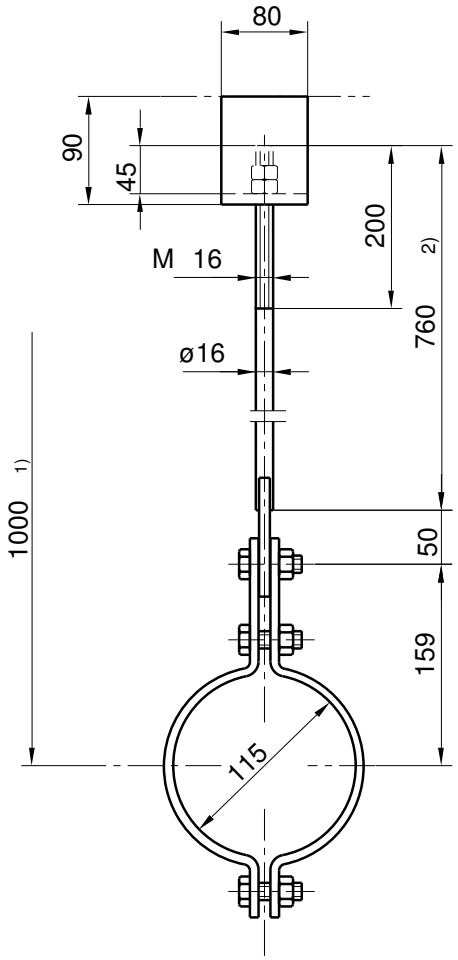
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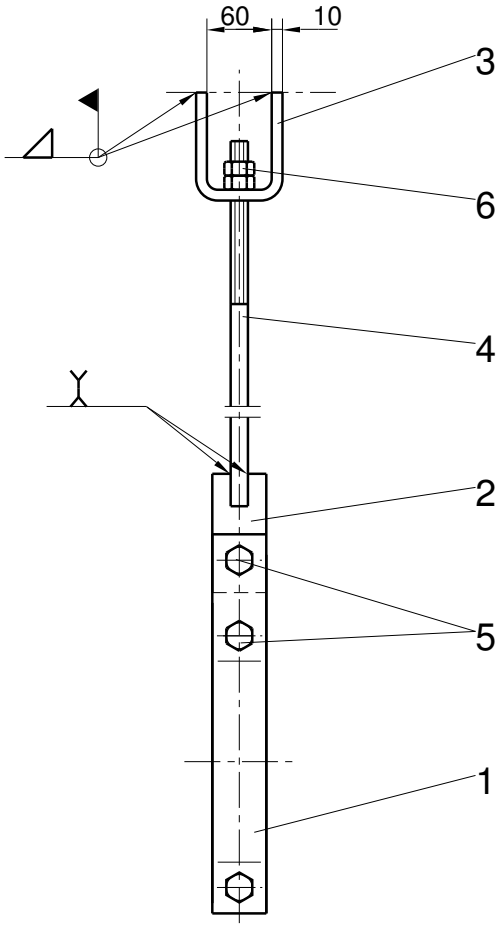
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 100/1000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 760	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 5,670 kg

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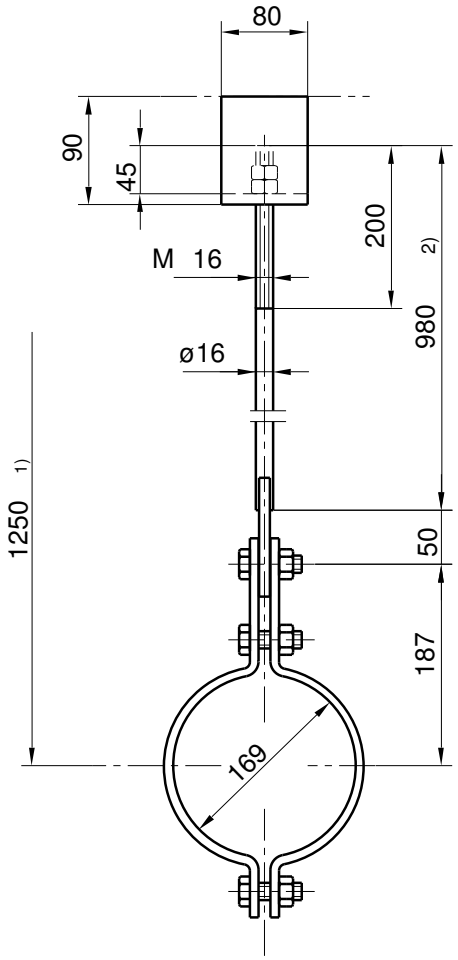
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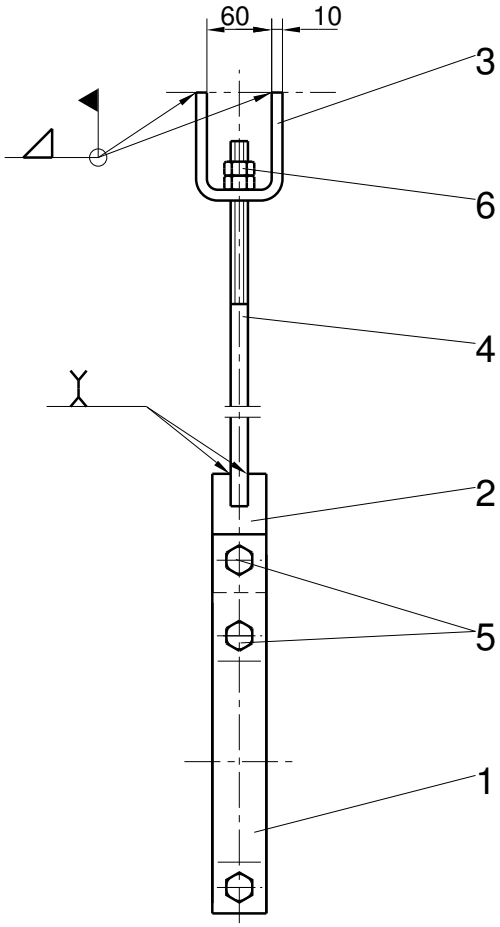
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 150/1250





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 980	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 169	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,560 kg

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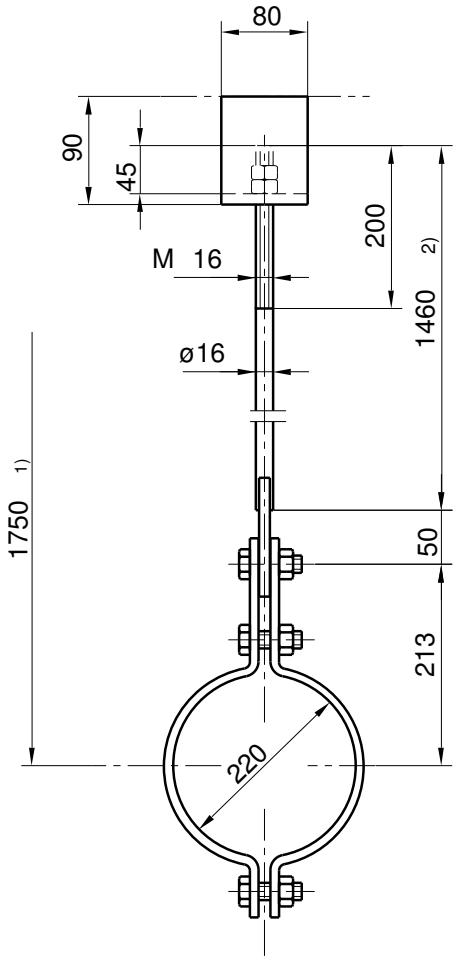
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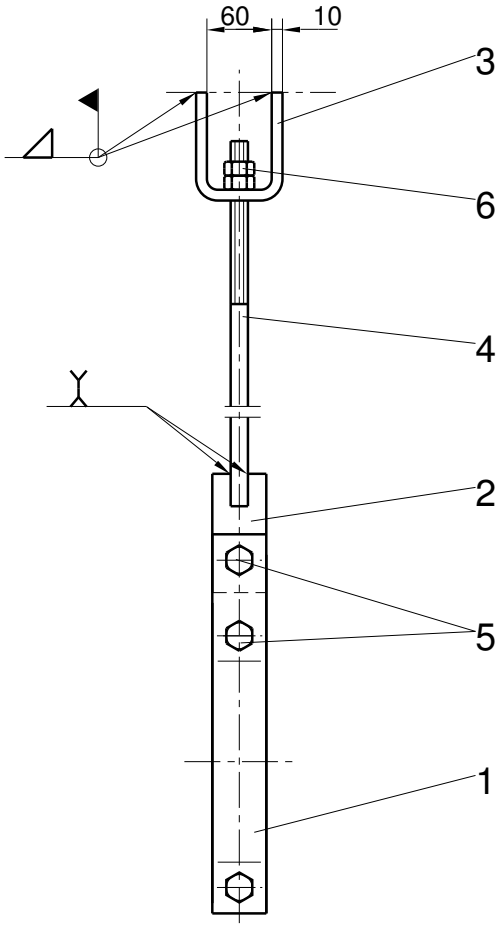
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 200/1750

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1460	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 220	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 7,820 kg

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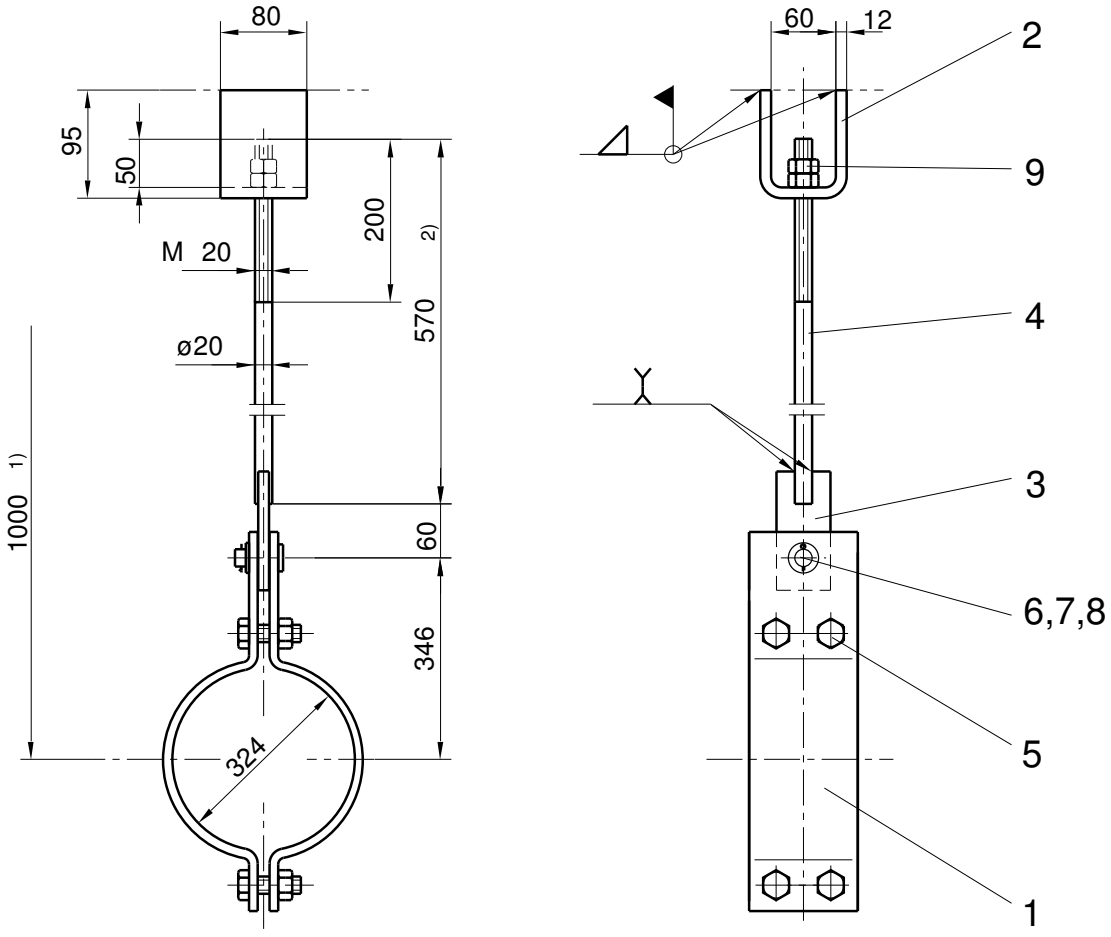
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX004D Marking : 300/1000

U Item



1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 570	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 324	UN 3790-11	1.0038	MS0071D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 26,710 kg

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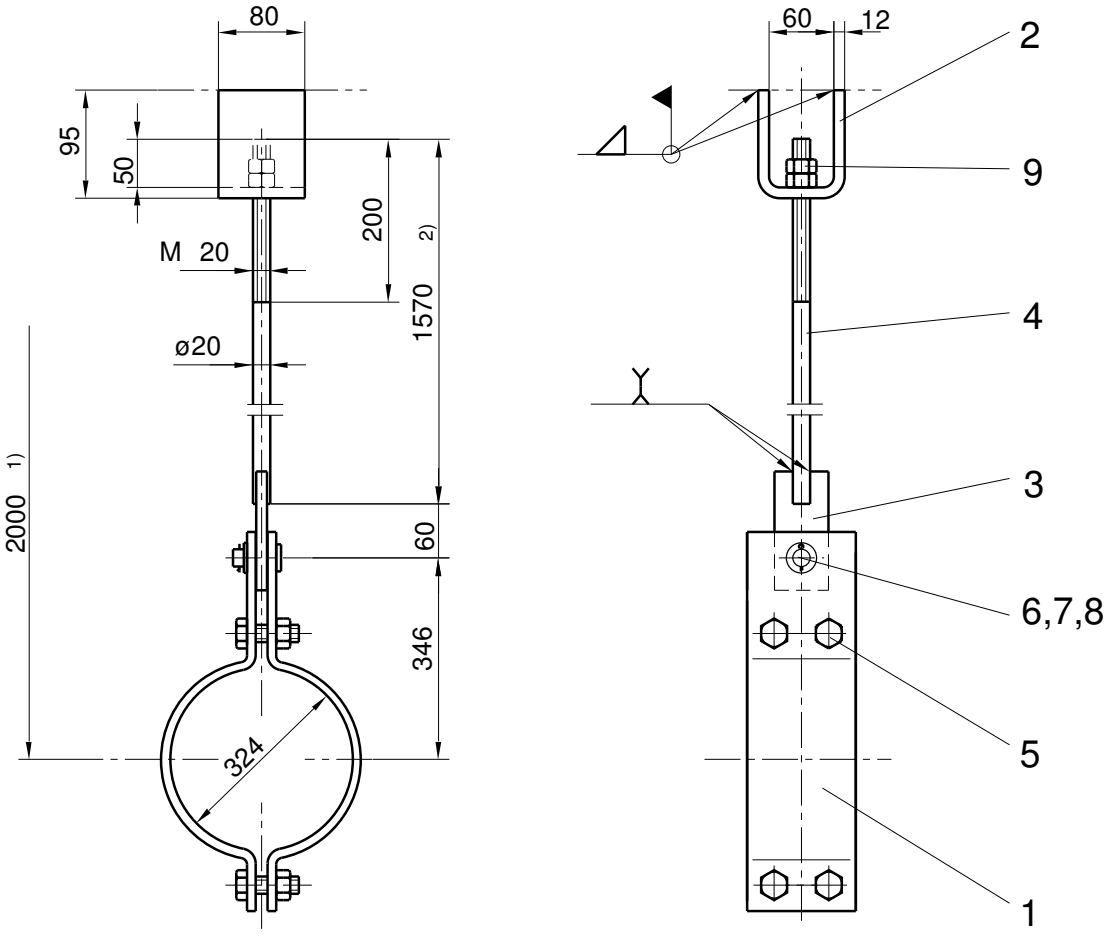
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX004D Marking : 300/2000

U Item



1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 1570	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 324	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 29,180 kg

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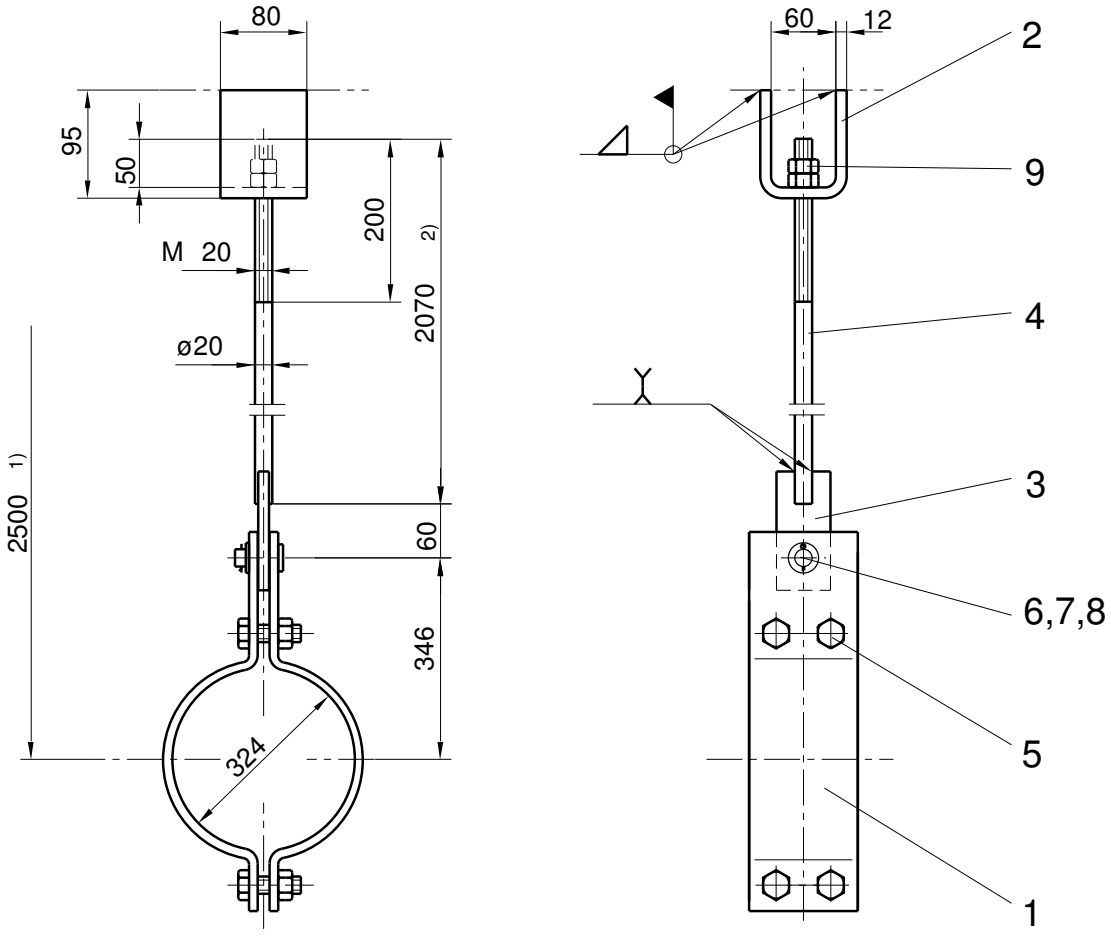
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX004D Marking : 300/2500

U Item



1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 2070	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 324	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 30,410 kg

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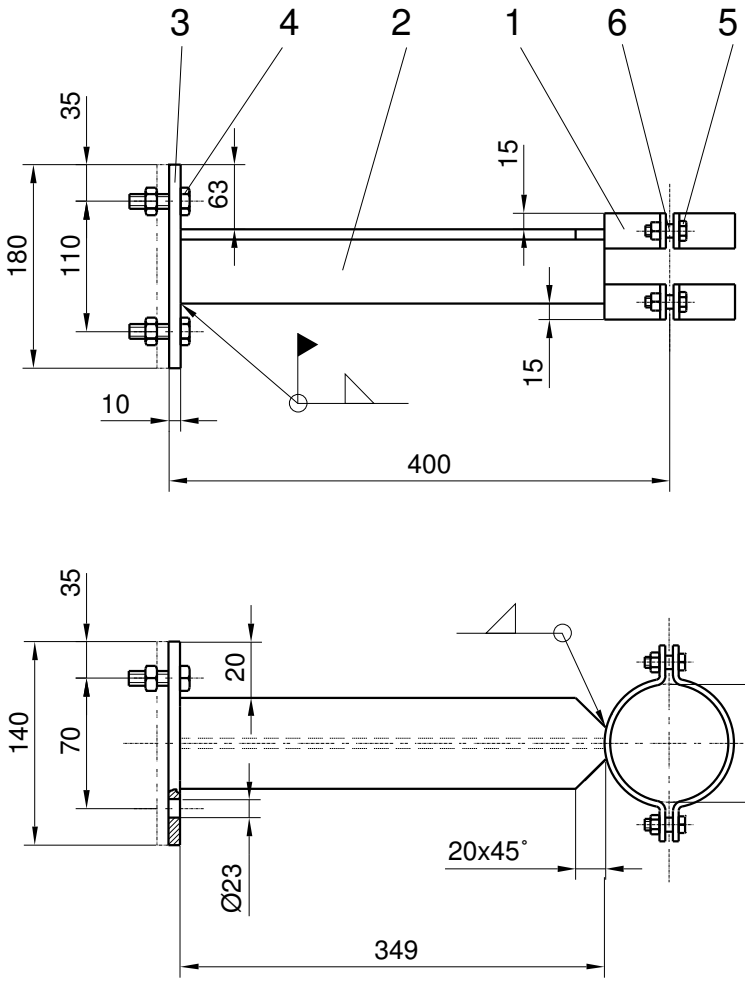
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB001D Marking : 80/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 349	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,510 kg

1) A193GR.B7/A194GR.2H

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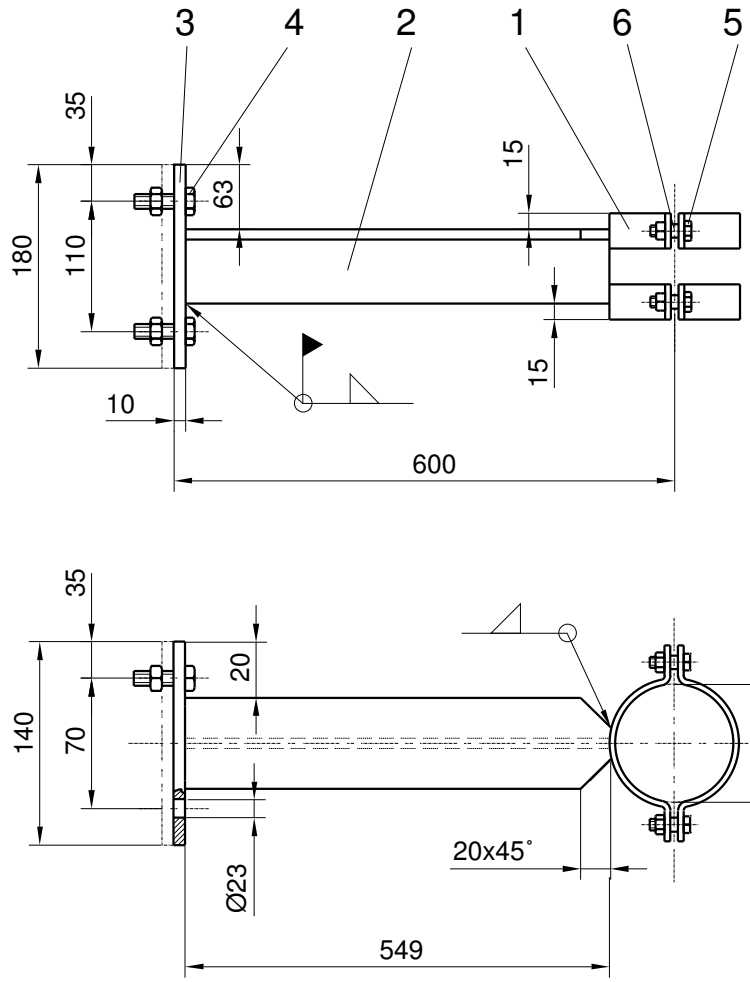
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB001D Marking : 80/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 549	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 13,790 kg

1) A193GR.B7/A194GR.2H

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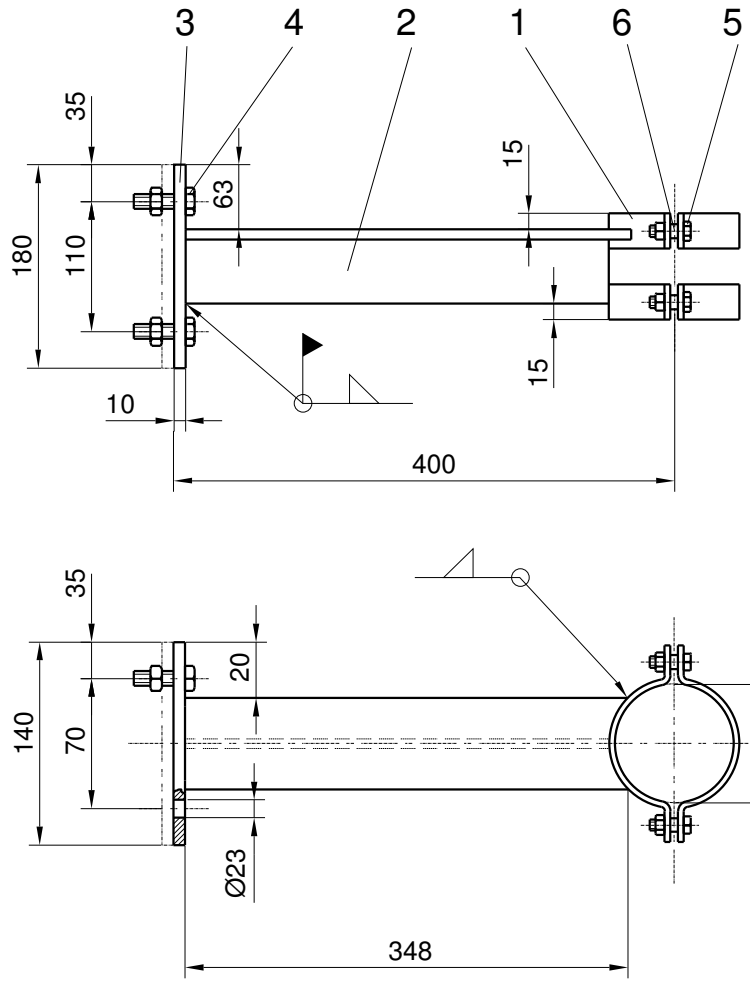
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB002D Marking : 100/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 348	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 12,610 kg

1) A193GR.B7/A194GR.2H

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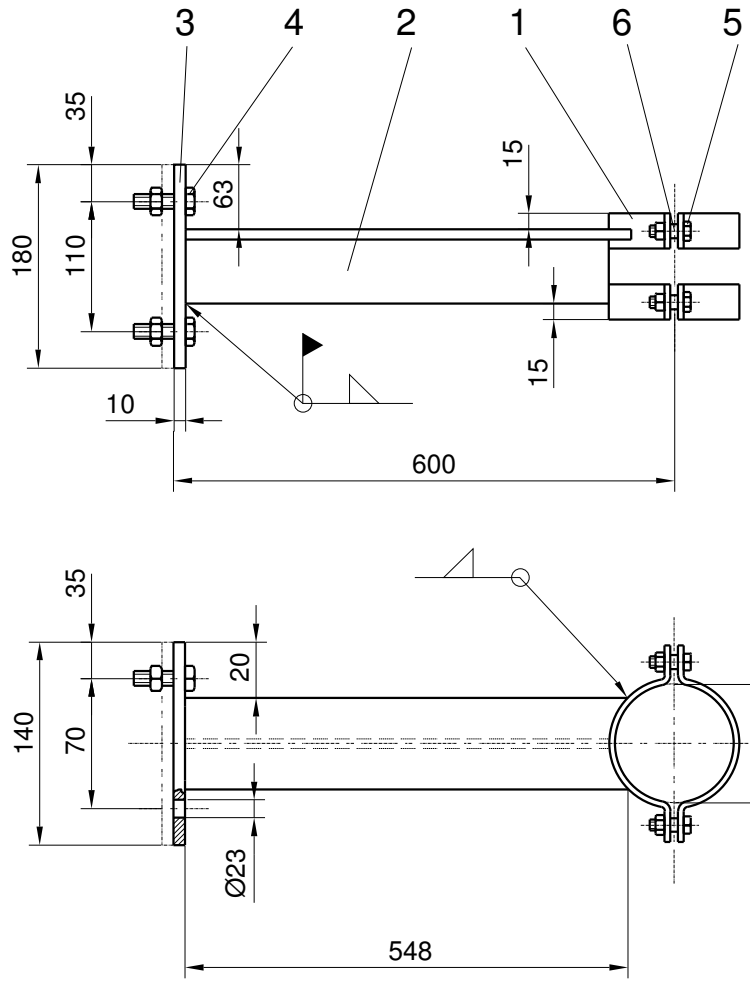
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB002D Marking : 100/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 548	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,890 kg

1) A193GR.B7/A194GR.2H

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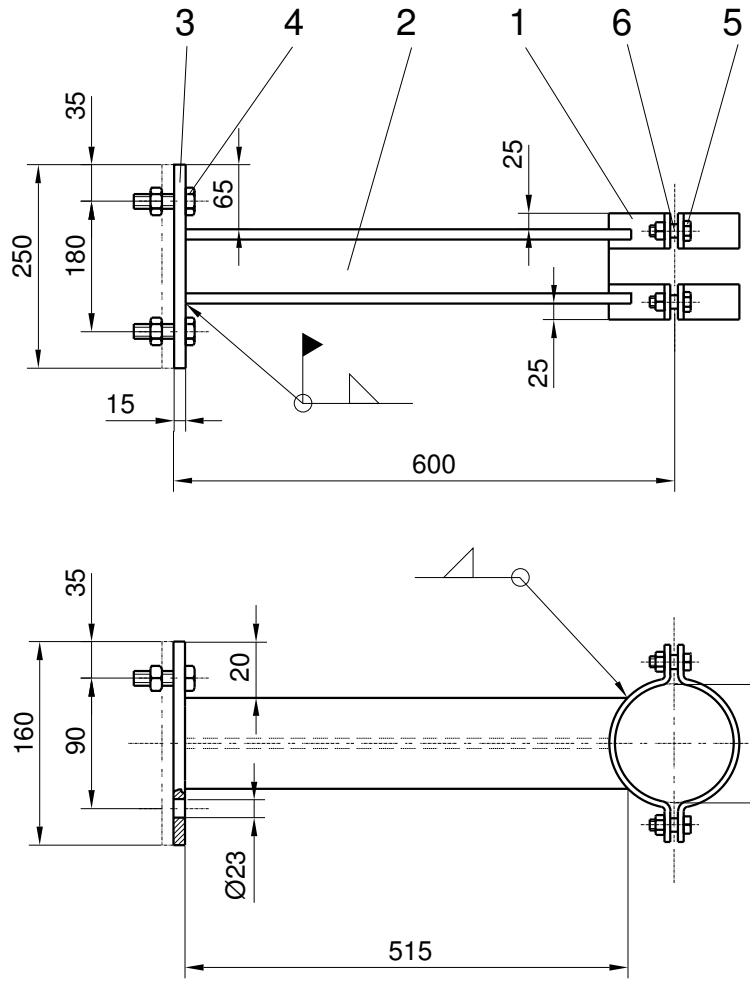
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB003D Marking : 150/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 515	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 24,550 kg

1) A193GR.B7/A194GR.2H

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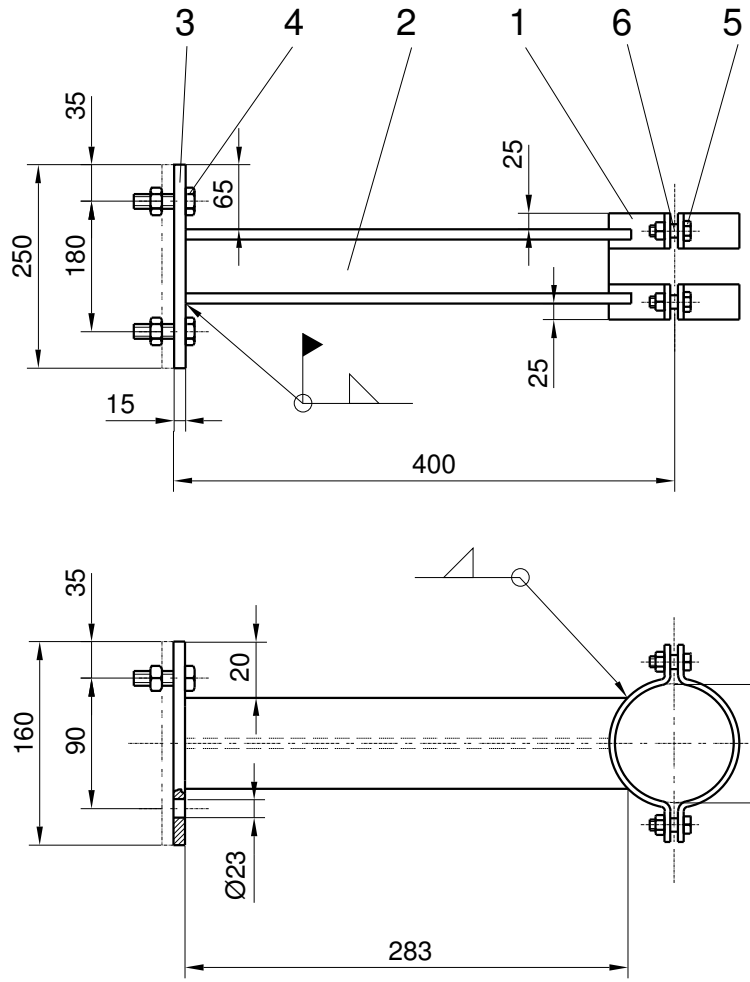
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB003D Marking : 200/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 283	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,380 kg

1) A193GR.B7/A194GR.2H

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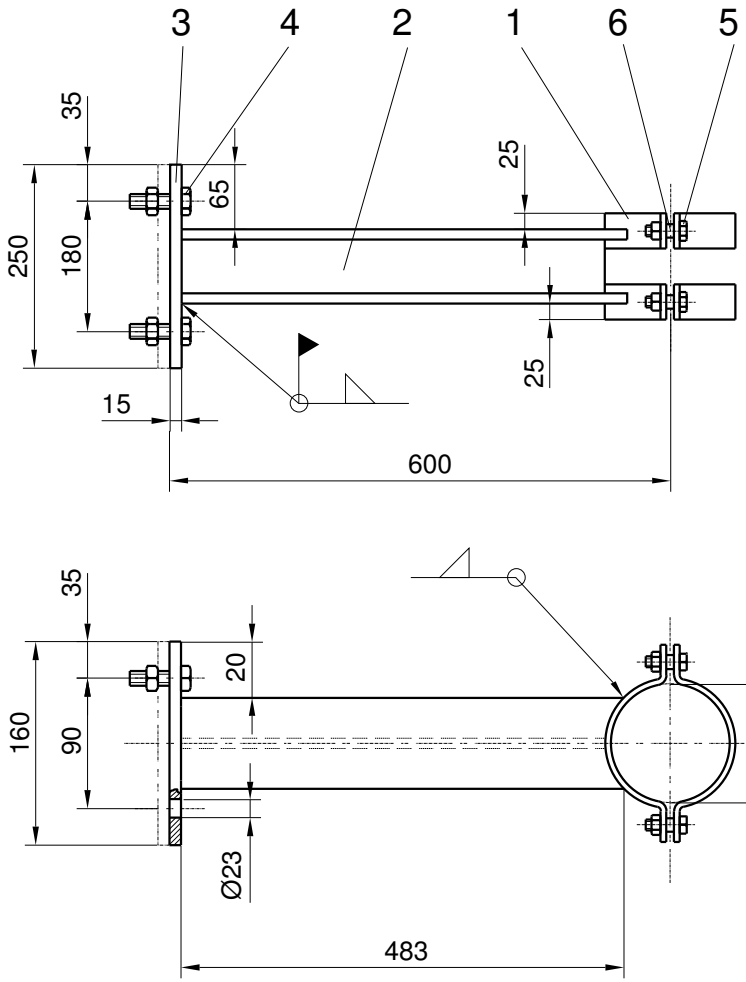
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB003D Marking : 200/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 483	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 24,720 kg

1) A193GR.B7/A194GR.2H

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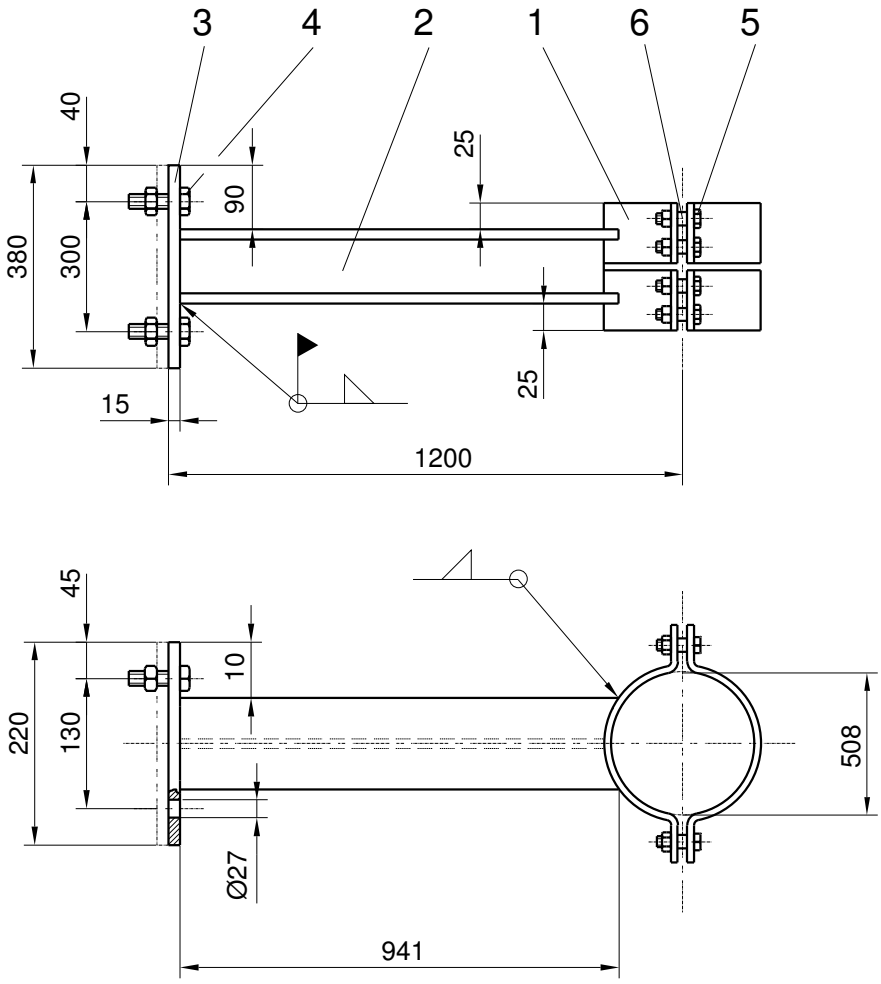
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB004D Marking : 500/1200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	PIPE 33,7 x 2,6 x 19	DIN 2448	1.0254	GR0001D
5	8	HEX. HEAD BOLT WITH -NUT M 20 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 24 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 220 x 380	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 200 x 941	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A, REINFORCED DS 508	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 105,880 kg

1) A193GR.B7/A194GR.2H

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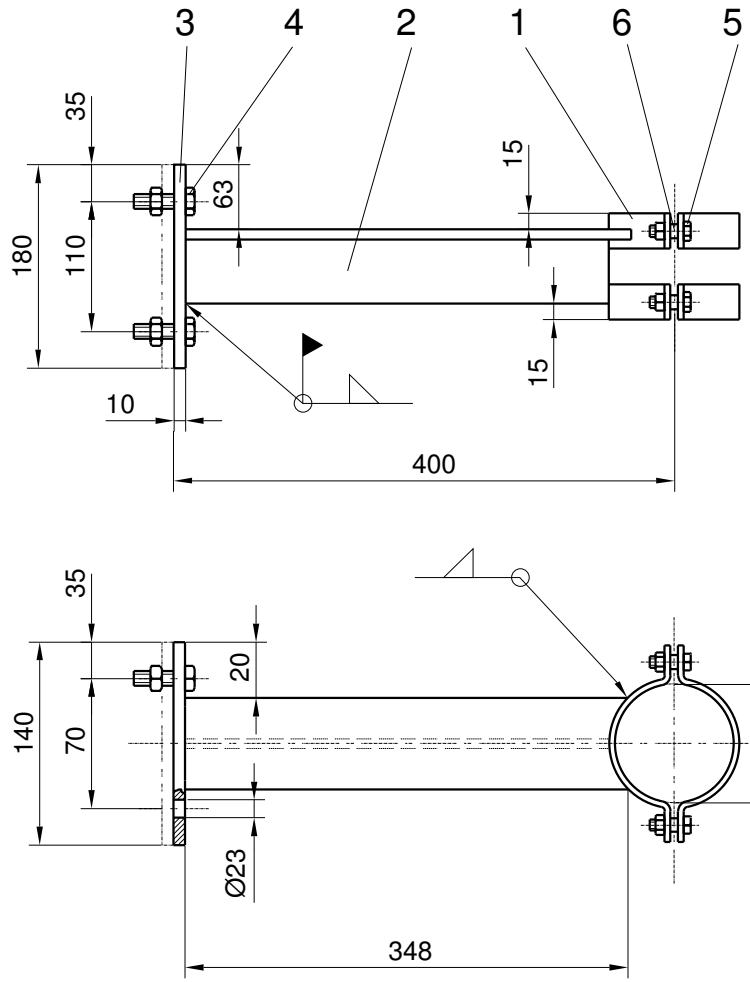
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB052D Marking : 100/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 348	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 12,610 kg

1) A193GR.B7/A194GR.2H

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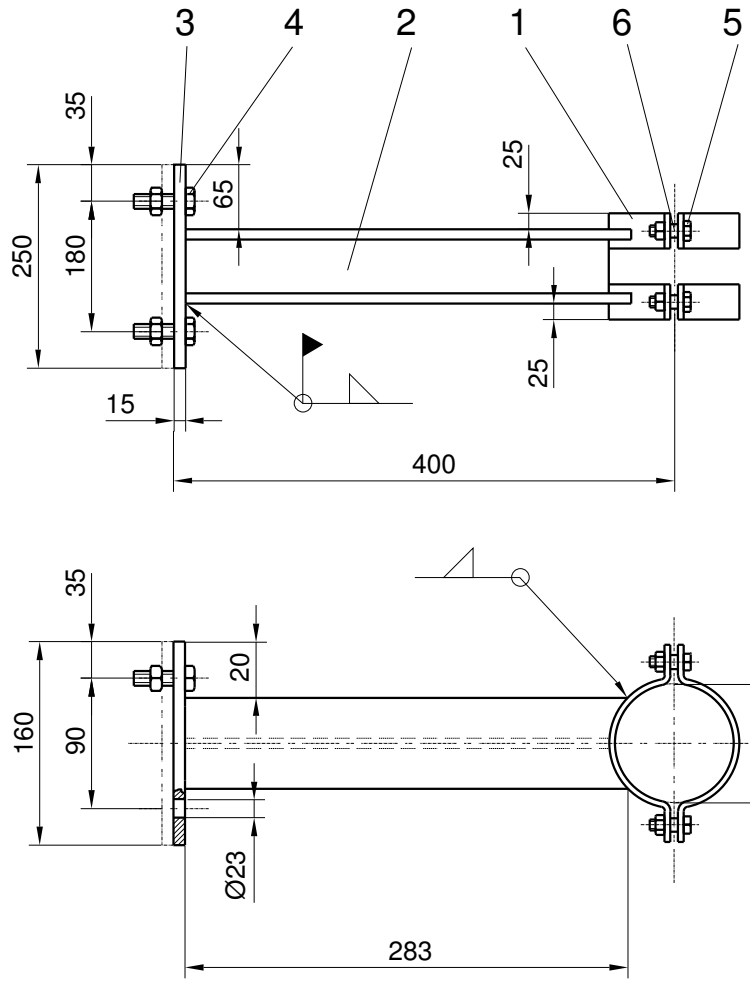
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB053D Marking : 200/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 283	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,380 kg

1) A193GR.B7/A194GR.2H

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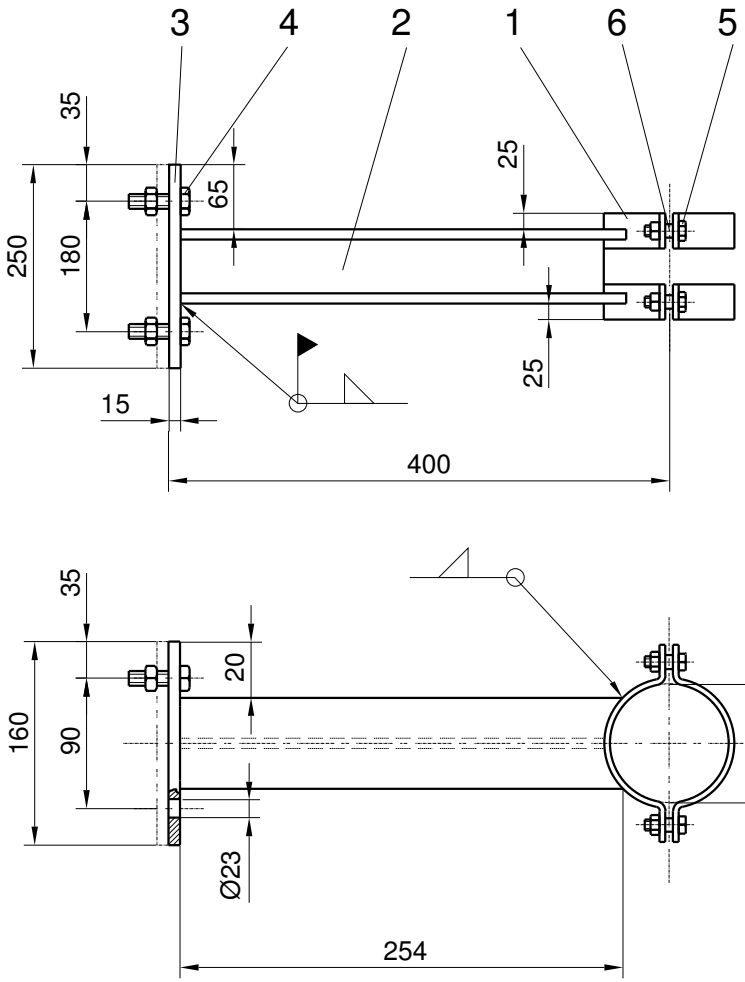
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB053D Marking : 250/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 33,7 x 2,6 x 15	DIN 2448	1.0254	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 254	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 21,720 kg

1) A193GR.B7/A194GR.2H

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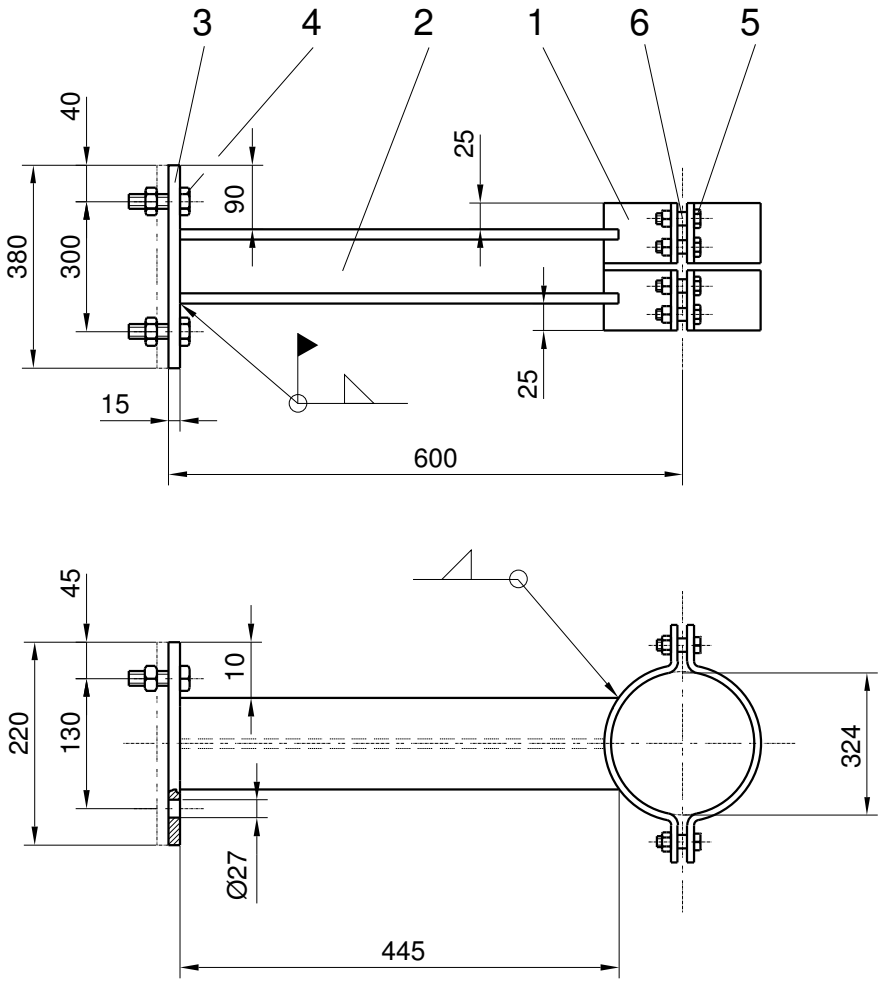
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tkIS		Code	Page	UAN	V	L S
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PIPE SUPPORT

Code No.: KNB054D Marking : 300/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	PIPE 33,7 x 2,6 x 15	DIN 2448	1.0254	GR0001D
5	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 24 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 220 x 380	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 200 x 445	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A, REINFORCED DS 324	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 59,000 kg

1) A193GR.B7/A194GR.2H

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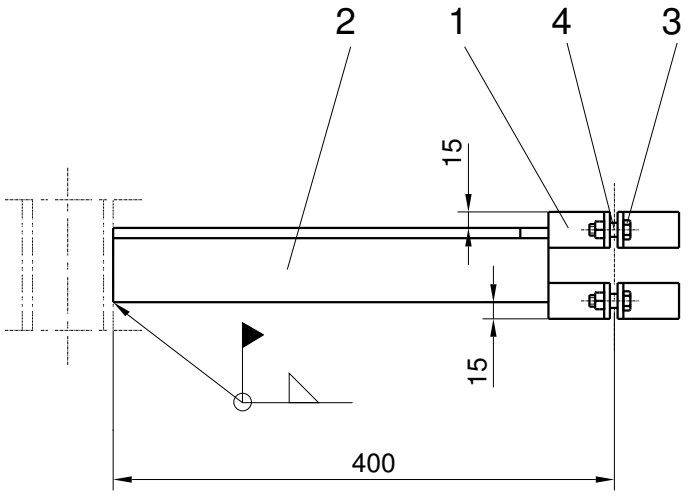
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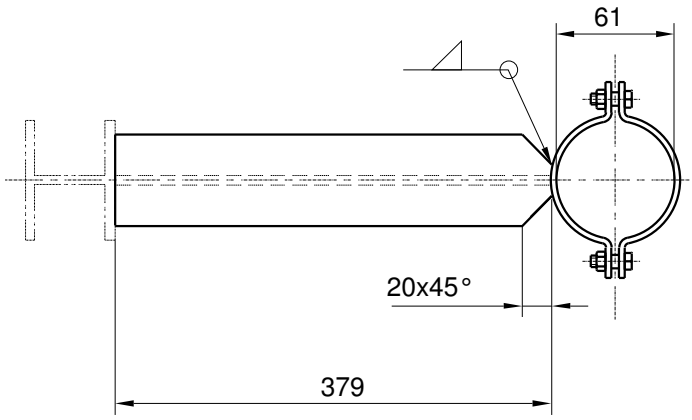
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PIPE SUPPORT

Code No.: KNB901D Marking : 50/400

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 379	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,550 kg

1) A193GR.B7/A194GR.2H

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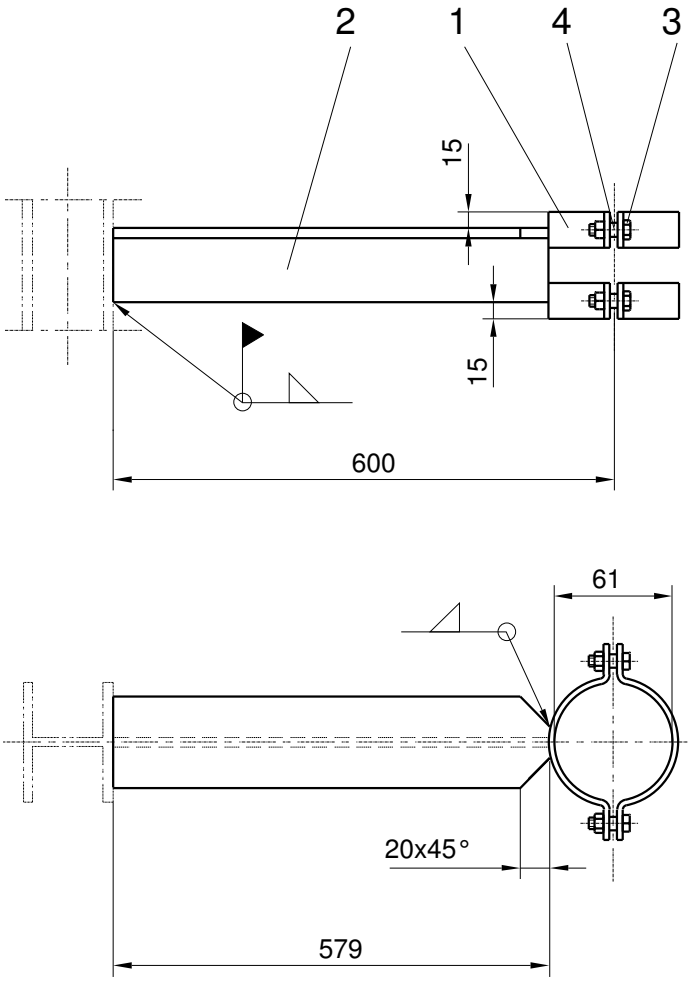
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB901D Marking : 50/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 579	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,830 kg

1) A193GR.B7/A194GR.2H

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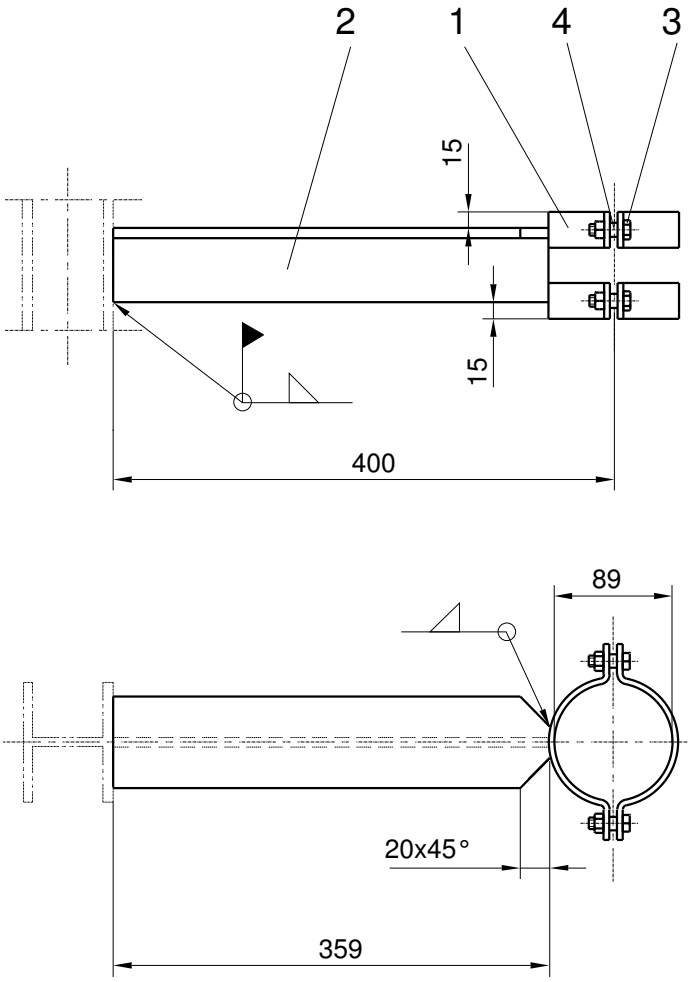
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB901D Marking : 80/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 359	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,530 kg

1) A193GR.B7/A194GR.2H

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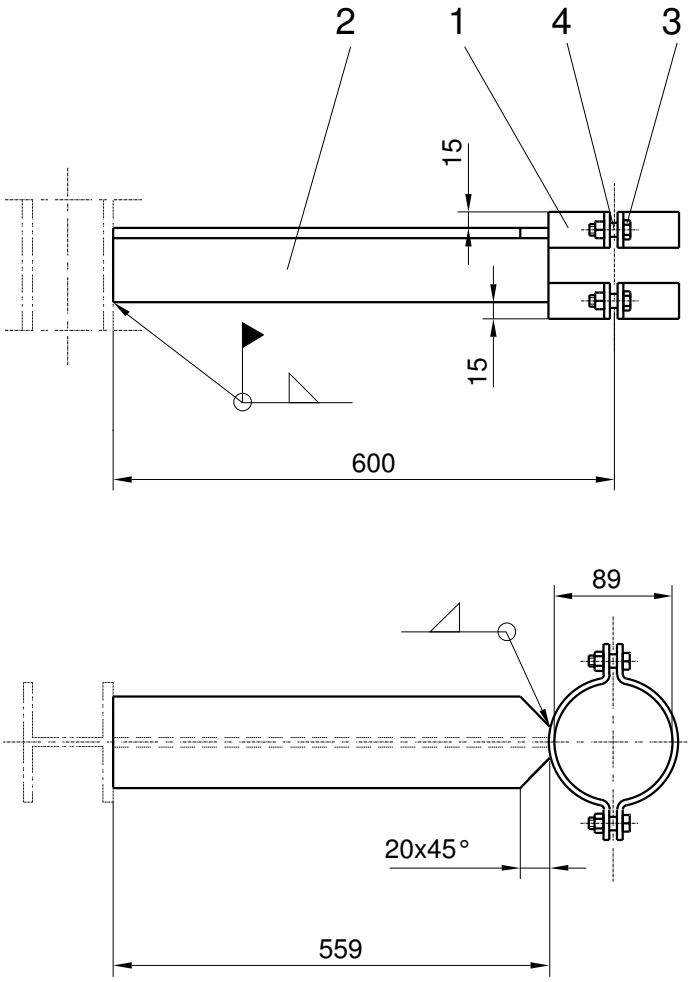
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB901D Marking : 80/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 559	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,810 kg

1) A193GR.B7/A194GR.2H

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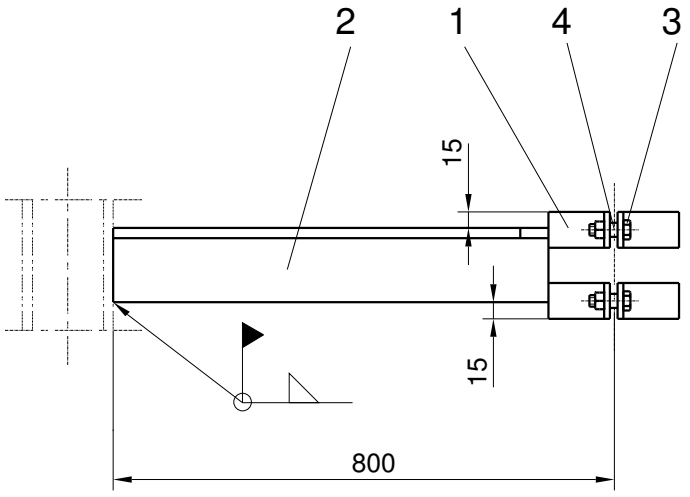
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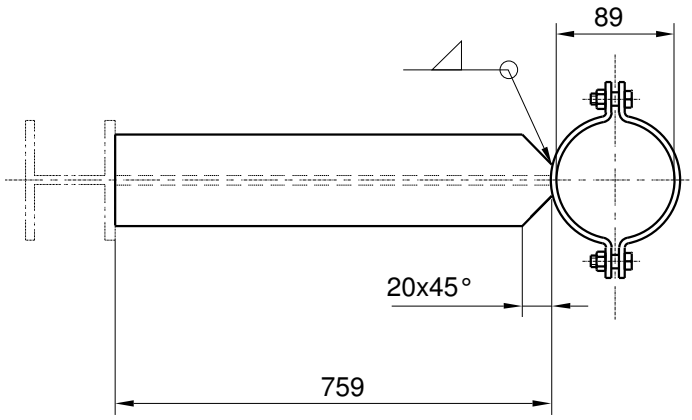
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB901D Marking : 80/800

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 10	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 759	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,090 kg

1) A193GR.B7/A194GR.2H

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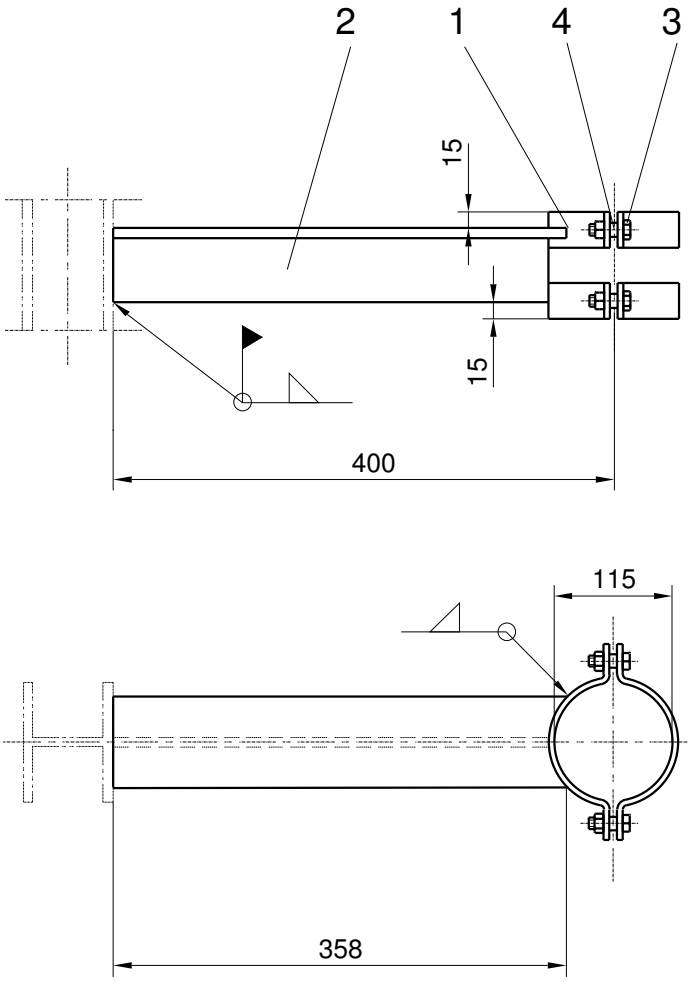
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB902D Marking : 100/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 358	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,630 kg

1) A193GR.B7/A194GR.2H

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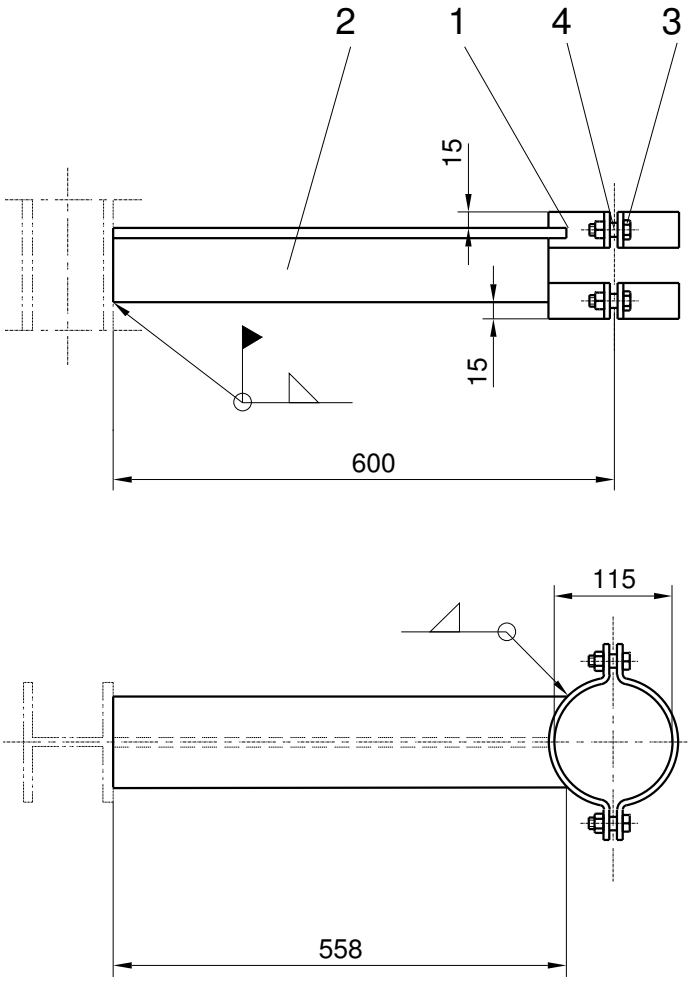
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB902D Marking : 100/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 558	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 13,910 kg

1) A193GR.B7/A194GR.2H

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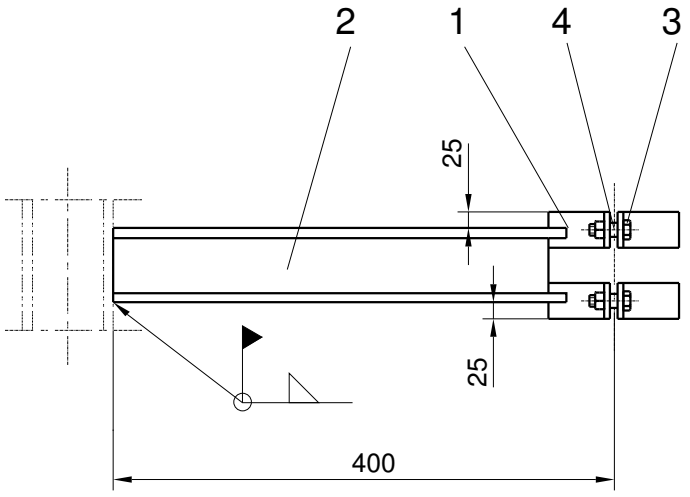
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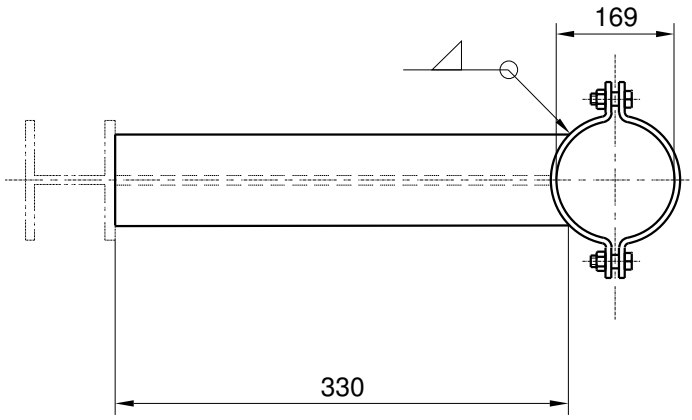
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB903D Marking : 150/400

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 330	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,490 kg

1) A193GR.B7/A194GR.2H

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Code: Manufacturer drawing

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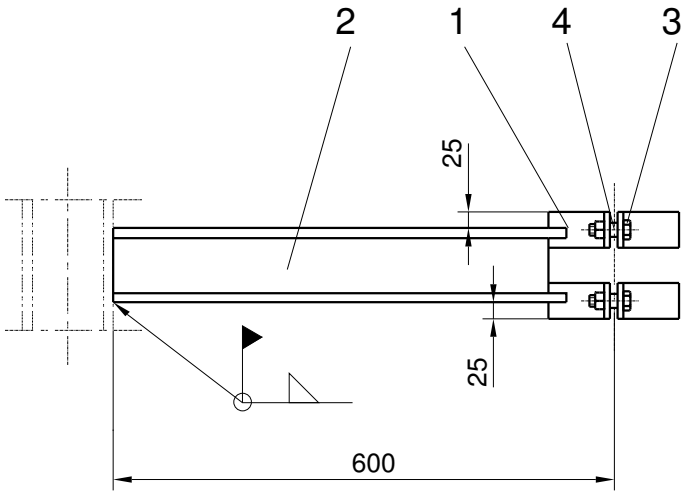
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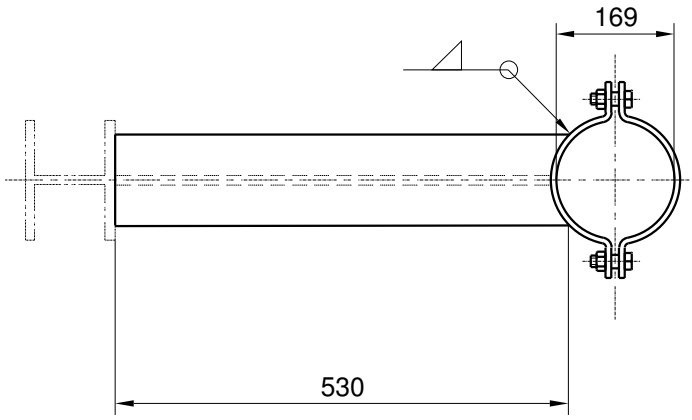
V | L S

U Item

PIPE SUPPORT

Code No.: KNB903D Marking : 150/600





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 530	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,830 kg

1) A193GR.B7/A194GR.2H

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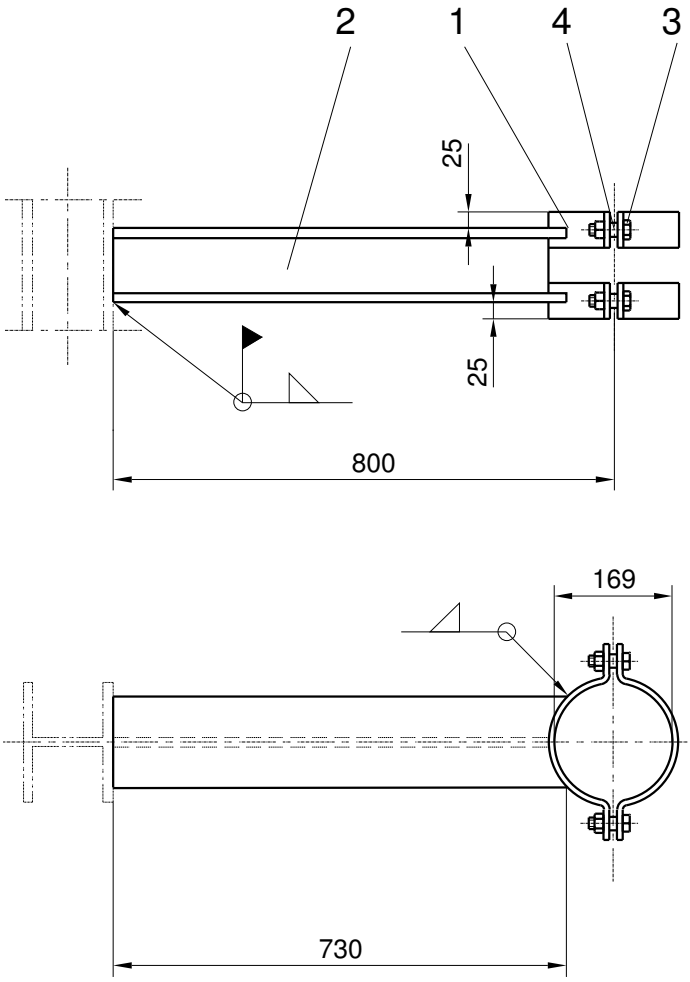
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB903D Marking : 150/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 730	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 25,170 kg

1) A193GR.B7/A194GR.2H

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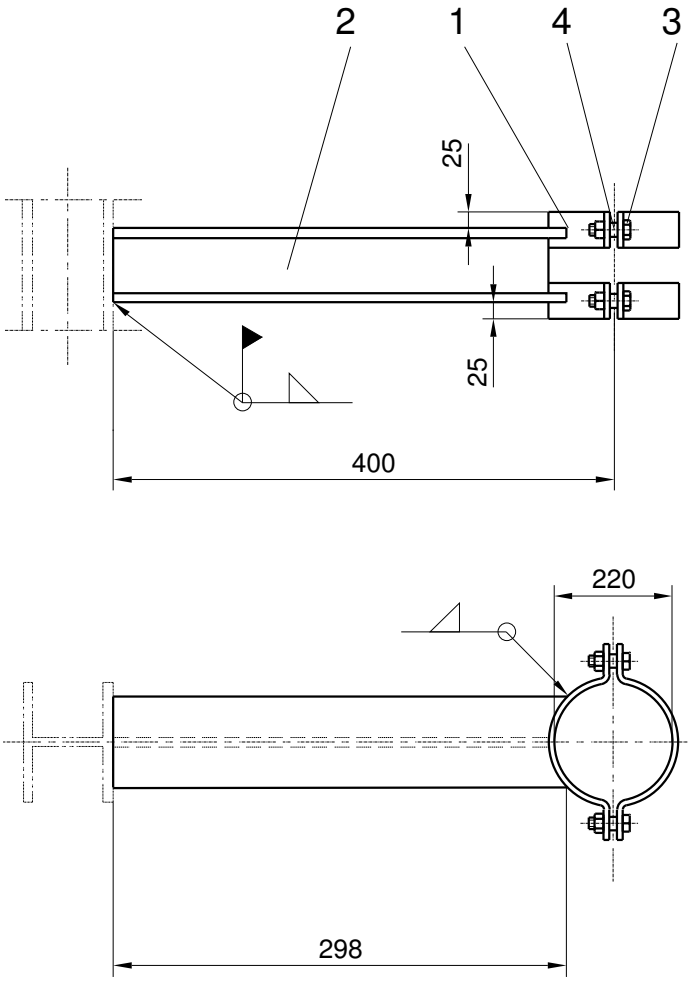
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB903D Marking : 200/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 298	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,660 kg

1) A193GR.B7/A194GR.2H

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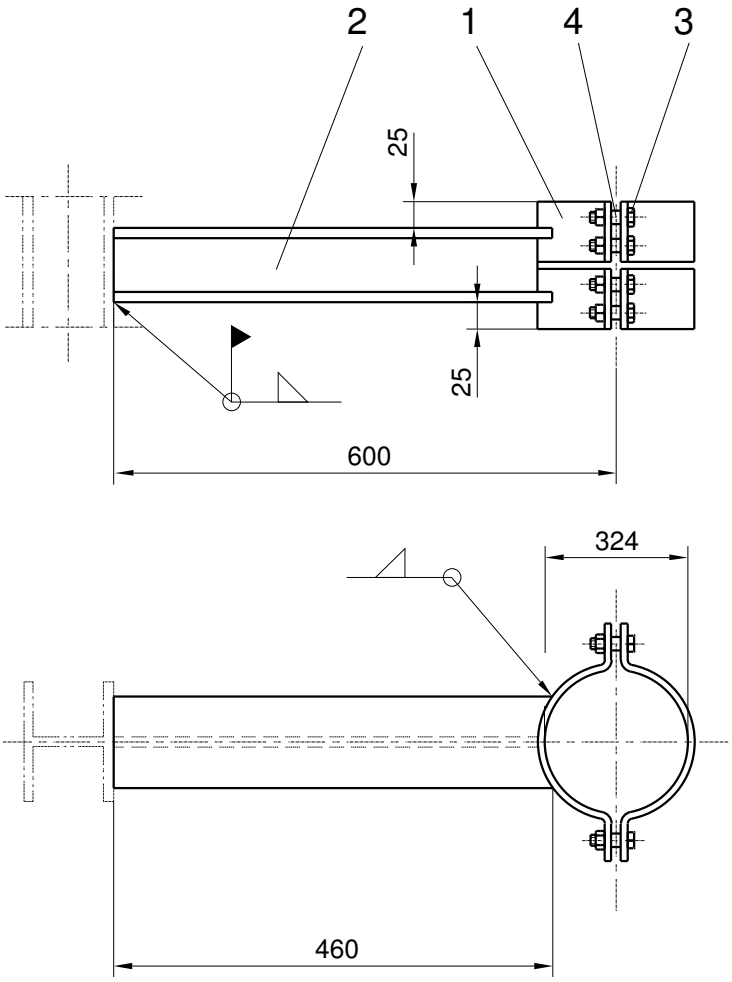
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB904D Marking : 300/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	8	PIPE 33,7 x 2,6 x 21	DIN 2448	1.0254	GR0001D
3	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 200 x 460	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A, REINFORCED DS 324	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 49,140 kg

1) A193GR.B7/A194GR.2H

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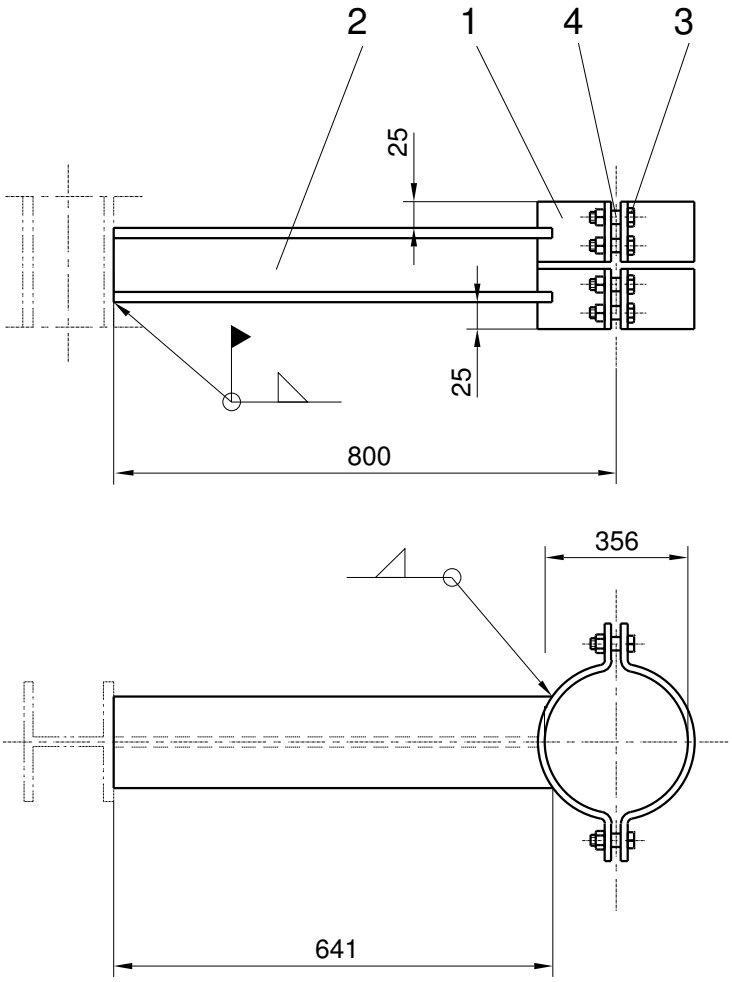
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB904D Marking : 350/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	8	PIPE 33,7 x 2,6 x 21	DIN 2448	1.0254	GR0001D
3	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 200 x 641	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A, REINFORCED DS 356	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 61,840 kg

1) A193GR.B7/A194GR.2H

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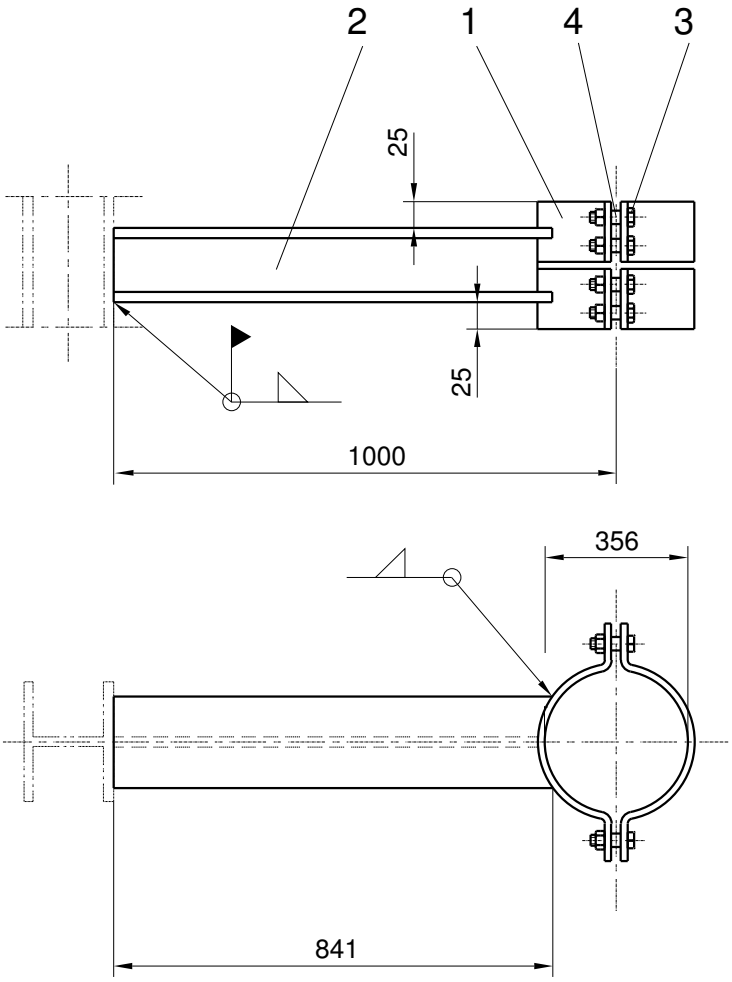
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB904D Marking : 350/1000

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	8	PIPE 33,7 x 2,6 x 21	DIN 2448	1.0254	GR0001D
3	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 200 x 841	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A, REINFORCED DS 356	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 74,100 kg

1) A193GR.B7/A194GR.2H

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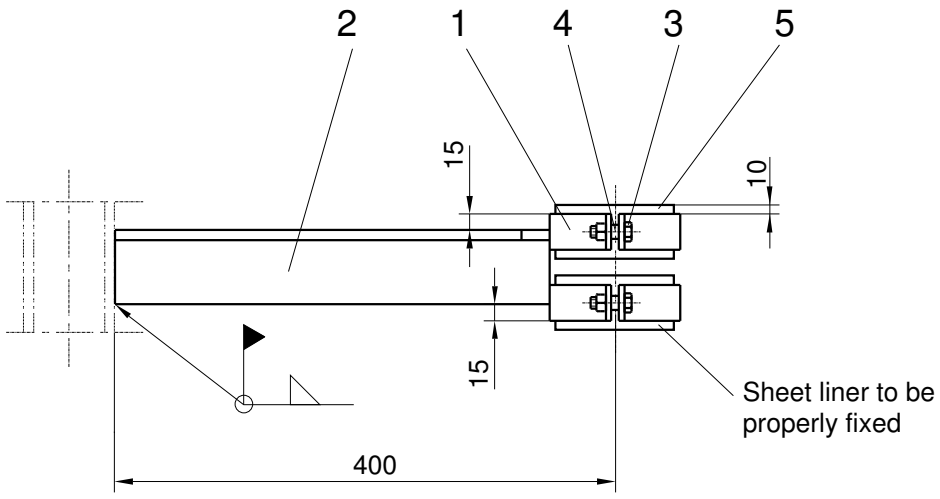
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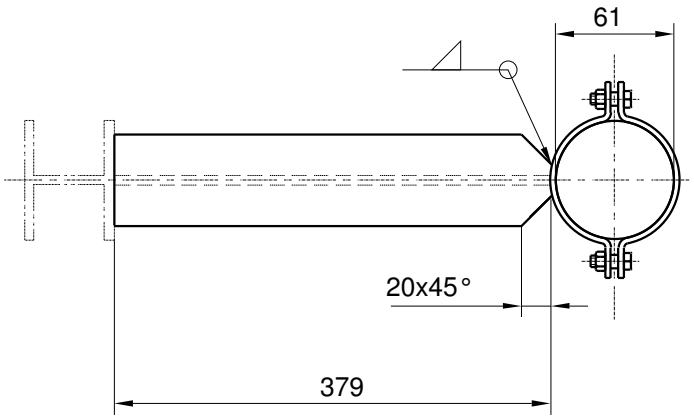
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PIPE SUPPORT

Code No.: KNB951D Marking : 50/400

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 12	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 379	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,550 kg

1) A193GR.B7/A194GR.2H

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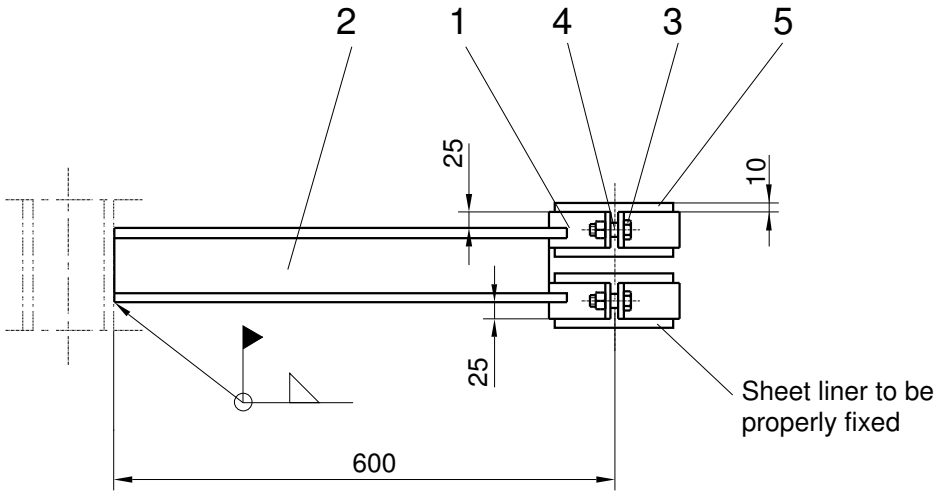
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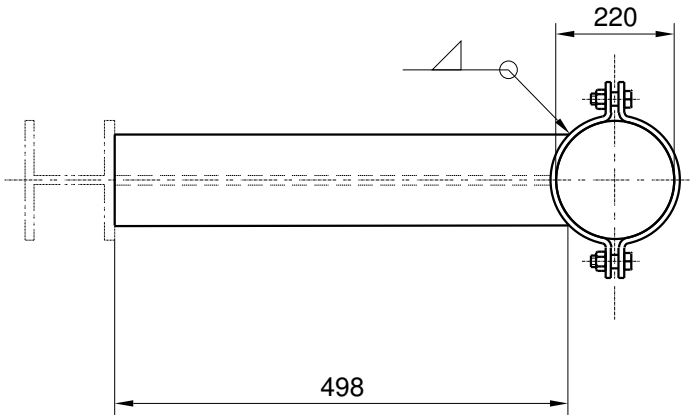
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB953D Marking : 200/600

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 14	DIN 2448	1.0254	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 498	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,000 kg

1) A193GR.B7/A194GR.2H

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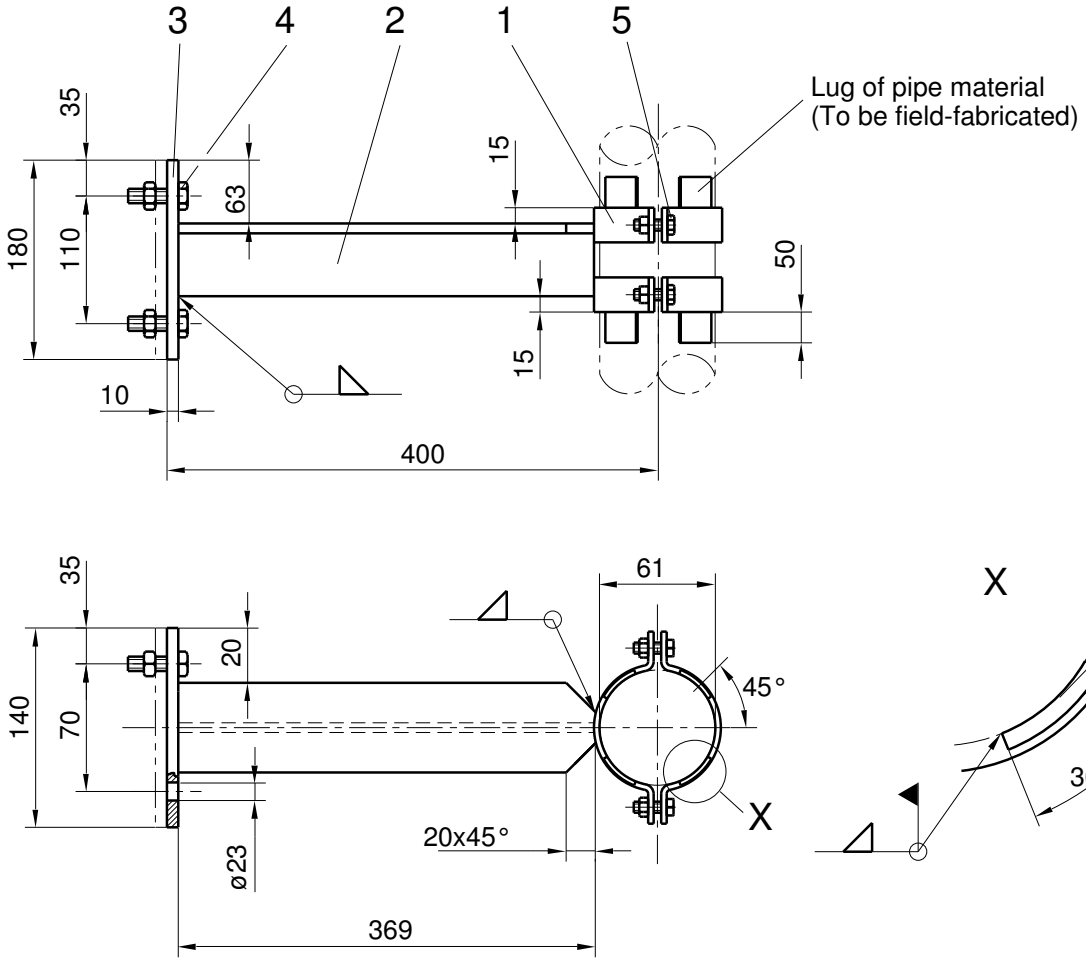
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC001D Marking : 50/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 369	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,490 kg

1) A193GR.B7/A194GR.2H

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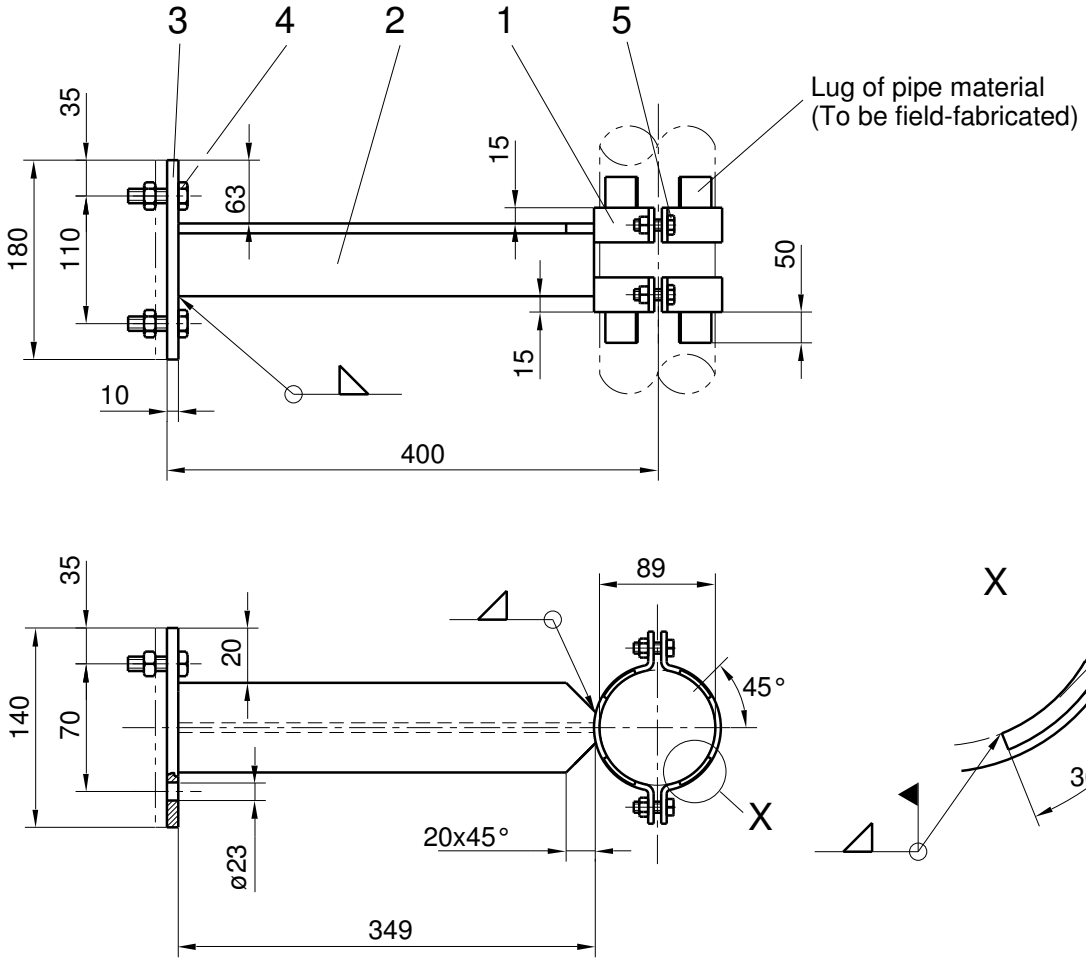
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC001D Marking : 80/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 349	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,470 kg

1) A193GR.B7/A194GR.2H

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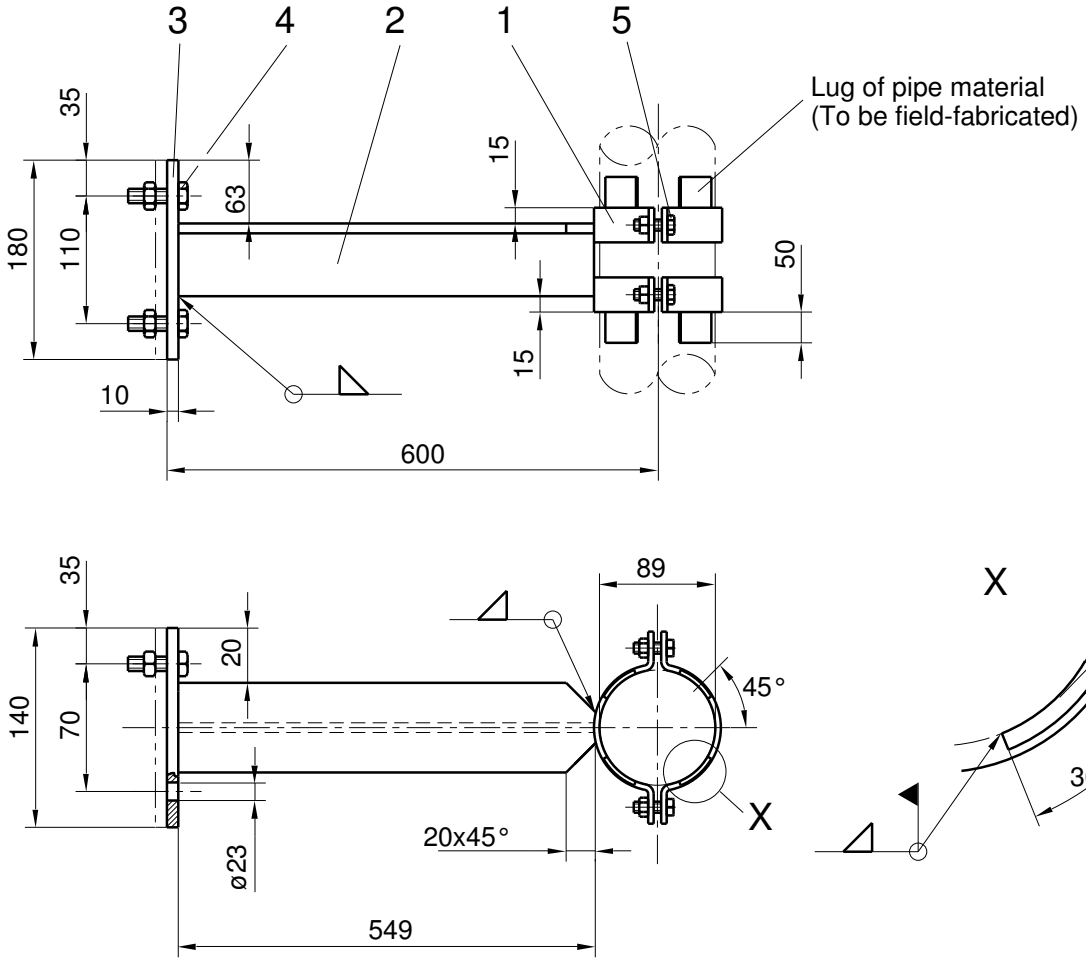
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC001D Marking : 80/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 549	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 13,750 kg

1) A193GR.B7/A194GR.2H

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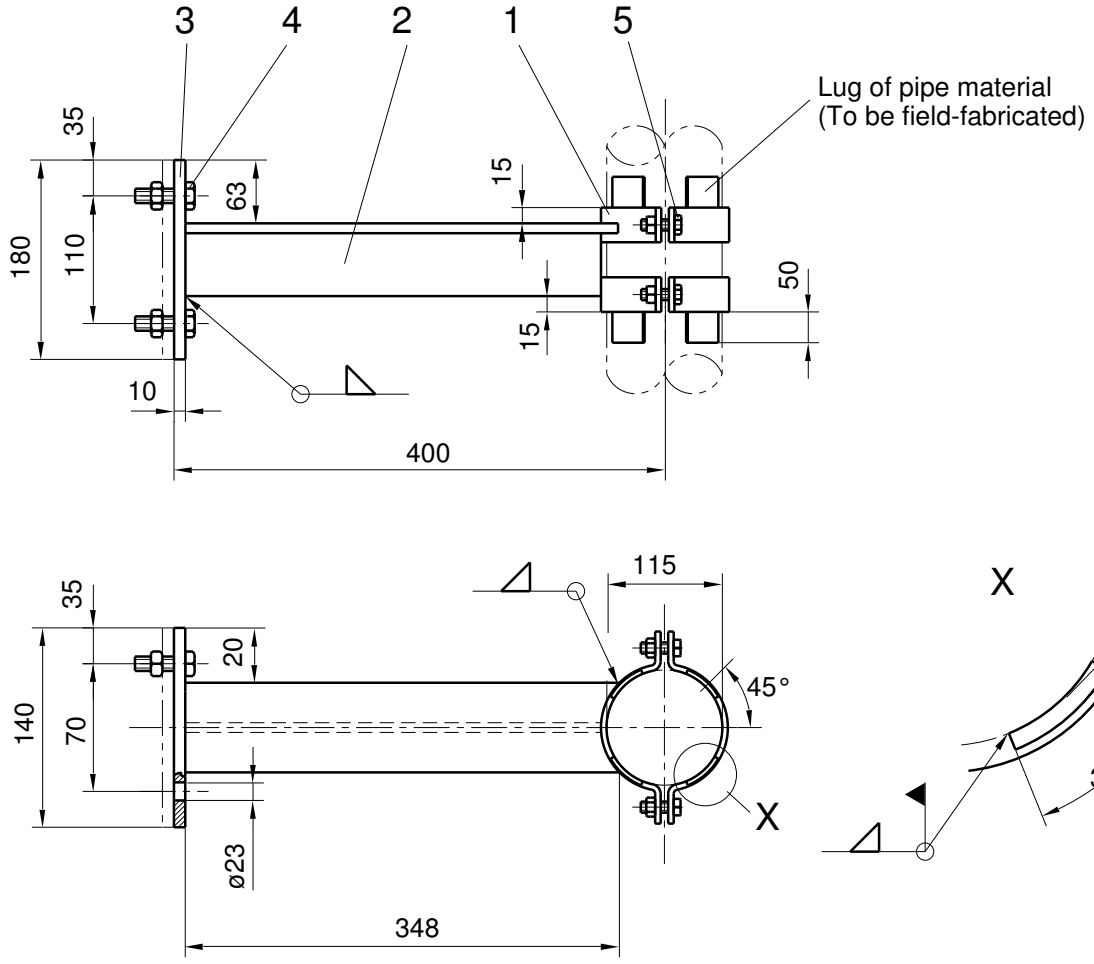
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC002D Marking : 100/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 348	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 12,570 kg

1) A193GR.B7/A194GR.2H

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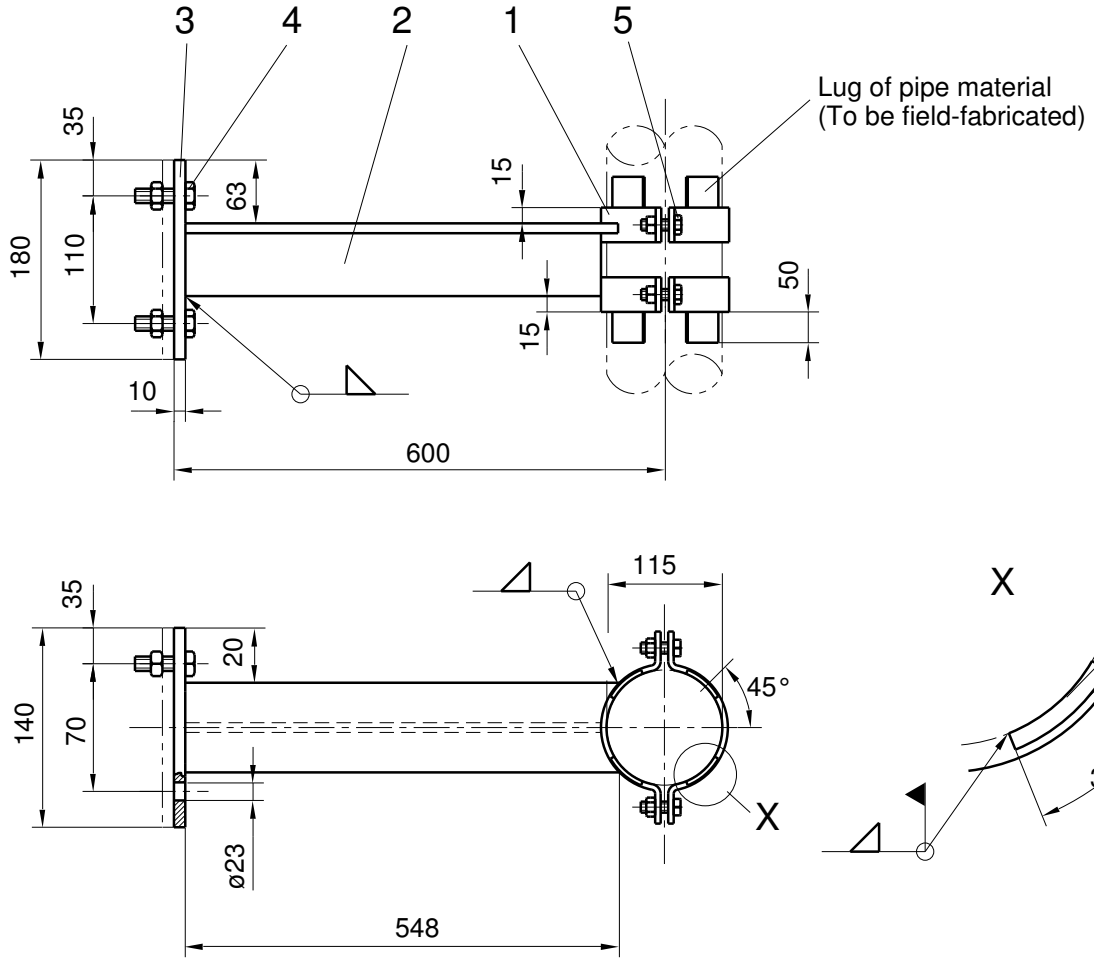
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC002D Marking : 100/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 548	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,850 kg

1) A193GR.B7/A194GR.2H

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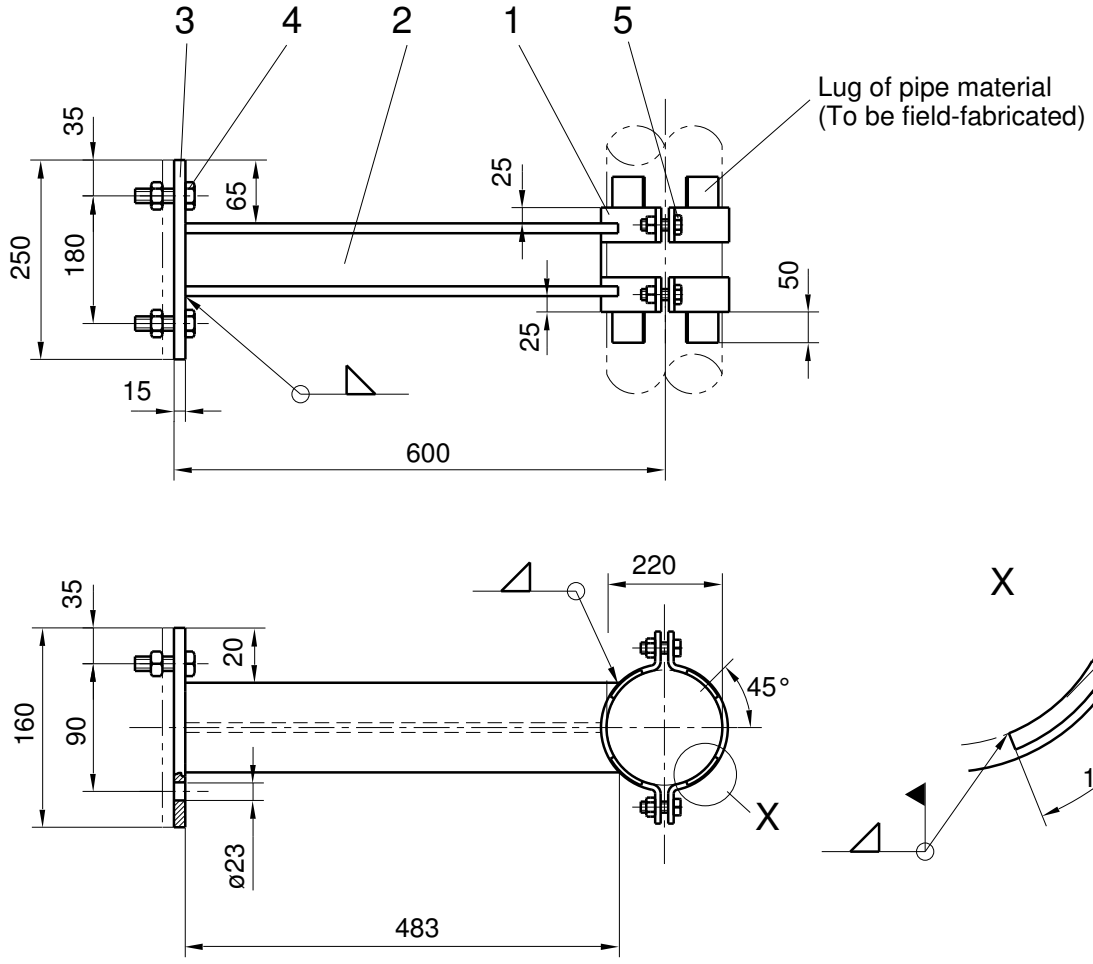
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC003D Marking : 200/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 483	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 25,680 kg

1) A193GR.B7/A194GR.2H

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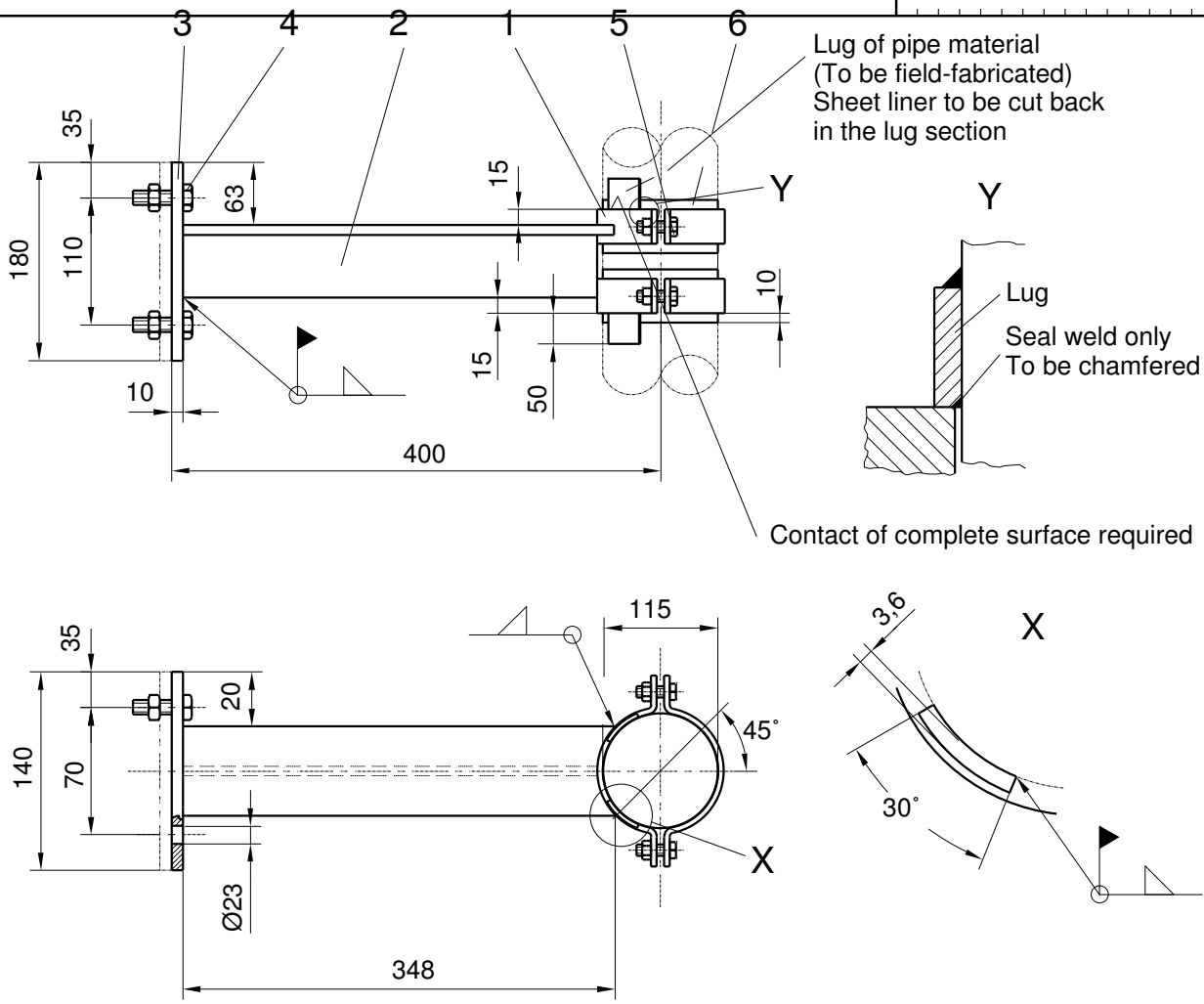
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: KNC052D Marking : 100/400



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 348	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 12,770 kg

1) A193GR.B7/A194GR.2H

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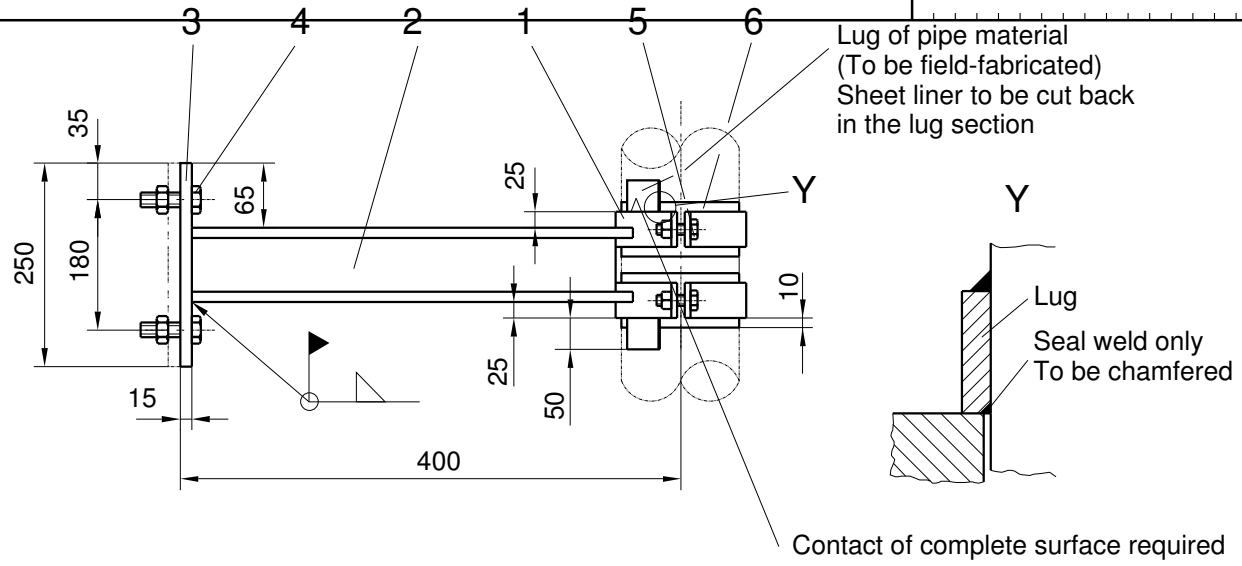
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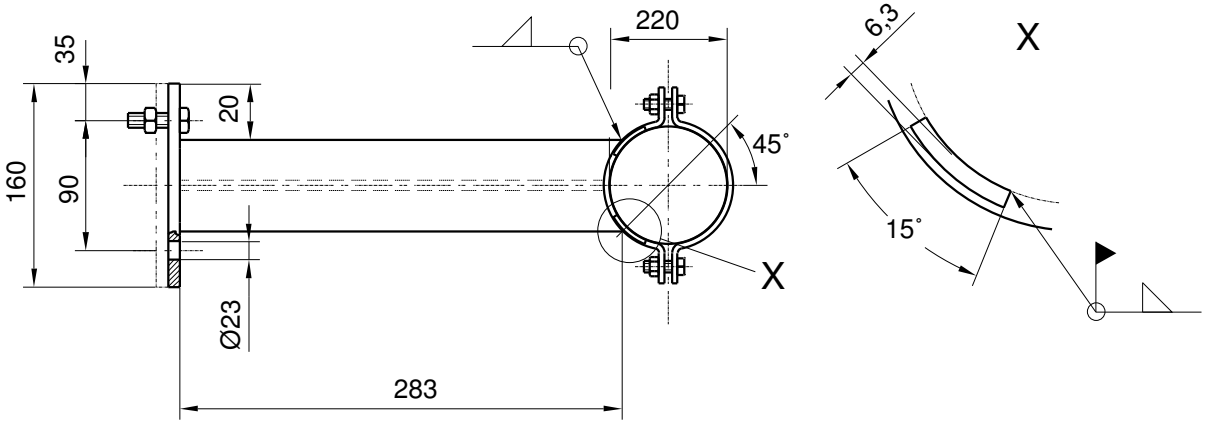
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: KNC053D Marking : 200/400





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 283	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,740 kg

1) A193GR.B7/A194GR.2H

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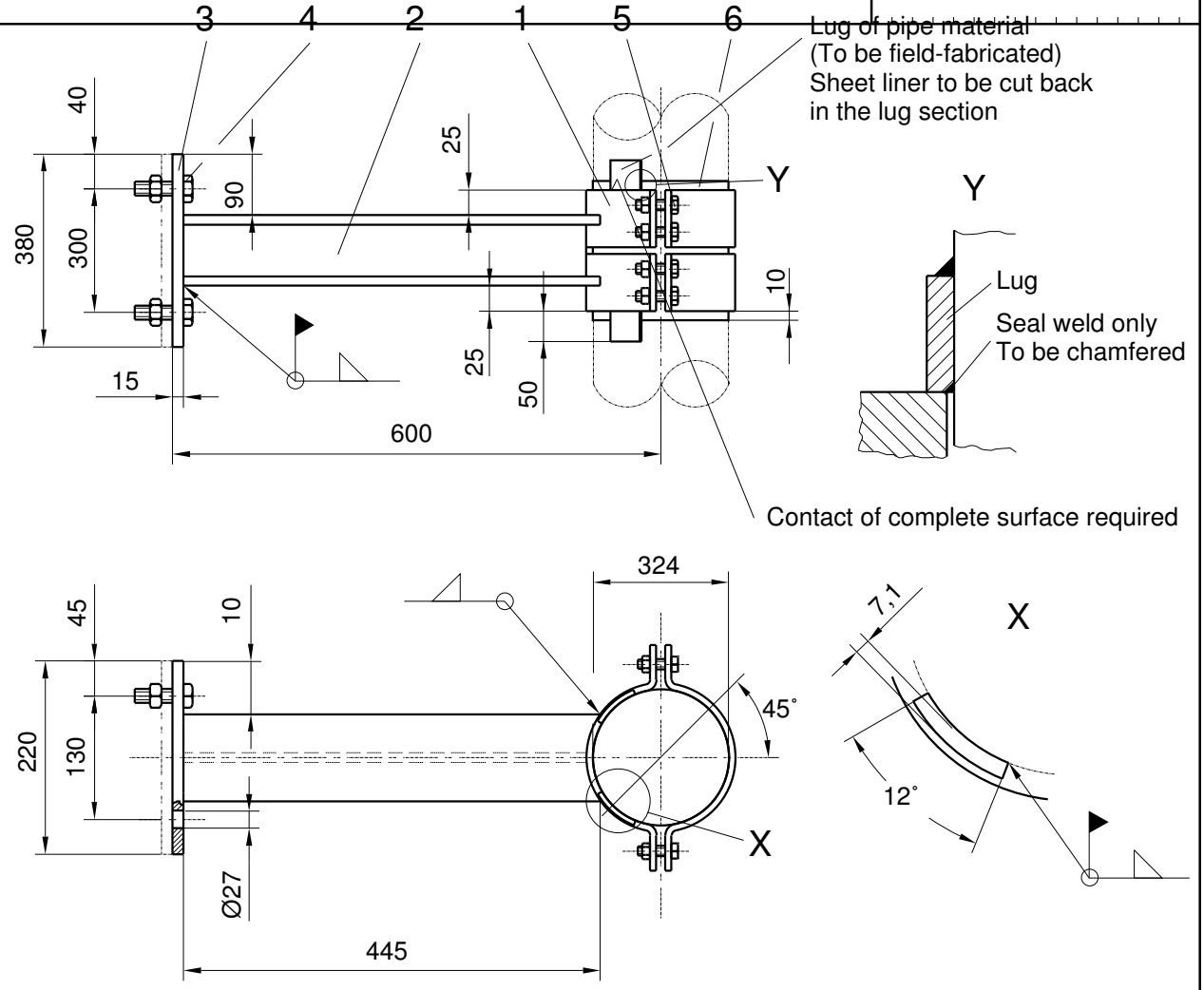
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: KNC054D Marking : 300/600



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 120 x 1048	UN 3790-14	A240GR.321	OE0041D
5	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 24 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 220 x 380	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 200 x 445	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A, REINFORCED DS 324	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 59,740 kg

1) A193GR.B7/A194GR.2H

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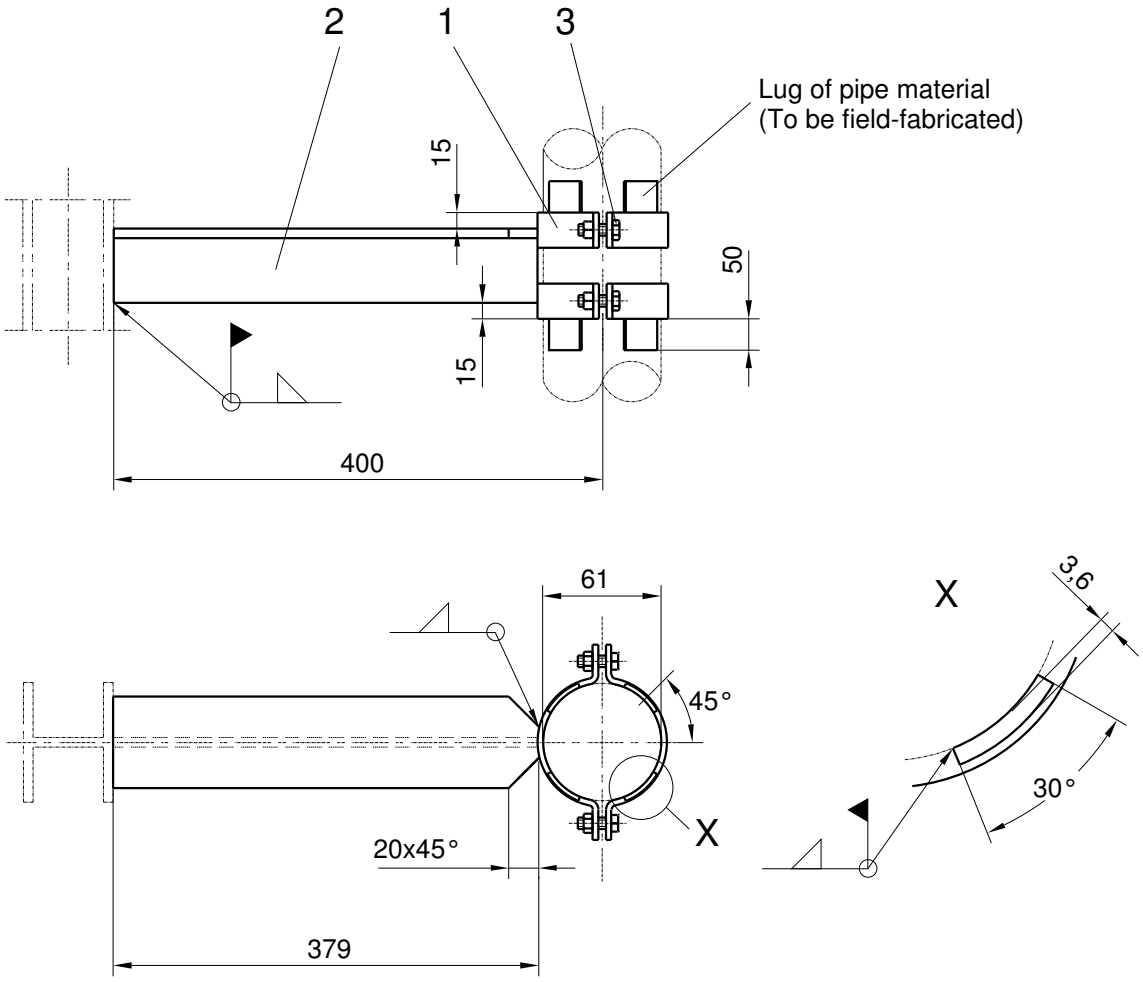
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC901D Marking : 50/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 379	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,510 kg

1) A193GR.B7/A194GR.2H

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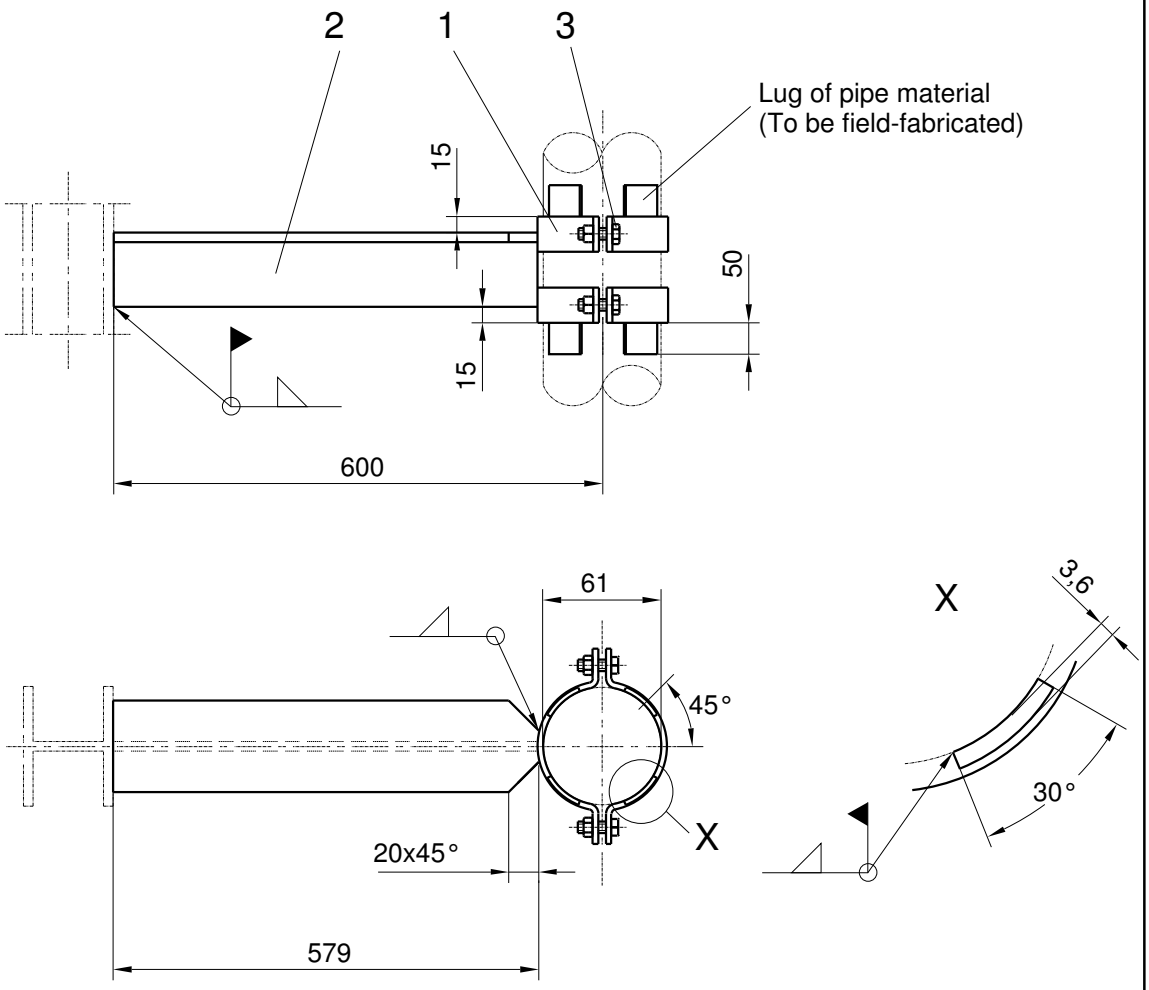
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNC901D Marking : 50/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 579	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,790 kg

1) A193GR.B7/A194GR.2H

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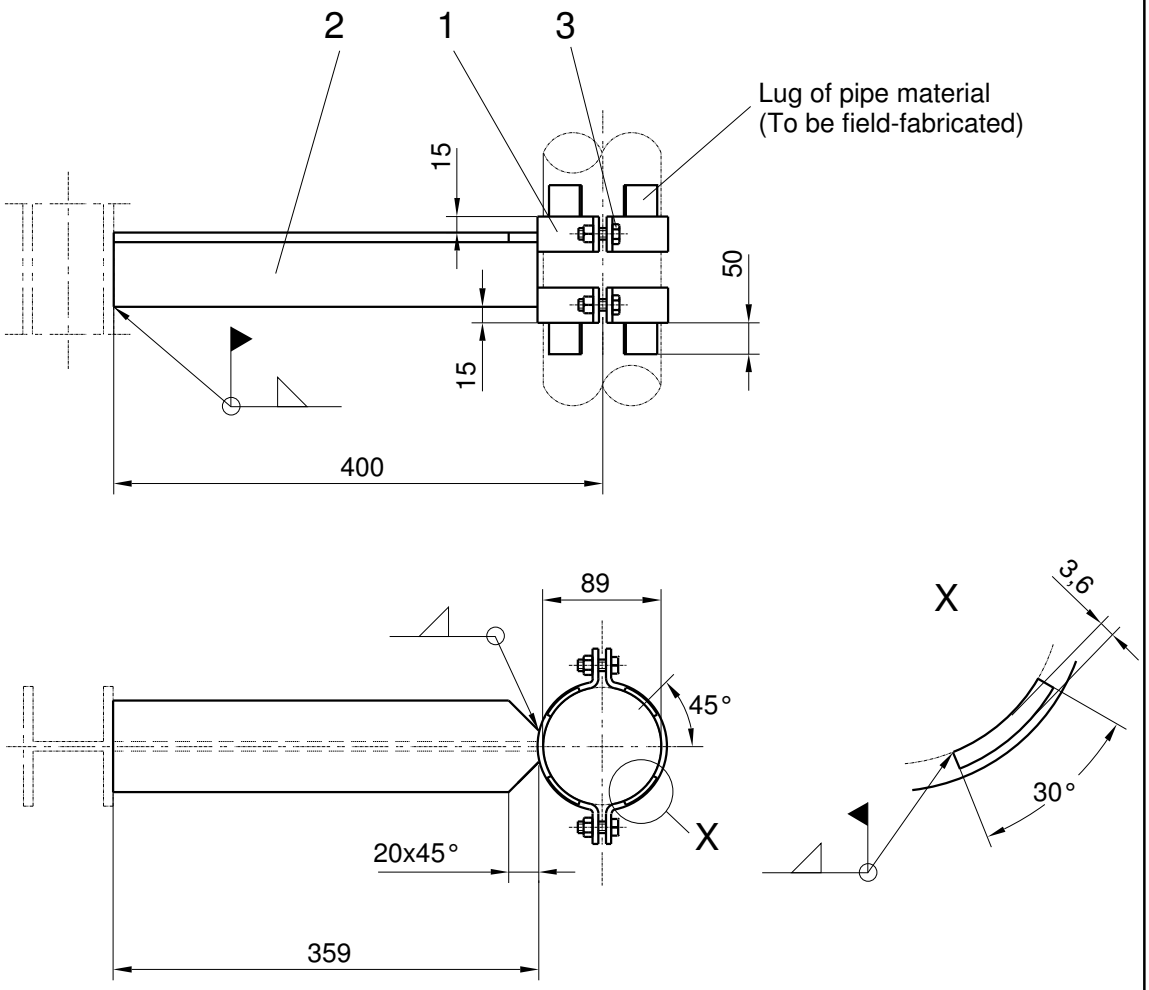
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNC901D Marking : 80/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 359	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,490 kg

1) A193GR.B7/A194GR.2H

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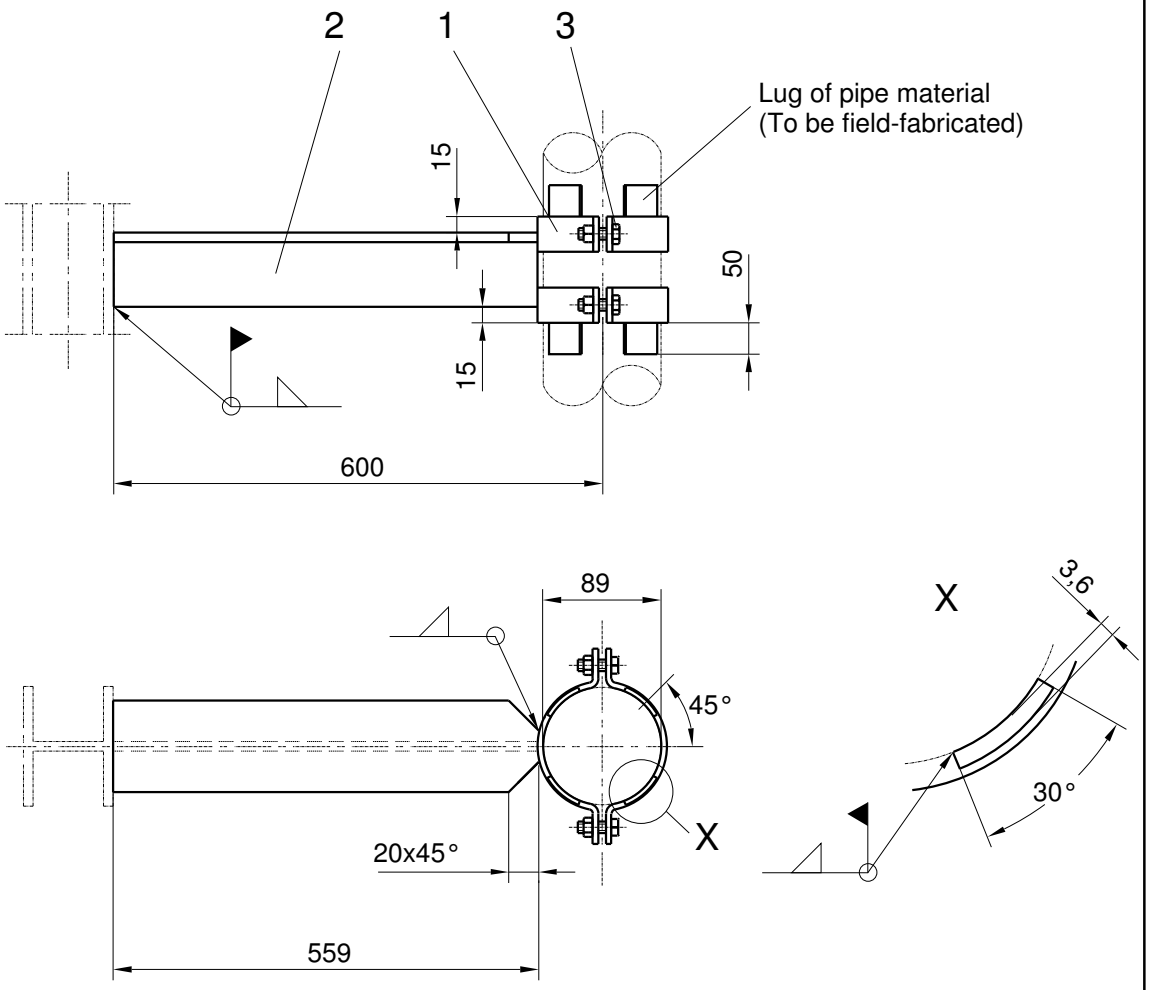
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC901D Marking : 80/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 559	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,770 kg

1) A193GR.B7/A194GR.2H

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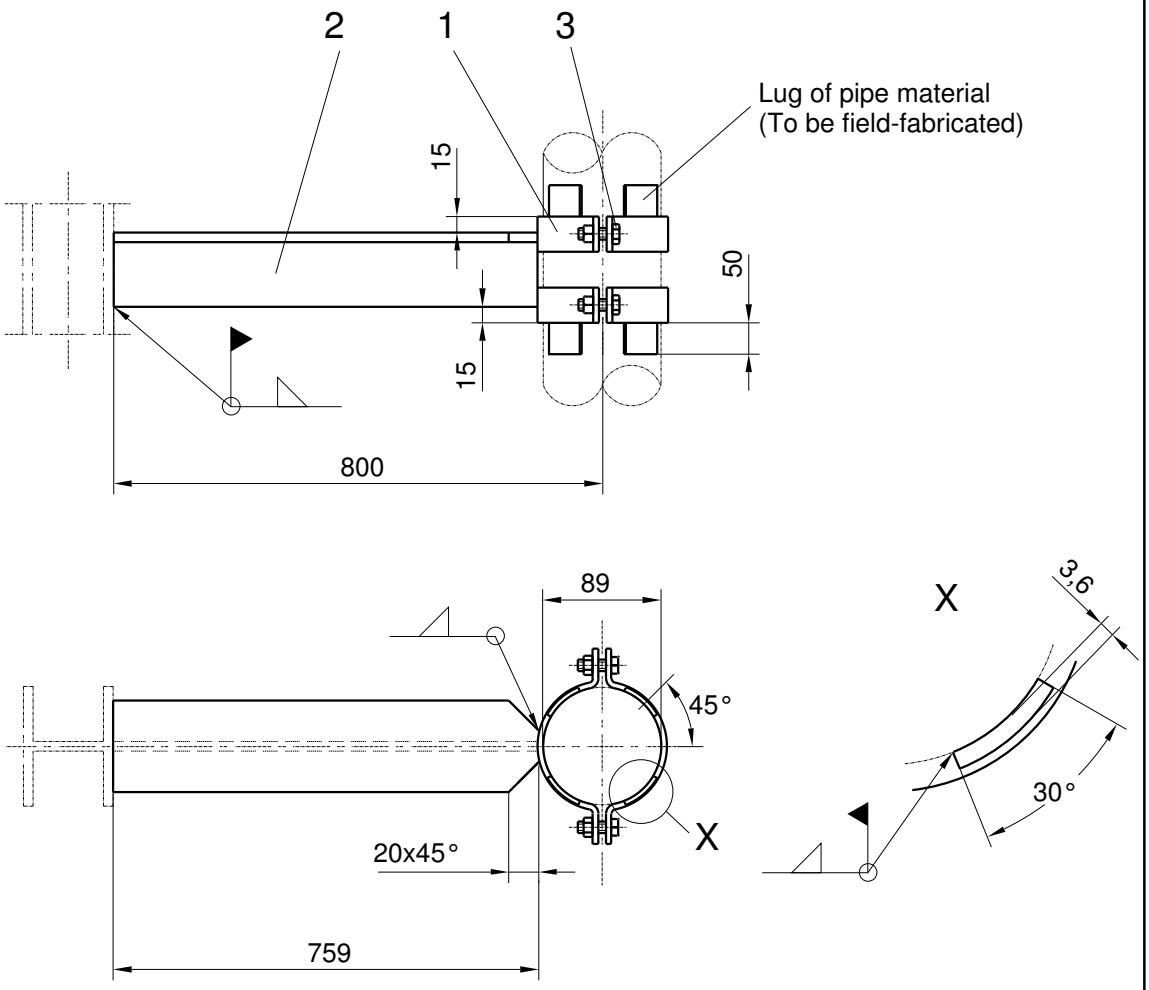
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNC901D Marking : 80/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 759	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,050 kg

1) A193GR.B7/A194GR.2H

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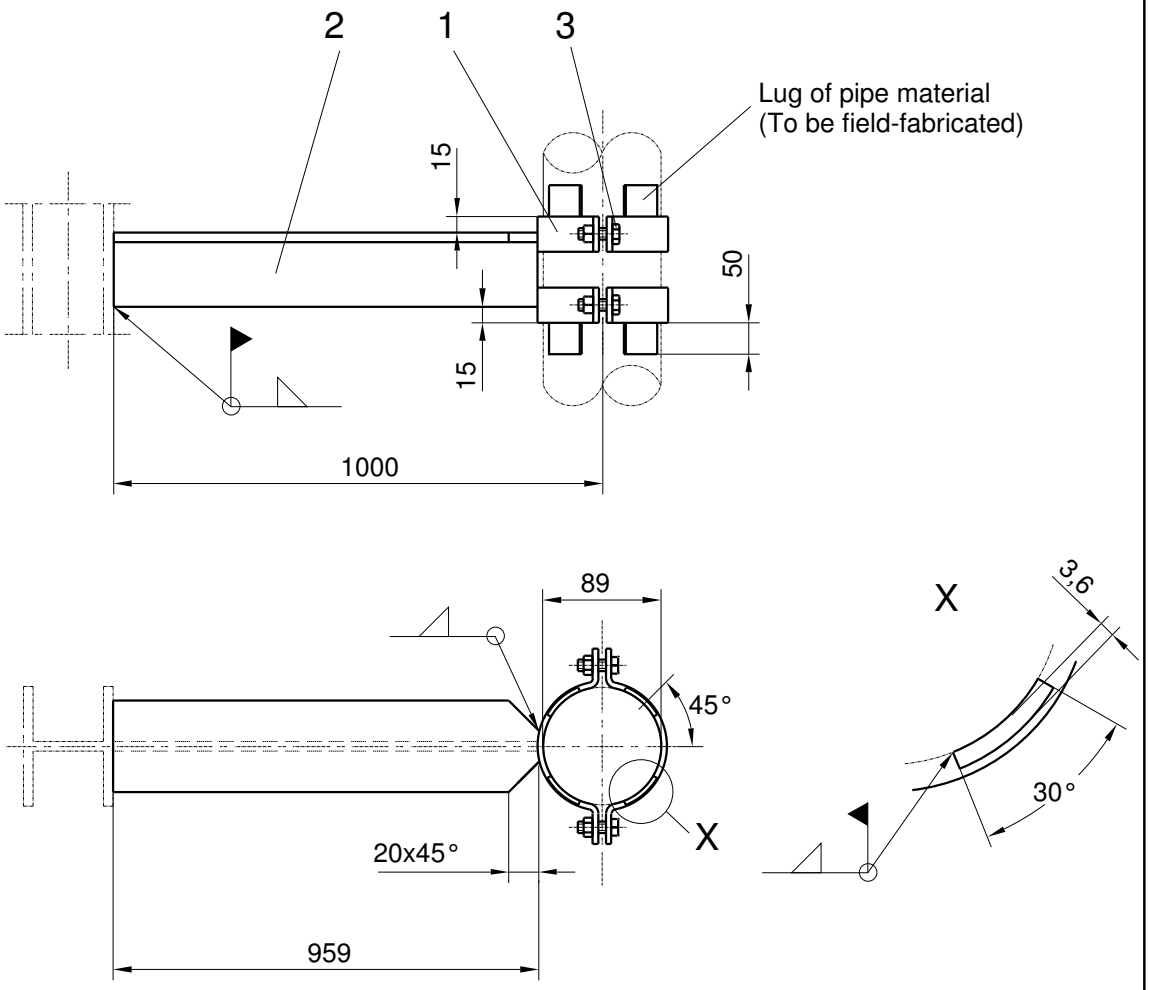
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC901D Marking : 80/1000

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 959	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 18,330 kg

1) A193GR.B7/A194GR.2H

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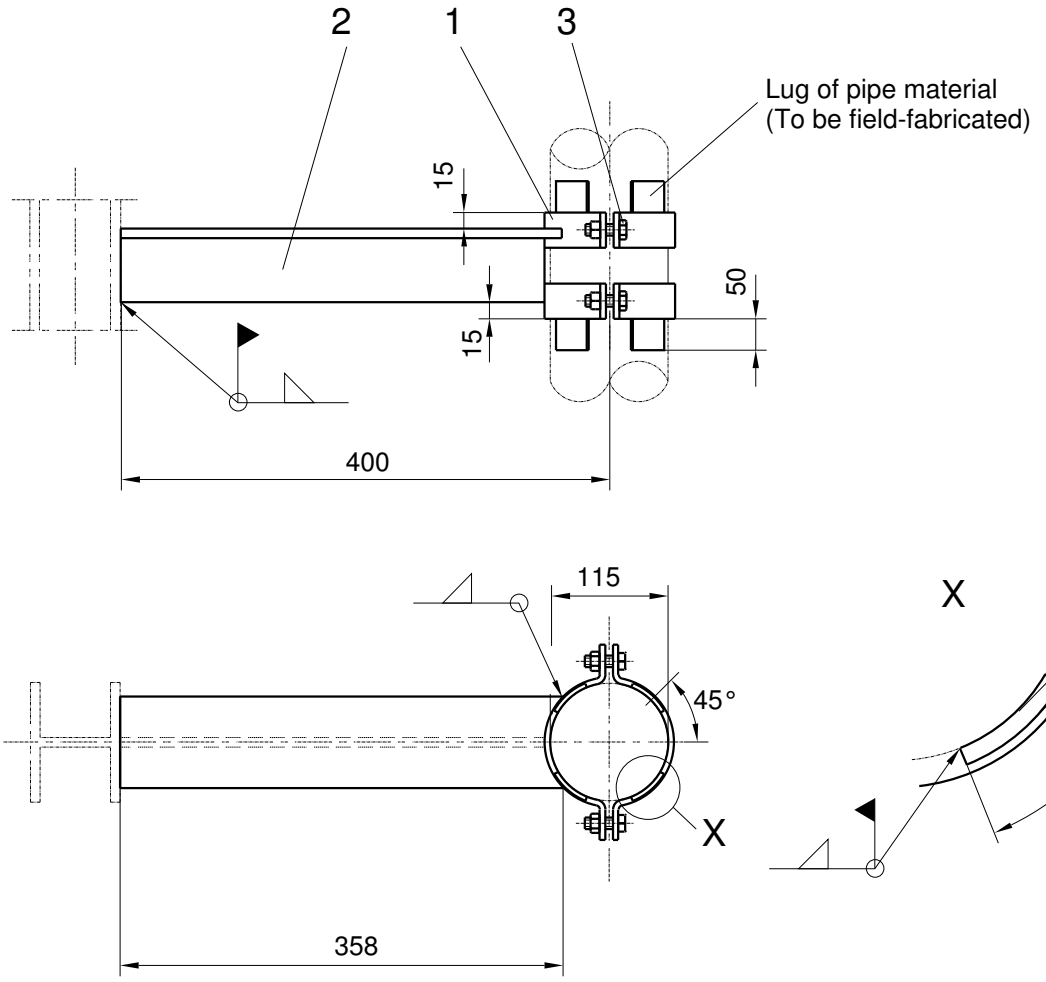
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC902D Marking : 100/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 358	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,590 kg

1) A193GR.B7/A194GR.2H

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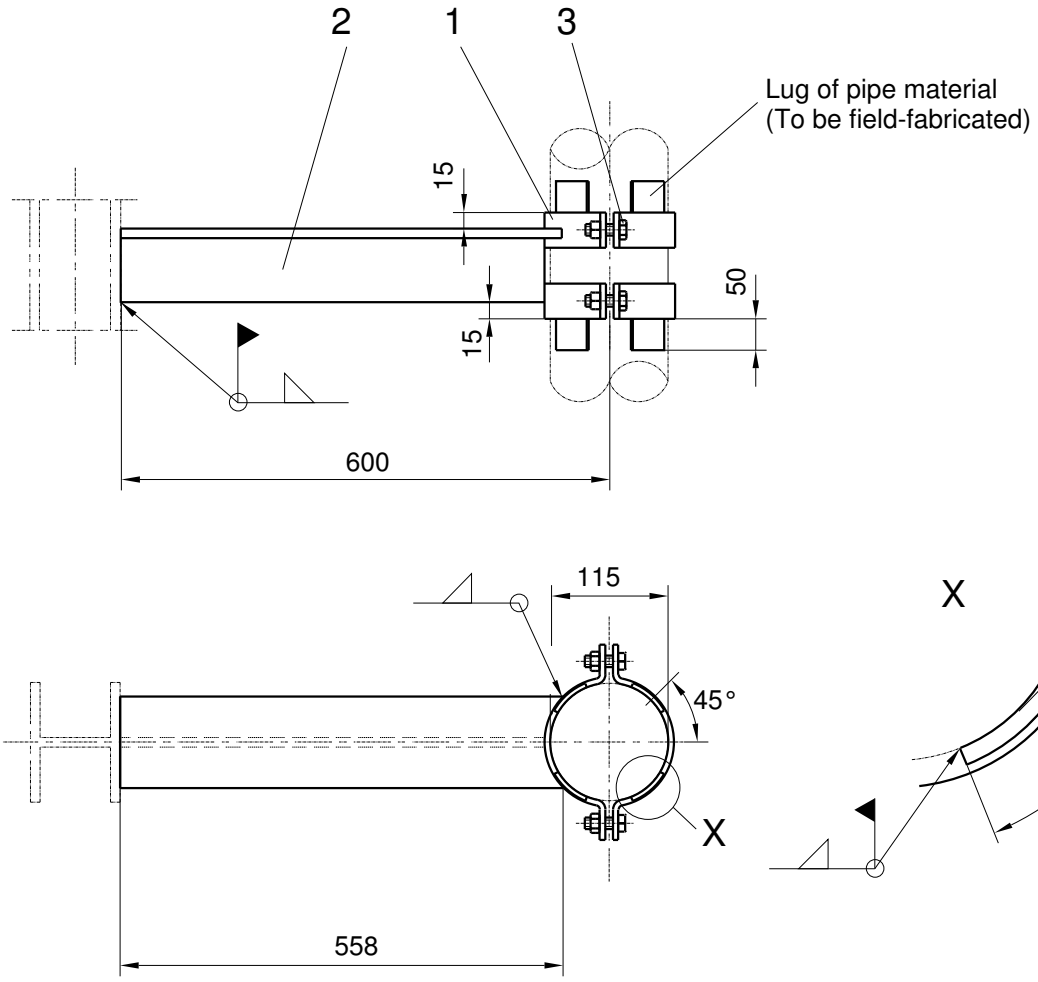
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC902D Marking : 100/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 558	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 13,870 kg

1) A193GR.B7/A194GR.2H

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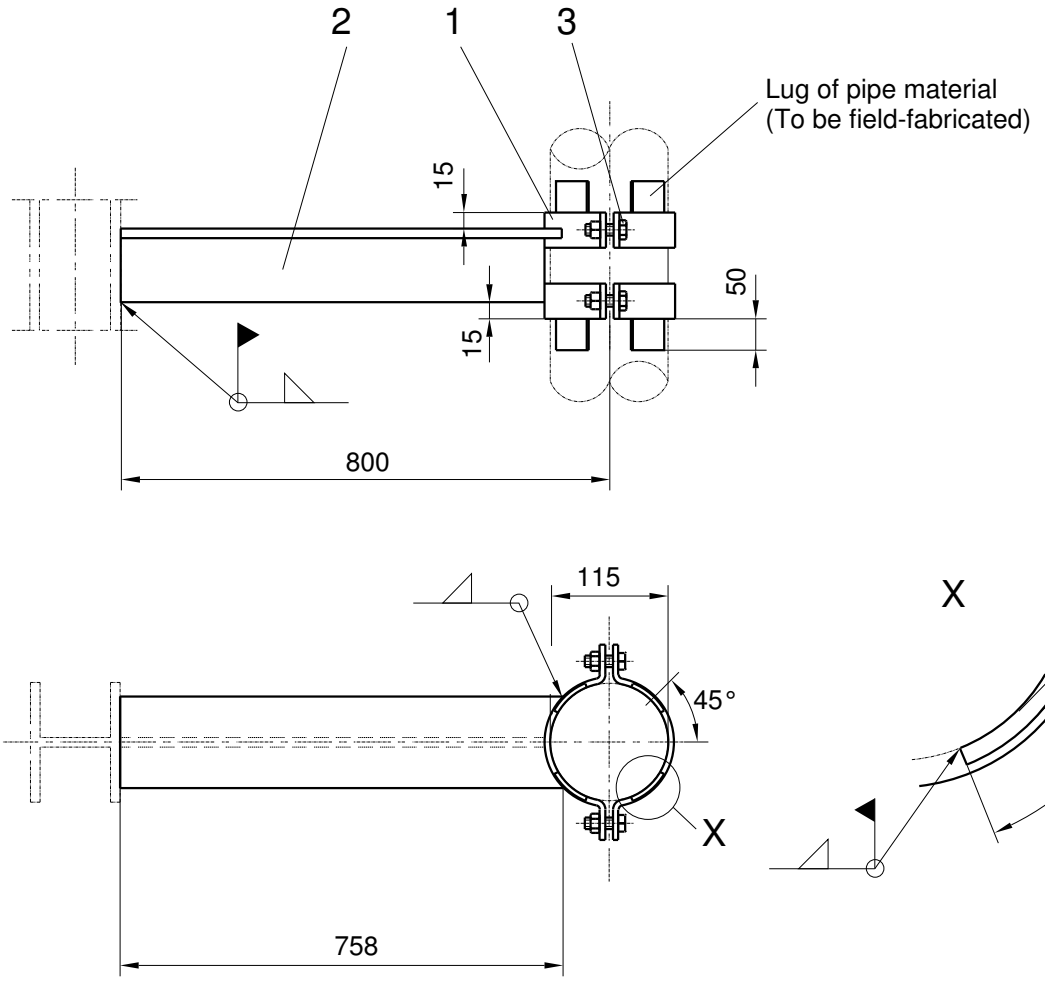
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC902D Marking : 100/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 758	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 17,150 kg

1) A193GR.B7/A194GR.2H

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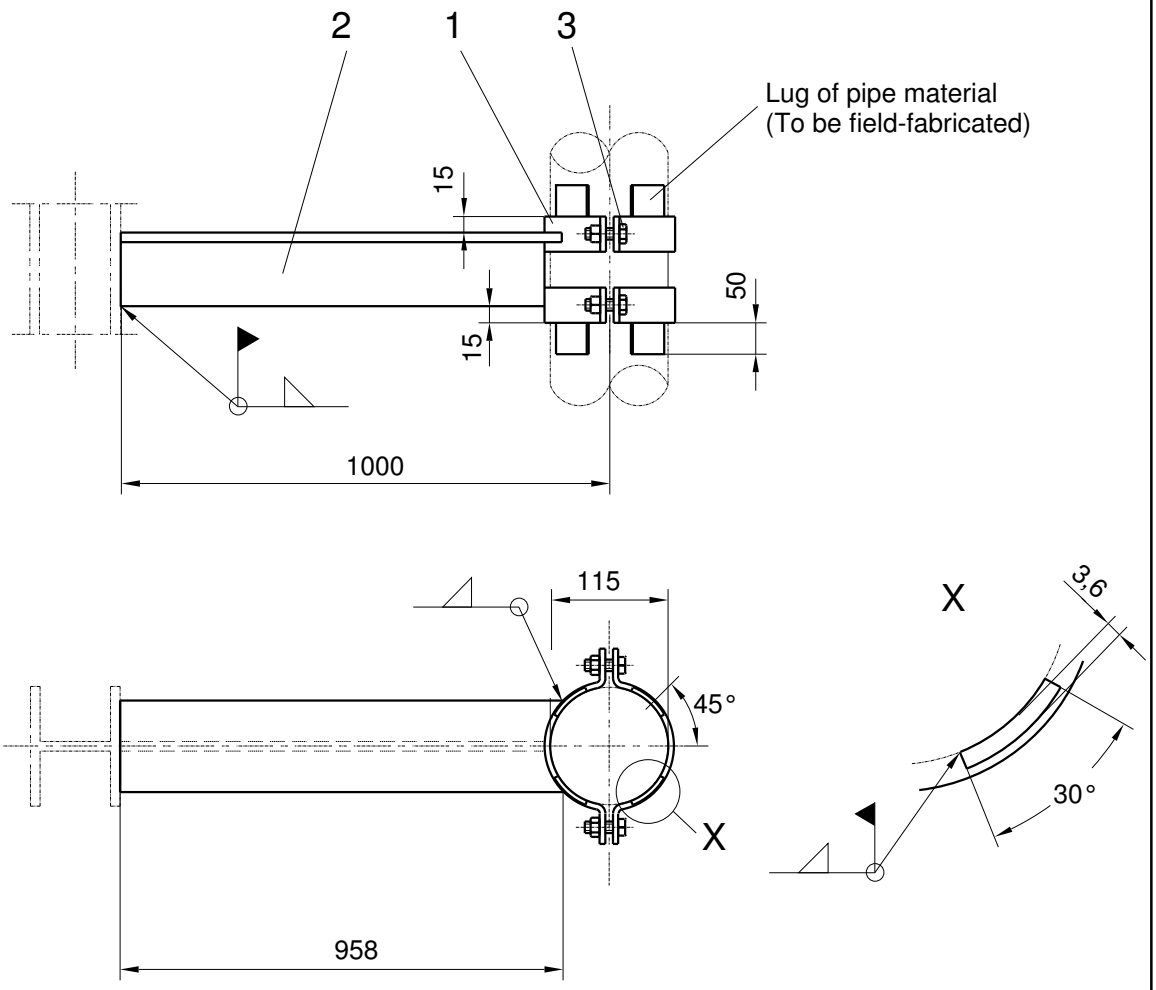
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNC902D Marking : 100/1000

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 958	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,430 kg

1) A193GR.B7/A194GR.2H

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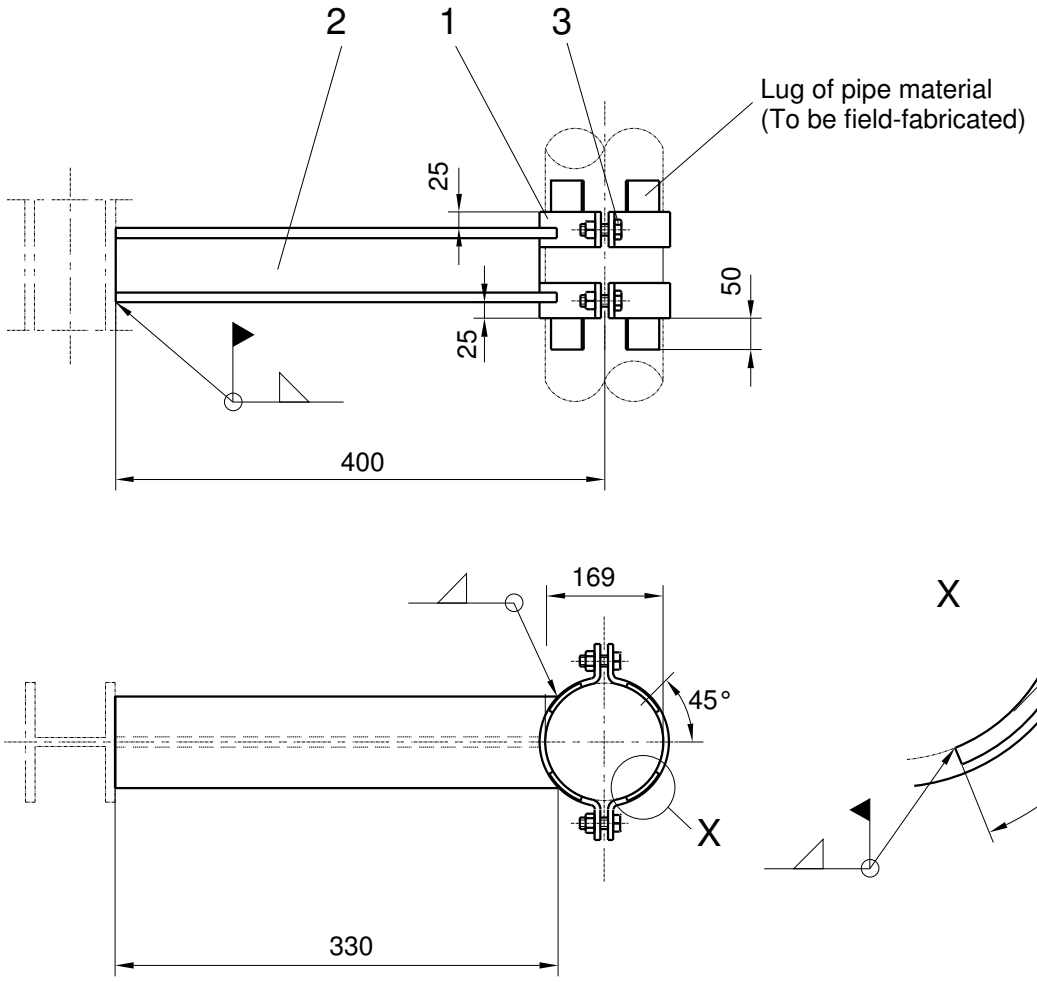
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 150/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 330	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,450 kg

1) A193GR.B7/A194GR.2H

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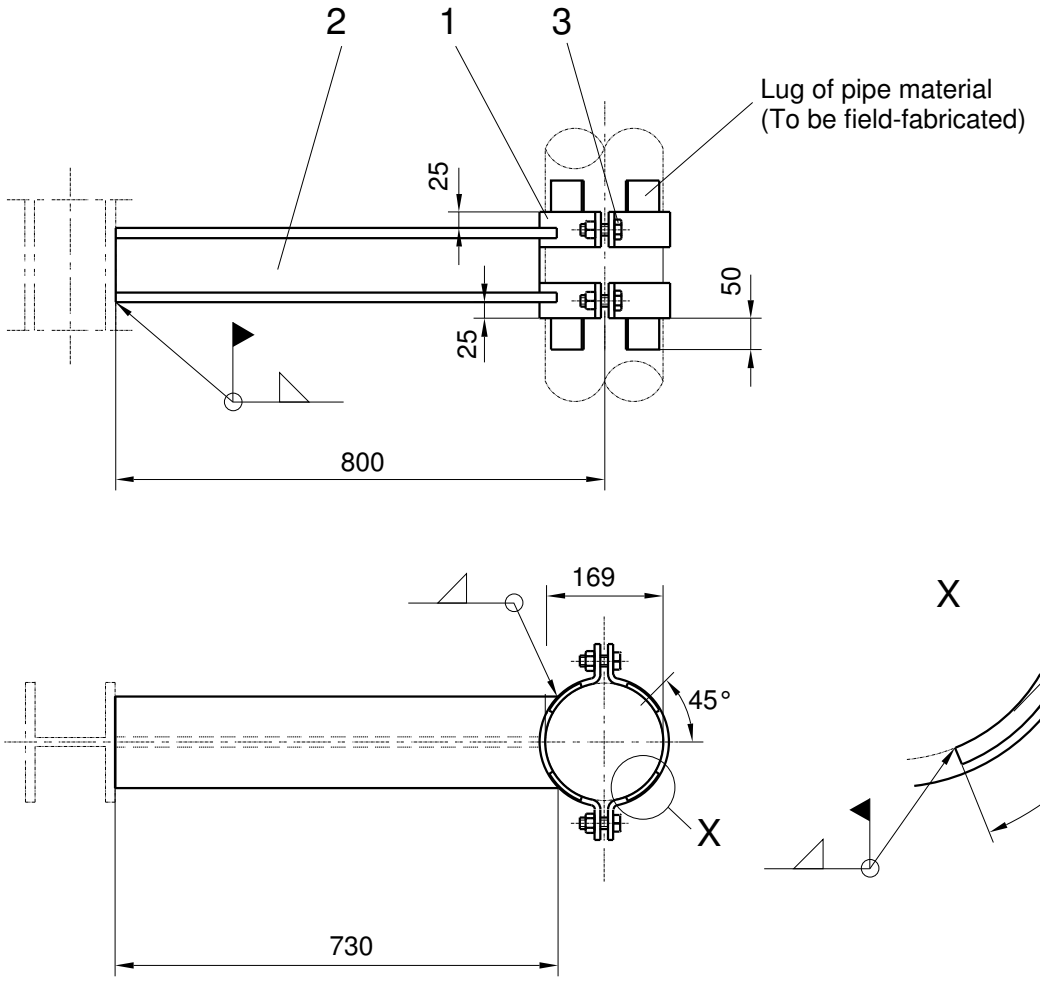
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 150/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 730	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 25,130 kg

1) A193GR.B7/A194GR.2H

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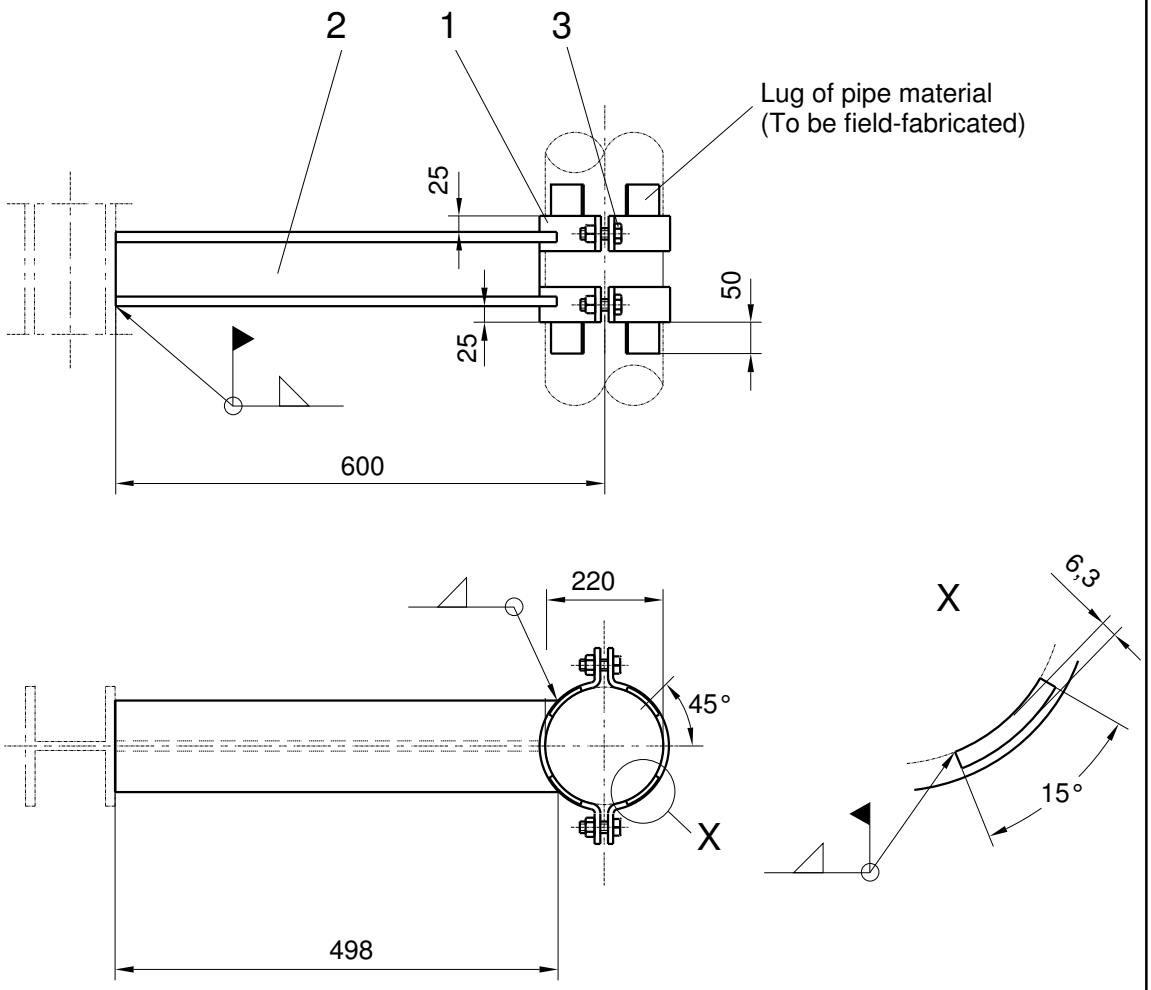
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 200/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 498	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,960 kg

1) A193GR.B7/A194GR.2H

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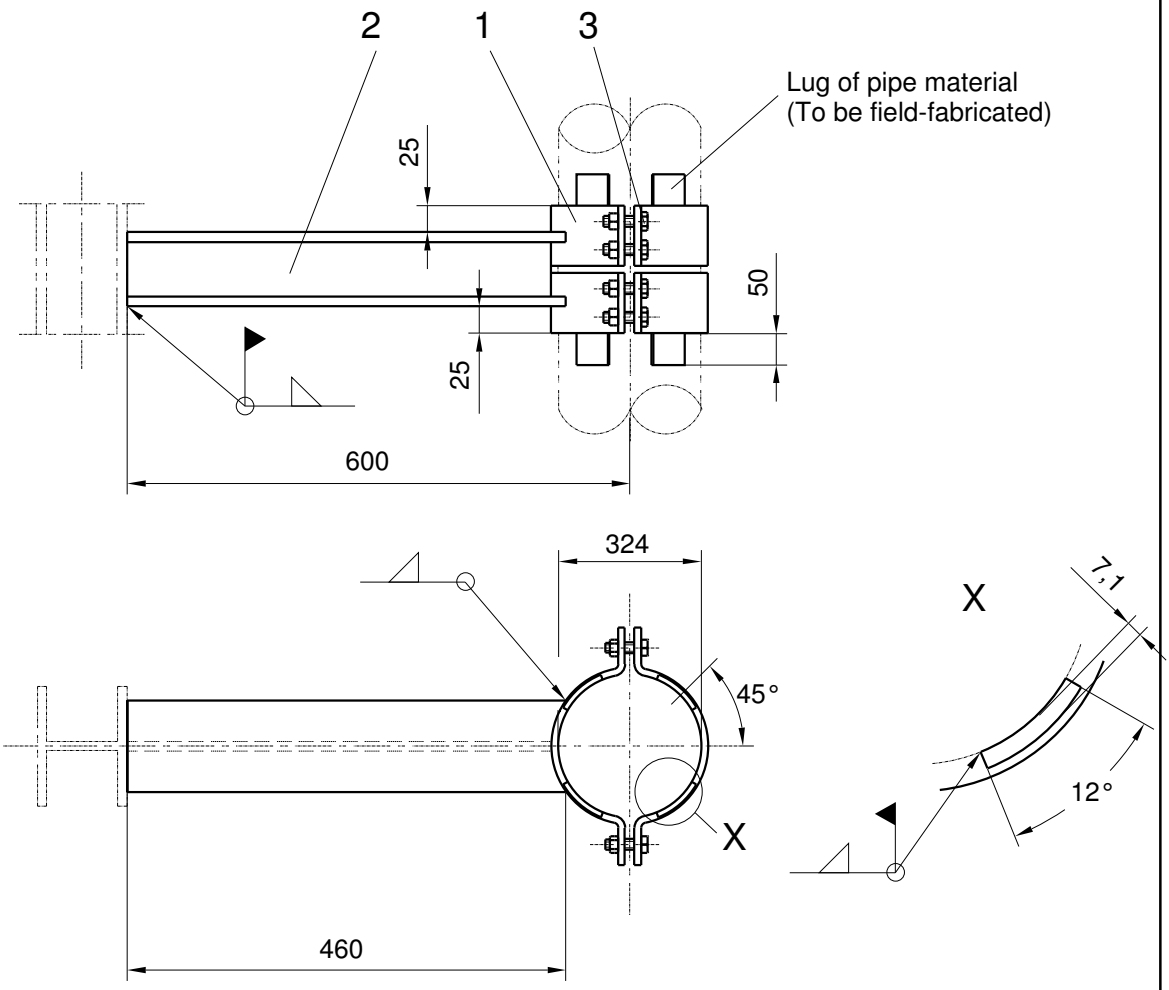
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC904D Marking : 300/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 200 x 460	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A, REINFORCED DS 324	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 48,900 kg

1) A193GR.B7/A194GR.2H

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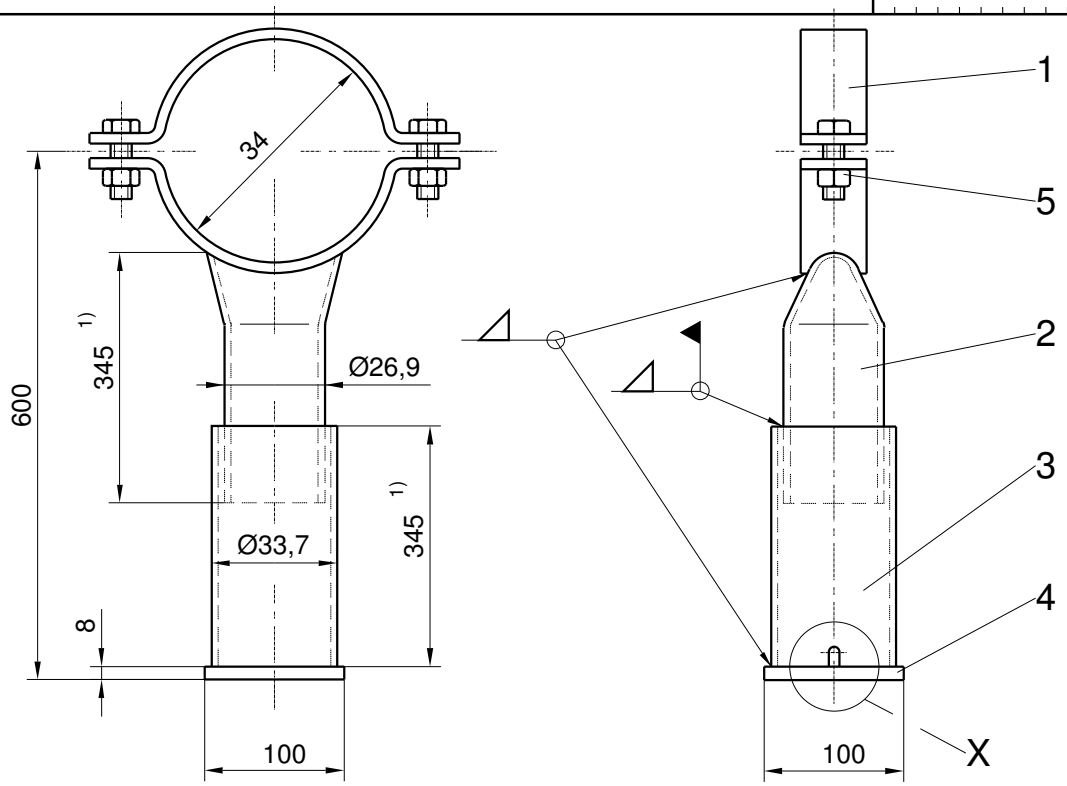
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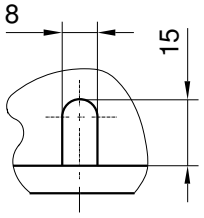
PIPE SUPPORT

Code No.: NAA001D Marking : 25/600

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 33,7 x 2,6 x 345	DIN 2448	1.0254	GR0011D
2	1	PIPE 26,9 x 2,3 x 345	DIN 2448	1.0254	GR0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,120 kg

1) A193GR.B7/A194GR.2H

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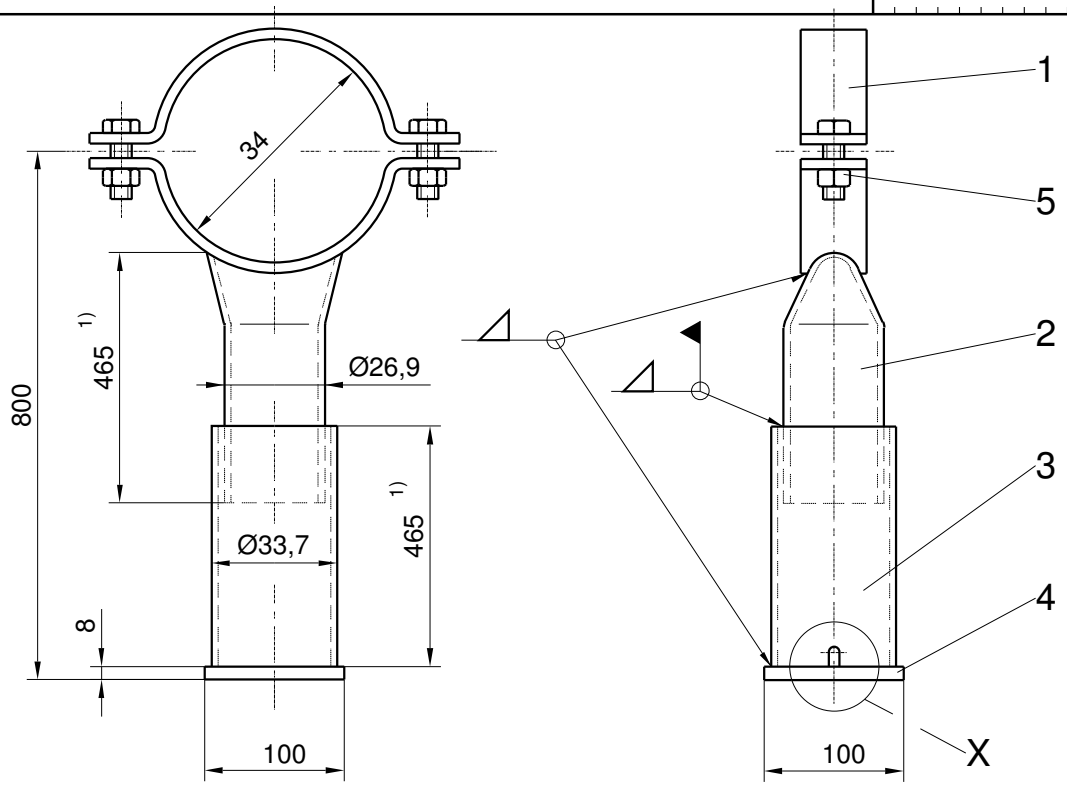
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		Manufacturer drawing	1	66-6695-700		

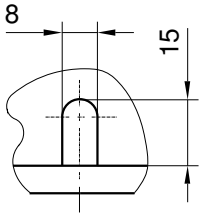
PIPE SUPPORT

Code No.: NAA001D Marking : 25/800

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 33,7 x 2,6 x 465	DIN 2448	1.0254	GR0011D
2	1	PIPE 26,9 x 2,3 x 465	DIN 2448	1.0254	GR0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,530 kg

1) A193GR.B7/A194GR.2H

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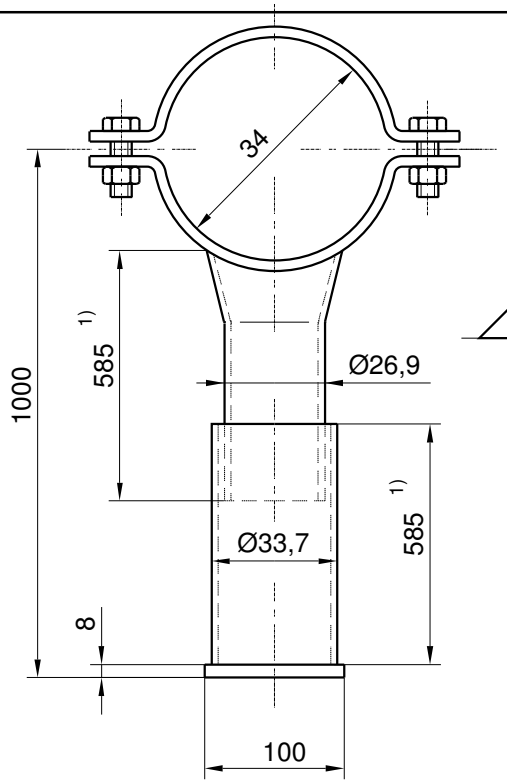
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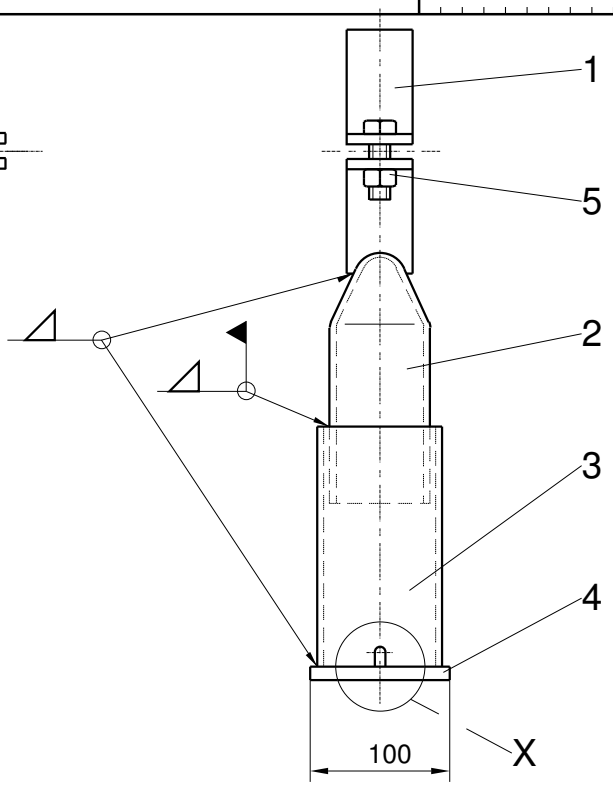
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PIPE SUPPORT

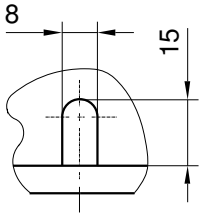
Code No.: NAA001D Marking : 25/1000

U Item





X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 33,7 x 2,6 x 585	DIN 2448	1.0254	GR0011D
2	1	PIPE 26,9 x 2,3 x 585	DIN 2448	1.0254	GR0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,940 kg

1) A193GR.B7/A194GR.2H

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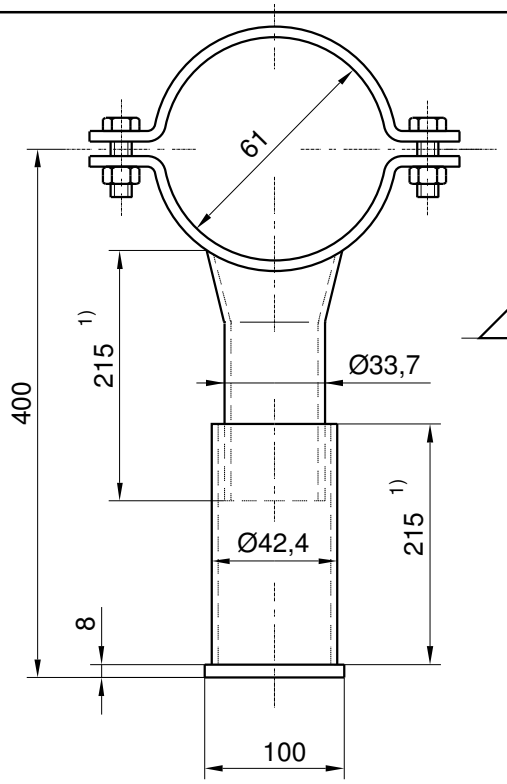
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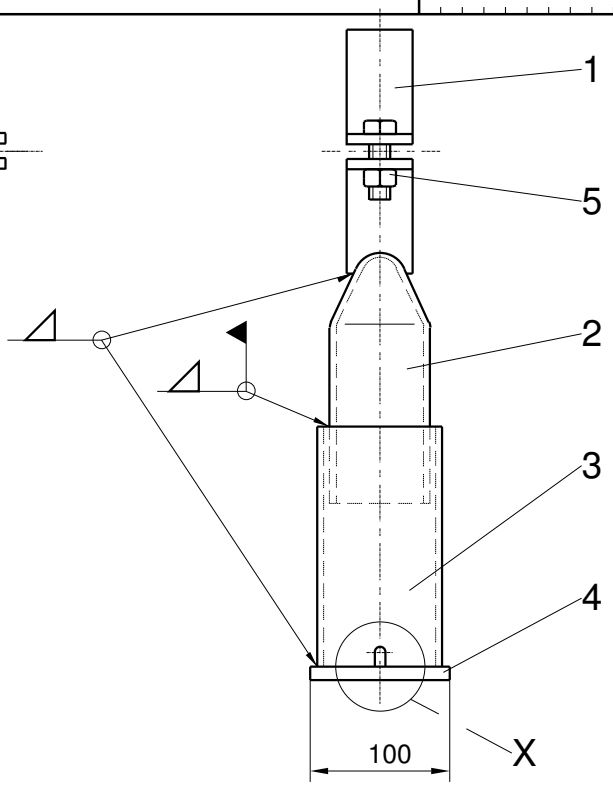
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PIPE SUPPORT

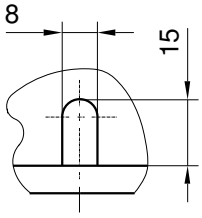
Code No.: NAA001D Marking : 50/400

U Item





X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 42,4 x 2,6 x 215	DIN 2448	1.0254	GR0011D
2	1	PIPE 33,7 x 2,6 x 215	DIN 2448	1.0254	GR0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,330 kg

1) A193GR.B7/A194GR.2H

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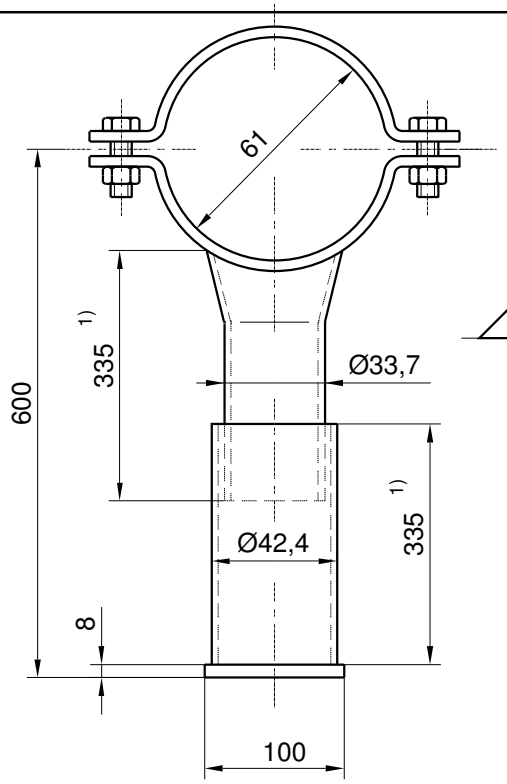
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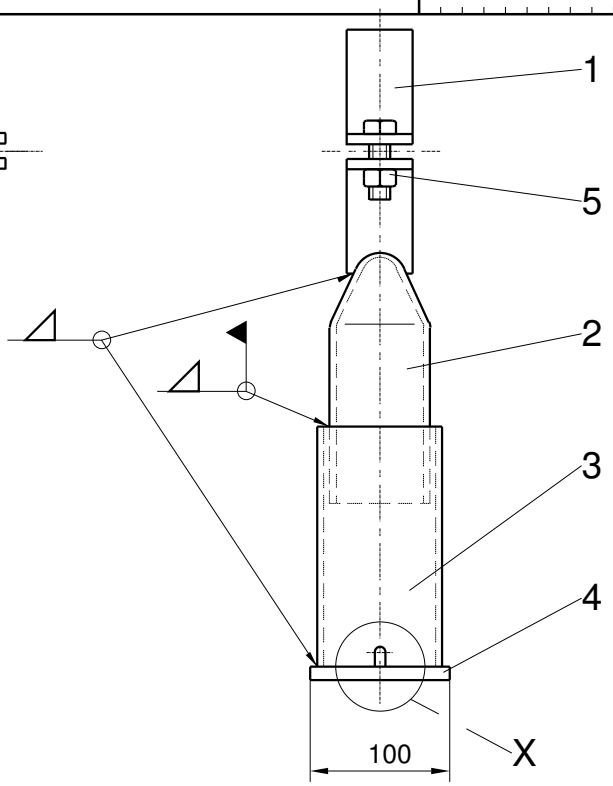
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PIPE SUPPORT

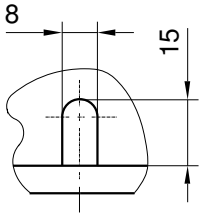
Code No.: NAA001D Marking : 50/600

U Item





X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 42,4 x 2,6 x 335	DIN 2448	1.0254	GR0011D
2	1	PIPE 33,7 x 2,6 x 335	DIN 2448	1.0254	GR0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,880 kg

1) A193GR.B7/A194GR.2H

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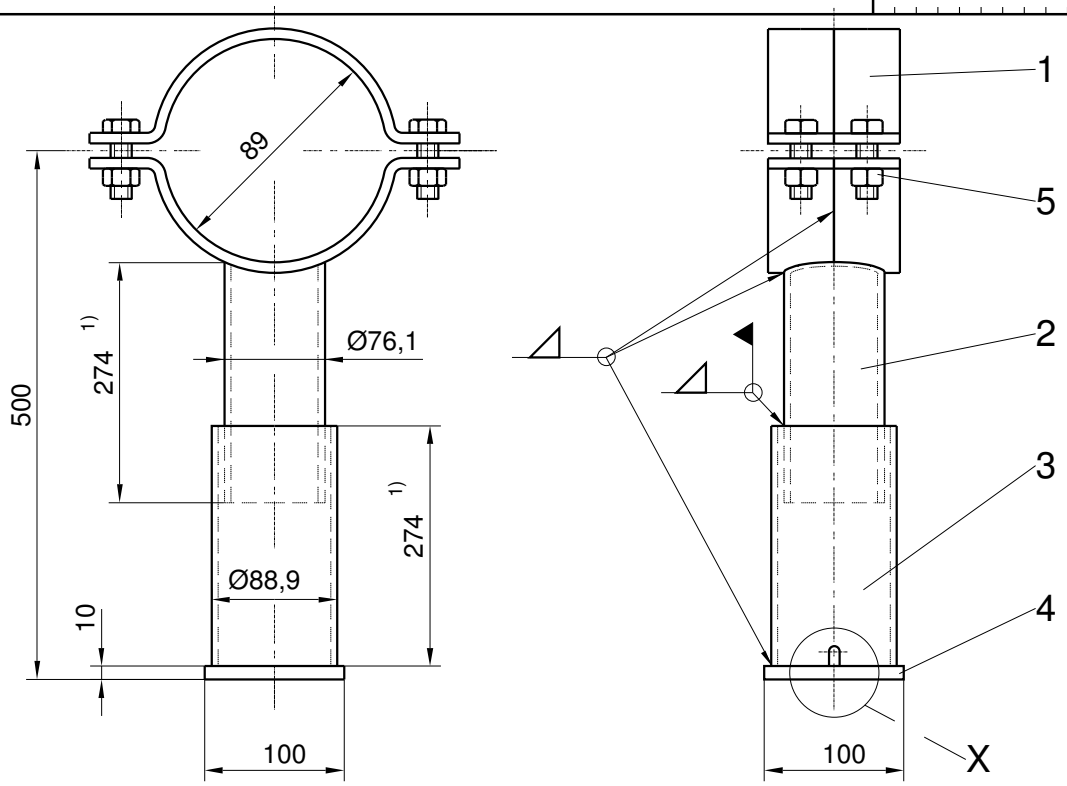
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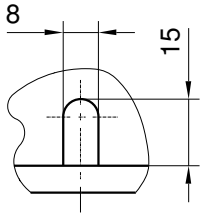
PIPE SUPPORT

Code No.: NAA002D Marking : 80/500

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 88,9 x 5 x 274	DIN 2448	1.0254	GR0011D
2	1	PIPE 76,1 x 5 x 274	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,800 kg

1) A193GR.B7/A194GR.2H

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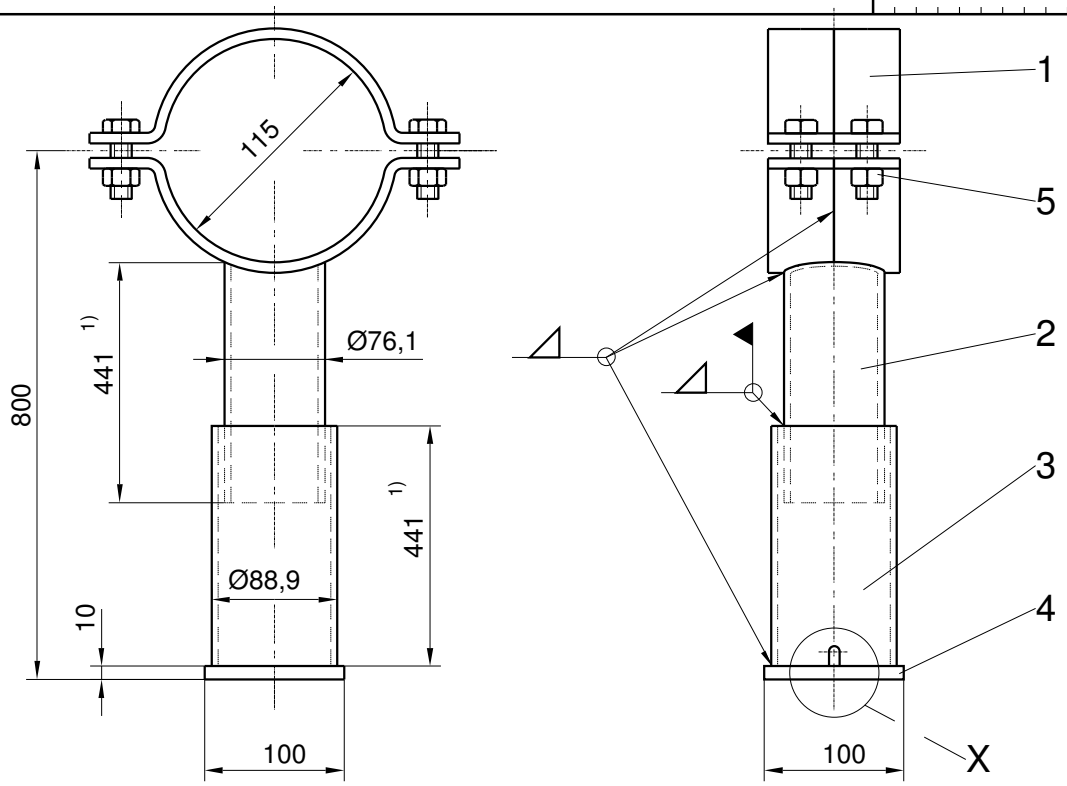
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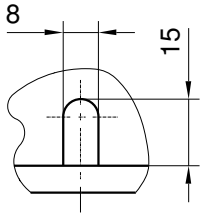
PIPE SUPPORT

Code No.: NAA002D Marking : 100/800

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 88,9 x 5 x 441	DIN 2448	1.0254	GR0011D
2	1	PIPE 76,1 x 5 x 441	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 13,120 kg

1) A193GR.B7/A194GR.2H

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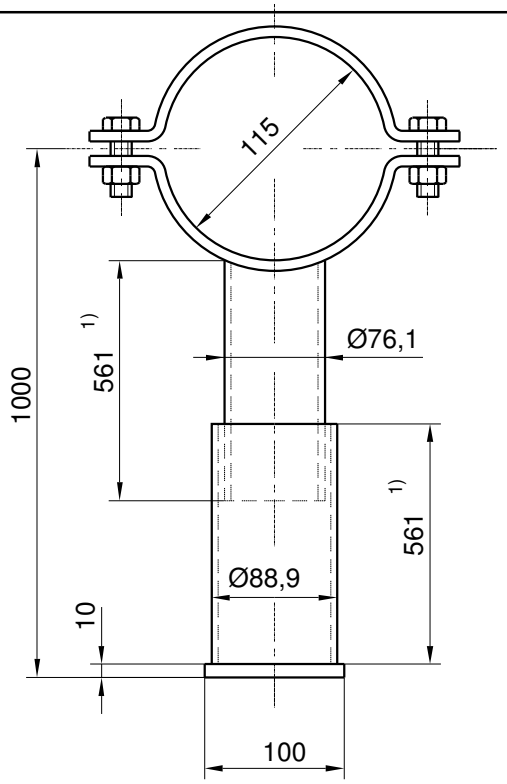
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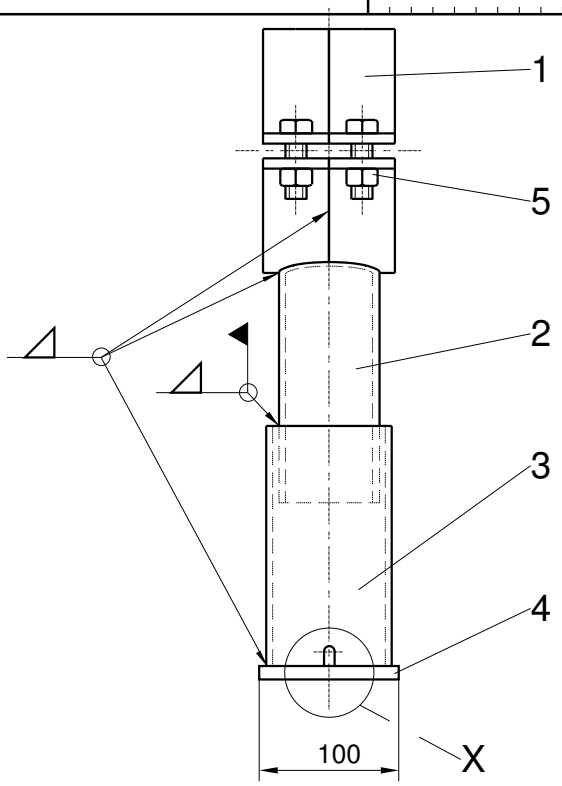
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PIPE SUPPORT

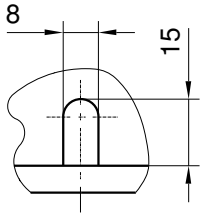
Code No.: NAA002D Marking : 100/1000

U Item





X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 88,9 x 5 x 561	DIN 2448	1.0254	GR0011D
2	1	PIPE 76,1 x 5 x 561	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,410 kg

1) A193GR.B7/A194GR.2H

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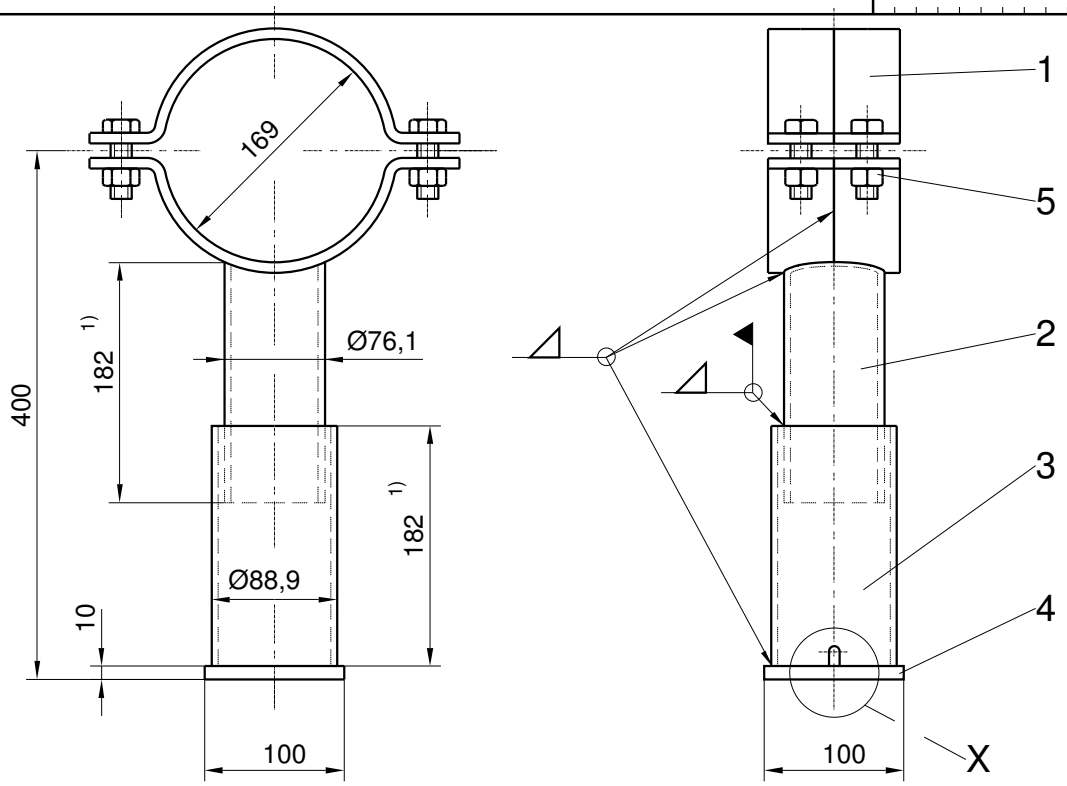
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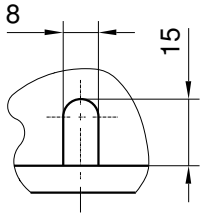
PIPE SUPPORT

Code No.: NAA002D Marking : 150/400

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 88,9 x 5 x 182	DIN 2448	1.0254	GR0011D
2	1	PIPE 76,1 x 5 x 182	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 9,260 kg

1) A193GR.B7/A194GR.2H

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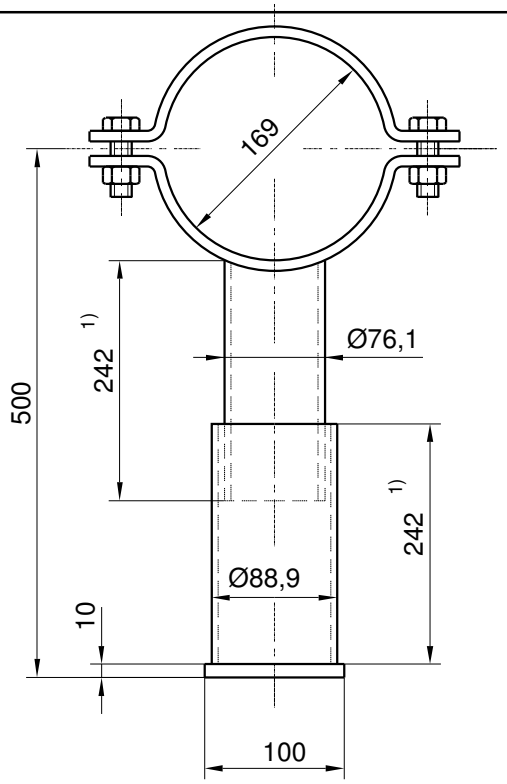
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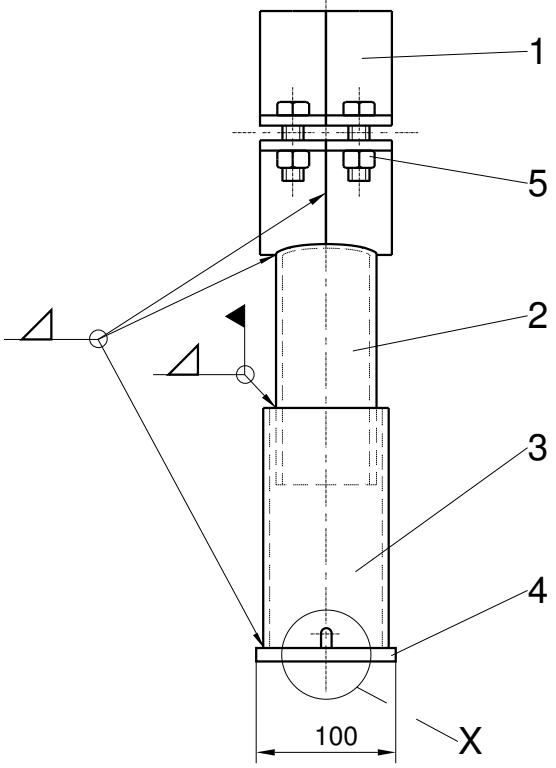
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

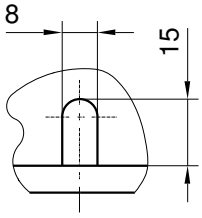
Code No.: NAA002D Marking : 150/500

U Item





X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 88,9 x 5 x 242	DIN 2448	1.0254	GR0011D
2	1	PIPE 76,1 x 5 x 242	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,410 kg

1) A193GR.B7/A194GR.2H

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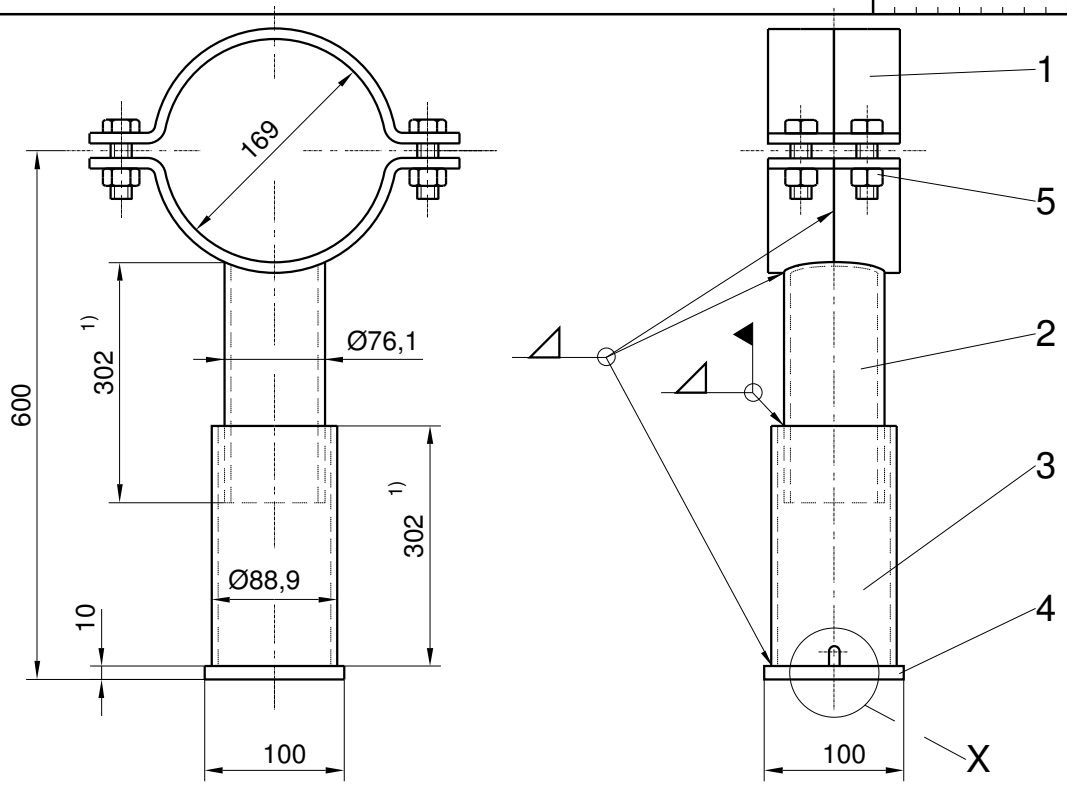
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

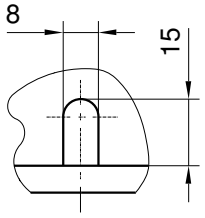
PIPE SUPPORT

Code No.: NAA002D Marking : 150/600

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 88,9 x 5 x 302	DIN 2448	1.0254	GR0011D
2	1	PIPE 76,1 x 5 x 302	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,550 kg

1) A193GR.B7/A194GR.2H

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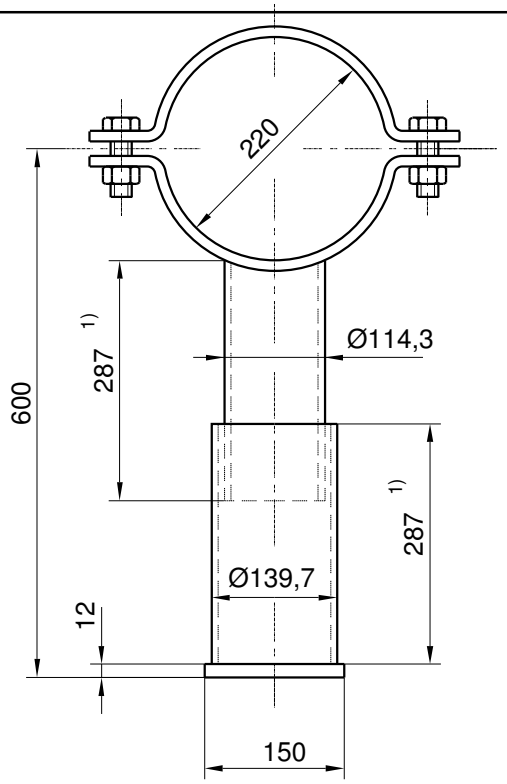
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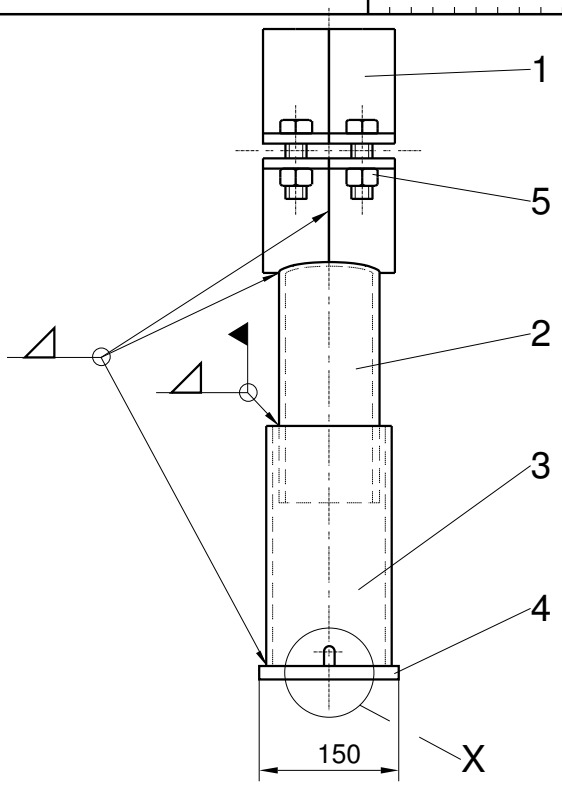
tkIS		Code	Page	UAN	V	L S
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PIPE SUPPORT

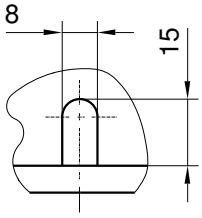
Code No.: NAA003D Marking : 200/600

U Item





X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
3	1	PIPE 139,7 x 10 x 287	DIN 2448	1.0254	GR0011D
2	1	PIPE 114,3 x 6,3 x 287	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 220	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 28,360 kg

1) A193GR.B7/A194GR.2H

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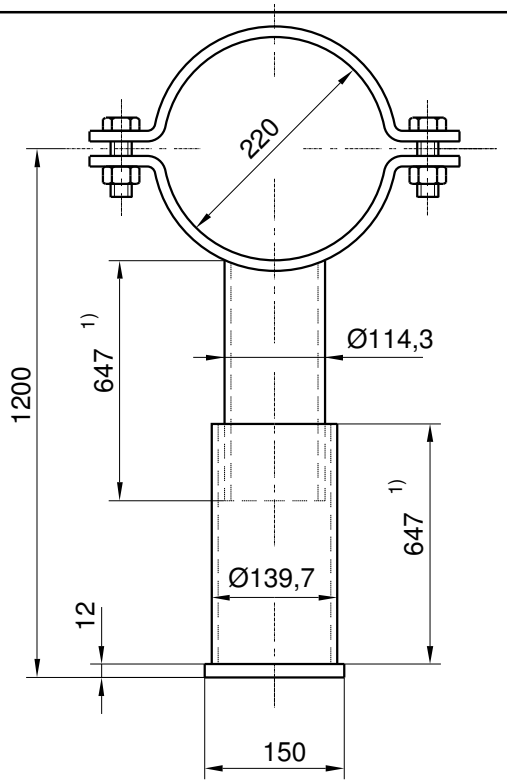
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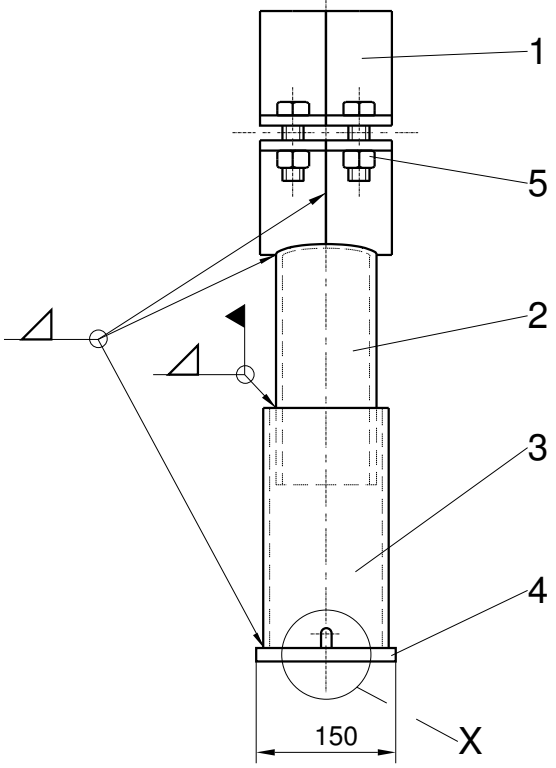
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PIPE SUPPORT

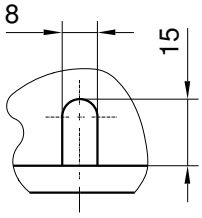
Code No.: NAA003D Marking : 200/1200

U Item





X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
3	1	PIPE 139,7 x 10 x 647	DIN 2448	1.0254	GR0011D
2	1	PIPE 114,3 x 6,3 x 647	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 220	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 45,920 kg

1) A193GR.B7/A194GR.2H

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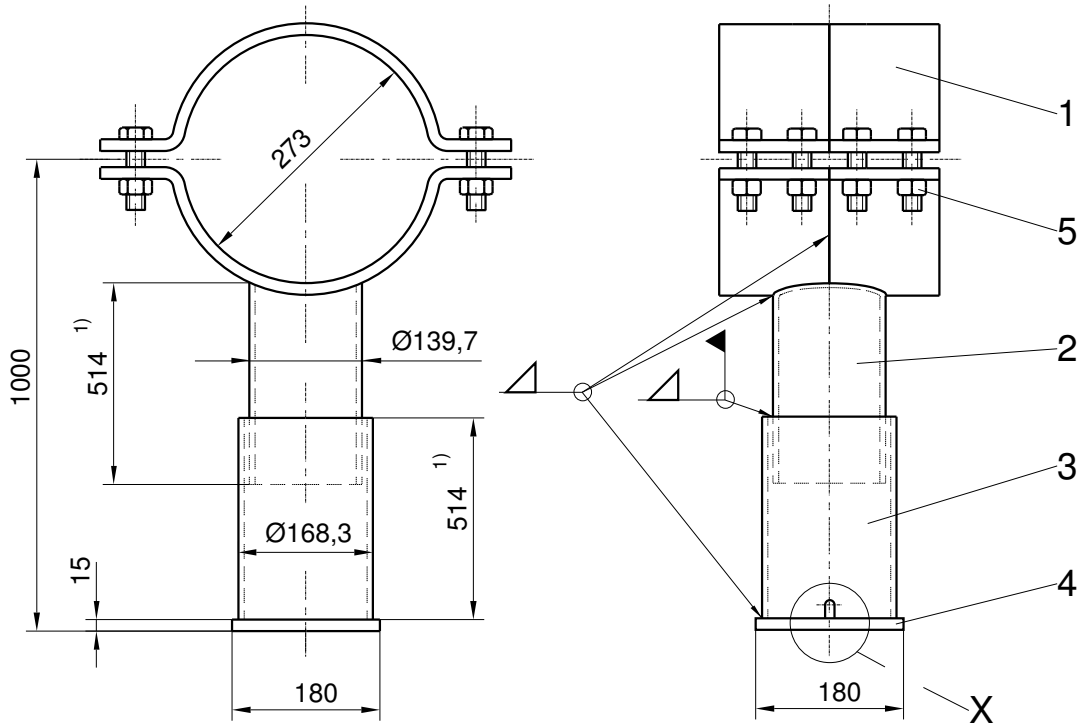
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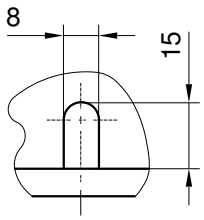
PIPE SUPPORT

Code No.: NAA004D Marking : 250/1000

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
3	1	PIPE 168,3 x 11 x 514	DIN 2448	1.0254	GR0011D
2	1	PIPE 139,7 x 7,1 x 514	DIN 2448	1.0254	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 273	UN 3790-02	1.0038	MS0101D

Remarks: Total weight = 55,170 kg

1) A193GR.B7/A194GR.2H

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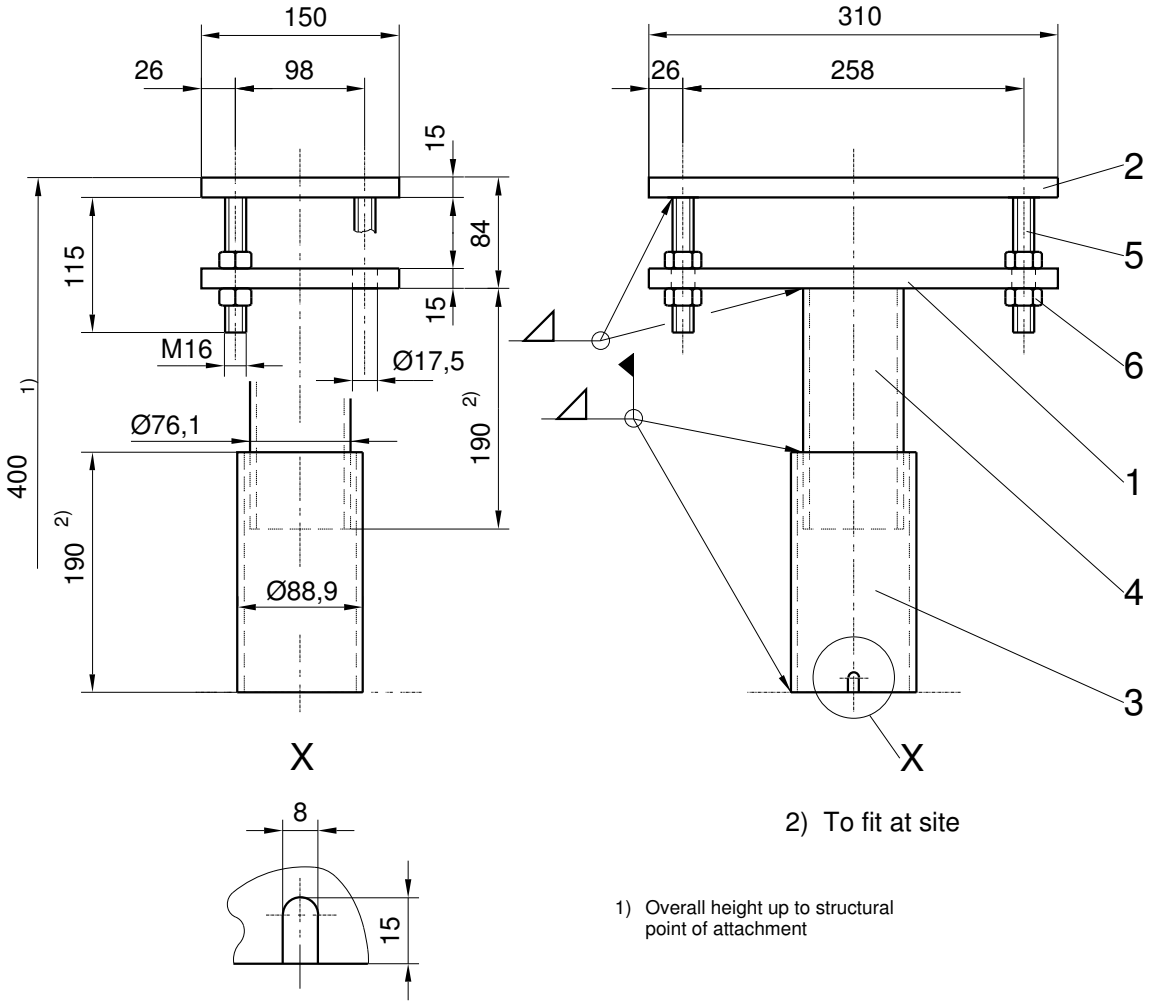
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NCX002D Marking : 150/400

U Item



2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	4	THREADED ROD M 16 x 115	DIN 975	4.6	MB0201D
4	1	PIPE 76,1 x 5 x 190	DIN 2448	1.0254	GR0001D
3	1	PIPE 88,9 x 5 x 190	DIN 2448	1.0254	GR0011D
2	1	PLATE 15 x 310 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 15 x 310 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 15,450 kg

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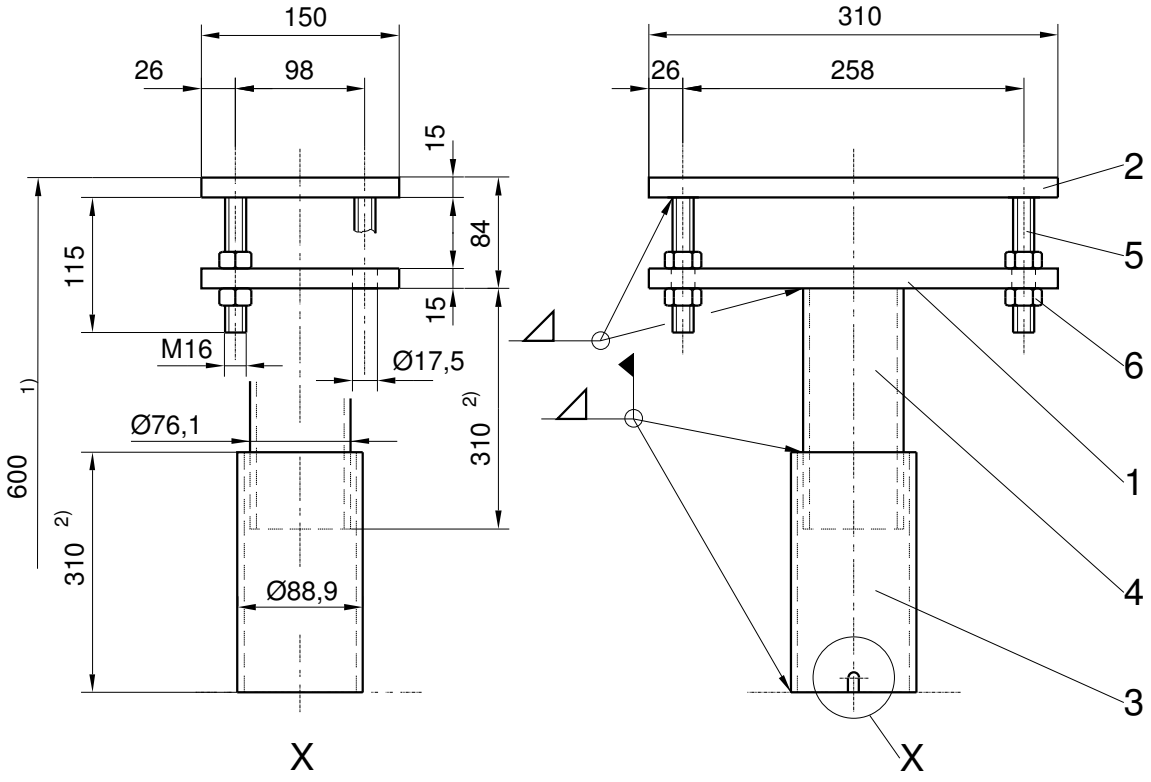
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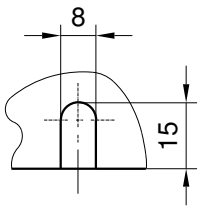
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NCX002D Marking : 150/600

U Item





2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	4	THREADED ROD M 16 x 115	DIN 975	4.6	MB0201D
4	1	PIPE 76,1 x 5 x 310	DIN 2448	1.0254	GR0001D
3	1	PIPE 88,9 x 5 x 310	DIN 2448	1.0254	GR0011D
2	1	PLATE 15 x 310 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 15 x 310 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 17,740 kg

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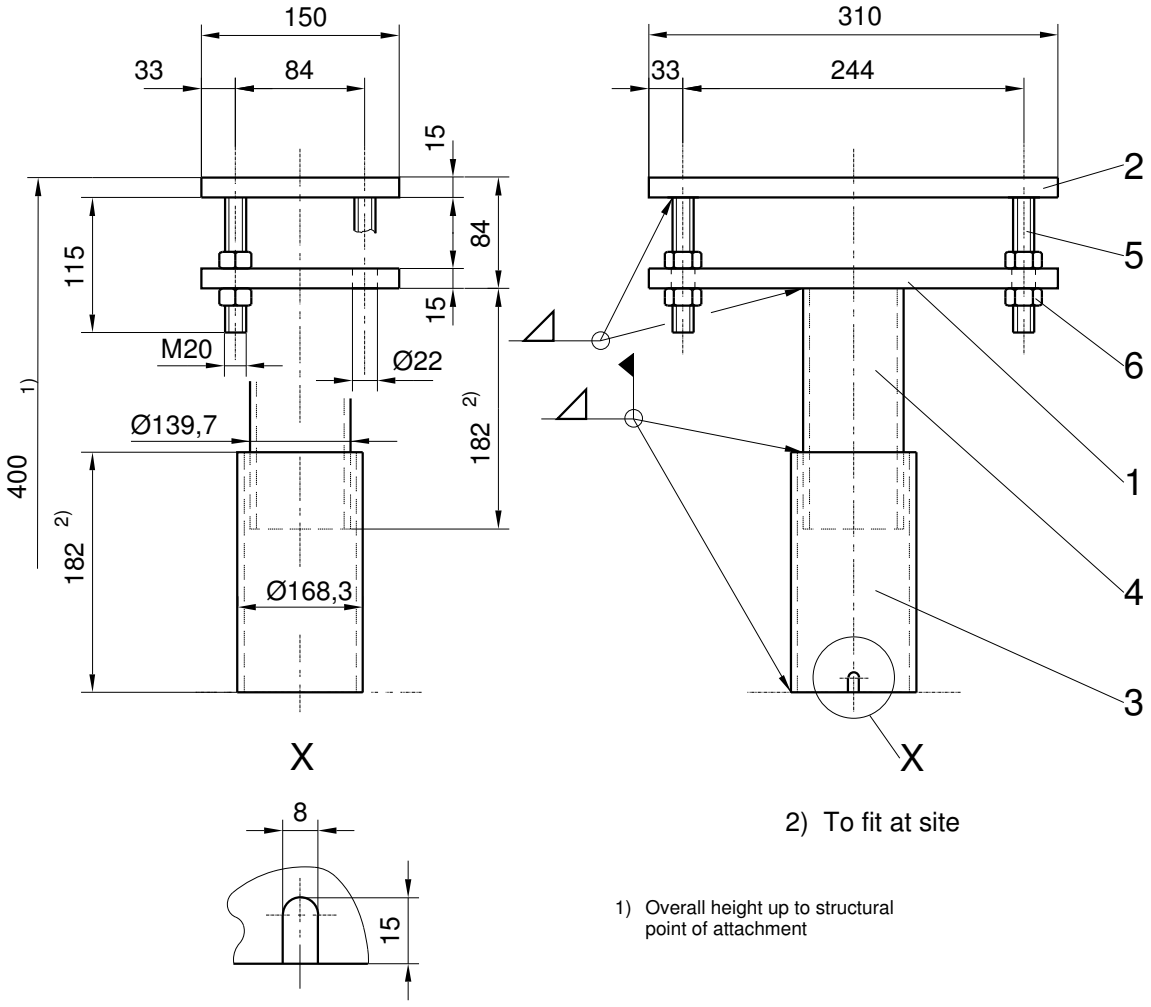
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NCX002D Marking : 250/400

U Item



2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 20	DIN 555	5	MM0001D
5	4	THREADED ROD M 20 x 115	DIN 975	4.6	MB0201D
4	1	PIPE 139,7 x 7,1 x 182	DIN 2448	1.0254	GR0001D
3	1	PIPE 168,3 x 11 x 182	DIN 2448	1.0254	GR0011D
2	1	PLATE 15 x 310 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 15 x 310 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 24,390 kg

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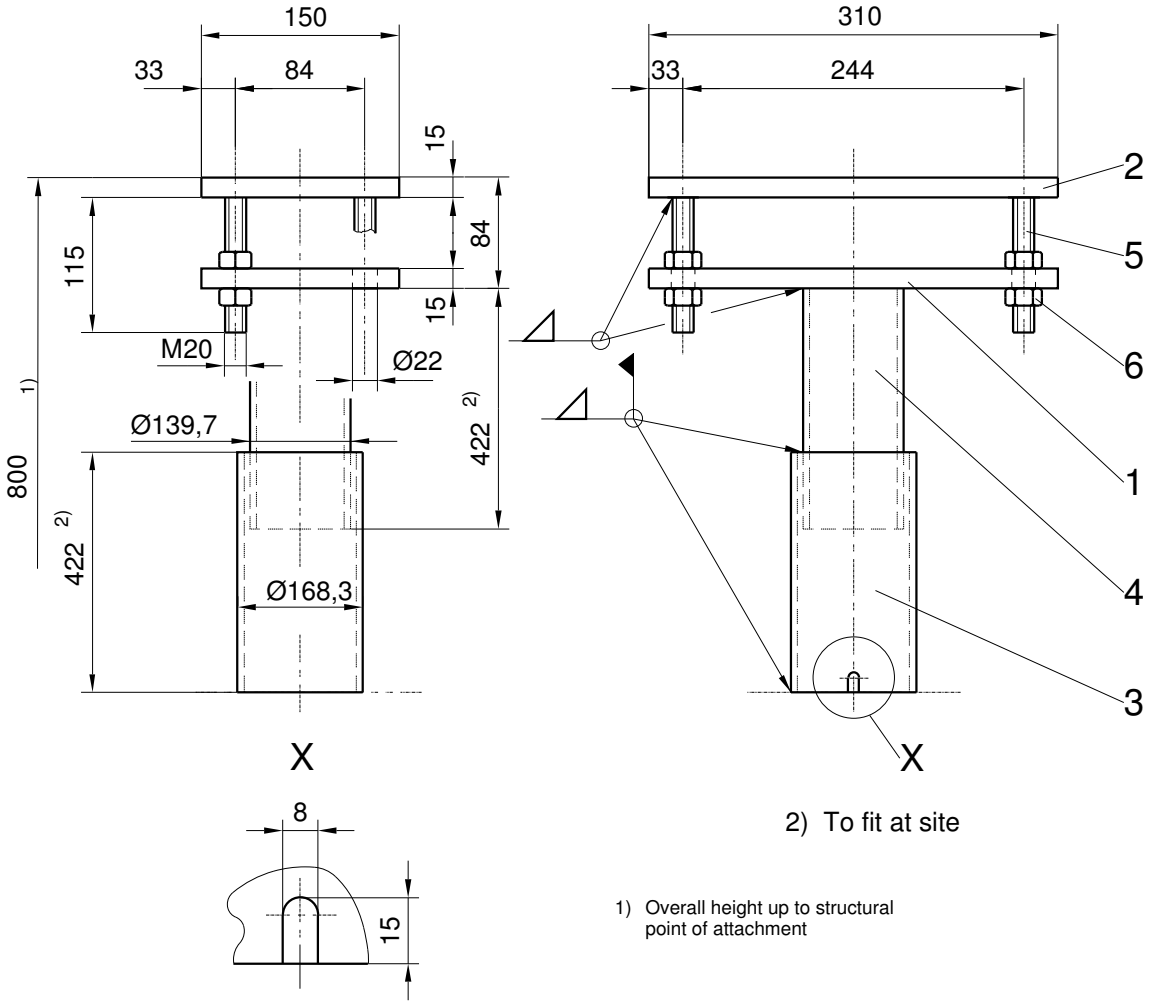
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NCX002D Marking : 250/800

U Item



2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 20	DIN 555	5	MM0001D
5	4	THREADED ROD M 20 x 115	DIN 975	4.6	MB0201D
4	1	PIPE 139,7 x 7,1 x 422	DIN 2448	1.0254	GR0001D
3	1	PIPE 168,3 x 11 x 422	DIN 2448	1.0254	GR0011D
2	1	PLATE 15 x 310 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 15 x 310 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 40,210 kg

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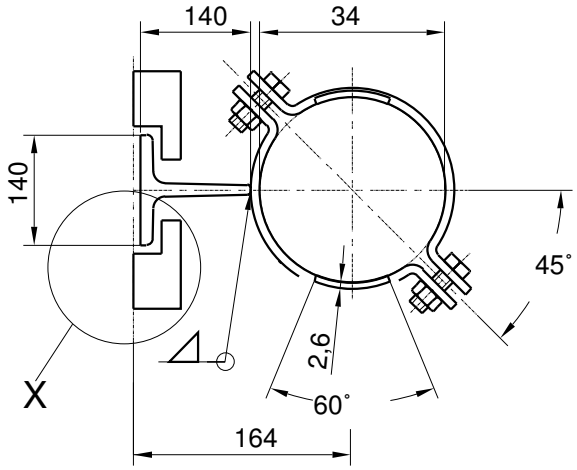
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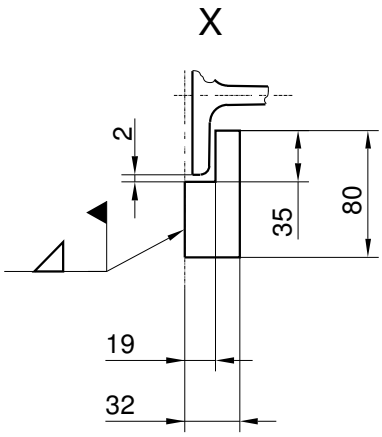
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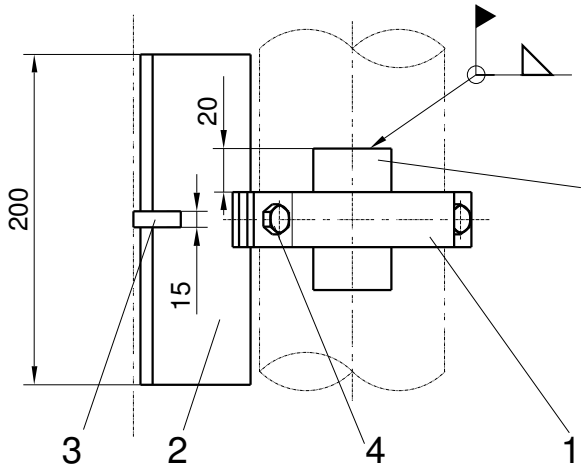
Code No.: NMB001D Marking : 25/3

U Item



PLAN





Lug of pipe material
(To be field-fabricated)

ELEVATION

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 32 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 200	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,160 kg

1) A193GR.B7/A194GR.2H

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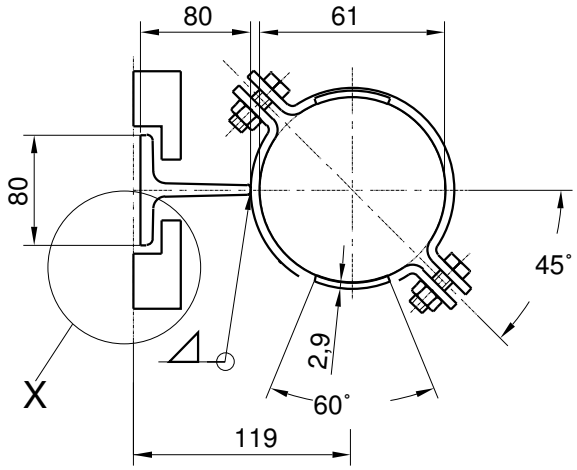
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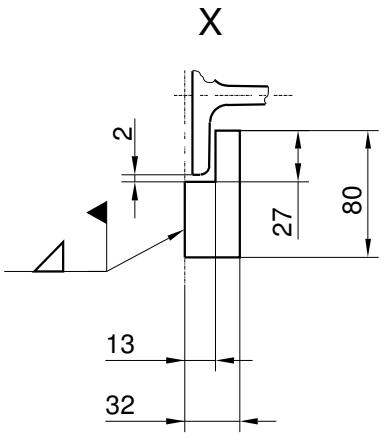
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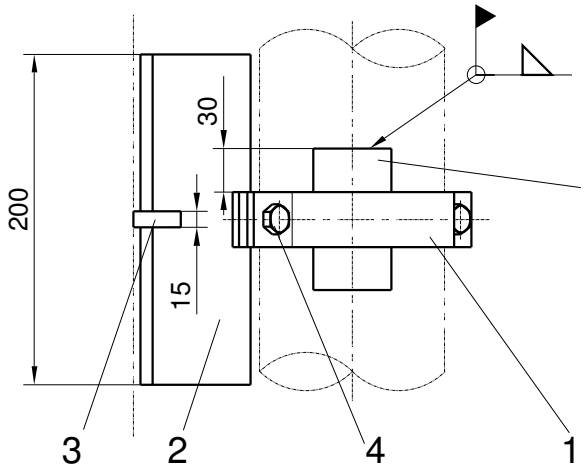
PIPE SUPPORT

Code No.: NMB001D Marking : 50/1



PLAN





Lug of pipe material
(To be field-fabricated)

ELEVATION

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 32 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,450 kg

1) A193GR.B7/A194GR.2H

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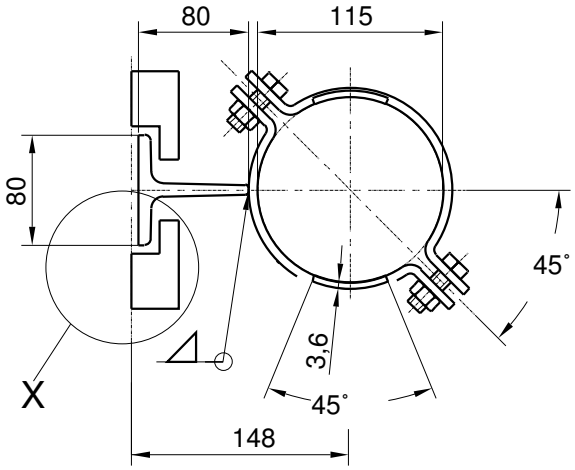
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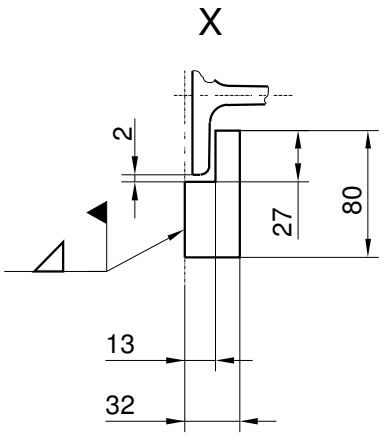
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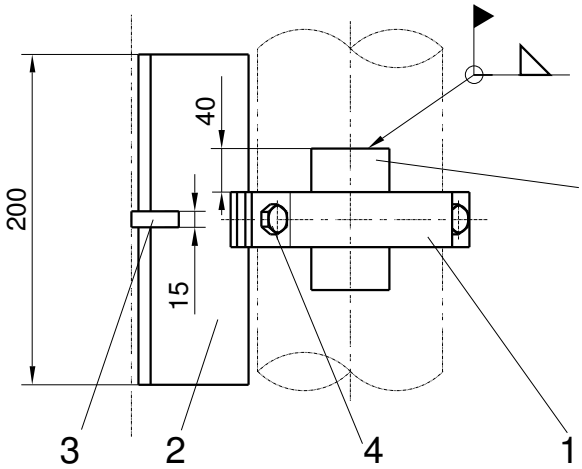
PIPE SUPPORT

Code No.: NMB001D Marking : 100/1



PLAN





Lug of pipe material
(To be field-fabricated)

ELEVATION

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 32 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,670 kg

1) A193GR.B7/A194GR.2H

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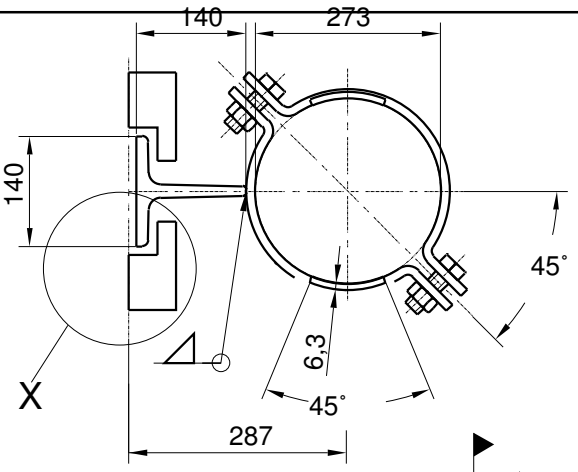
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tkIS		Code	Page	UAN	V	L S
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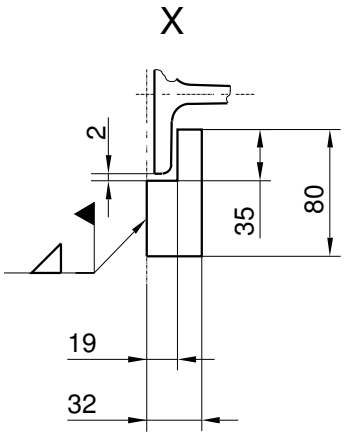
PIPE SUPPORT

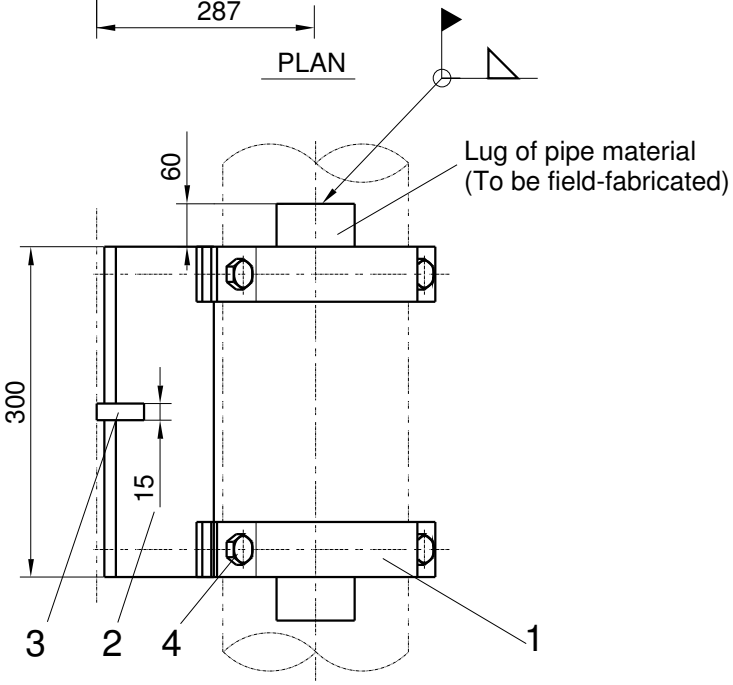
Code No.: NMB002D Marking : 250/3

U Item



PLAN





ELEVATION

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 32 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,030 kg

1) A193GR.B7/A194GR.2H

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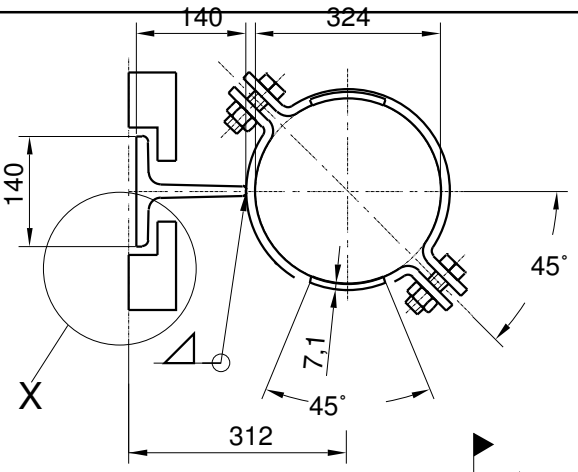
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tkIS		Code	Page	UAN	V	L S
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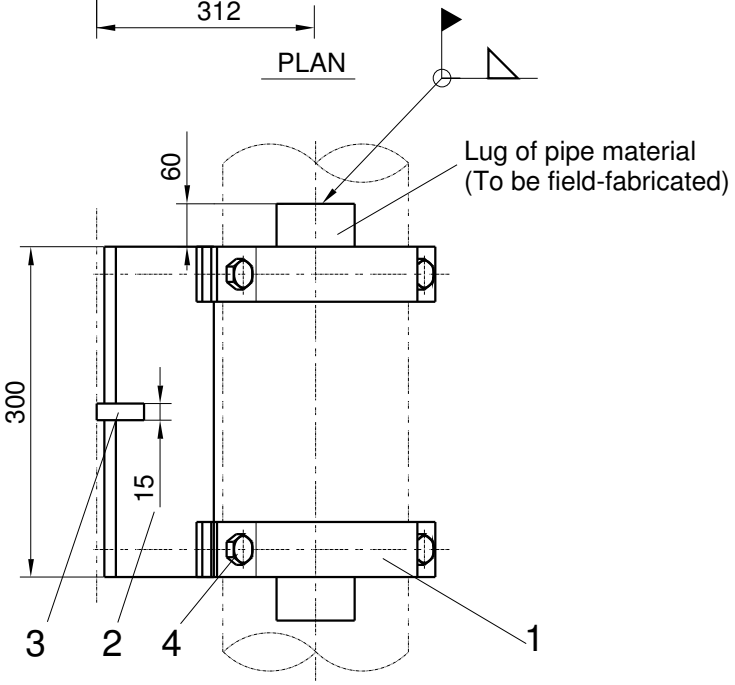
PIPE SUPPORT

Code No.: NMB002D Marking : 300/3

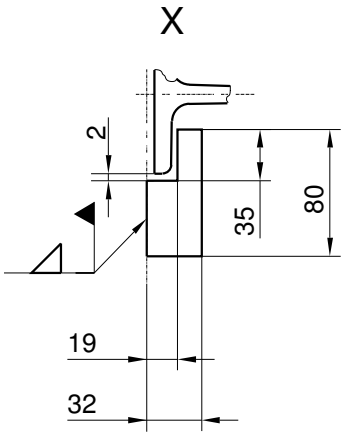
U Item



PLAN



ELEVATION



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 32 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,230 kg

1) A193GR.B7/A194GR.2H

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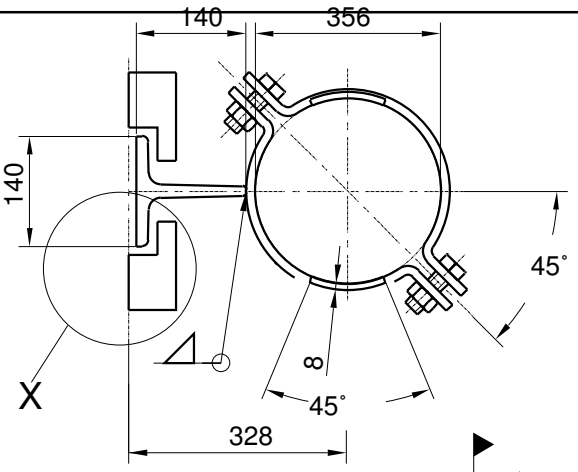
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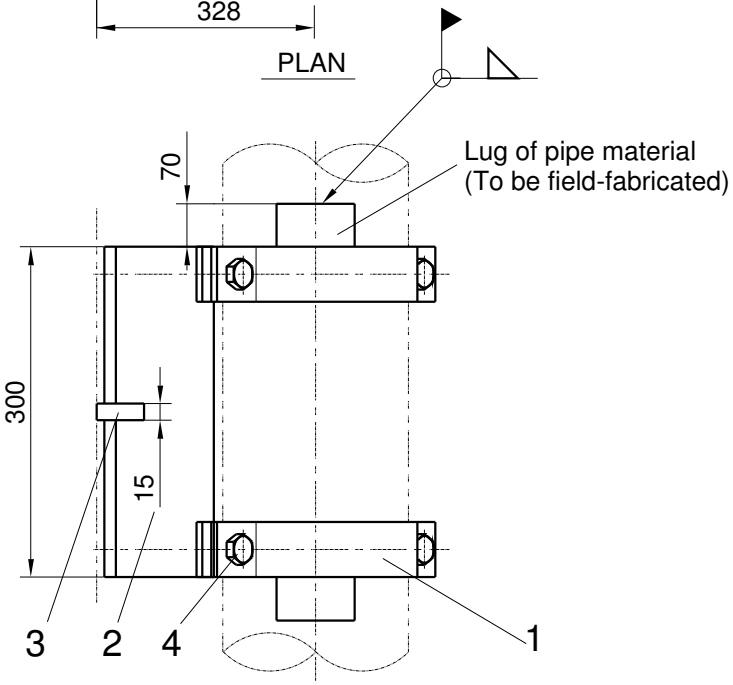
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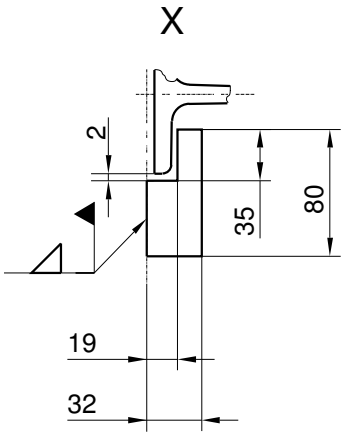
U Item



PLAN



ELEVATION



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 32 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 356	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,990 kg

1) A193GR.B7/A194GR.2H

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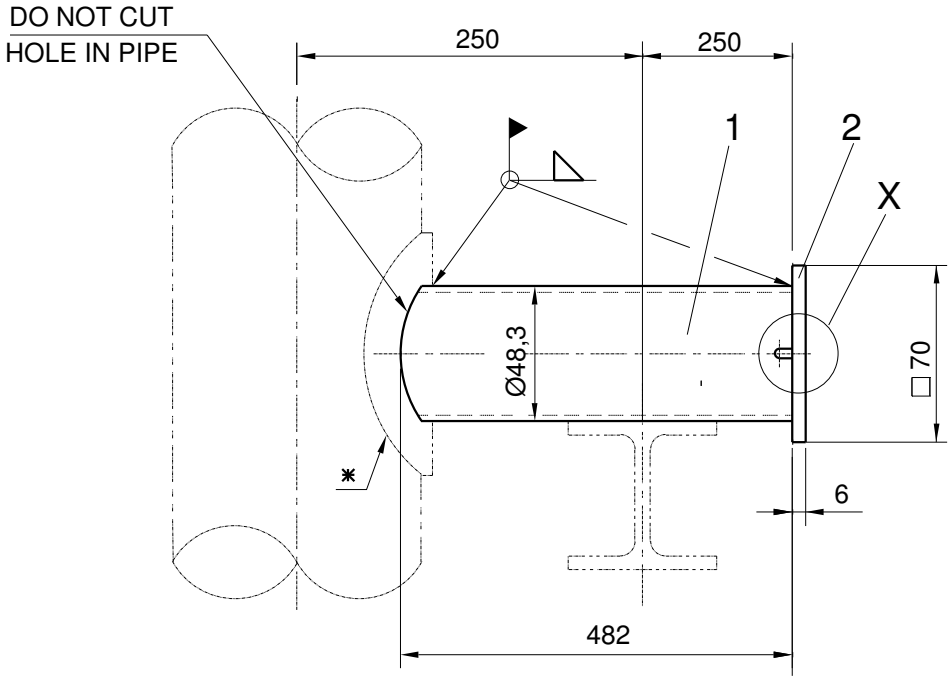
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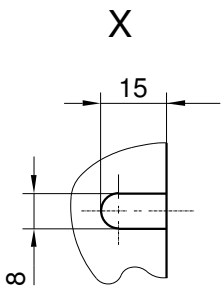
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 50/250

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 70 x 70	EN 10029	A283GR.B	GB0001D
1	1	PIPE 48,3 x 4 x 482	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,340 kg

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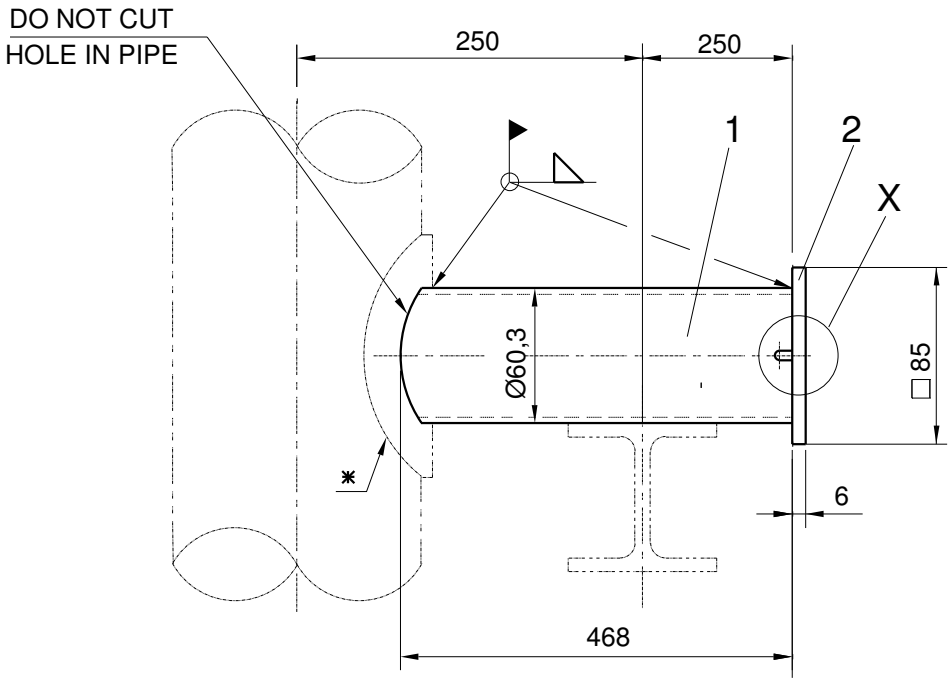
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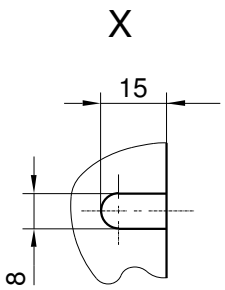
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 80/250

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 468	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,940 kg

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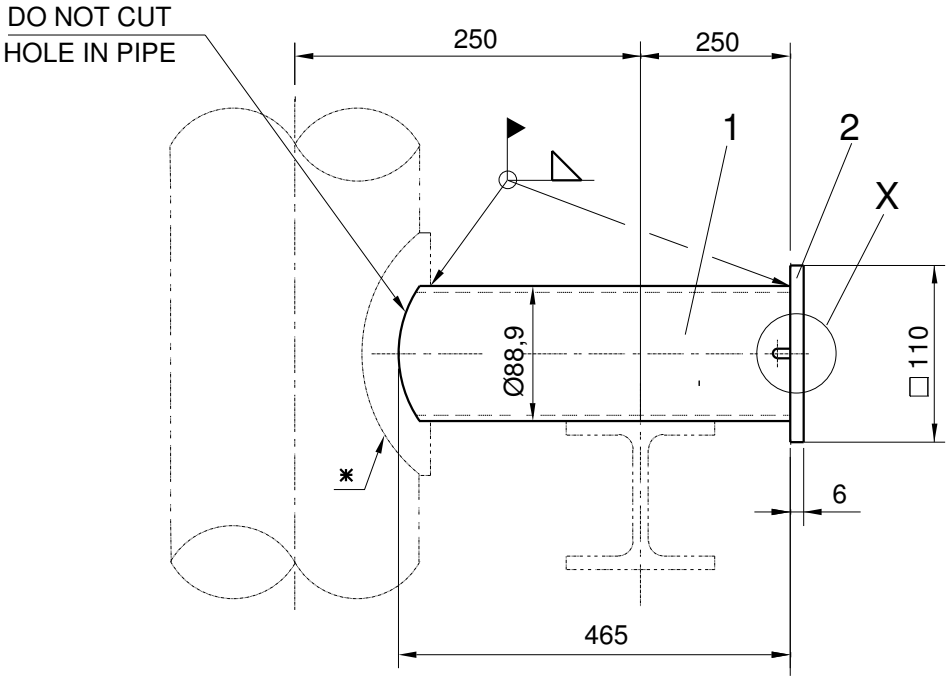
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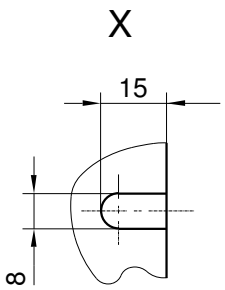
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 100/250

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 465	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 5,360 kg

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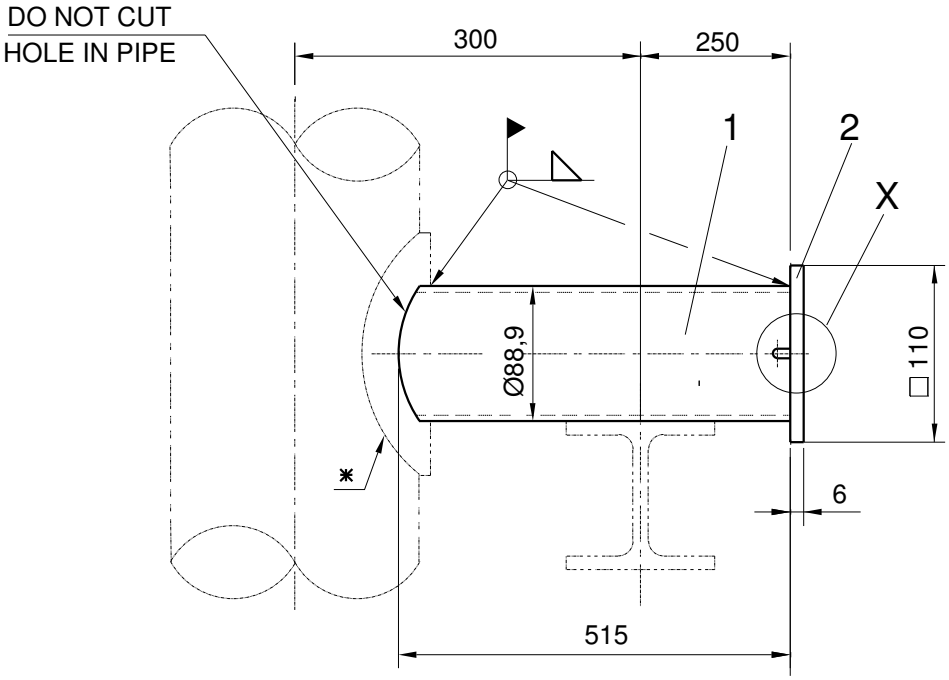
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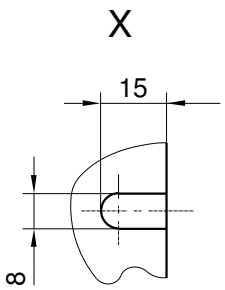
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 100/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 515	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 5,870 kg

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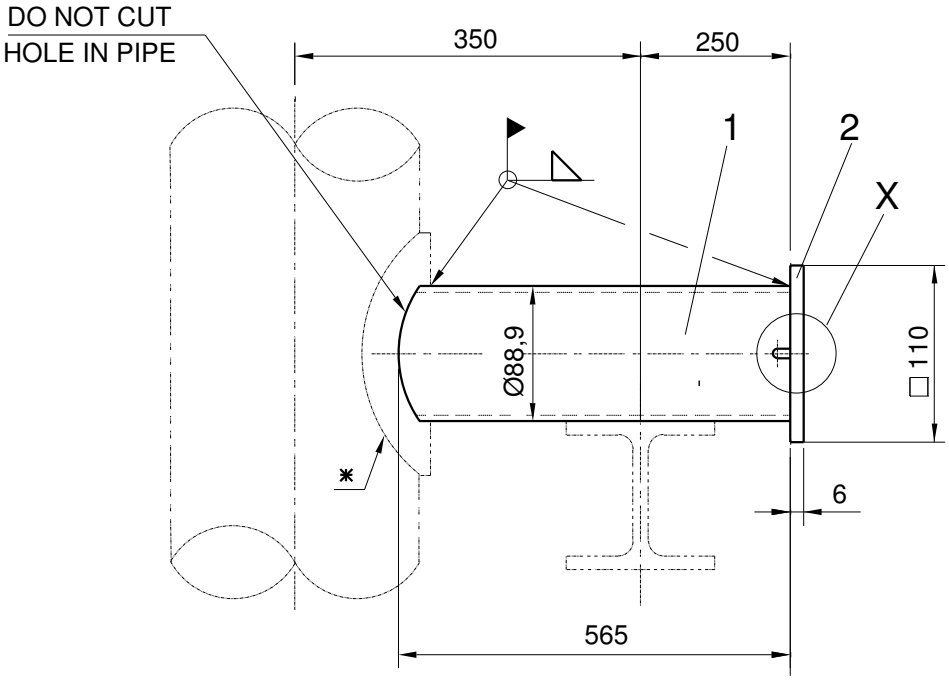
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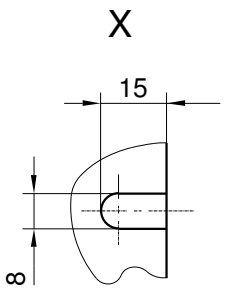
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 100/350

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 565	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 6,390 kg

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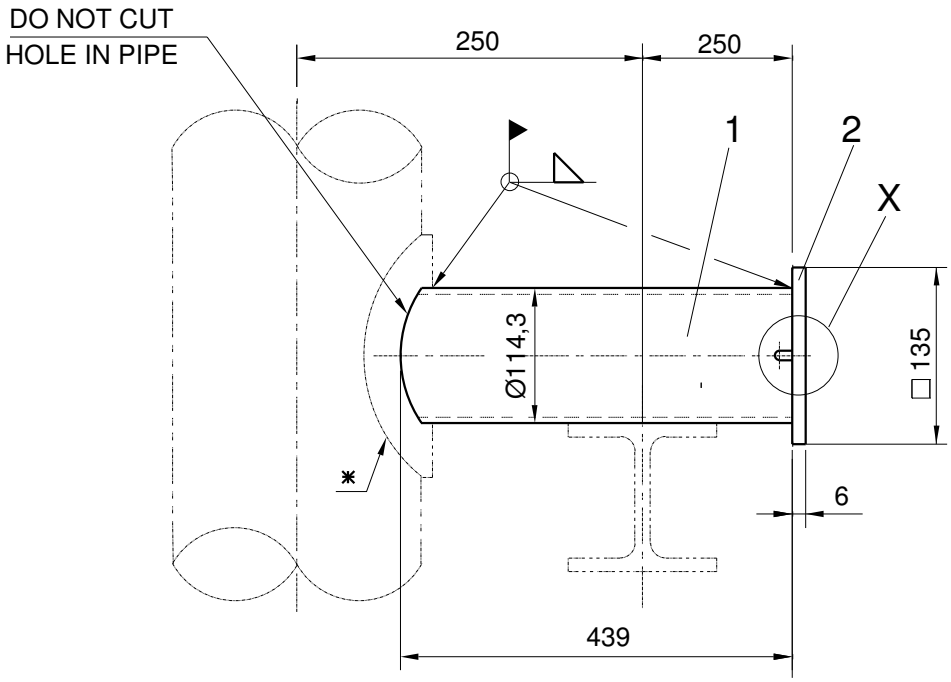
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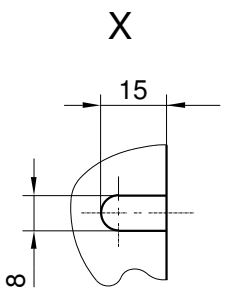
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 150/250

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 439	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 8,230 kg

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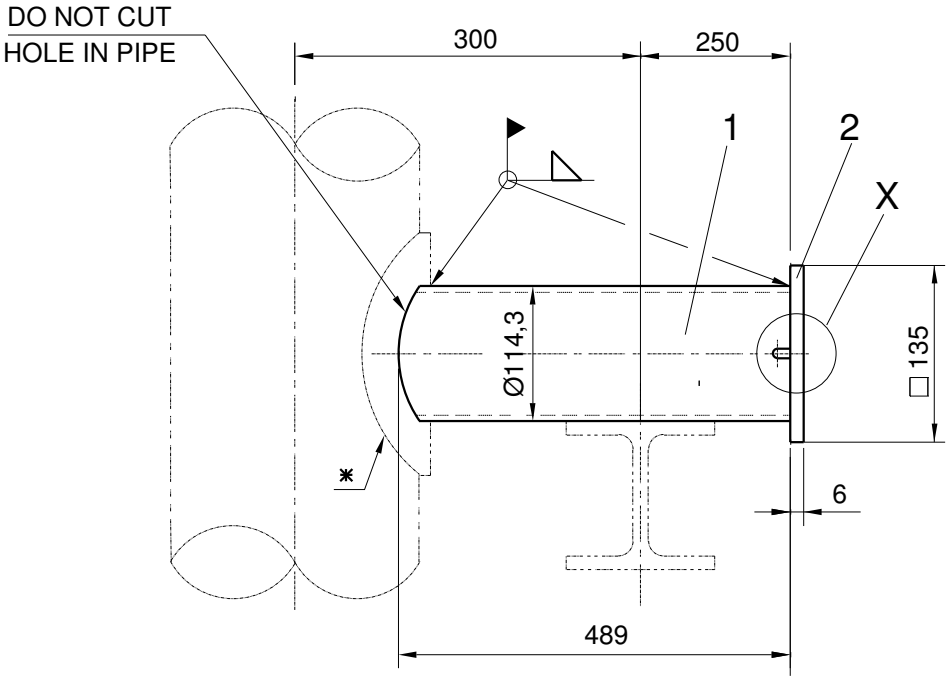
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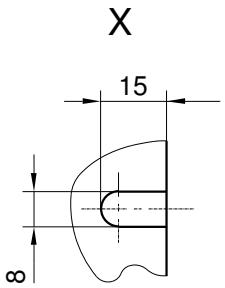
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 150/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 489	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 9,070 kg

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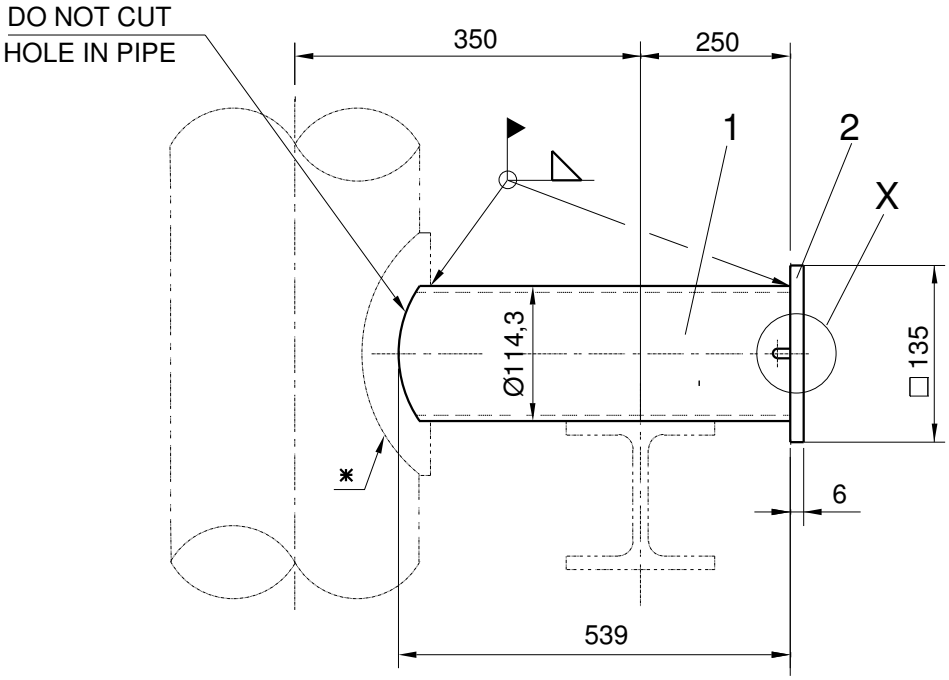
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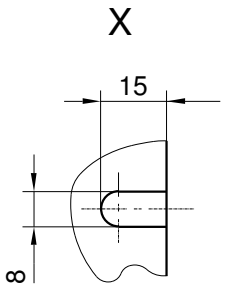
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 150/350

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 539	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 9,910 kg

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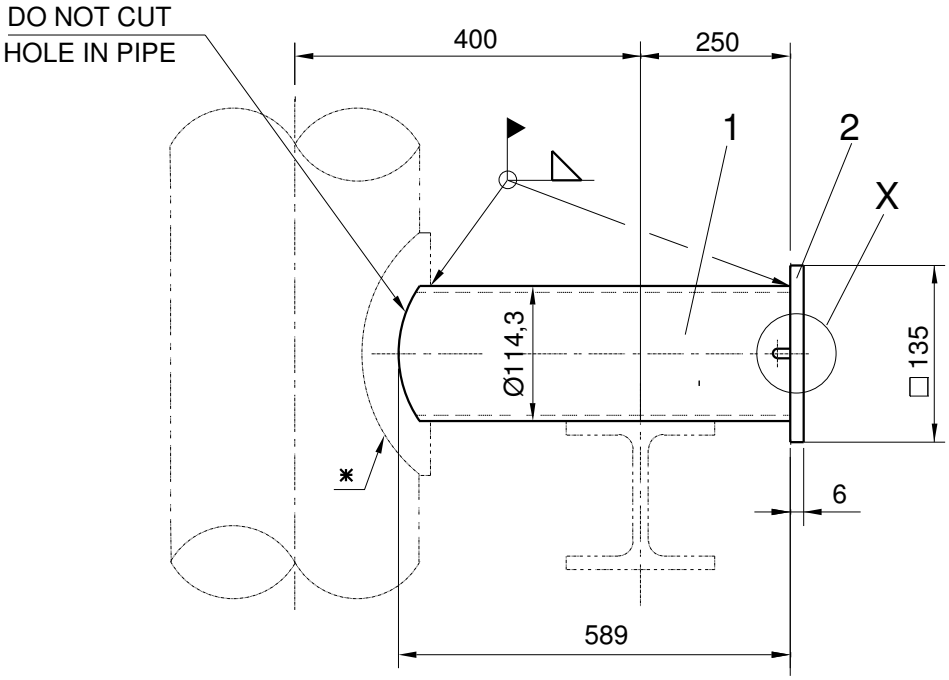
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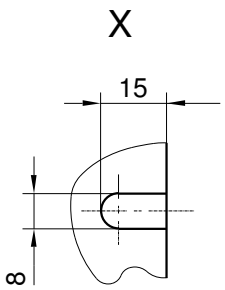
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 150/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 589	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 10,750 kg

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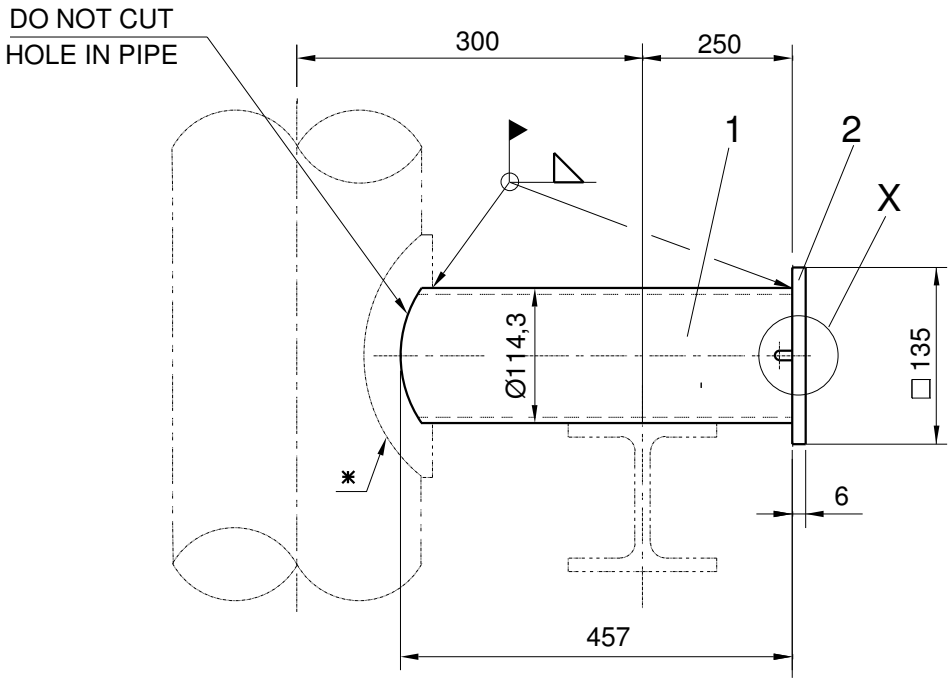
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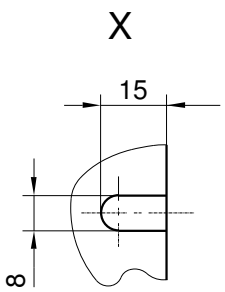
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 200/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 457	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 8,540 kg

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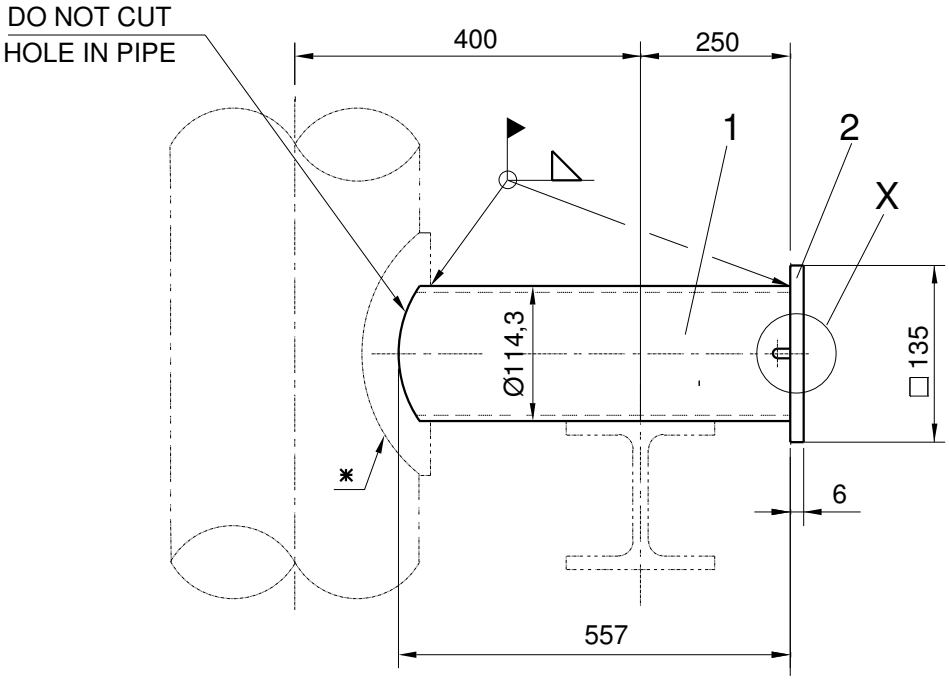
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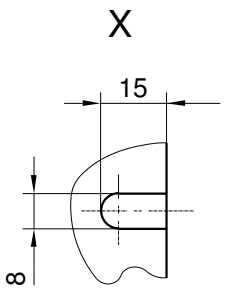
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 200/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 557	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 10,220 kg

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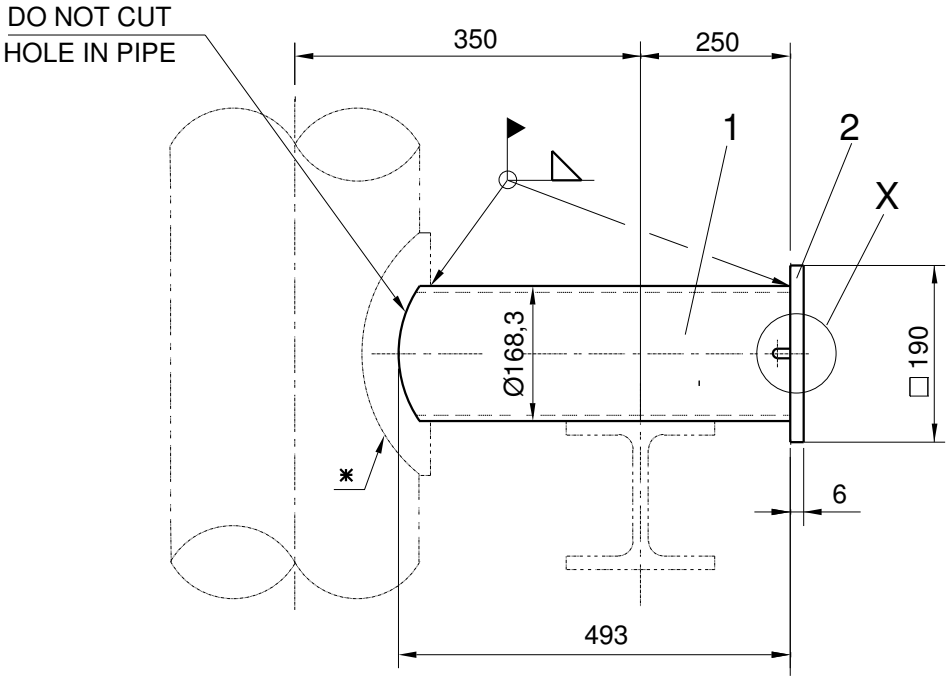
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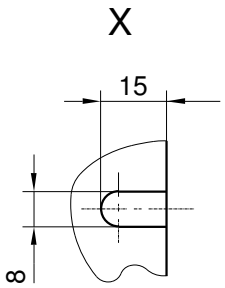
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 250/350

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 493	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 22,750 kg

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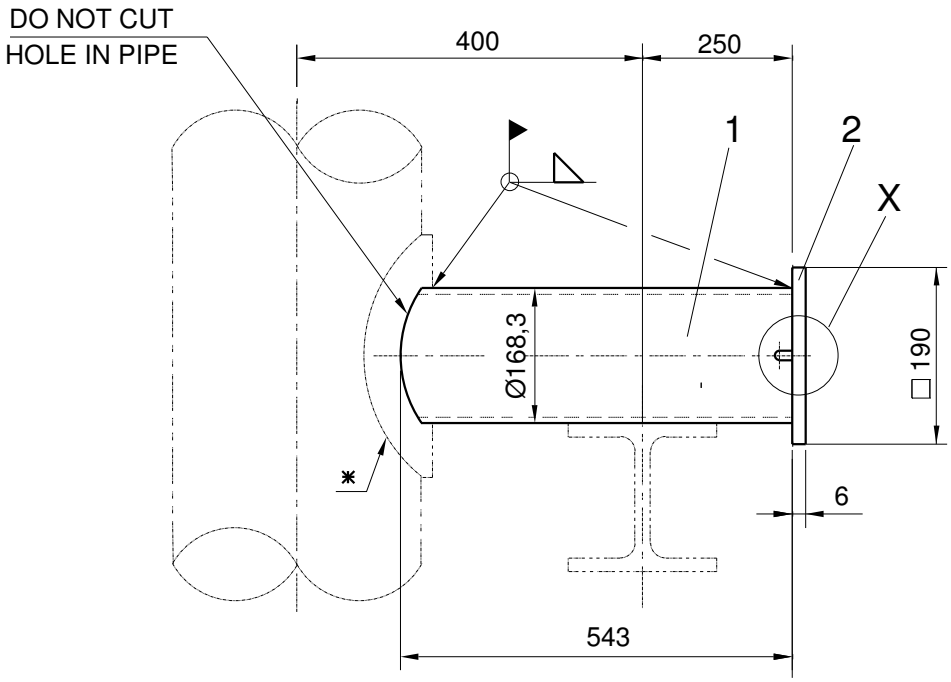
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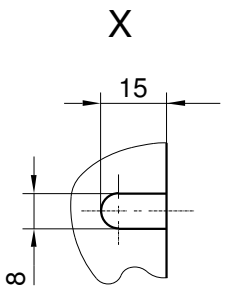
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 250/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 543	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 24,890 kg

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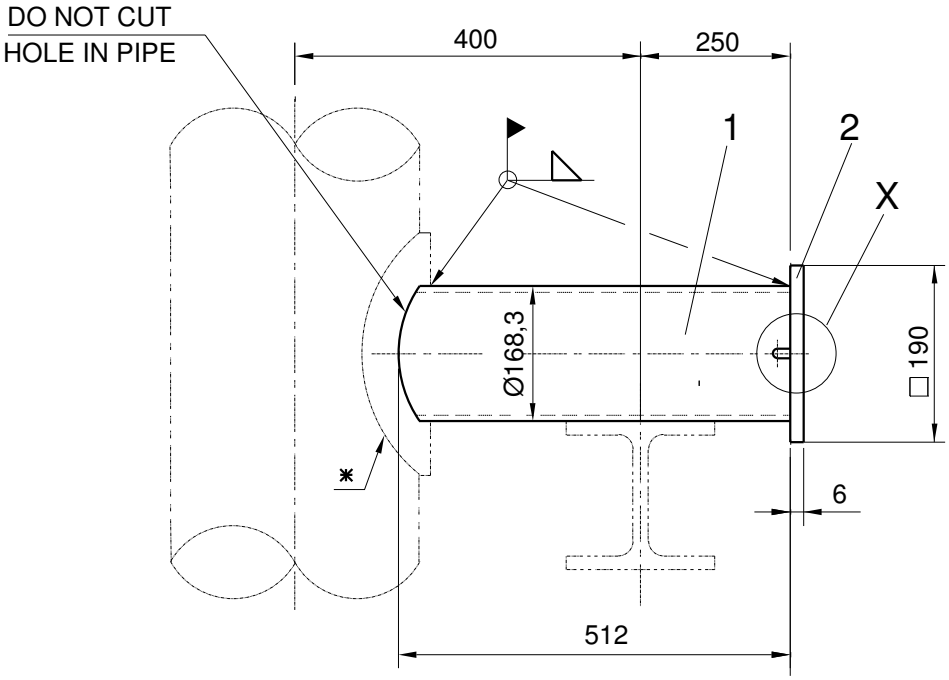
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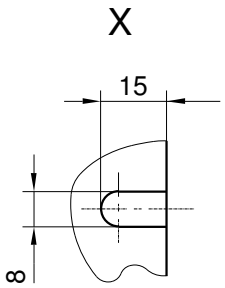
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 300/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 512	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 23,560 kg

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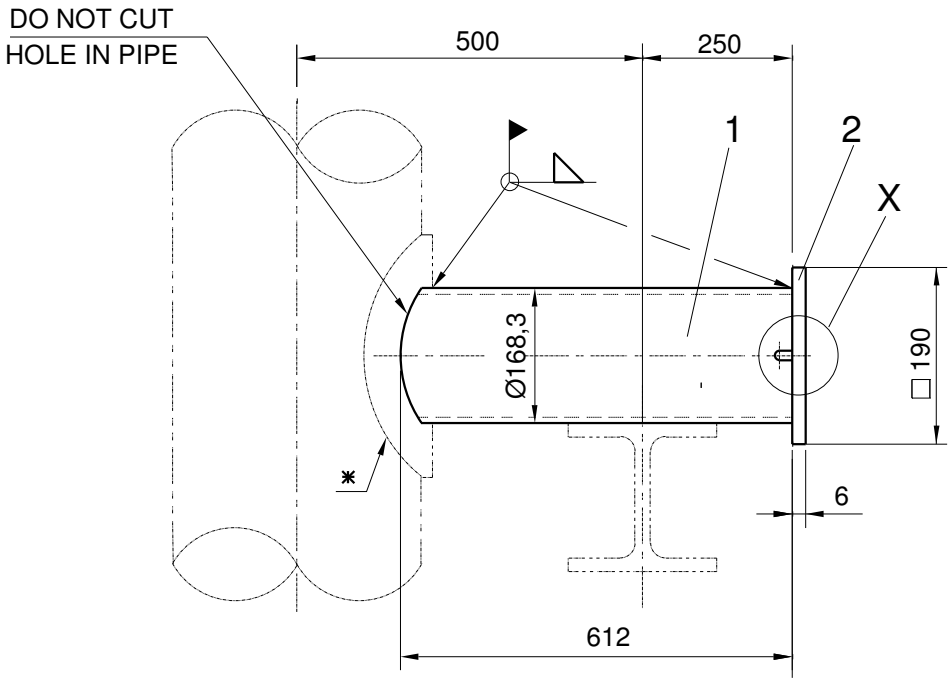
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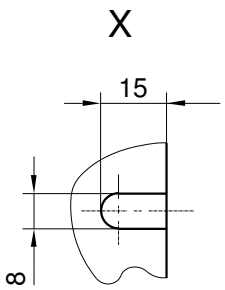
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 300/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 612	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 27,830 kg

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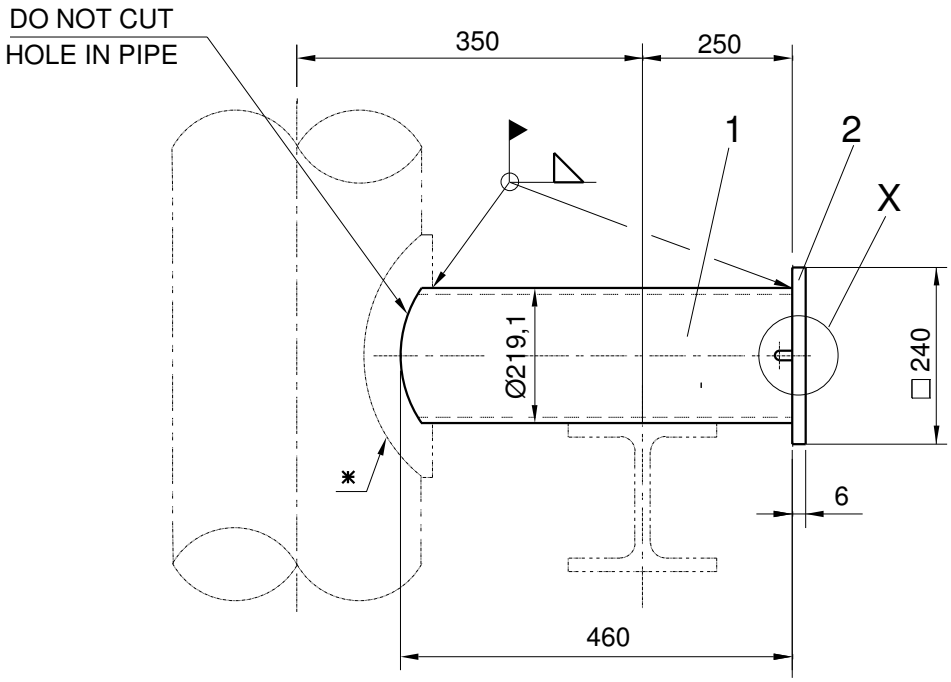
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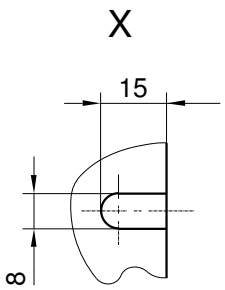
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 350/350

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 460	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 26,450 kg

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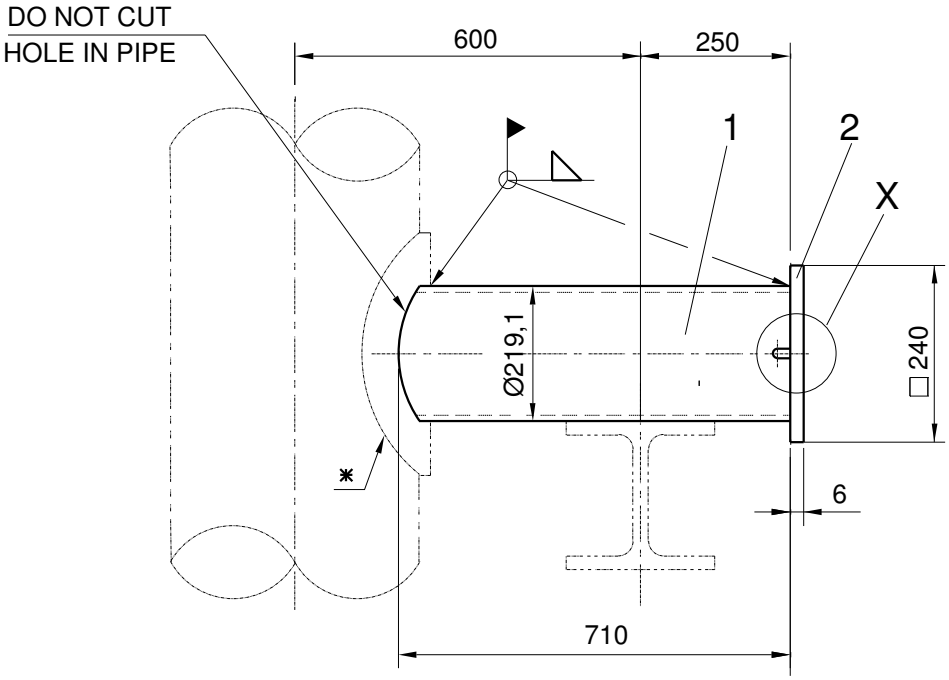
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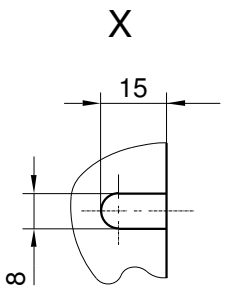
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 350/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 710	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 39,350 kg

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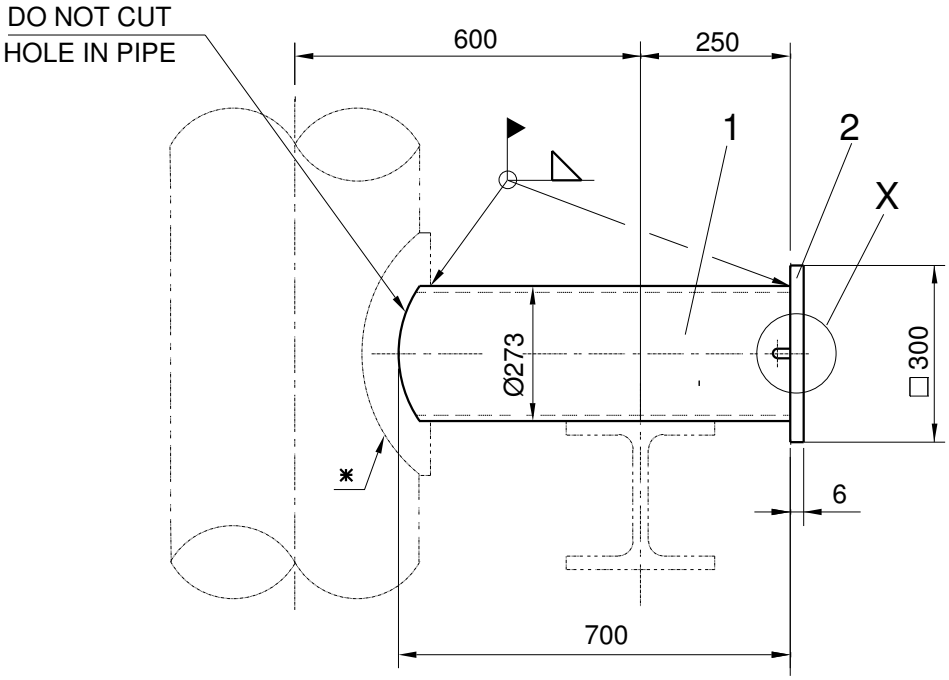
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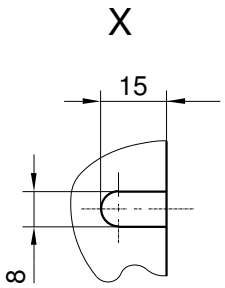
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 400/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 700	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 49,670 kg

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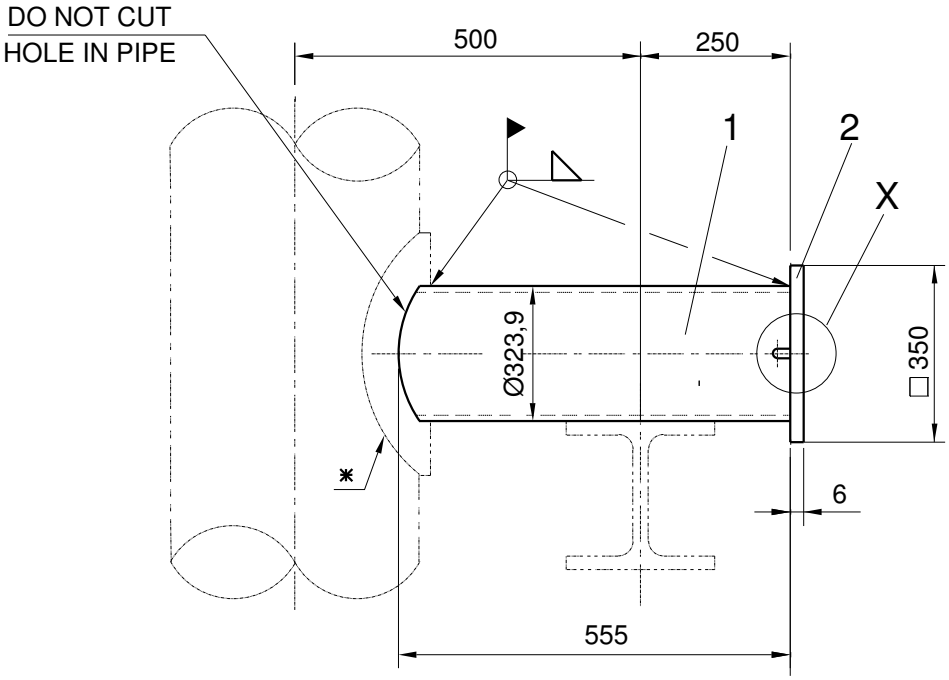
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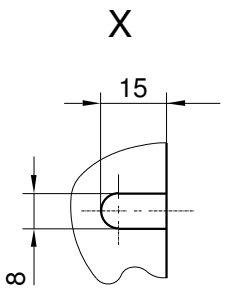
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 500/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 350 x 350	EN 10029	A283GR.B	GB0001D
1	1	PIPE 323,9 x 10 x 555	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 48,730 kg

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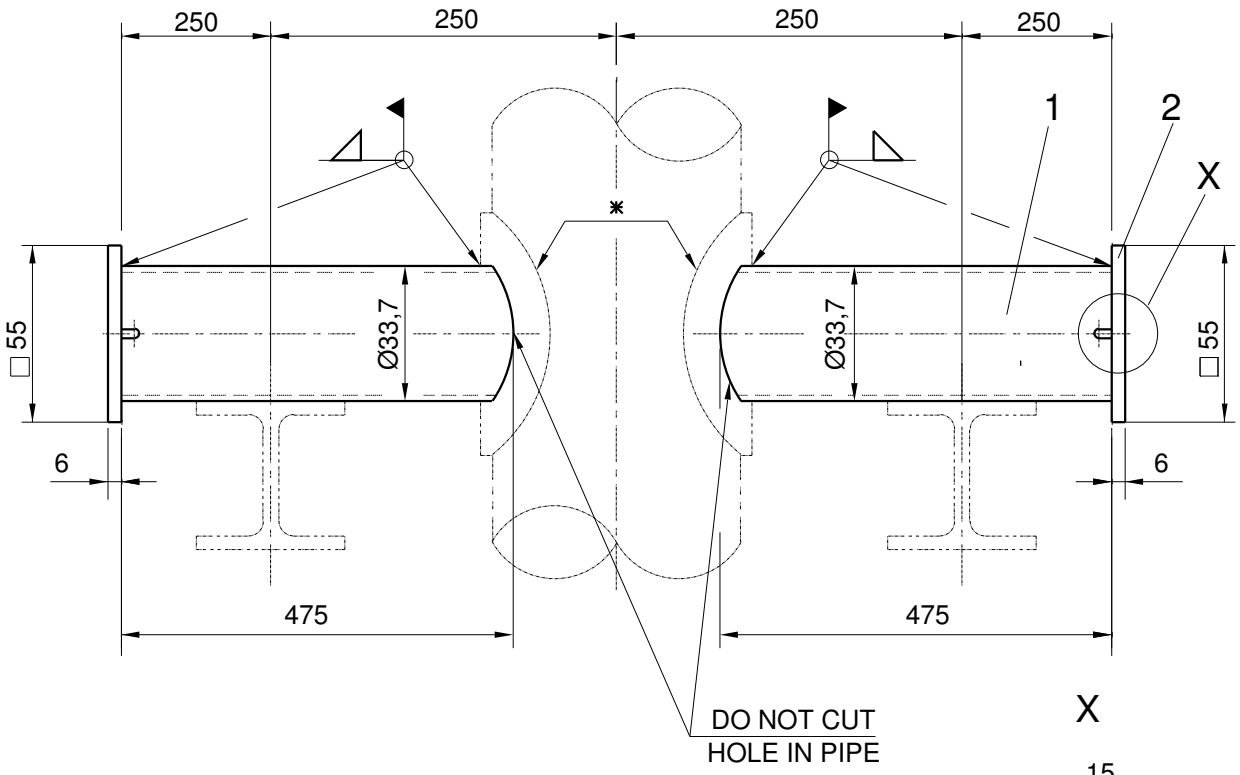
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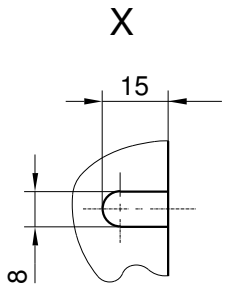
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 50/250

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 55 x 55	EN 10029	A283GR.B	GB0001D
1	2	PIPE 33,7 x 2,6 x 475	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,180 kg

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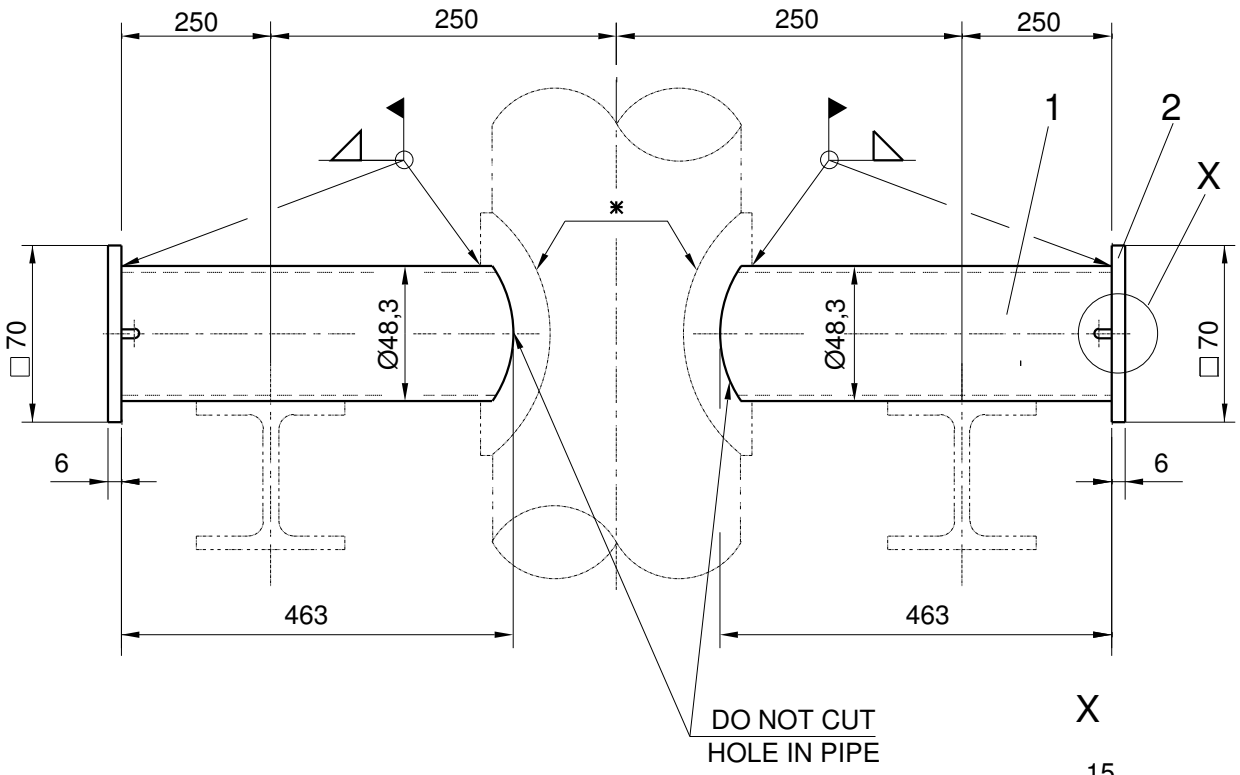
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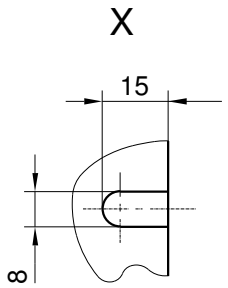
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 80/250

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 70 x 70	EN 10029	A283GR.B	GB0001D
1	2	PIPE 48,3 x 4 x 463	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 4,510 kg

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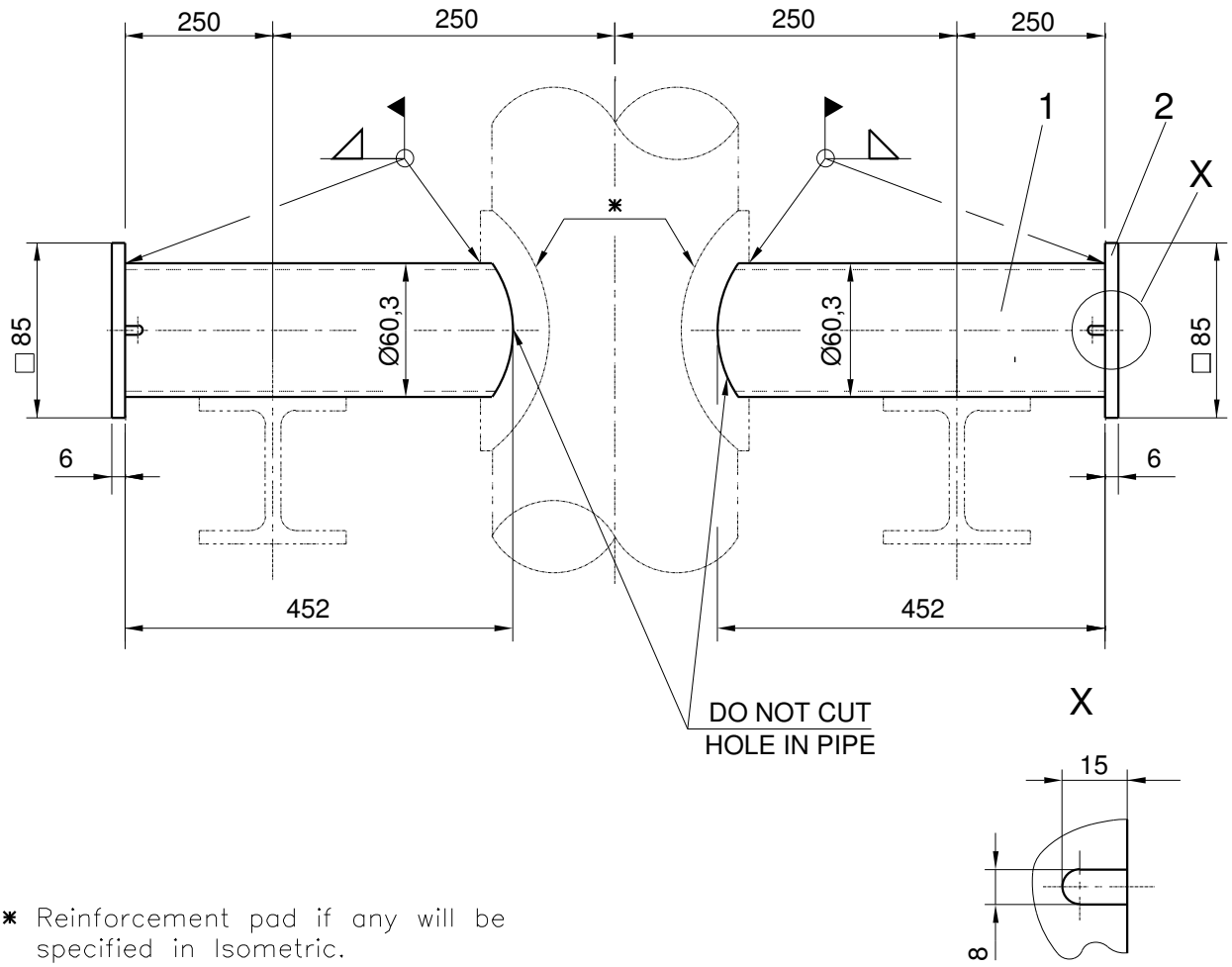
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 100/250

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	2	PIPE 60,3 x 4 x 452	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 5,700 kg

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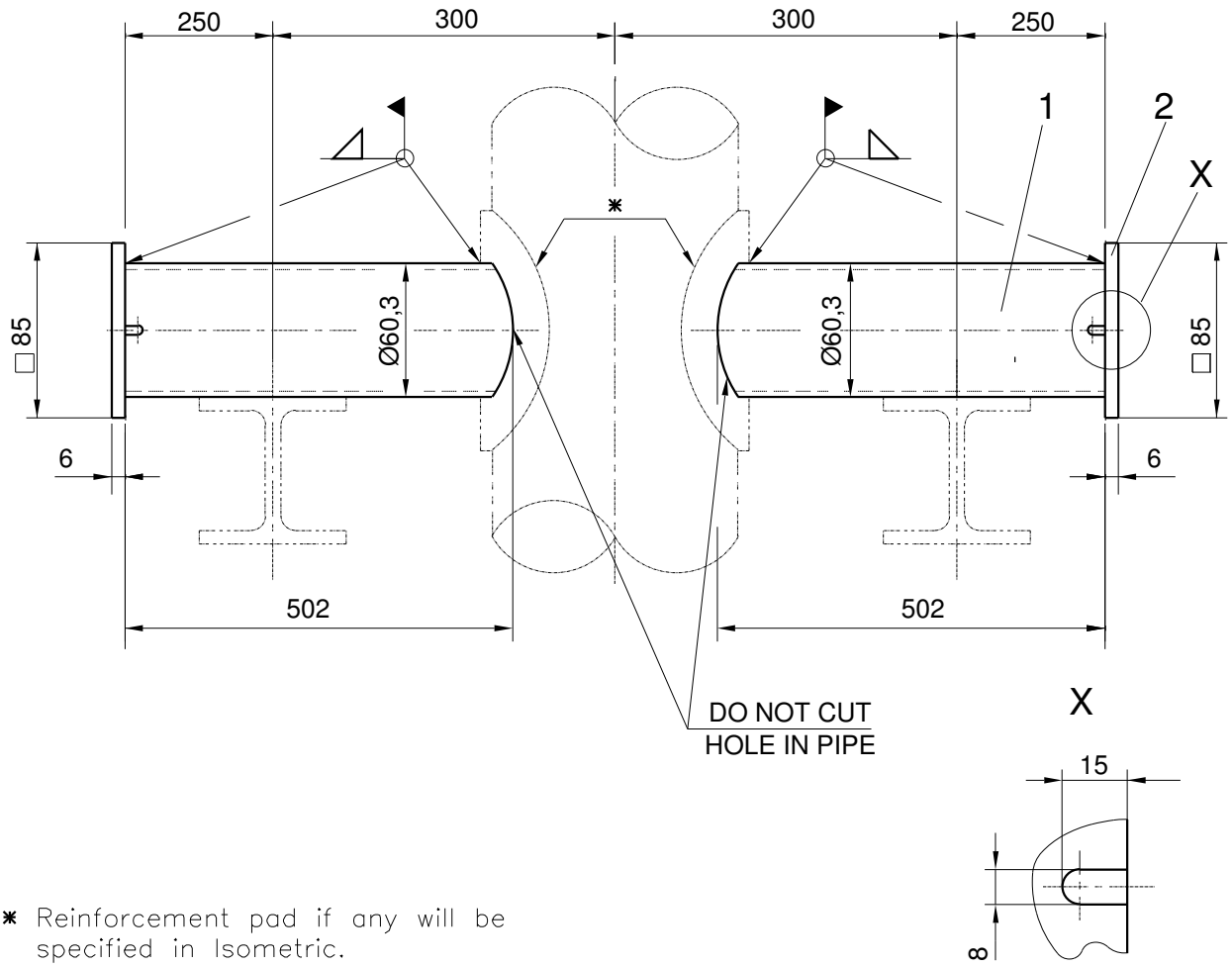
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 100/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	2	PIPE 60,3 x 4 x 502	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 6,250 kg

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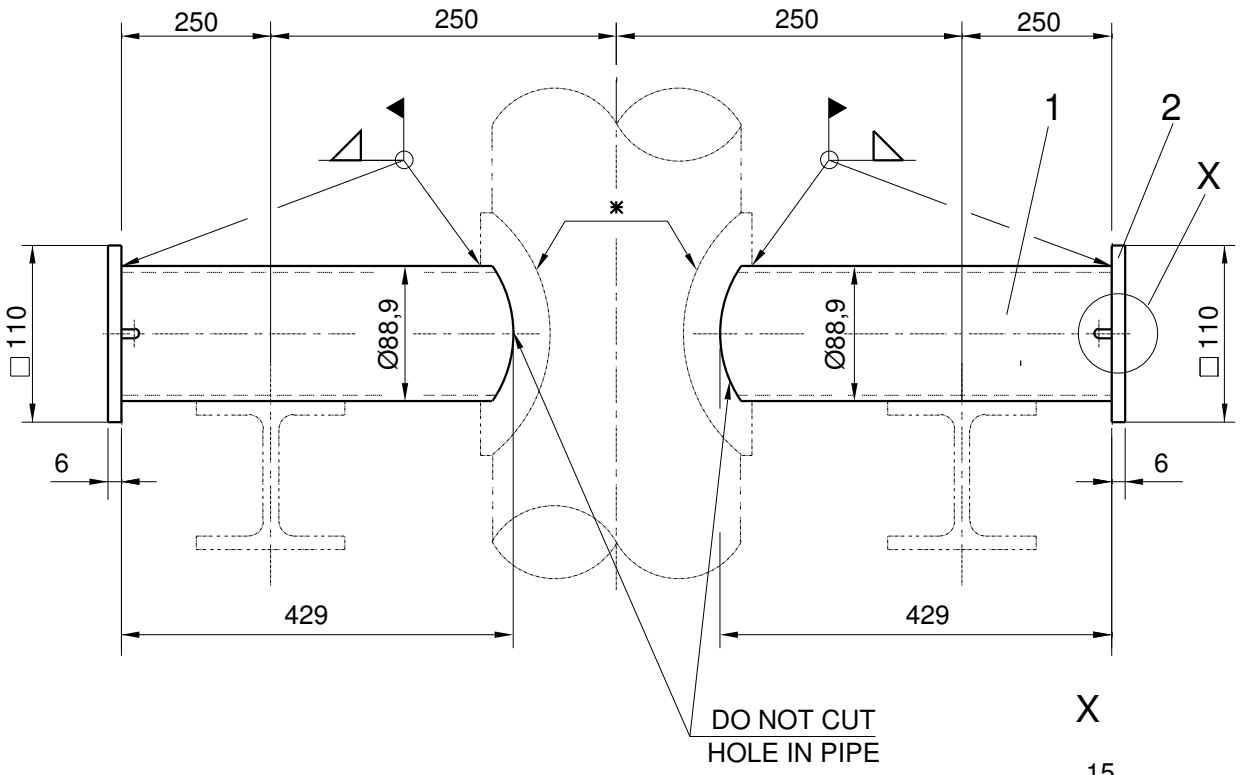
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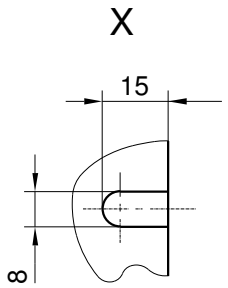
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 150/250

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	2	PIPE 88,9 x 5 x 429	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 9,980 kg

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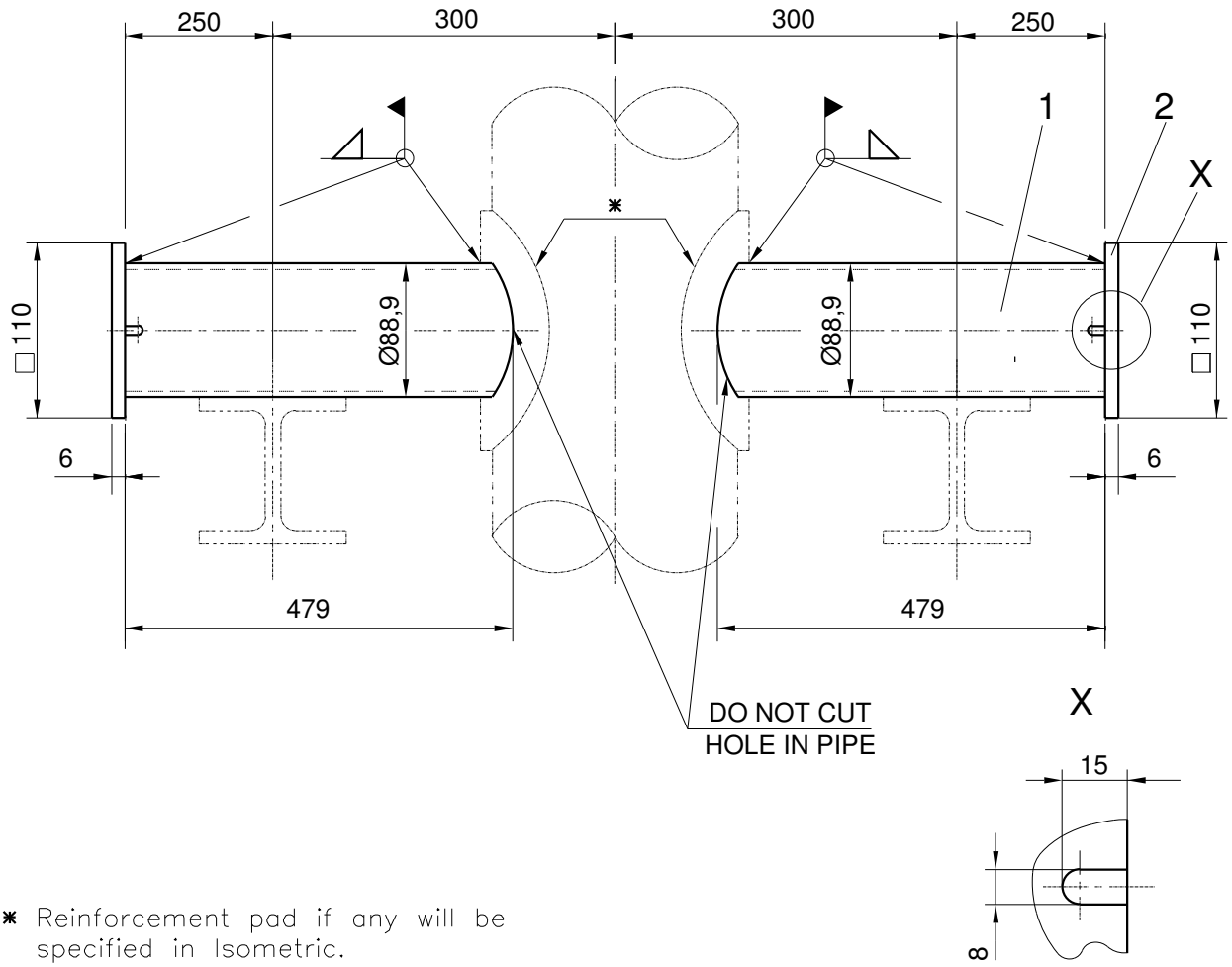
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 150/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	2	PIPE 88,9 x 5 x 479	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 11,010 kg

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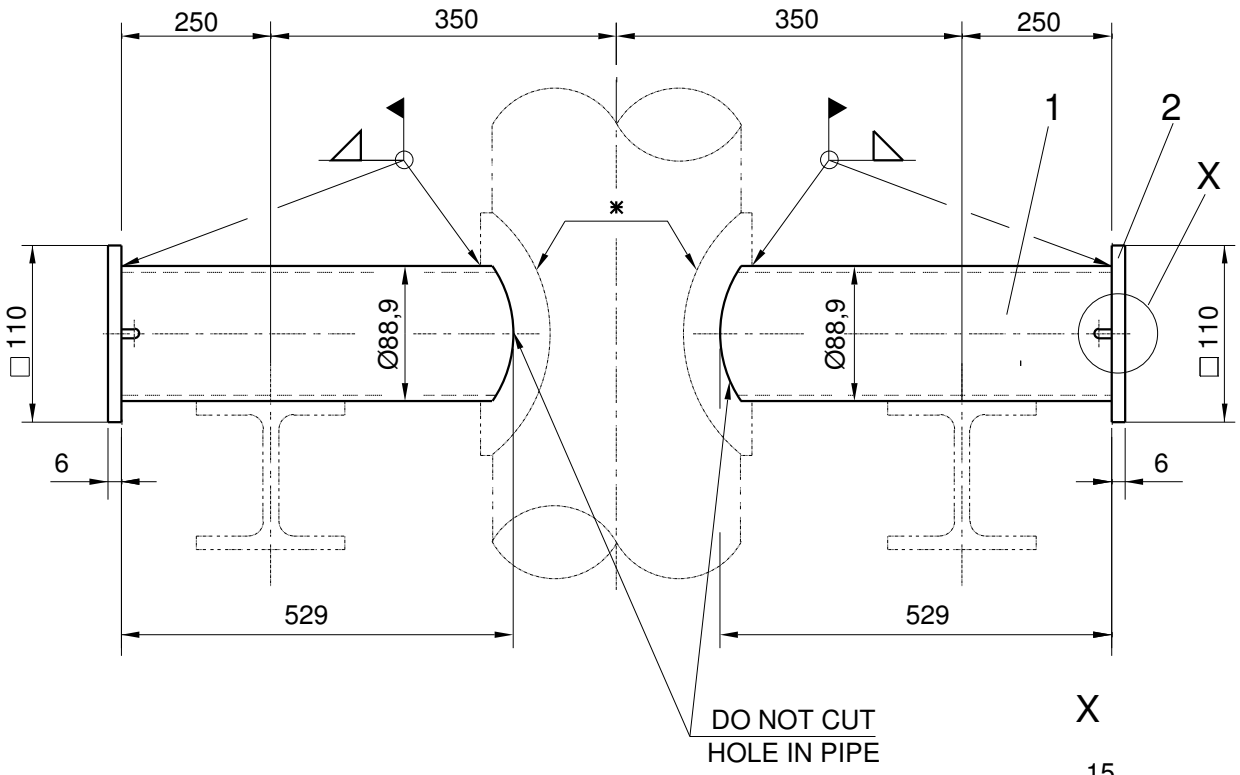
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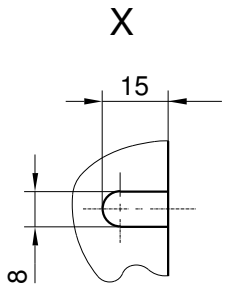
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 150/350

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	2	PIPE 88,9 x 5 x 529	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 12,040 kg

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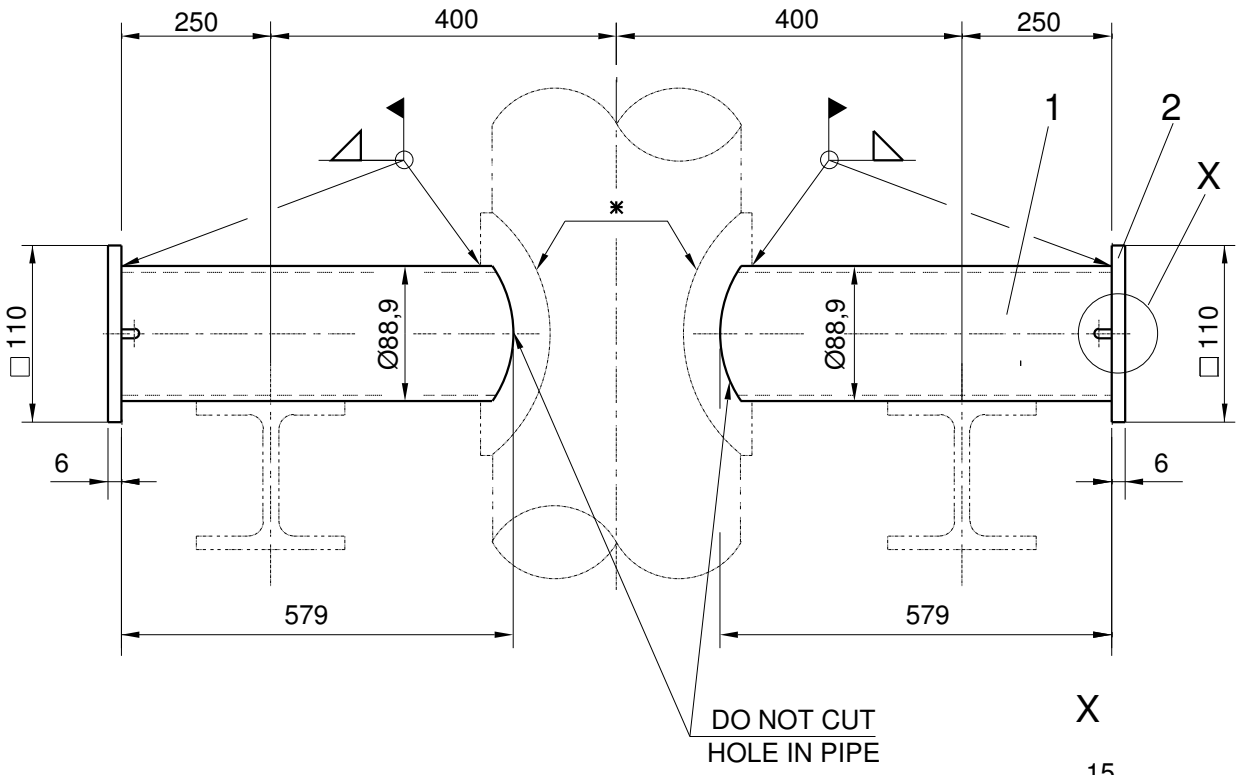
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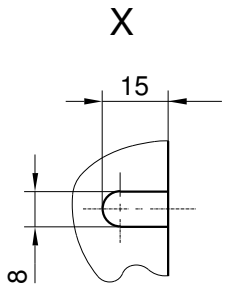
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 150/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	2	PIPE 88,9 x 5 x 579	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 13,070 kg

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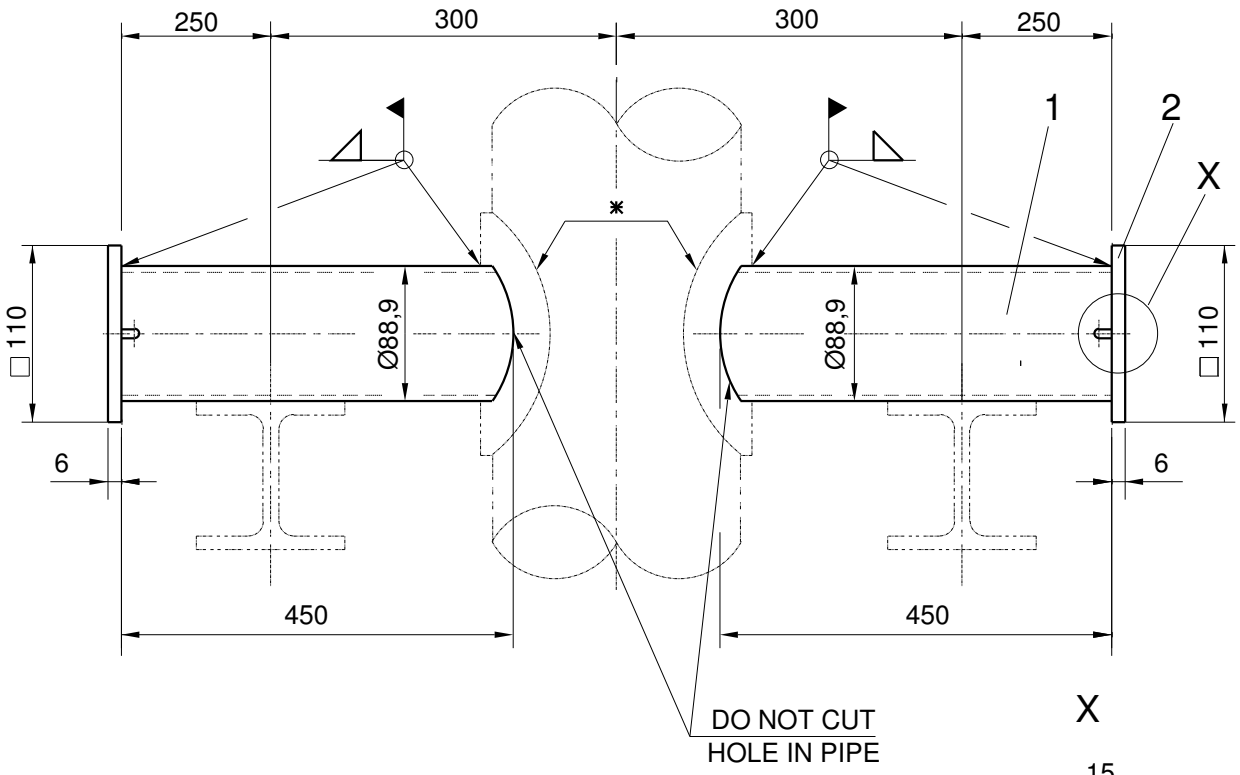
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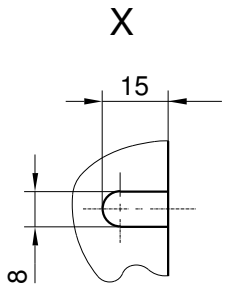
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 200/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	2	PIPE 88,9 x 5 x 450	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 10,410 kg

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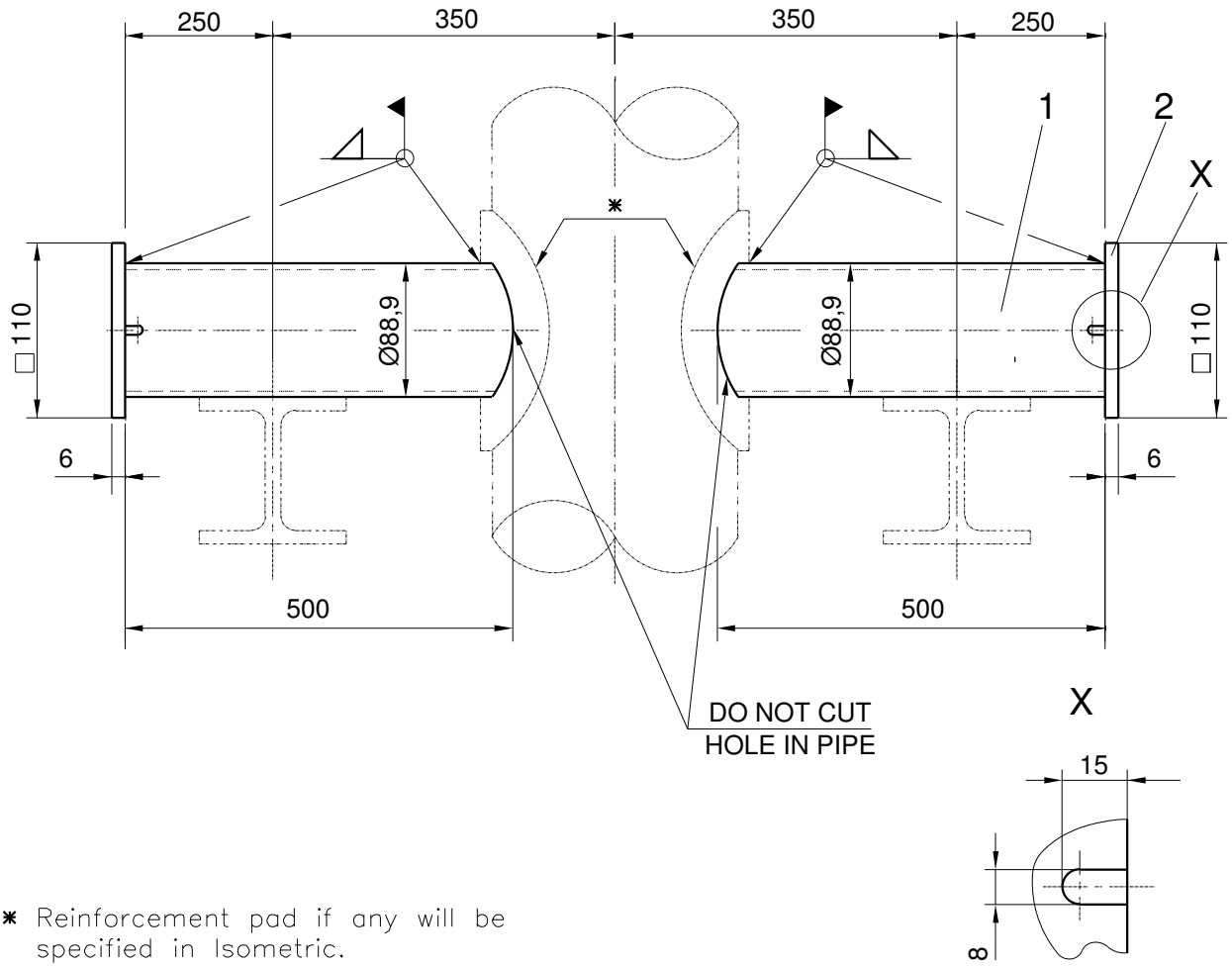
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 200/350

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	2	PIPE 88,9 x 5 x 500	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 11,440 kg

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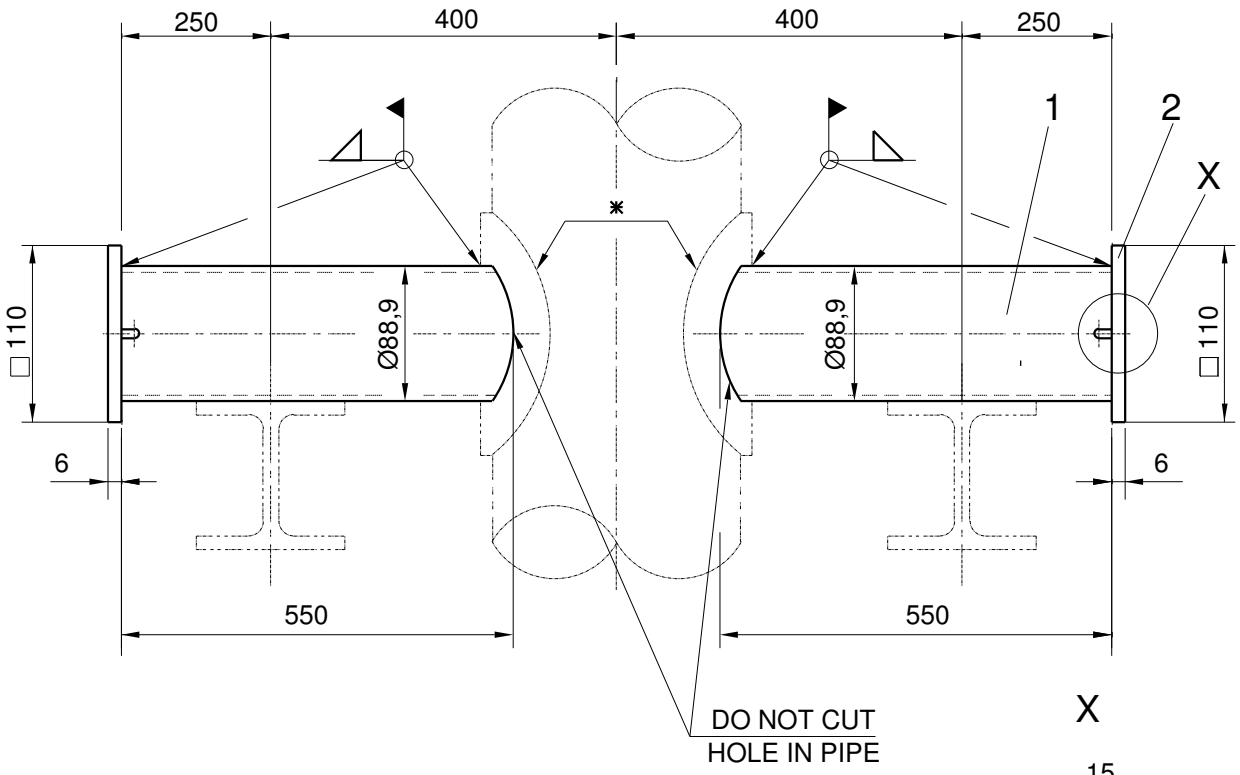
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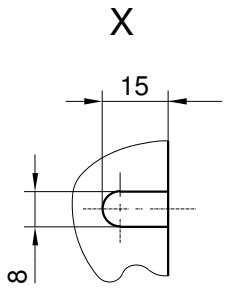
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 200/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	2	PIPE 88,9 x 5 x 550	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 12,470 kg

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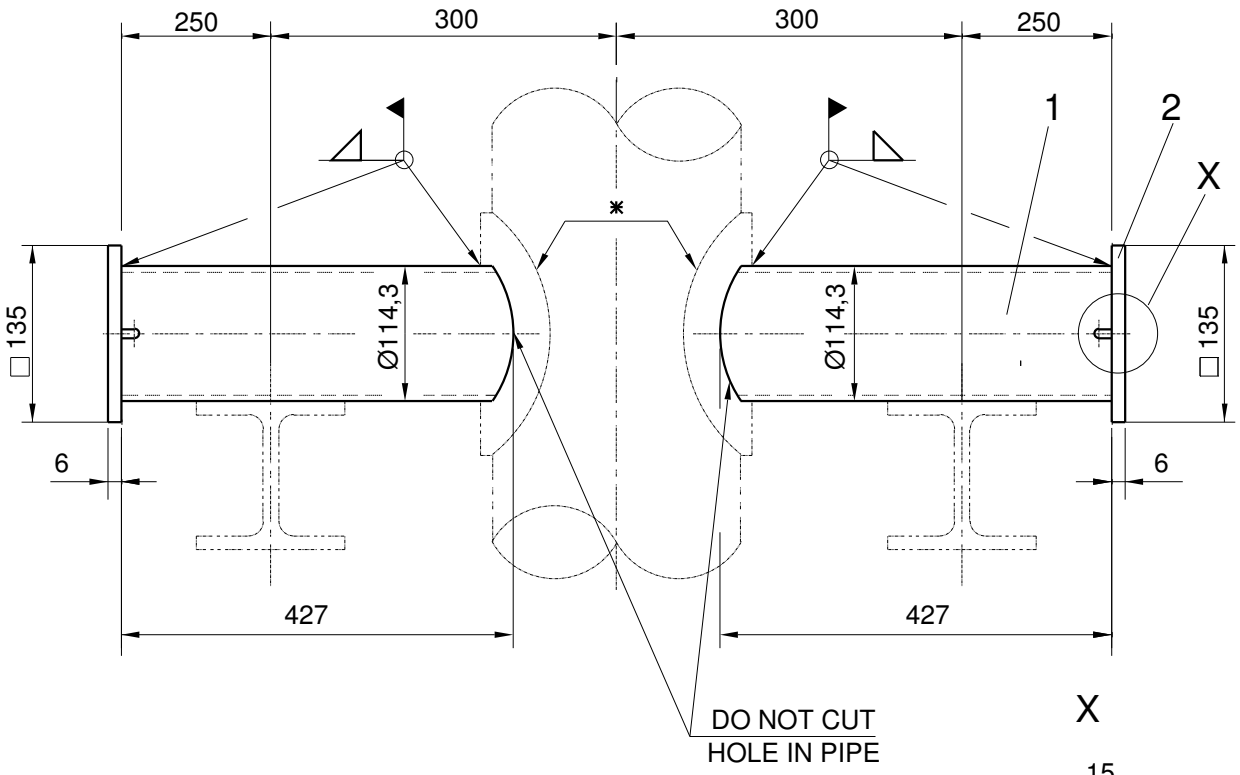
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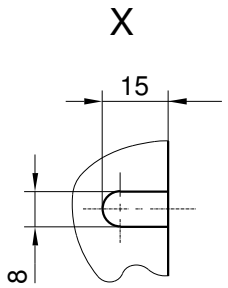
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 250/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 427	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 16,060 kg

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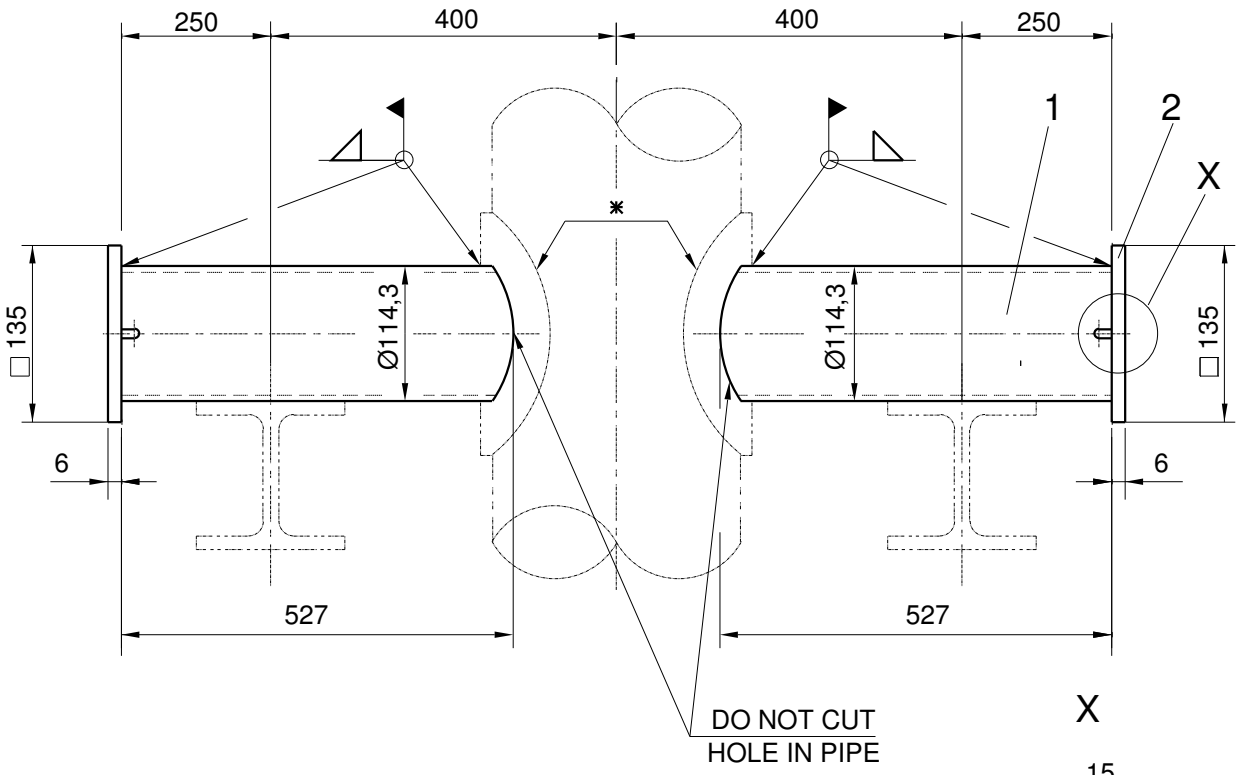
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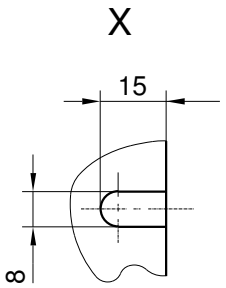
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 250/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 527	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 19,420 kg

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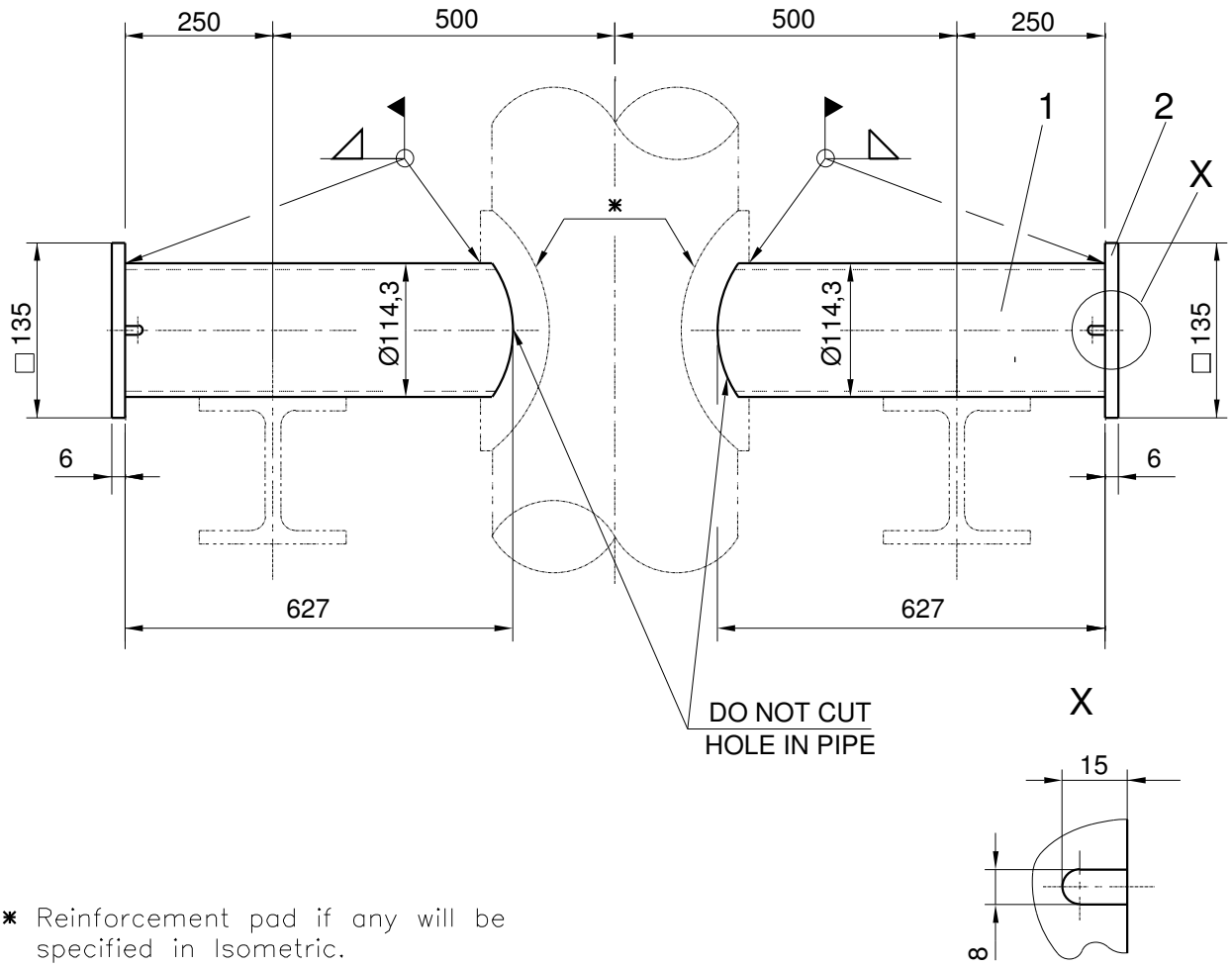
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 250/500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 627	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 22,780 kg

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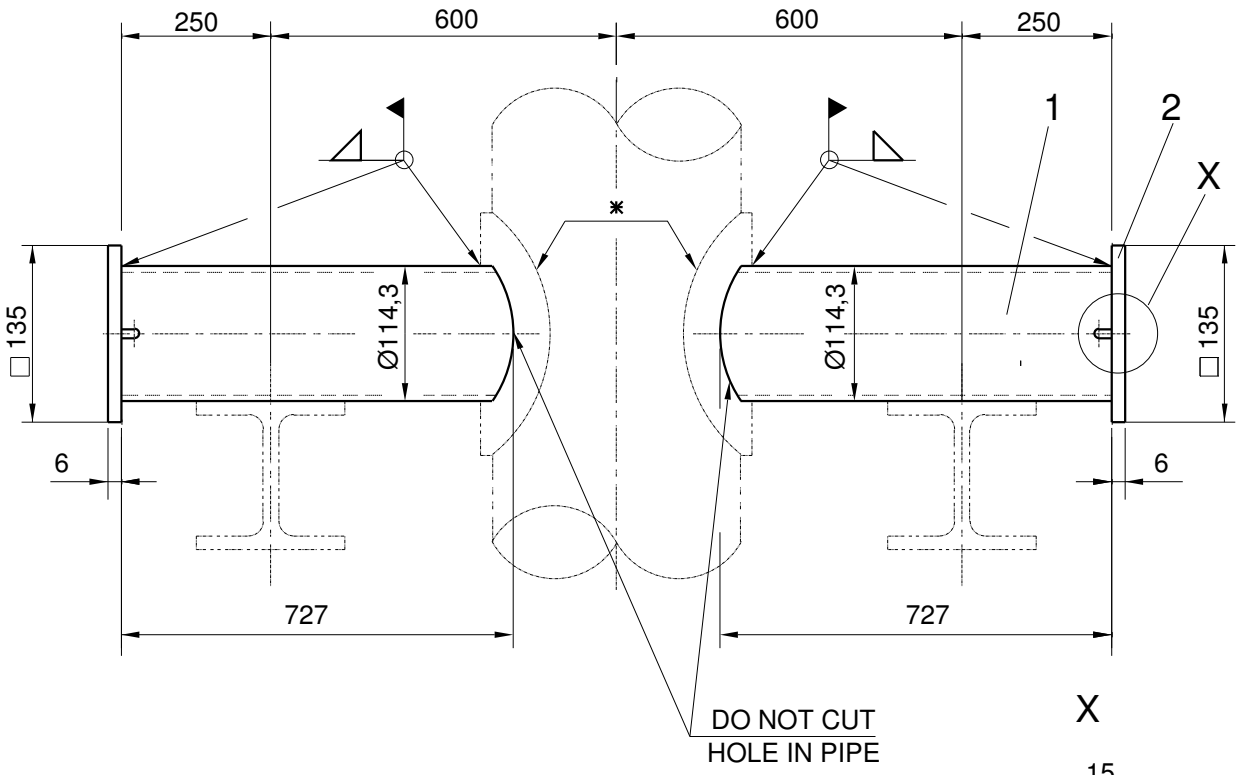
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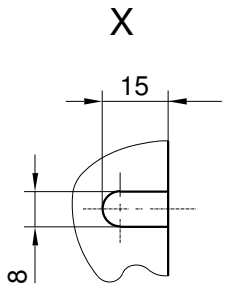
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 250/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 727	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 26,140 kg

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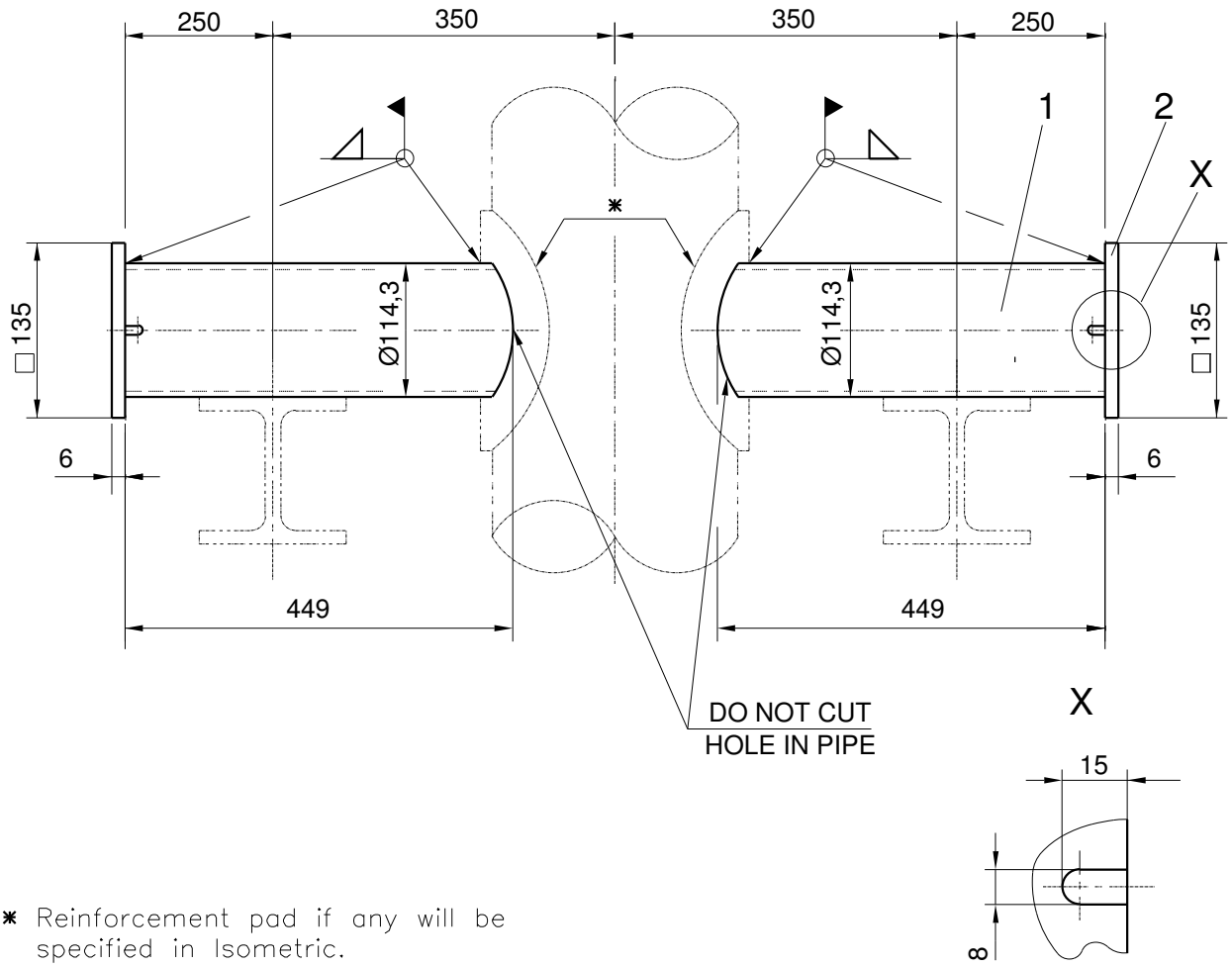
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 300/350

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 449	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 16,800 kg

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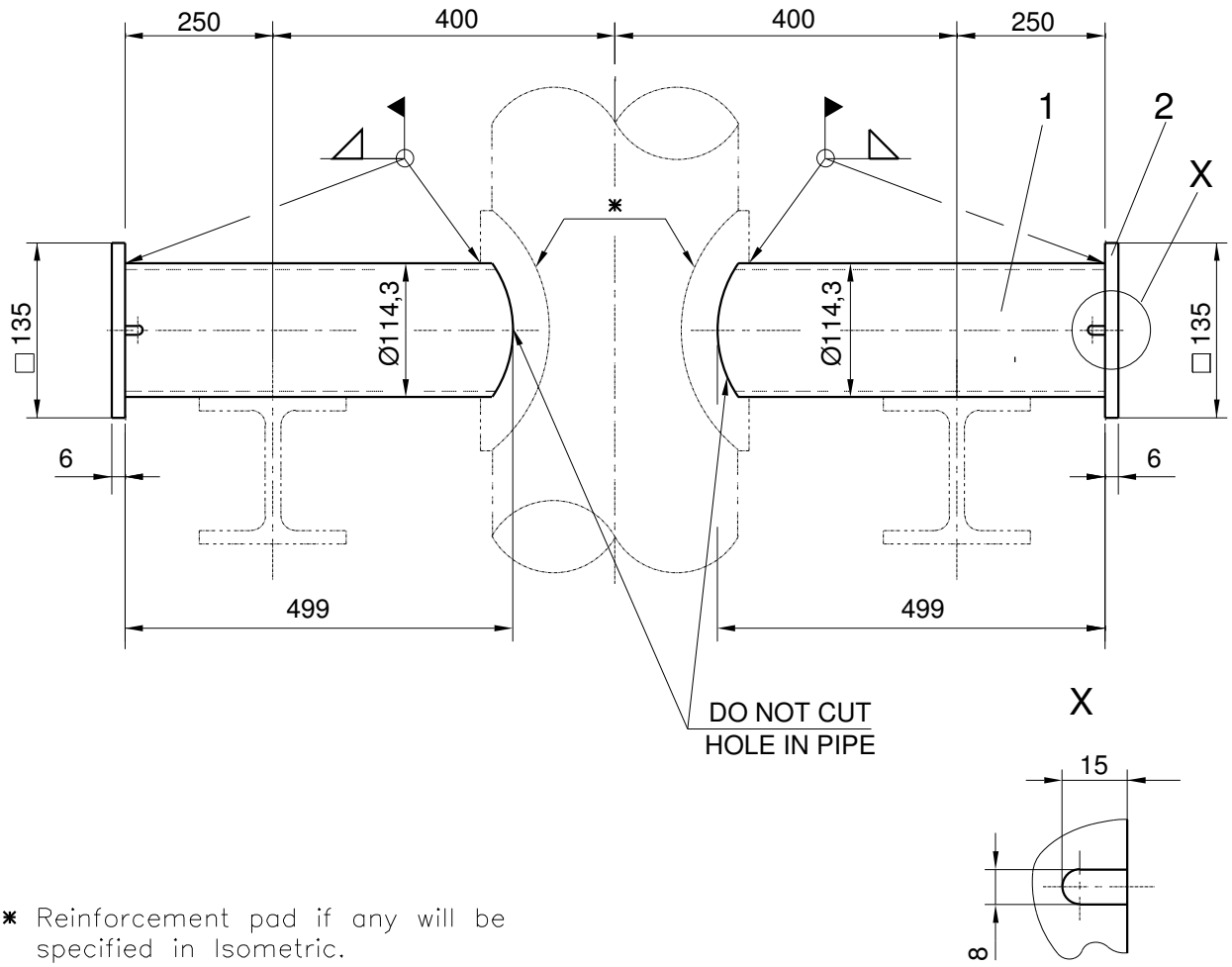
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 300/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 499	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 18,480 kg

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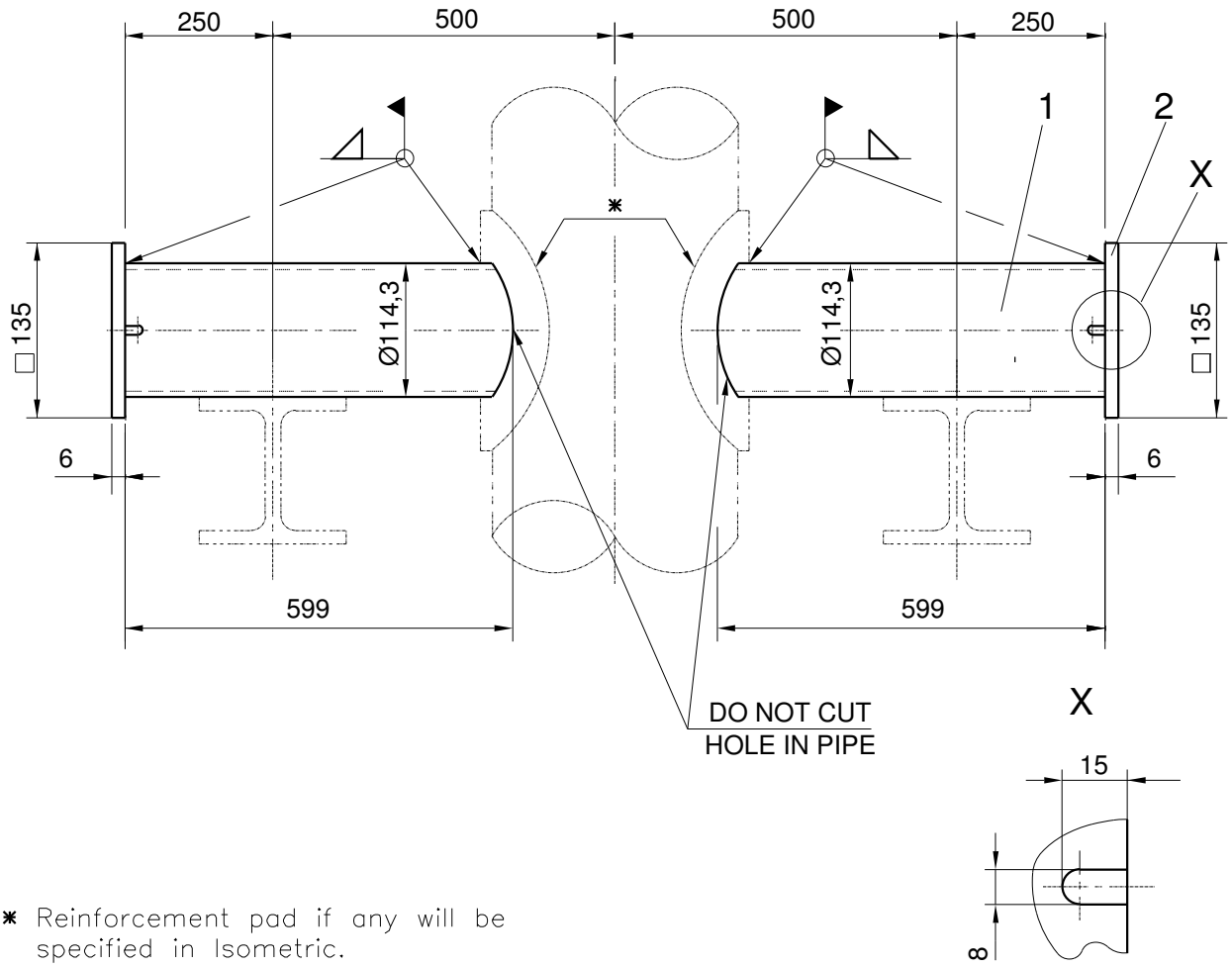
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 300/500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 599	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 21,840 kg

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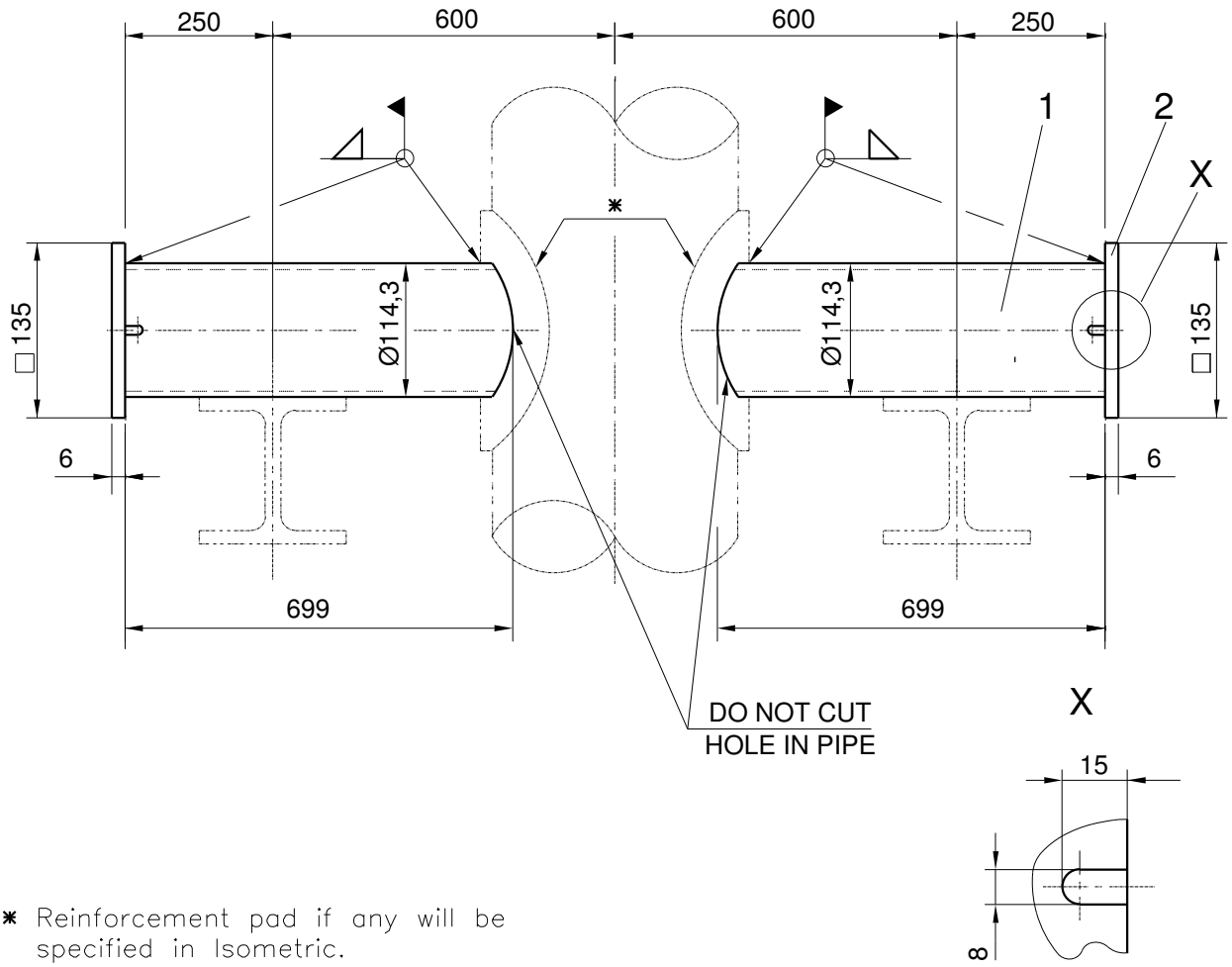
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tkIS		Code	Page	UAN	V	L S
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PIPE SUPPORT

Code No.: NTA001D Marking : 300/600

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 699	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 25,200 kg

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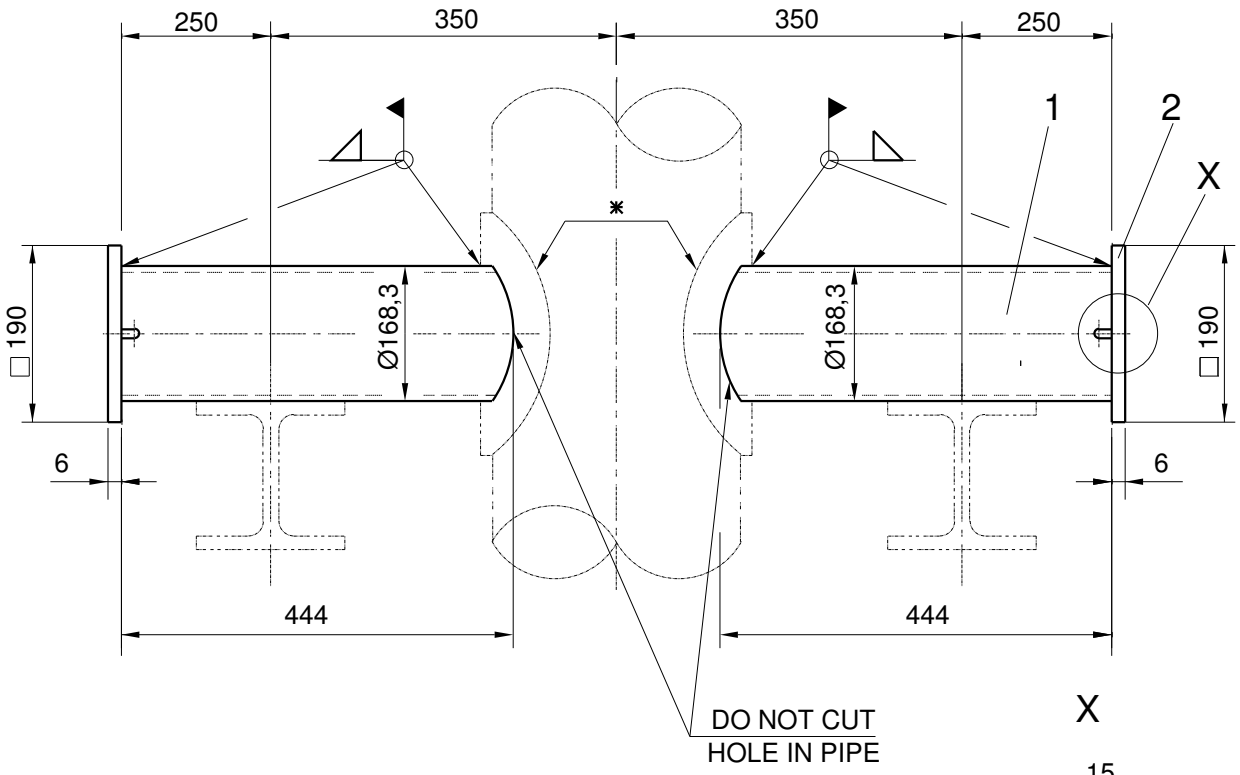
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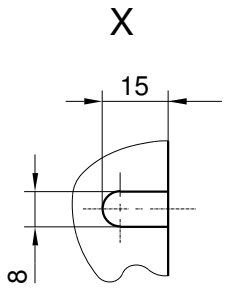
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 350/350

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	2	PIPE 168,3 x 11 x 444	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 41,320 kg

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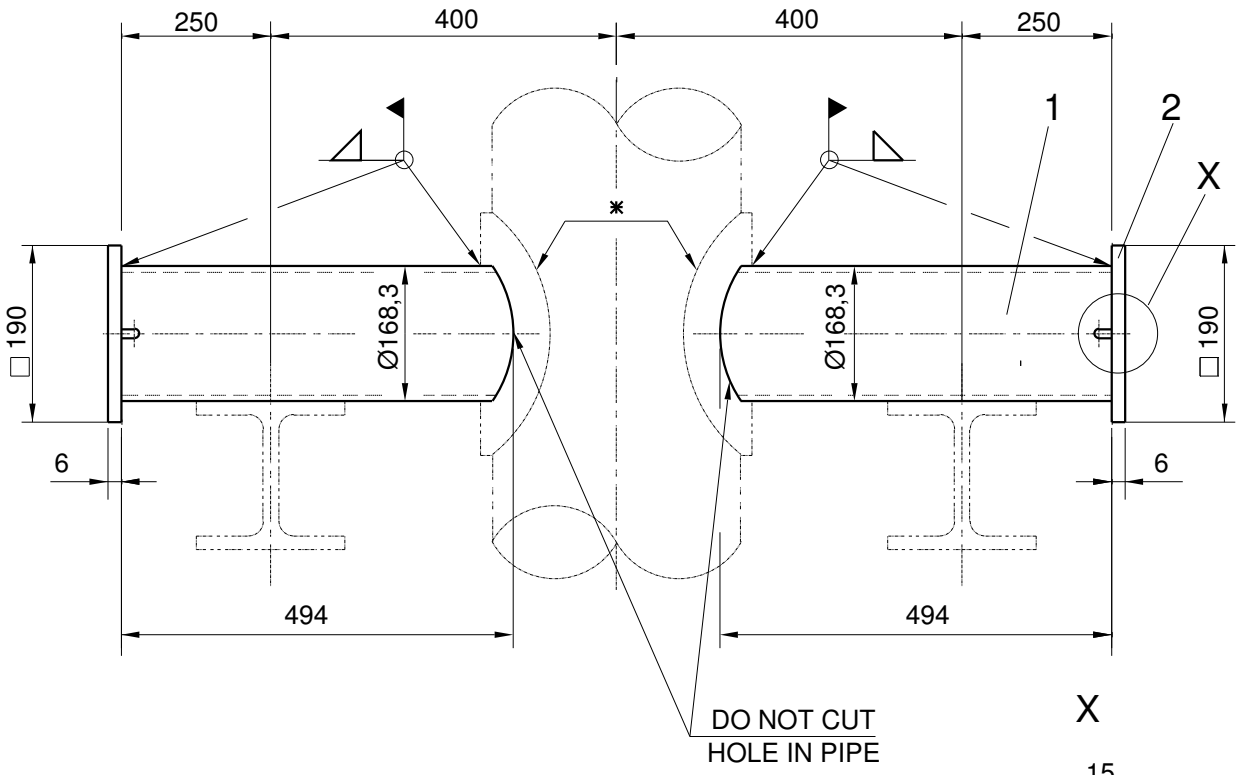
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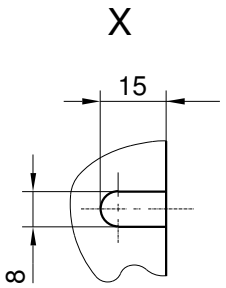
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 350/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	2	PIPE 168,3 x 11 x 494	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 45,590 kg

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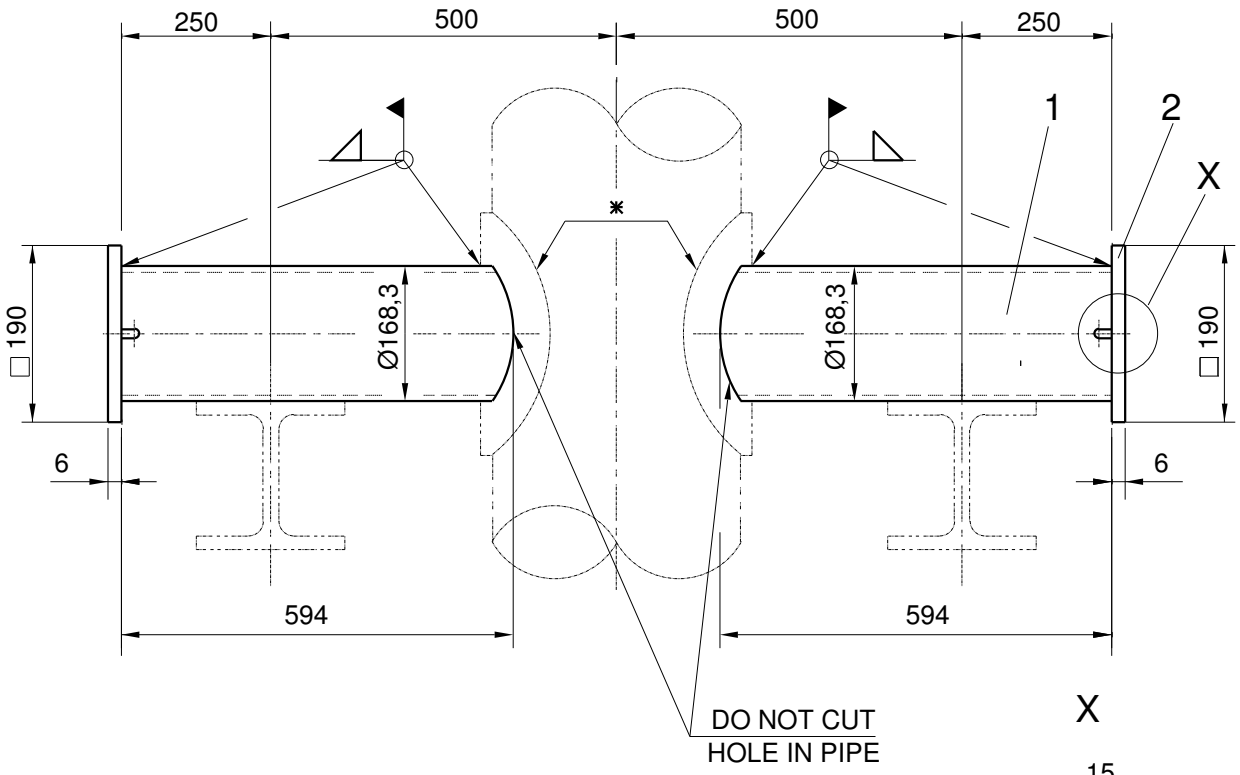
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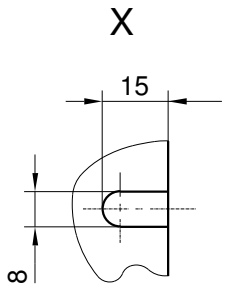
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 350/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	2	PIPE 168,3 x 11 x 594	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 54,130 kg

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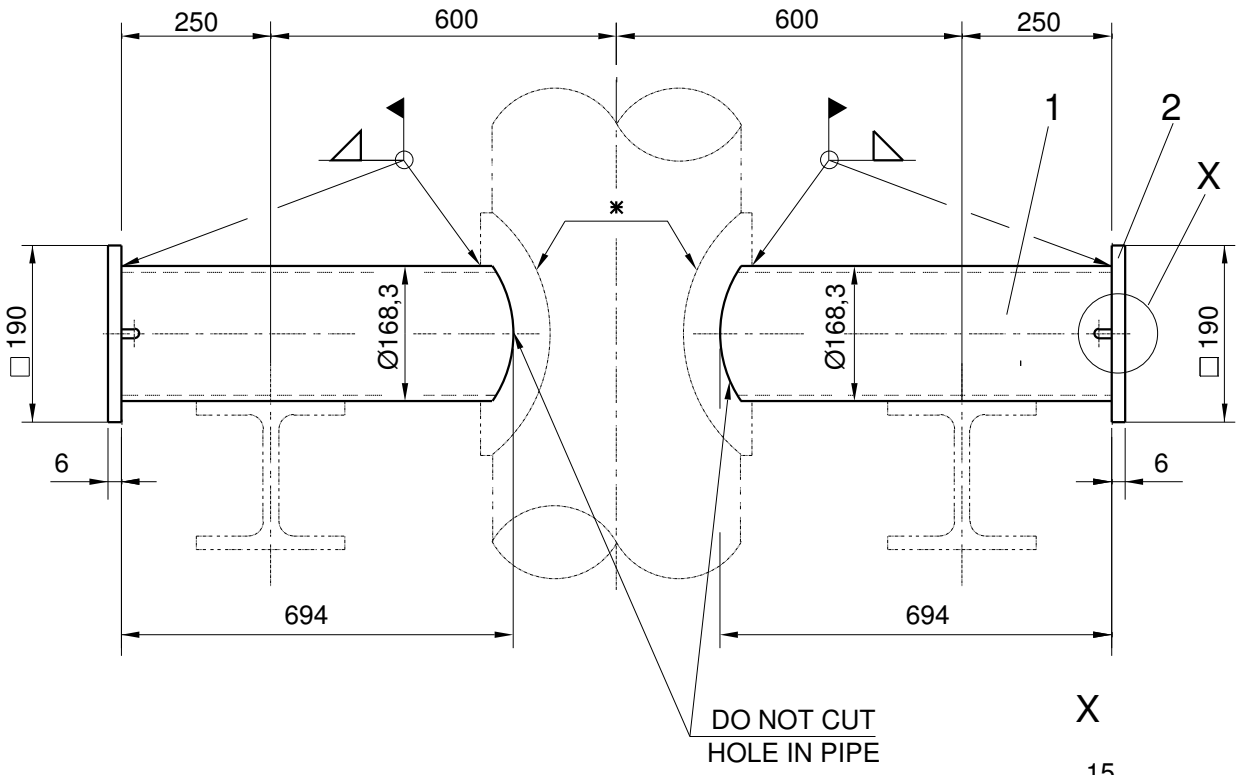
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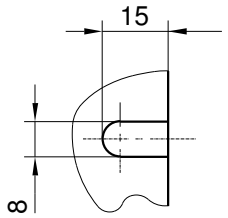
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 350/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	2	PIPE 168,3 x 11 x 694	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 62,670 kg

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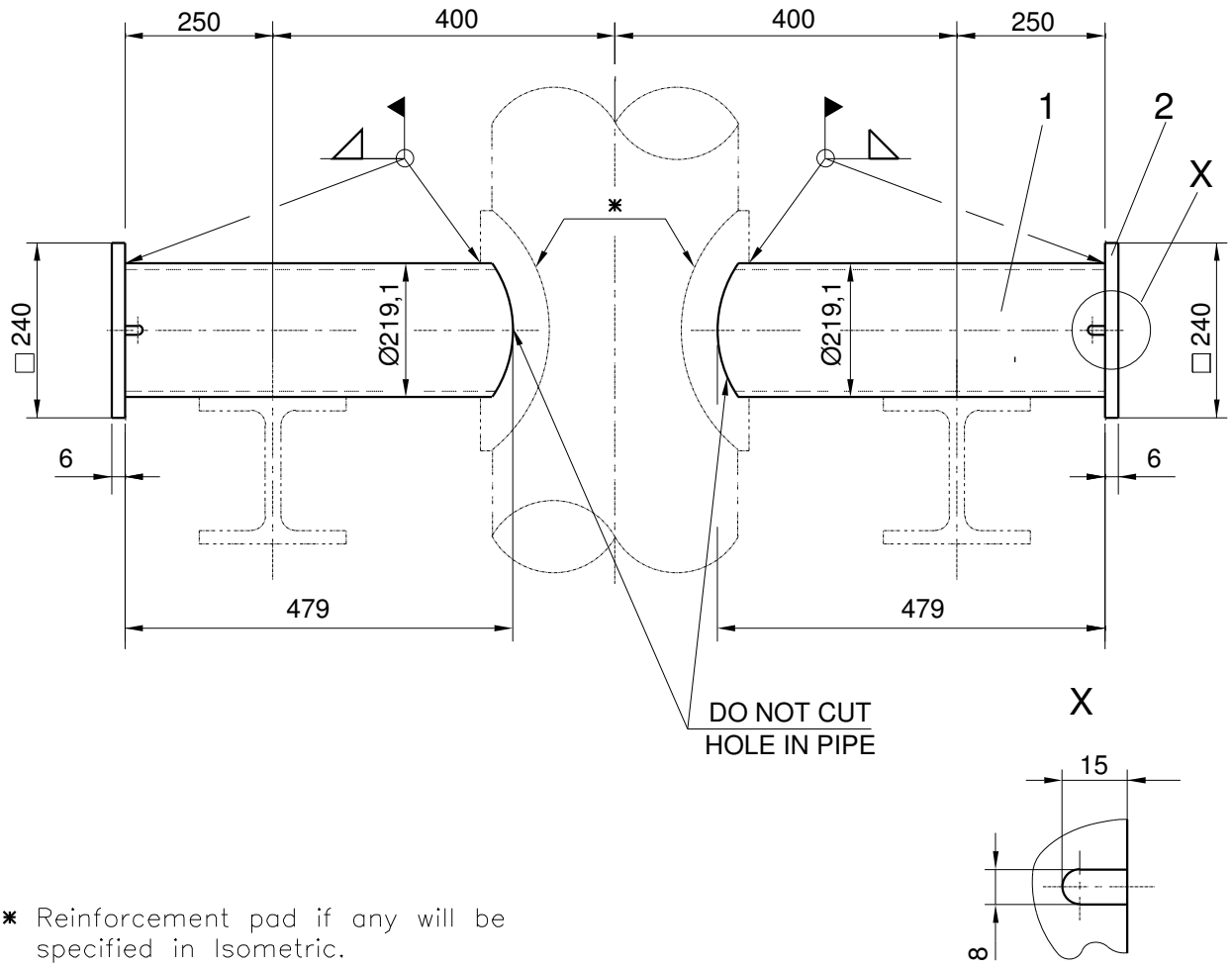
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 400/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	2	PIPE 219,1 x 10 x 479	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 54,860 kg

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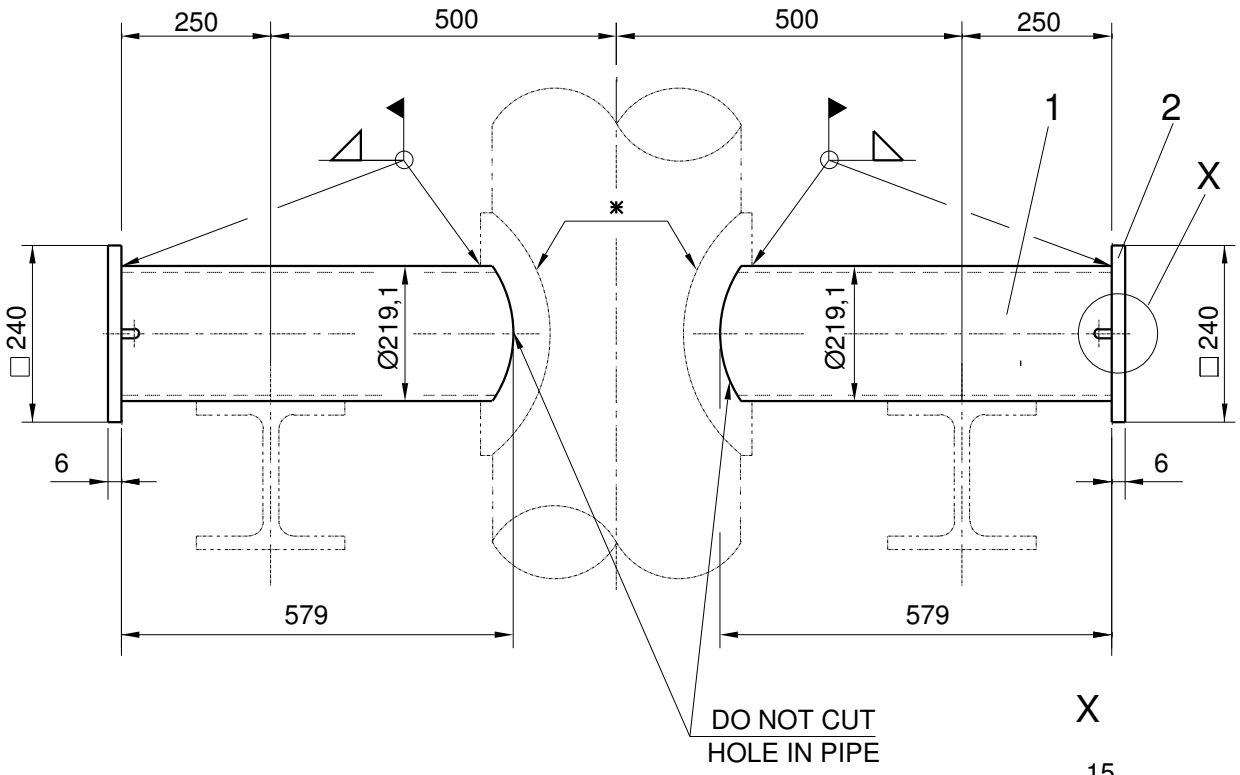
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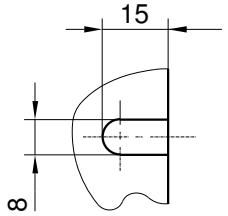
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 400/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	2	PIPE 219,1 x 10 x 579	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 65,180 kg

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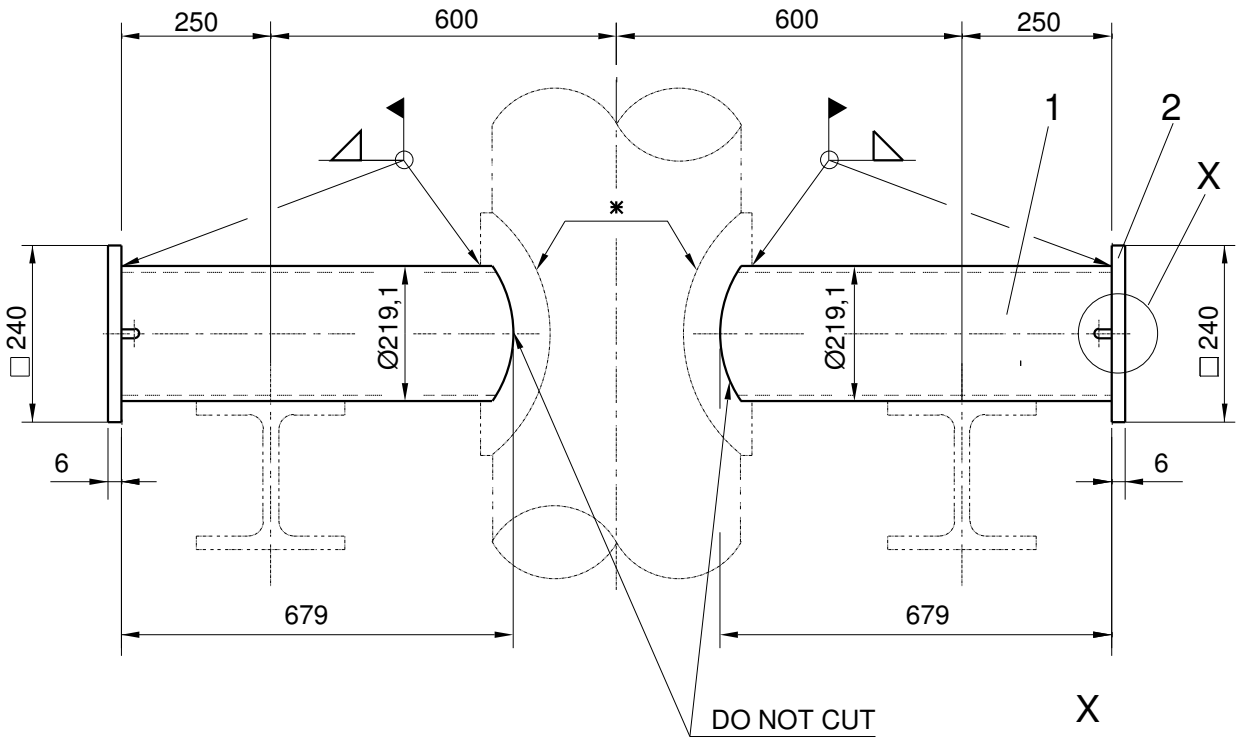
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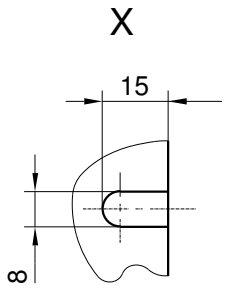
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 400/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	2	PIPE 219,1 x 10 x 679	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 75,500 kg

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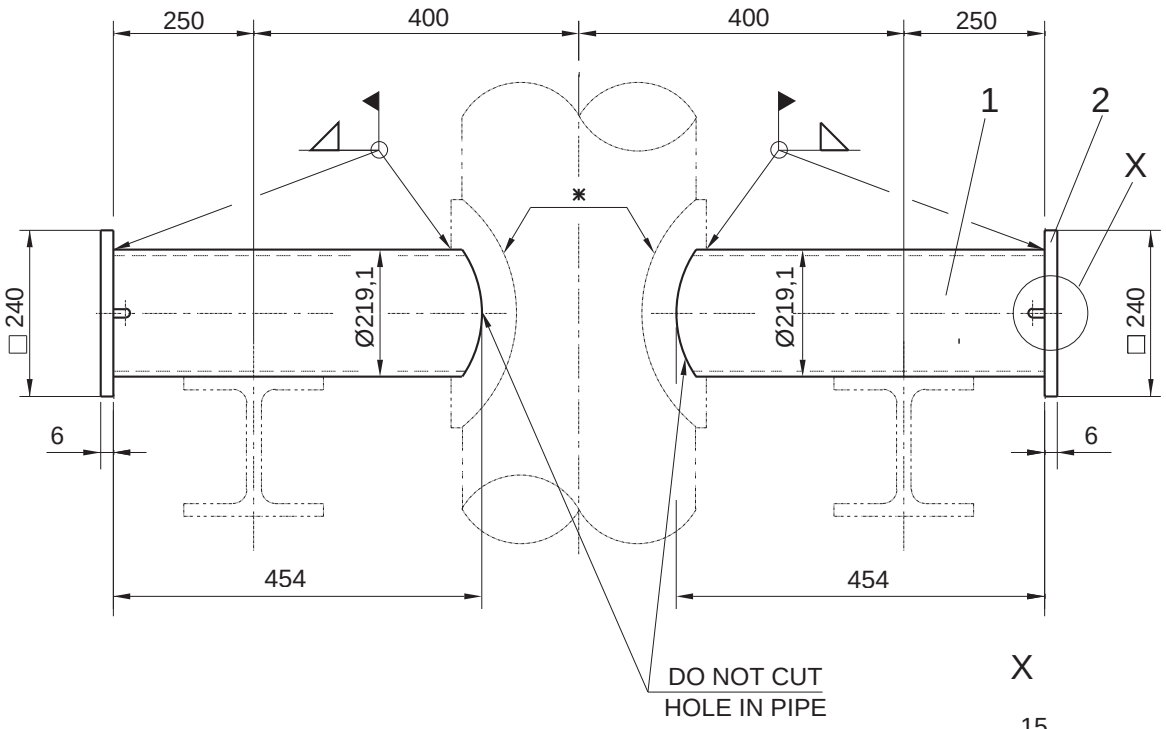
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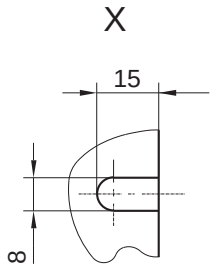
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6703-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 450/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	2	PIPE 219,1 x 10 x 479	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 54,860 kg

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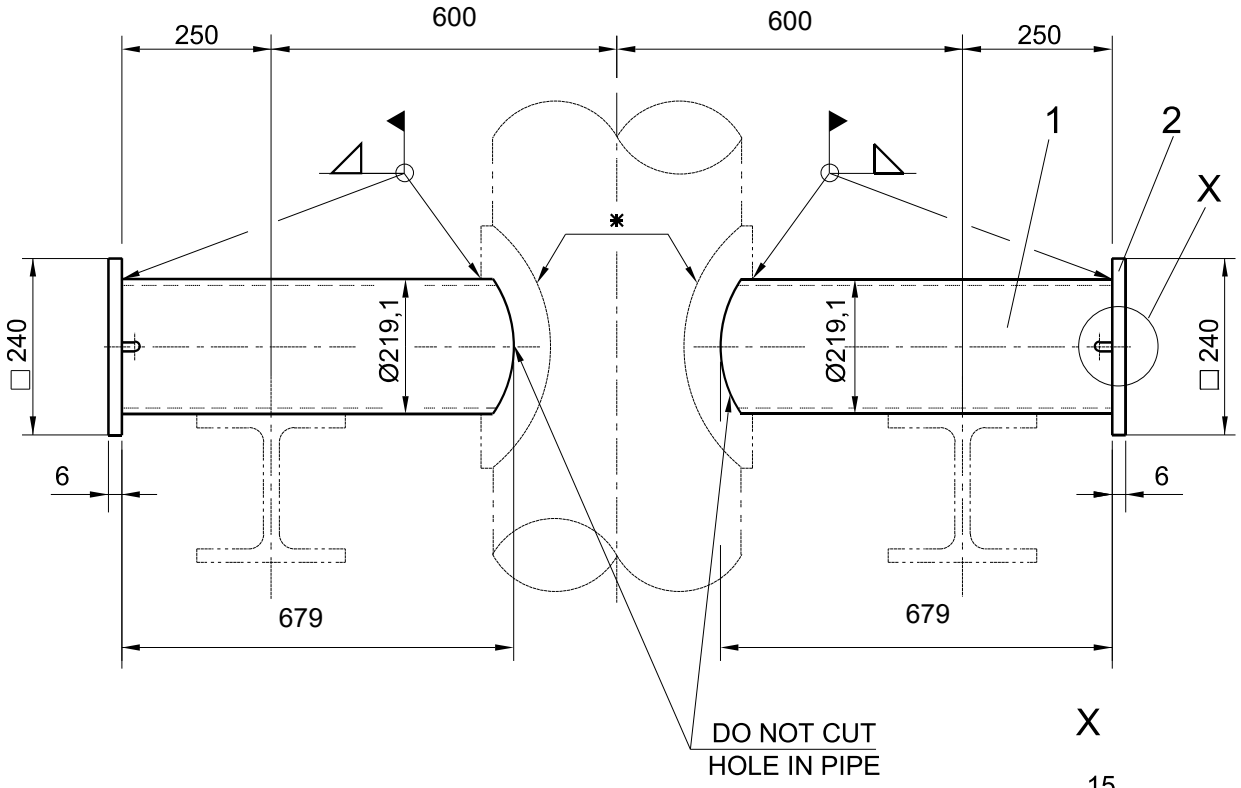
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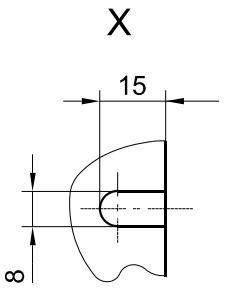
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 450/ 600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	2	PIPE 219,1 x 10 x 679	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 75,500 kg

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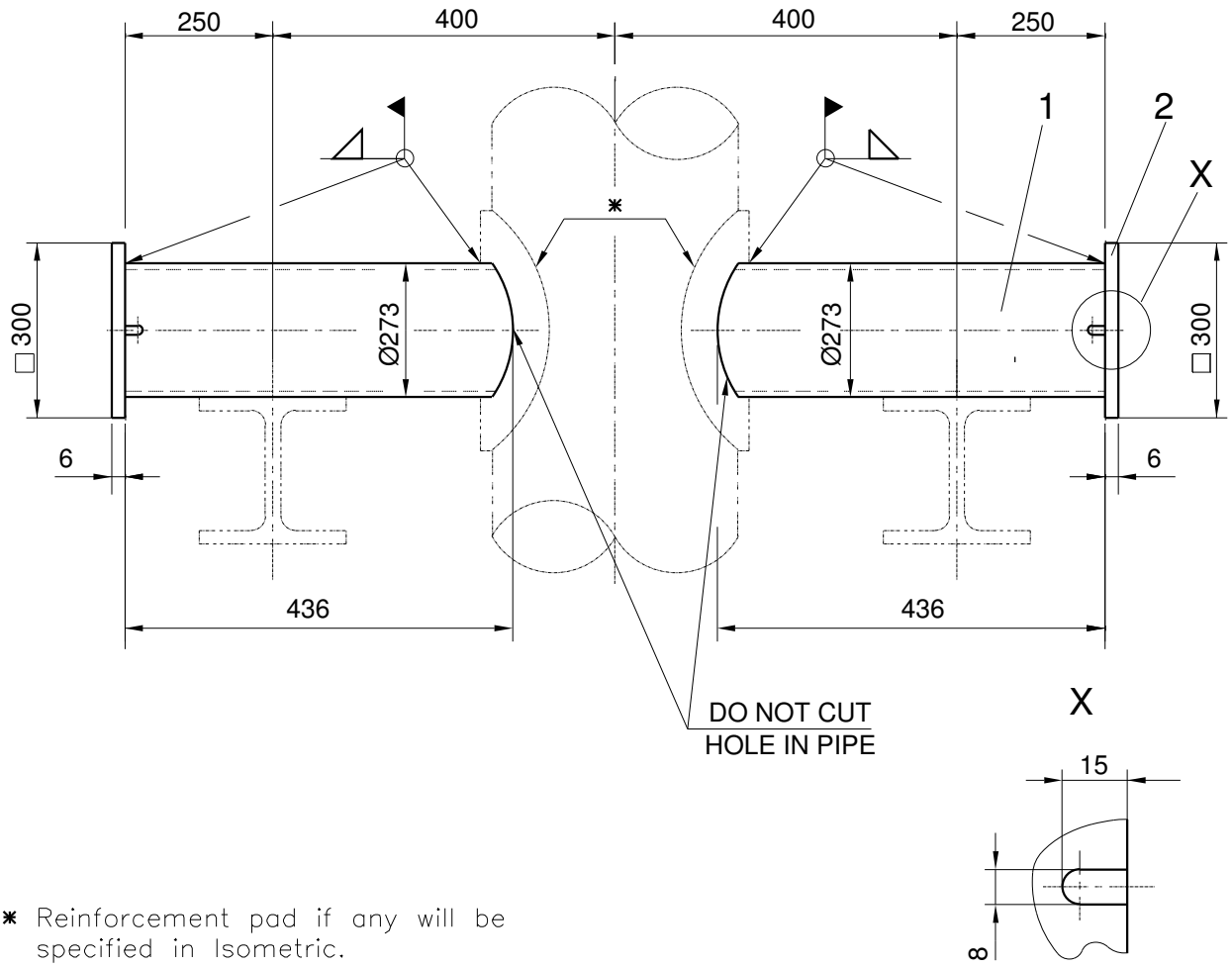
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 500/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	2	PIPE 273 x 10 x 436	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 65,070 kg

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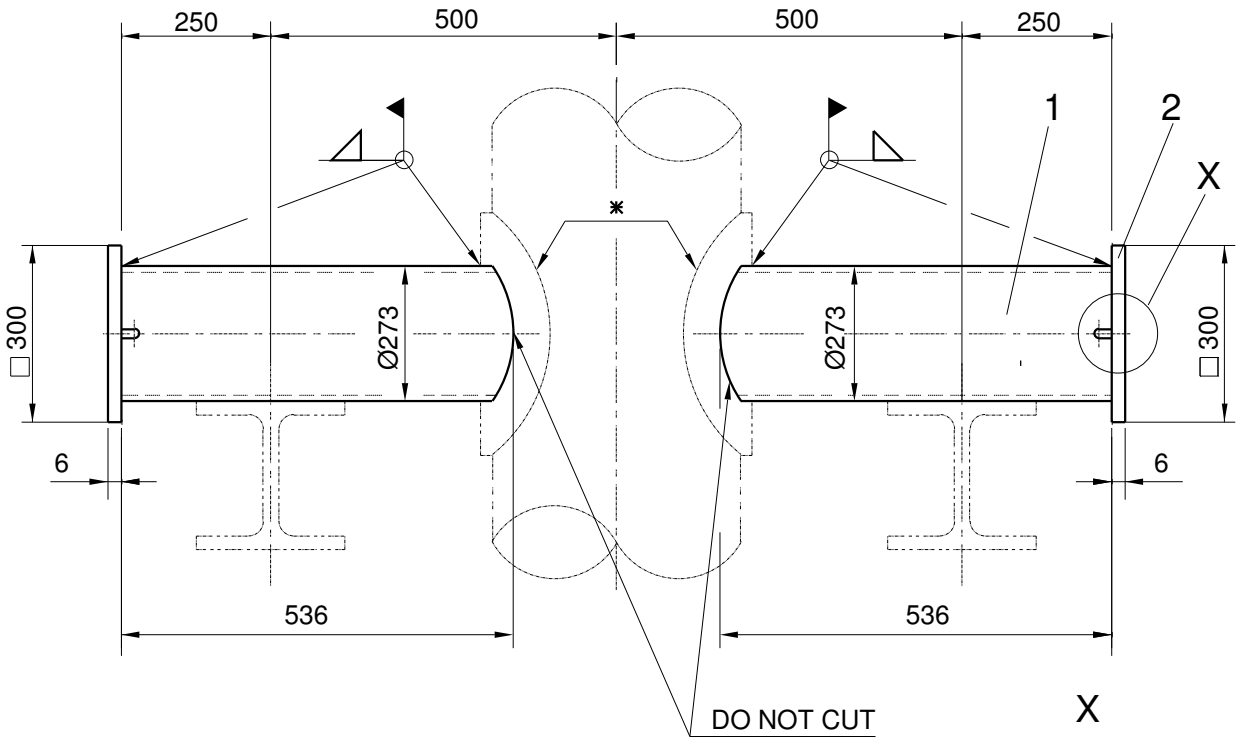
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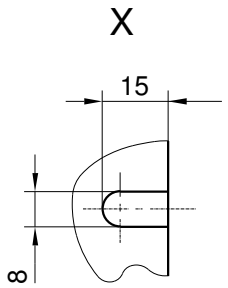
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 500/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	2	PIPE 273 x 10 x 536	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 78,050 kg

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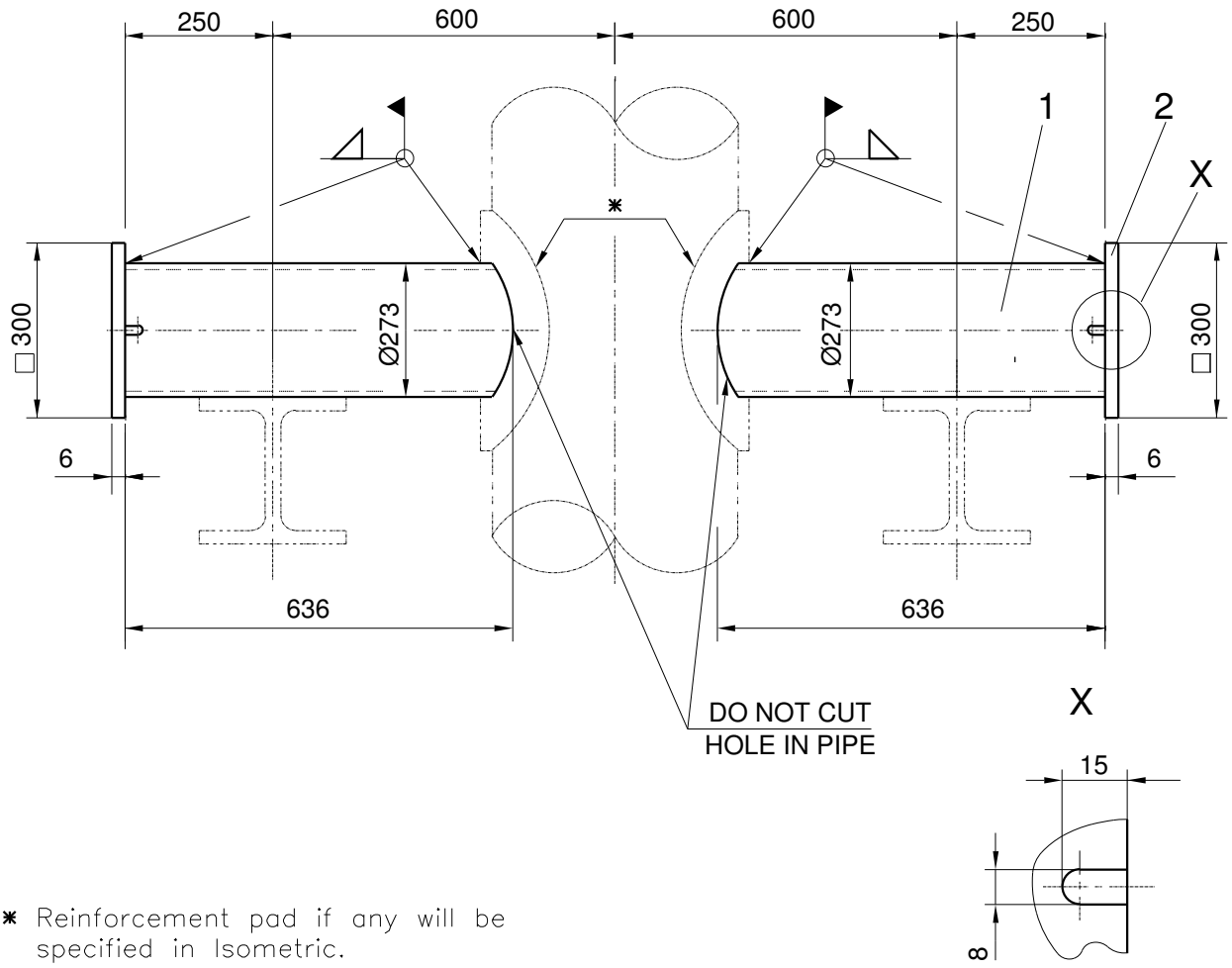
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 500/600

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	2	PIPE 273 x 10 x 636	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 91,030 kg

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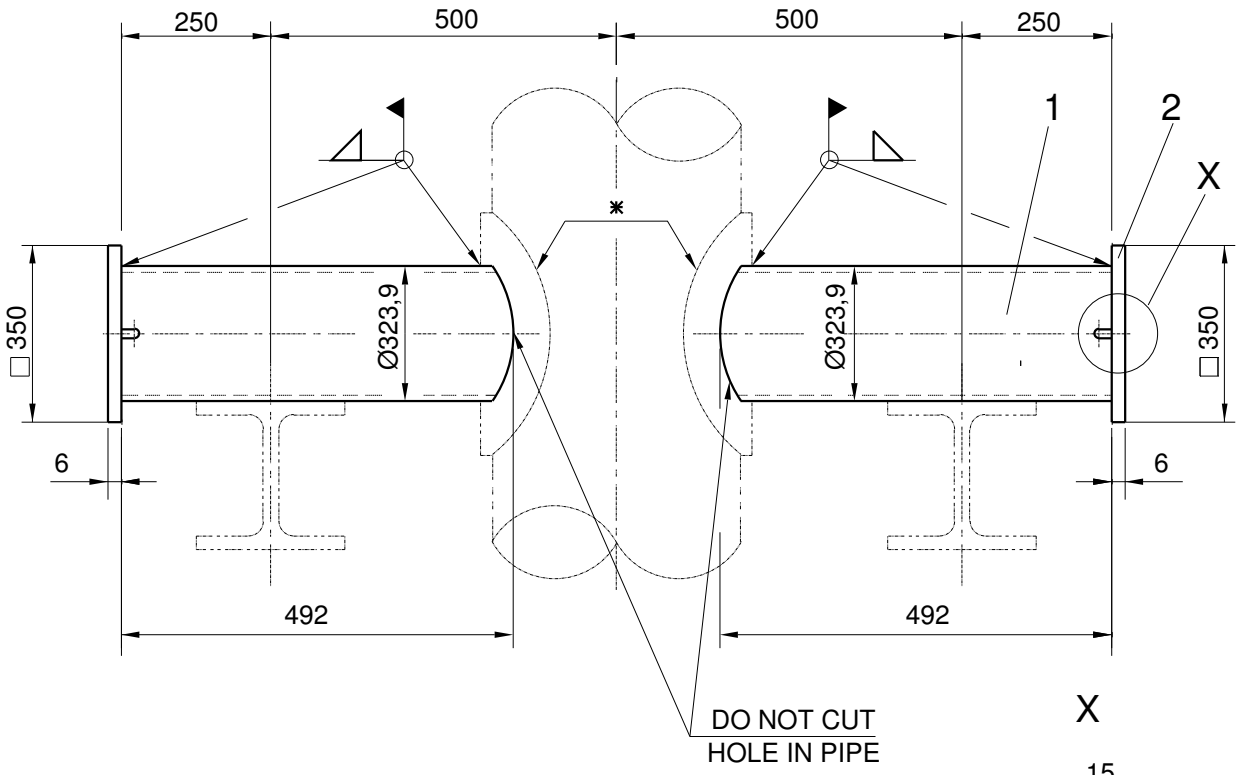
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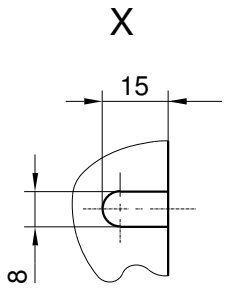
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 600/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 350 x 350	EN 10029	A283GR.B	GB0001D
1	2	PIPE 323,9 x 10 x 492	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 87,700 kg

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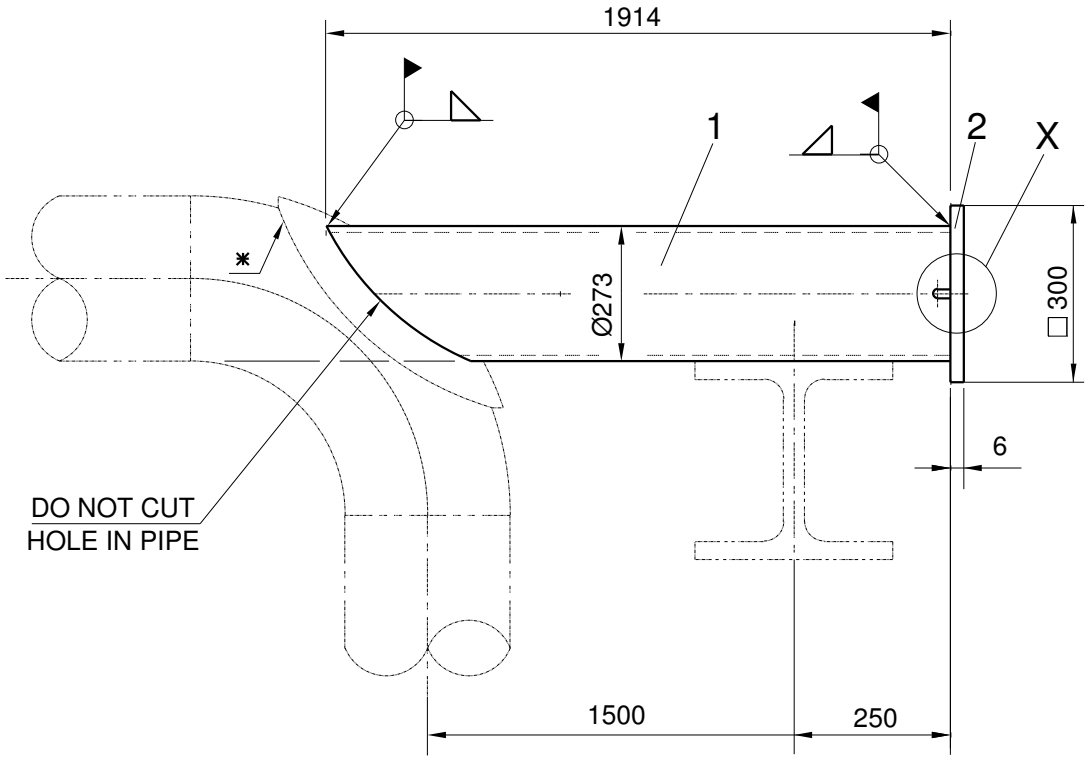
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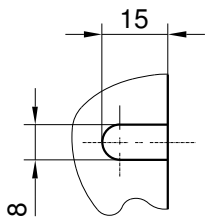
PIPE SUPPORT

Code No.: NUA001D Marking : 400/1500

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1914	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 128,440 kg

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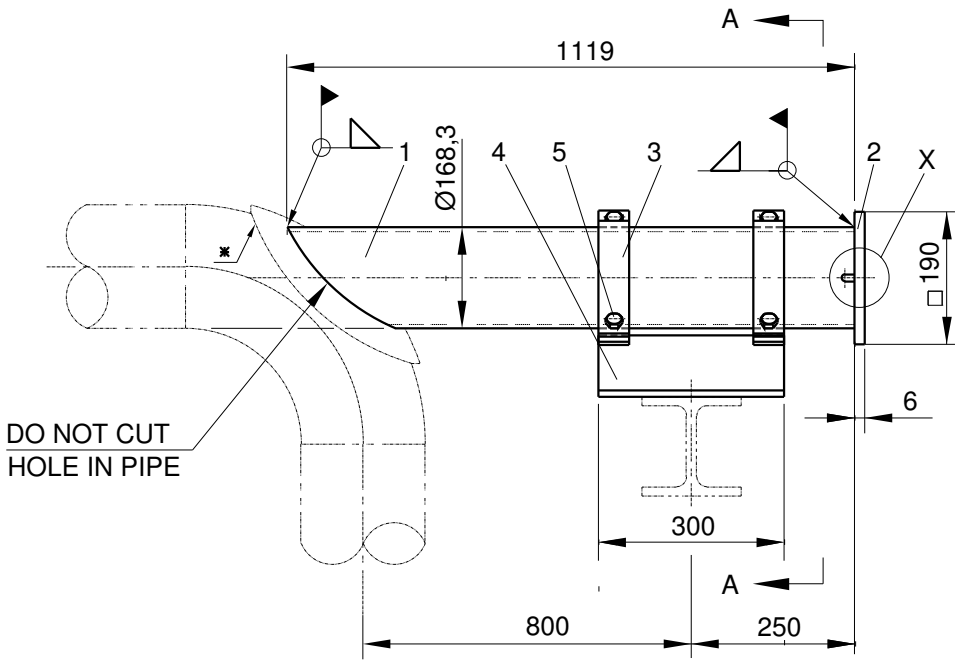
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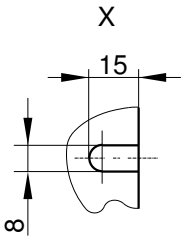
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		Manufacturer drawing	1	66-6695-700		

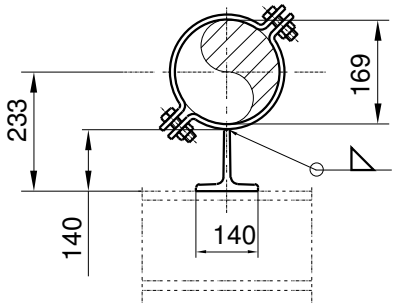
PIPE SUPPORT

Code No.: NUG002D Marking : 250/3/800

U Item







A-A

* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
3	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 1119	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 63,890 kg

1) A193GR.B7/A194GR.2H

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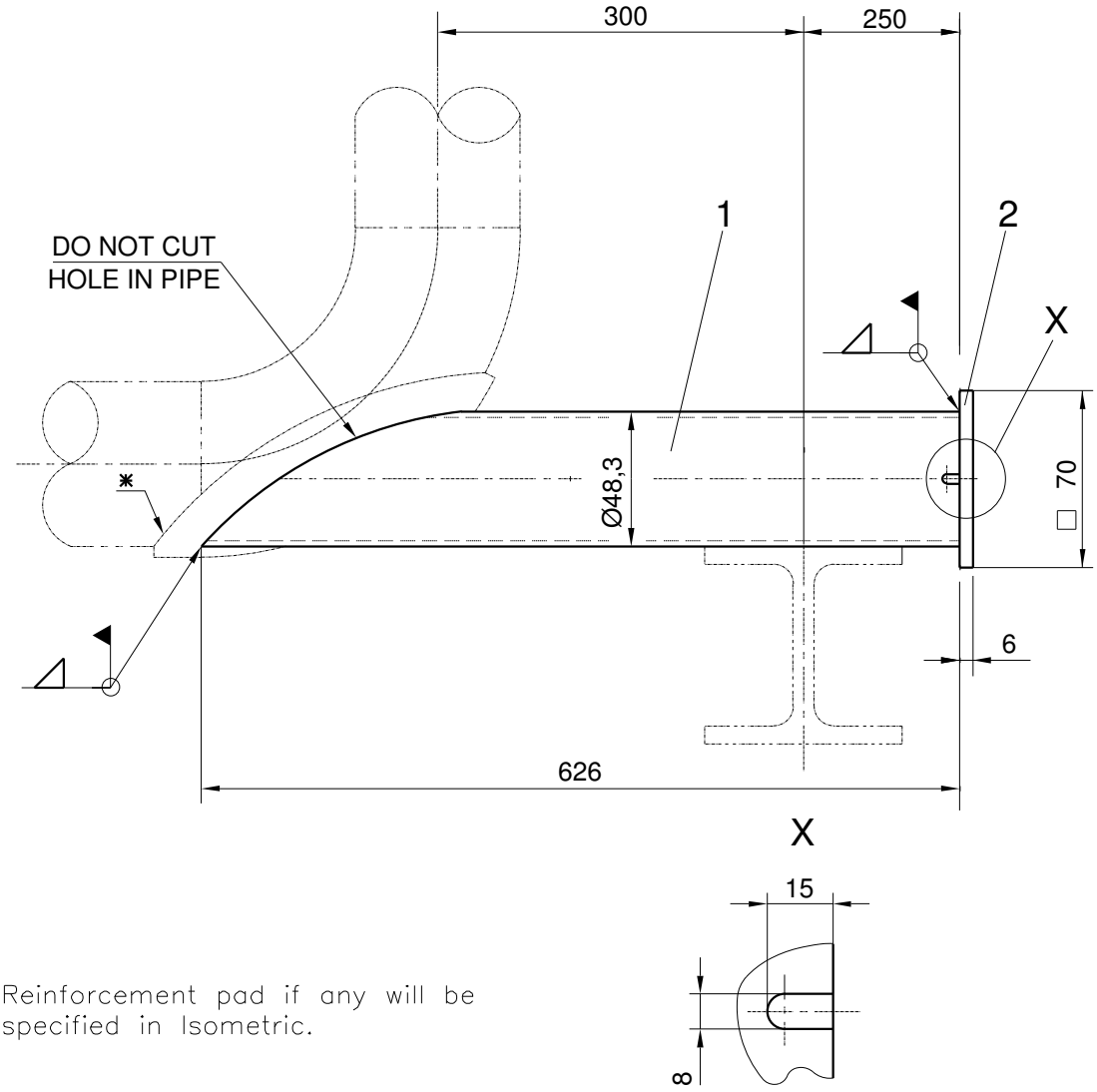
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NVA001D Marking : 50/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 70 x 70	EN 10029	A283GR.B	GB0001D
1	1	PIPE 48,3 x 4 x 626	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,970 kg

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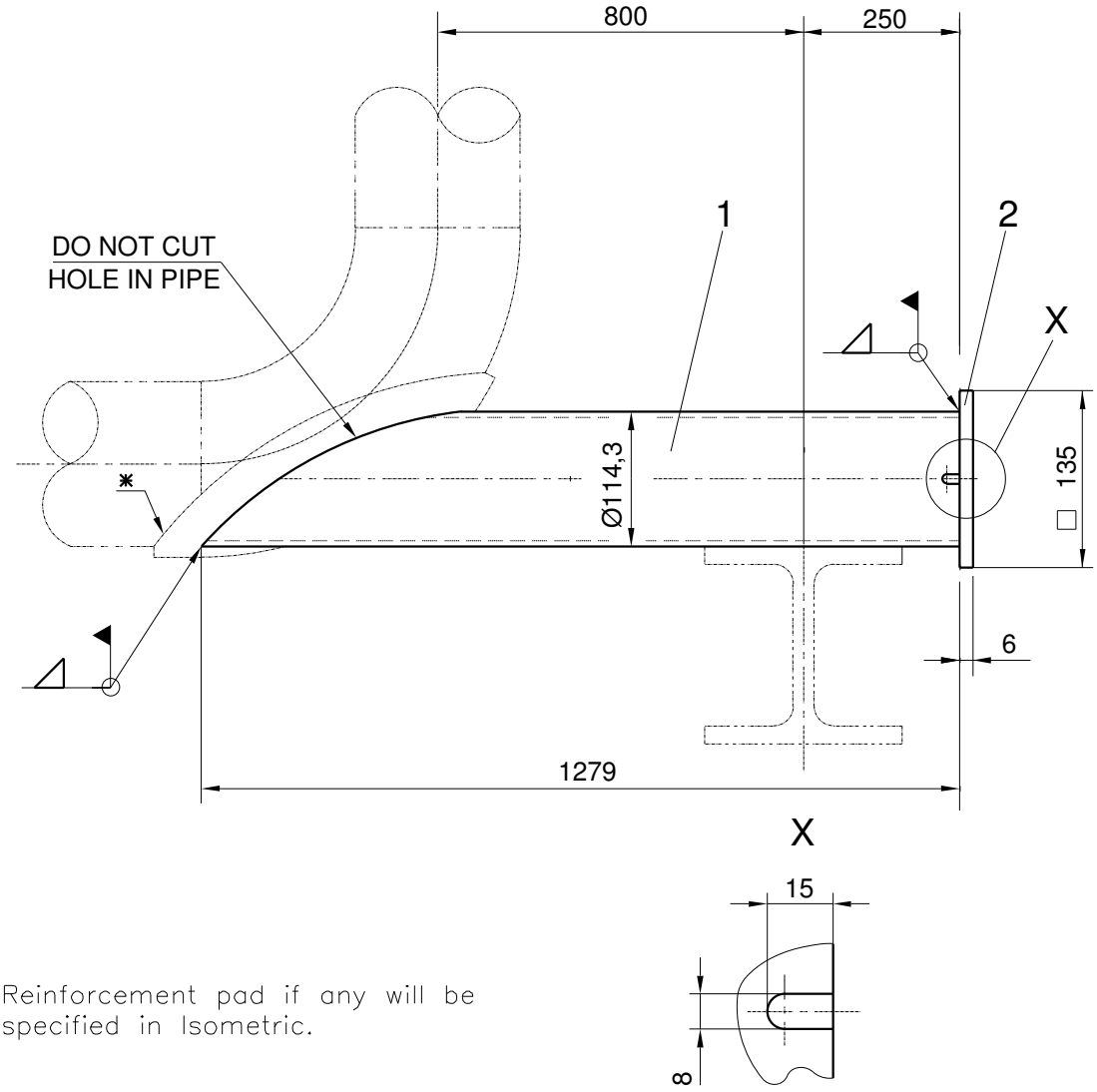
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NVA001D Marking : 150/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1279	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 22,350 kg

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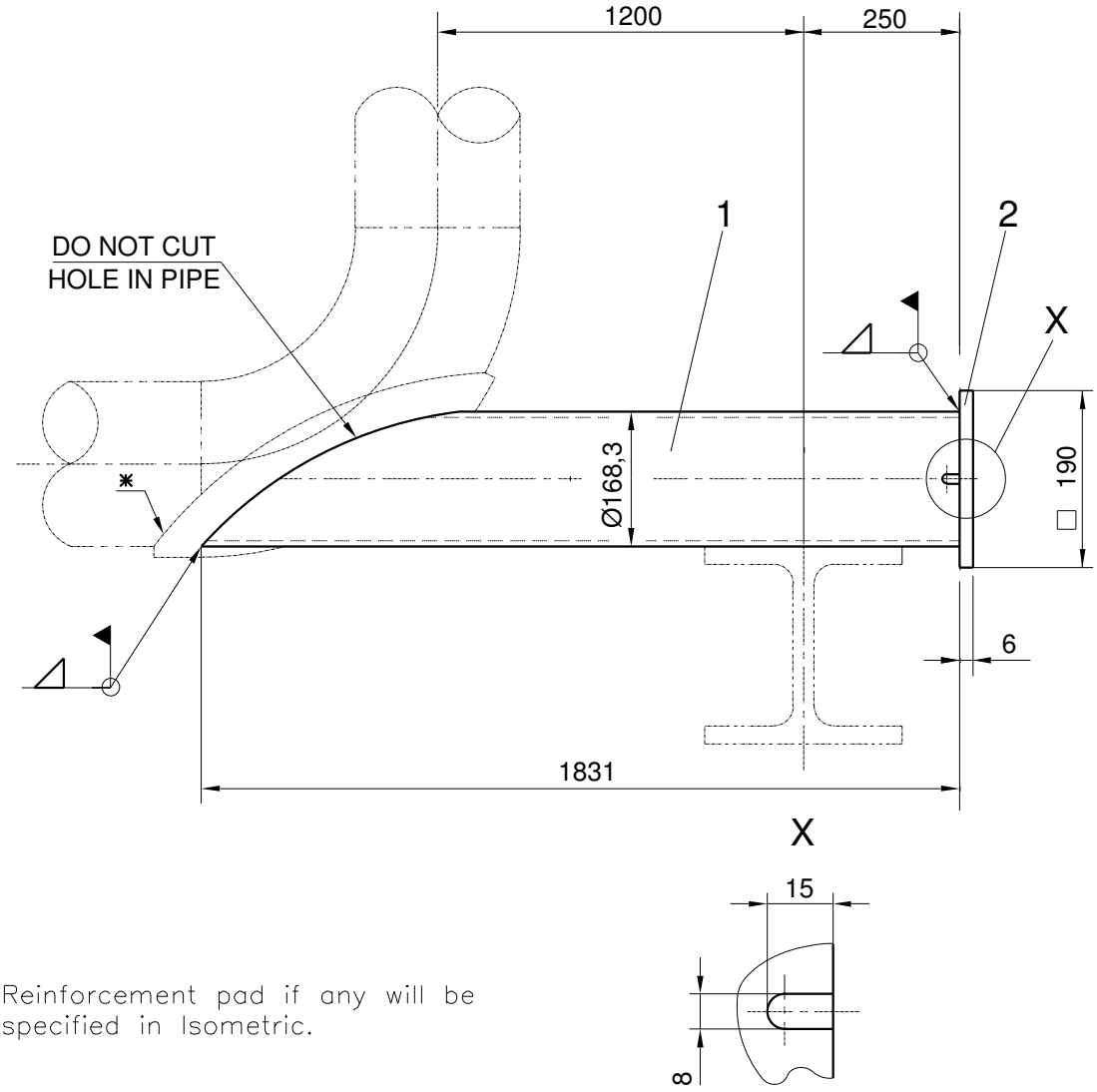
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NVA001D Marking : 250/1200

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 1831	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 79,880 kg

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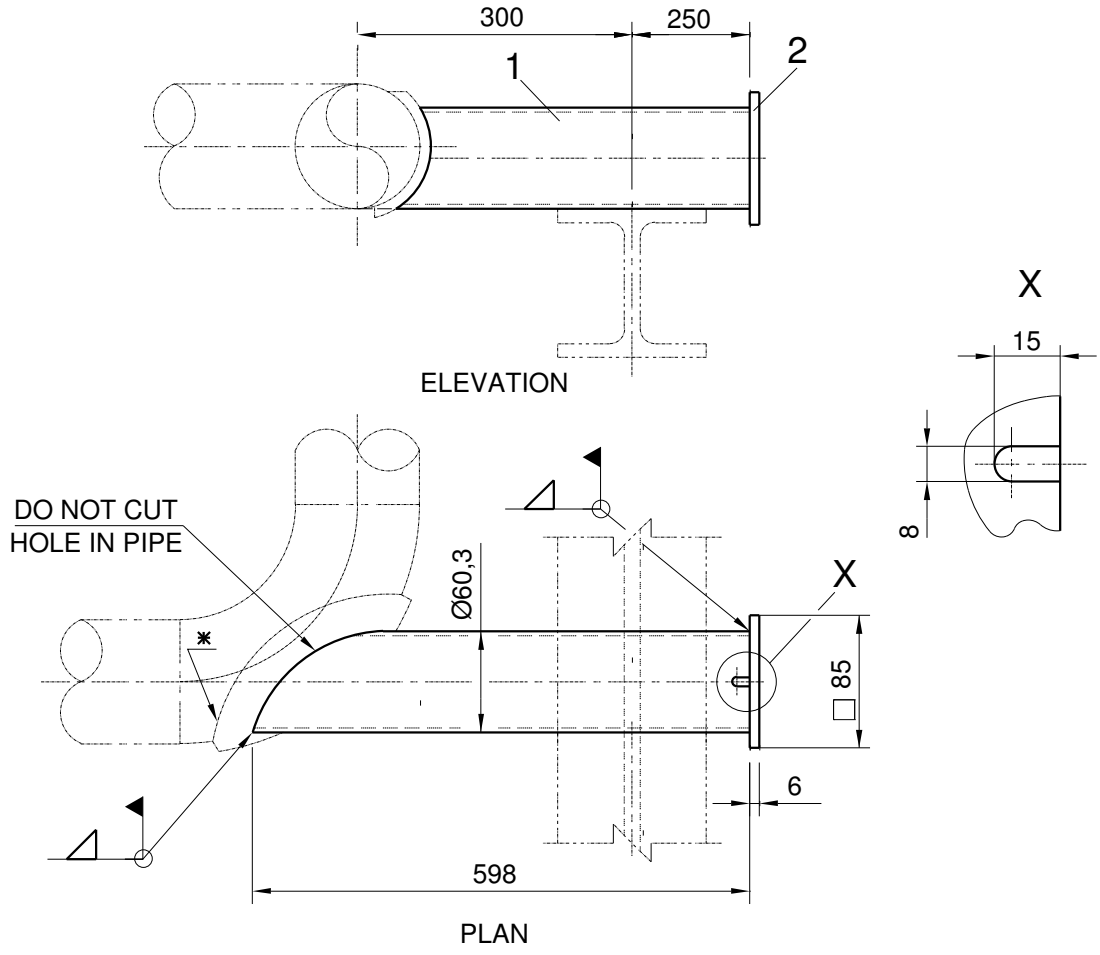
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 80/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 598	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 3,660 kg

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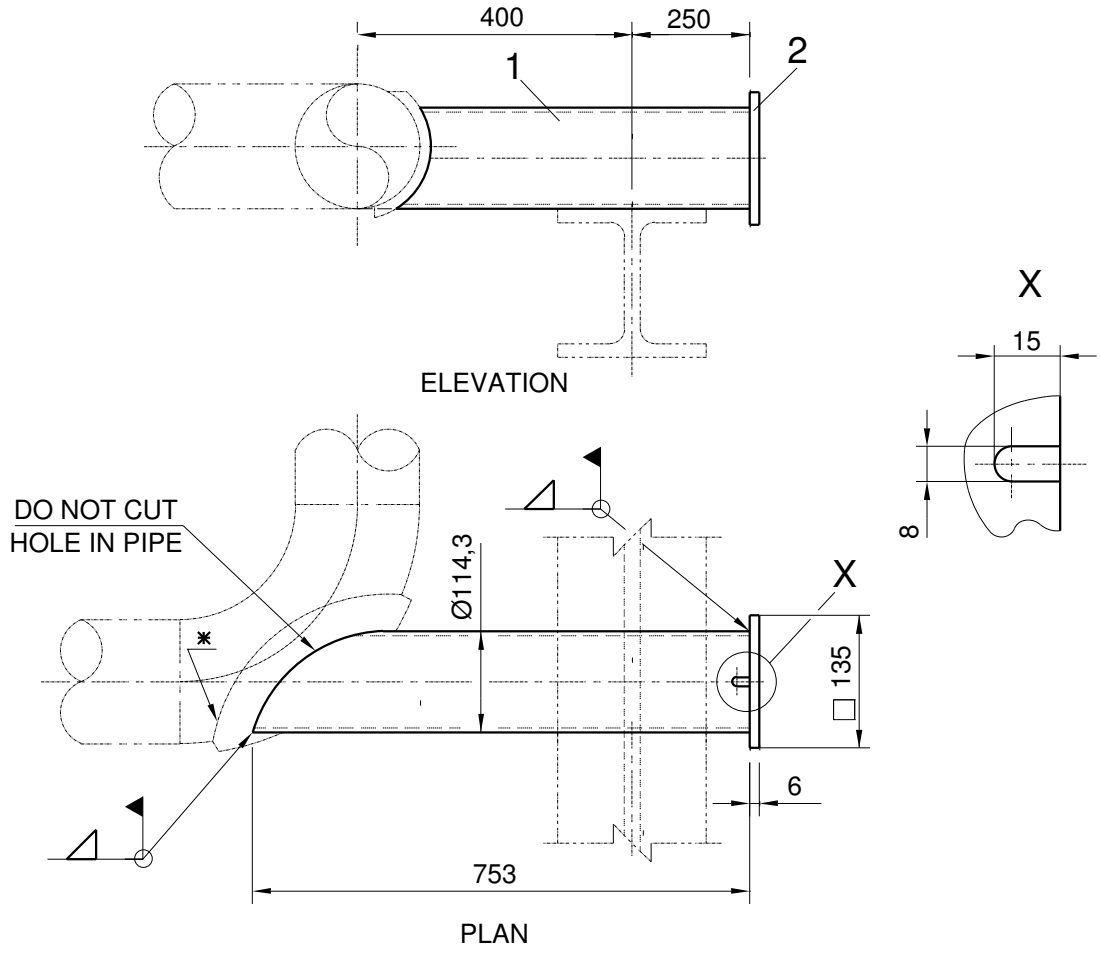
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 200/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 753	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 13,510 kg

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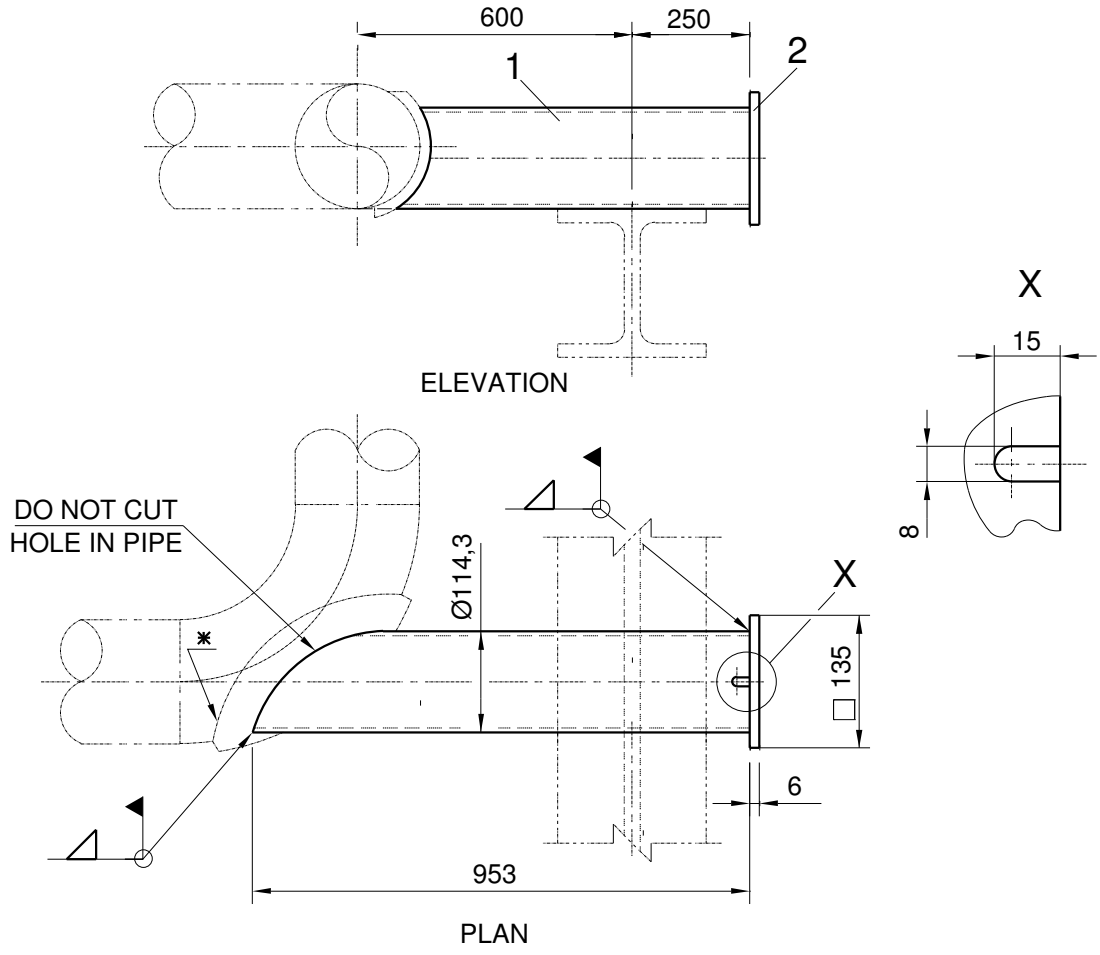
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 200/600

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 953	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 16,870 kg

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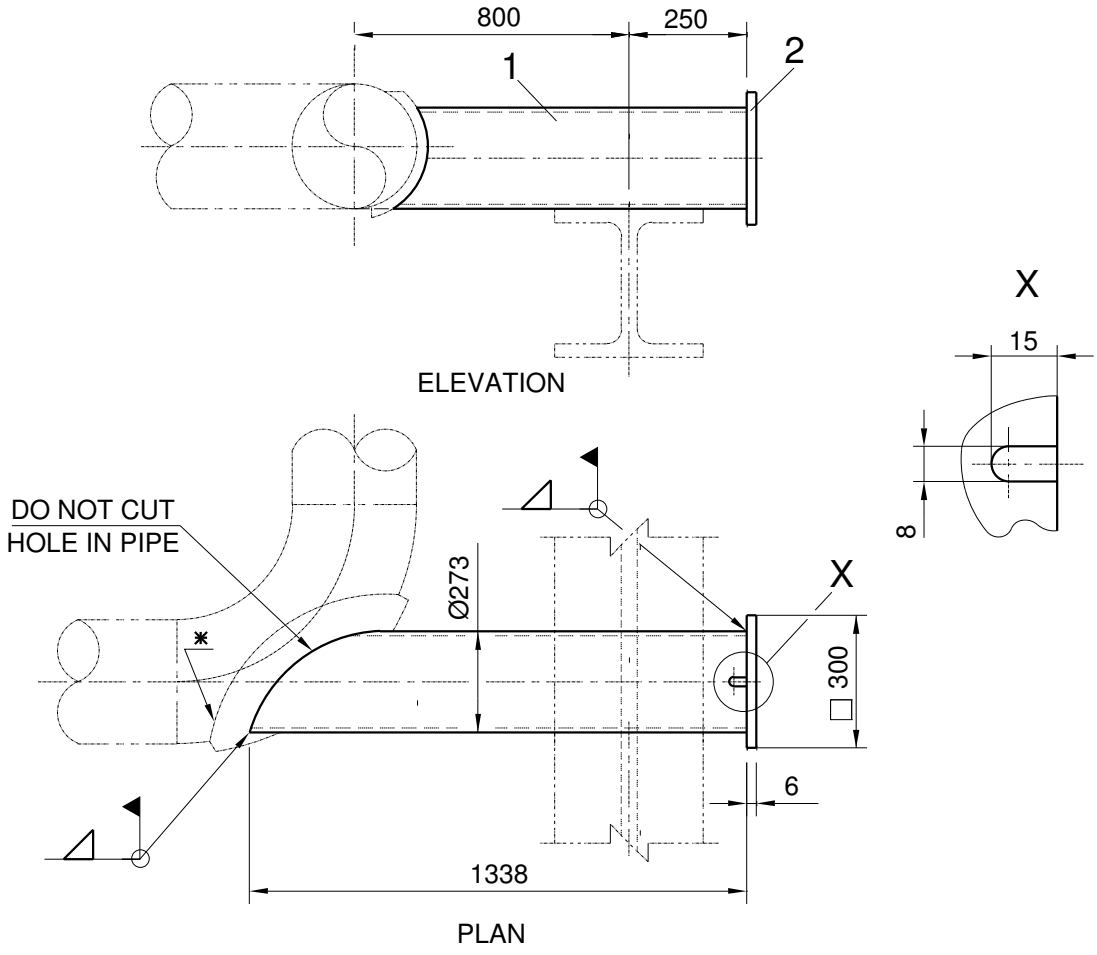
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 400/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1338	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 91,040 kg

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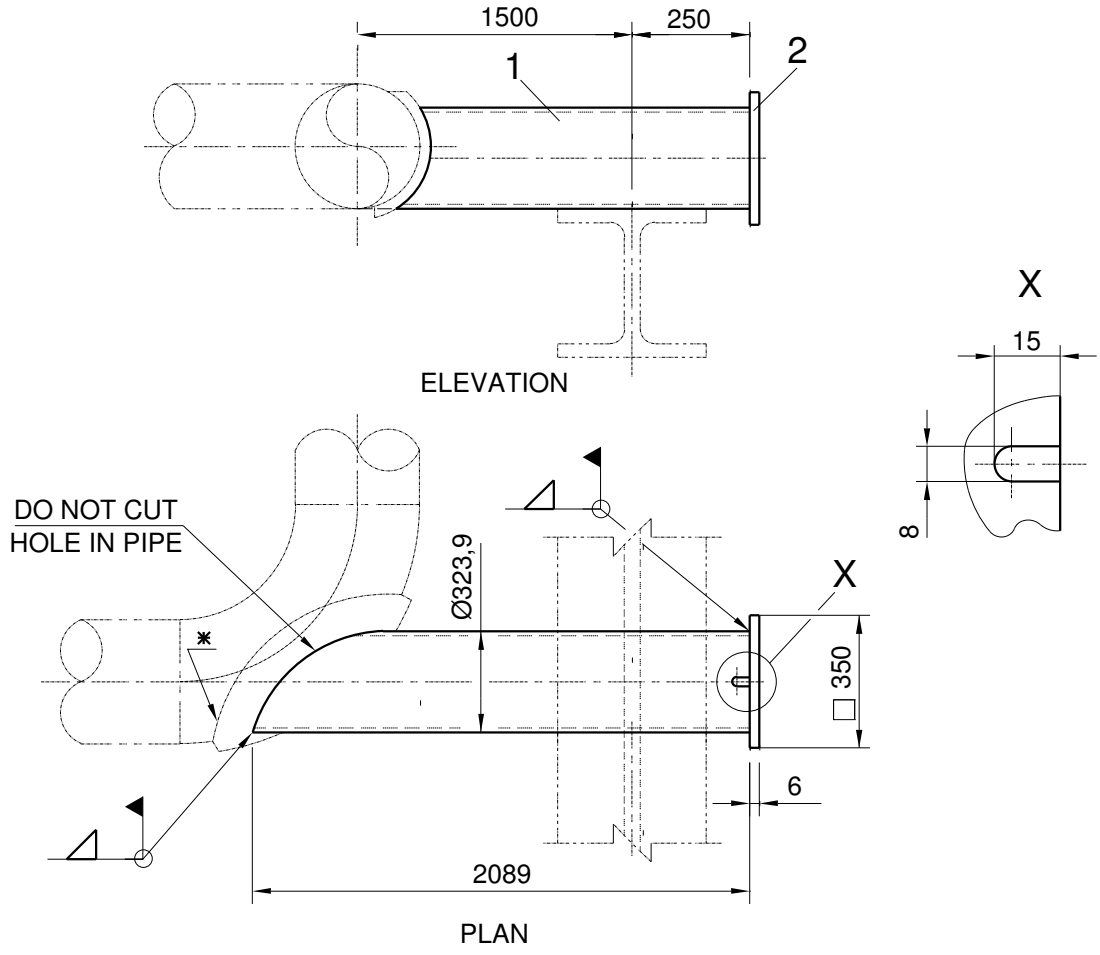
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 500/1500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 350 x 350	EN 10029	A283GR.B	GB0001D
1	1	PIPE 323,9 x 10 x 2089	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 167,490 kg

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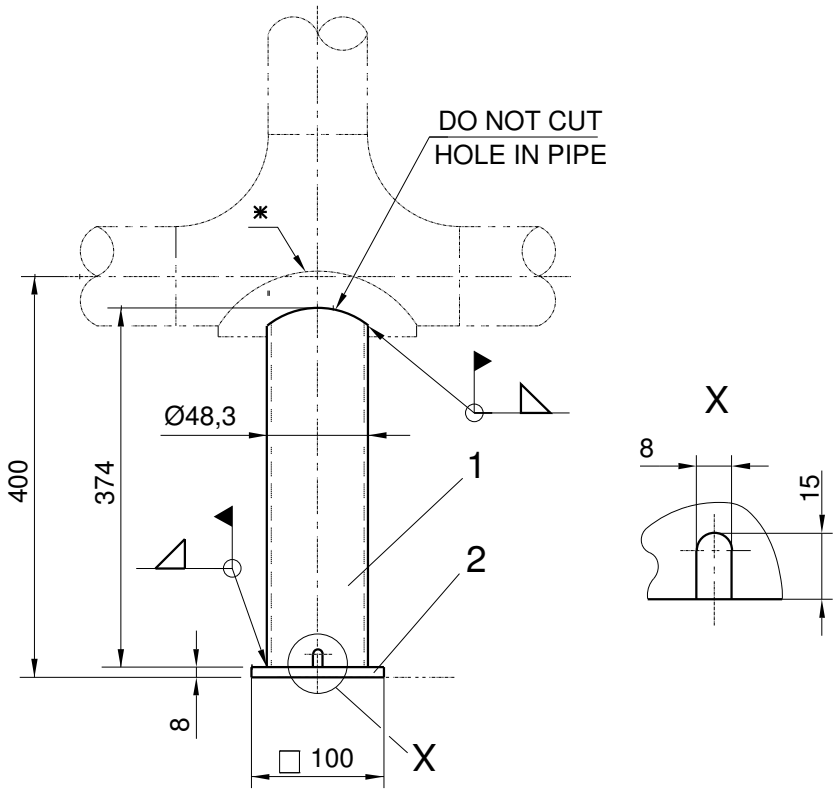
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NXA001D Marking : 50/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 48,3 x 4 x 374	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,420 kg

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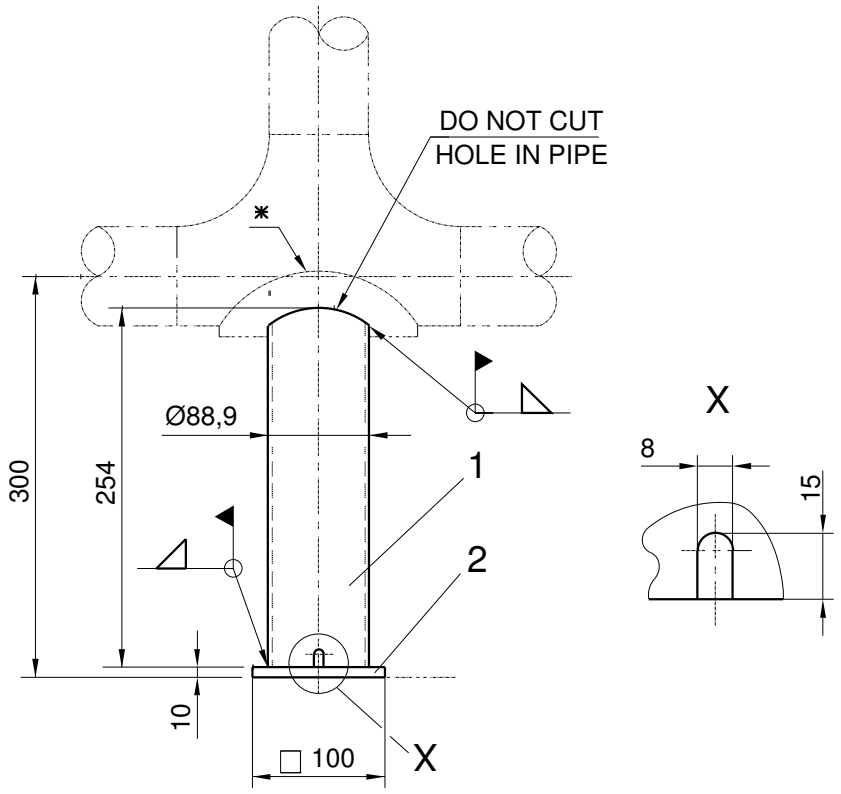
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NXA001D Marking : 100/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 254	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 3,400 kg

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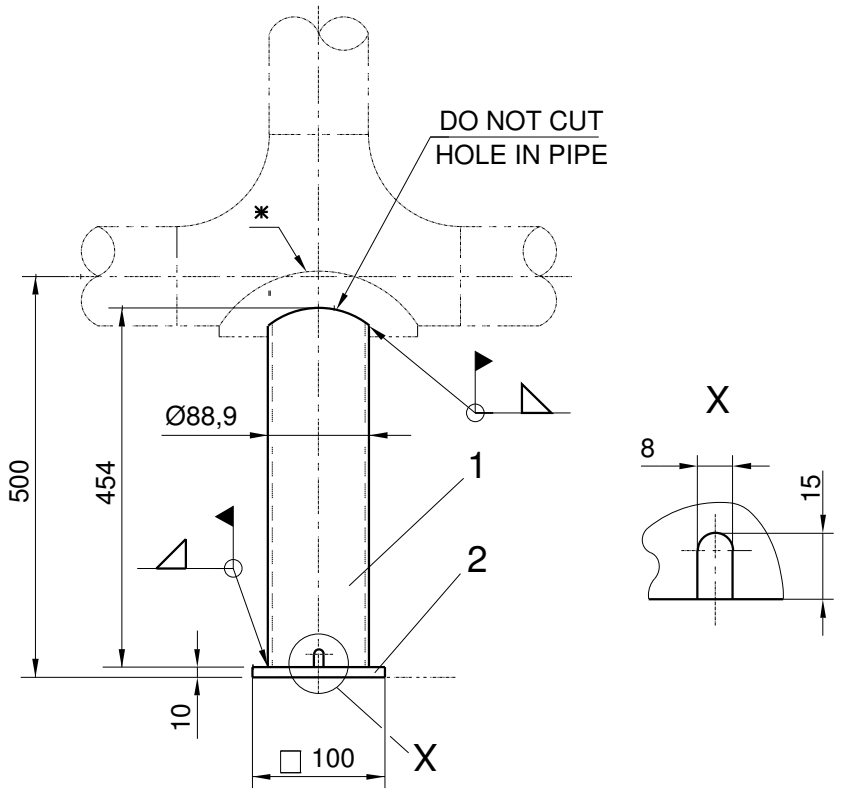
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NXA001D Marking : 100/500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 454	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 5,460 kg

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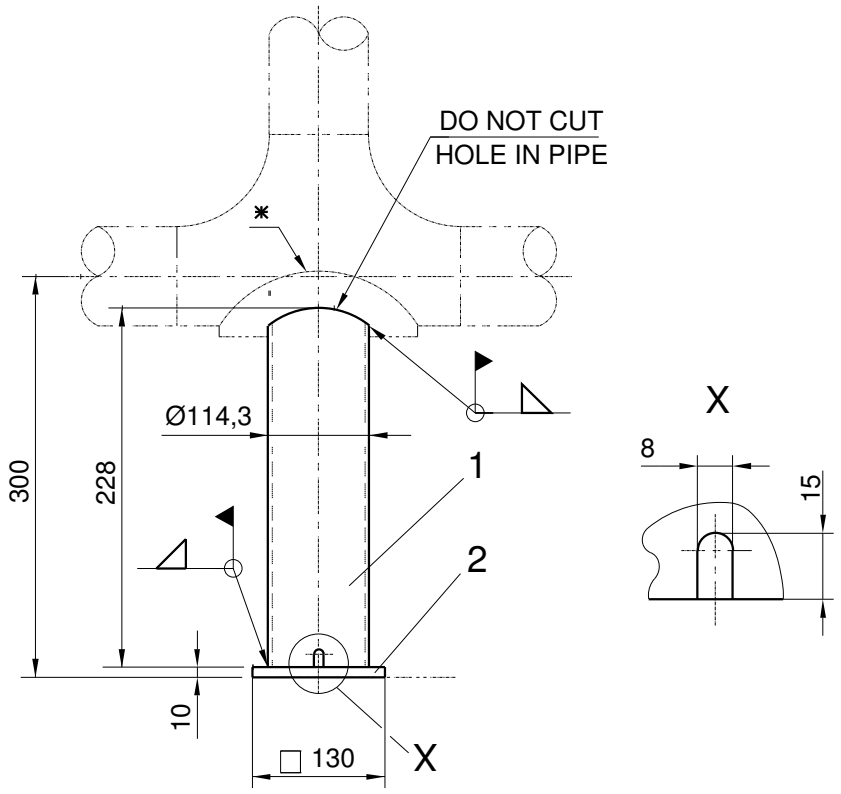
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NXA001D Marking : 150/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 228	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 5,430 kg

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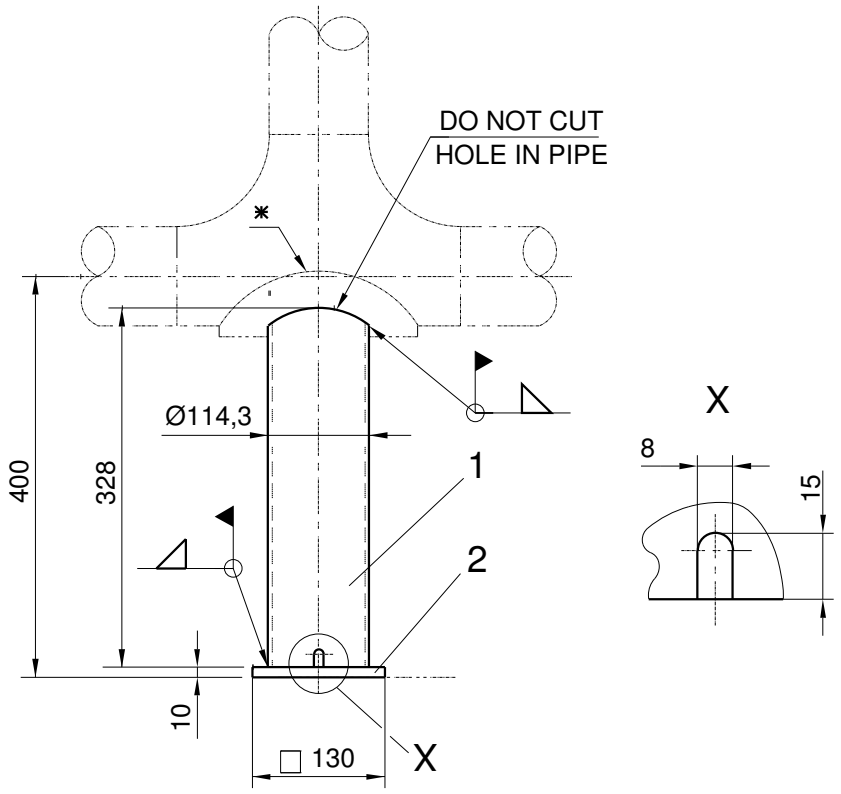
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NXA001D Marking : 150/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 328	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 7,110 kg

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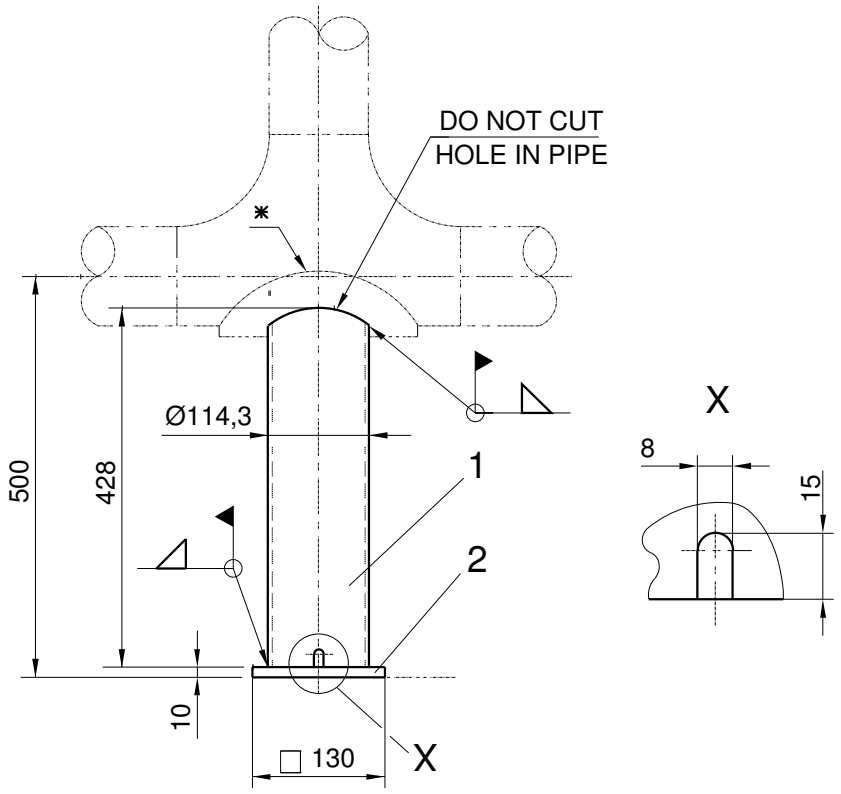
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NXA001D Marking : 150/500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 428	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 8,790 kg

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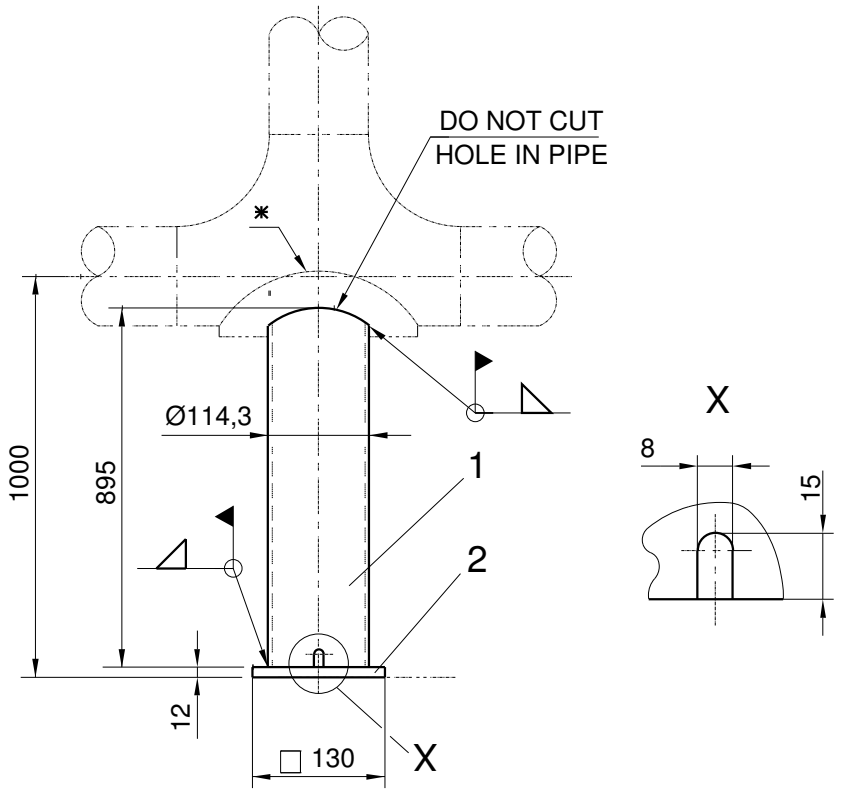
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: NXA001D Marking : 200/1000



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 895	DIN 2448	1.0254	GR0011D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 16,620 kg

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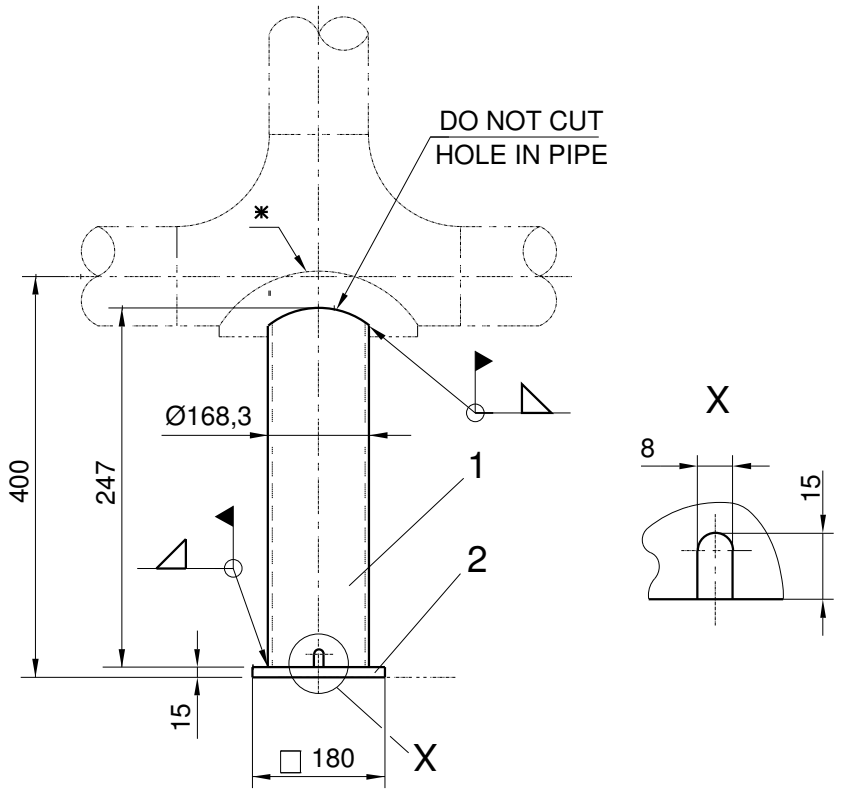
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: NXA001D Marking : 300/400



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 247	DIN 2448	1.0254	GR0011D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 14,350 kg

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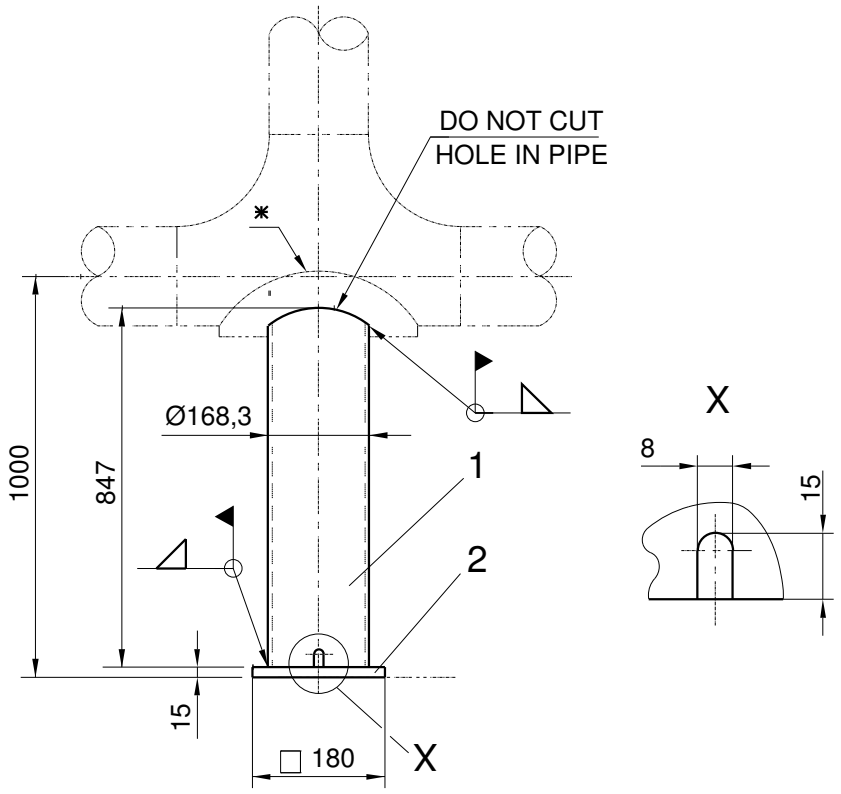
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: NXA001D Marking : 300/1000



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 847	DIN 2448	1.0254	GR0011D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 39,970 kg

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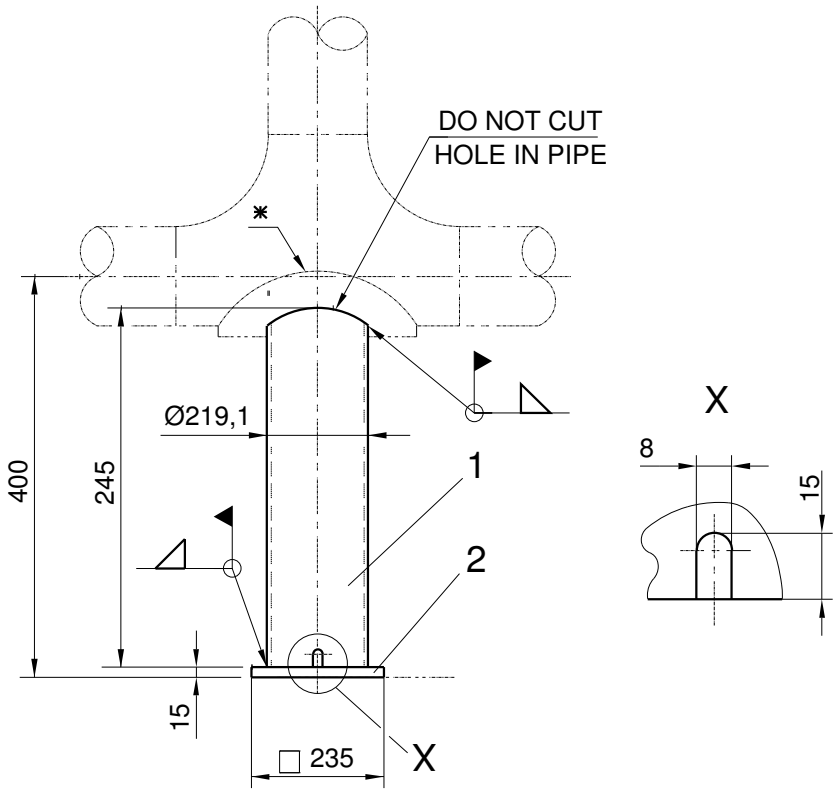
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NXA001D Marking : 350/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 235 x 235	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 245	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 19,140 kg

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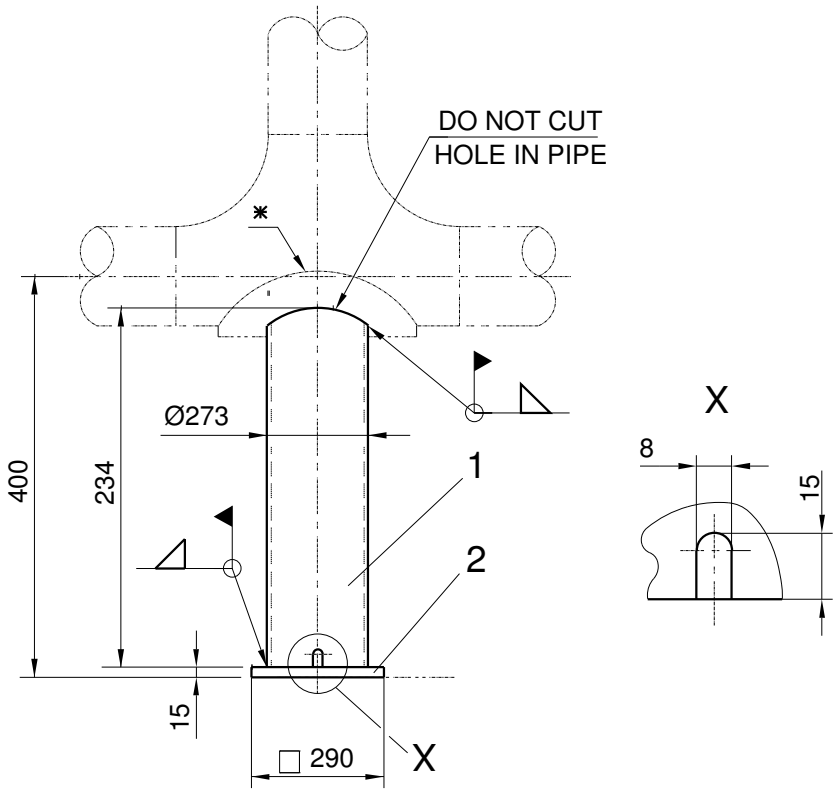
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PIPE SUPPORT

Code No.: NXA001D Marking : 400/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 234	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 25,120 kg

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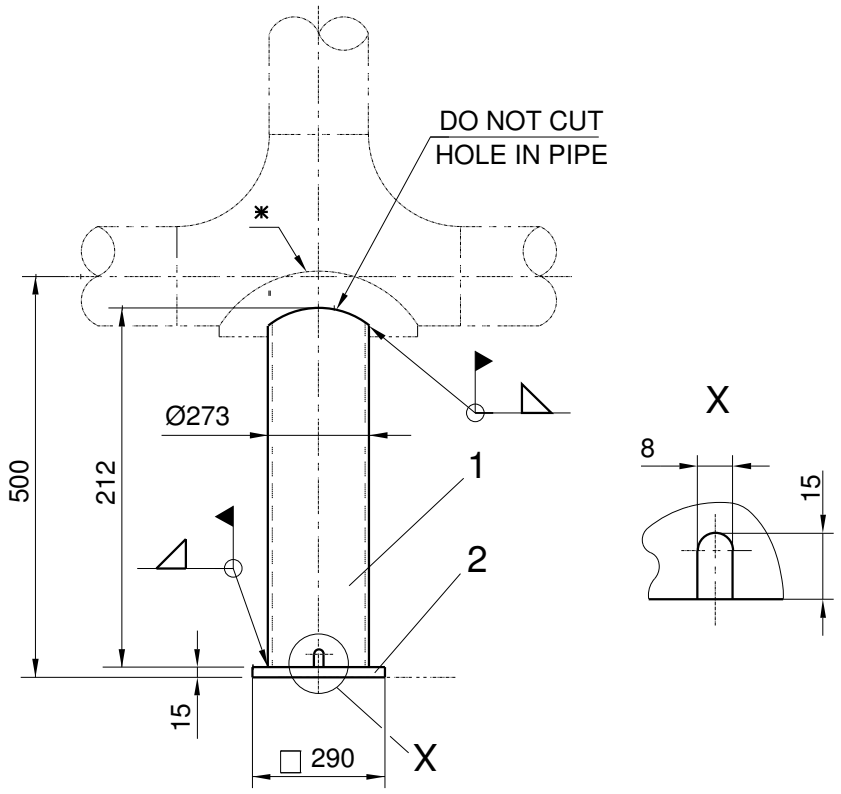
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NXA001D Marking : 600/500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 212	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 23,680 kg

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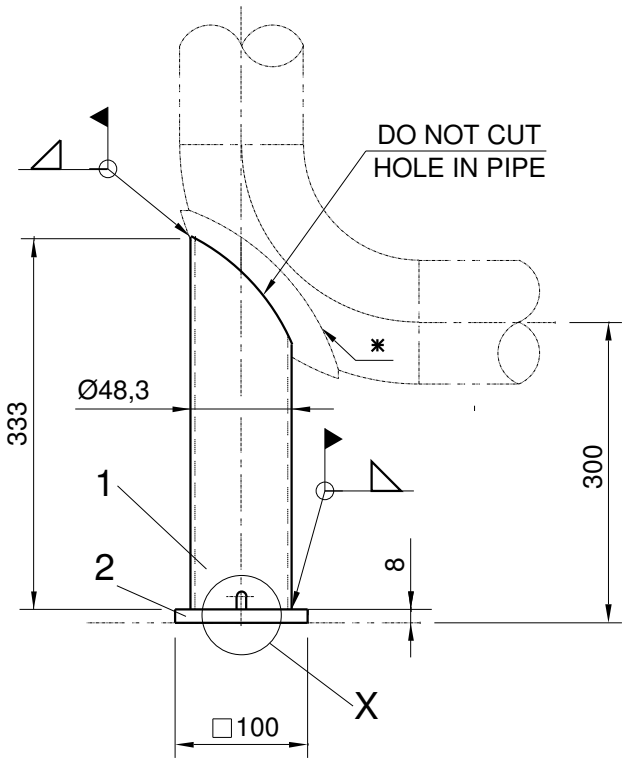
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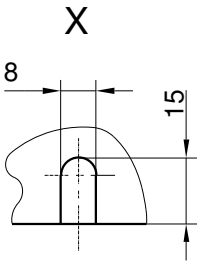
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PIPE SUPPORT

Code No.: NYA001D Marking : 50/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 48,3 x 4 x 333	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,240 kg

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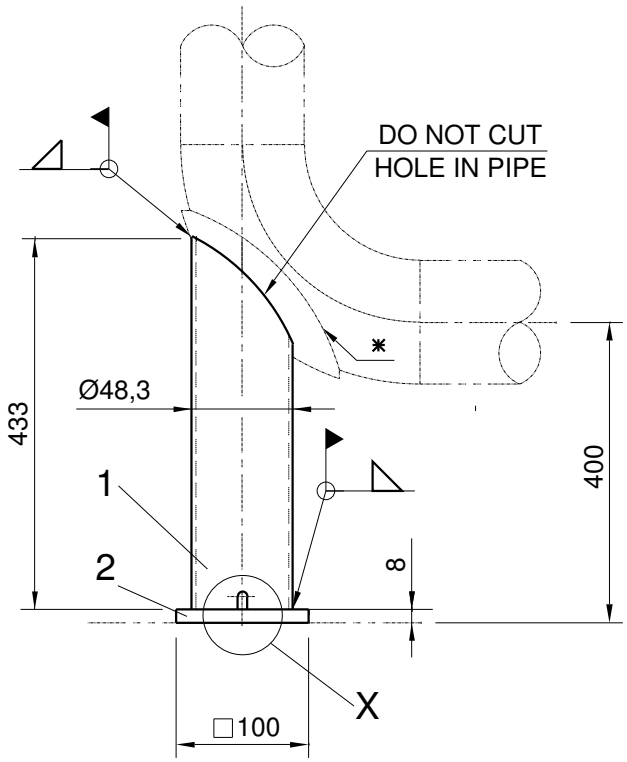
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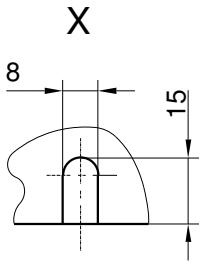
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PIPE SUPPORT

Code No.: NYA001D Marking : 50/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 48,3 x 4 x 433	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,680 kg

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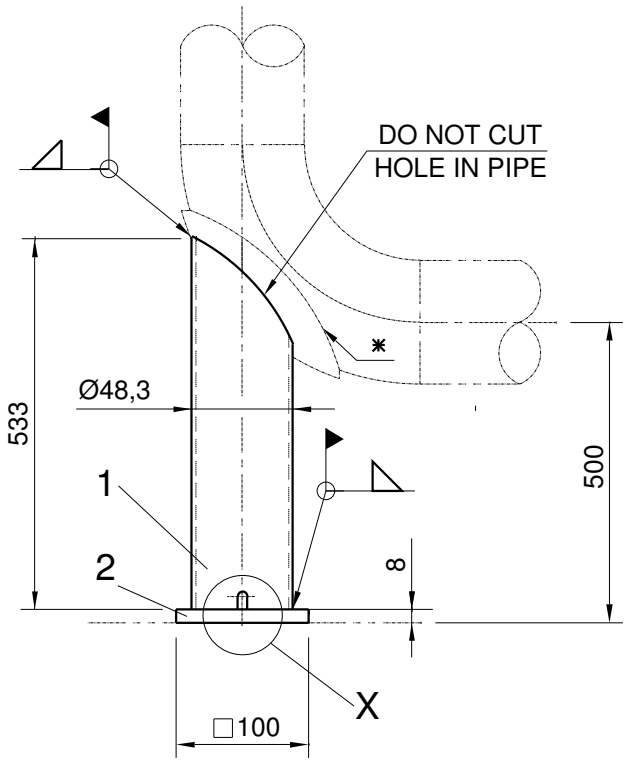
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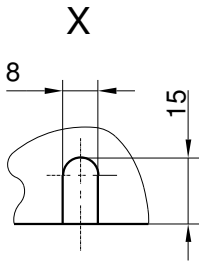
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PIPE SUPPORT

Code No.: NYA001D Marking : 50/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 48,3 x 4 x 533	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 3,110 kg

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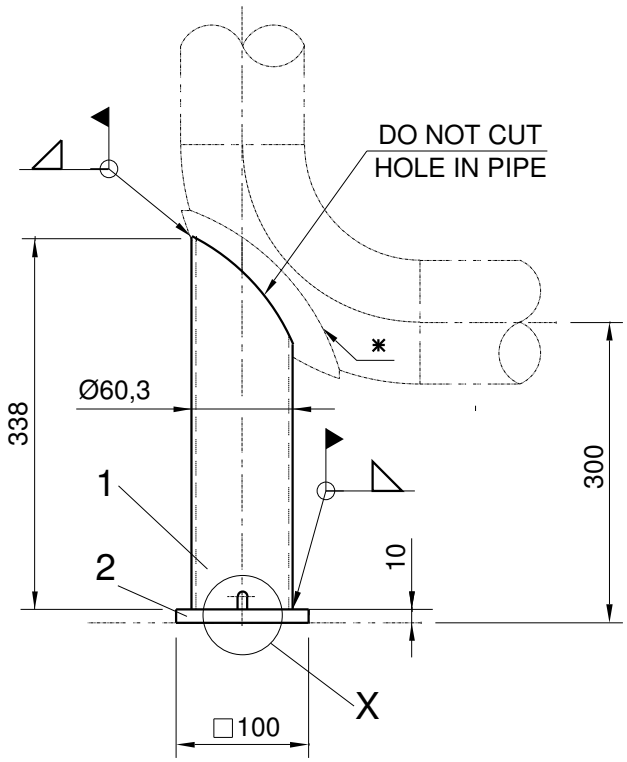
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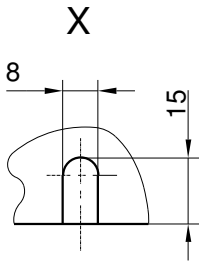
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PIPE SUPPORT

Code No.: NYA001D Marking : 80/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 338	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,660 kg

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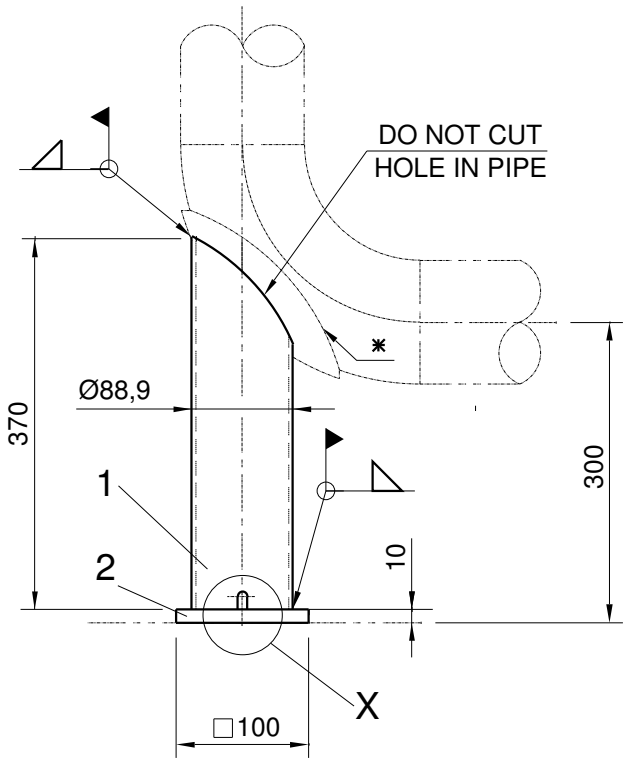
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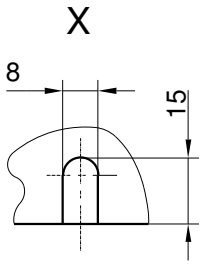
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PIPE SUPPORT

Code No.: NYA001D Marking : 100/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 370	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 4,600 kg

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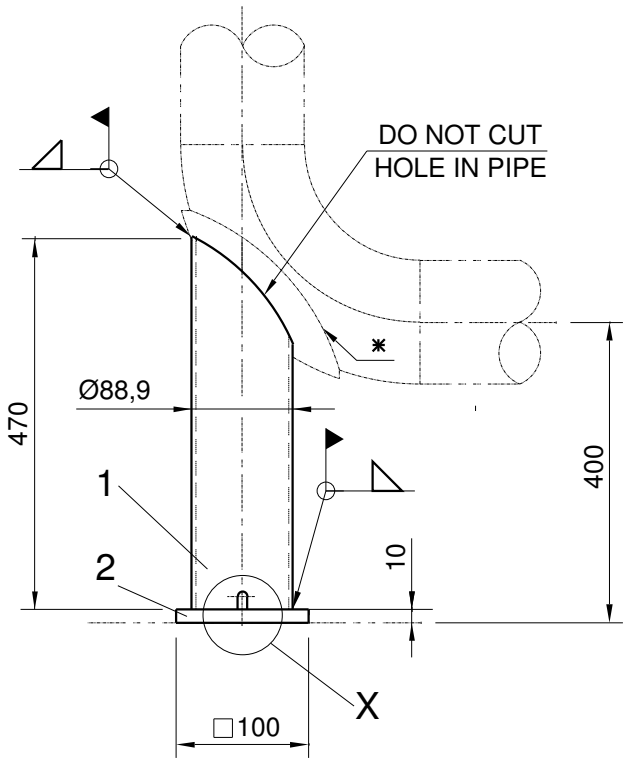
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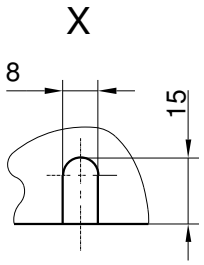
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PIPE SUPPORT

Code No.: NYA001D Marking : 100/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 470	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 5,630 kg

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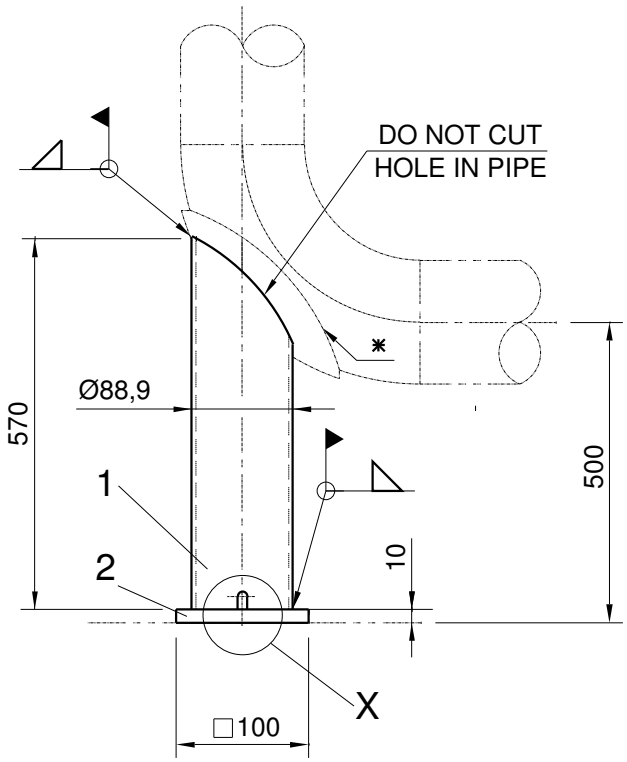
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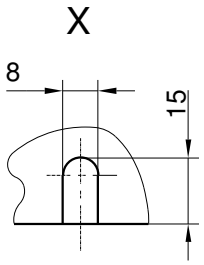
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 100/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 570	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 6,660 kg

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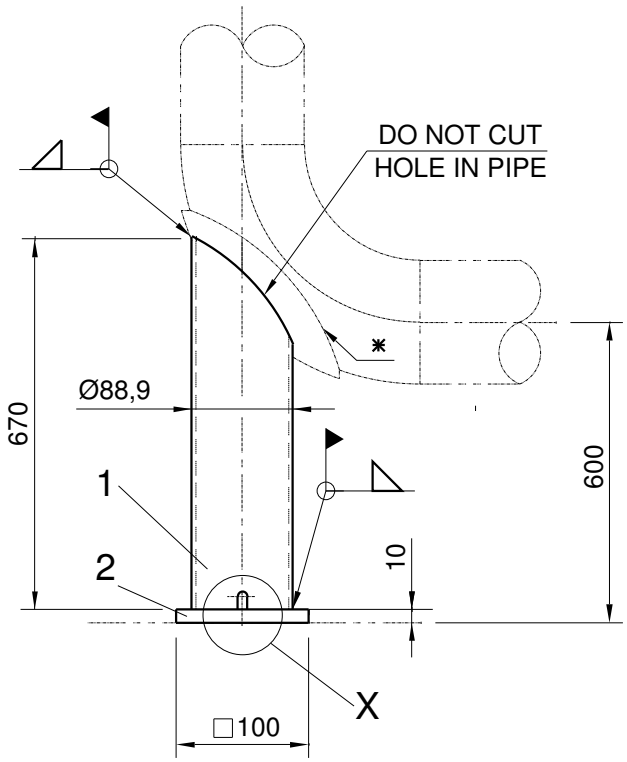
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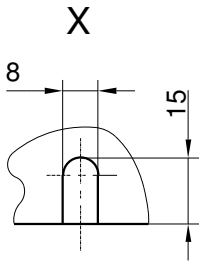
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 100/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 670	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 7,690 kg

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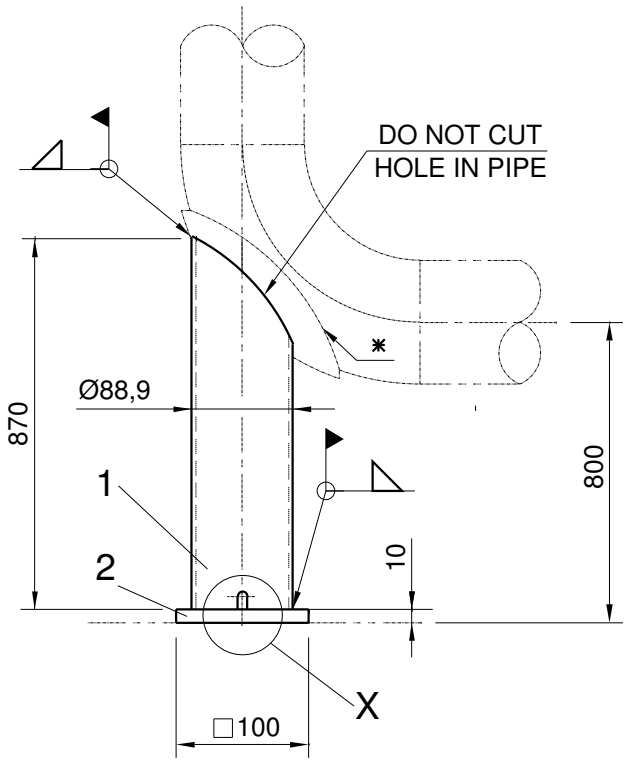
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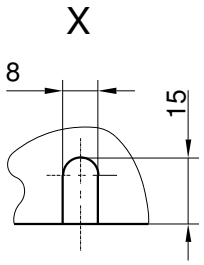
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 100/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 870	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 9,750 kg

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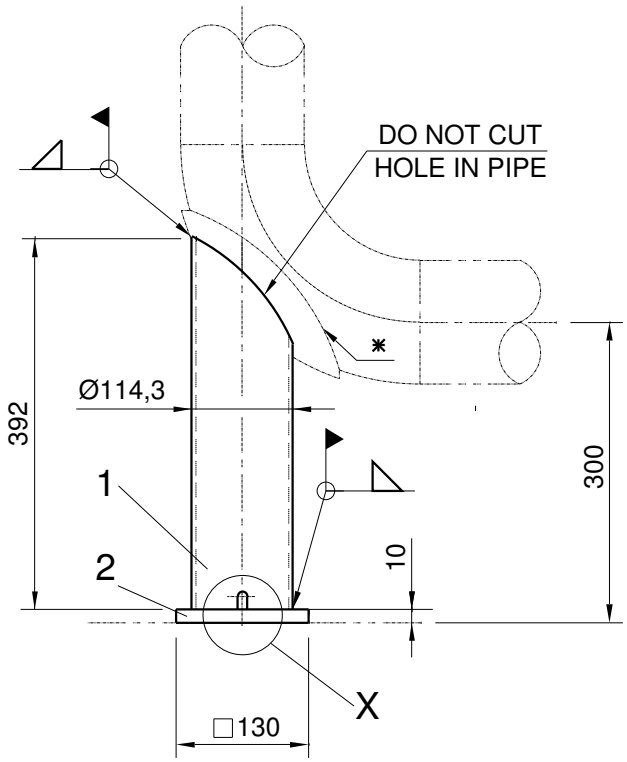
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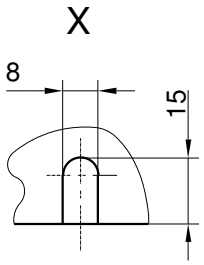
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 150/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 392	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 8,170 kg

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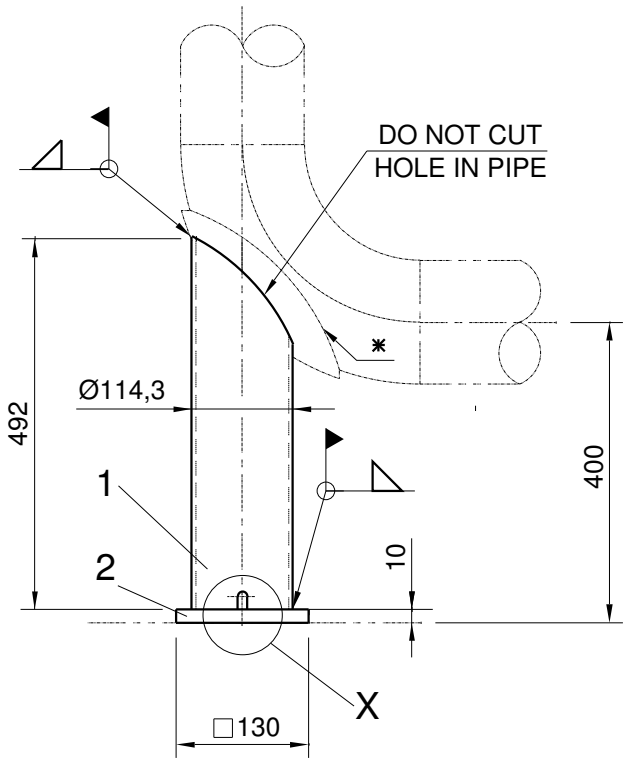
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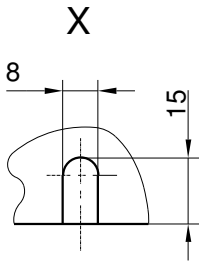
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 150/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 492	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 9,850 kg

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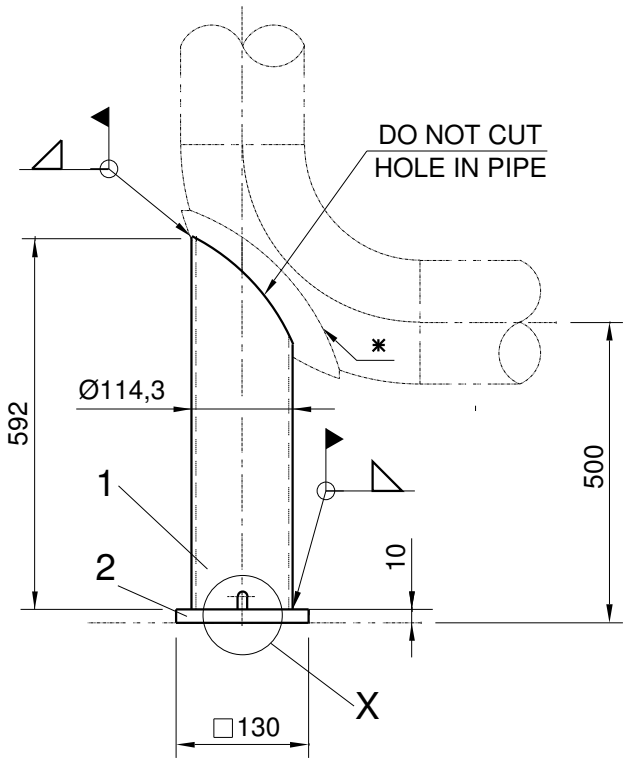
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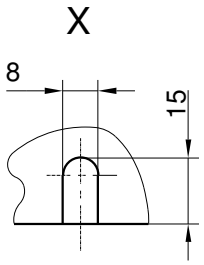
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 150/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 592	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 11,530 kg

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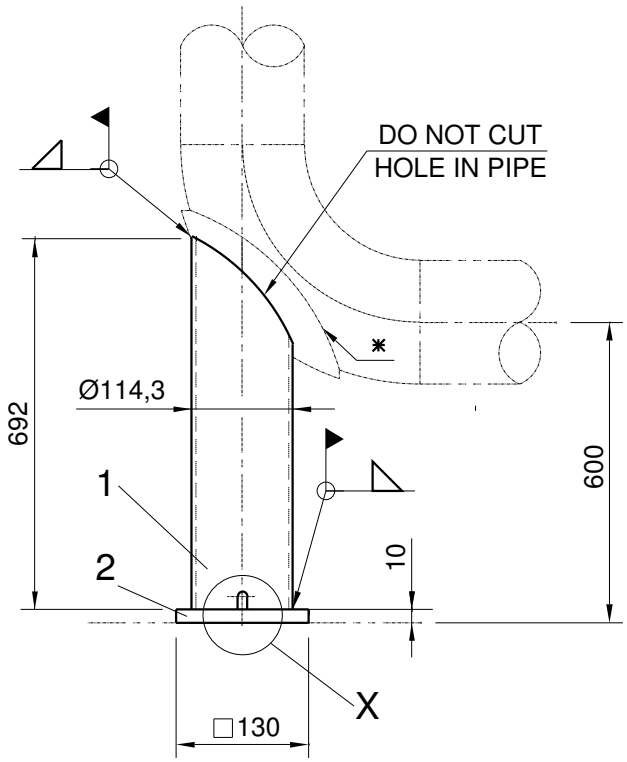
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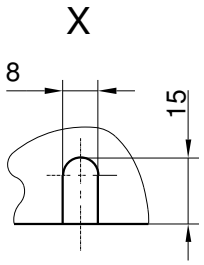
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 150/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 692	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 13,210 kg

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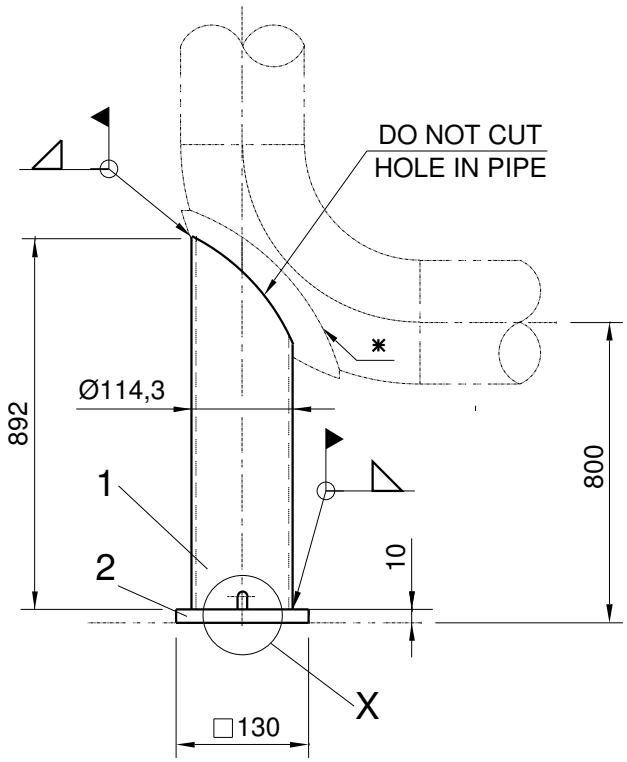
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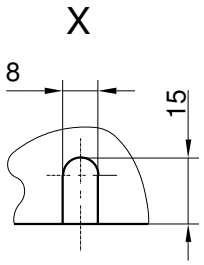
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 150/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 892	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 16,570 kg

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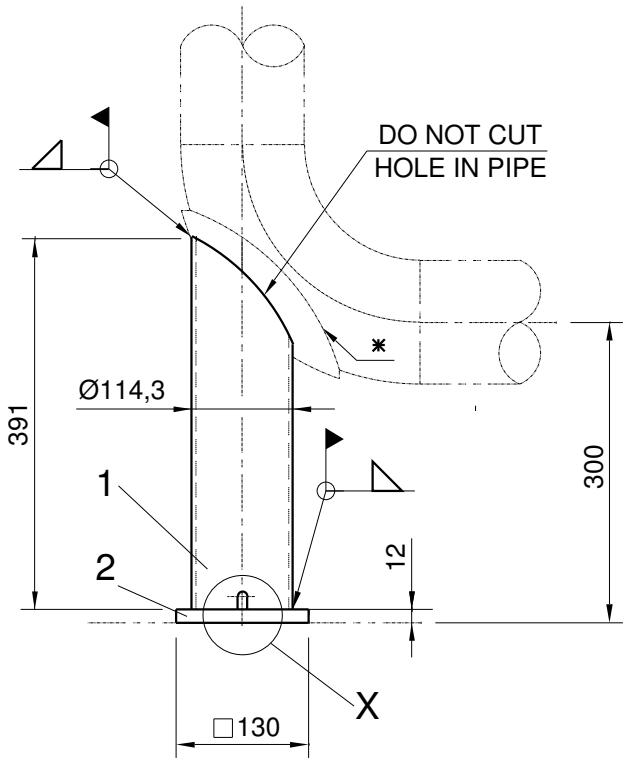
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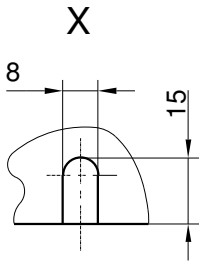
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 200/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 391	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 8,170 kg

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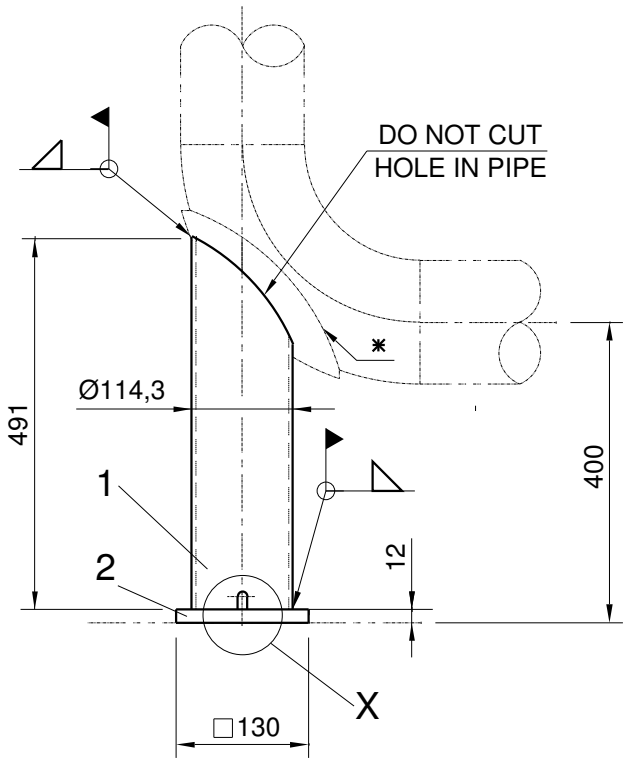
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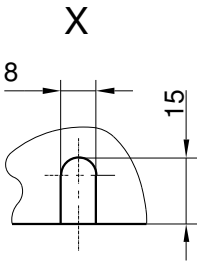
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PIPE SUPPORT

Code No.: NYA001D Marking : 200/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 491	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 9,850 kg

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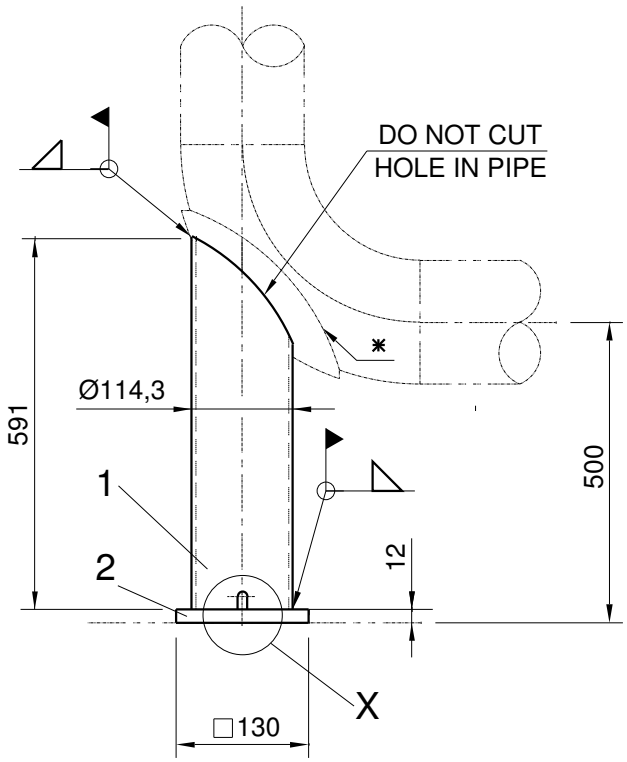
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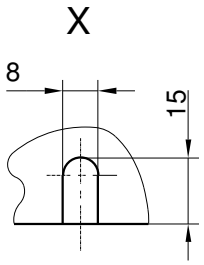
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PIPE SUPPORT

Code No.: NYA001D Marking : 200/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 591	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 11,530 kg

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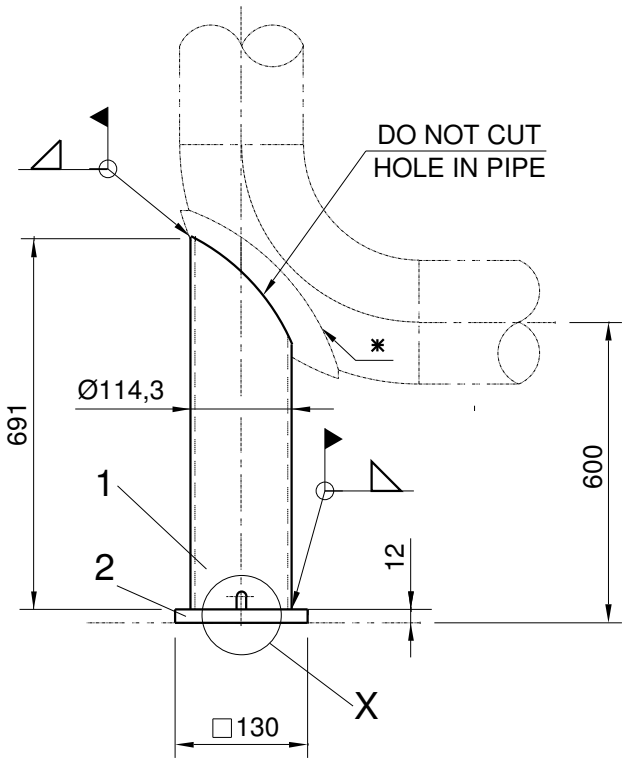
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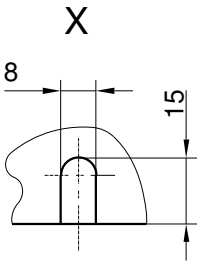
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PIPE SUPPORT

Code No.: NYA001D Marking : 200/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 691	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 13,210 kg

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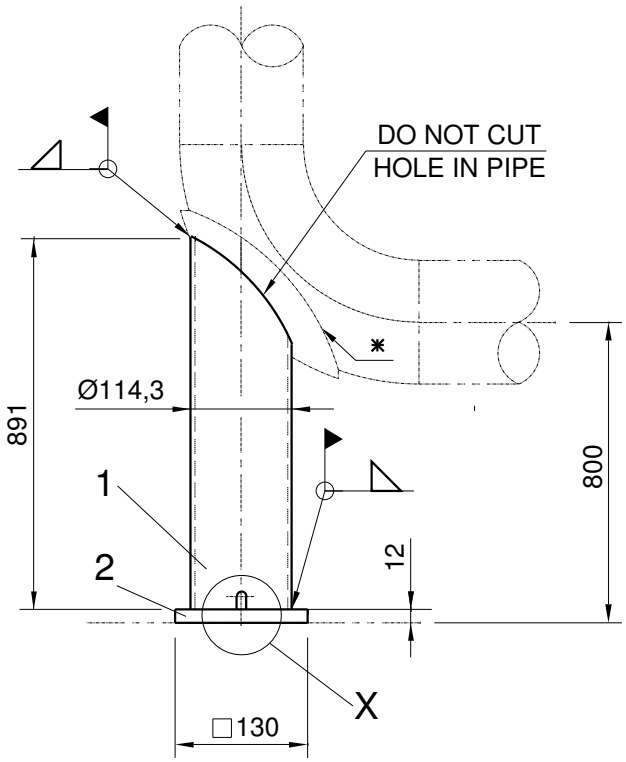
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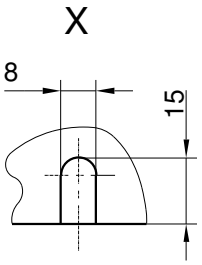
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PIPE SUPPORT

Code No.: NYA001D Marking : 200/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 891	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 16,570 kg

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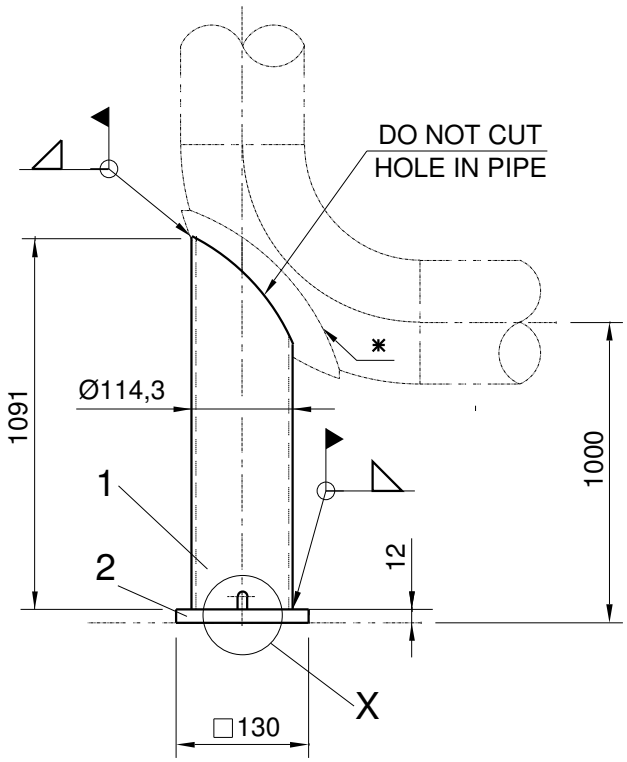
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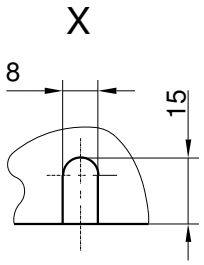
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 200/1000

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1091	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 19,930 kg

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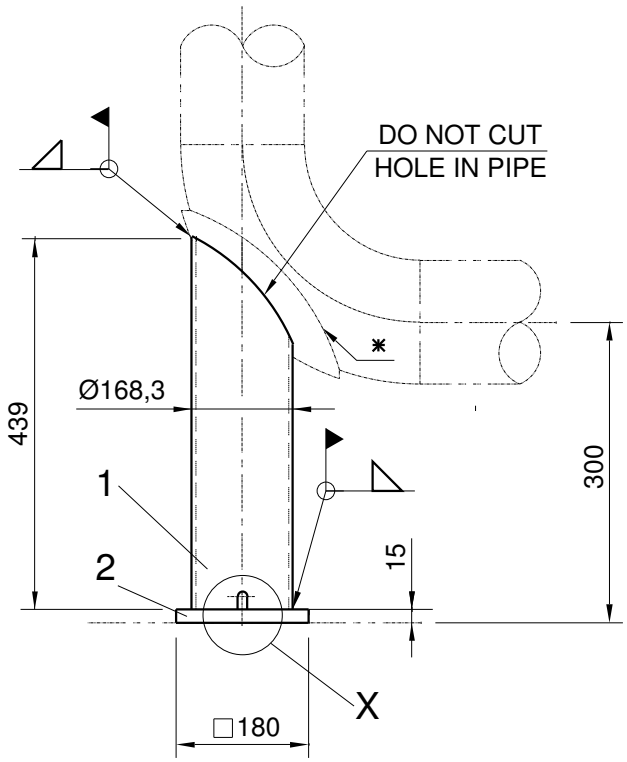
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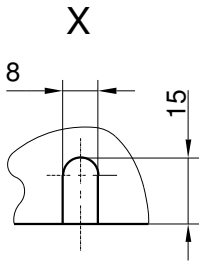
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 250/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 439	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 22,570 kg

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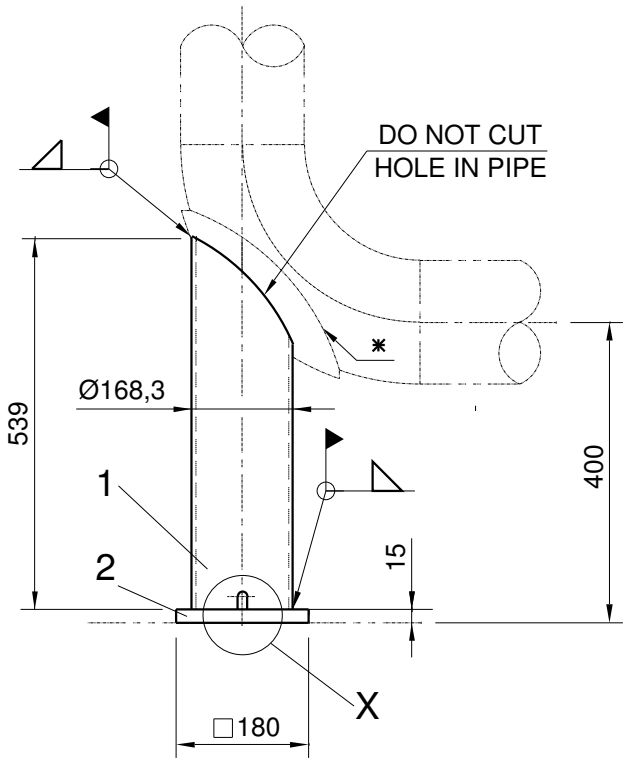
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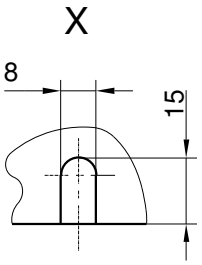
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 250/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 539	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 26,840 kg

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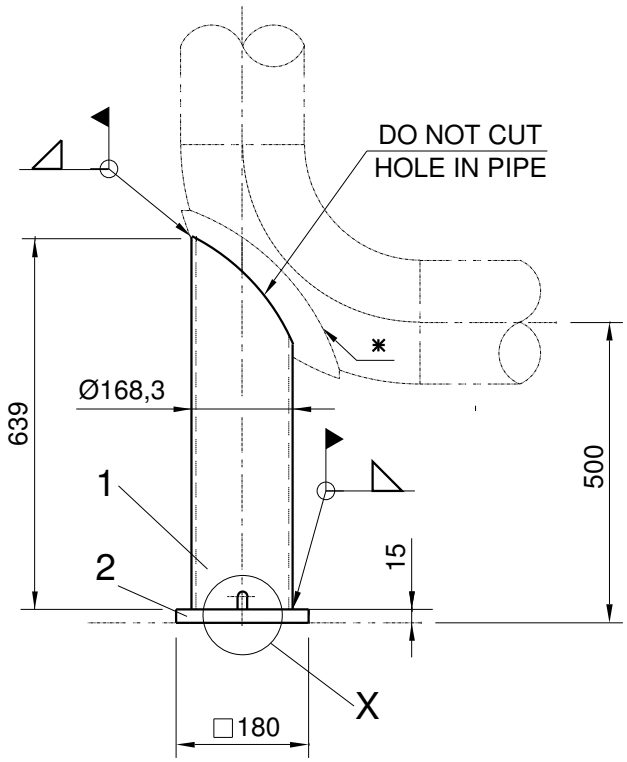
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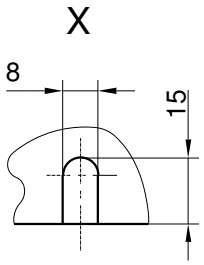
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 250/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 639	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 31,110 kg

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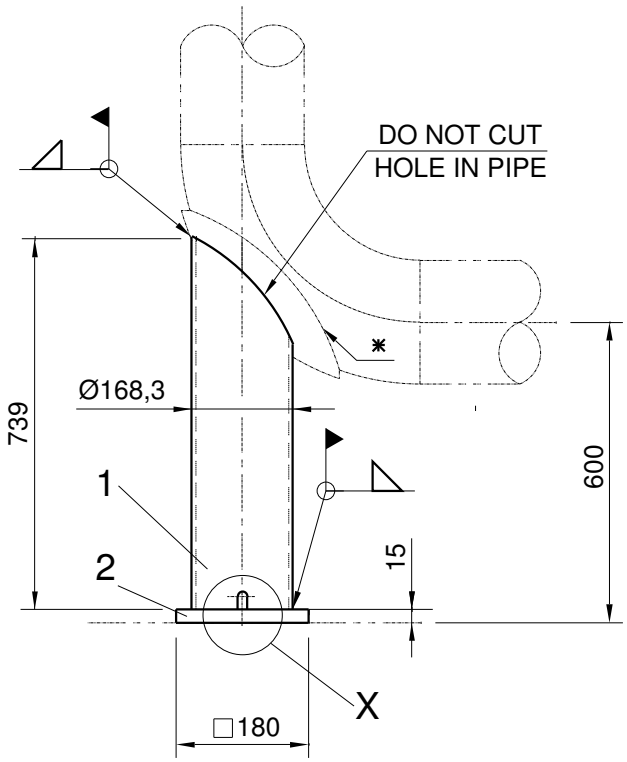
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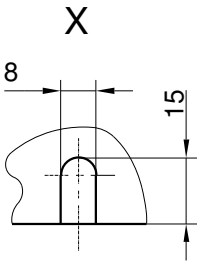
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PIPE SUPPORT

Code No.: NYA001D Marking : 250/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 739	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 35,380 kg

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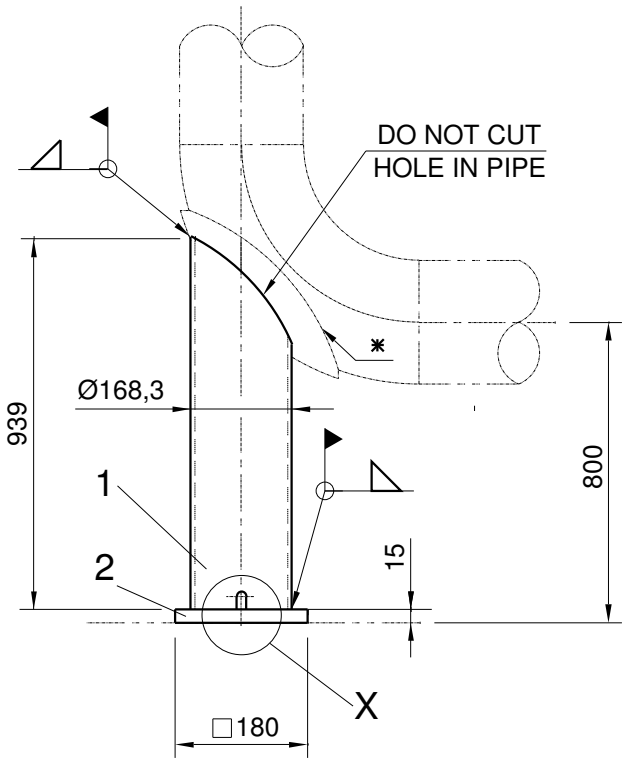
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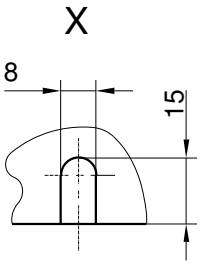
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PIPE SUPPORT

Code No.: NYA001D Marking : 250/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 939	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 43,920 kg

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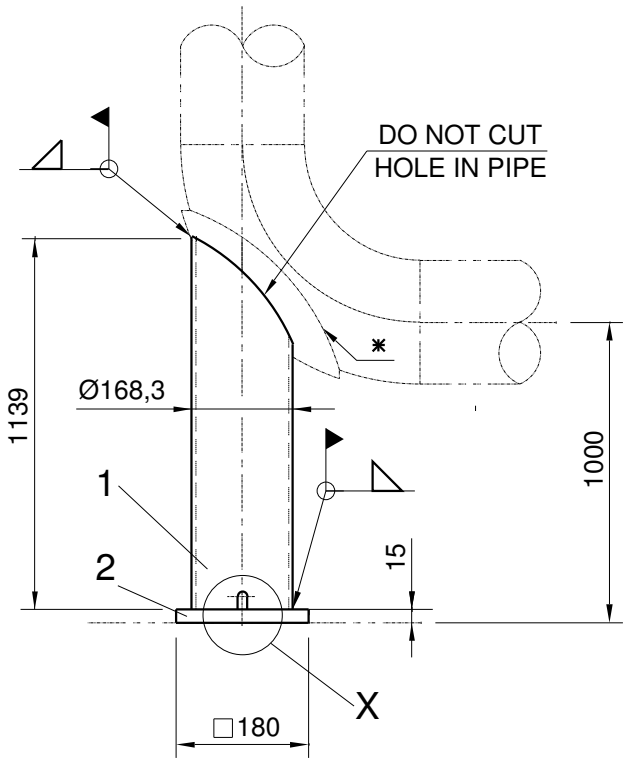
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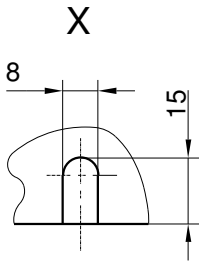
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PIPE SUPPORT

Code No.: NYA001D Marking : 250/1000

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 1139	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 52,460 kg

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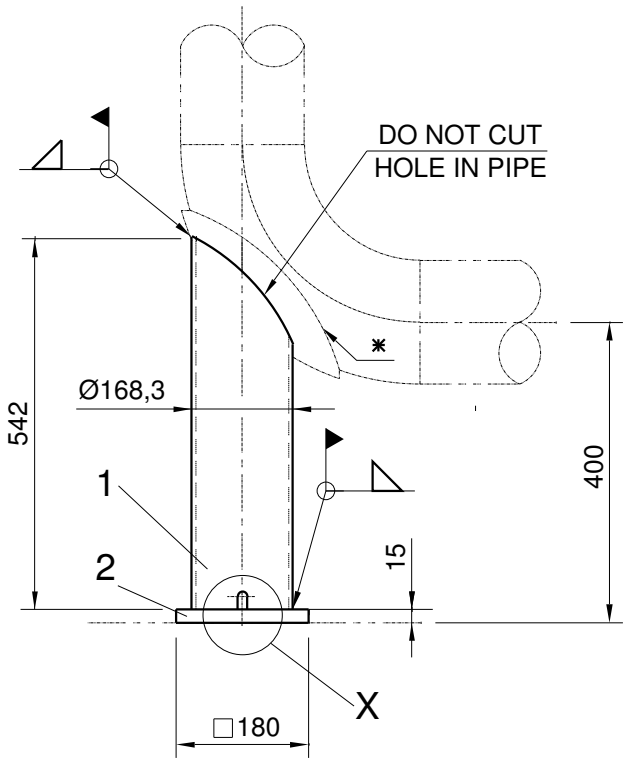
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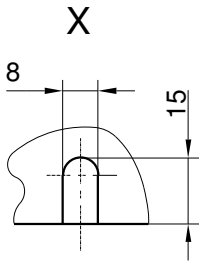
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 300/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 542	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 26,940 kg

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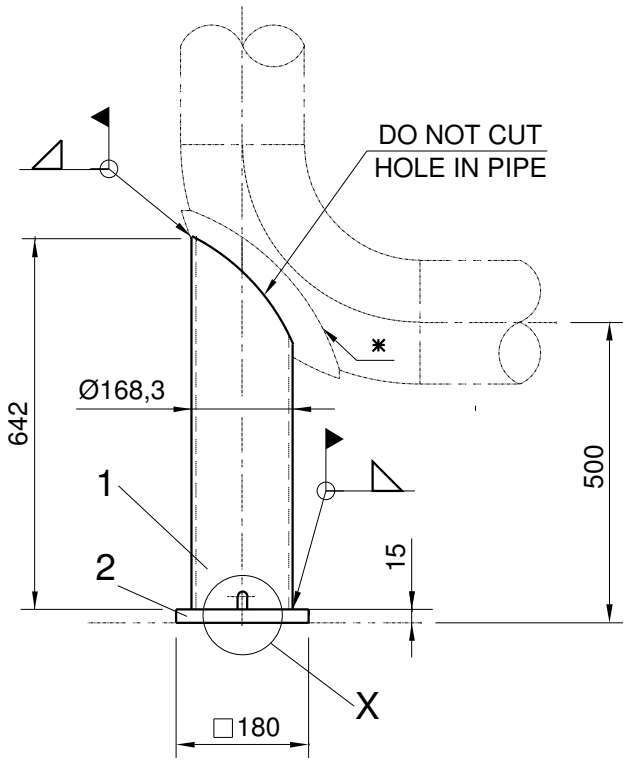
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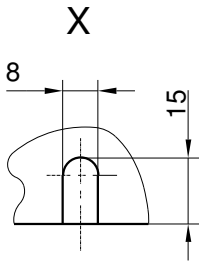
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 300/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 642	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 31,210 kg

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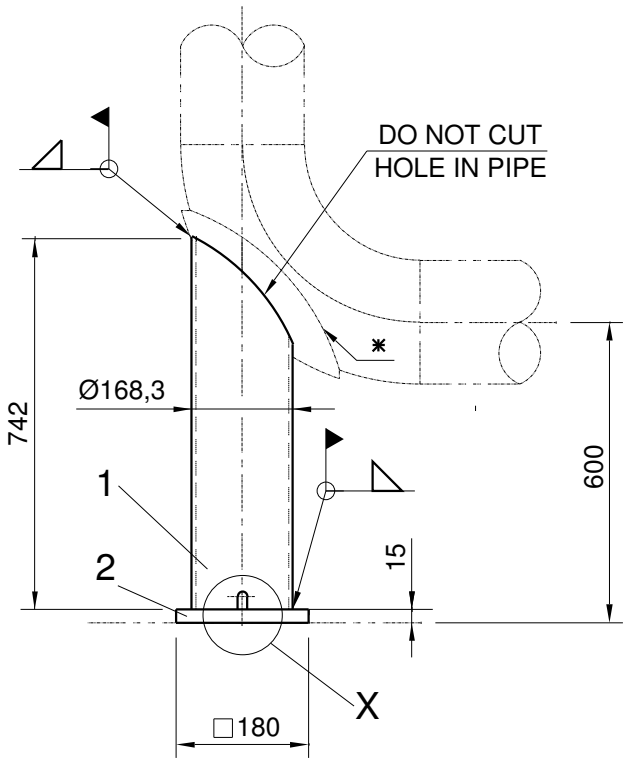
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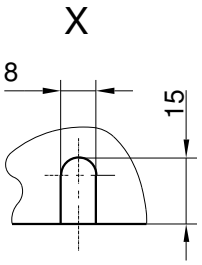
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 300/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 742	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 35,480 kg

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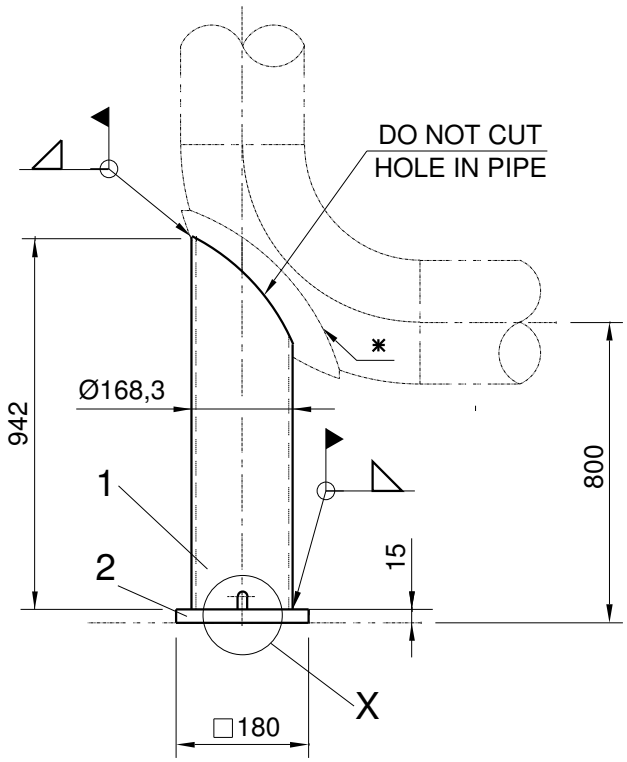
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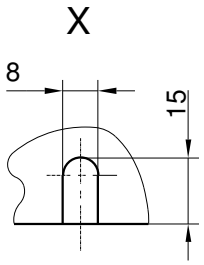
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 300/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 942	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 44,020 kg

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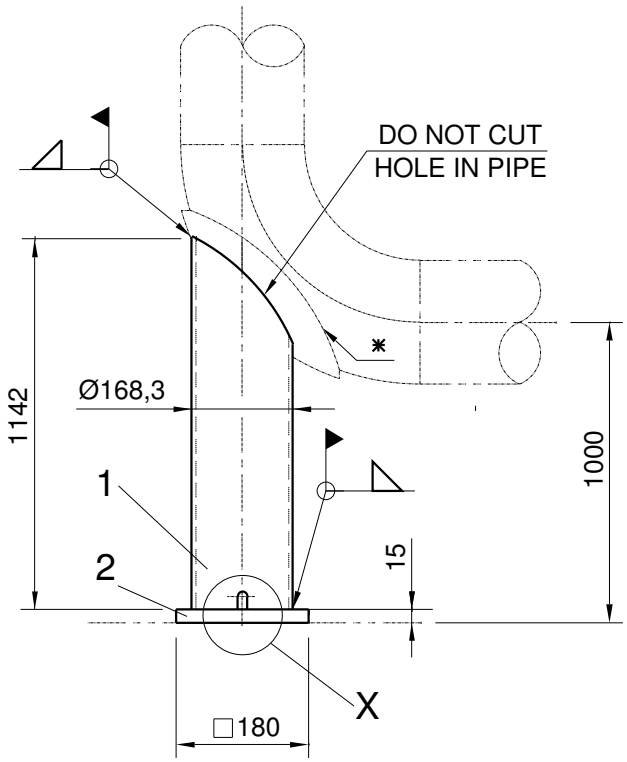
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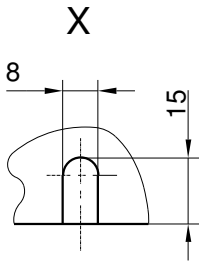
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 300/1000

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 1142	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 52,560 kg

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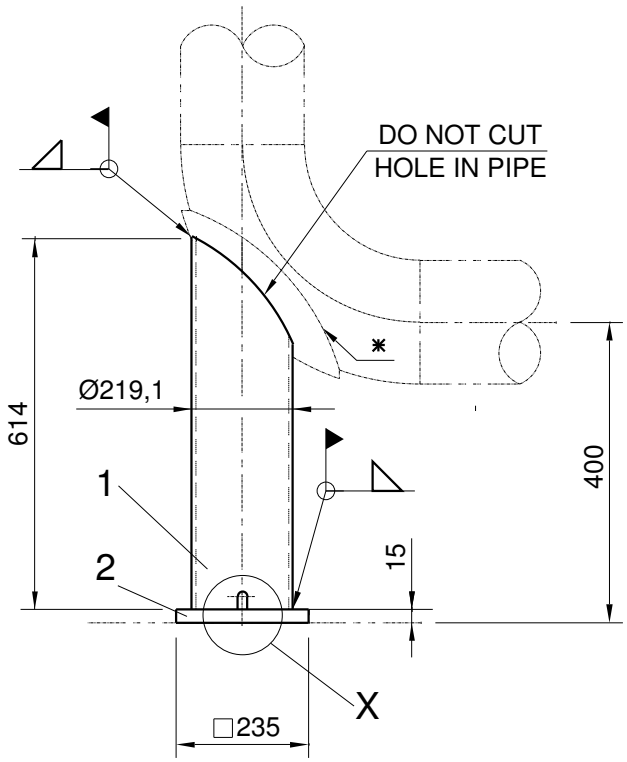
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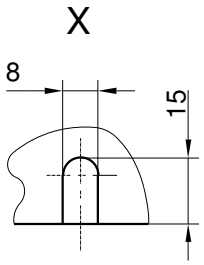
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 350/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 235 x 235	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 614	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 38,190 kg

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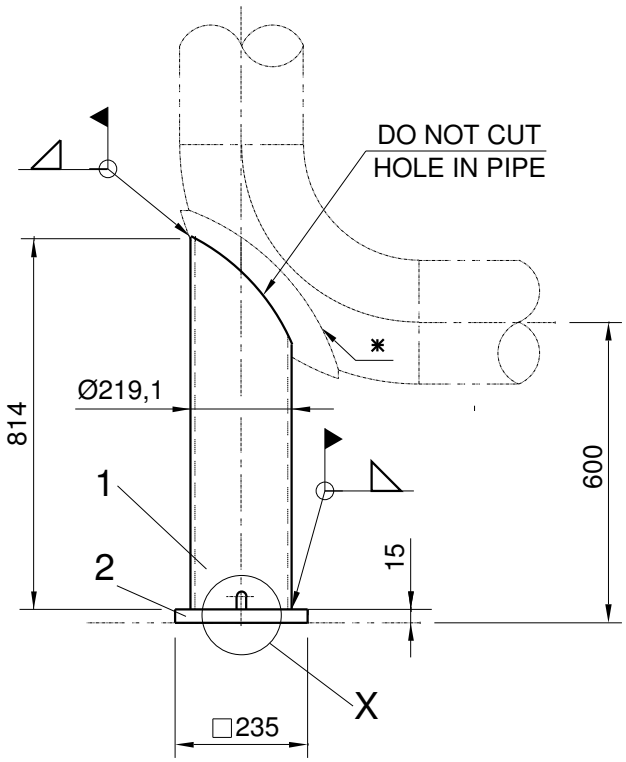
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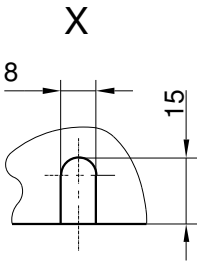
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PIPE SUPPORT

Code No.: NYA001D Marking : 350/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 235 x 235	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 814	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 48,510 kg

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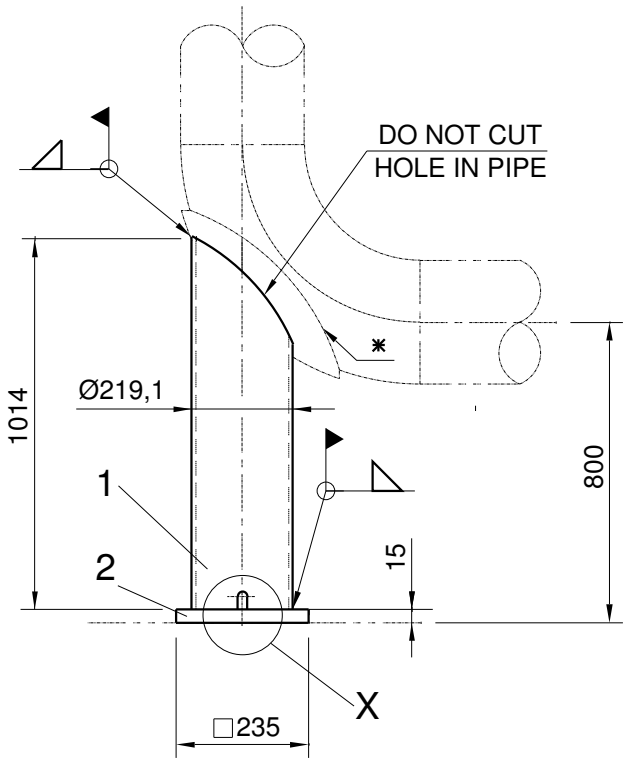
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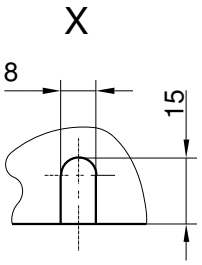
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 350/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 235 x 235	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 1014	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 58,830 kg

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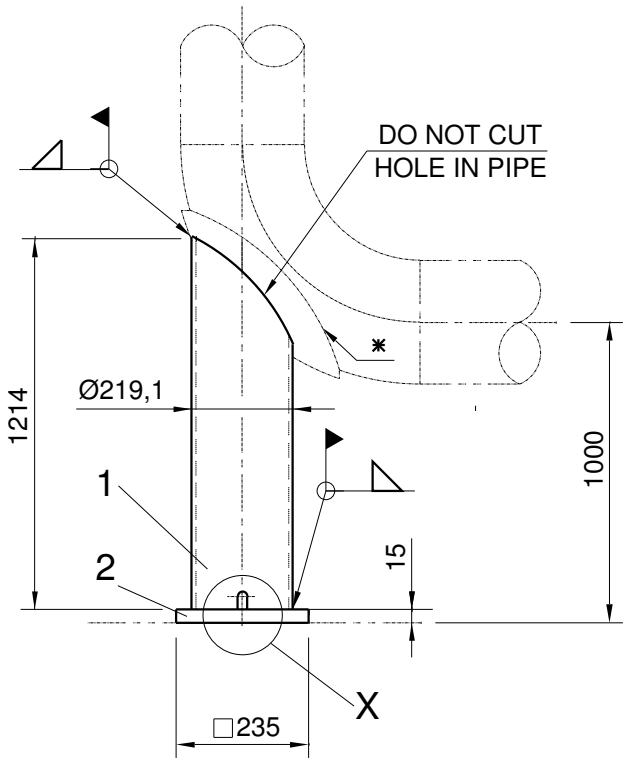
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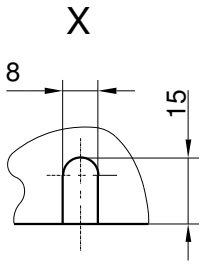
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 350/1000

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 235 x 235	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 1214	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 69,150 kg

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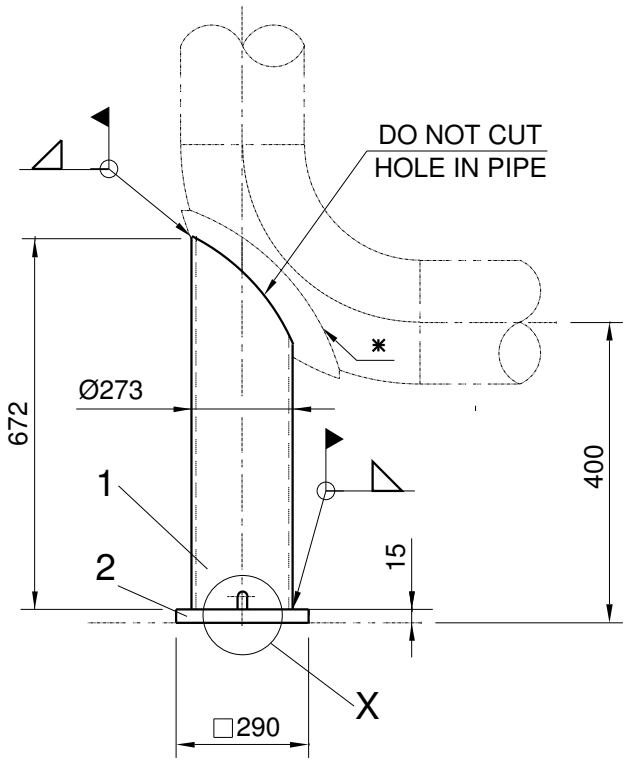
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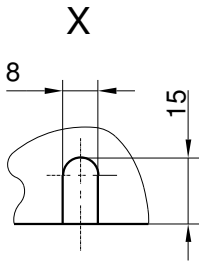
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 400/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 672	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 53,550 kg

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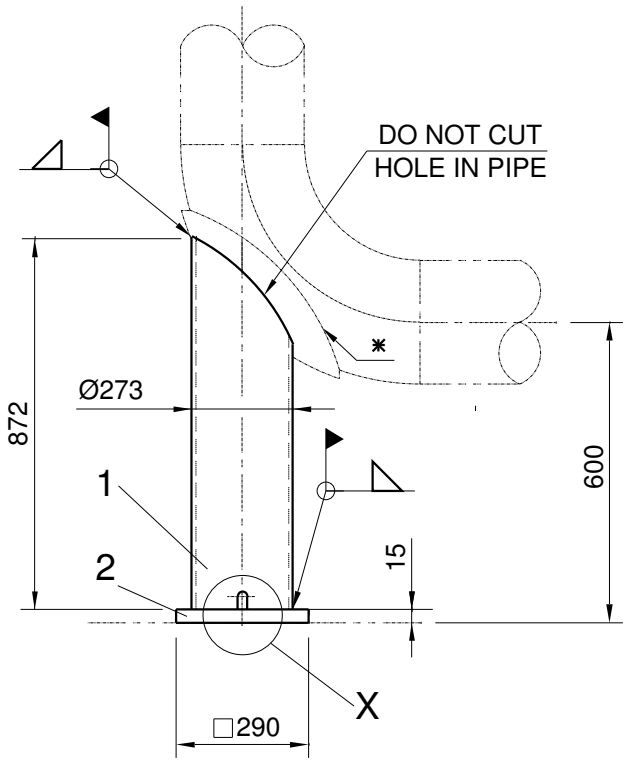
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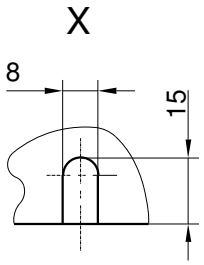
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 400/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 872	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 66,530 kg

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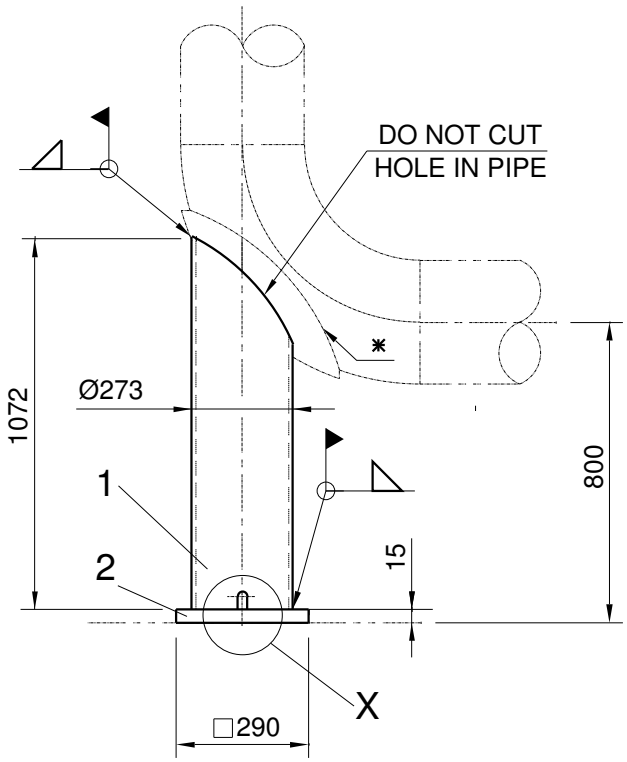
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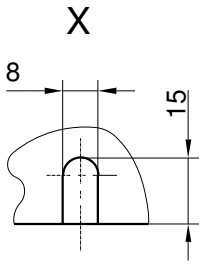
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 400/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1072	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 79,510 kg

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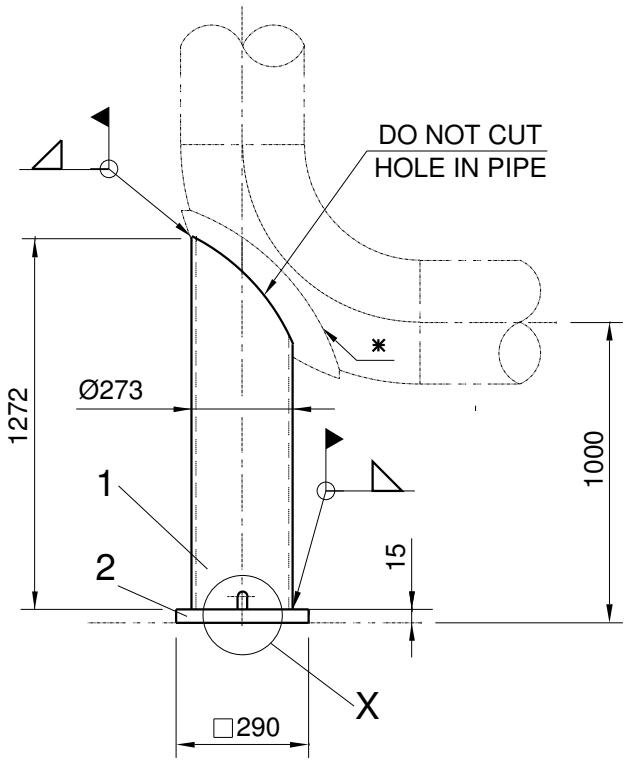
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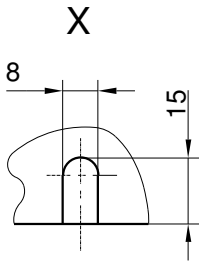
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 400/1000

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1272	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 92,490 kg

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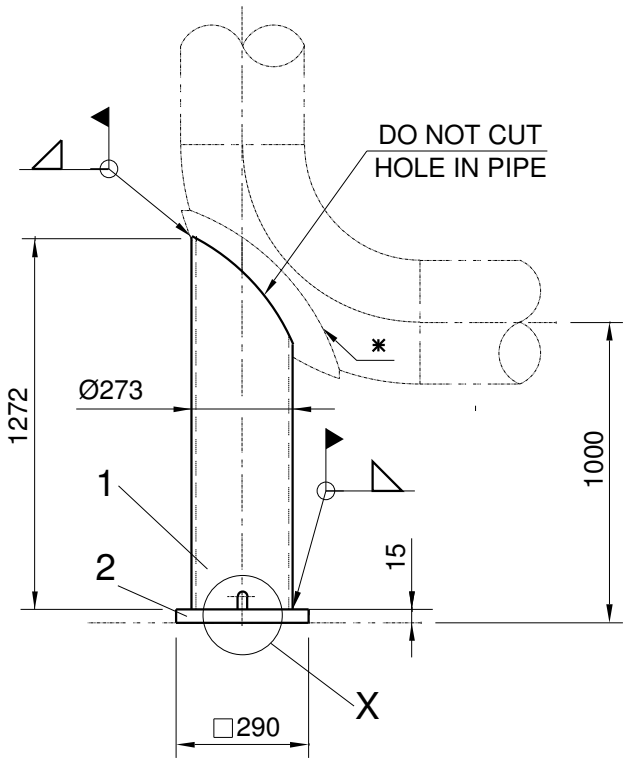
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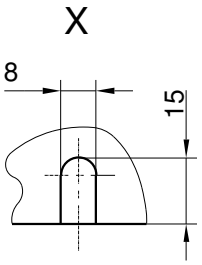
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 450/1000

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1272	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,100 kg

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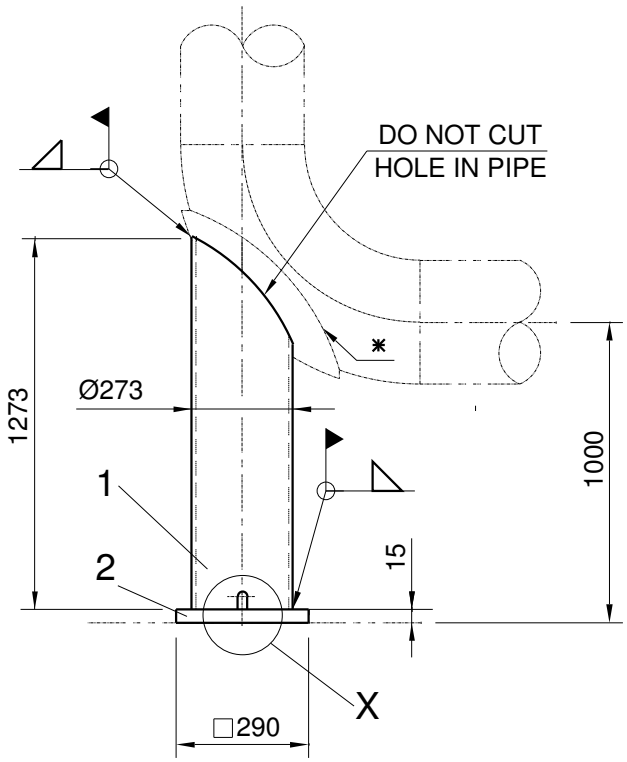
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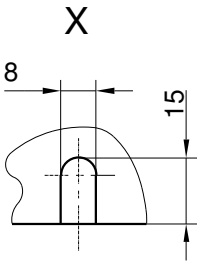
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PIPE SUPPORT

Code No.: NYA001D Marking : 500/1000

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1273	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 92,500 kg

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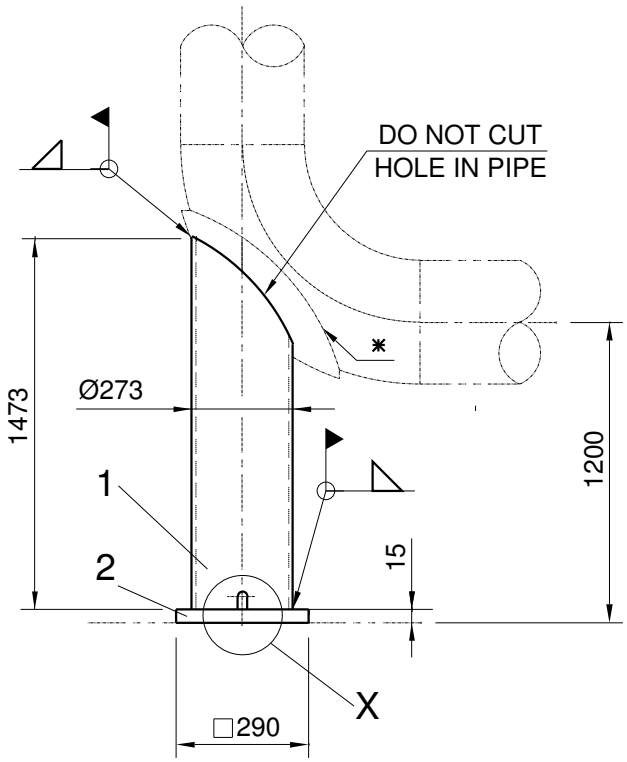
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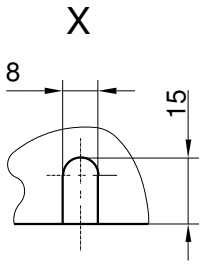
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 500/1200

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1473	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 105,480 kg

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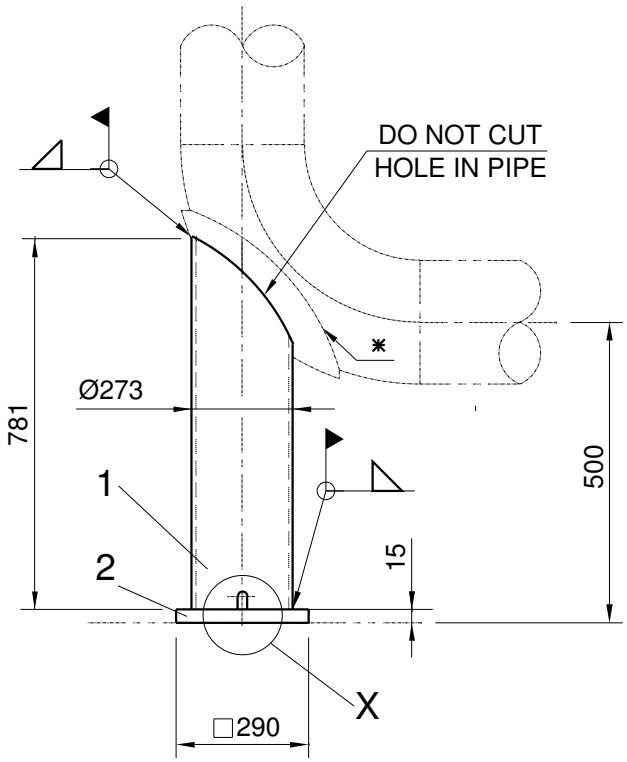
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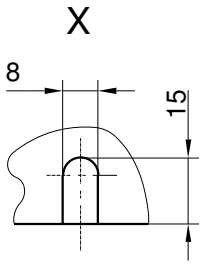
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 600/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 781	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 60,560 kg

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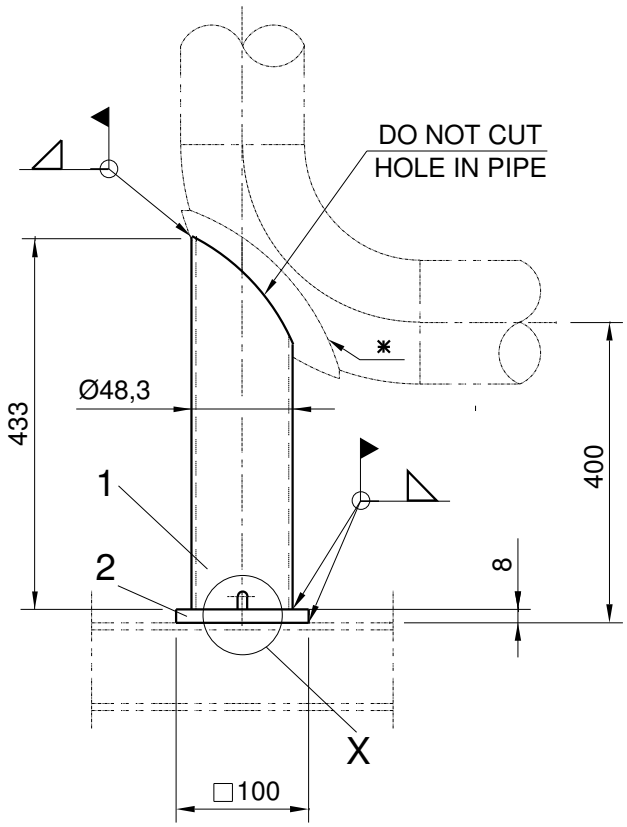
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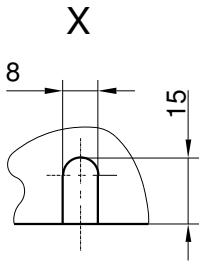
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 50/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 48,3 x 4 x 433	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 2,680 kg

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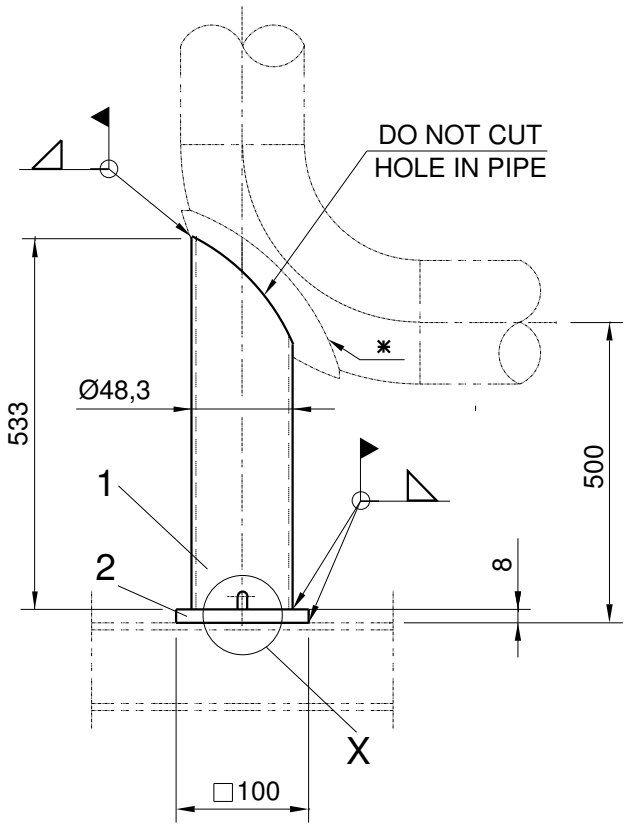
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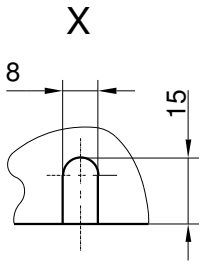
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 50/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 48,3 x 4 x 533	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 3,110 kg

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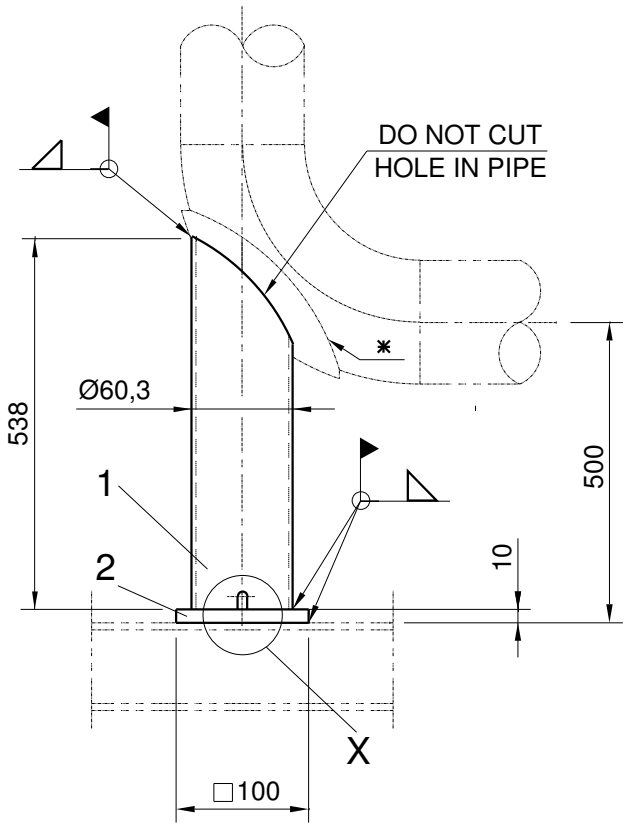
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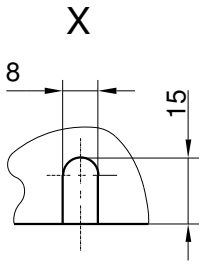
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 80/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 538	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 3,770 kg

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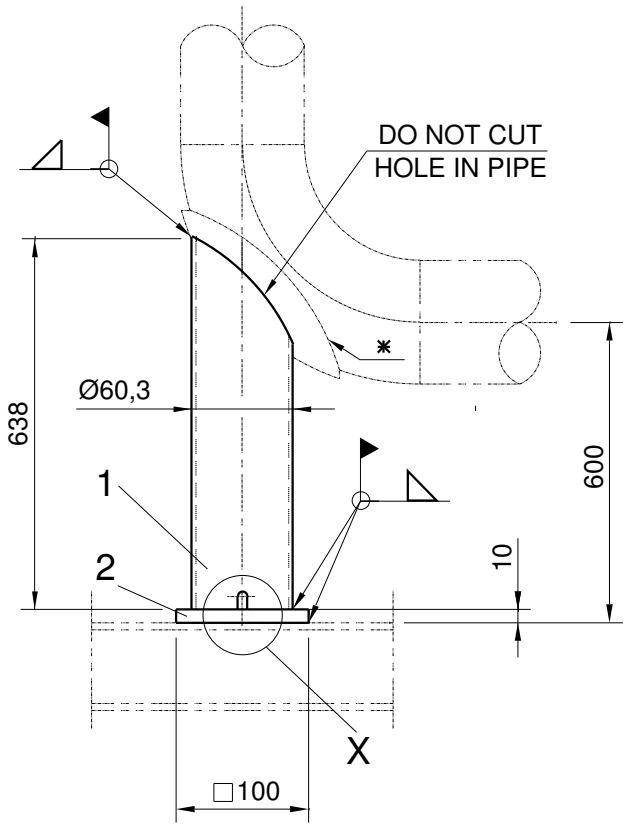
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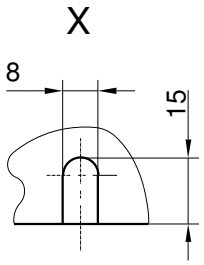
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 80/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 638	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 4,330 kg

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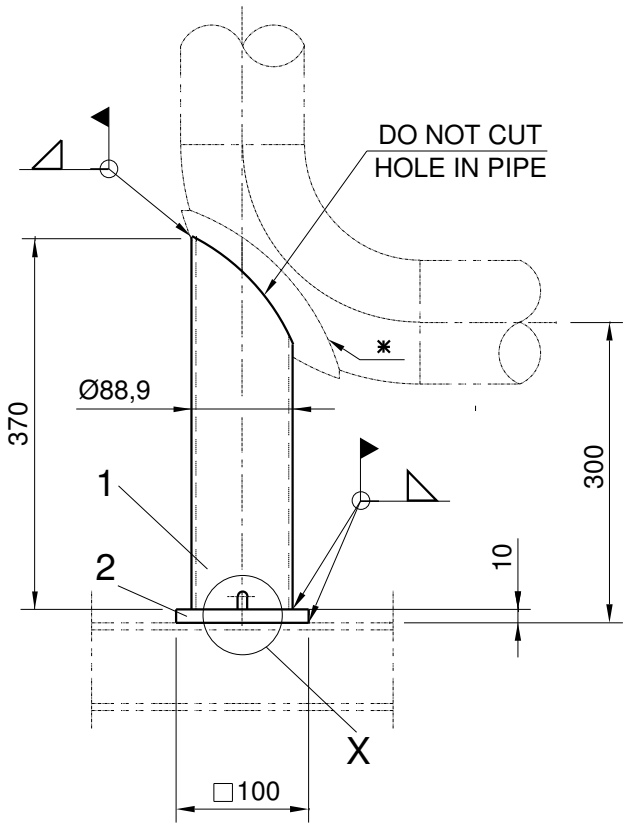
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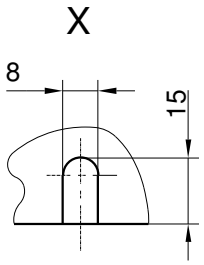
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 100/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 370	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 4,600 kg

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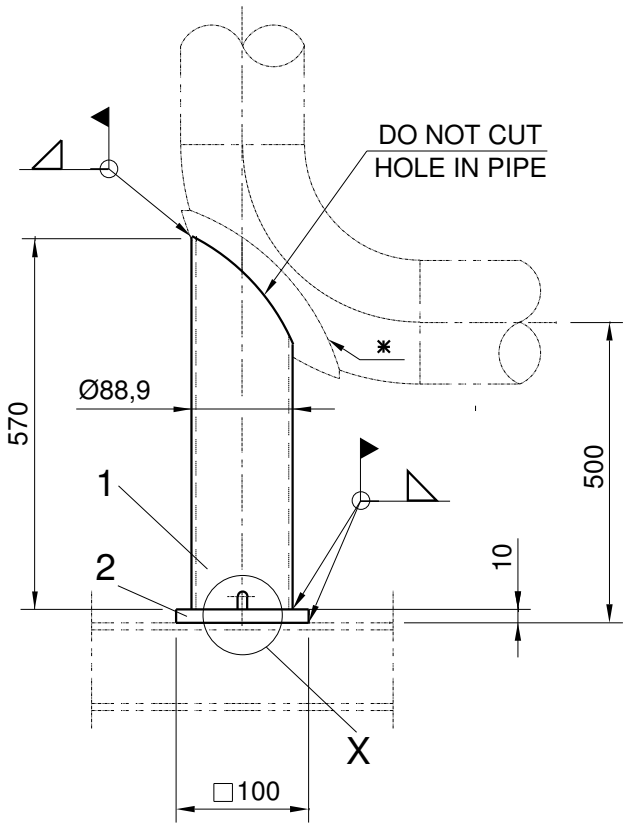
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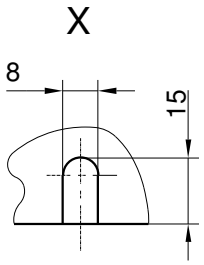
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 100/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 570	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 6,660 kg

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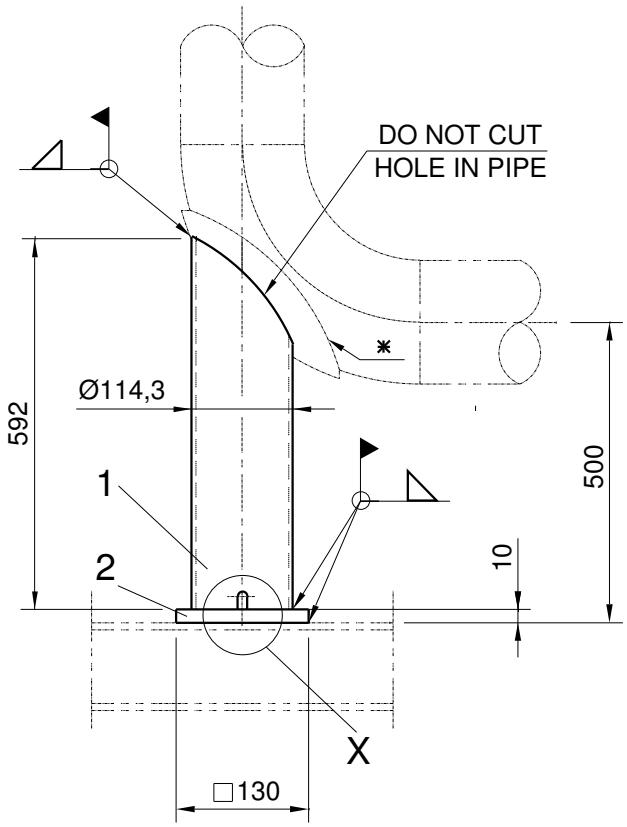
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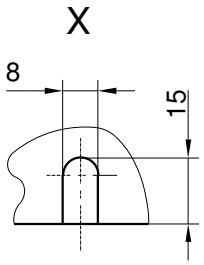
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 150/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 592	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 11,530 kg

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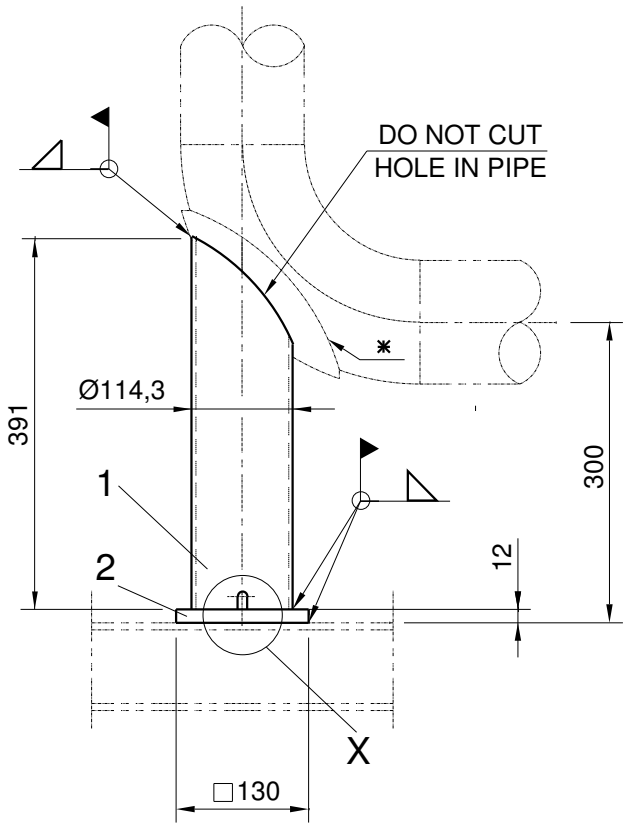
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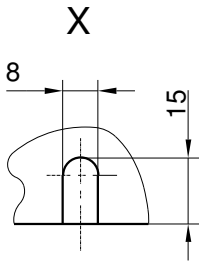
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 200/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 391	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 8,170 kg

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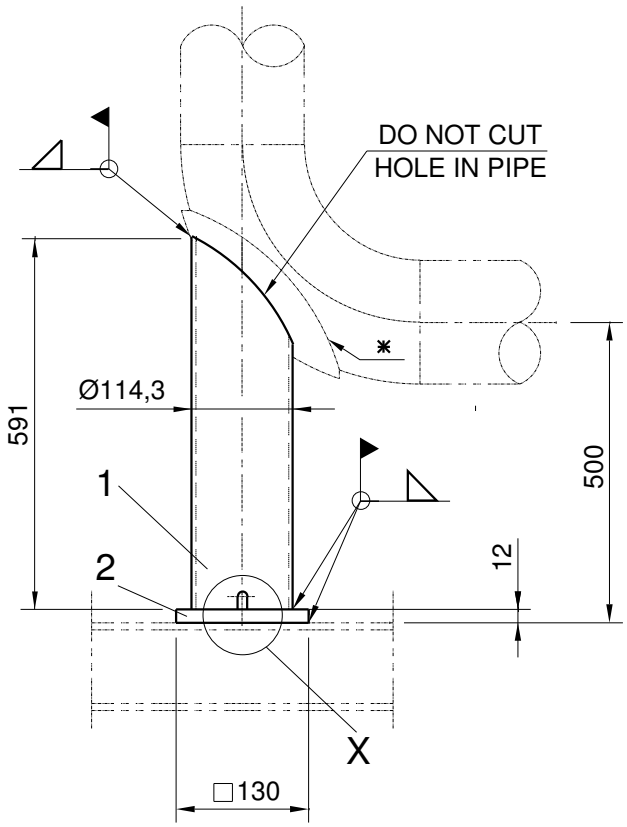
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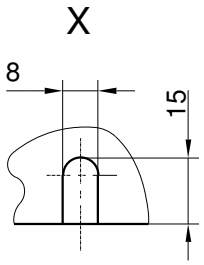
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 200/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 591	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 11,530 kg

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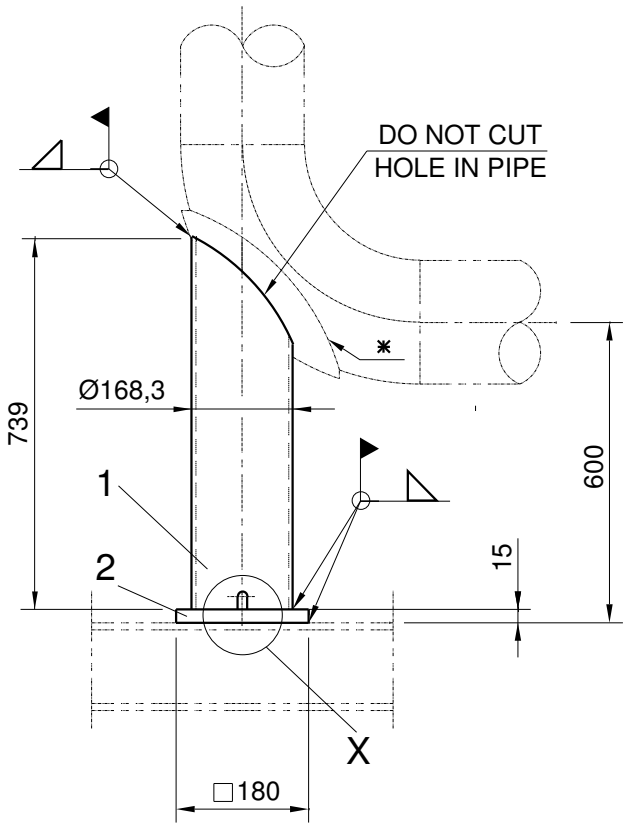
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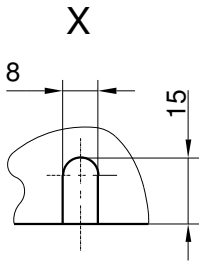
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 250/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 739	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 35,380 kg

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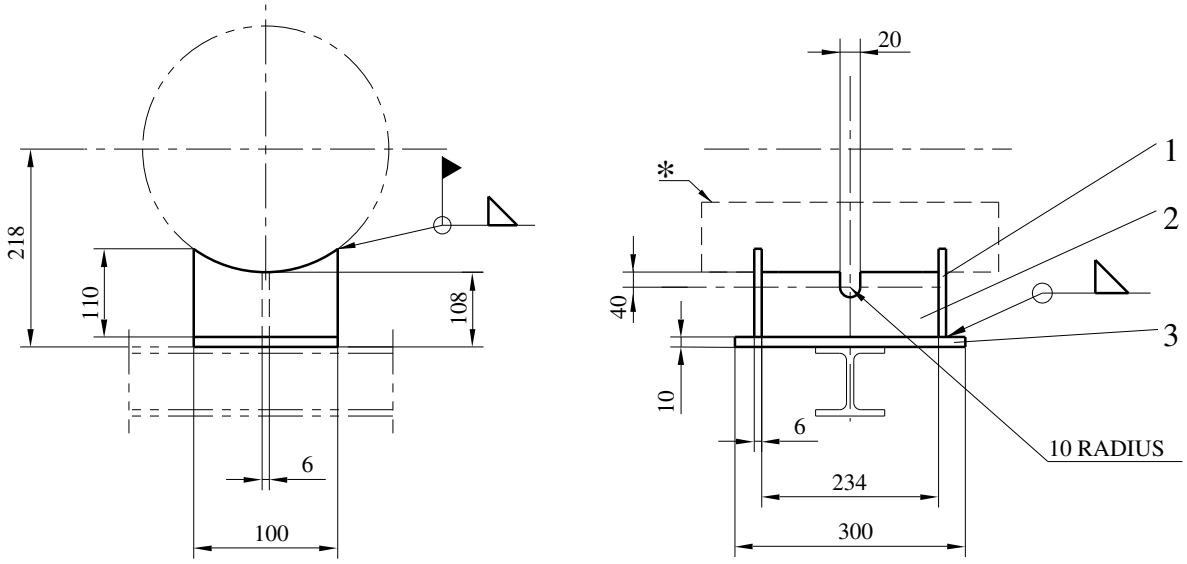
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA003D Marking : 200/2

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 100 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 98 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 110 x 100	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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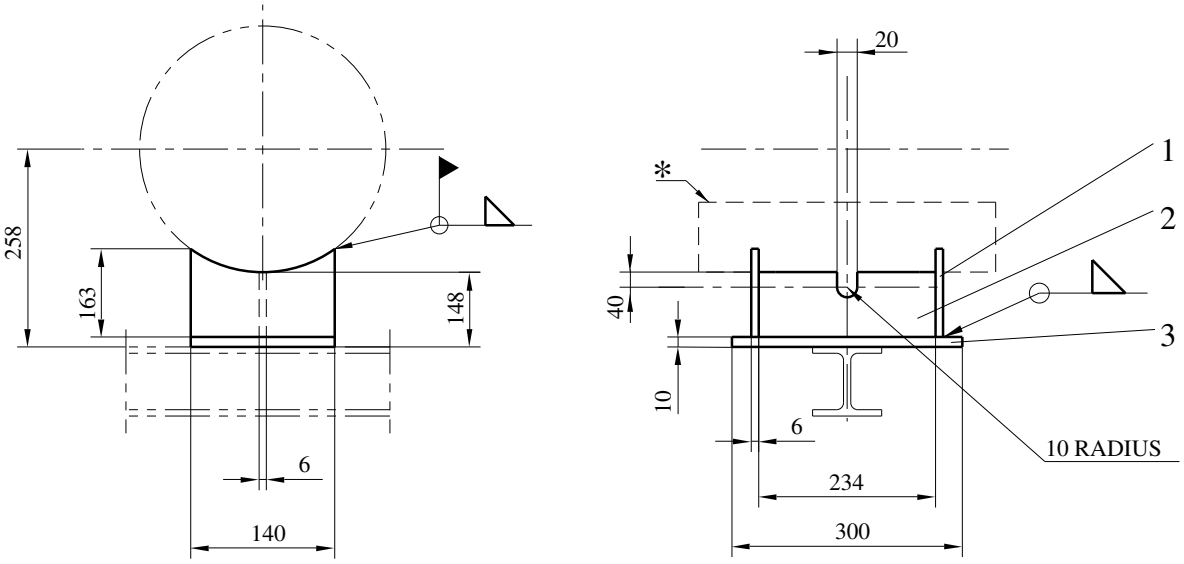
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA003D Marking : 200/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 140 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 163 x 140	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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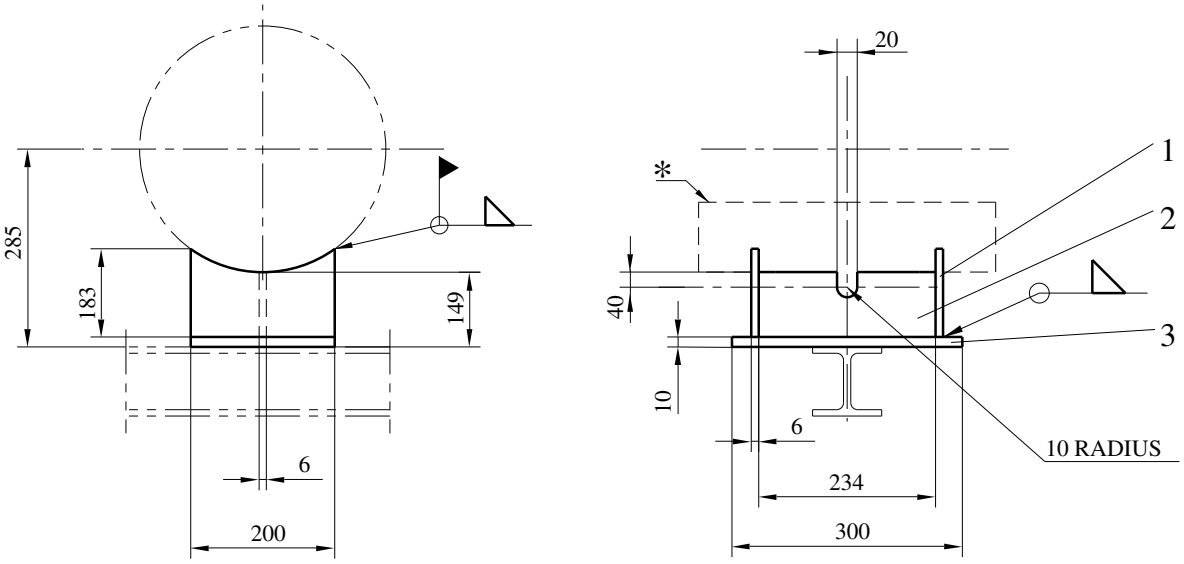
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA003D Marking : 250/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 139 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 183 x 200	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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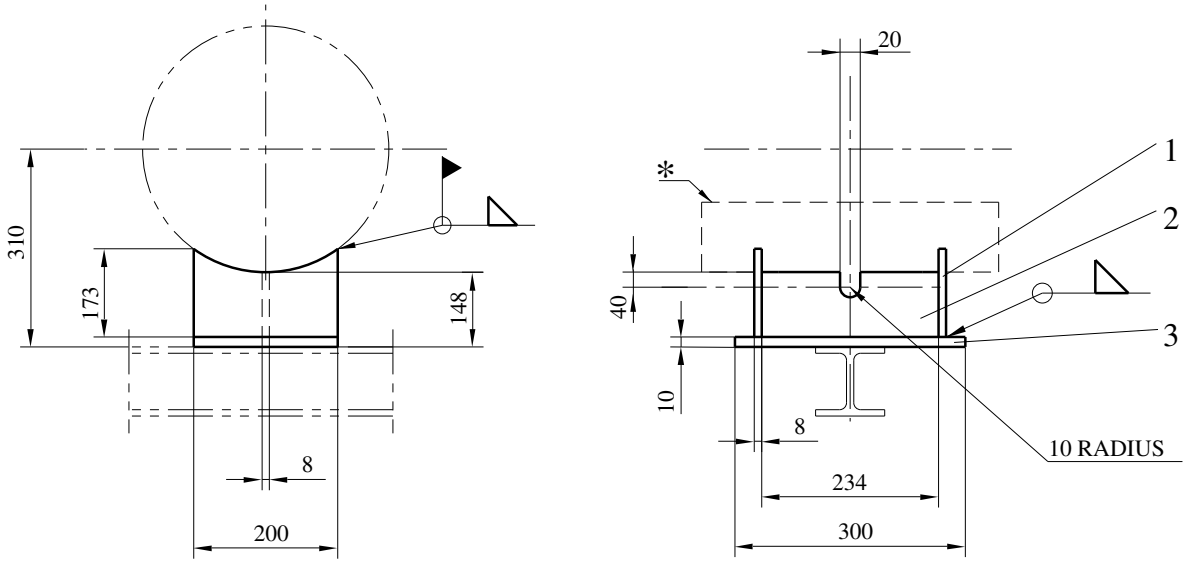
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA003D Marking : 300/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 173 x 200	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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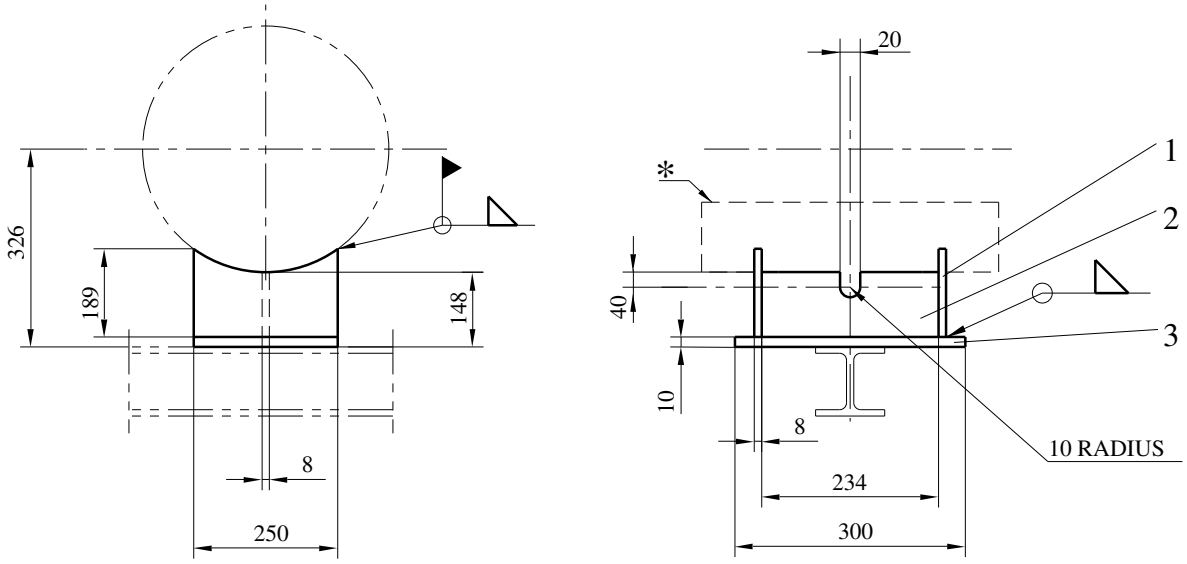
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA003D Marking : 350/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 250 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 189 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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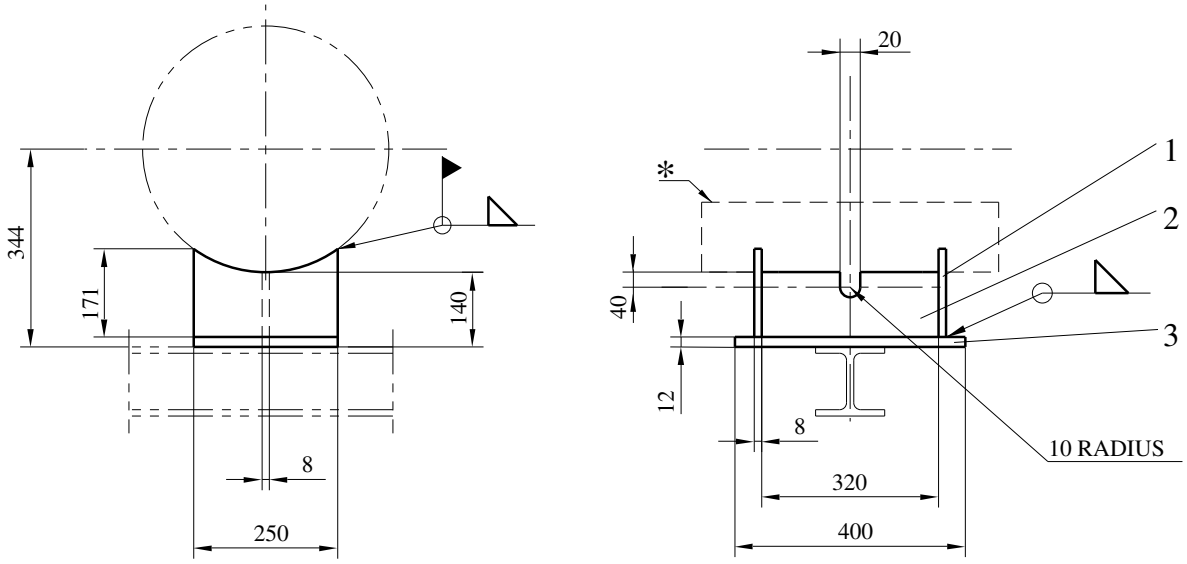
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA003D Marking : 400/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 128 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 171 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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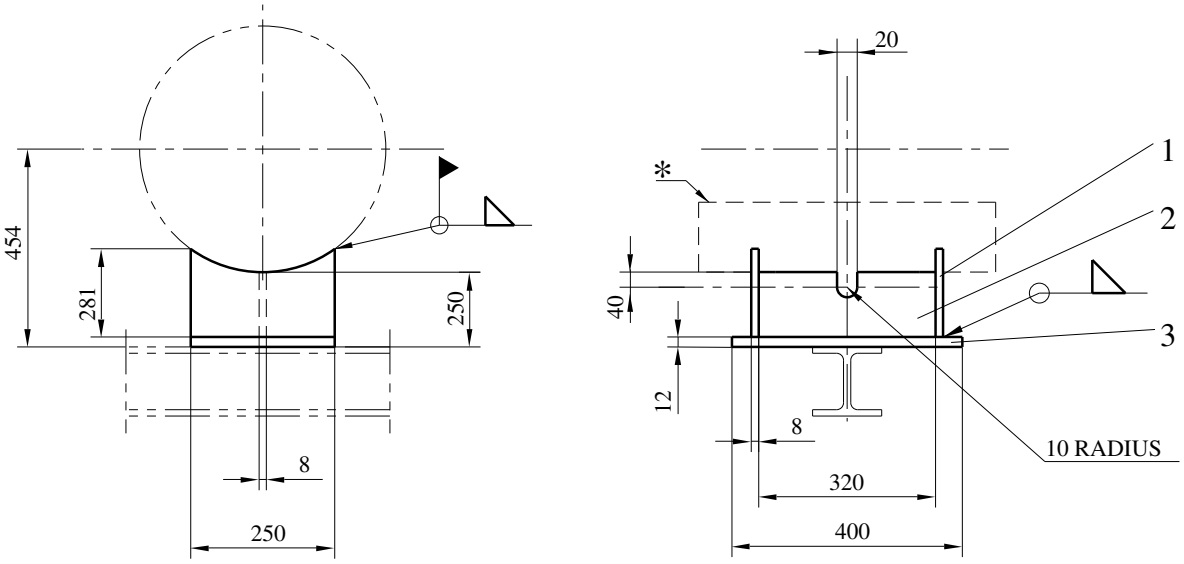
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA003D Marking : 400/6

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 238 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 281 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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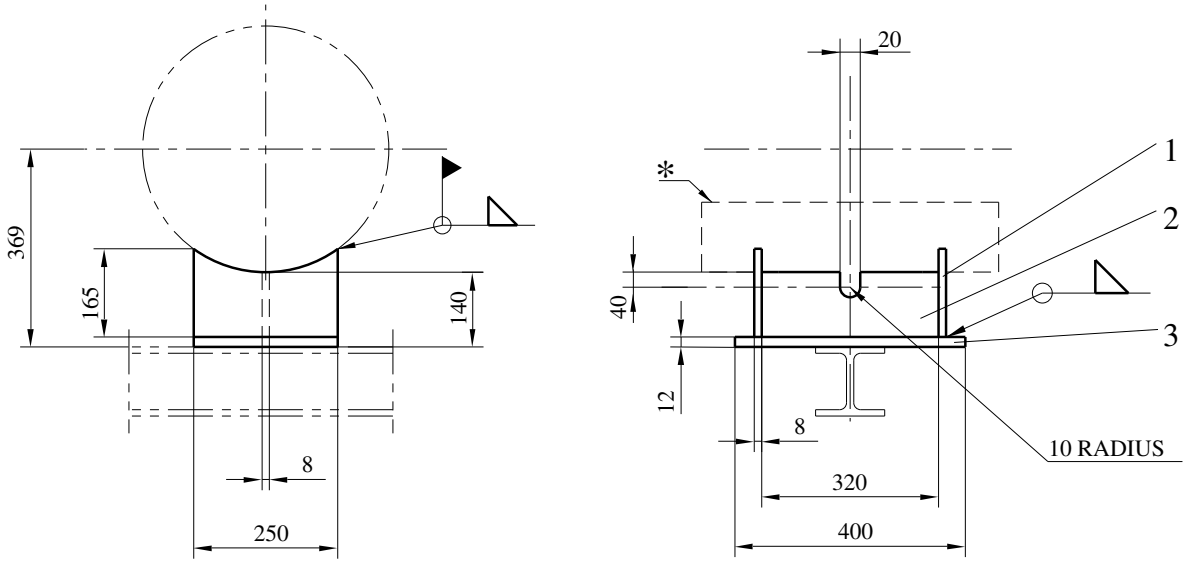
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA003D Marking : 450/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 128 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 165 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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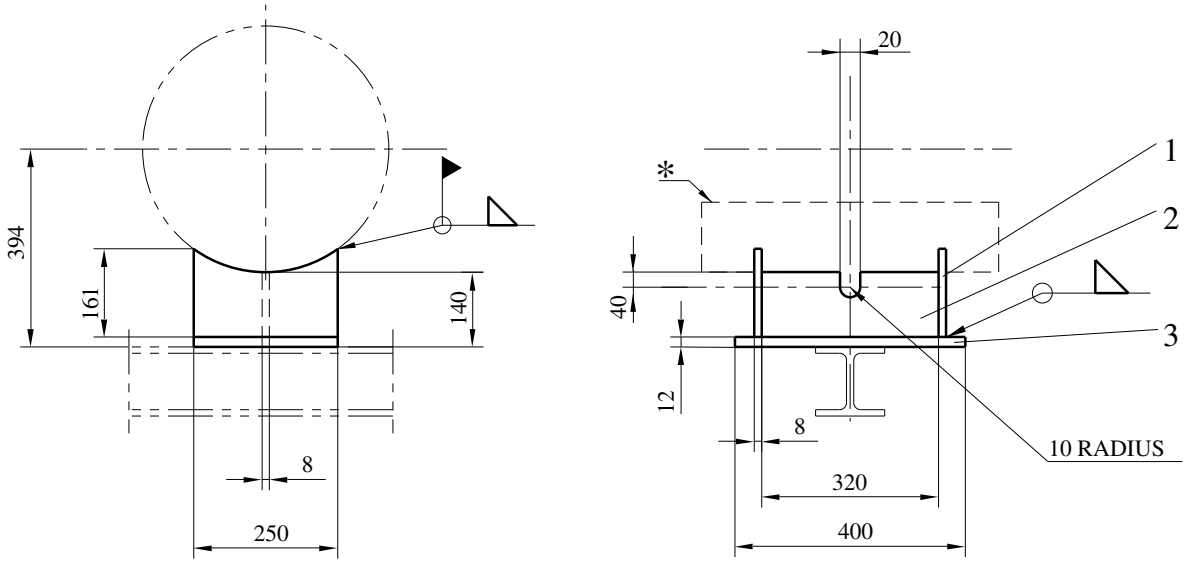
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA003D Marking : 500/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 128 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 161 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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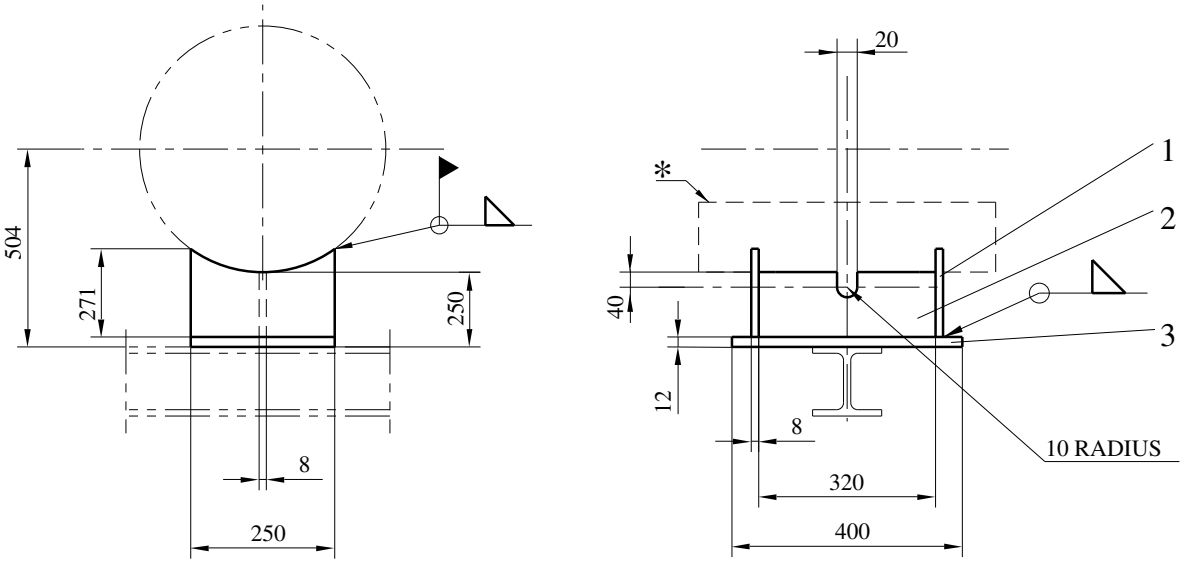
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA003D Marking : 500/6

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 238 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 271 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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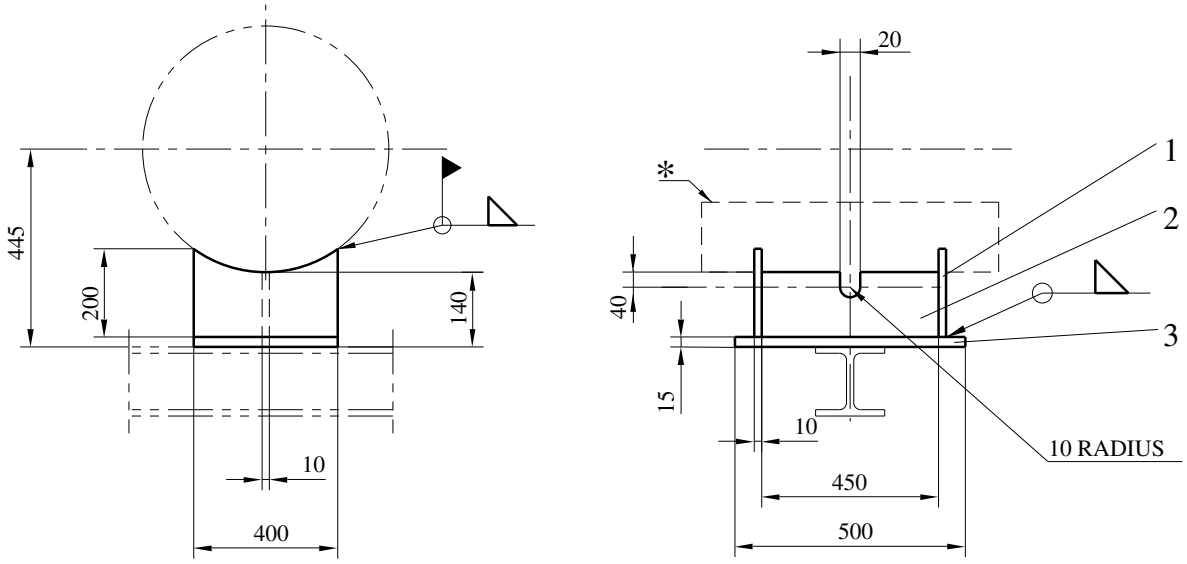
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA004D Marking : 600/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 200 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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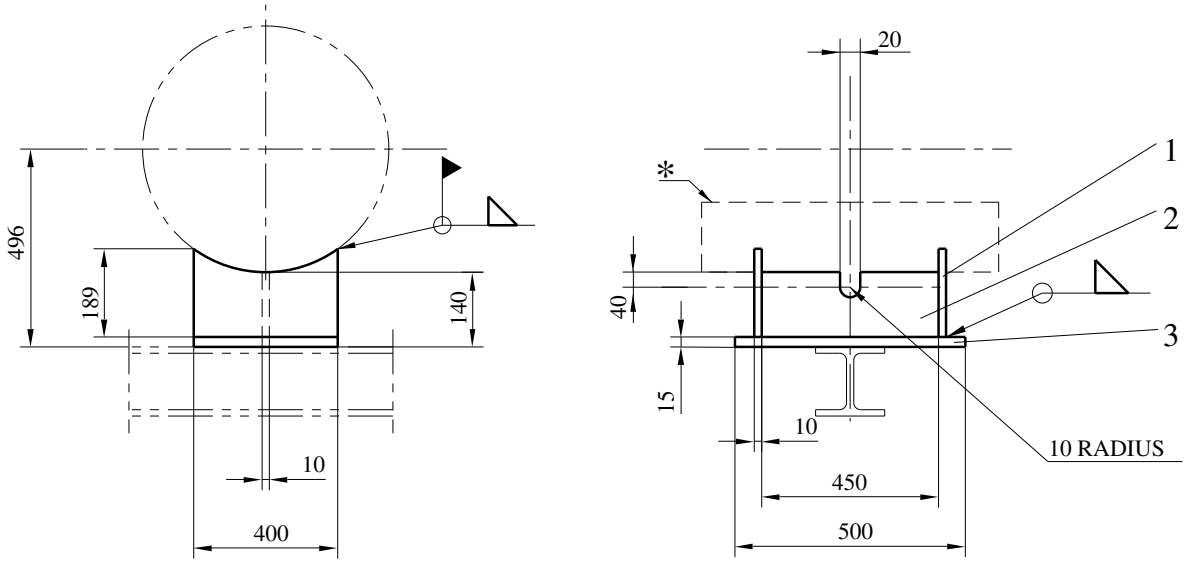
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA004D Marking : 700/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 189 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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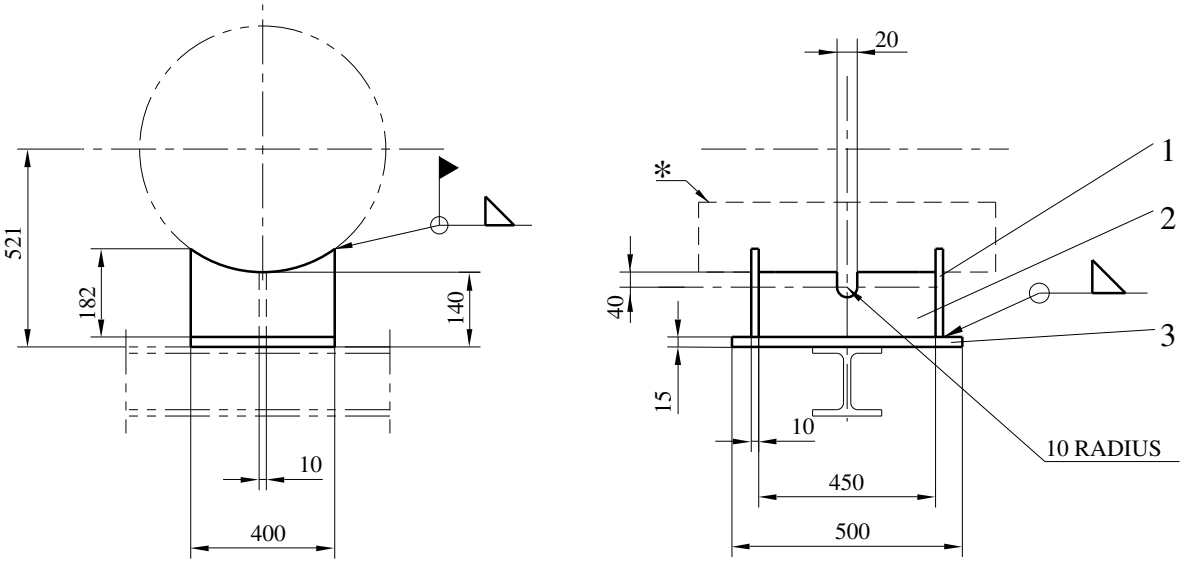
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA004D Marking : 750/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 182 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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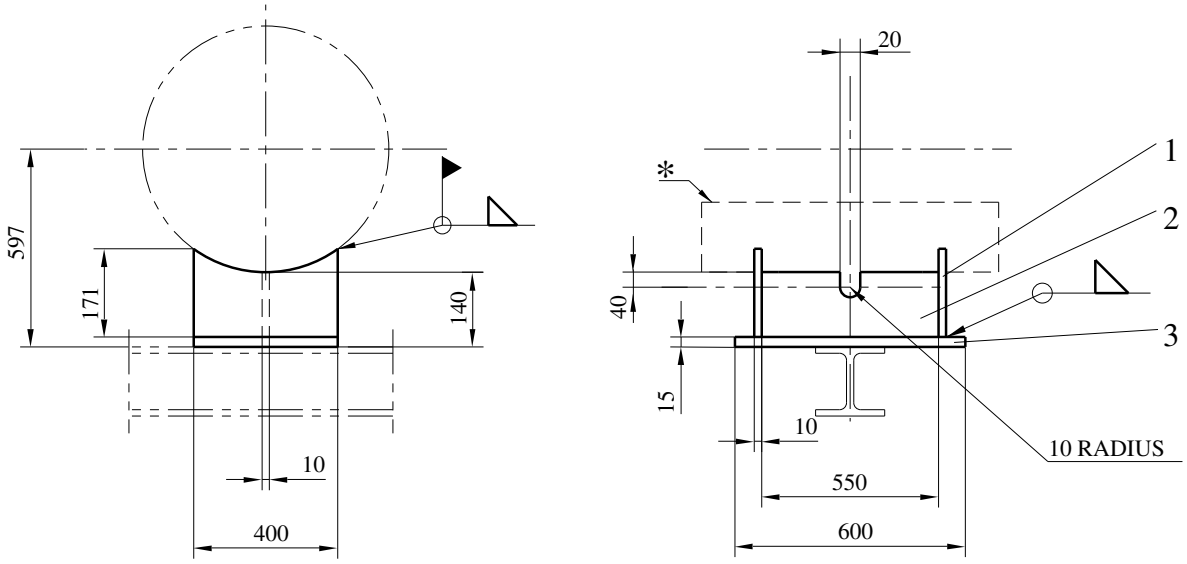
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA004D Marking : 900/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 600	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 550	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 171 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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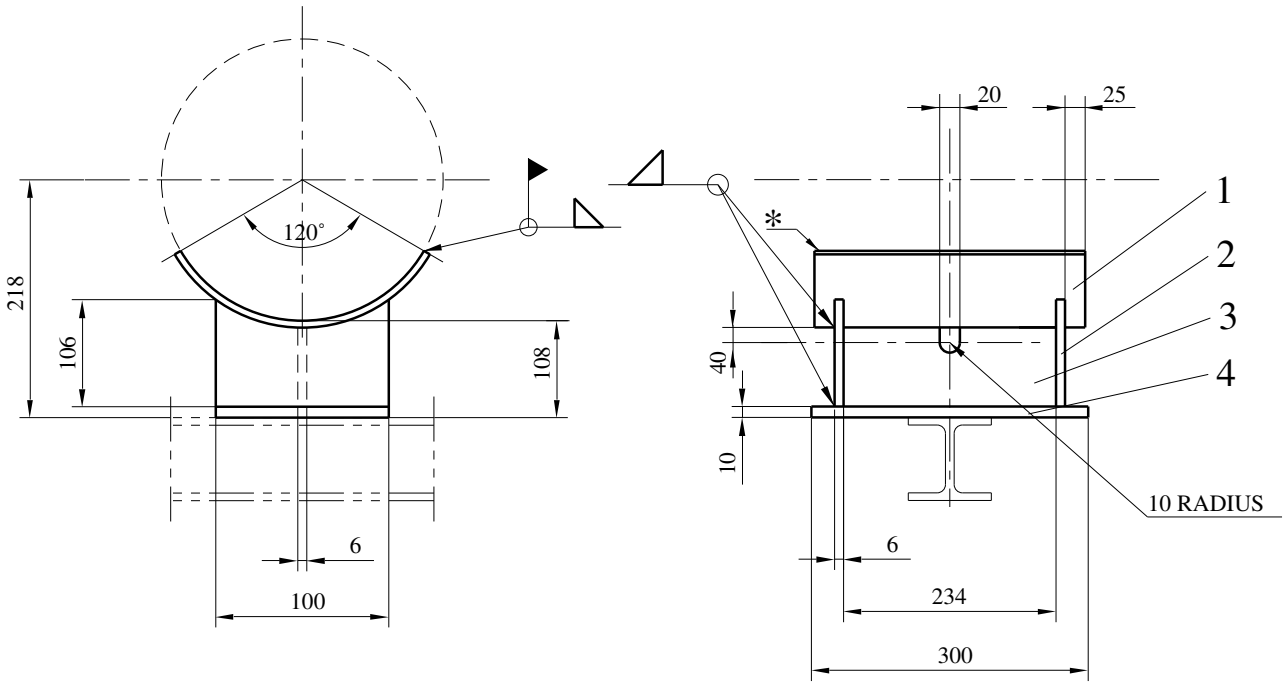
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA053D Marking : 200/2

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	PLATE 10 x 100 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 95 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 106 x 100	EN 10029	A283GR.B	GB0011D
1	1	RF PAD DSS DN 200 x 296 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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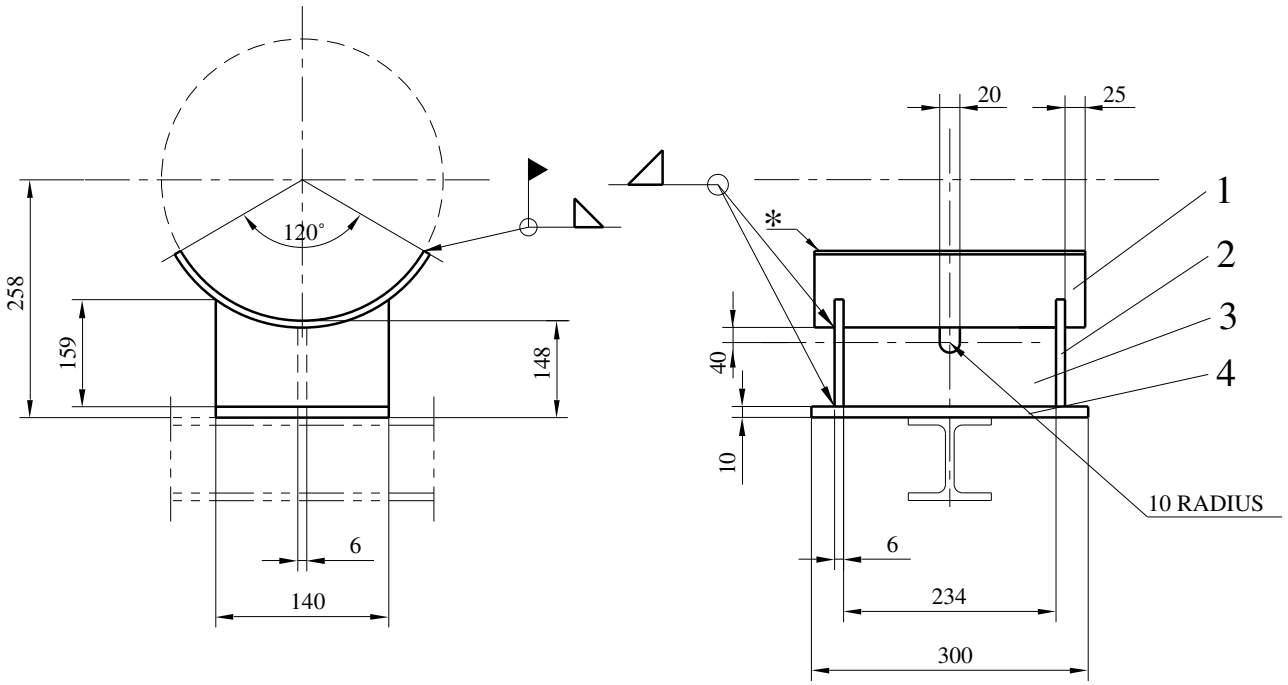
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA053D Marking : 200/3

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	PLATE 10 x 140 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 135 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 159 x 140	EN 10029	A283GR.B	GB0011D
1	1	RF PAD DSS DN 200 x 296 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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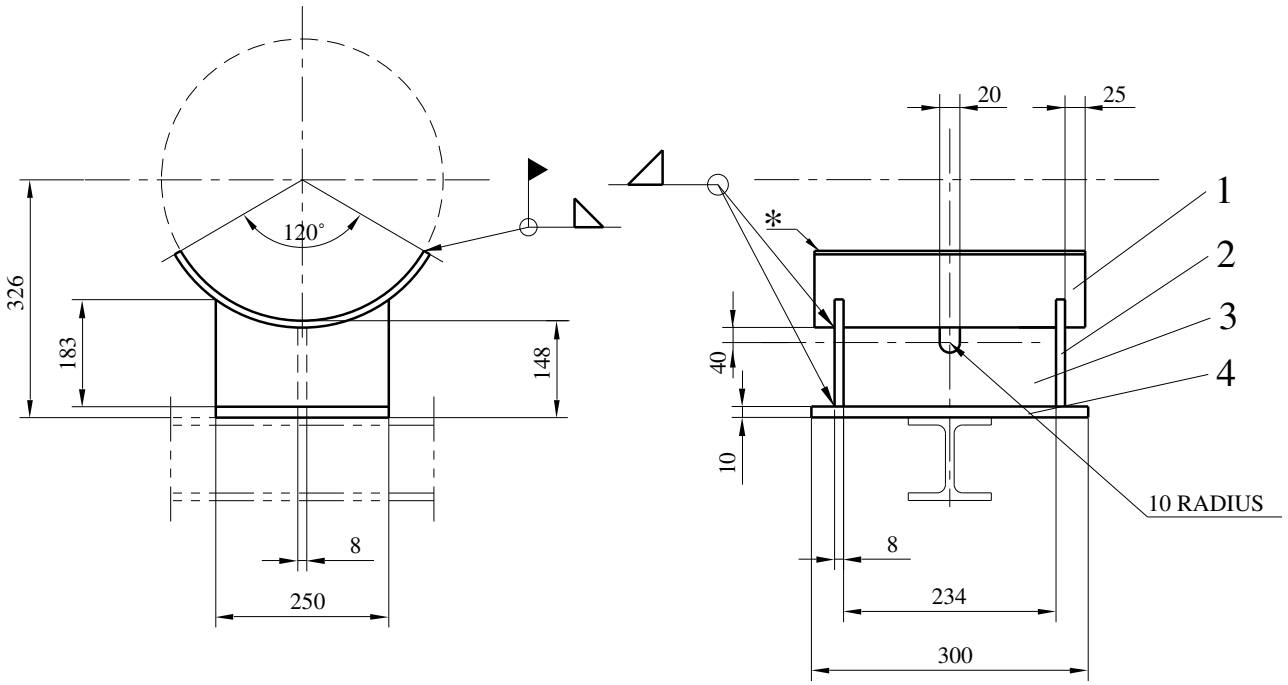
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA053D Marking : 350/3

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	PLATE 10 x 250 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 133 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 183 x 250	EN 10029	A283GR.B	GB0011D
1	1	RF PAD DSS DN 350 x 300 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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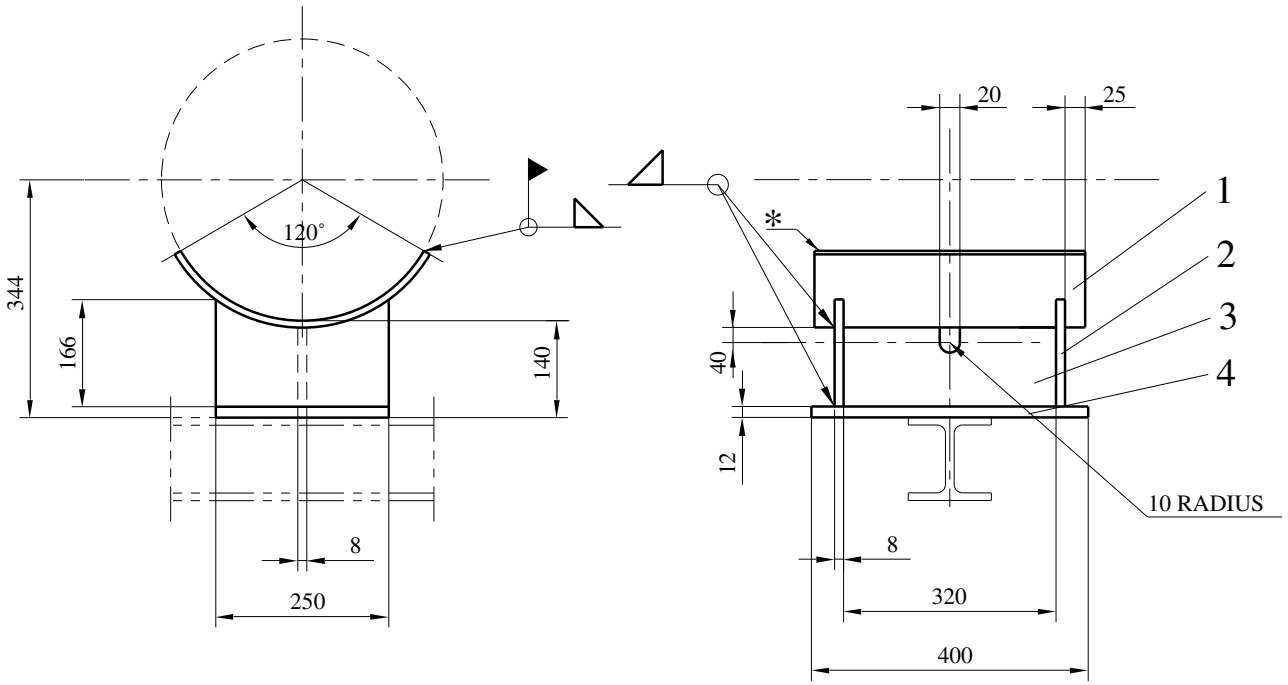
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA053D Marking : 400/4

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 124 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 166 x 250	EN 10029	A283GR.B	GB0011D
1	1	RF PAD DSS DN 400 x 386 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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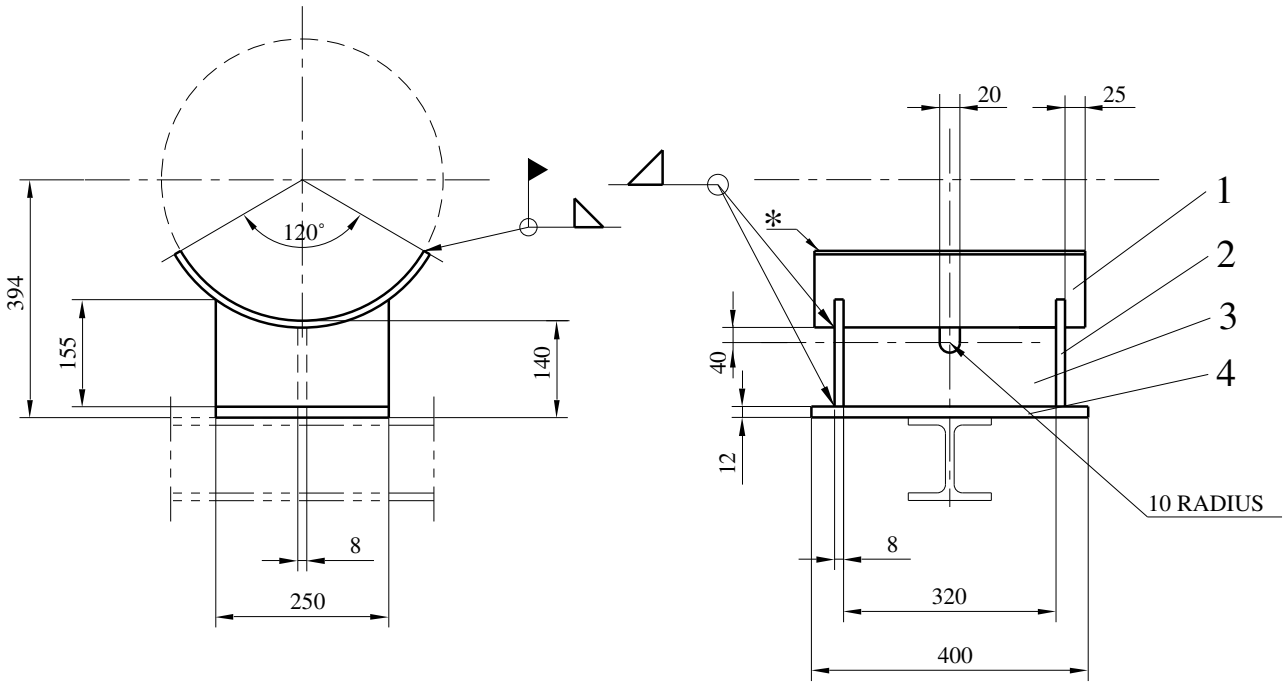
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA053D Marking : 500/4

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 122 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 155 x 250	EN 10029	A283GR.B	GB0011D
1	1	RF PAD DSS DN 500 x 386 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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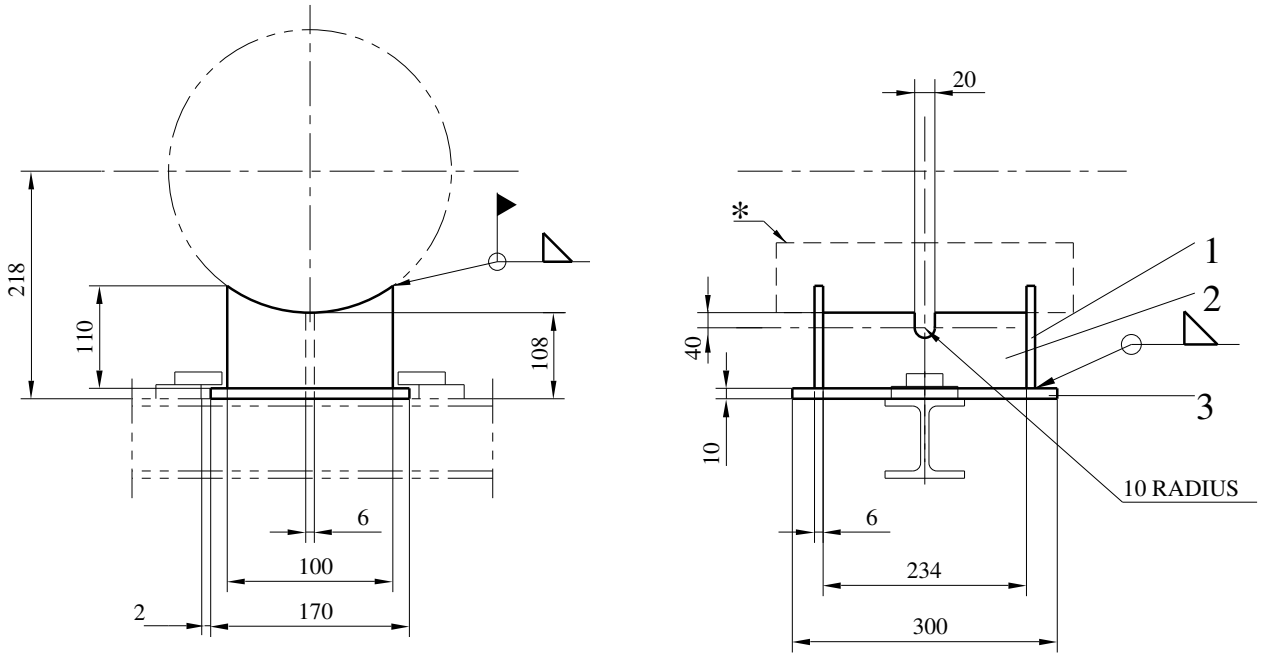
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB005D Marking : 200/2

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 170 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 98 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 110 x 100	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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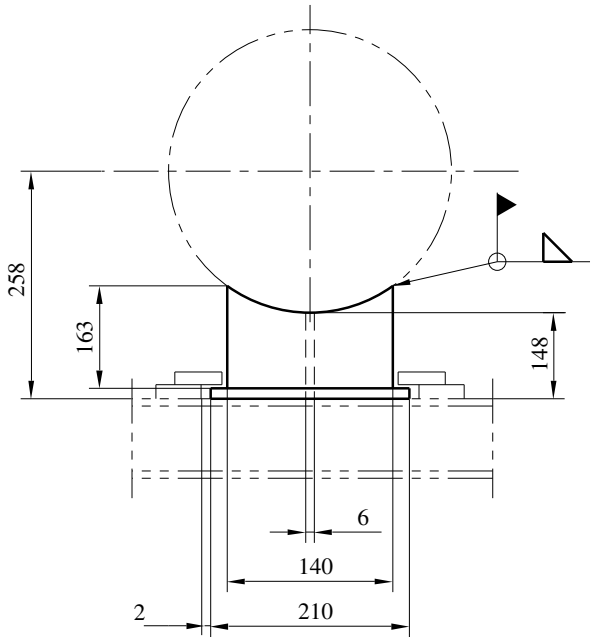
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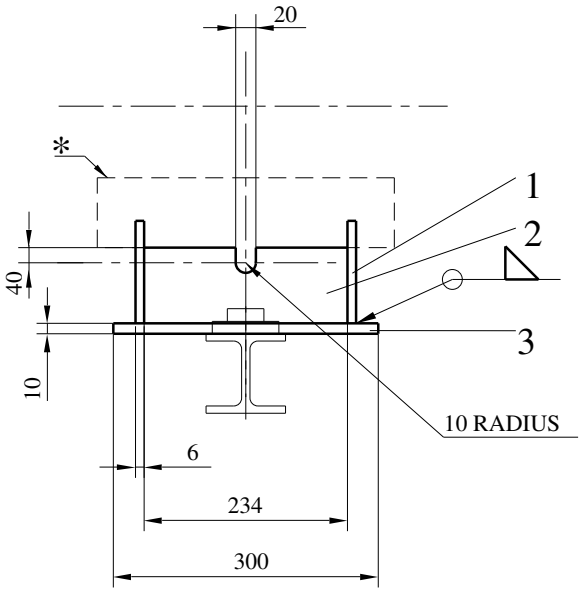
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB005D Marking : 200/3

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 210 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 163 x 140	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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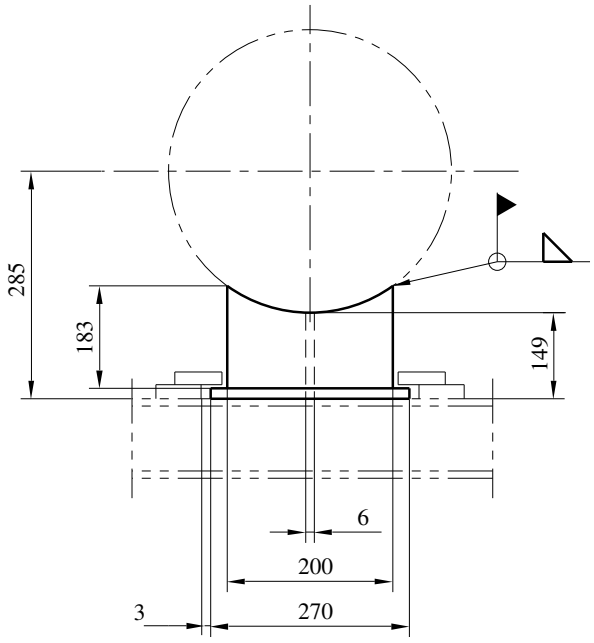
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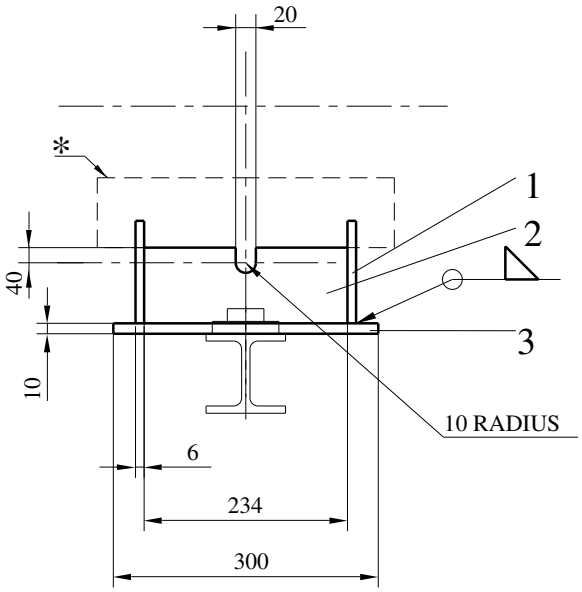
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB005D Marking : 250/3

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 270 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 139 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 183 x 200	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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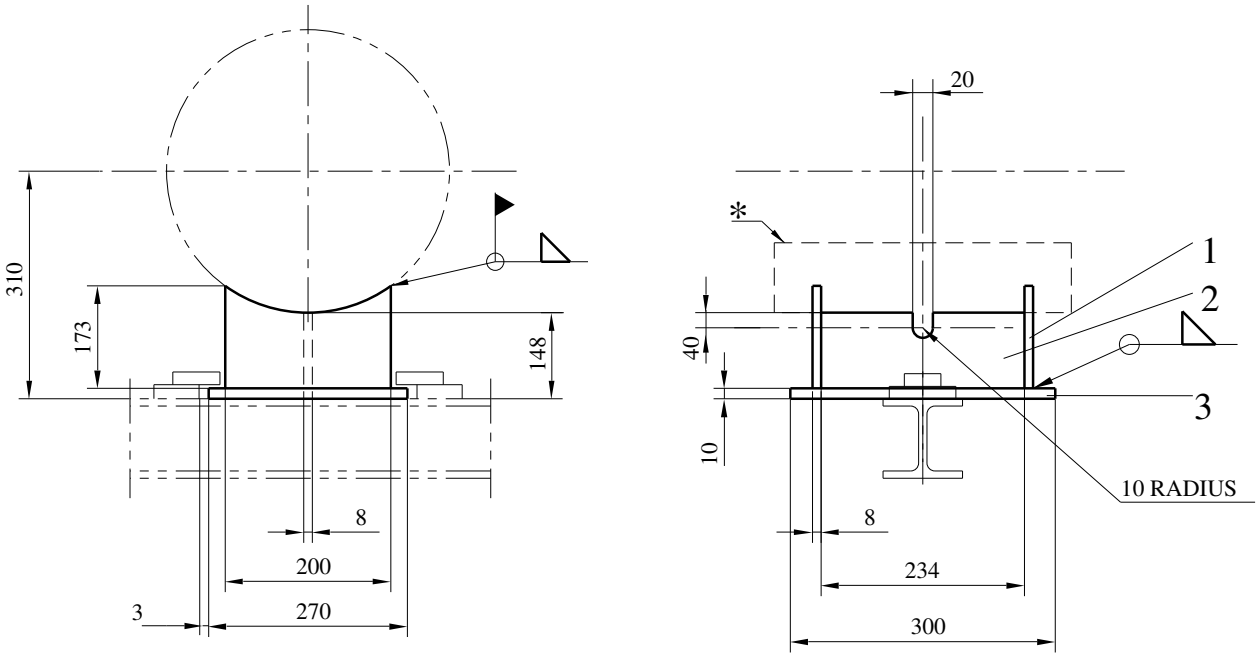
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB005D Marking : 300/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 270 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 173 x 200	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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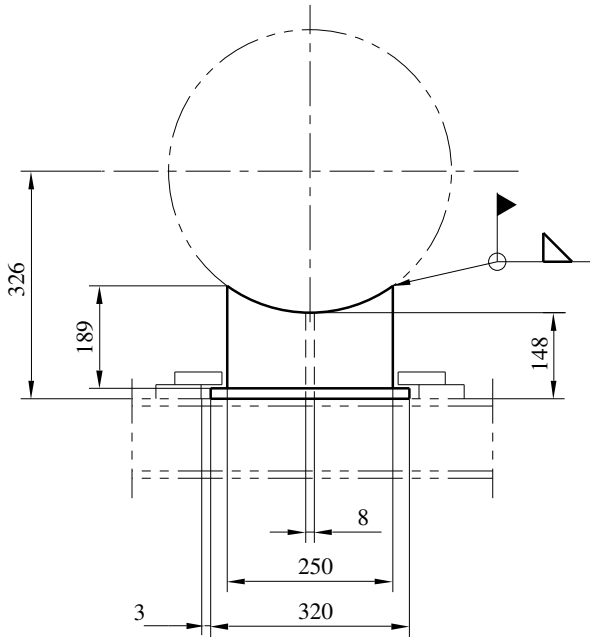
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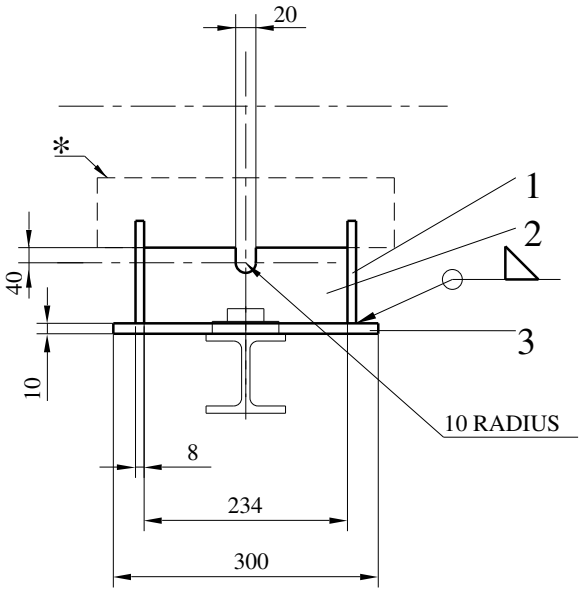
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB005D Marking : 350/3

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 320 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 189 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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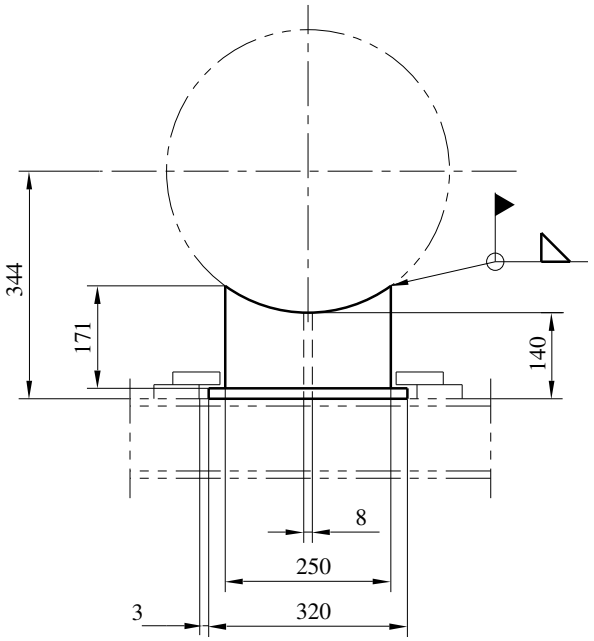
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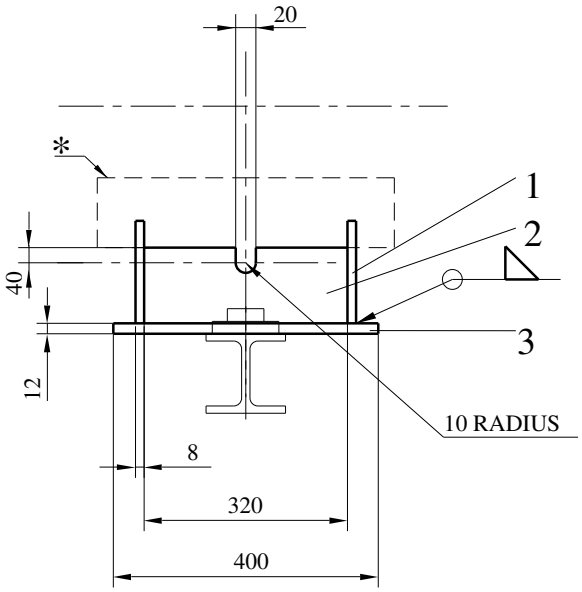
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB005D Marking : 400/4

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 128 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 171 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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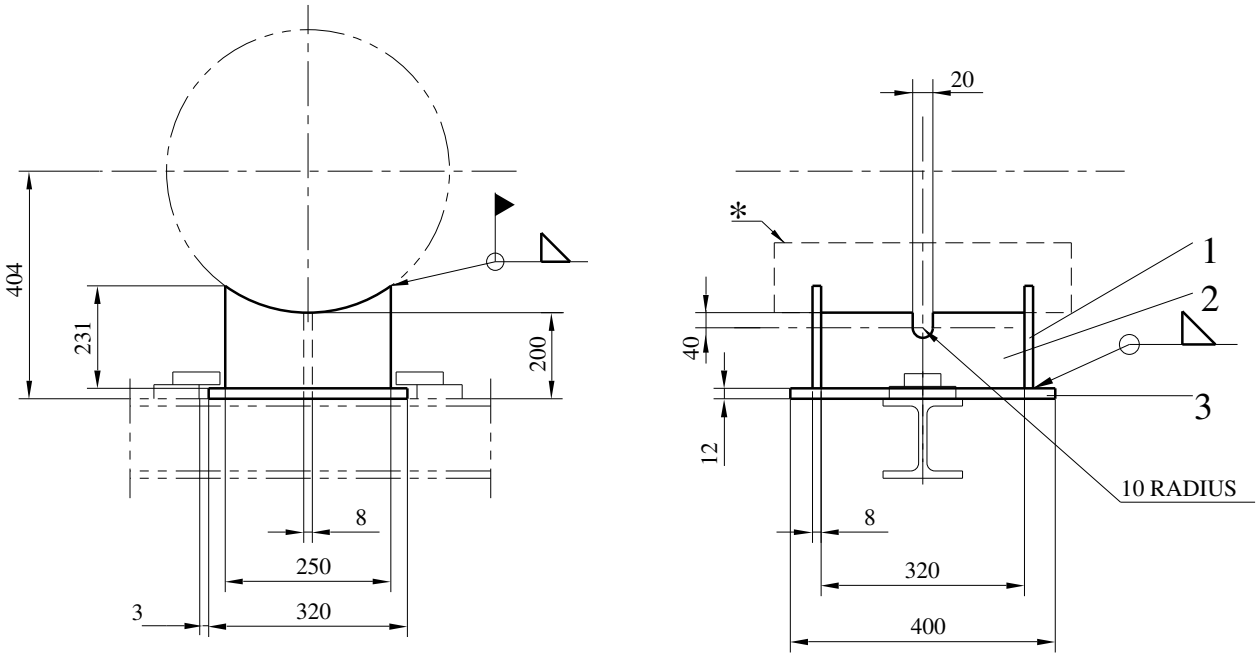
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCB005D Marking : 400/5

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 188 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 231 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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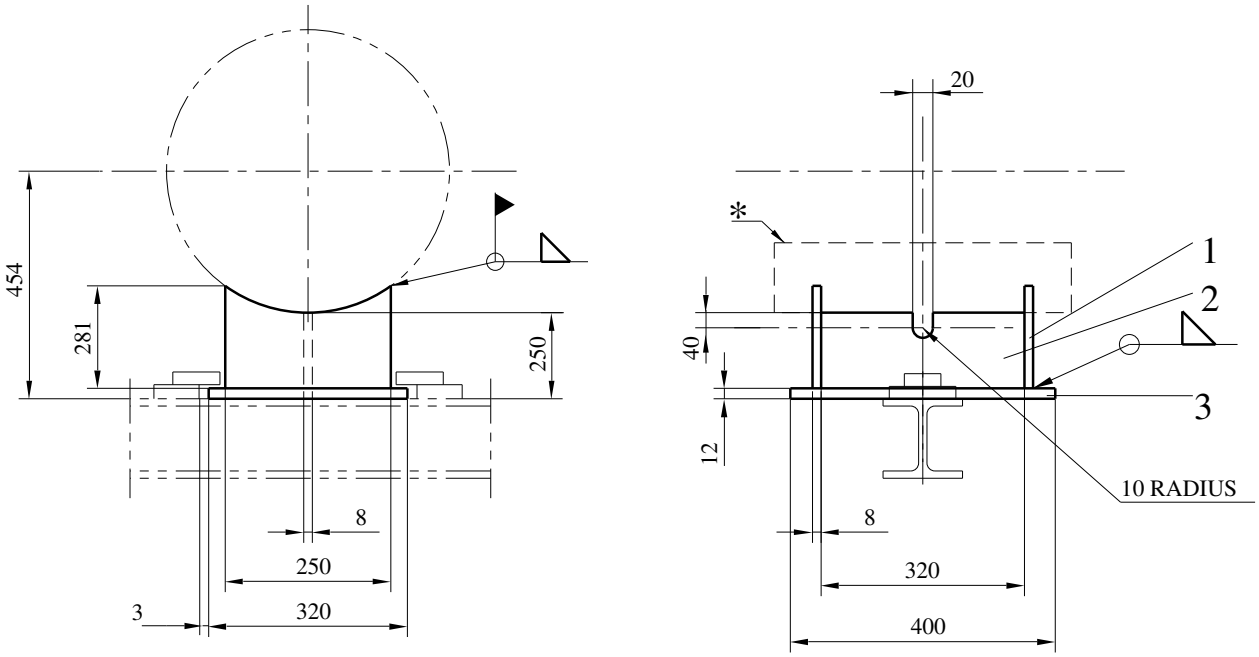
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCB005D Marking : 400/6

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 238 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 281 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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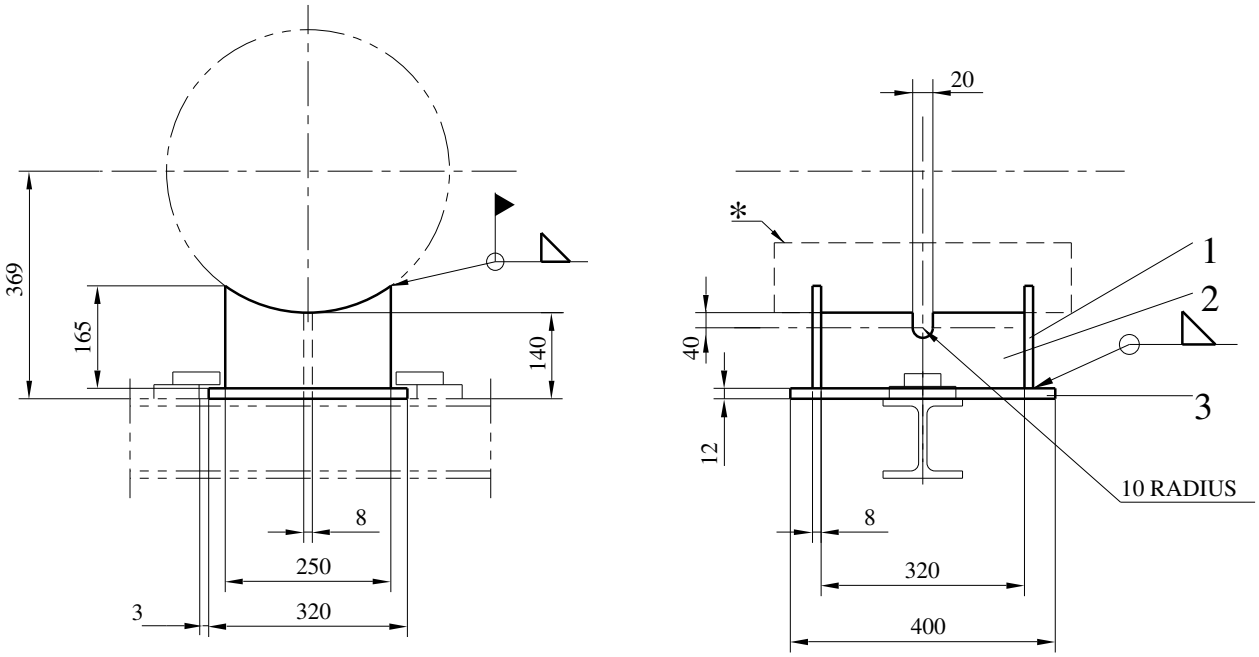
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCB005D Marking : 450/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 128 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 165 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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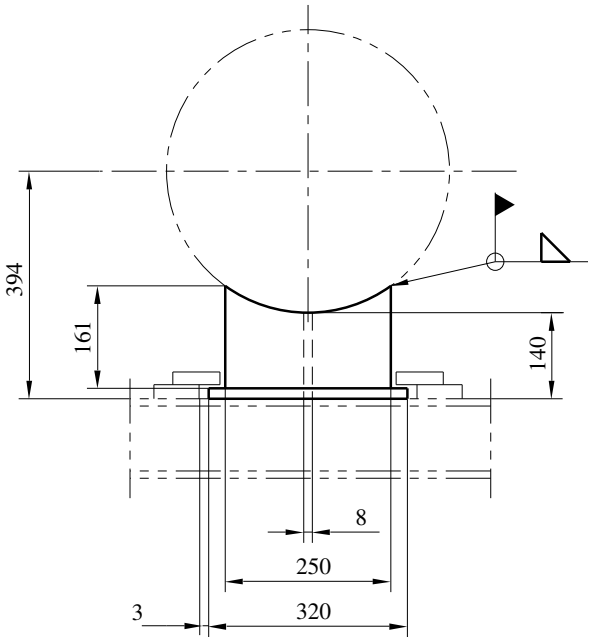
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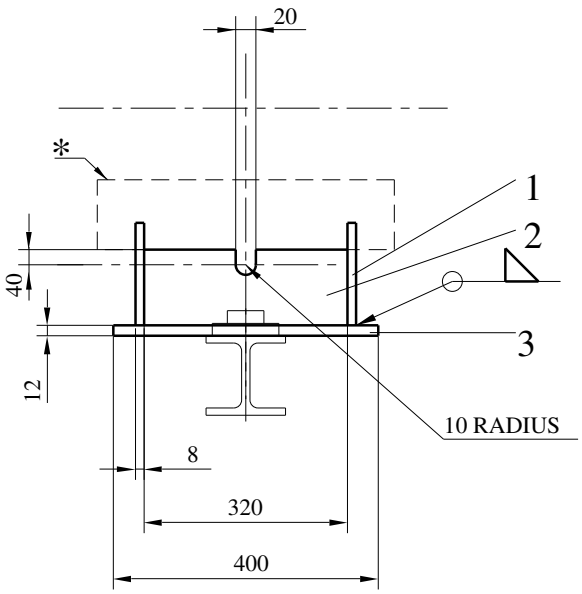
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB005D Marking : 500/4

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 128 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 161 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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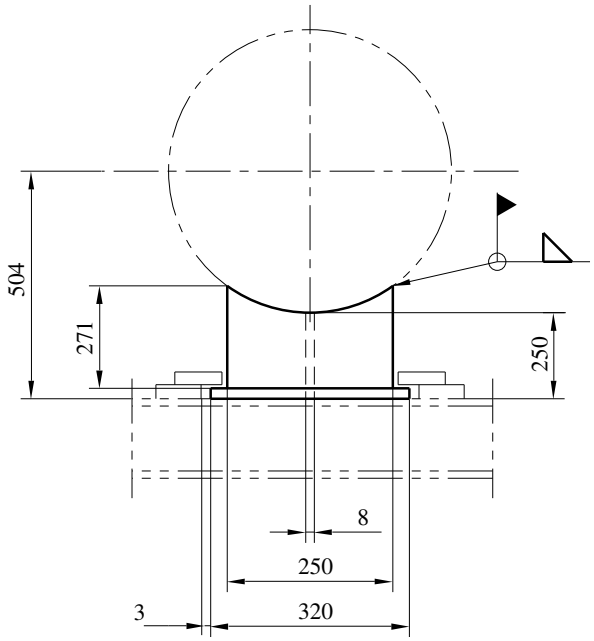
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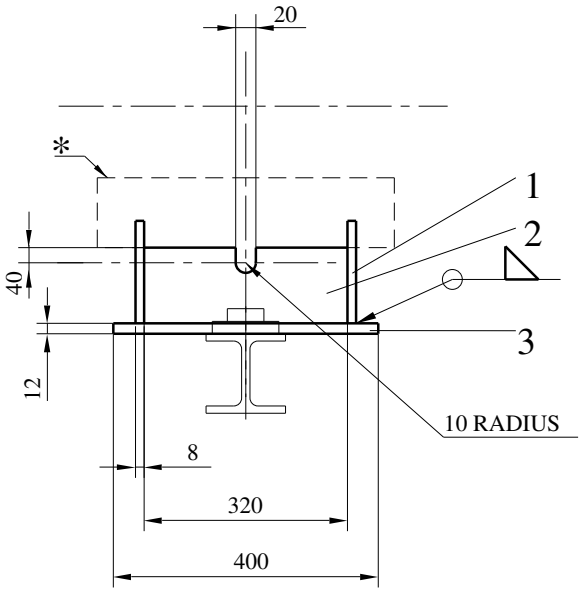
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PIPE SUPPORT

Code No.: WCB005D Marking : 500/6

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 238 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 271 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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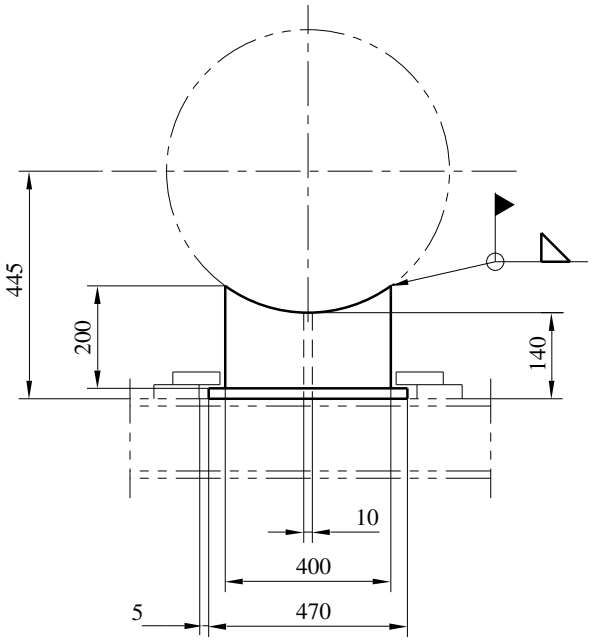
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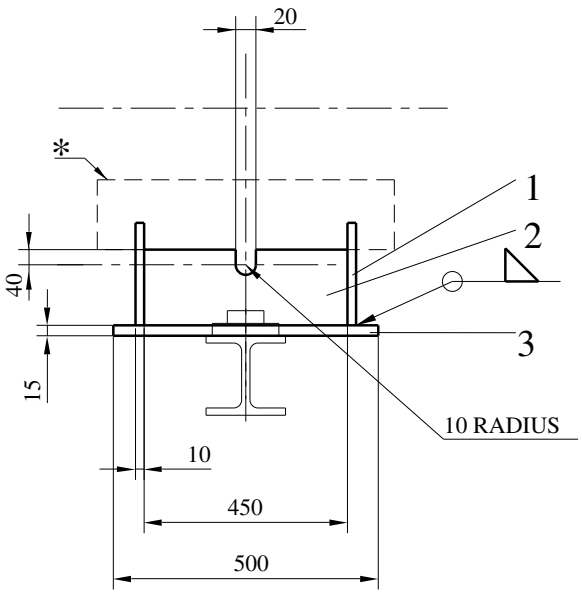
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB006D Marking : 600/4

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 470 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 200 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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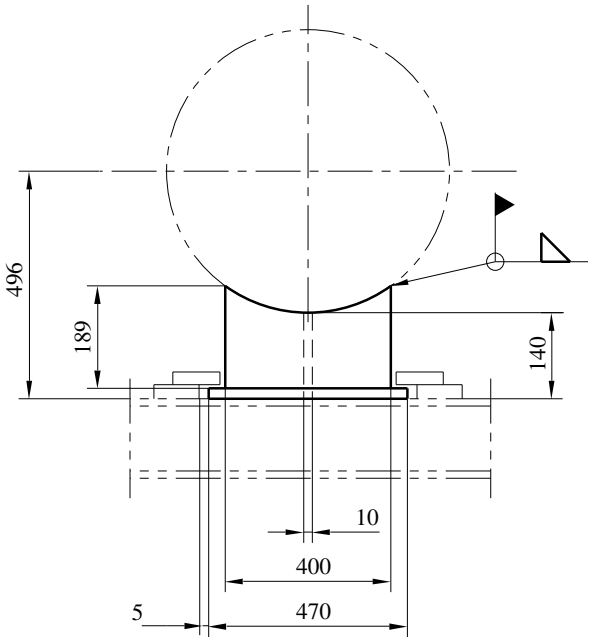
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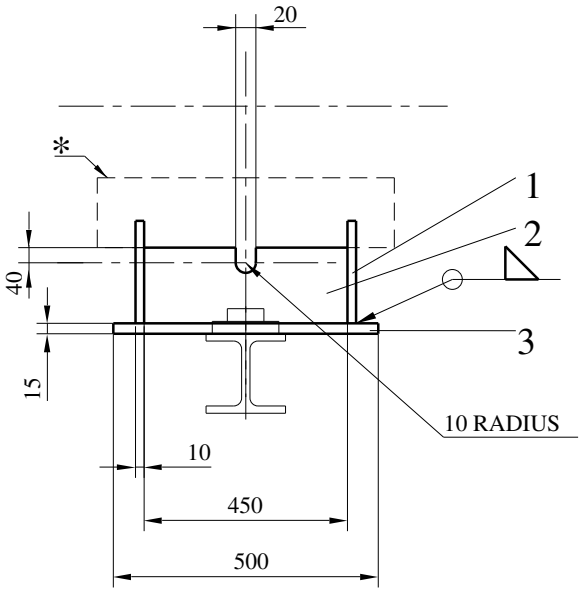
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PIPE SUPPORT

Code No.: WCB006D Marking : 700/4

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 470 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 189 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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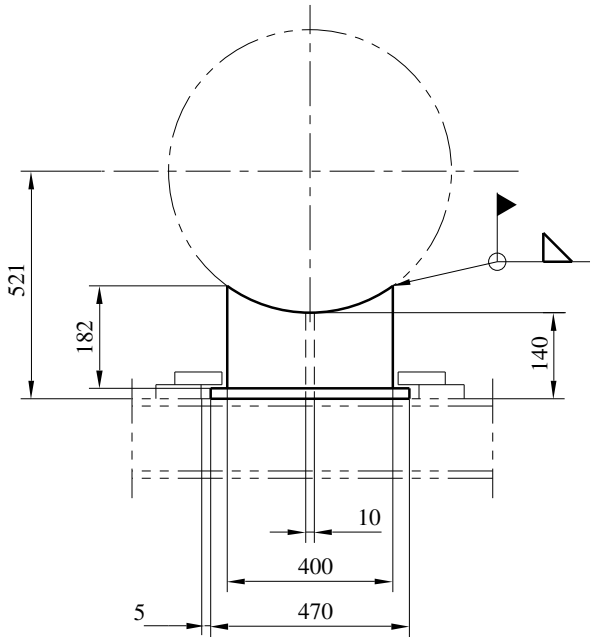
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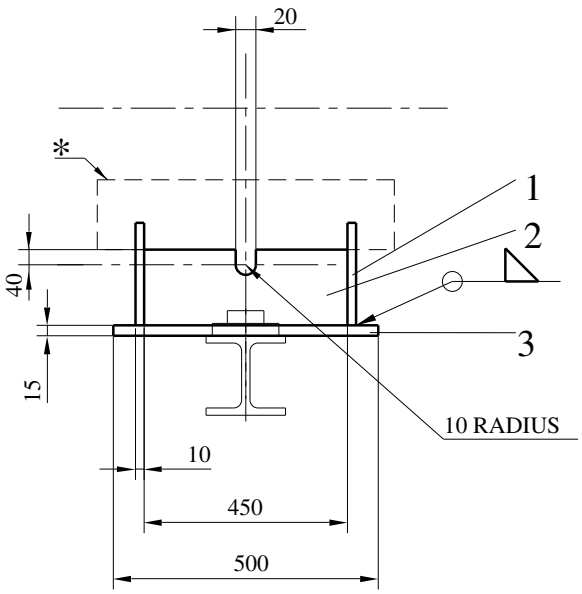
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PIPE SUPPORT

Code No.: WCB006D Marking : 750/4

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 470 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 182 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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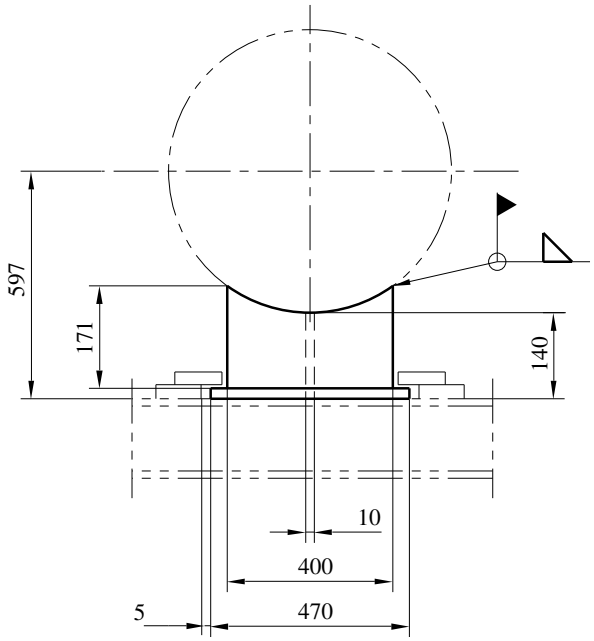
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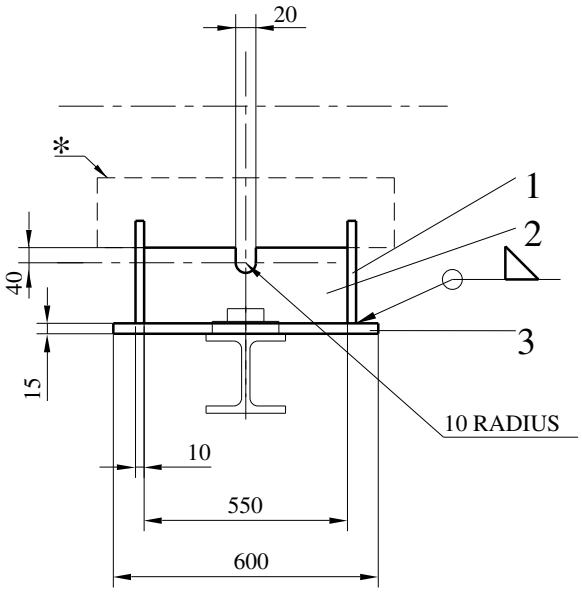
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB006D Marking : 900/4

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 470 x 600	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 550	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 171 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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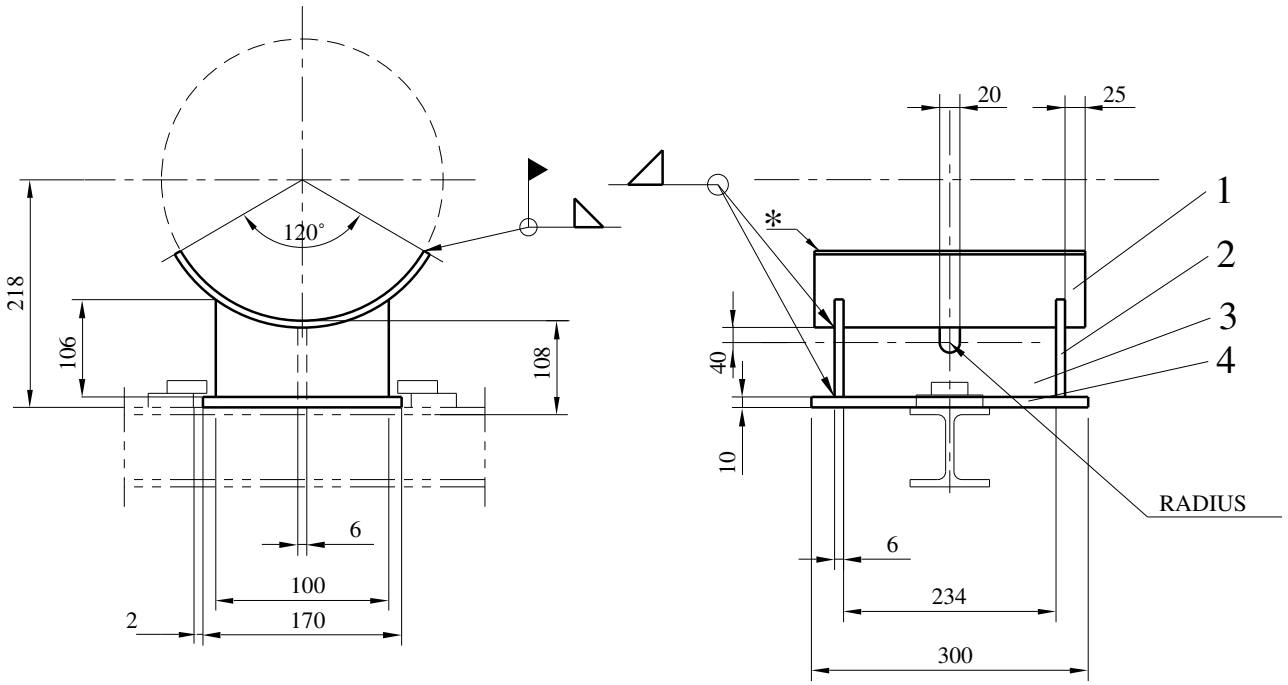
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB055D Marking : 200/2

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	PLATE 10 x 100 x 300	EN 10029	A283GR.B	GB0001D
3	1	PLATE 6 x 95 x 234	EN 10029	A283GR.B	GB0001D
2	2	PLATE 6 x 106 x 100	EN 10029	A283GR.B	GB0011D
1	1	RF PAD DSS DN 200 x 296 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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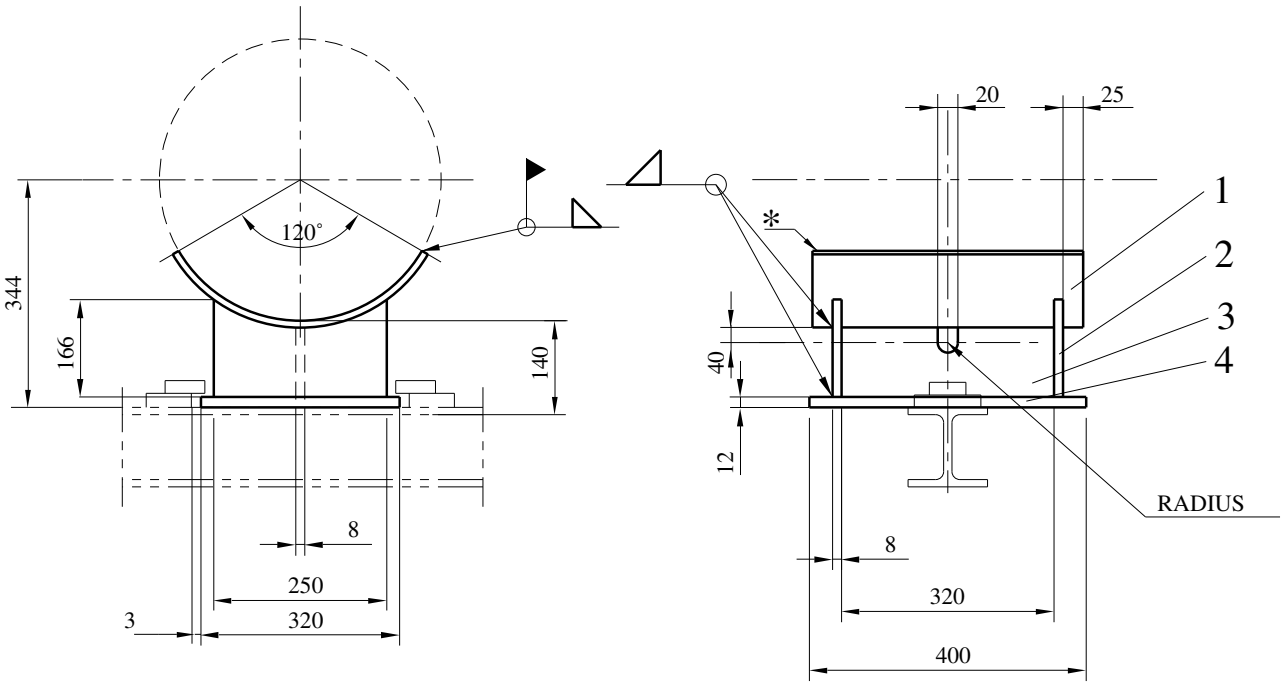
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB055D Marking : 400/4

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 124 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 166 x 250	EN 10029	A283GR.B	GB0011D
1	1	RF PAD DSS DN 400 x 386 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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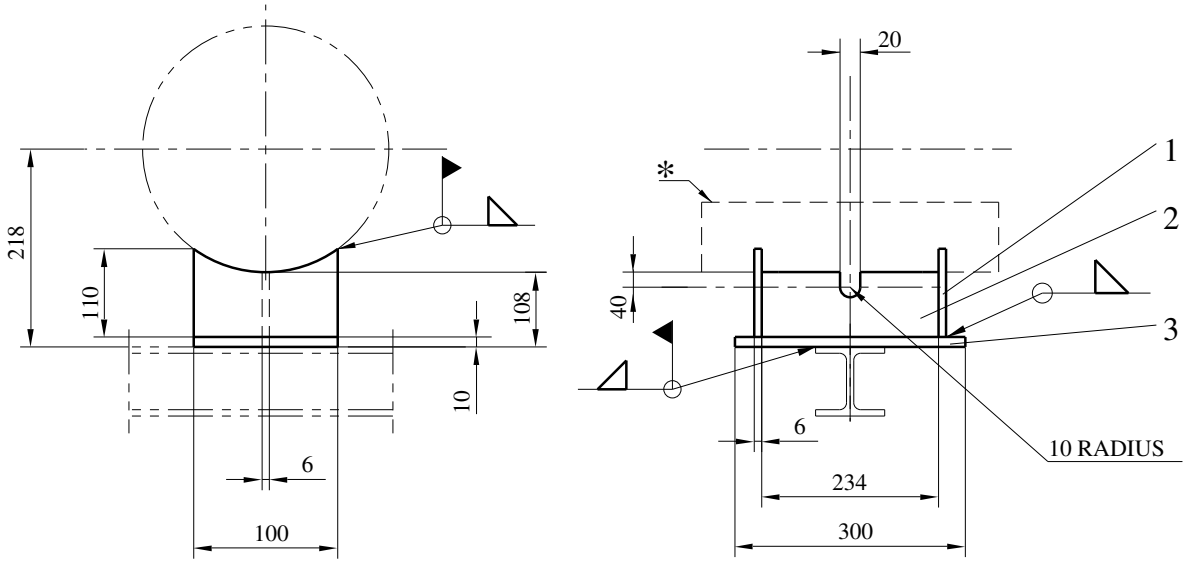
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC007D Marking : 200/2

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 100 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 98 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 110 x 100	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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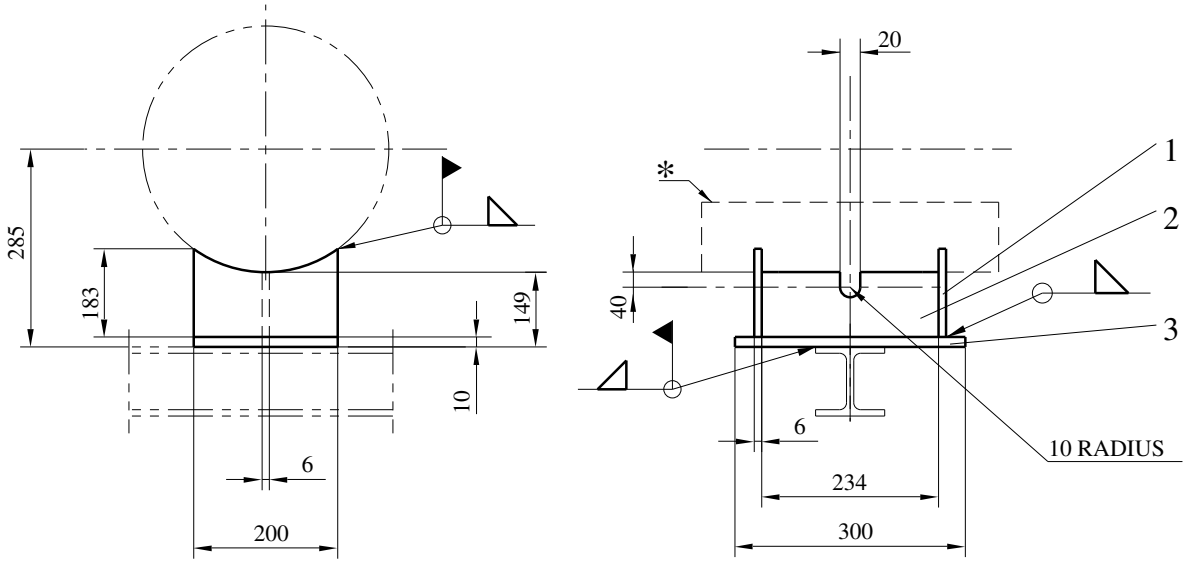
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC007D Marking : 250/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 139 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 183 x 200	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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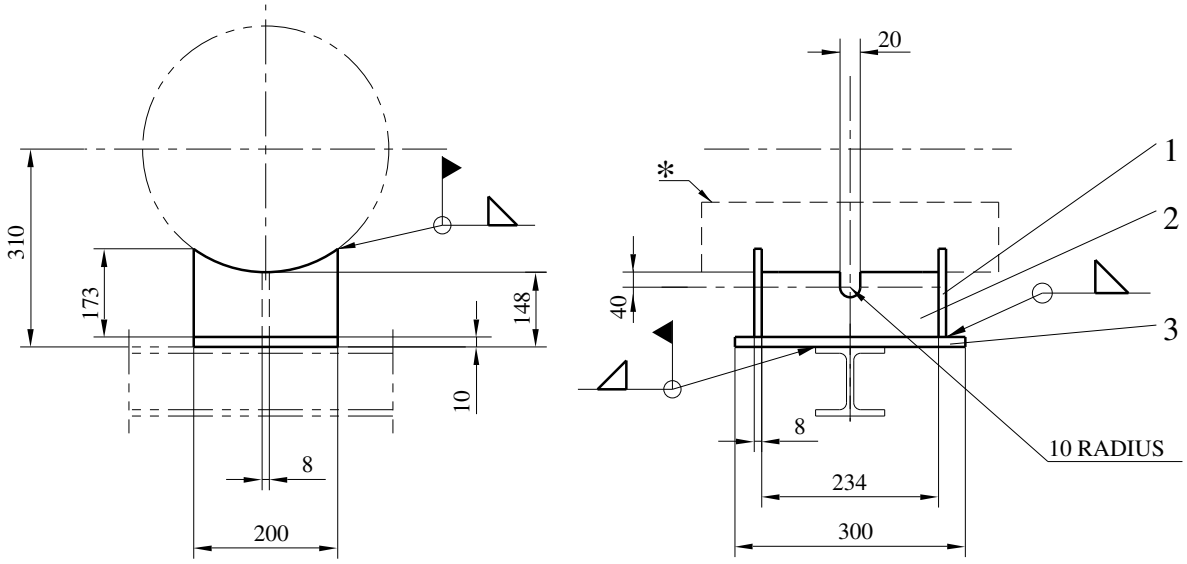
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC007D Marking : 300/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 200 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 173 x 200	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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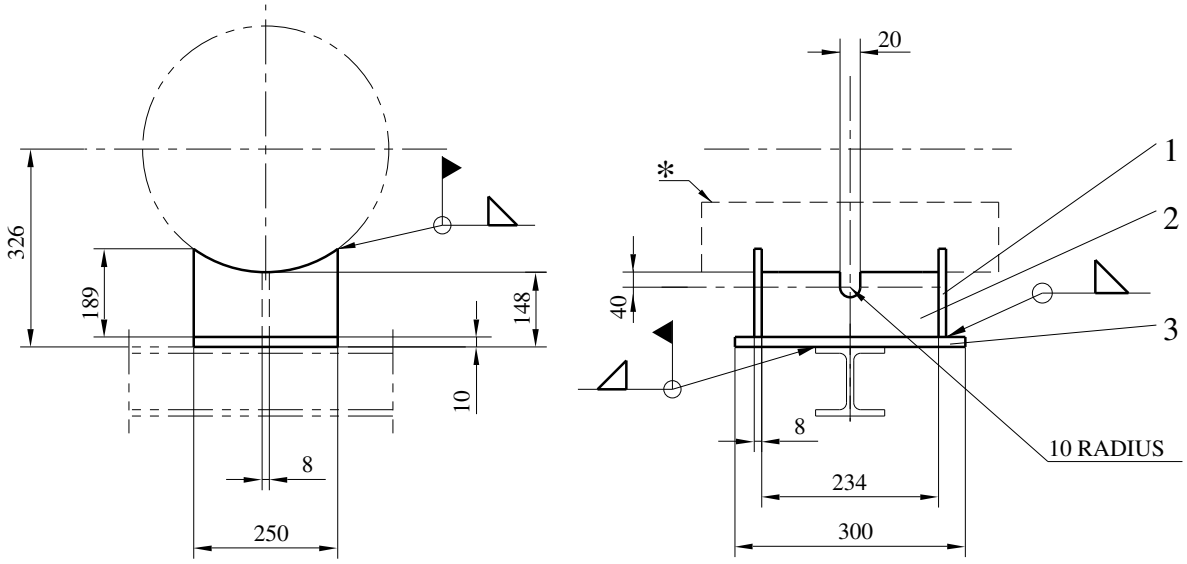
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC007D Marking : 350/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 250 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 189 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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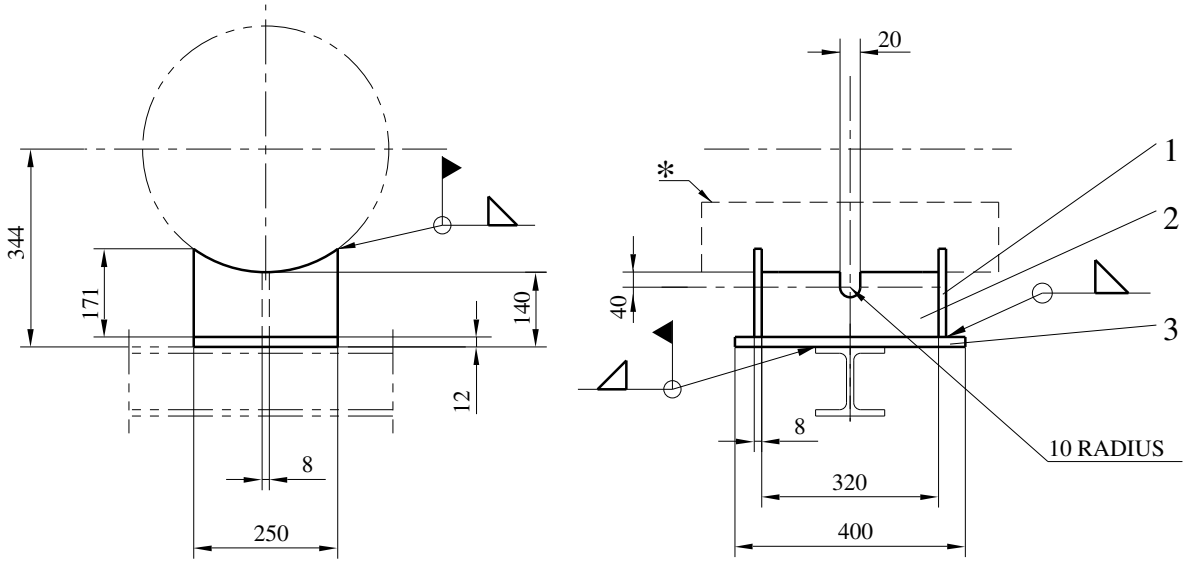
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC007D Marking : 400/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 128 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 171 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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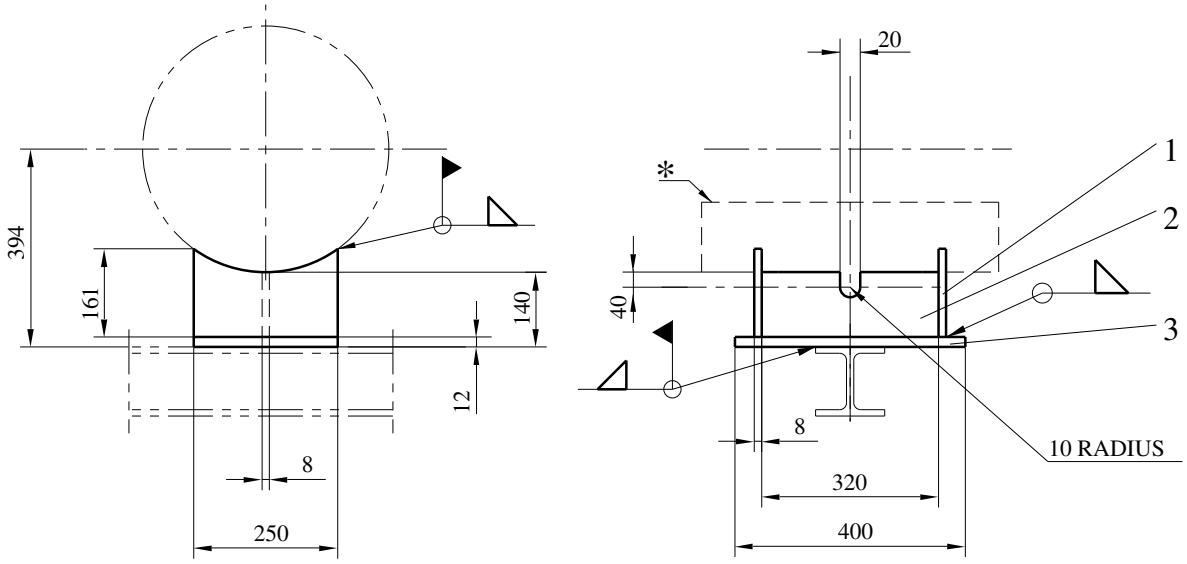
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC007D Marking : 500/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 128 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 161 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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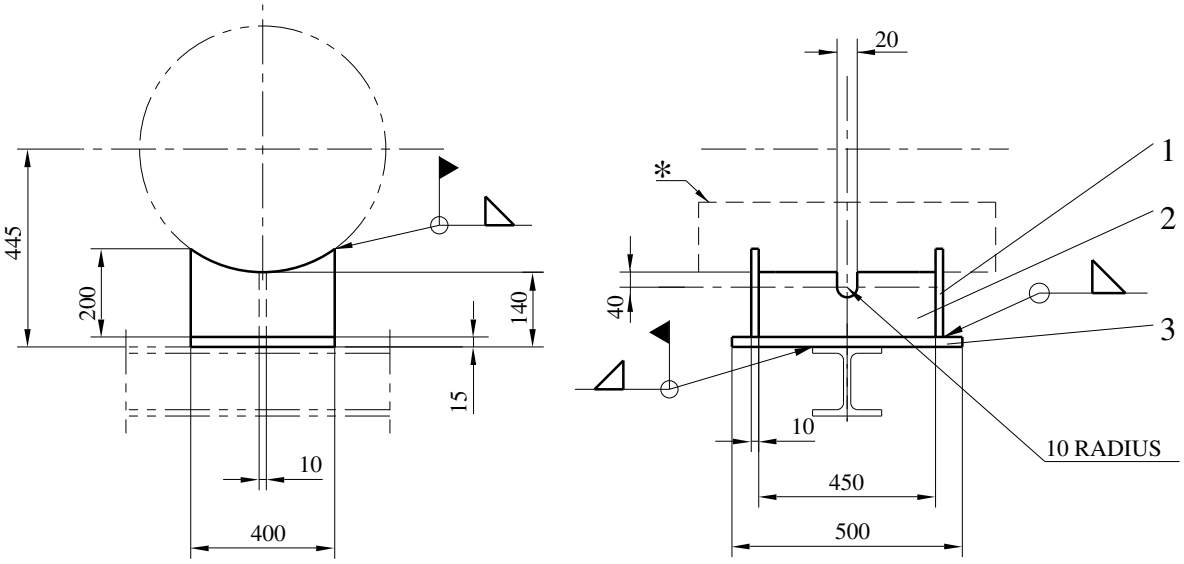
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC008D Marking : 600/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 200 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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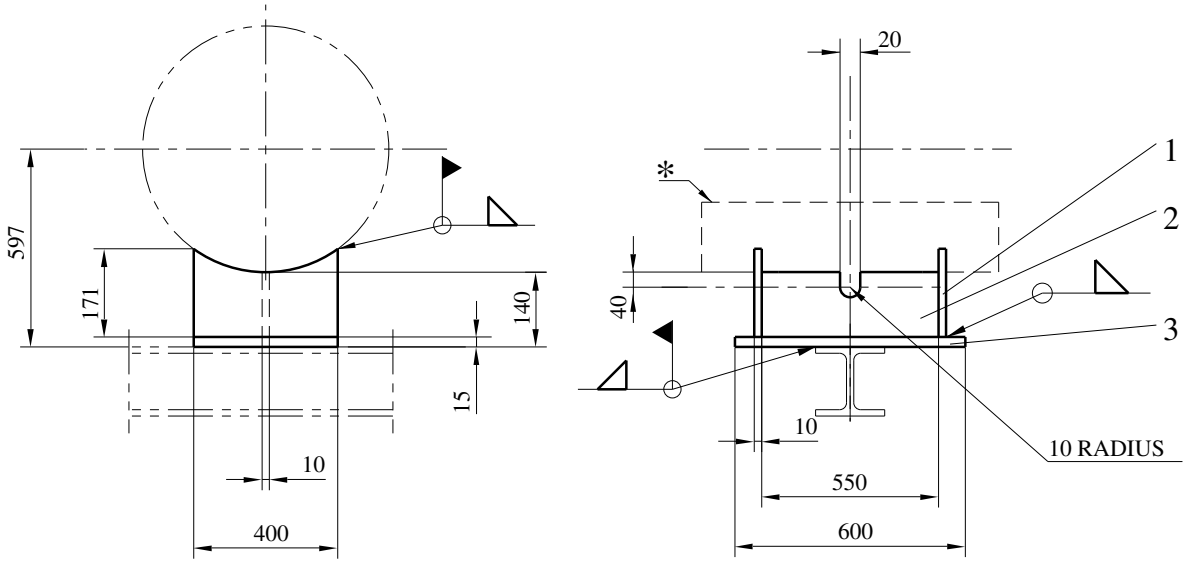
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCC008D Marking : 900/4

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 600	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 125 x 550	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 171 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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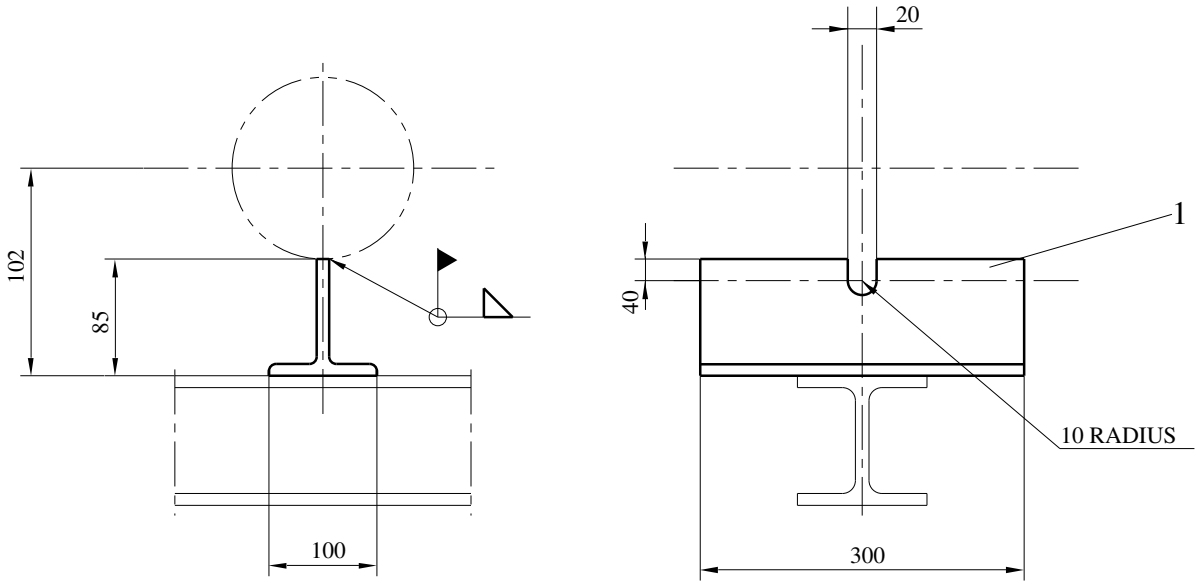
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 25/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 85 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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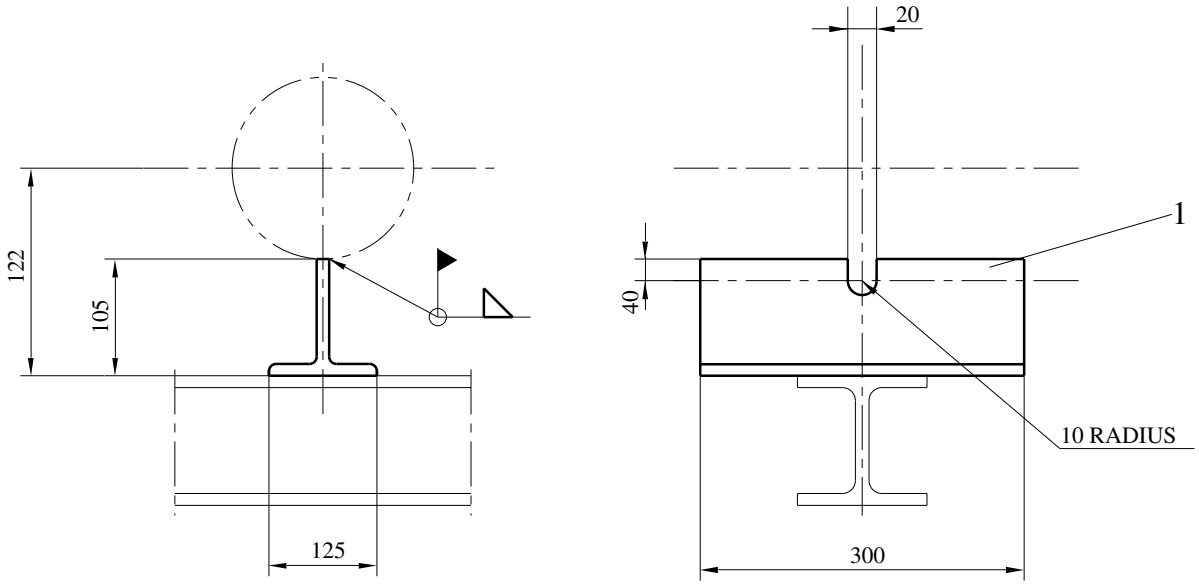
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 25/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 250 , 105 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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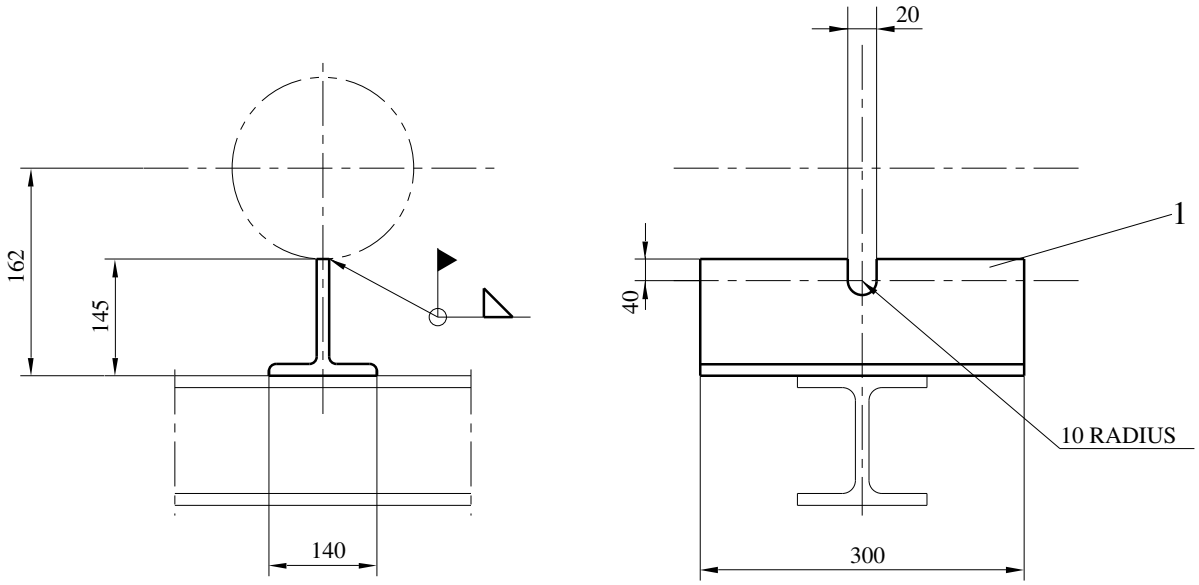
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 25/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 145 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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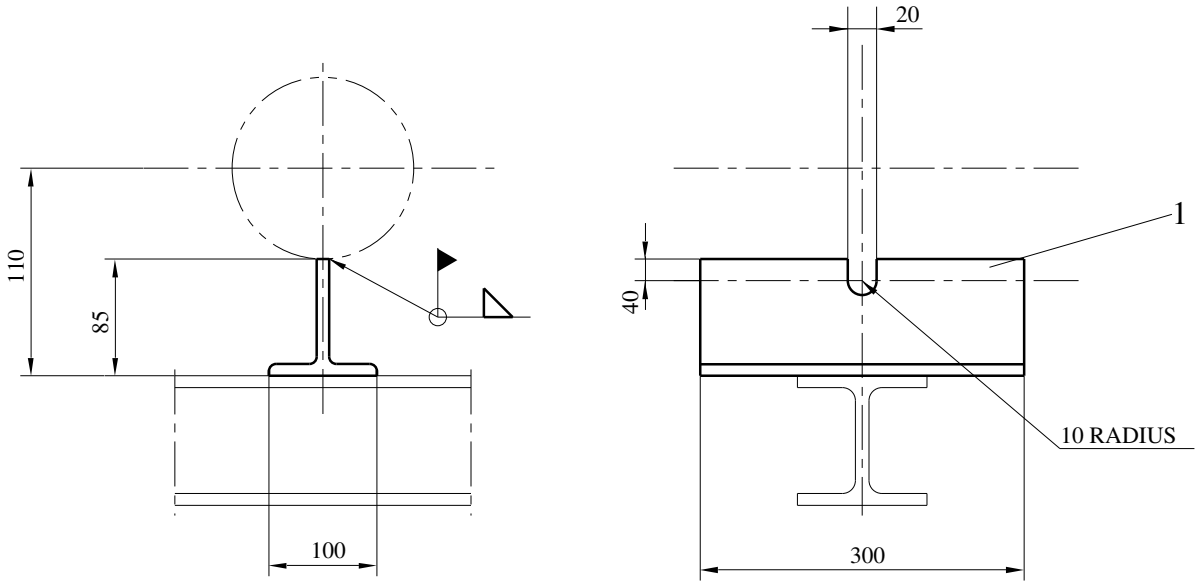
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 40/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 85 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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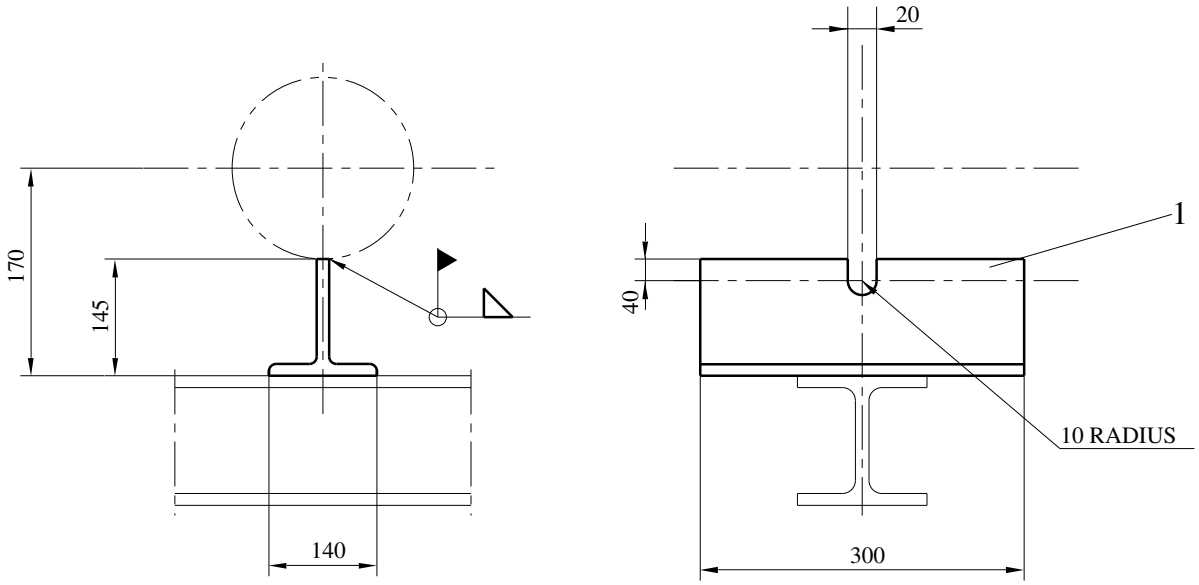
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 40/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 145 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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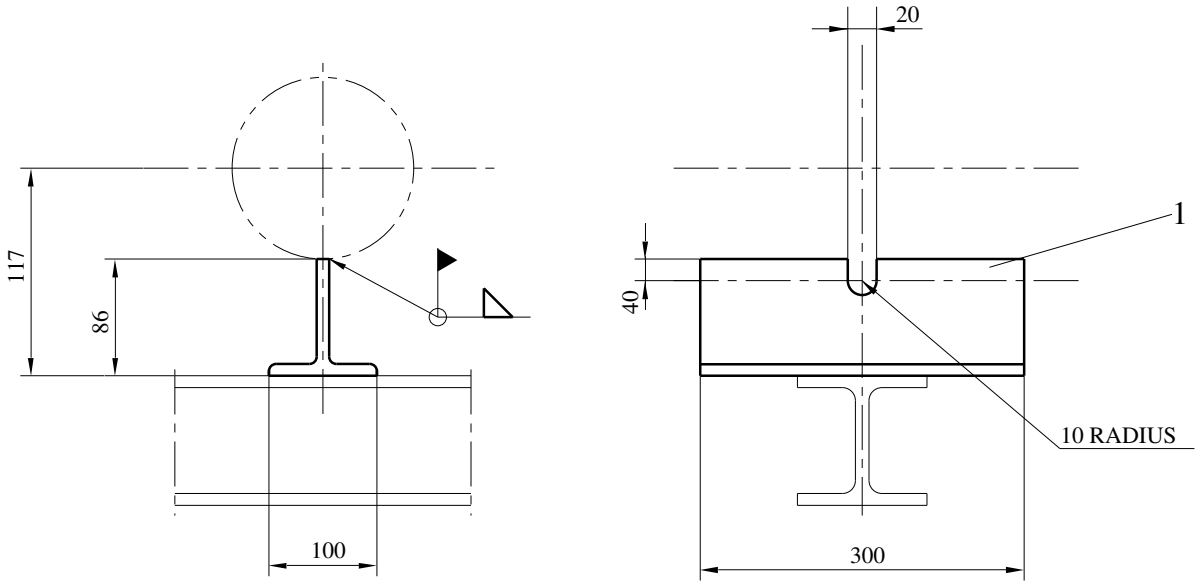
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 86 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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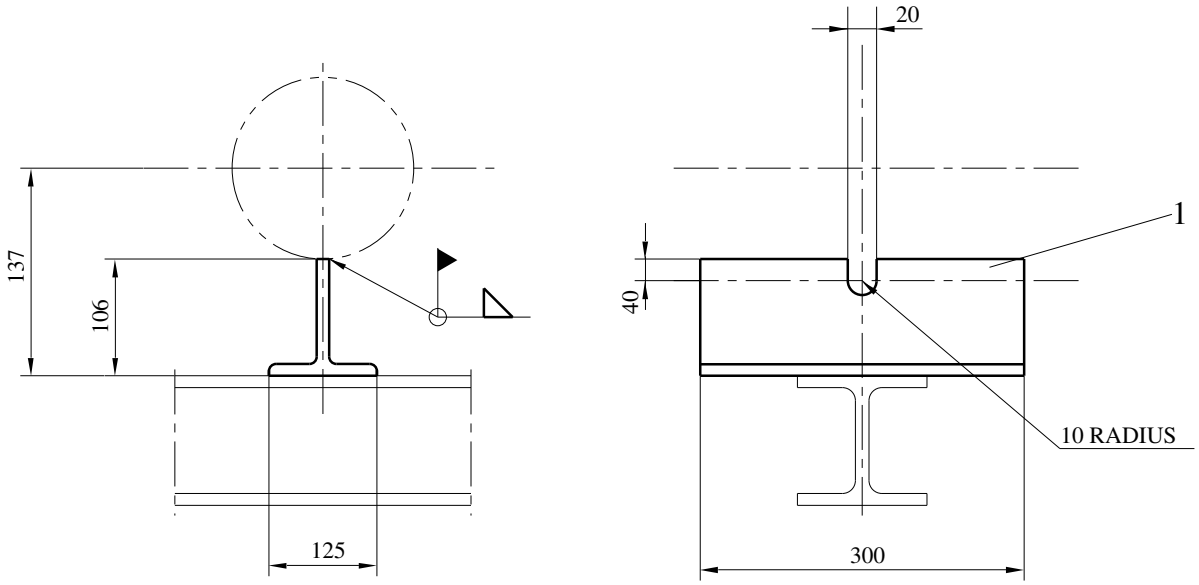
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 50/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 250 , 106 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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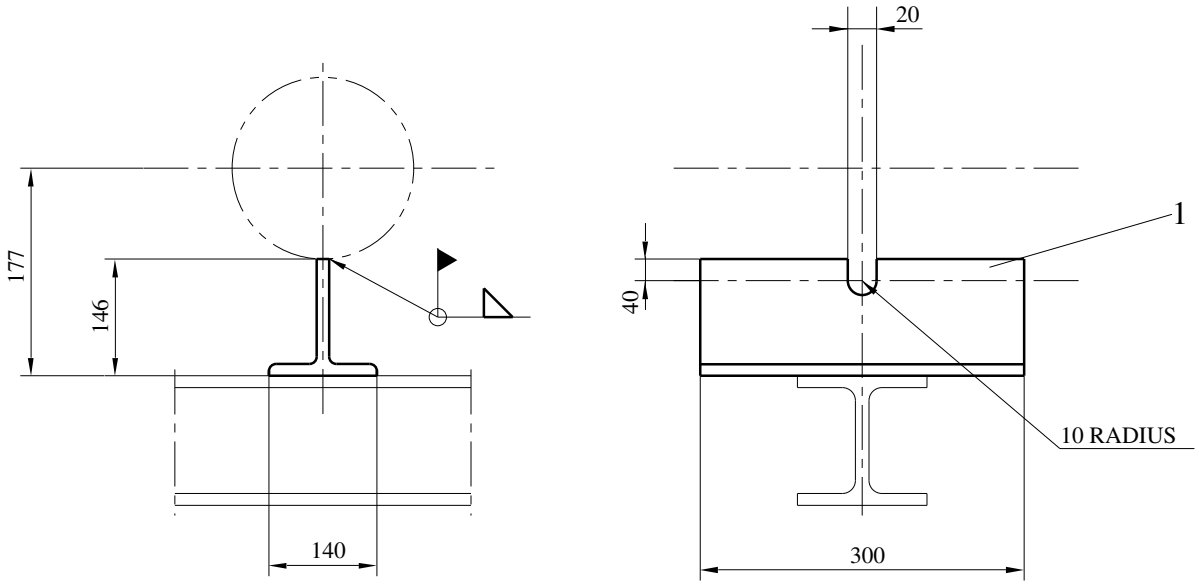
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 50/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 146 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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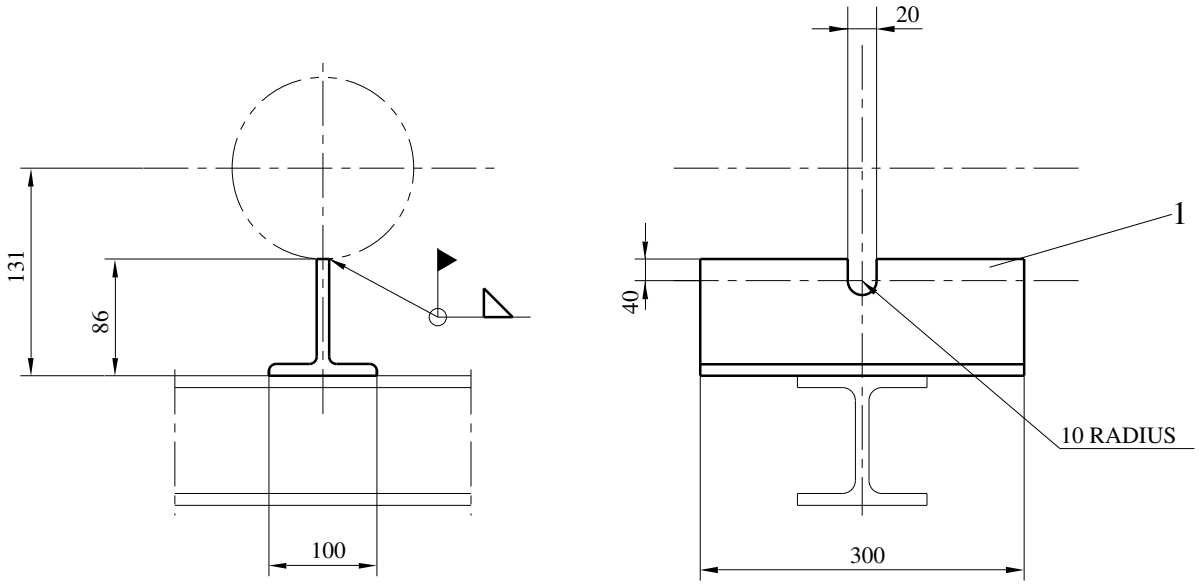
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 86 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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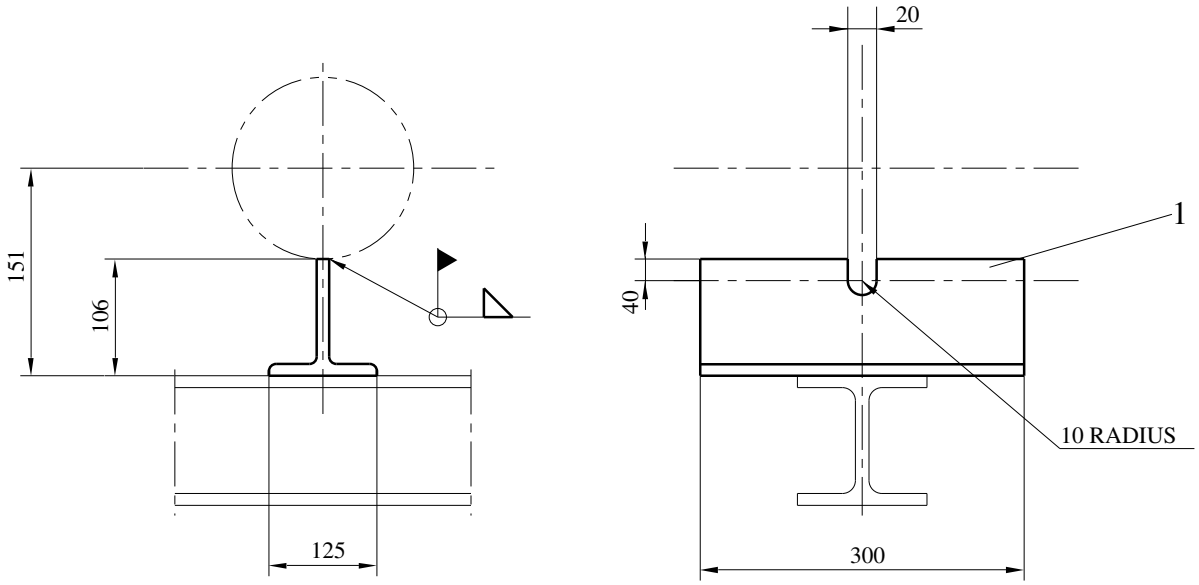
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 80/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 250 , 106 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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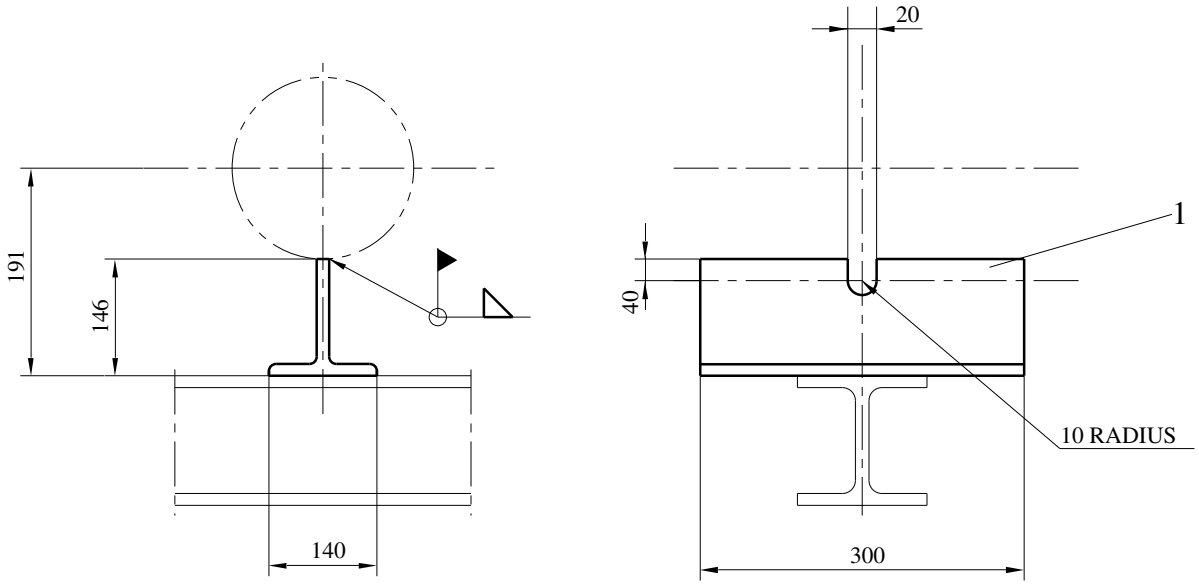
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 80/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 146 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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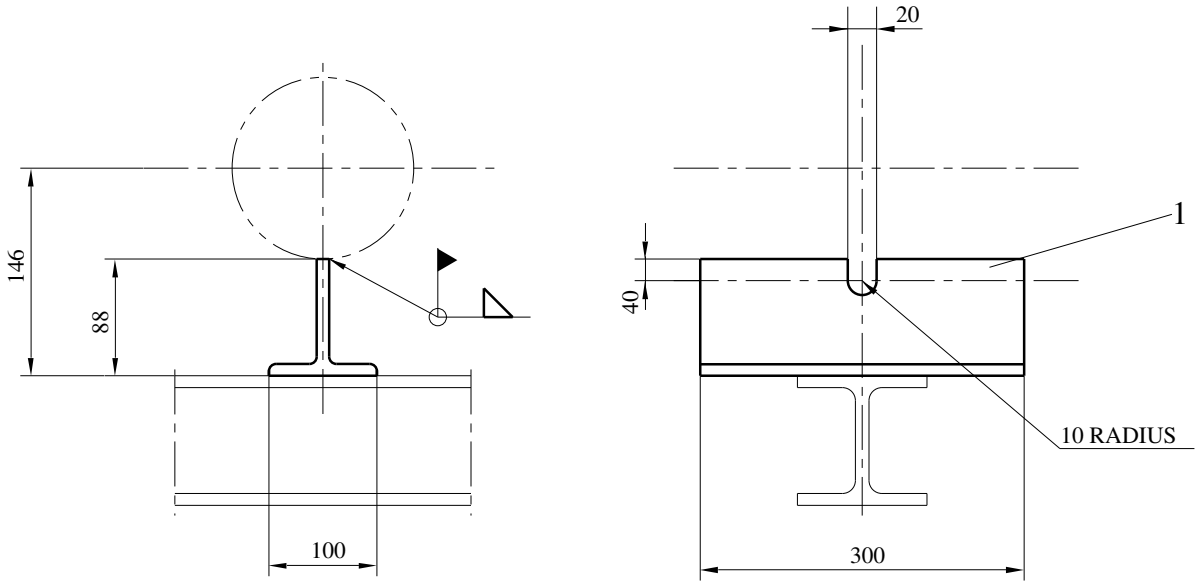
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDA001D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 88 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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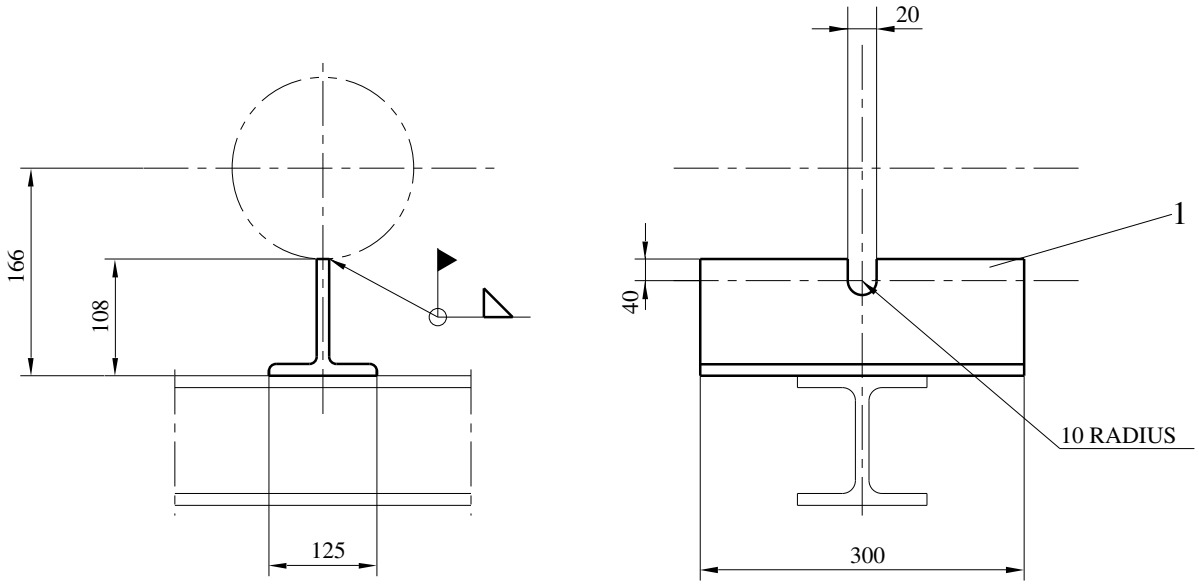
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDA001D Marking : 100/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 250 , 108 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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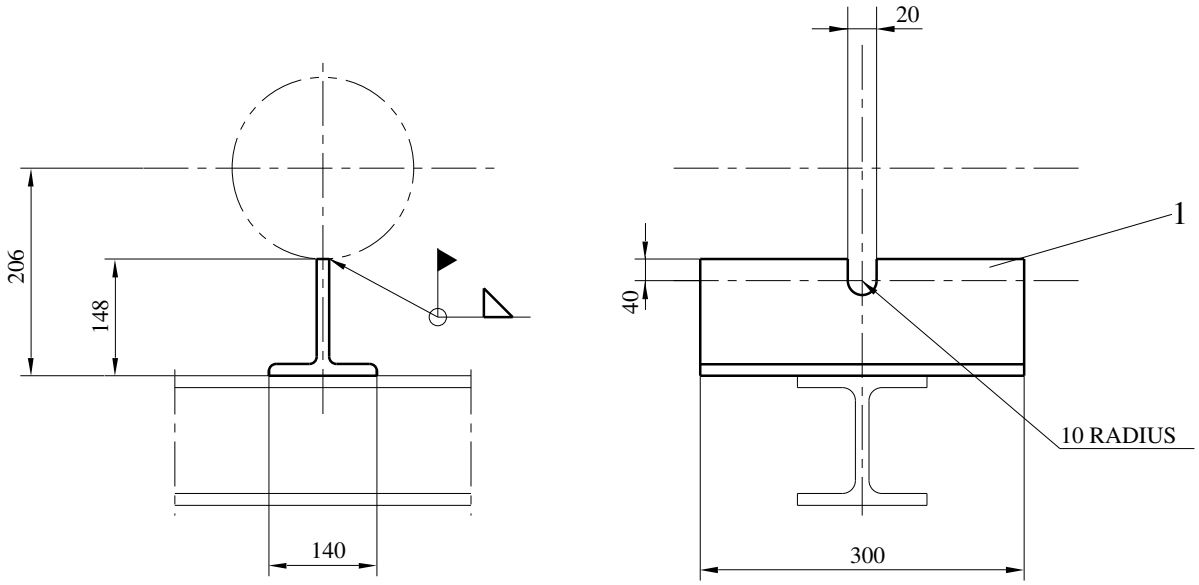
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDA001D Marking : 100/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 148 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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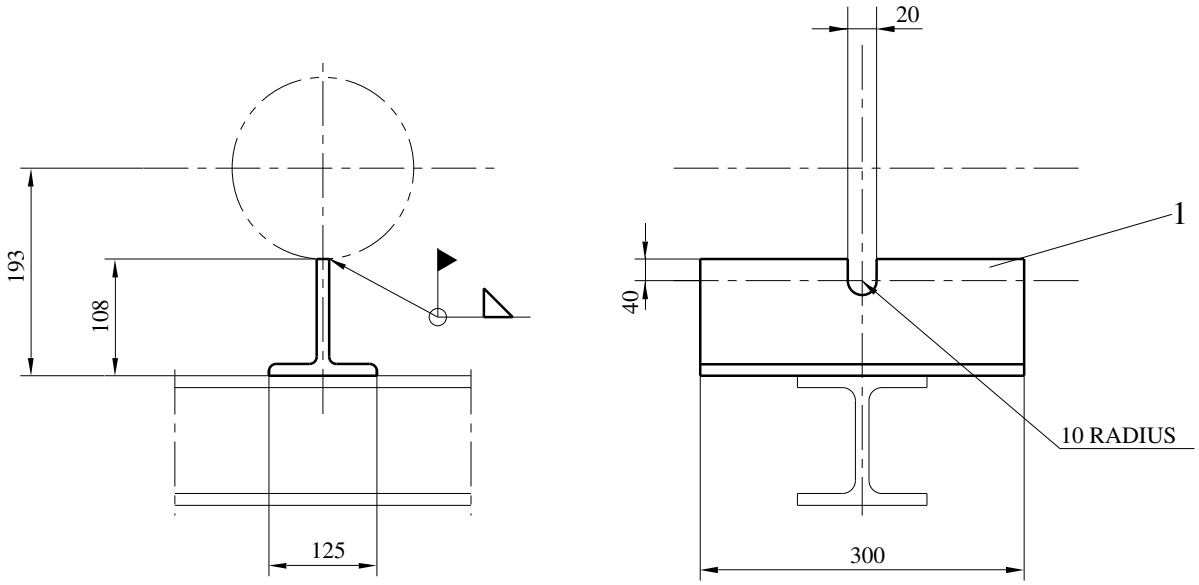
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDA002D Marking : 150/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 250 , 108 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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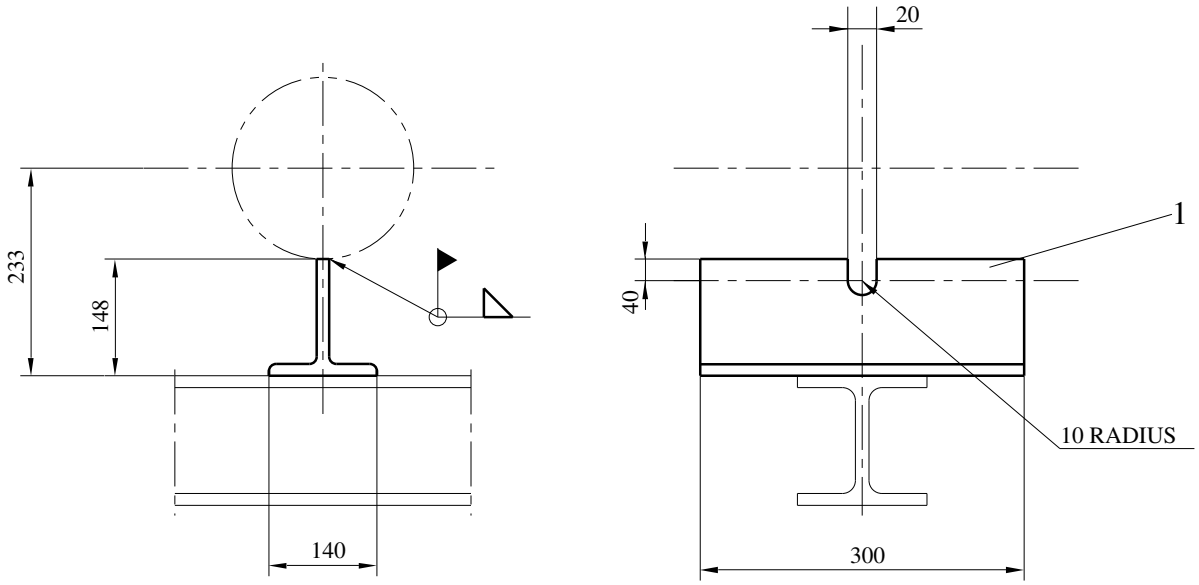
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDA002D Marking : 150/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 148 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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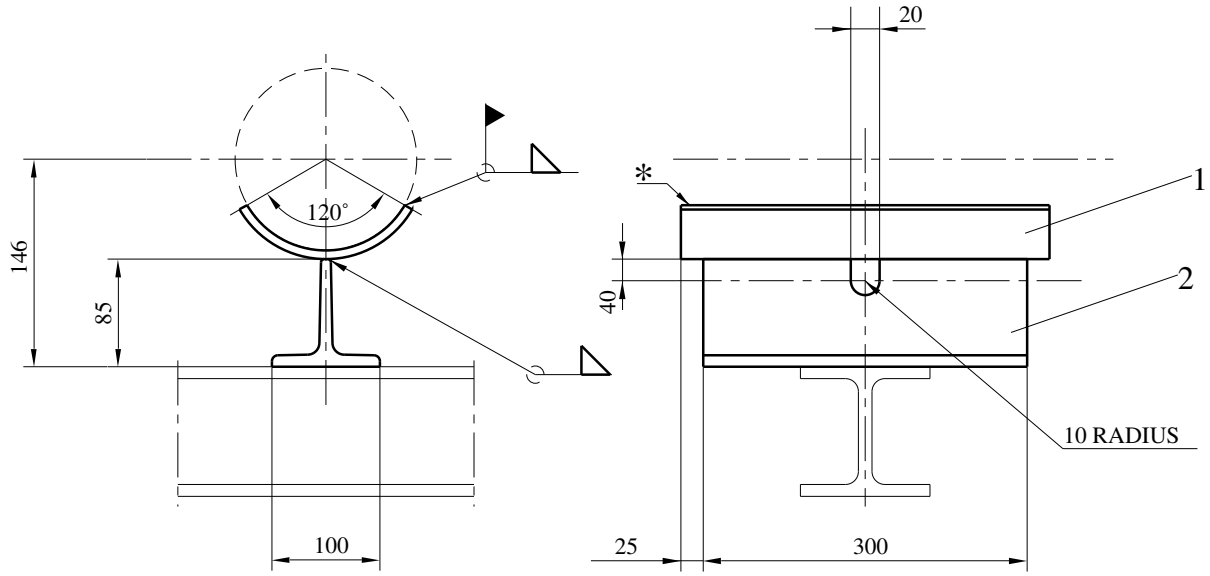
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDA051D Marking : 100/1

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	T-BAR CUT FROM ISMB 200 , 85 x 100 x 300 Long	IS 808	IS 2062	GTI099D
1	1	RF PAD DSS DN 100 x 350 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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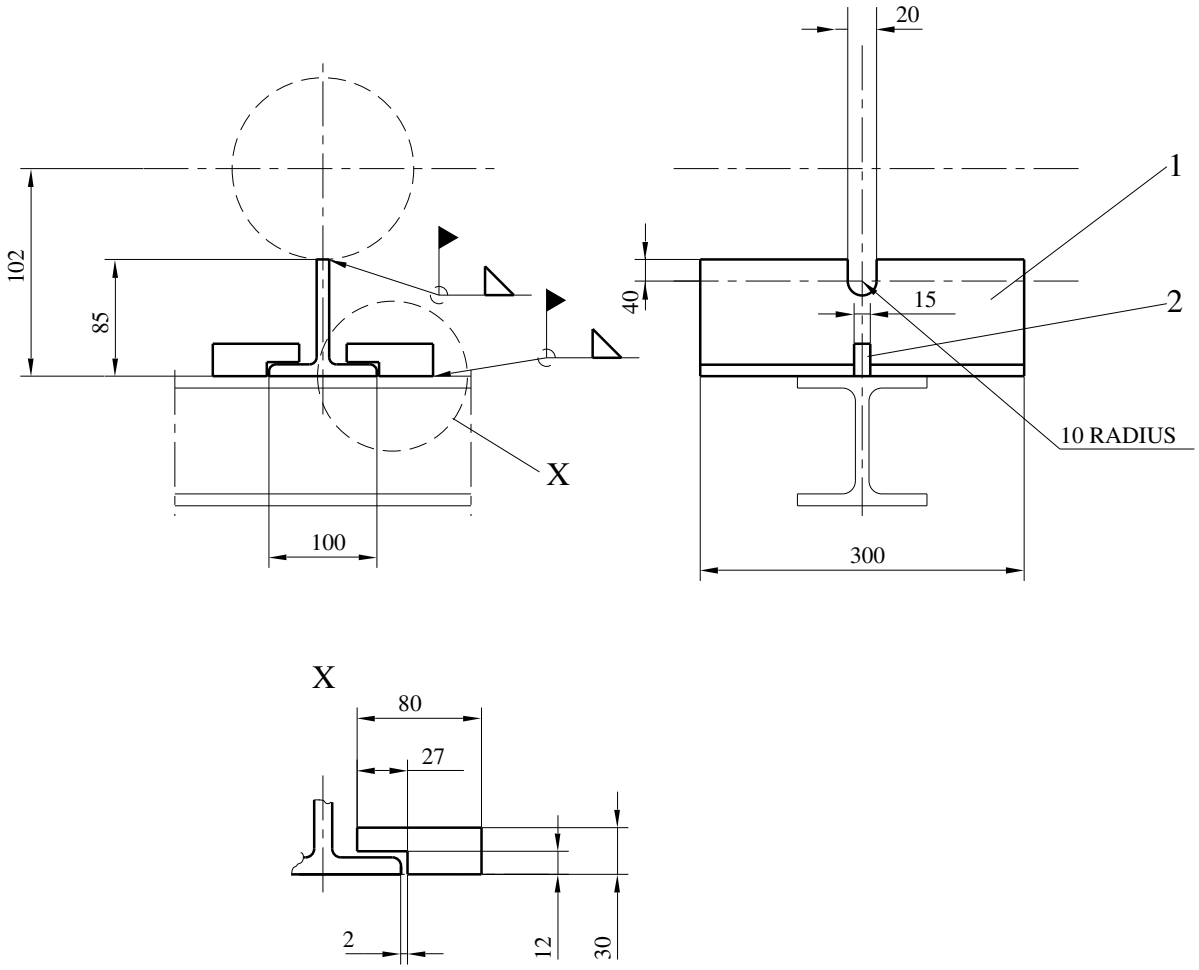
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 25/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 200 , 85 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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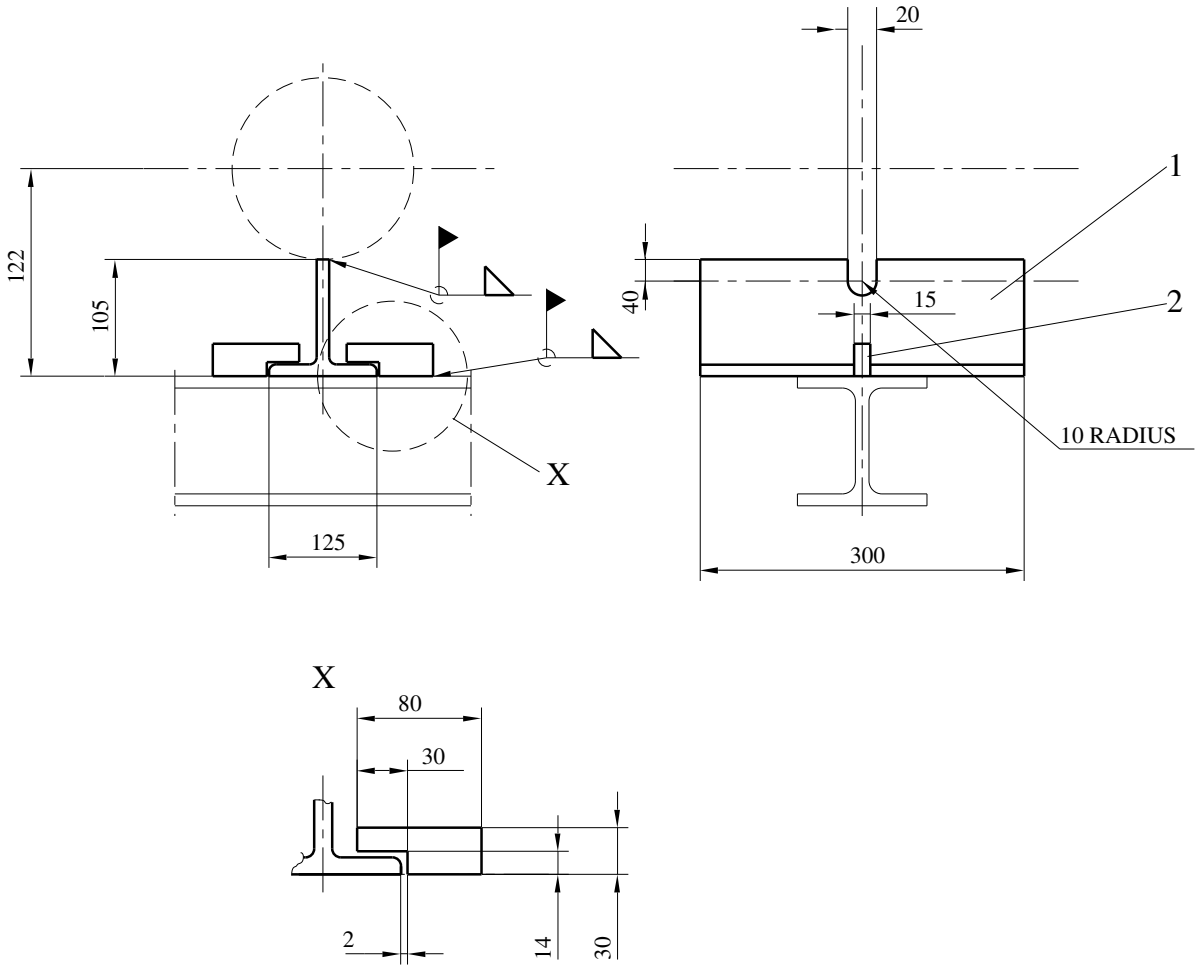
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 25/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 250 , 105 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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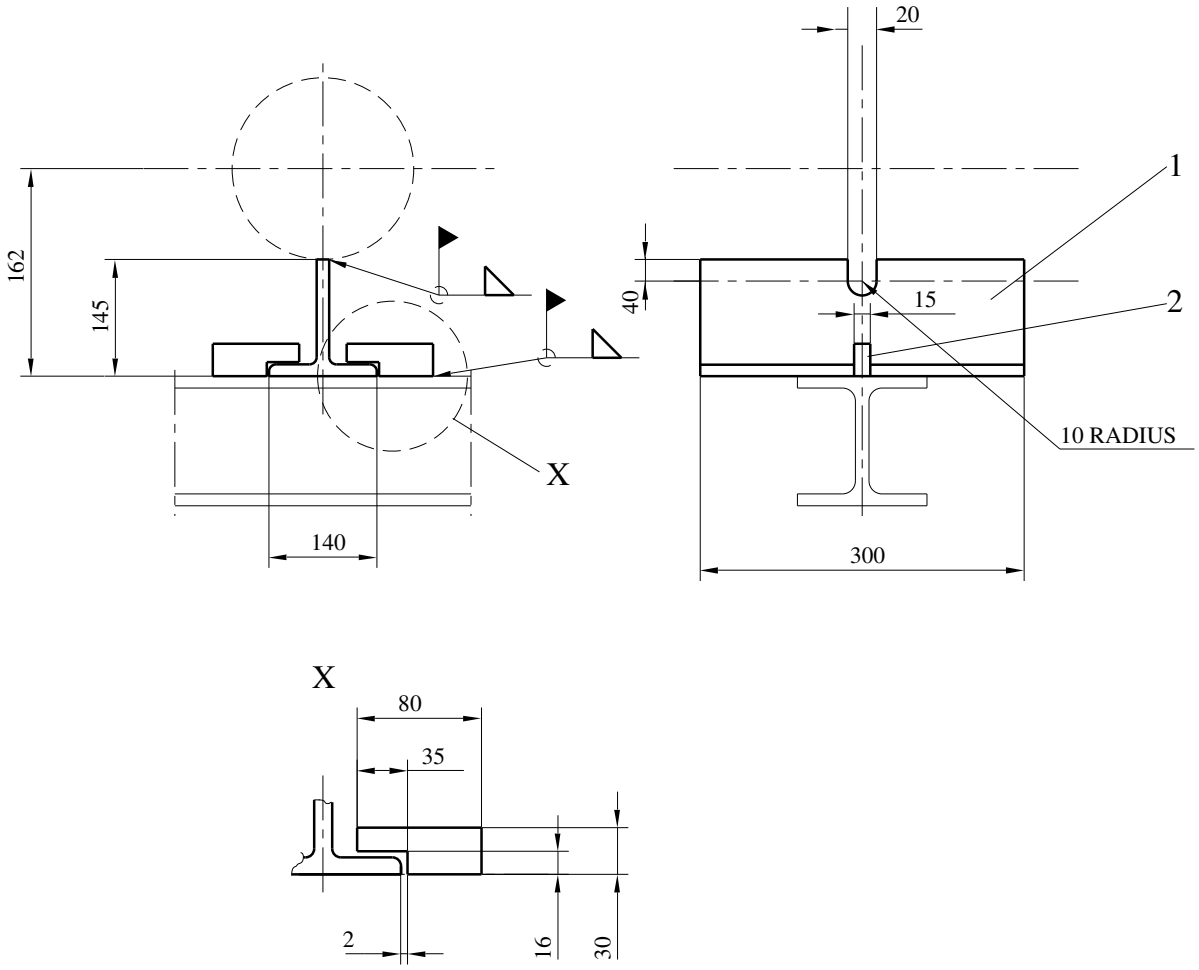
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDB001D Marking : 25/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 350 , 145 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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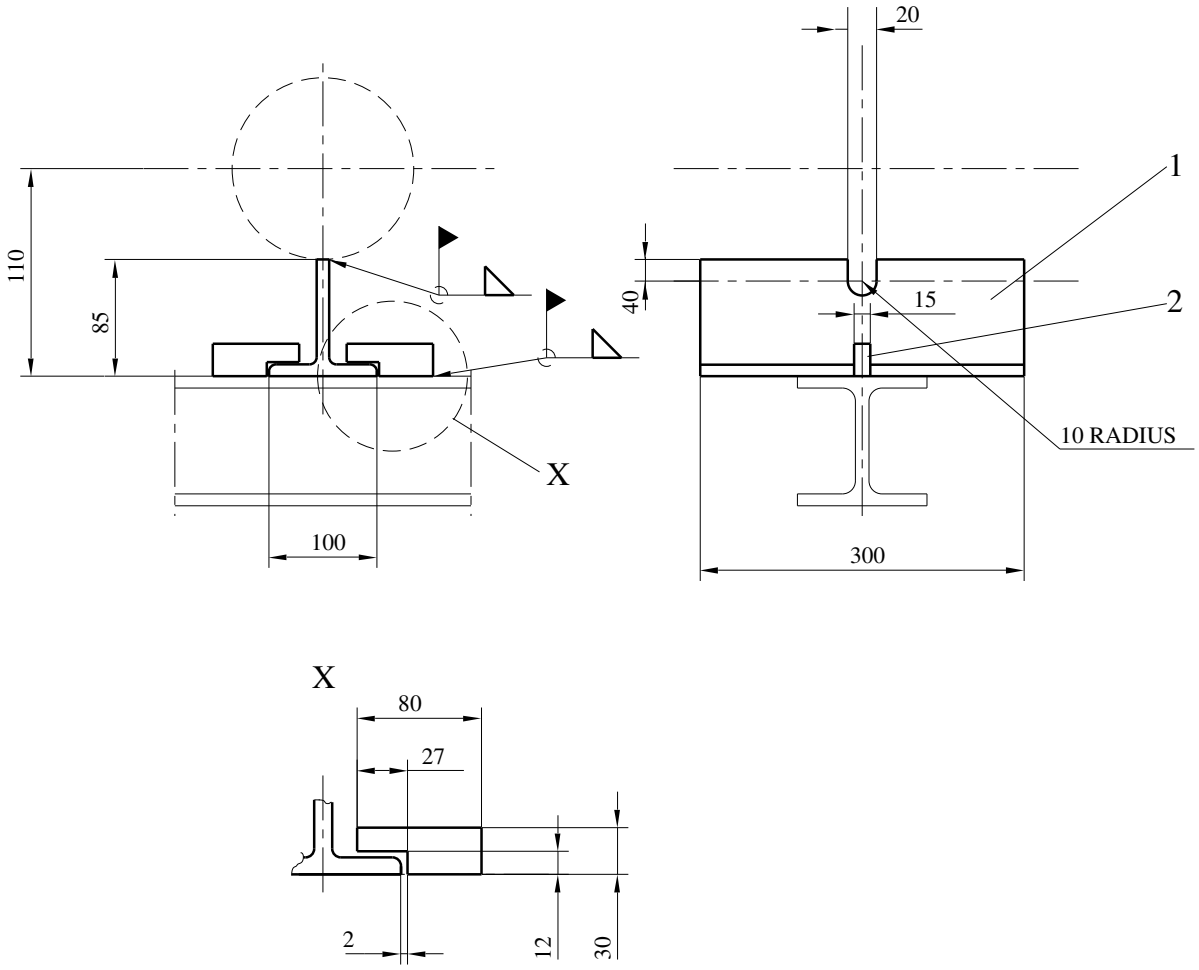
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 40/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 200 , 85 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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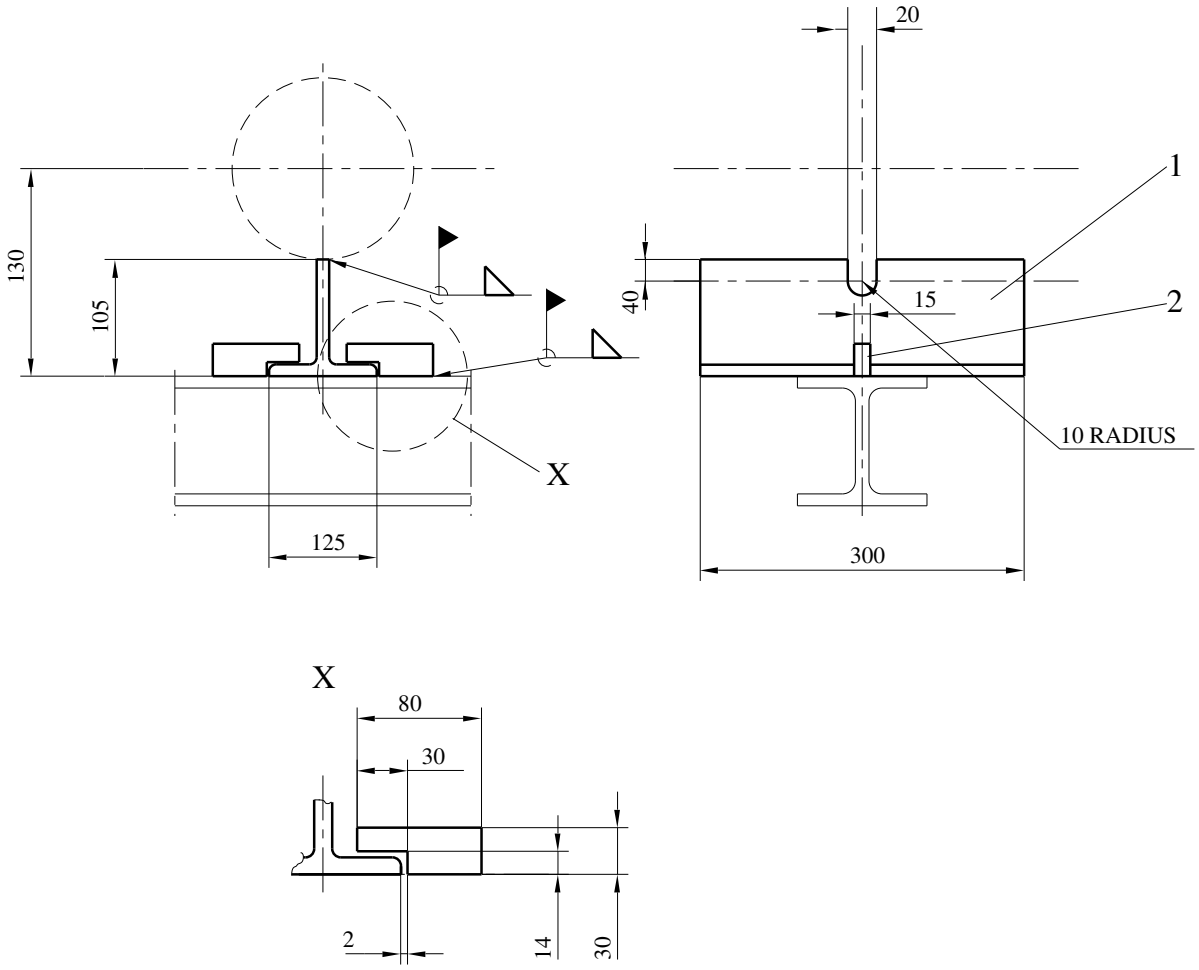
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 40/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 250 , 105 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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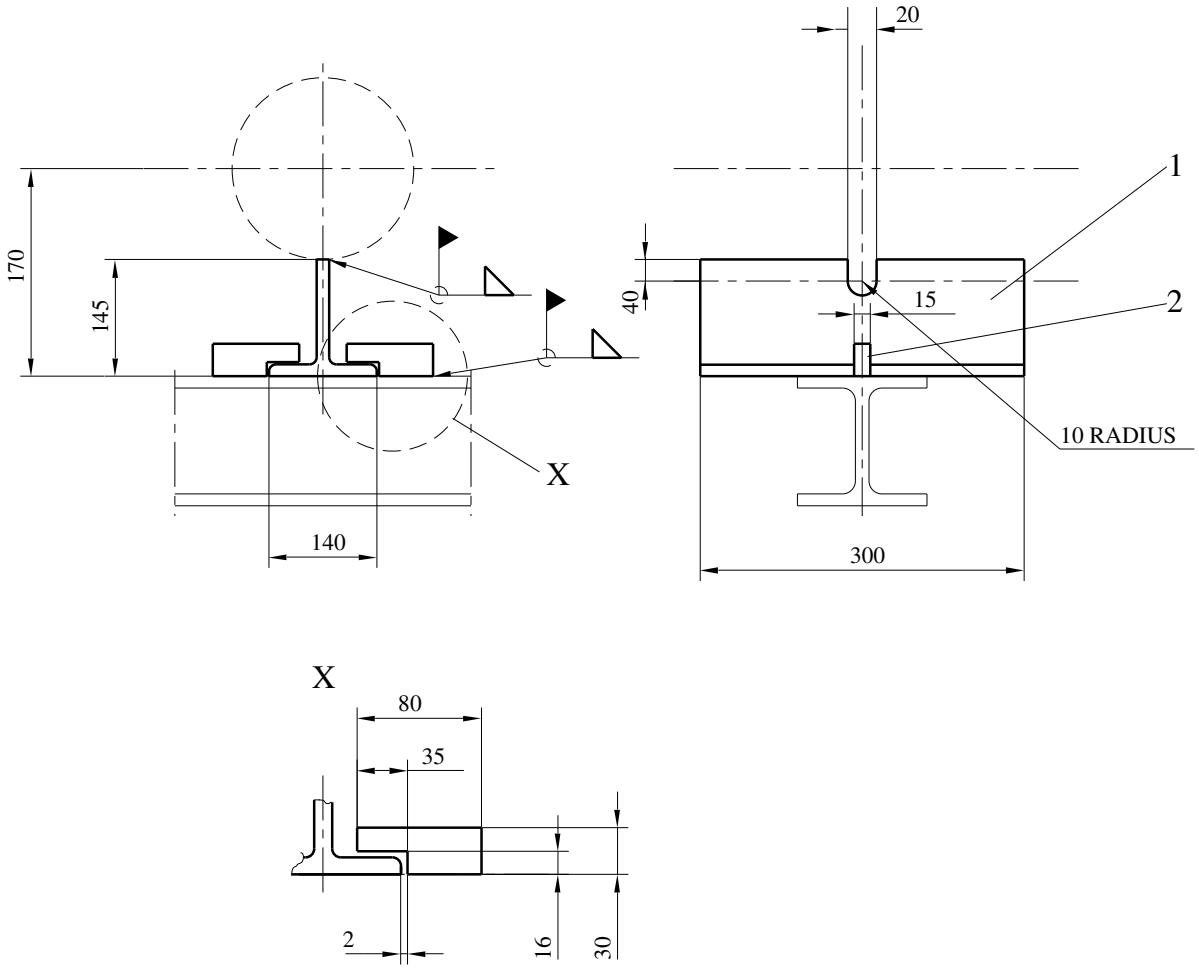
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 40/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 350 , 145 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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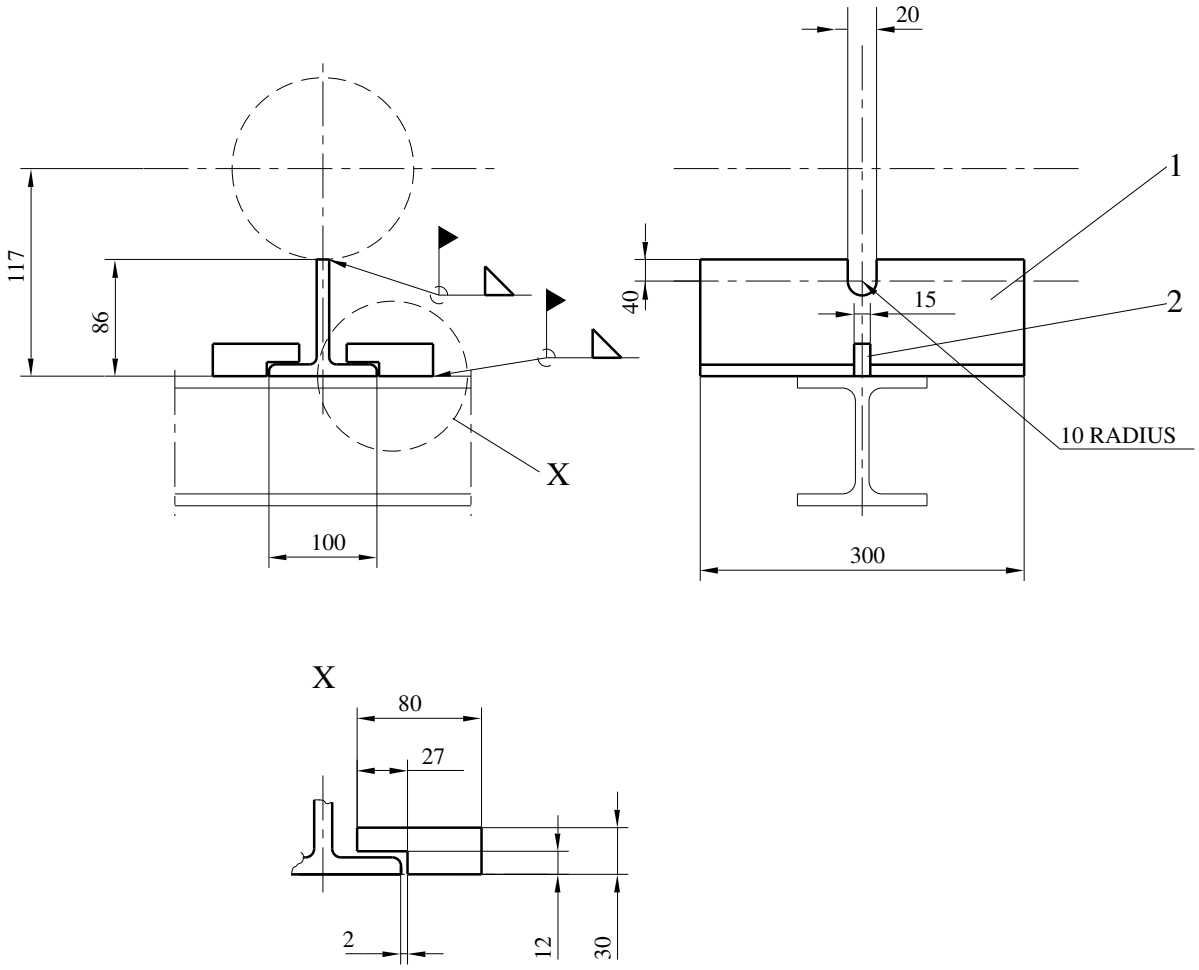
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 200 , 86 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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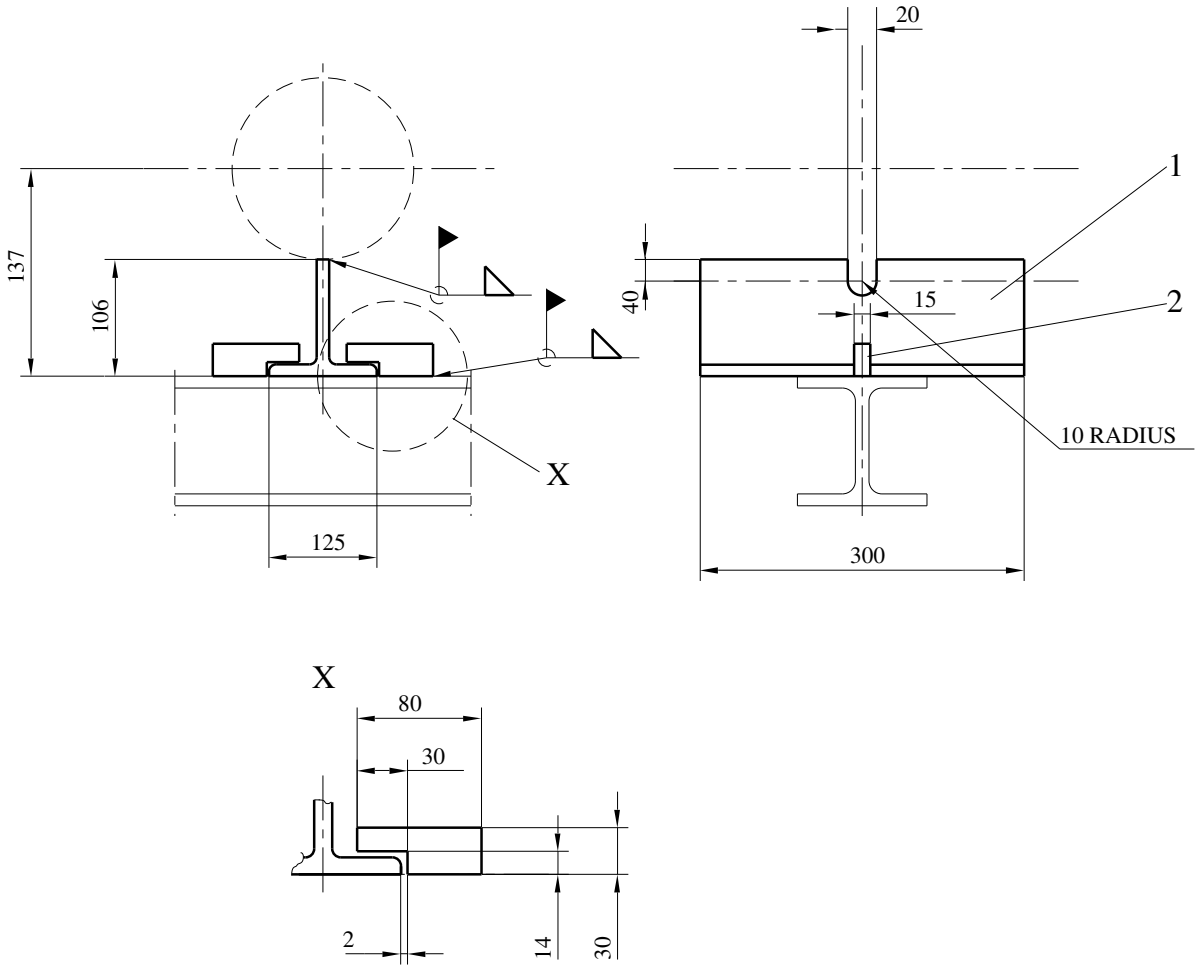
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 50/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 250 , 106 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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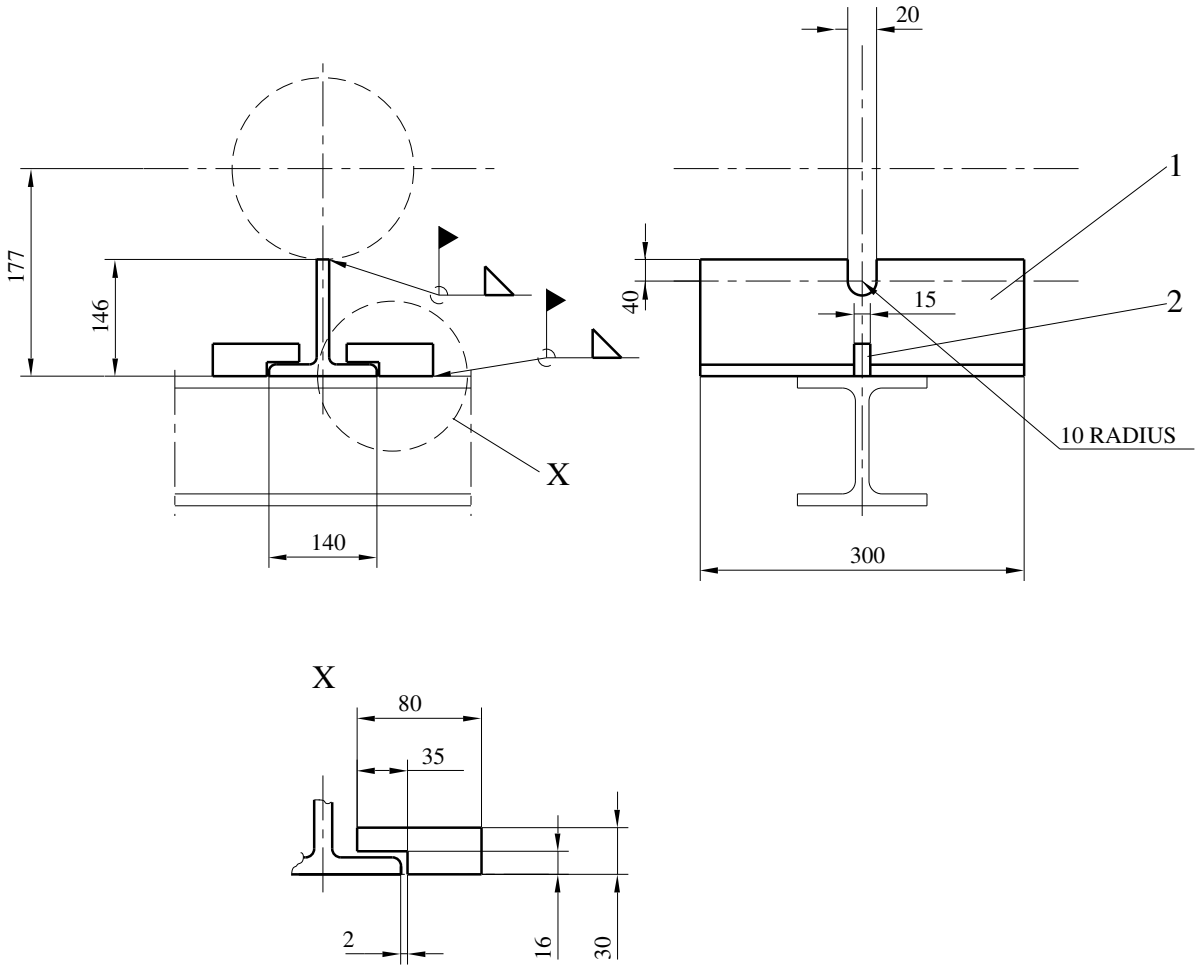
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 50/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 350 , 146 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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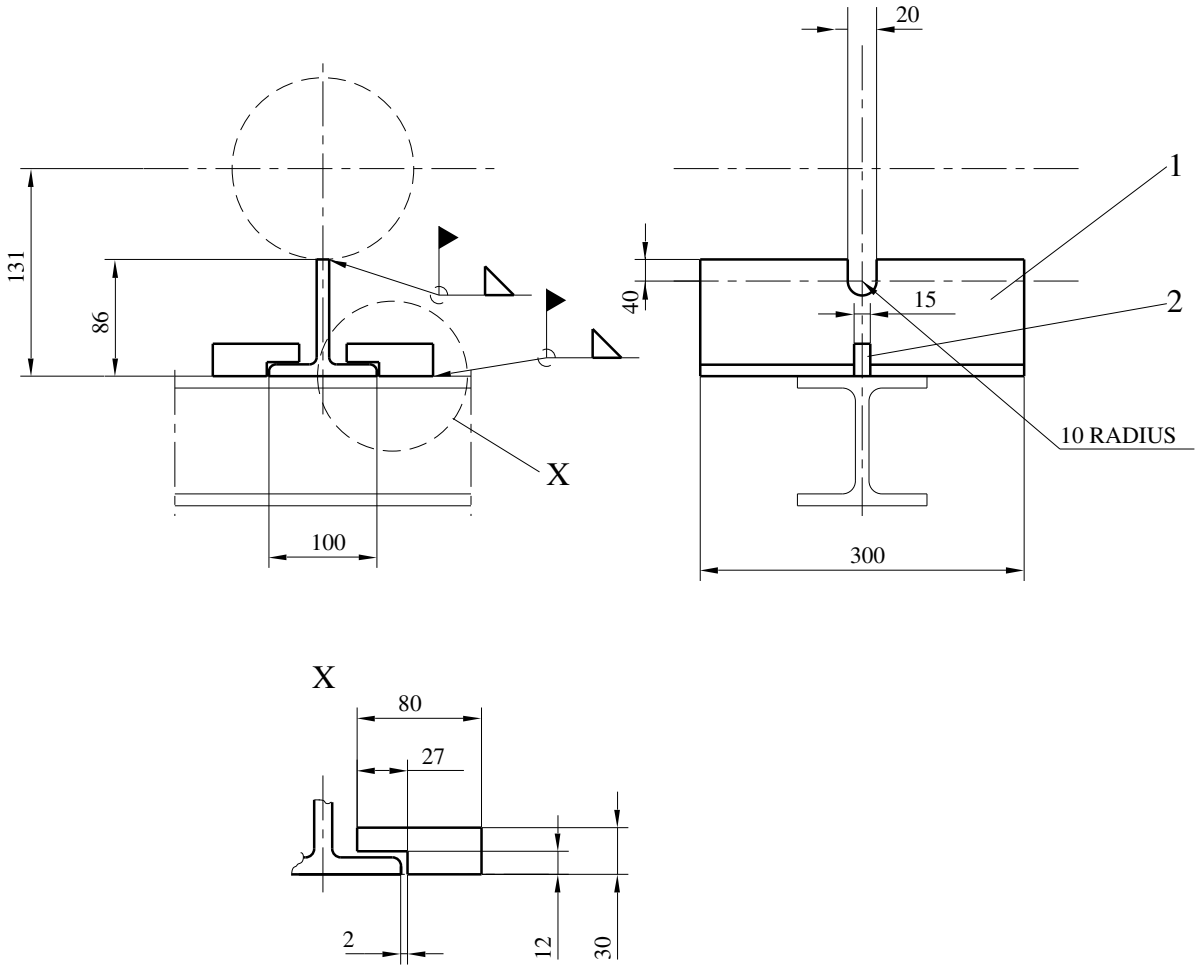
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 200 , 86 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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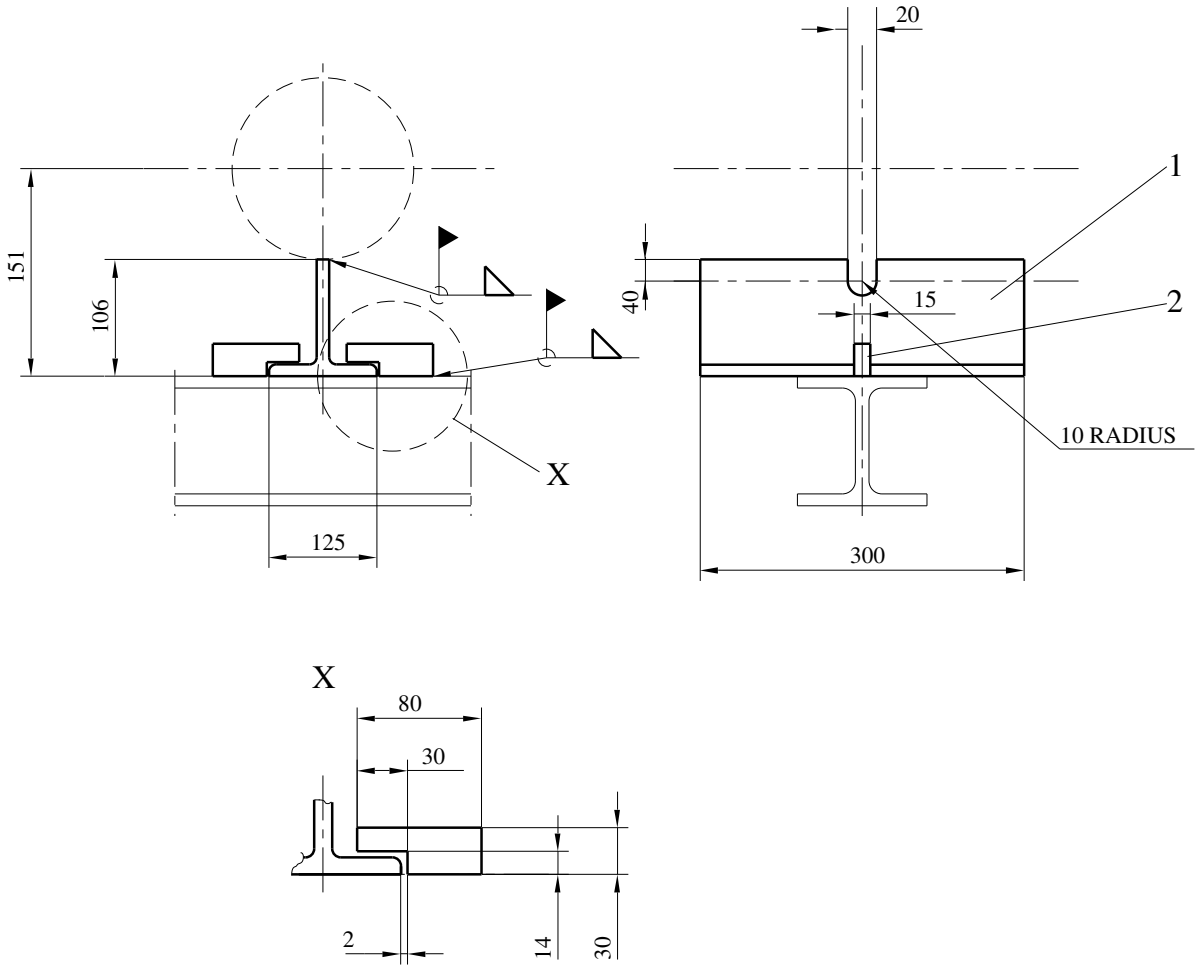
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 80/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 250 , 106 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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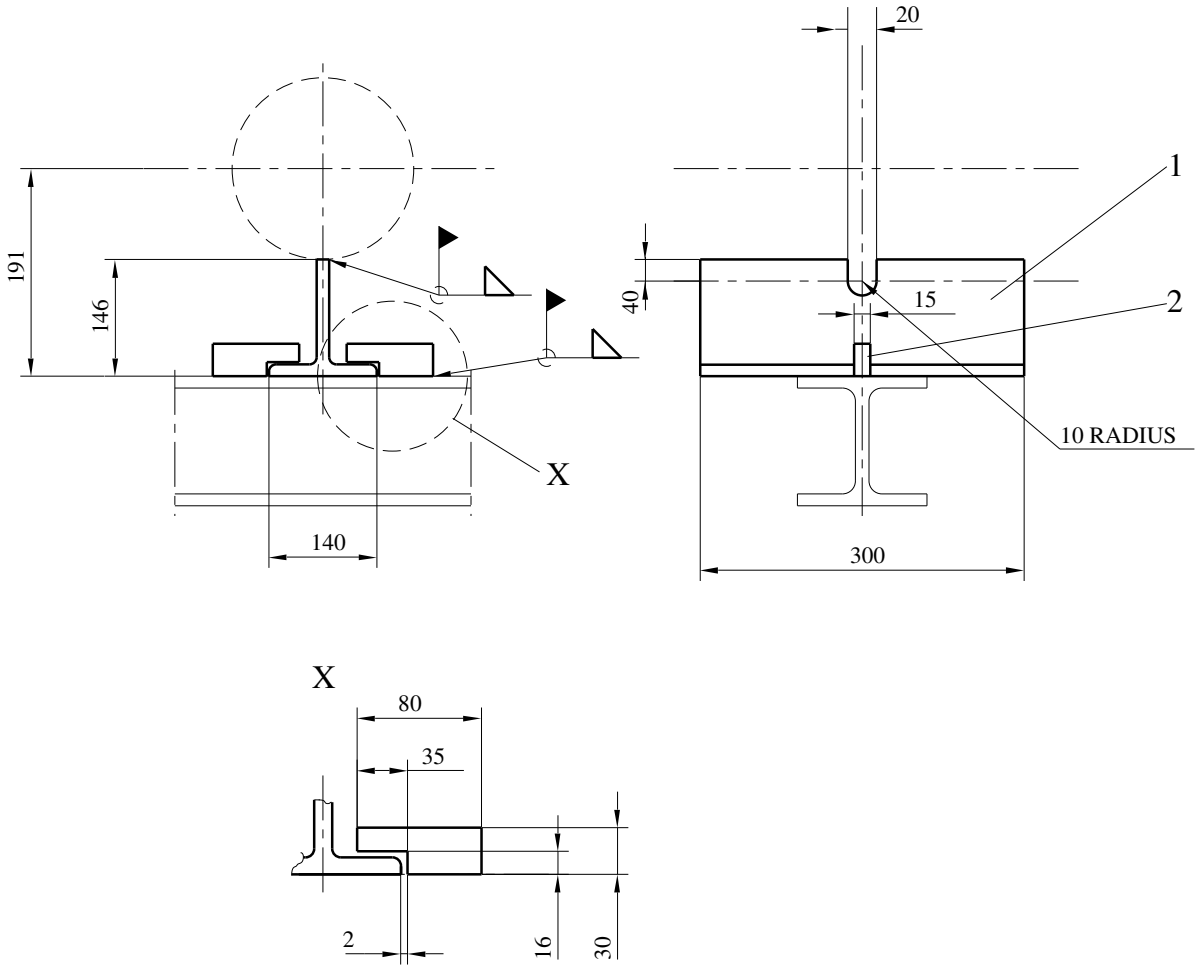
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 80/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 350 , 146 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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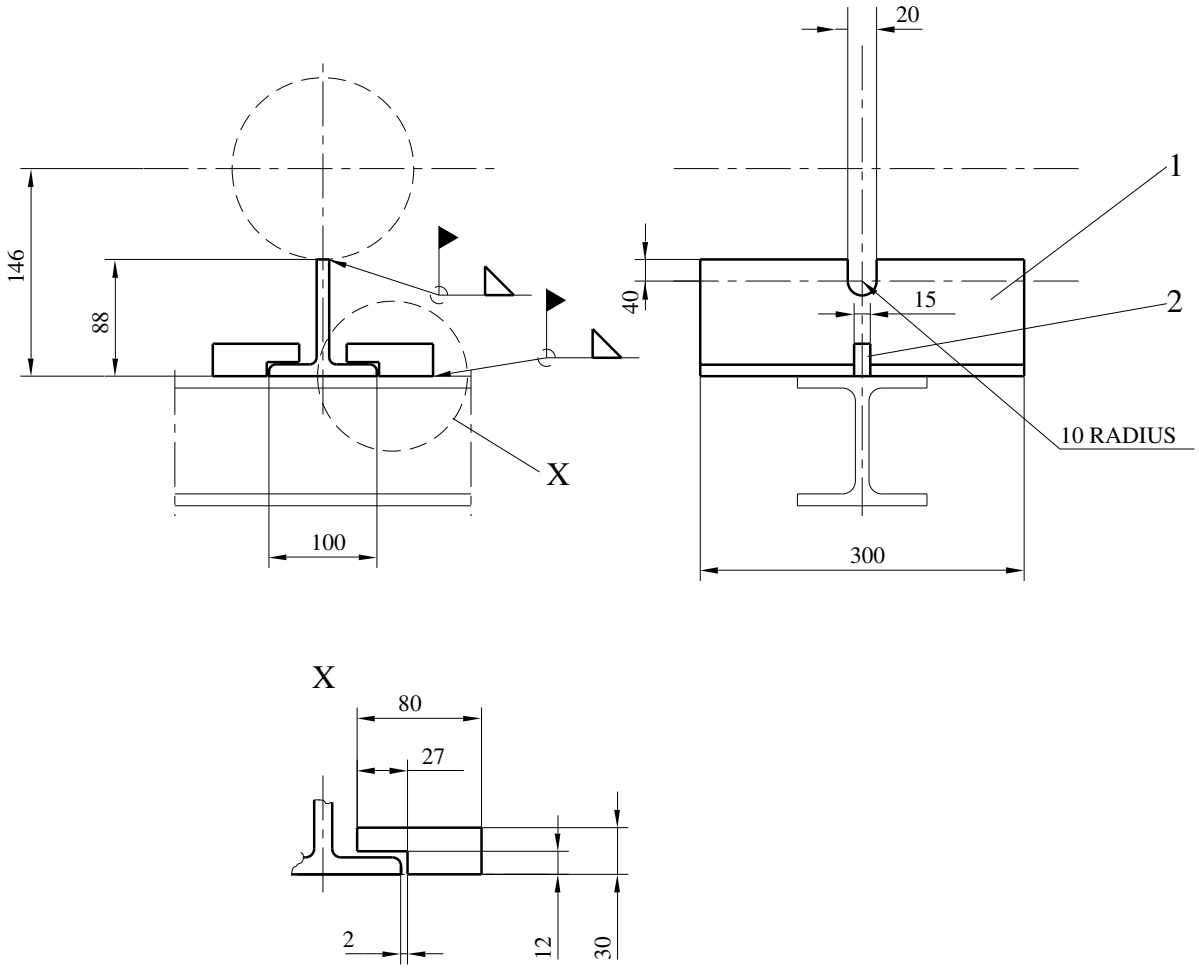
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 200 , 88 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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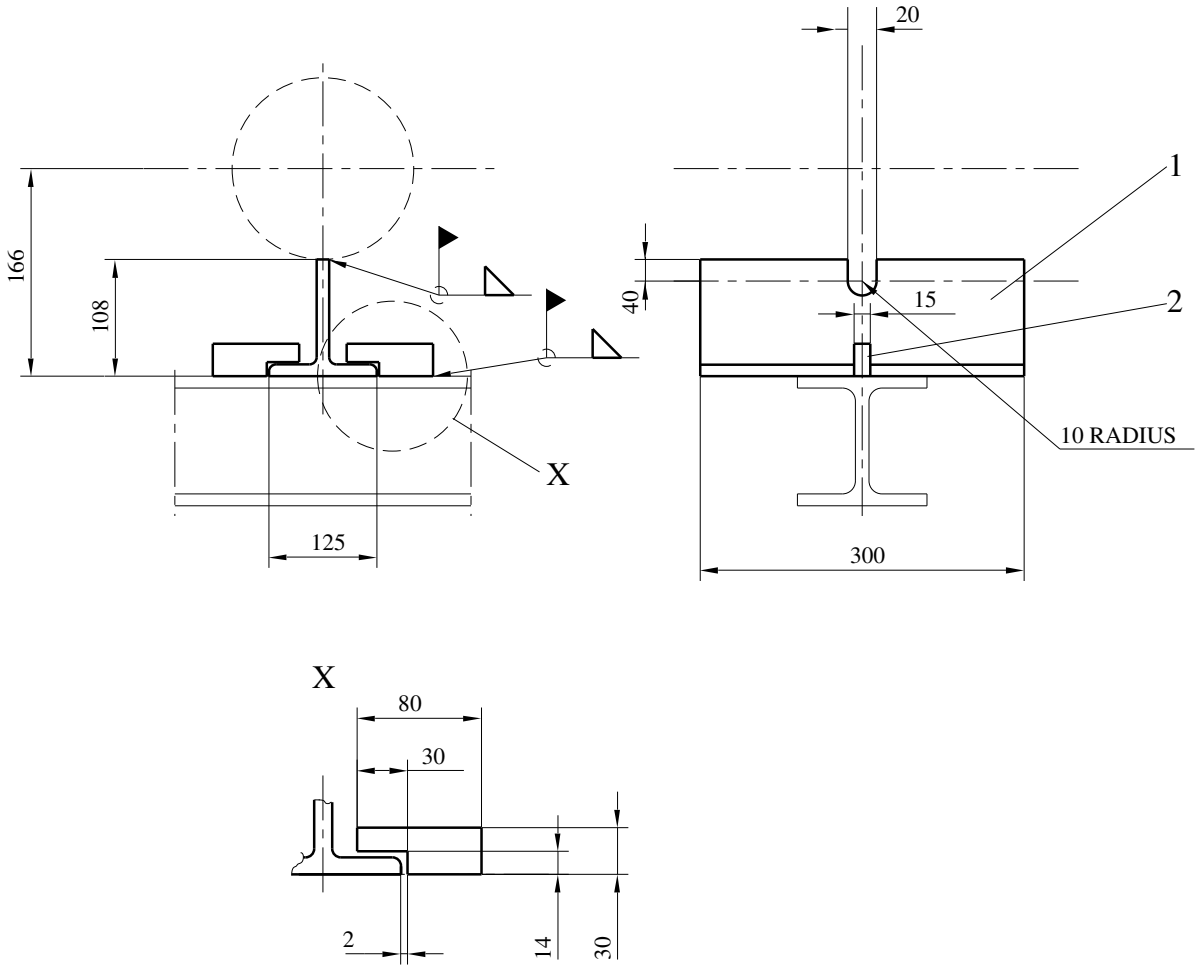
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 100/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 250 , 108 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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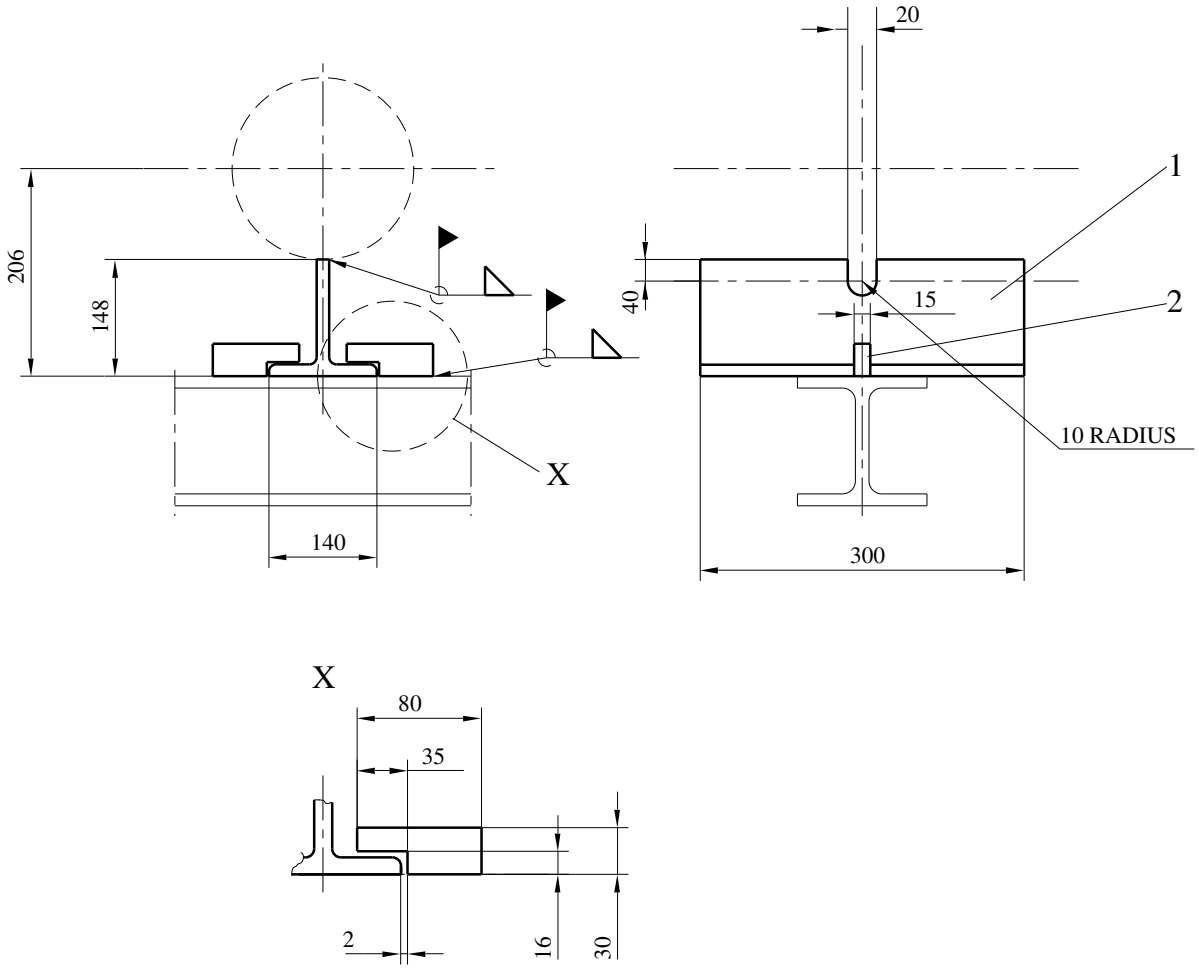
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 100/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 350 , 148 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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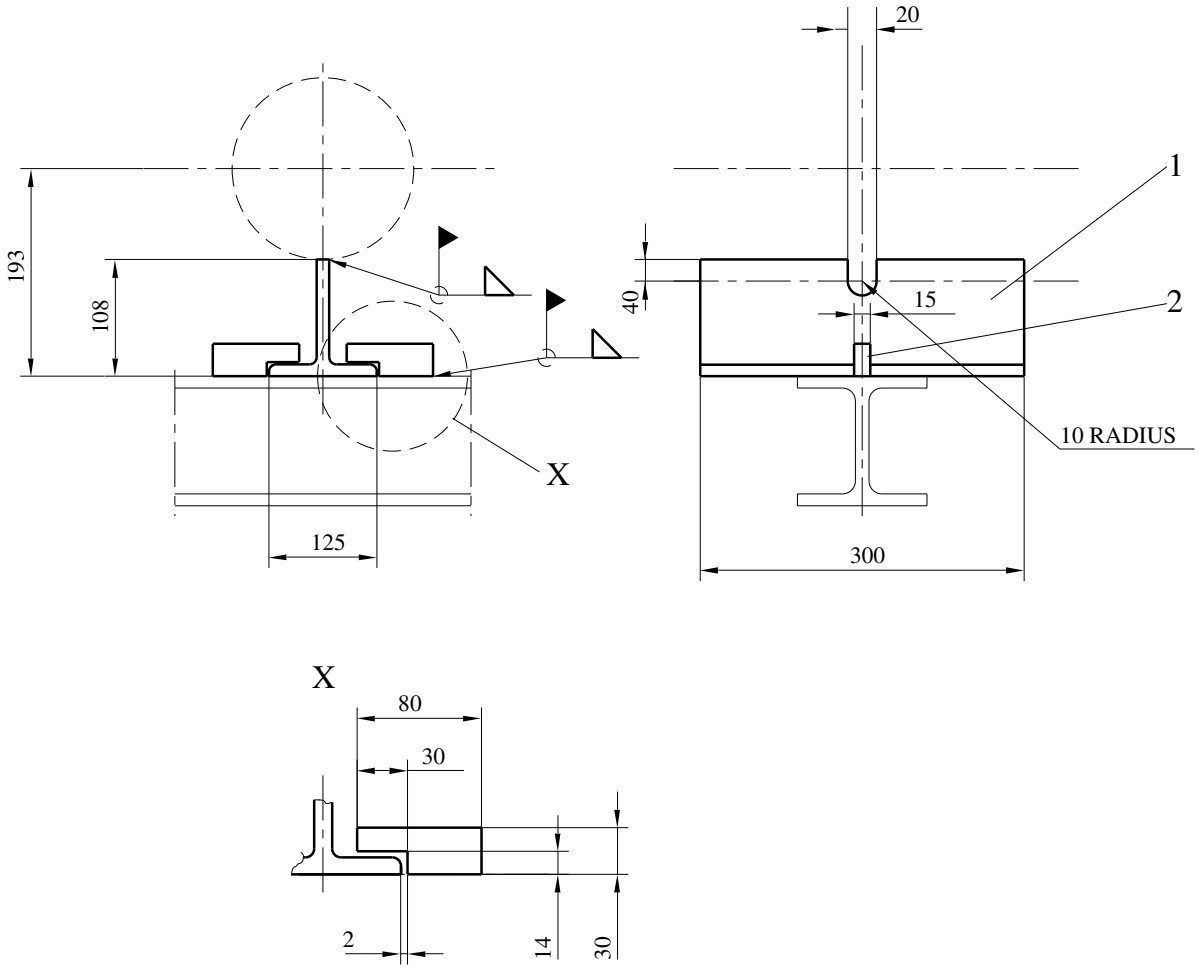
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDB002D Marking : 150/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 250 , 108 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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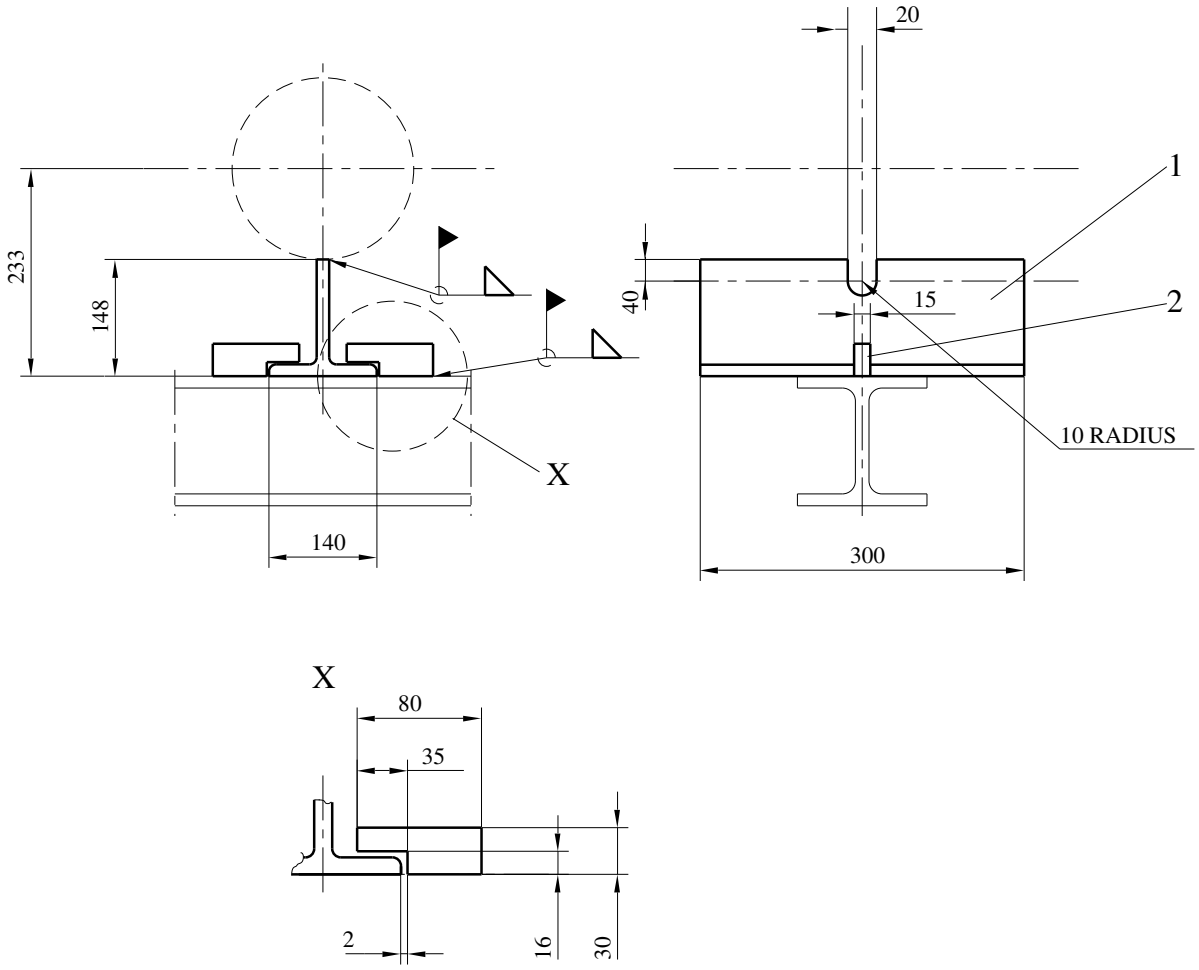
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB002D Marking : 150/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 350 , 148 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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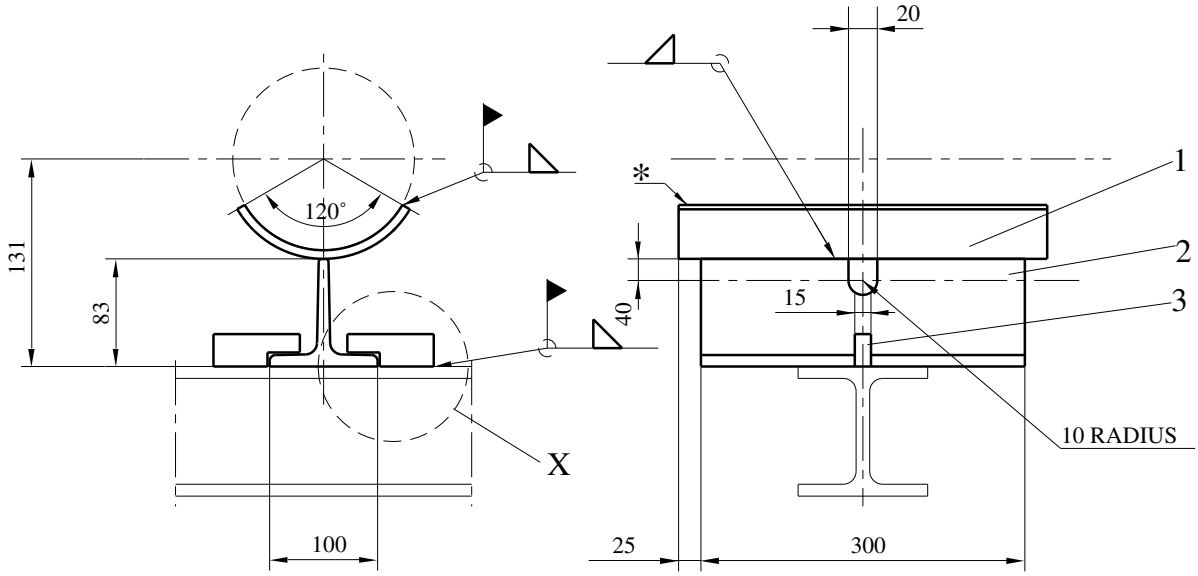
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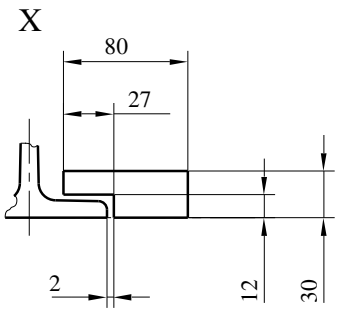
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB051D Marking : 80/1

U Item





* Reinforcement Pad shall have Material and Thickness same as Parent Pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR CUT FROM ISMB 200 , 83 x 100 x 300 Long	IS 808	IS 2062	GTI099D
1	1	RF PAD DSS DN 80 x 350 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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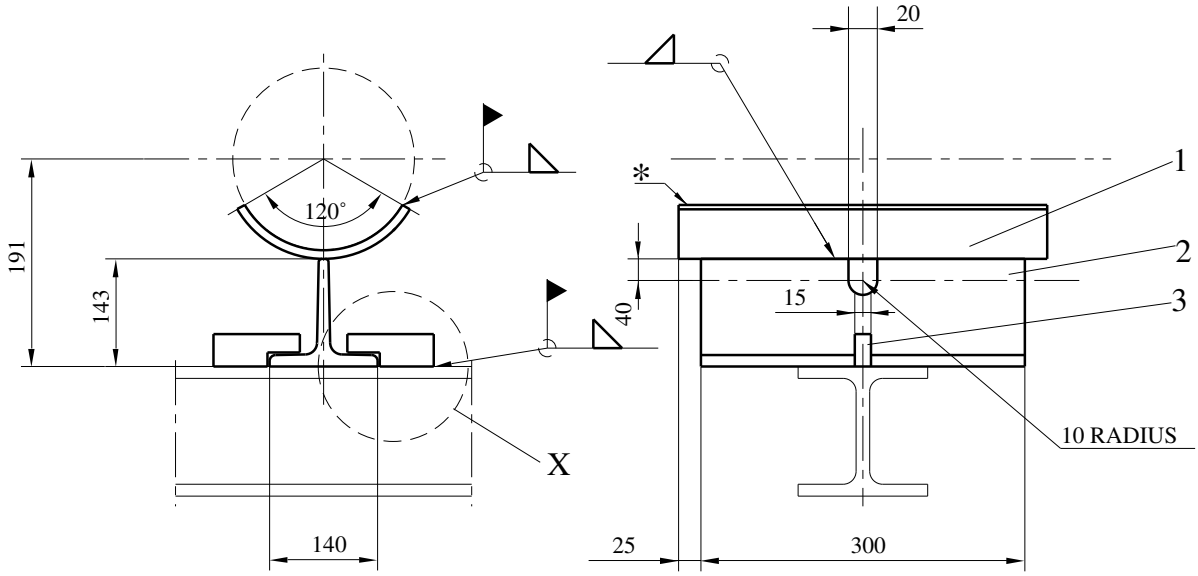
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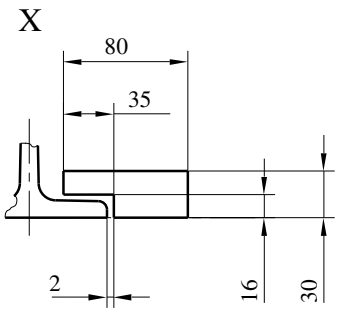
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDB051D Marking : 80/3

U Item





* Reinforcement Pad shall have Material and Thickness same as Parent Pipe
THICKNESS OF PIPE 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR CUT FROM ISMB 350 , 143 x 140 x 300 Long	IS 808	IS 2062	GTI099D
1	1	RF PAD DSS DN 80 x 350 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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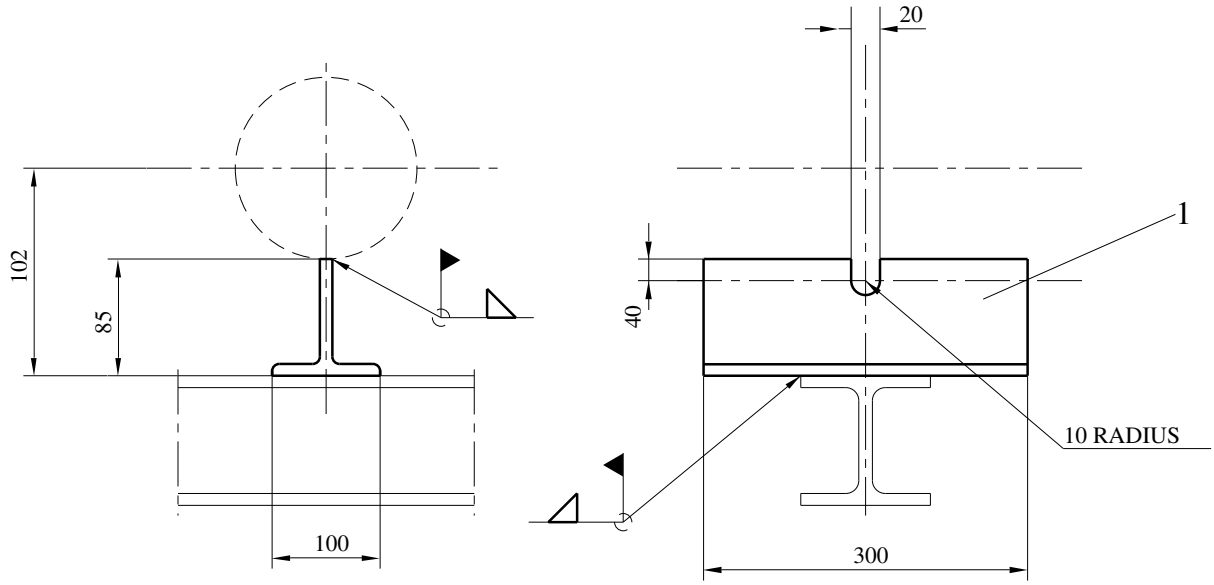
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDC001D Marking : 25/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 85 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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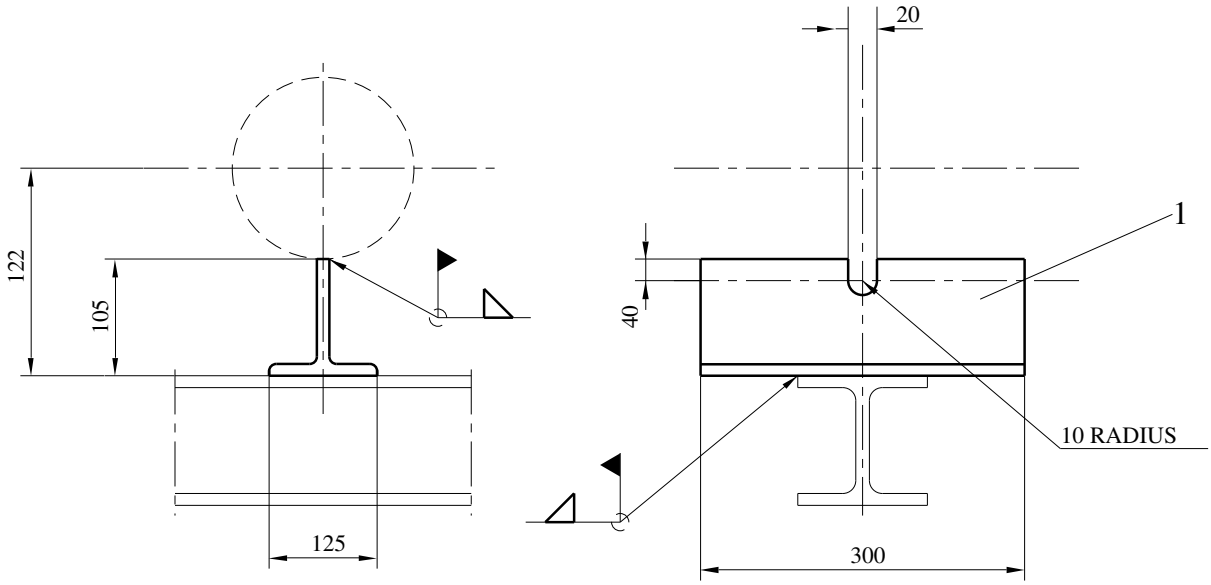
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC001D Marking : 25/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 250 , 105 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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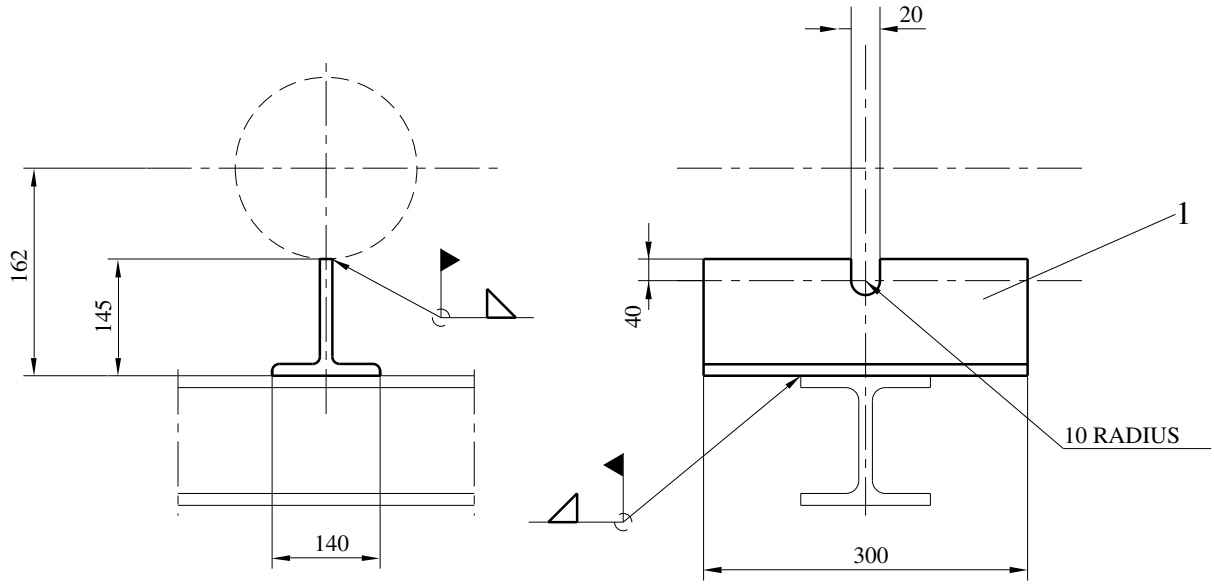
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC001D Marking : 25/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 145 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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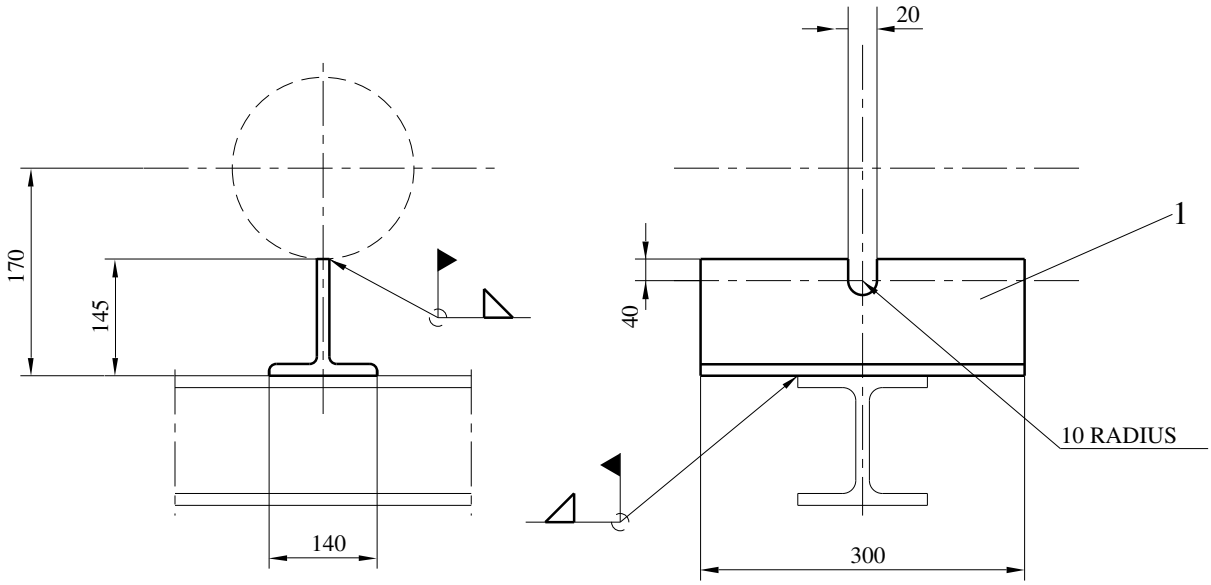
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC001D Marking : 40/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 145 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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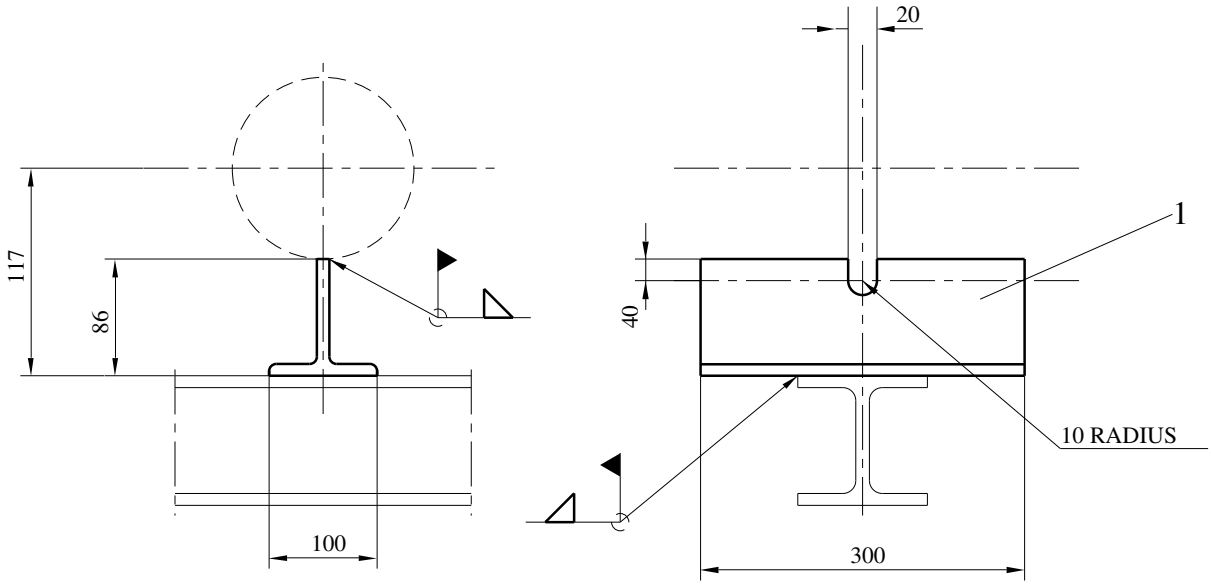
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDC001D Marking : 50/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 86 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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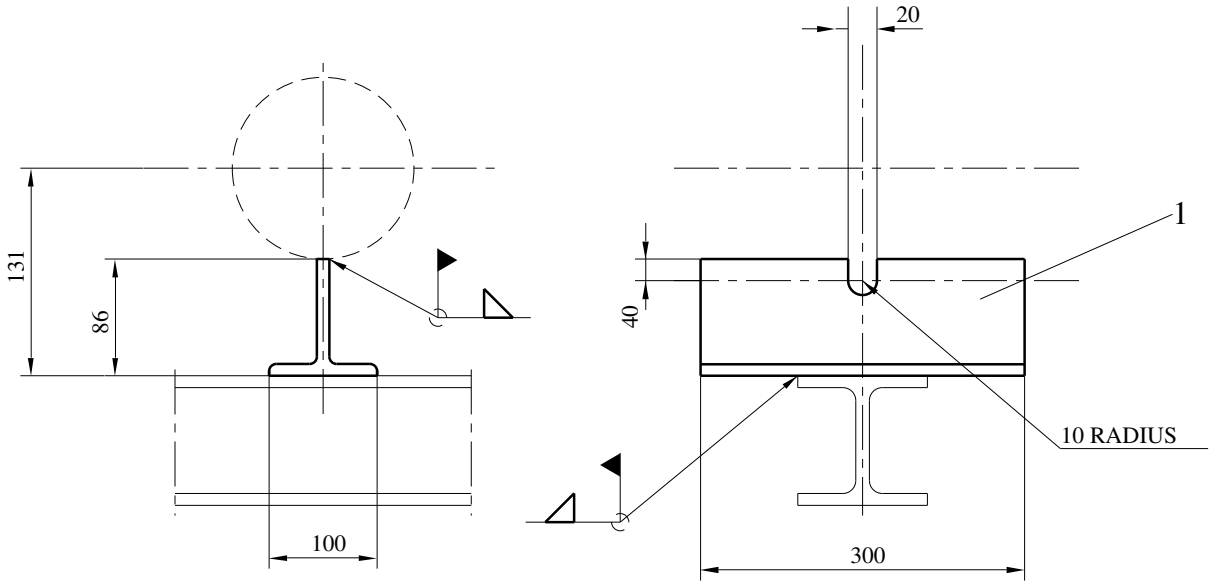
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC001D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 86 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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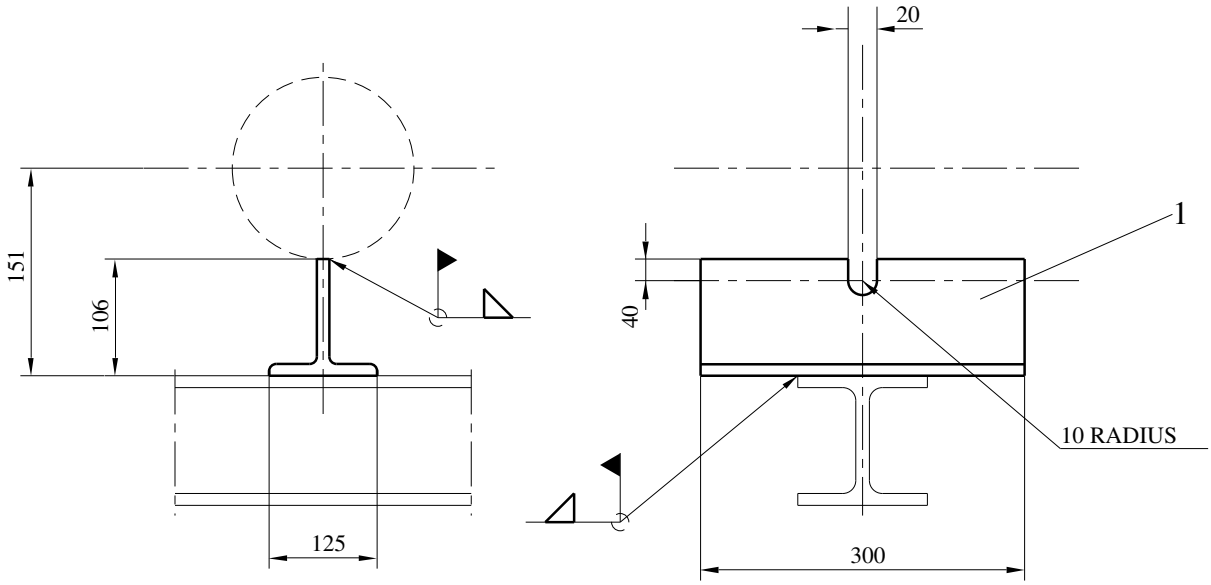
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC001D Marking : 80/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 250 , 106 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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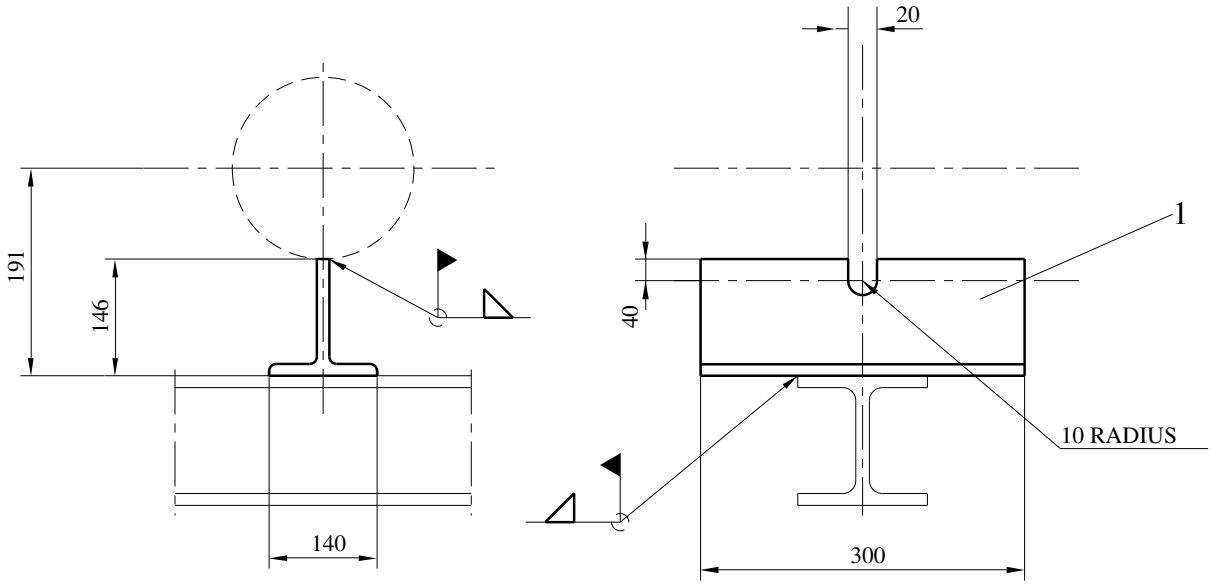
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDC001D Marking : 80/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 146 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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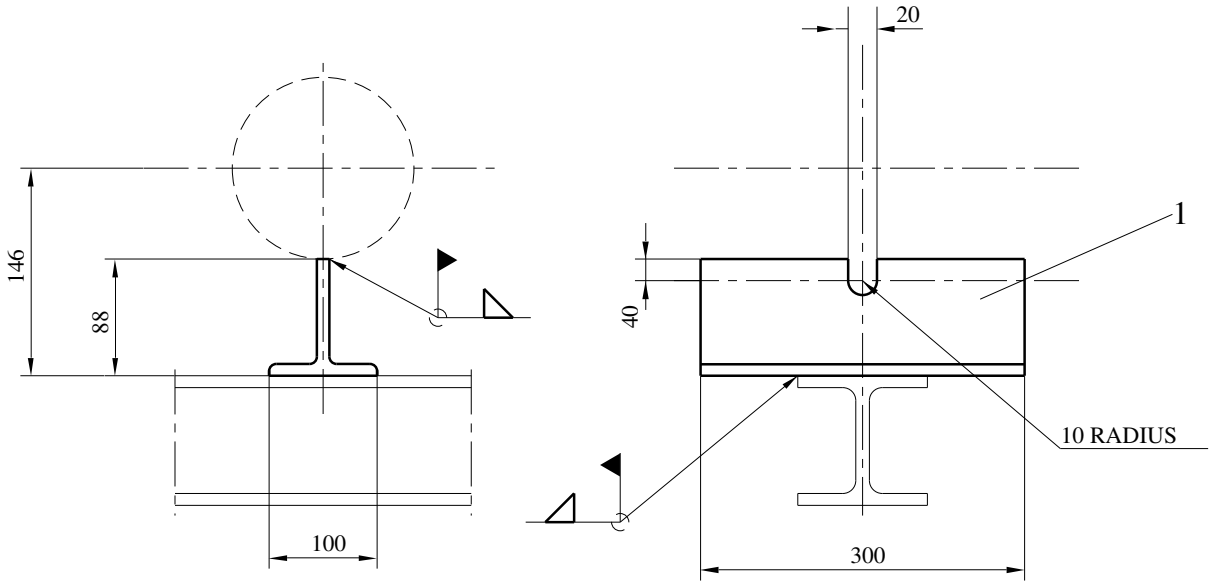
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC001D Marking : 100/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 200 , 88 x 100 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

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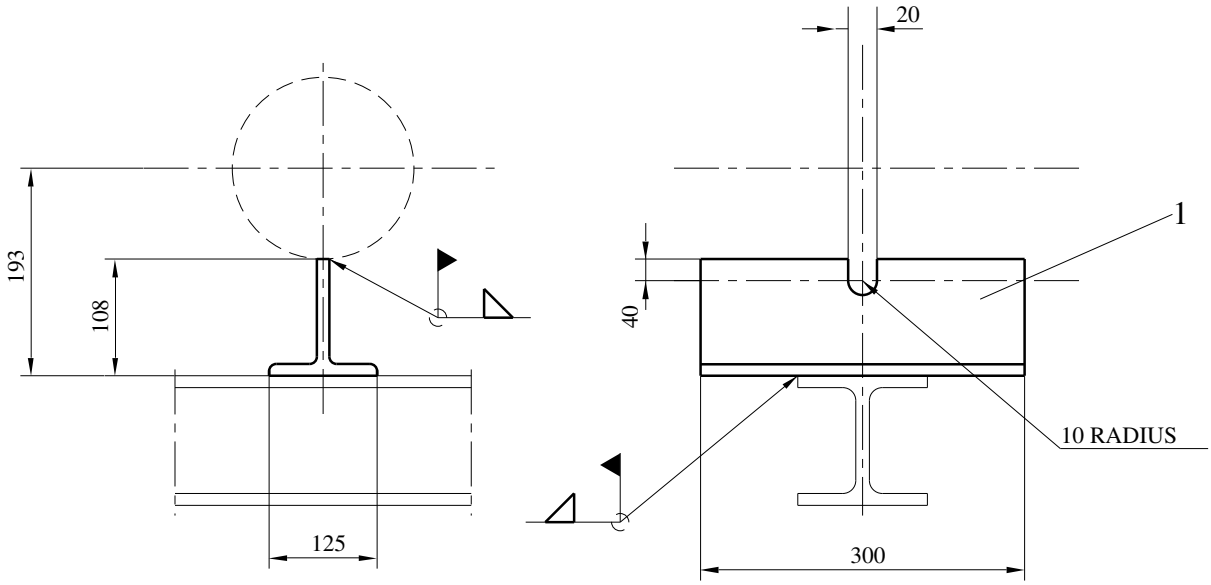
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC002D Marking : 150/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 250 , 108 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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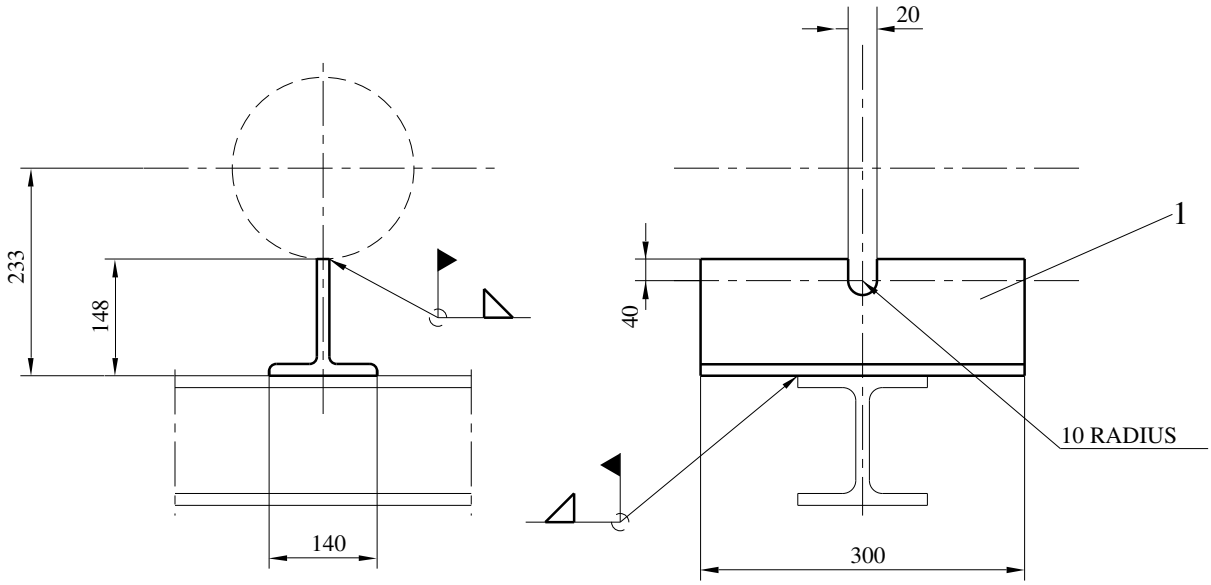
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDC002D Marking : 150/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 148 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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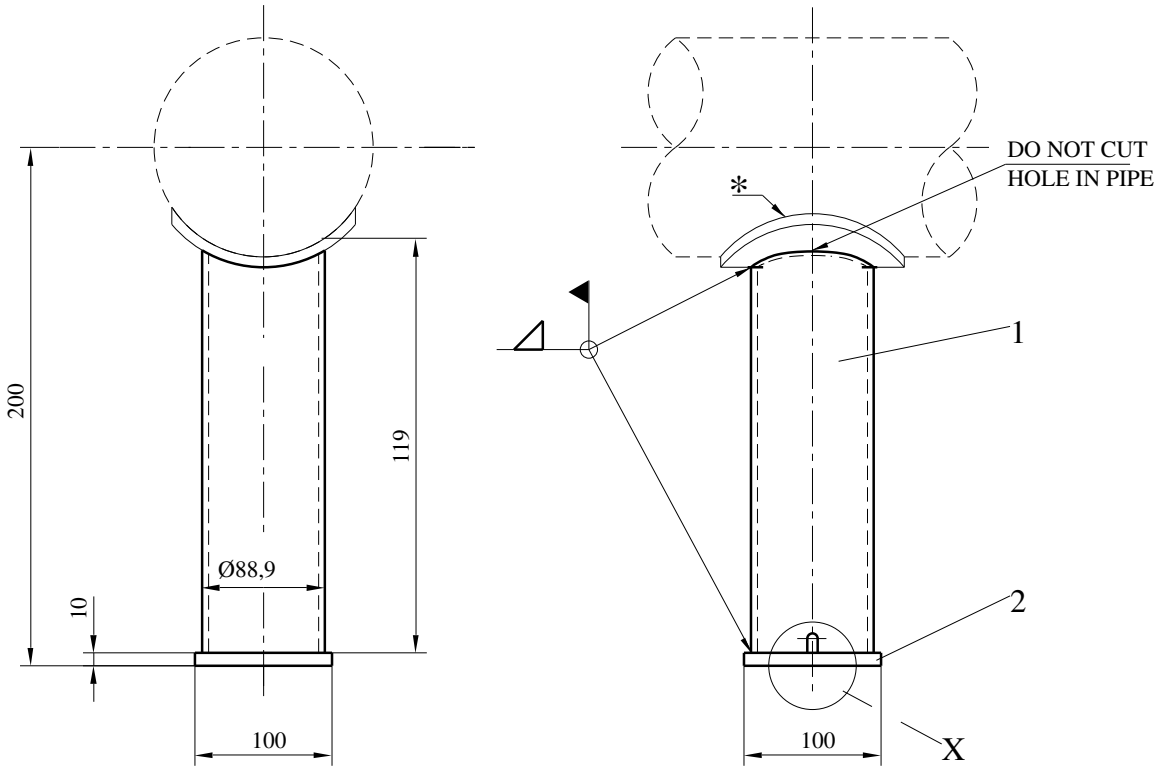
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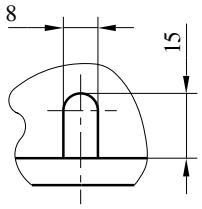
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 150/200

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 119	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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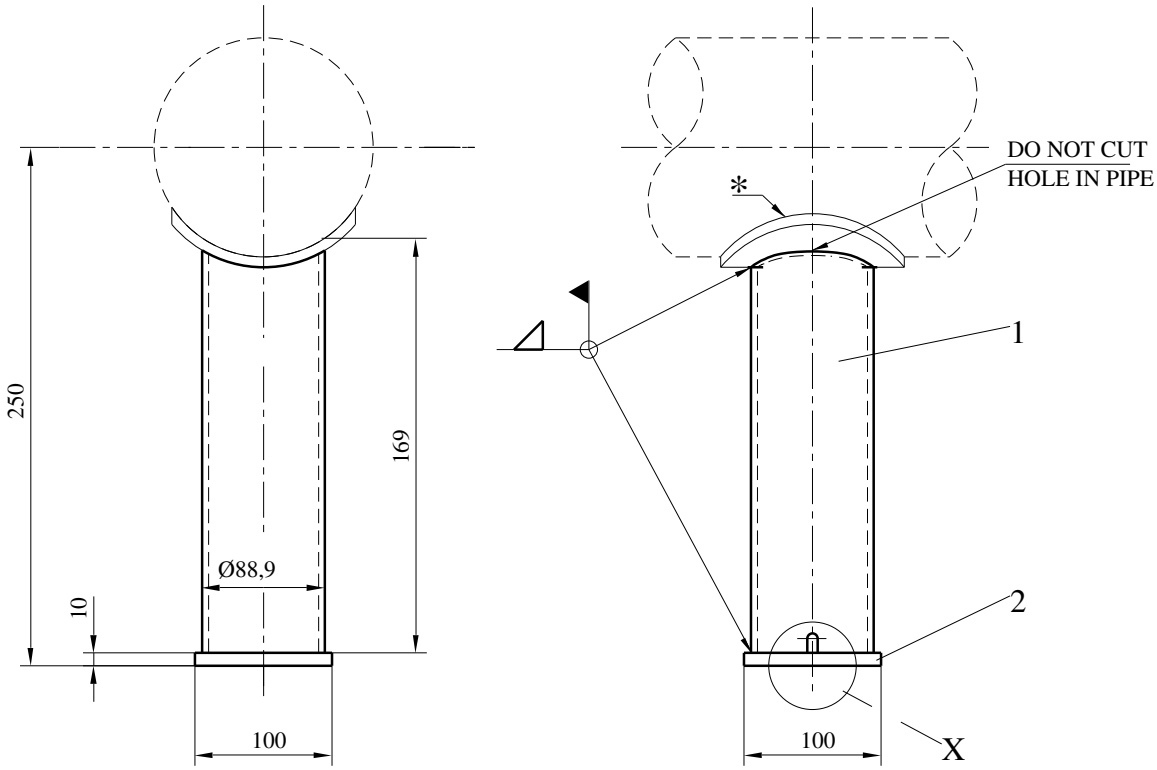
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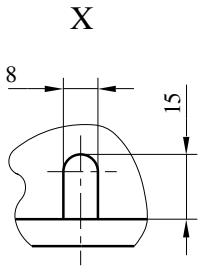
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 150/250

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 169	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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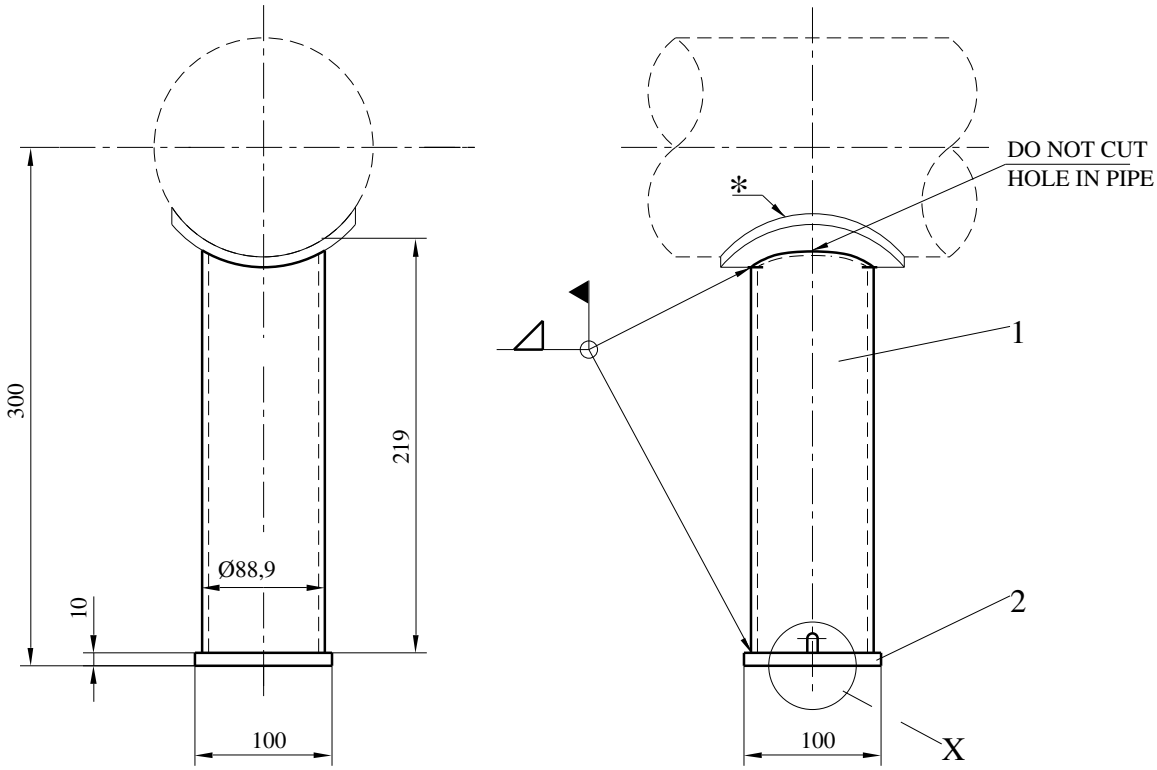
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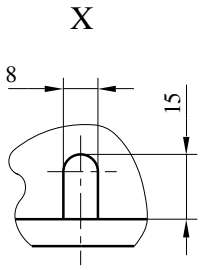
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 150/300

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 219	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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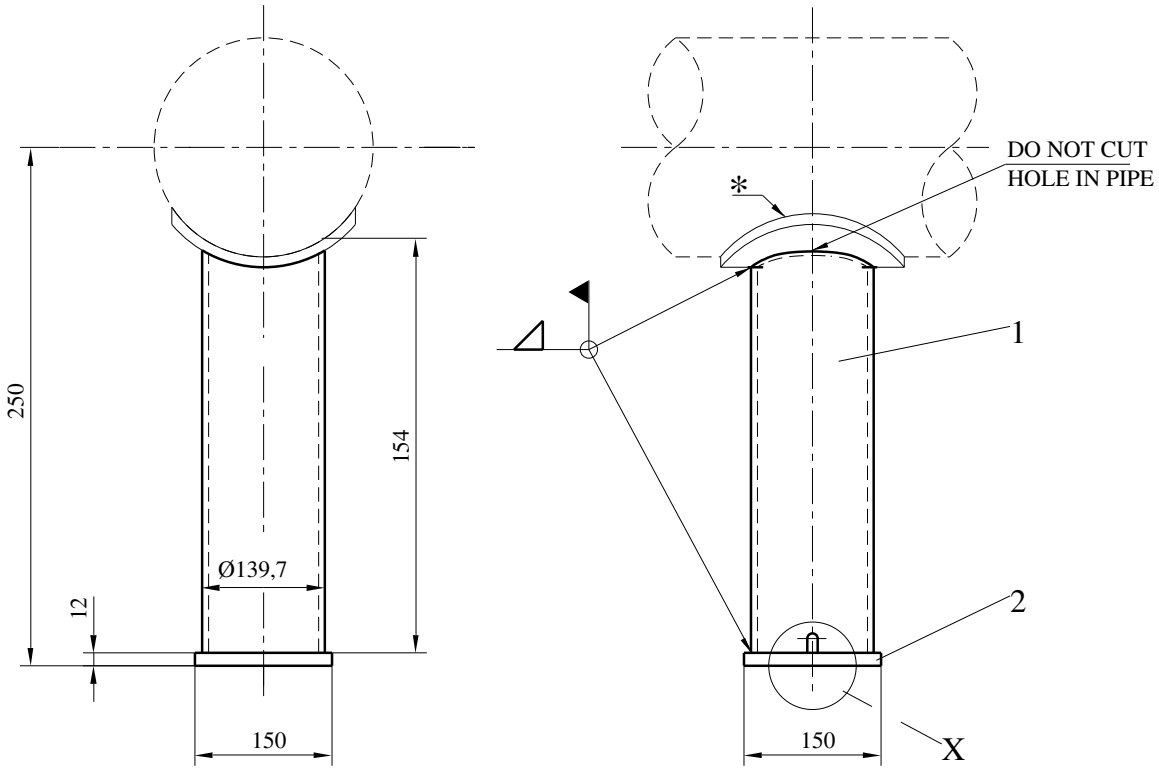
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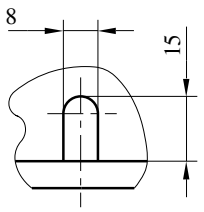
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 200/250

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
1	1	PIPE 139,7 x 10 x 154	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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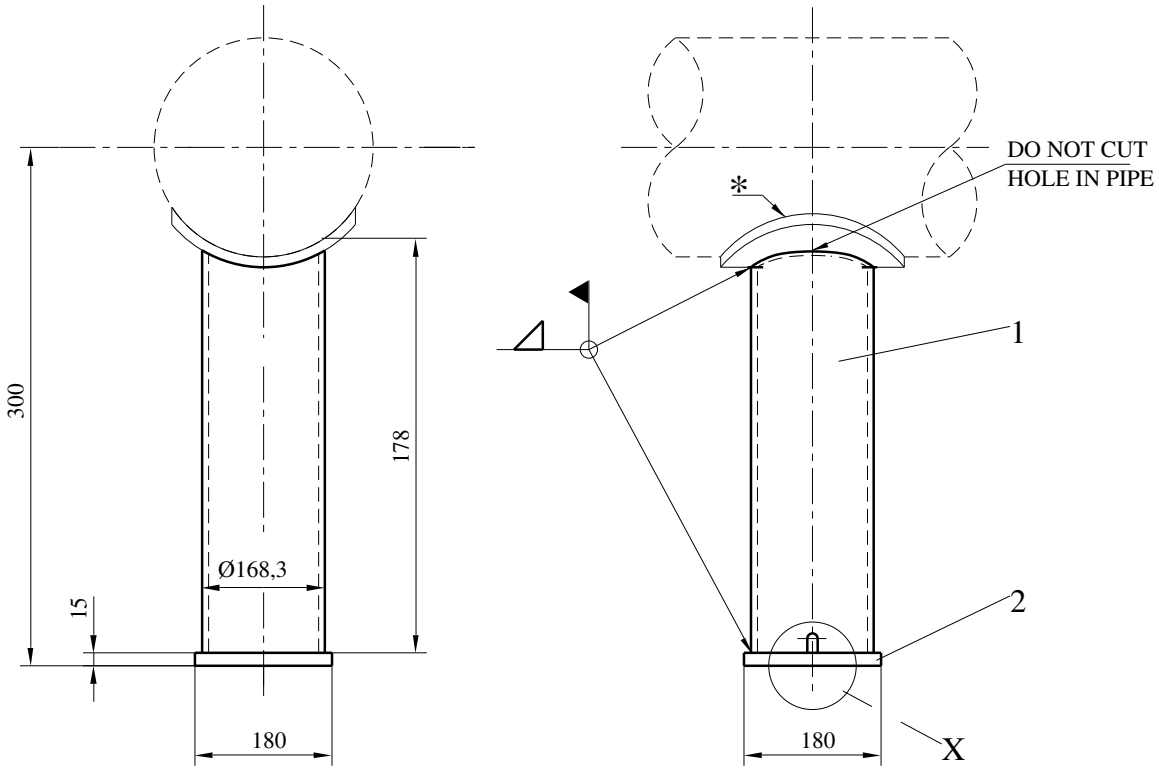
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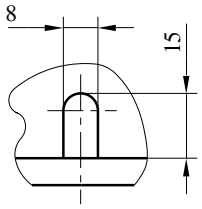
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 250/300

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 178	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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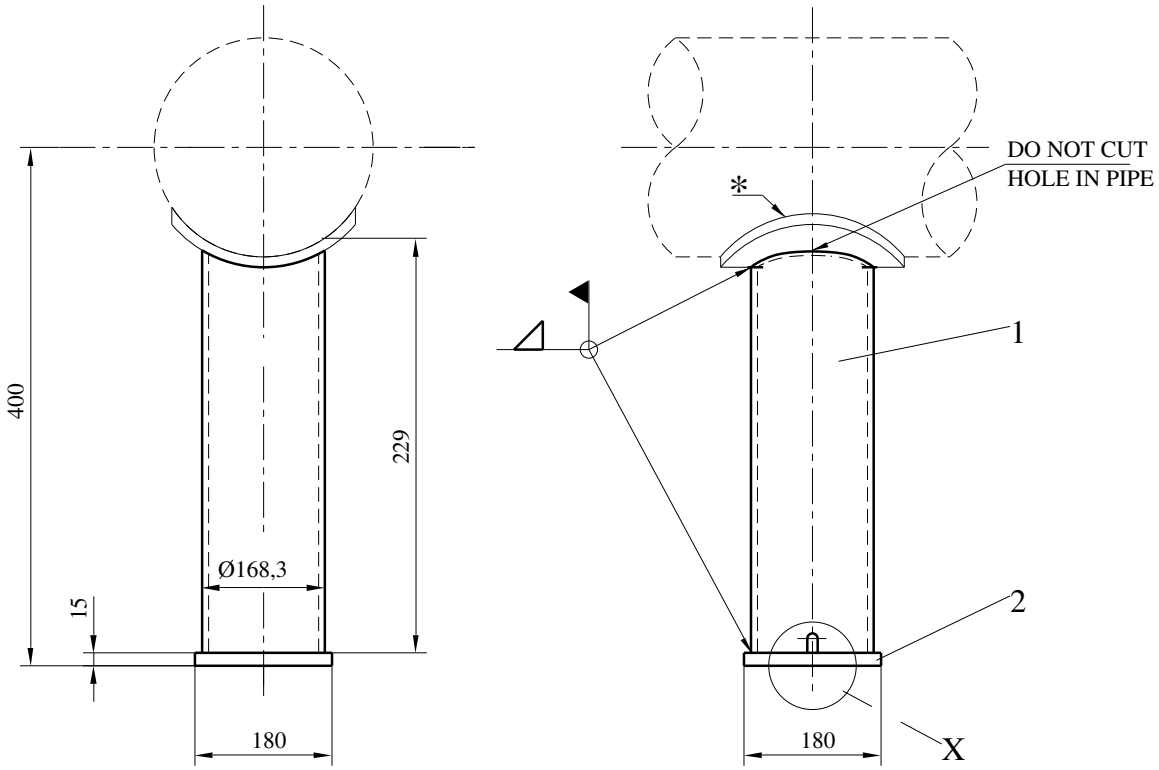
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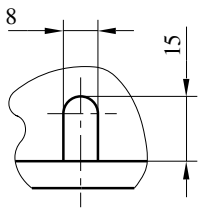
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 350/400

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 229	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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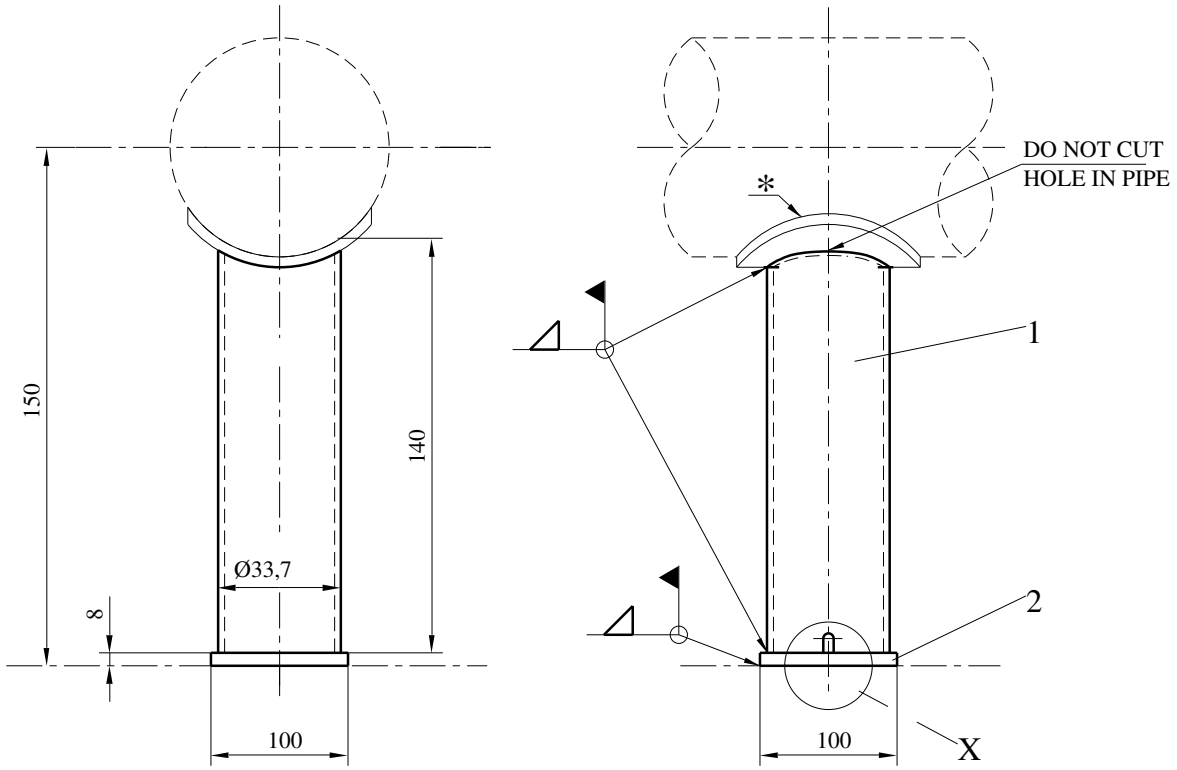
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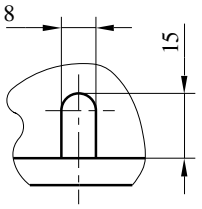
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/150

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 140	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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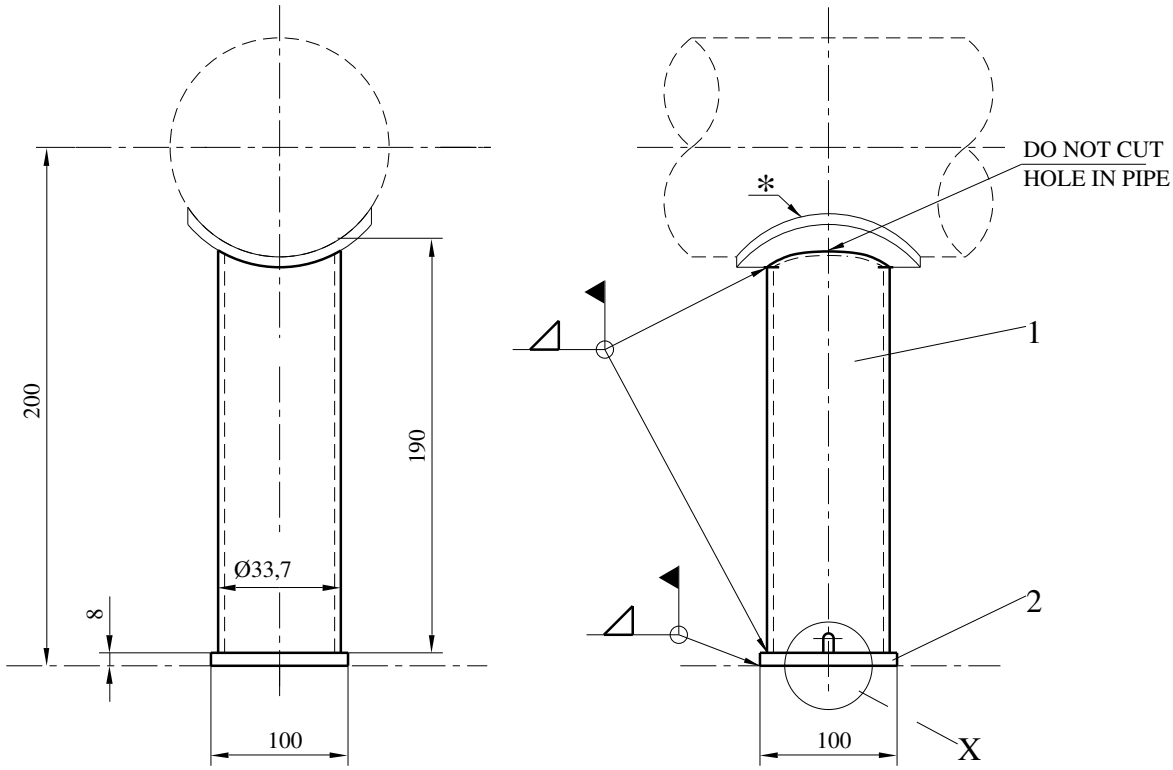
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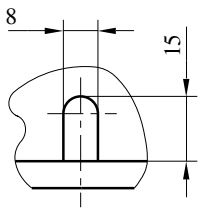
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/200

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 190	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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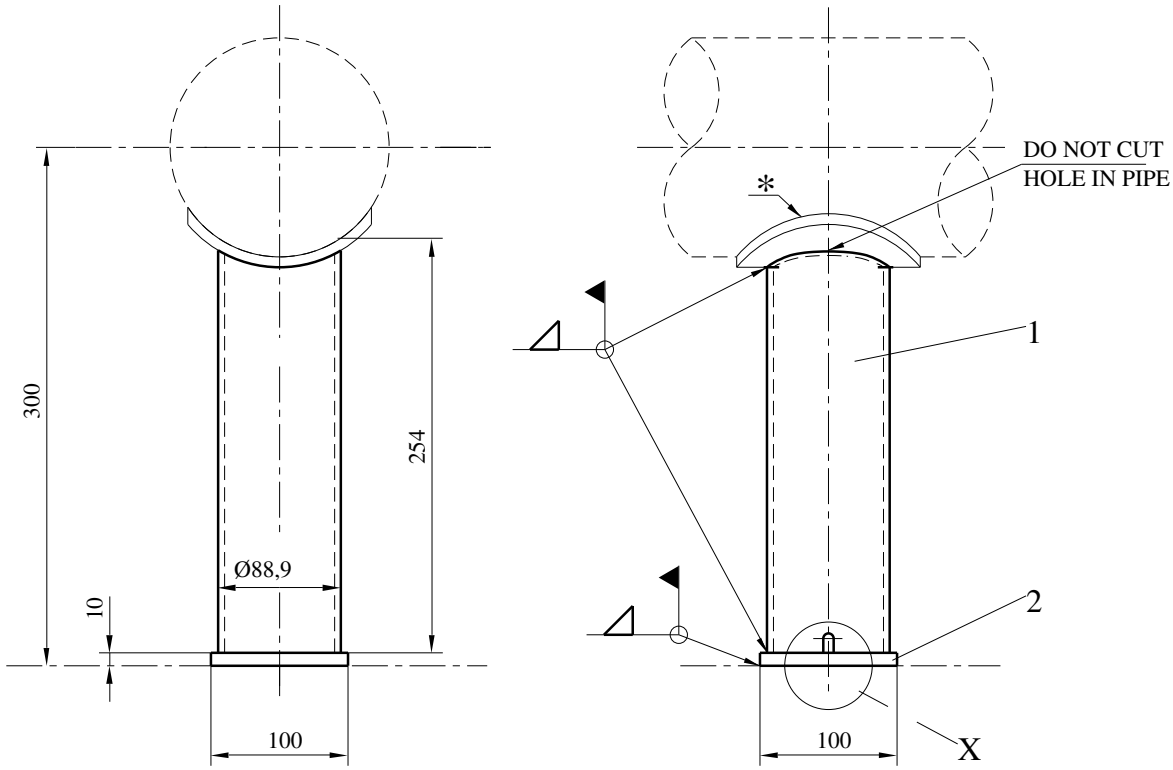
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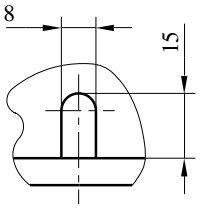
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 100/300

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 254	DIN 2448	1.0254	GR0011D

Remarks: Total weight = 0,000 kg

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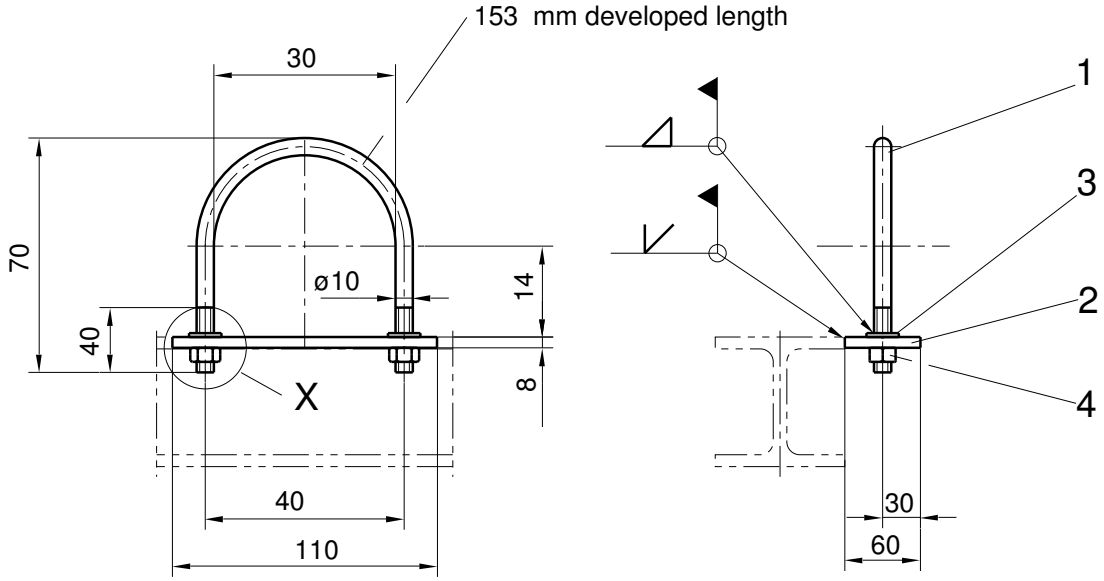
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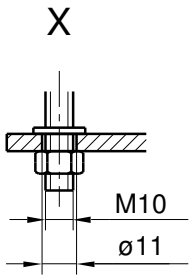
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABB002D Marking : 20

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
3	2	WASHER 11	DIN 126	100 HV	MU0001D
2	1	FLAT BAR 60 x 8 x 110	DIN 1017 P. 1	1.0038	GF0011D
1	1	U-BOLT FORM A A30	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 0,540 kg

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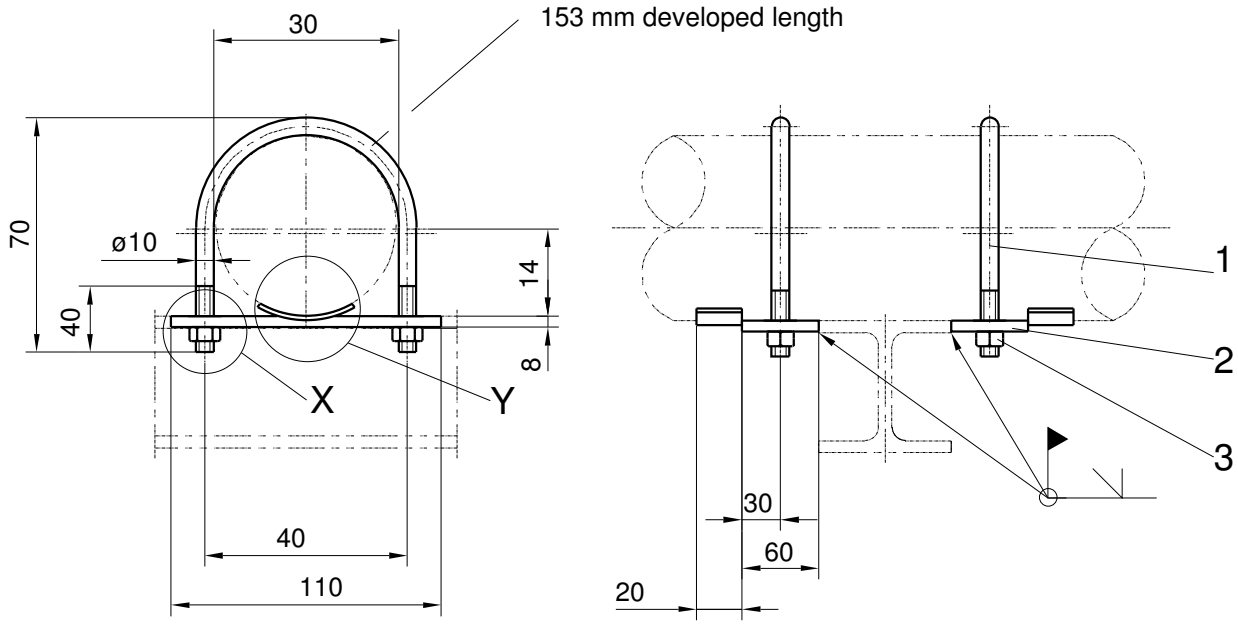
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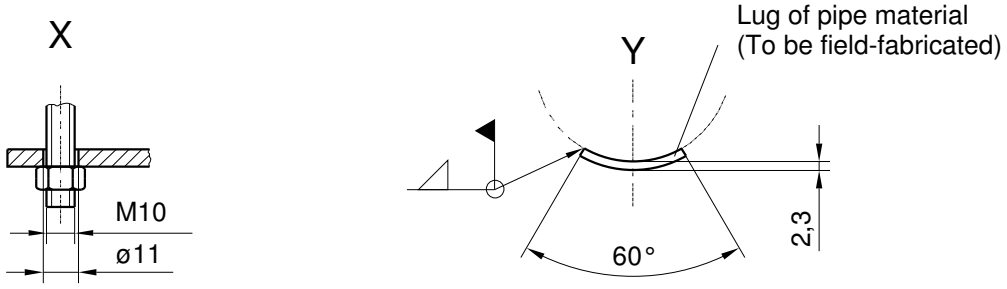
tkIS	Code	Page	UAN	V	L S
	Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC002D Marking : 20

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEXAGON NUT M 10	DIN 555	5	MM0001D
2	2	FLAT BAR 60 x 8 x 110	DIN 1017 P. 1	1.0038	GF0011D
1	2	U-BOLT FORM A A30	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 1,040 kg

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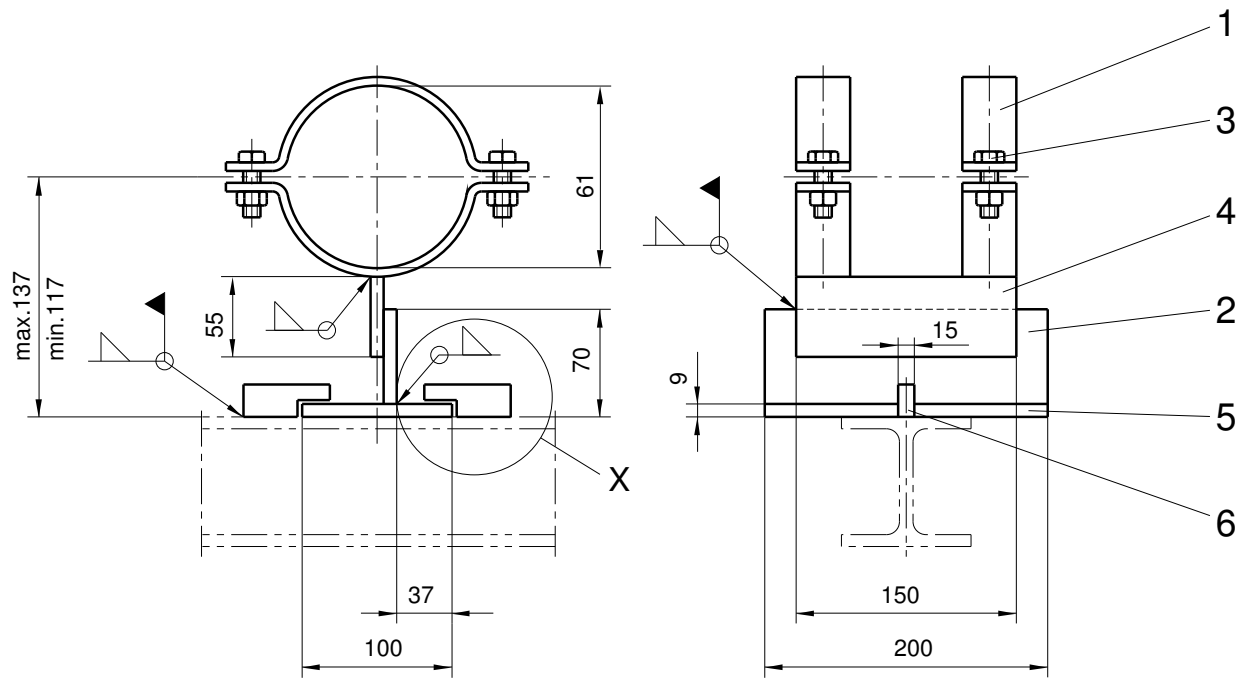
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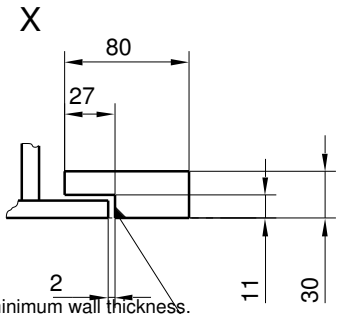
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB220D Marking : 50/117

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
5	1	PLATE 9 x 100 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 4,940 kg

1) A193GR.B7/A194GR.2H

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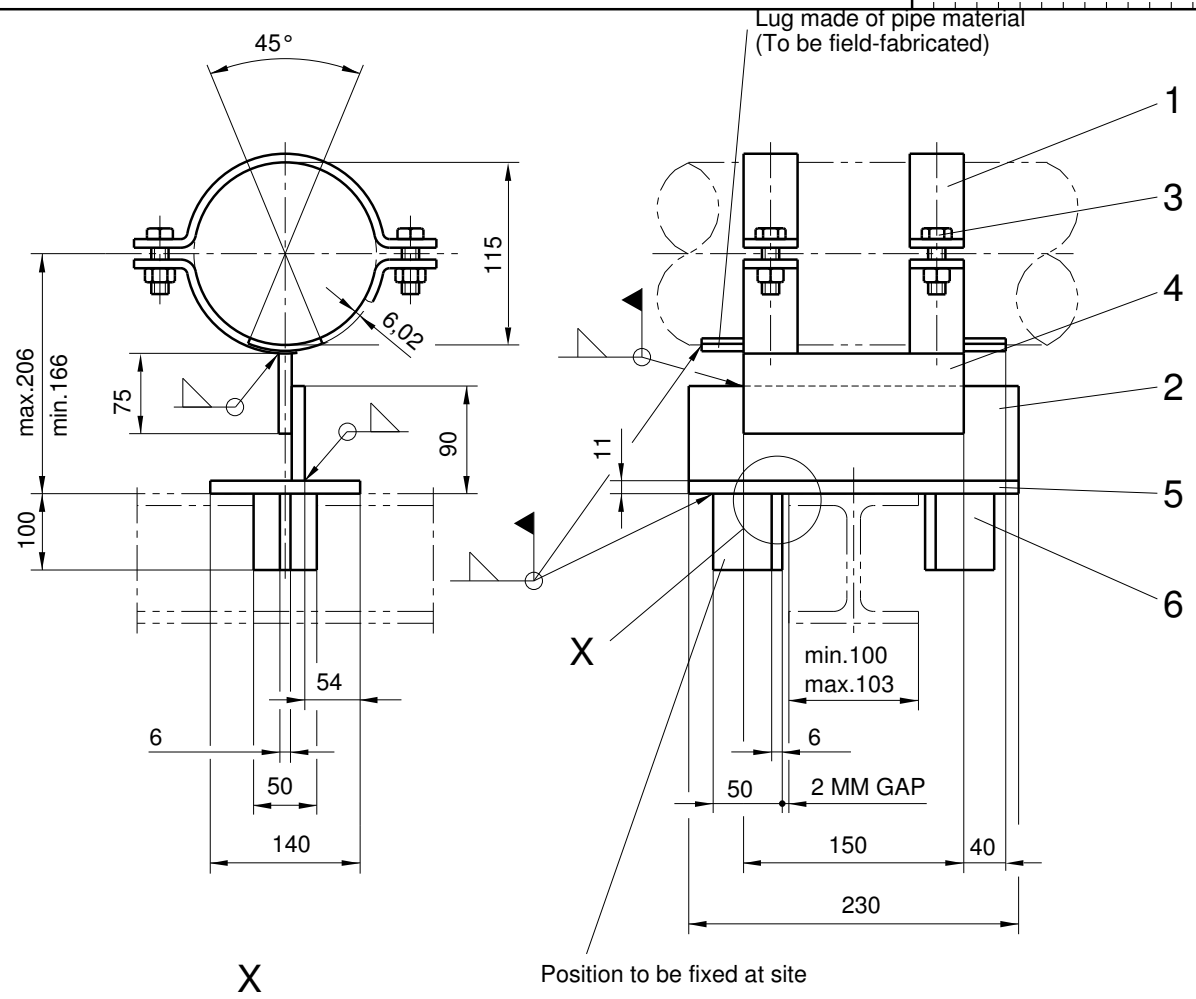
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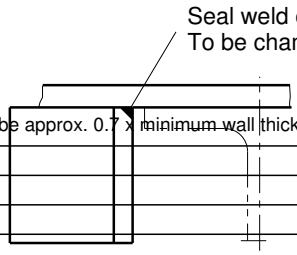
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD220D Marking : 100/166/230

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
5	1	PLATE 11 x 140 x 230	EN 10029	A283GR.B	GB0001D
4	1	PLATE 11 x 75 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 11 x 79 x 230	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,430 kg

1) A193GR.B7/A194GR.2H

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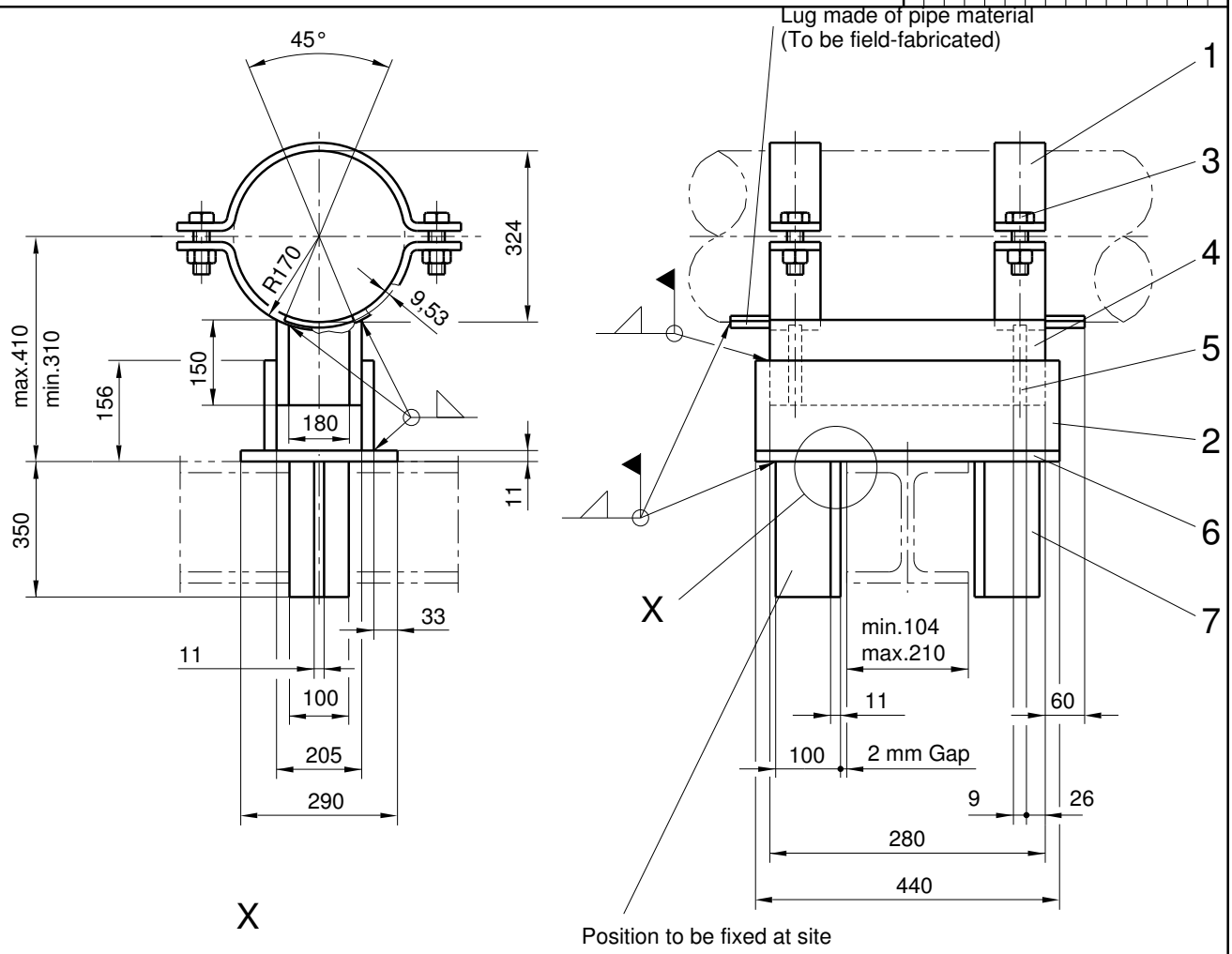
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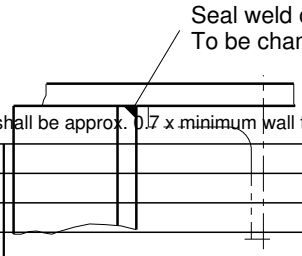
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD222D Marking : 300/310/440

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	T-BAR T 100 x 350	EN 10055	A36	GT0001D
6	1	PLATE 11 x 290 x 440	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 180 x 143	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 150 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 145 x 440	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 55,330 kg

1) A193GR.B7/A194GR.2H

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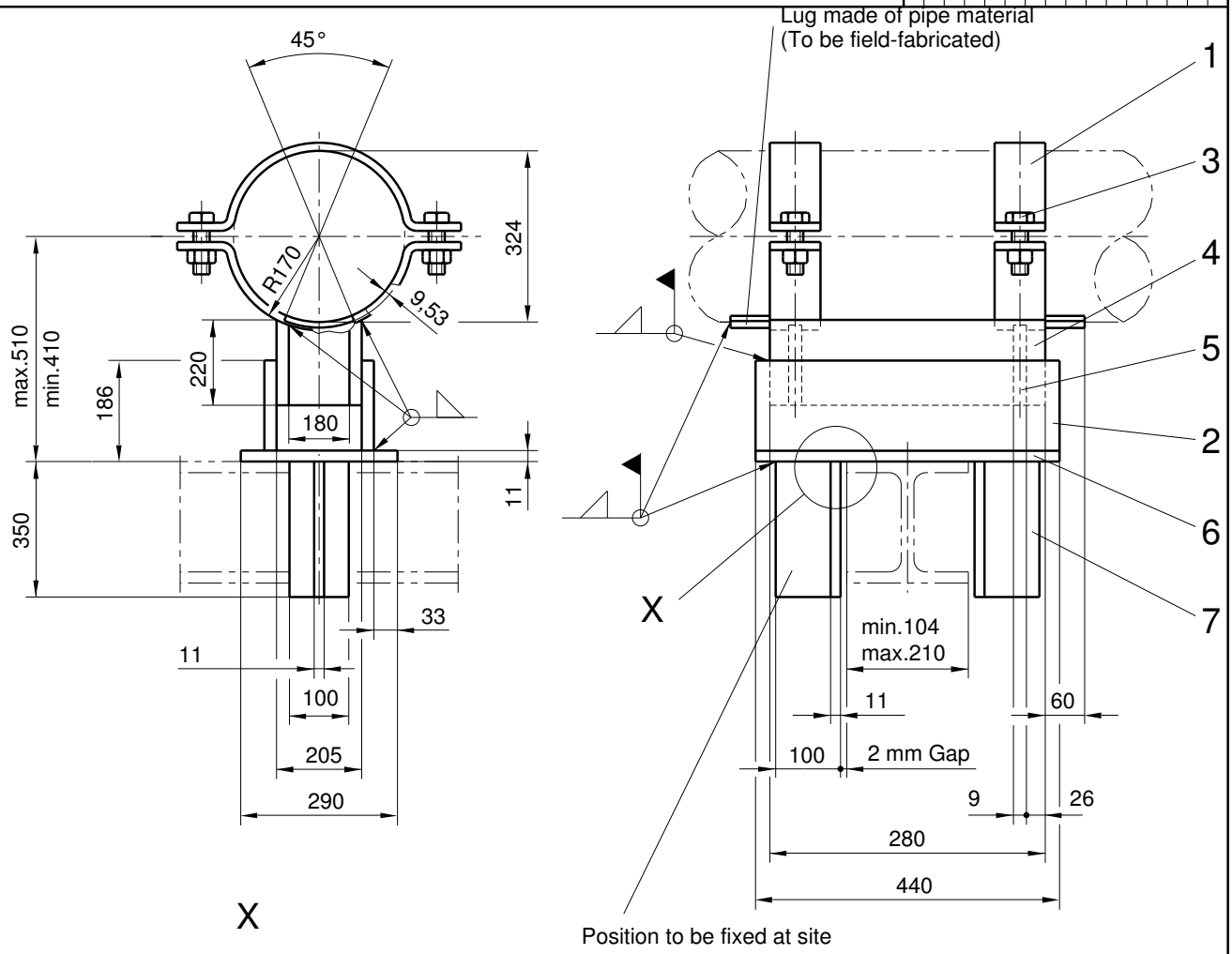
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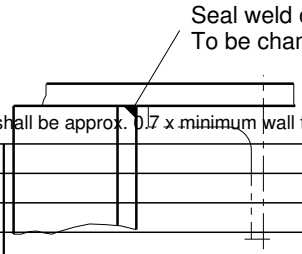
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD222D Marking : 300/410/440

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	T-BAR T 100 x 350	EN 10055	A36	GT0001D
6	1	PLATE 11 x 290 x 440	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 180 x 213	EN 10029	A283GR.B	GB0011D
4	2	PLATE 11 x 220 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 11 x 175 x 440	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 324	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 46,540 kg

1) A193GR.B7/A194GR.2H

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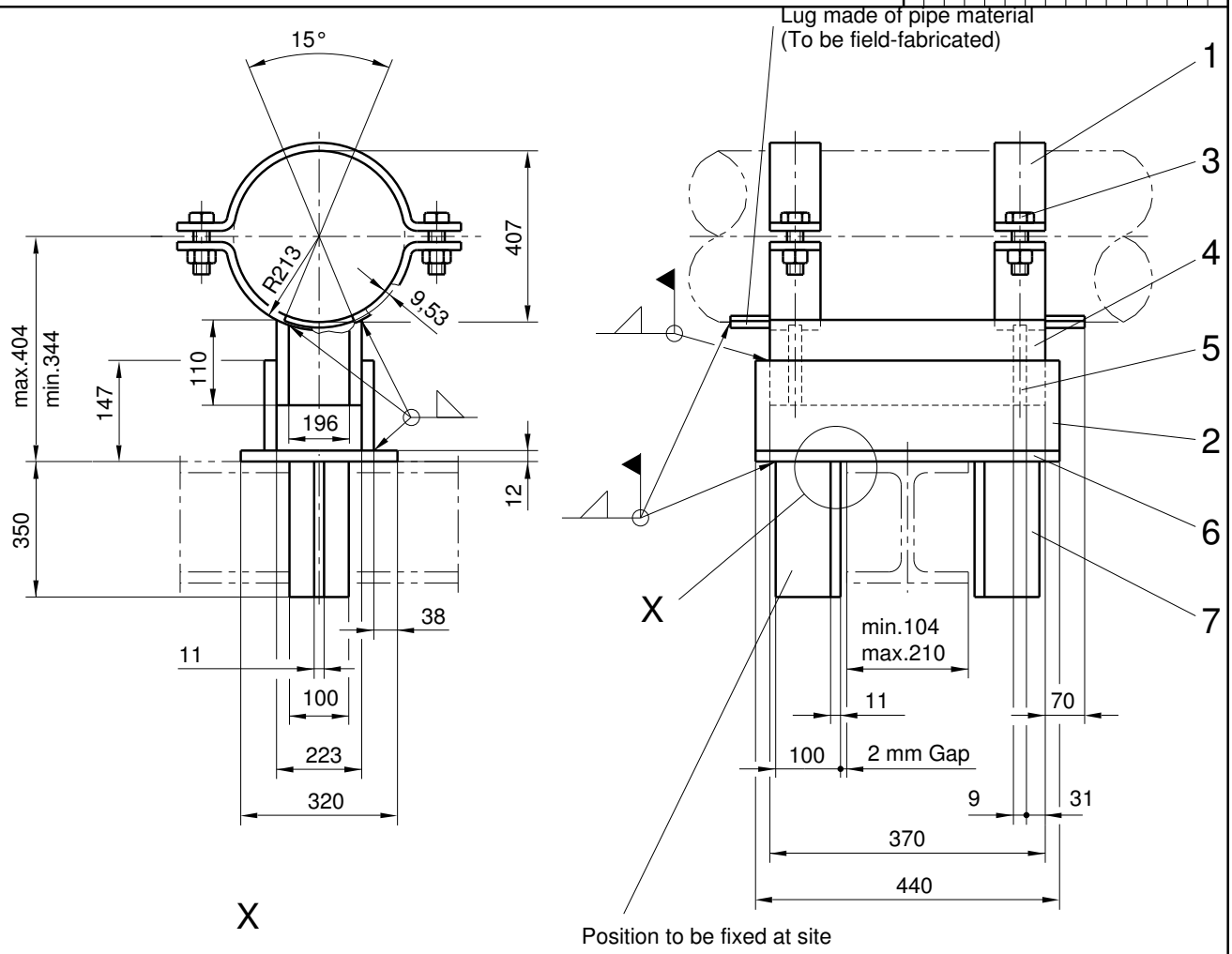
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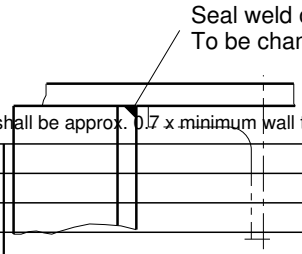
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD222D Marking : 400/344/440

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	T-BAR T 100 x 350	EN 10055	A36	GT0001D
6	1	PLATE 12 x 320 x 440	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 196 x 104	EN 10029	A283GR.B	GB0011D
4	2	PLATE 12 x 110 x 370	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 12 x 135 x 440	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 407	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 65,790 kg

1) A193GR.B7/A194GR.2H

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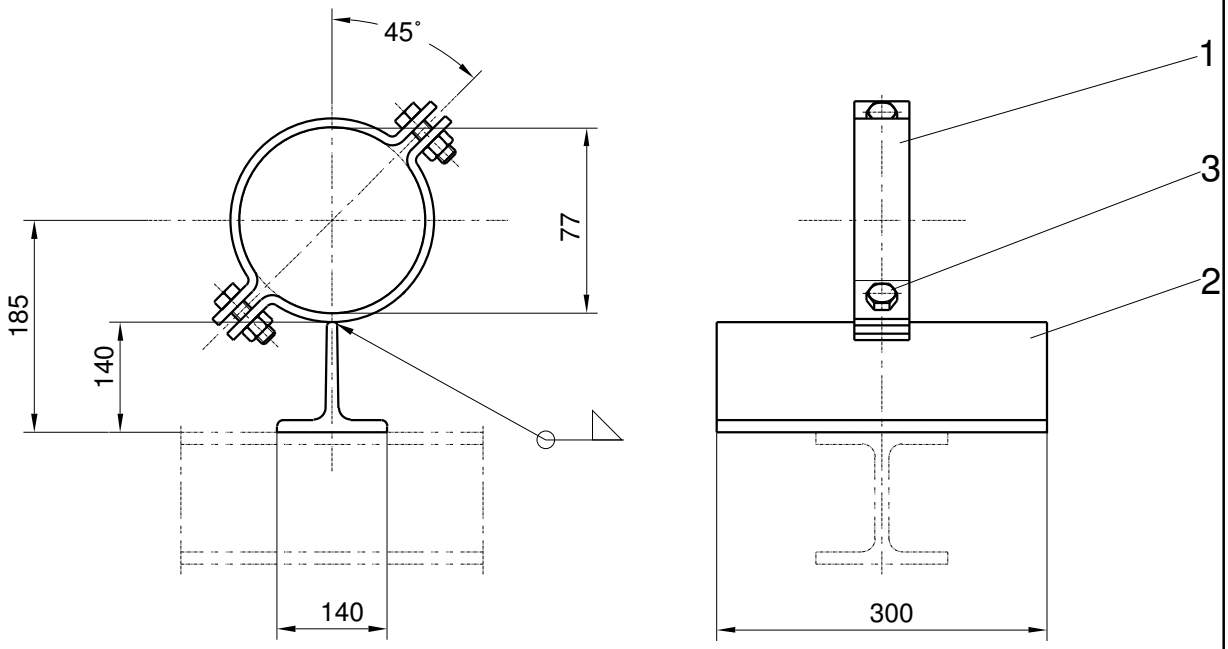
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA001D Marking : 65/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 77	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 7,100 kg

1) A193GR.B7/A194GR.2H

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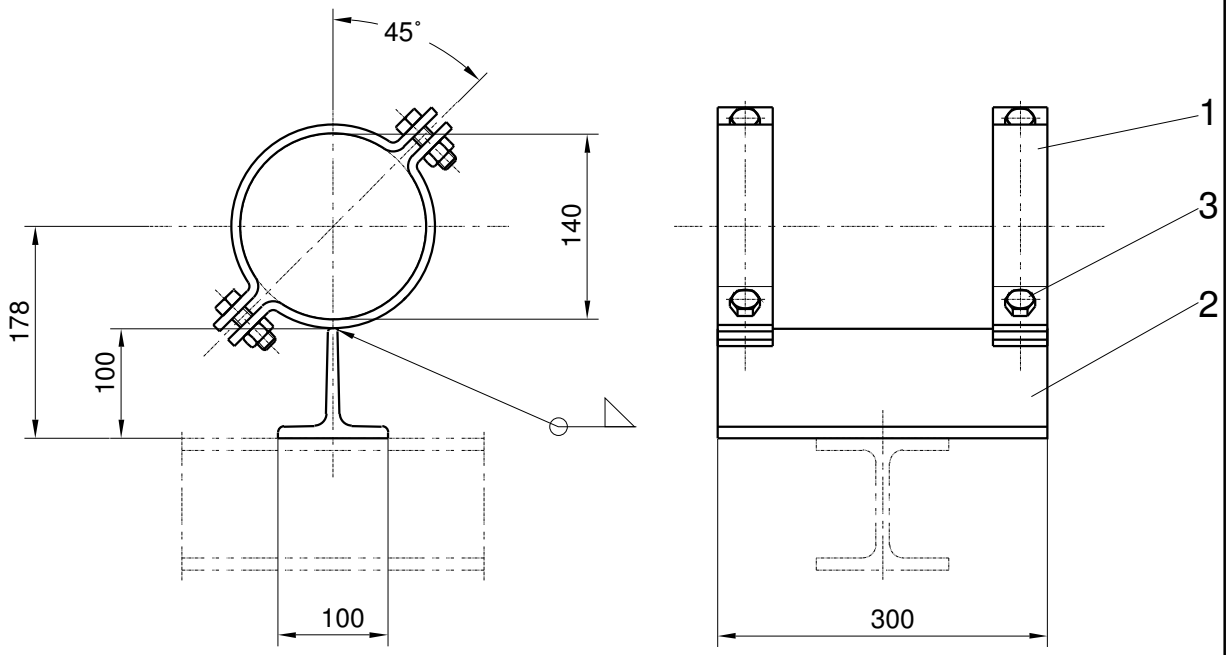
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADA002D Marking : 125/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 140	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 9,360 kg

1) A193GR.B7/A194GR.2H

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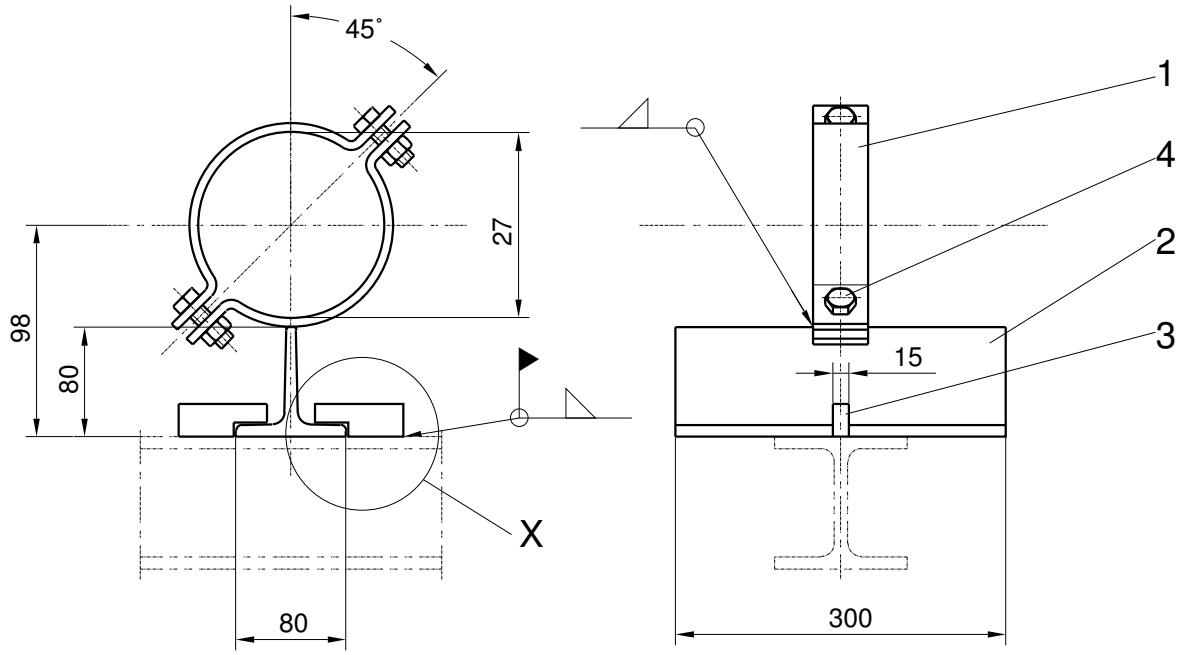
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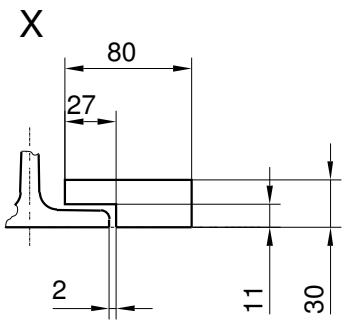
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB001D Marking : 20/1

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,020 kg

1) A193GR.B7/A194GR.2H

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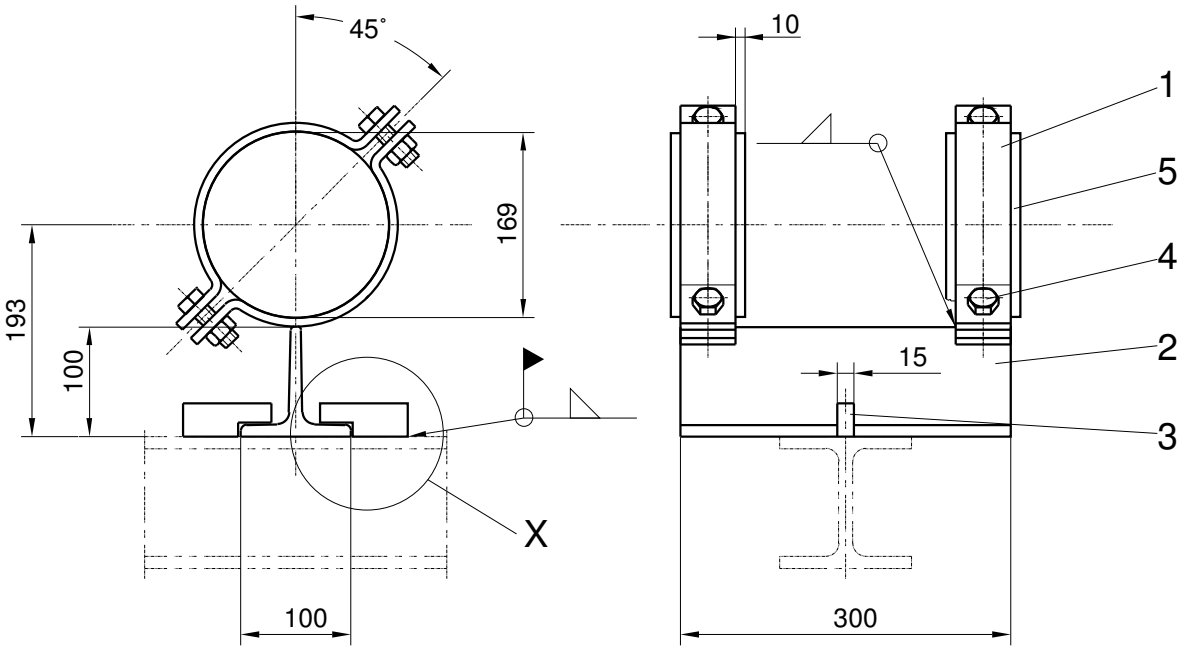
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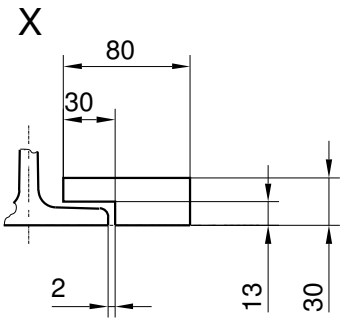
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADB052D Marking : 150/2

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 70 x 551	UN 3790-14	A240GR.321	OE0041D
4	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,800 kg

1) A193GR.B7/A194GR.2H

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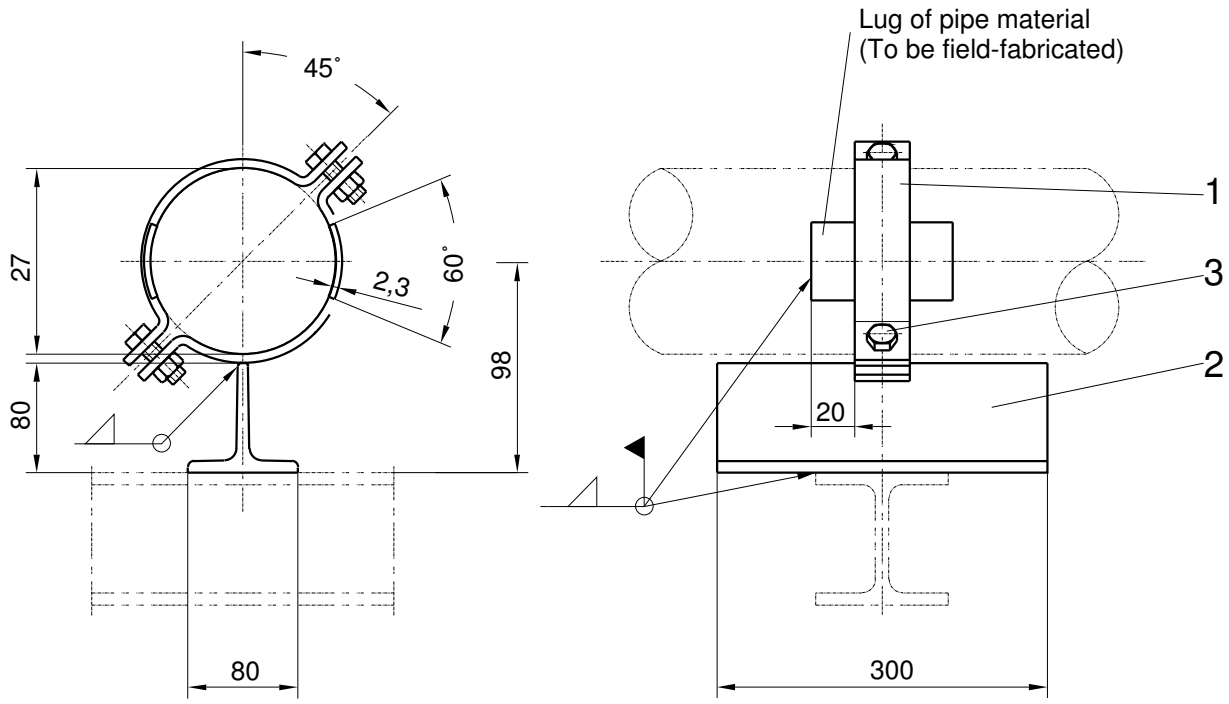
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADC001D Marking : 20/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,460 kg

1) A193GR.B7/A194GR.2H

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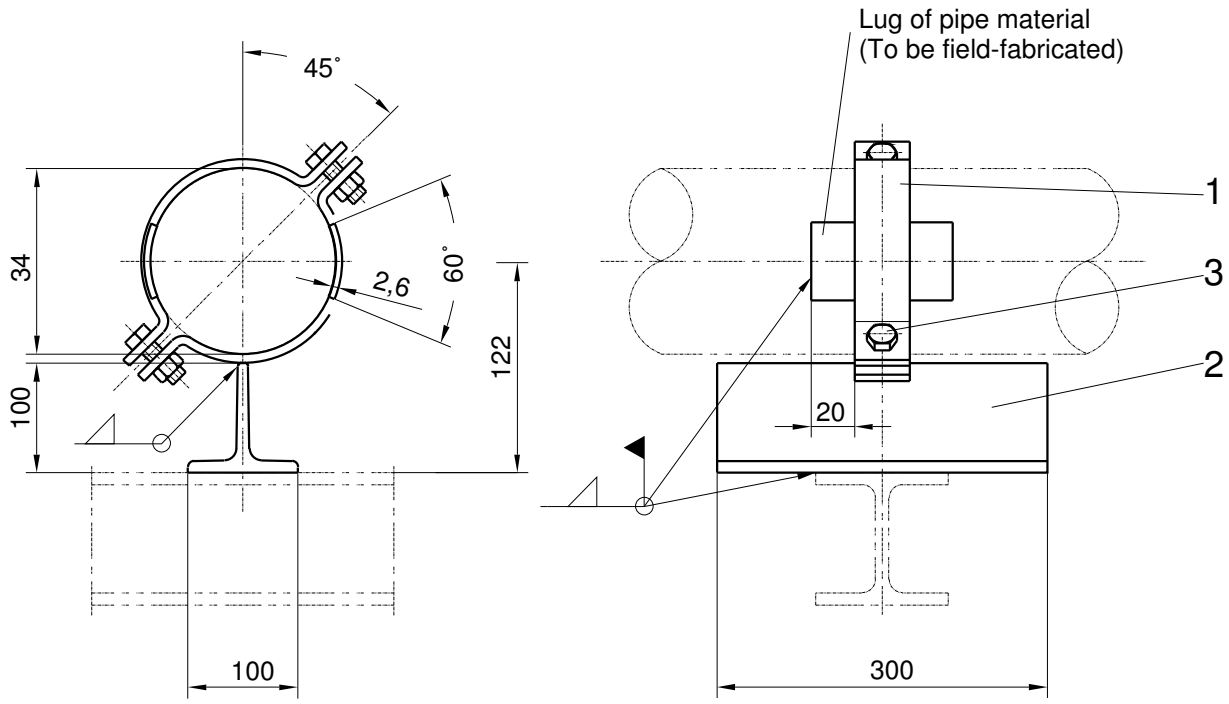
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADC001D Marking : 25/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,620 kg

1) A193GR.B7/A194GR.2H

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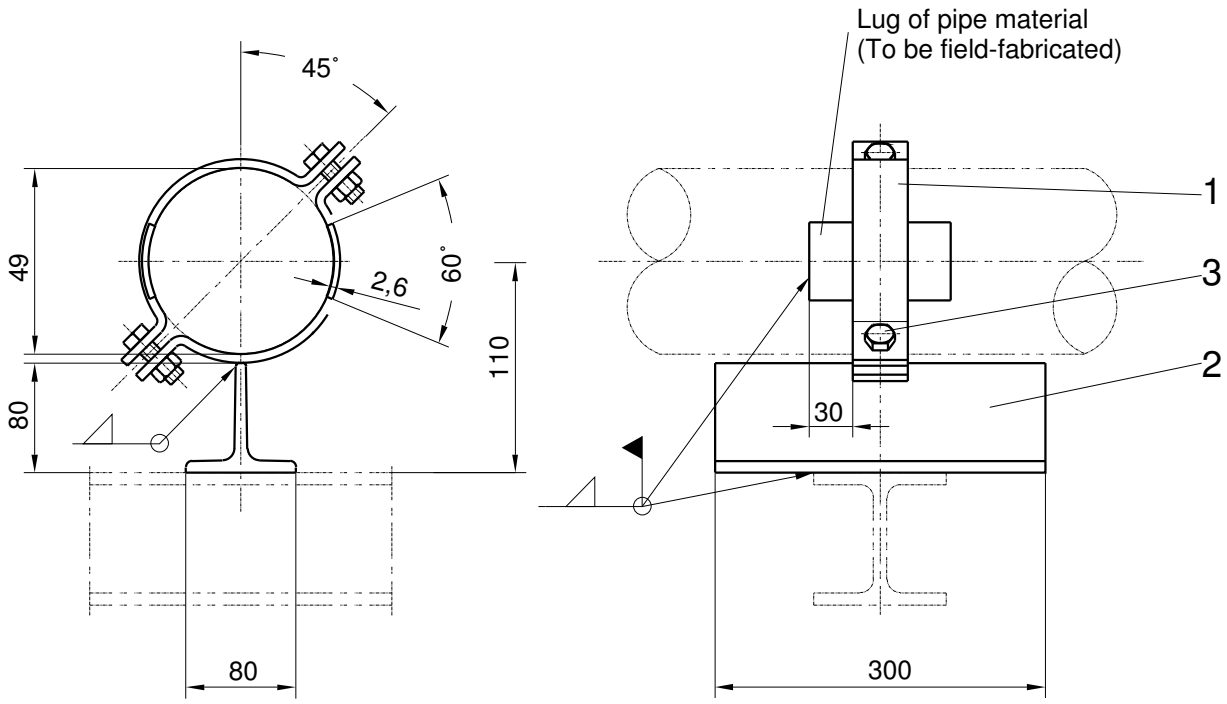
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADC001D Marking : 40/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,540 kg

1) A193GR.B7/A194GR.2H

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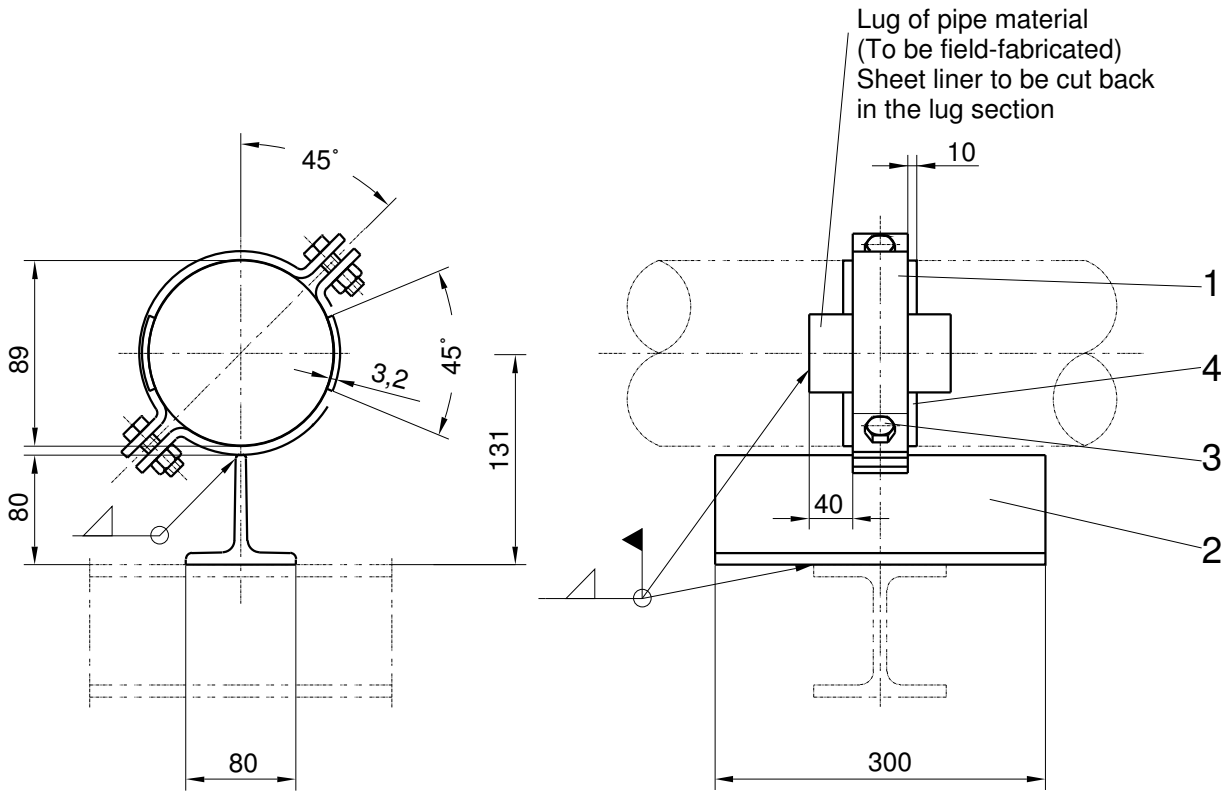
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADC051D Marking : 80/1

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	1	SHEET LINER 0,5 x 60 x 295	UN 3790-14	A240GR.321	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 80 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,110 kg

1) A193GR.B7/A194GR.2H

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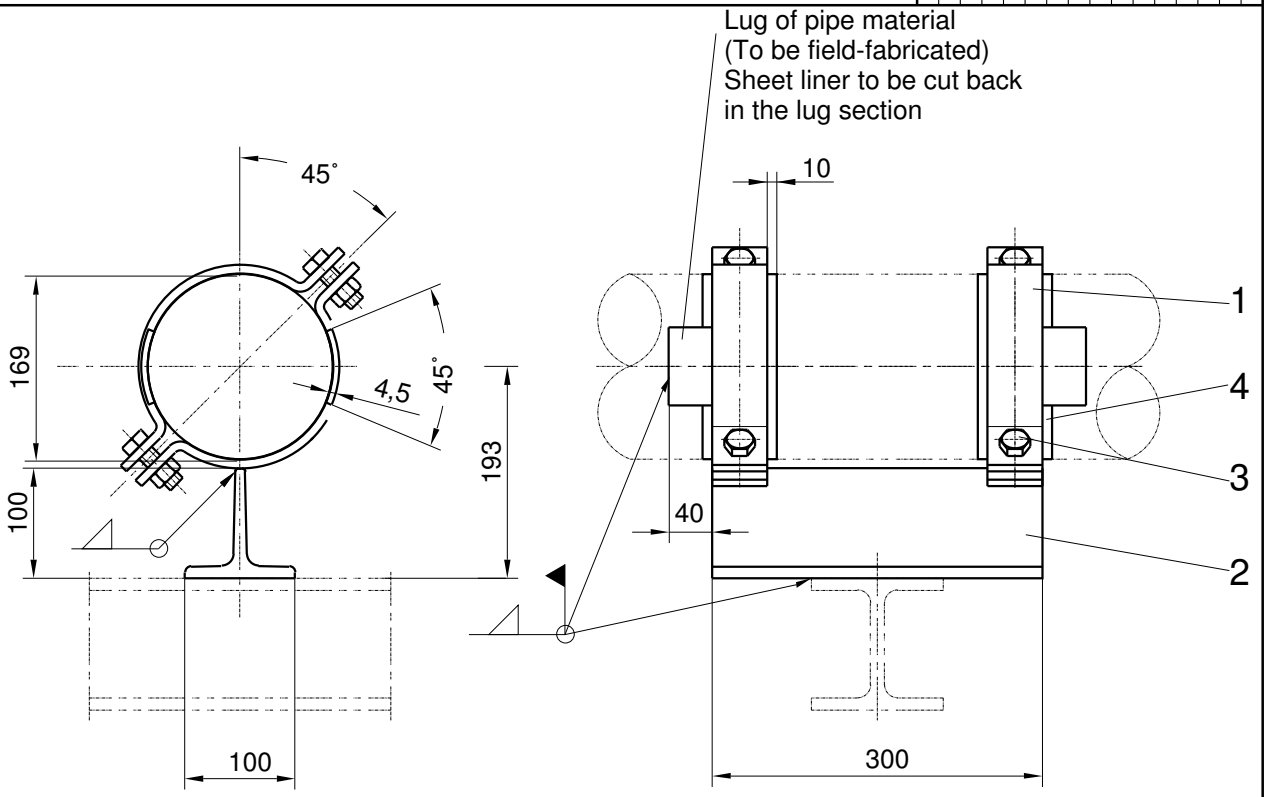
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ADC052D Marking : 150/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	SHEET LINER 0,5 x 70 x 551	UN 3790-14	A240GR.321	OE0041D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,240 kg

1) A193GR.B7/A194GR.2H

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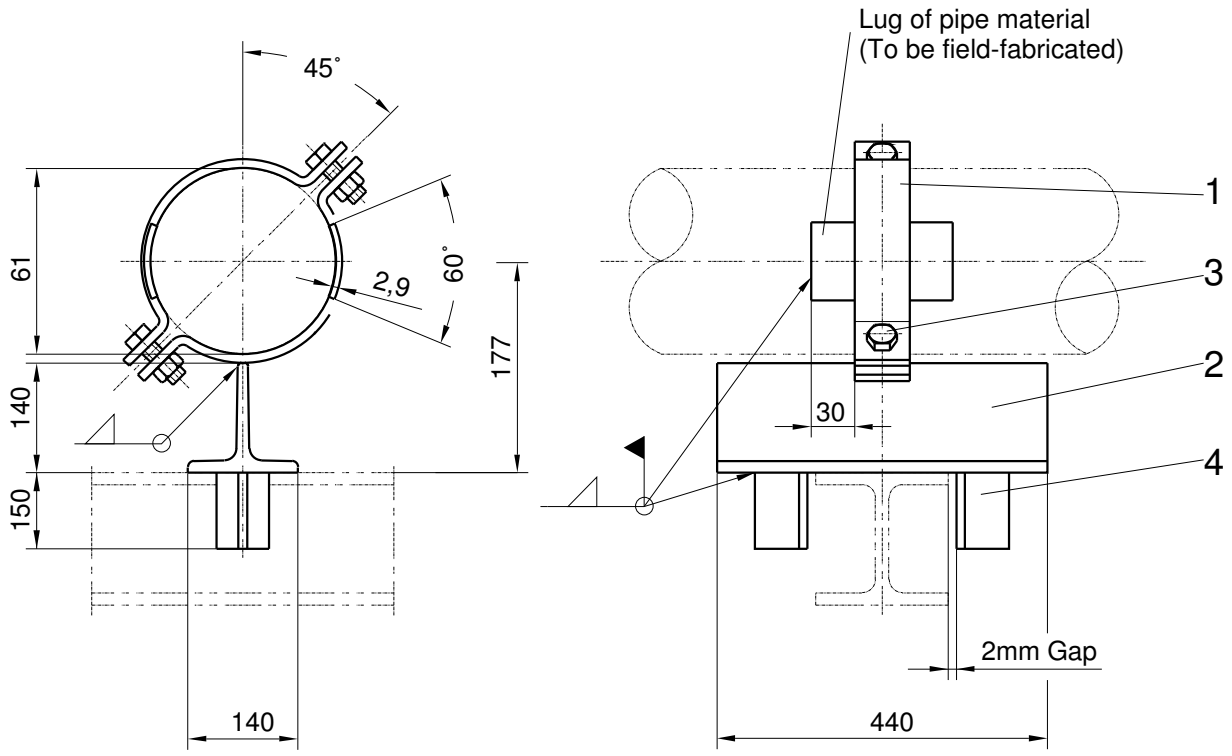
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADD001D Marking : 50/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	T-BAR T 60 x 150	EN 10055	A36	GT0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 140 x 440	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 16,390 kg

1) A193GR.B7/A194GR.2H

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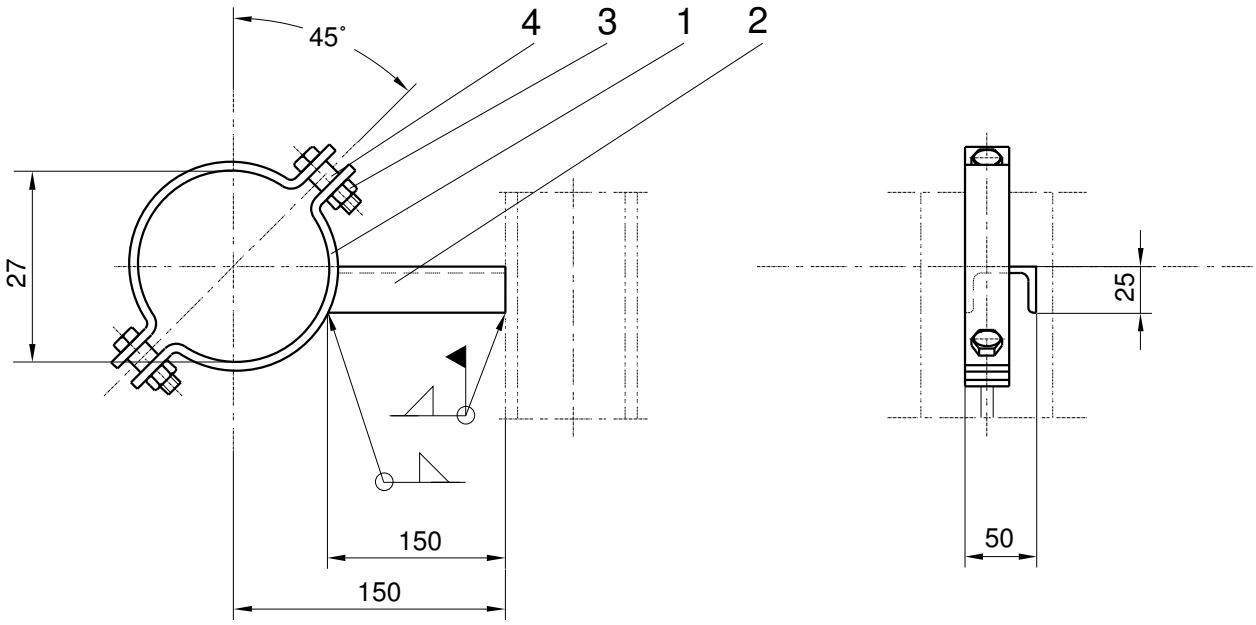
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB002D Marking : 20/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 17,2 x 1,8 x 8	EN 10220	A53GR.B	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 150	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,920 kg

1) A193GR.B7/A194GR.2H

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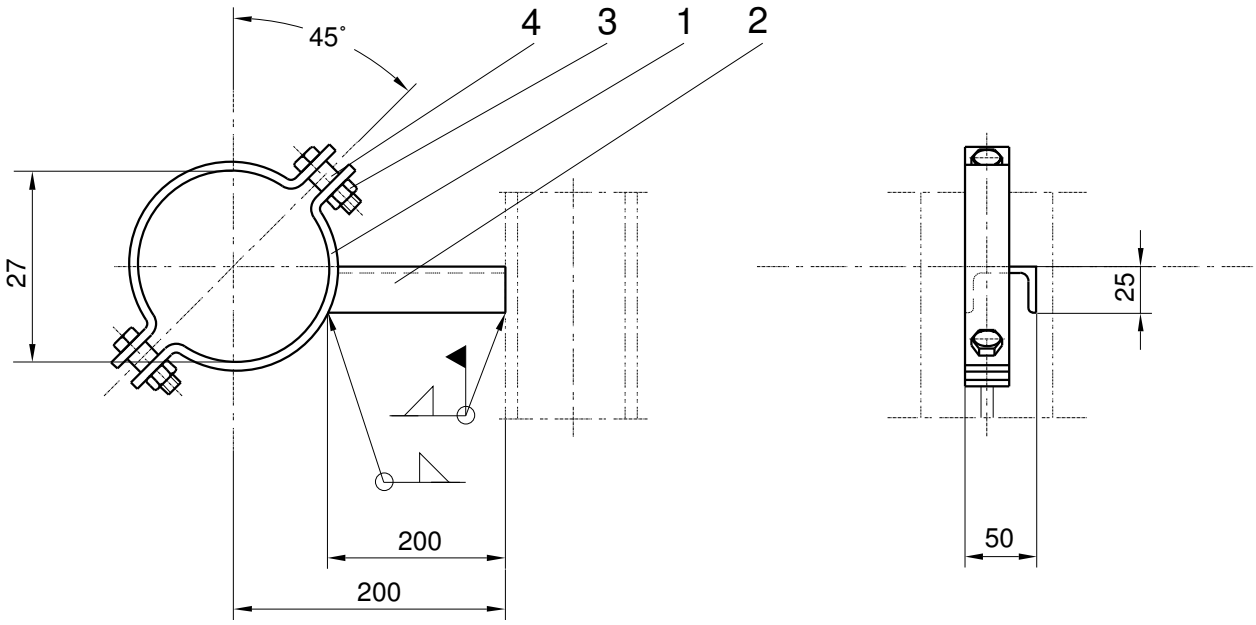
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB002D Marking : 20/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 17,2 x 1,8 x 8	EN 10220	A53GR.B	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 200	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,110 kg

1) A193GR.B7/A194GR.2H

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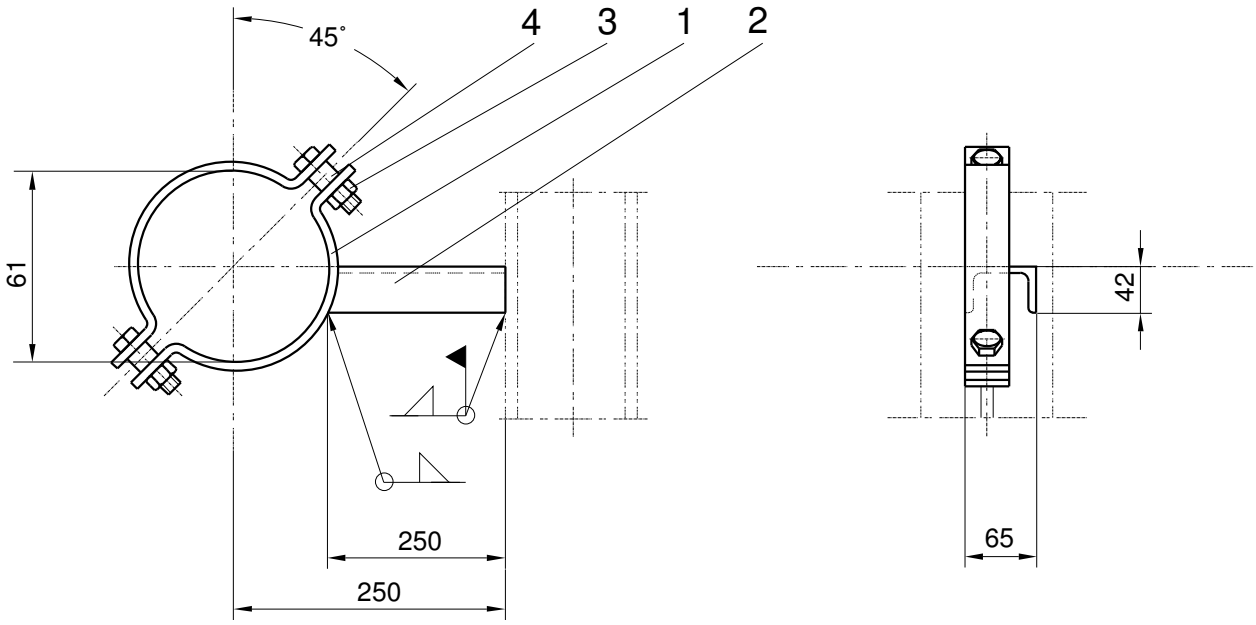
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB003D Marking : 50/250

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 21,3 x 2 x 10	EN 10220	A53GR.B	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 250	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,540 kg

1) A193GR.B7/A194GR.2H

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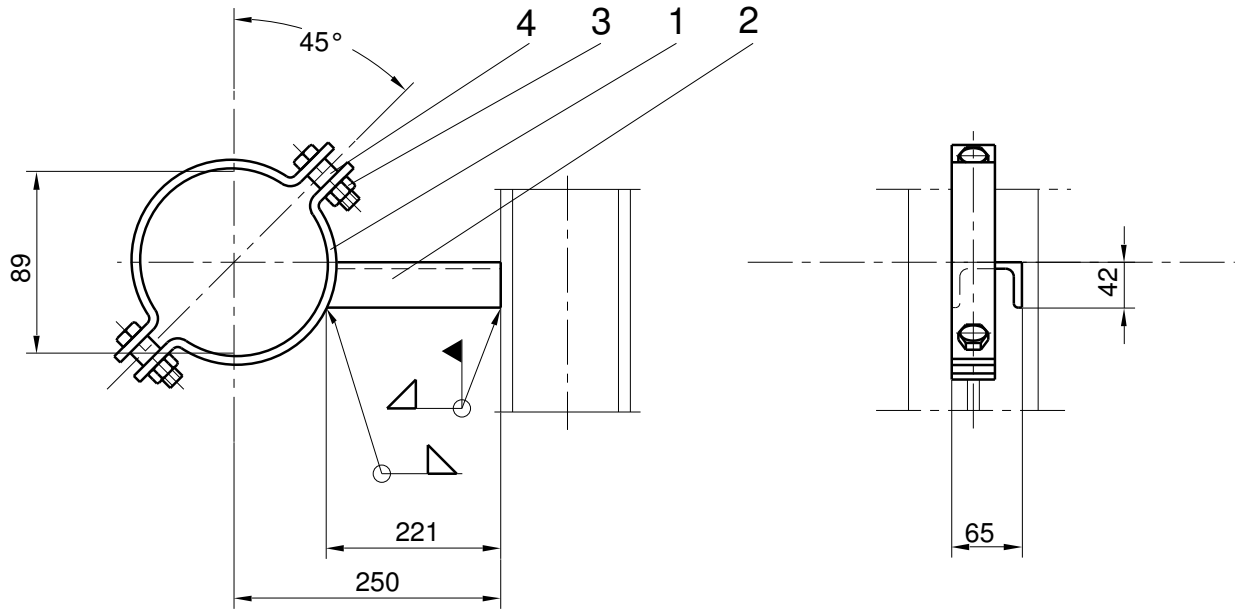
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEB004D Marking : 80/250

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 21,3 x 2 x 10	EN 10220	A53GR.B	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 221	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,490 kg

1) A193GR.B7/A194GR.2H

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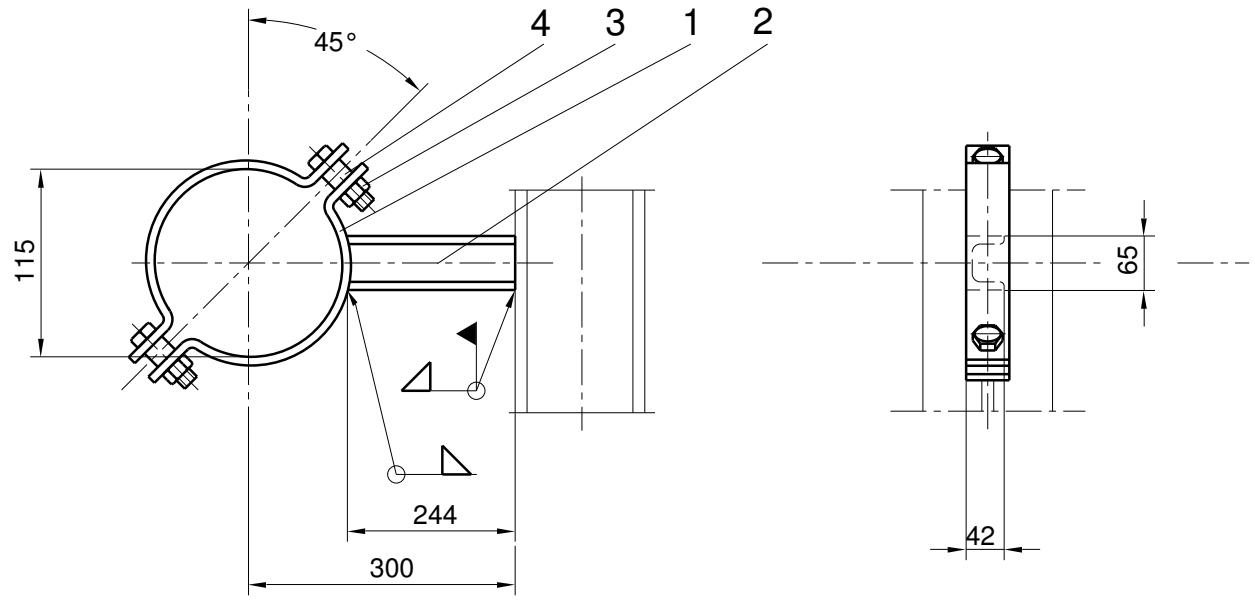
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB005D Marking : 100/300

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 33,7 x 2,6 x 12	EN 10220	A53GR.B	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 244	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,740 kg

1) A193GR.B7/A194GR.2H

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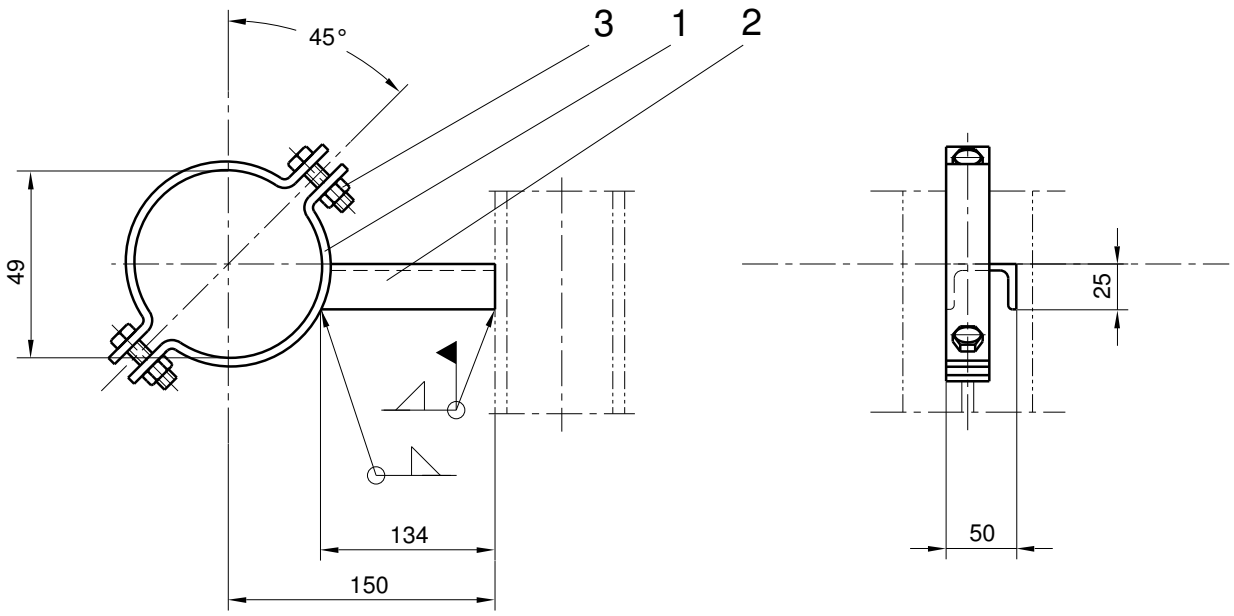
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEX001D Marking : 40/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 134	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,920 kg

1) A193GR.B7/A194GR.2H

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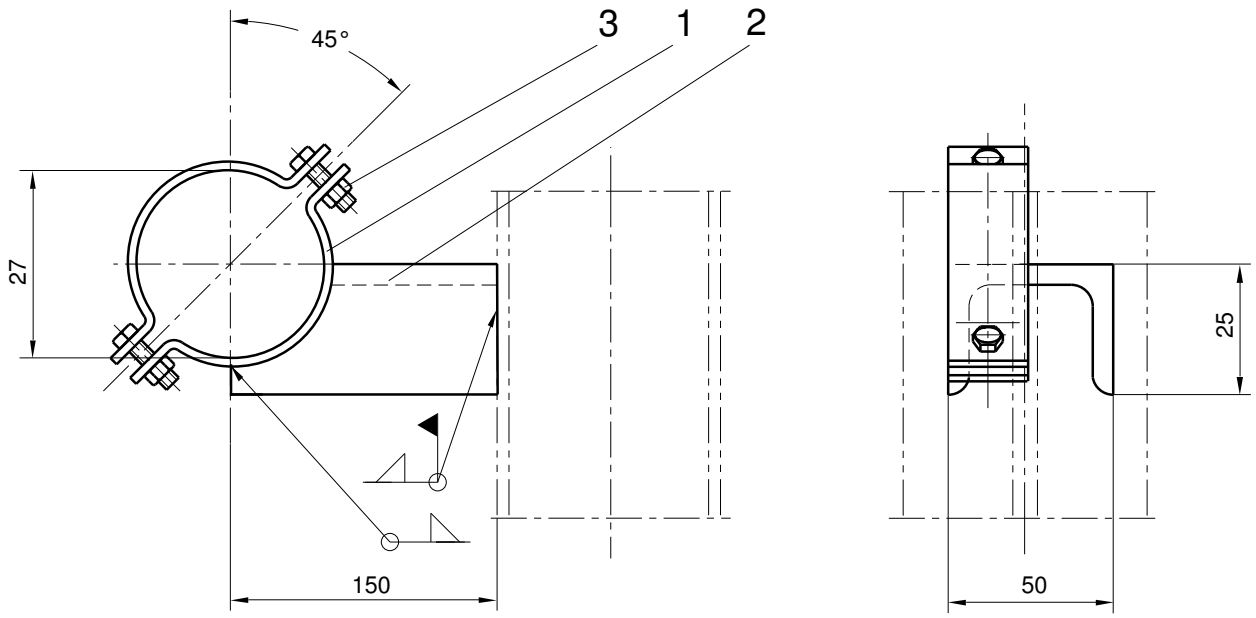
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEX002D Marking : 20/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 150	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,900 kg

1) A193GR.B7/A194GR.2H

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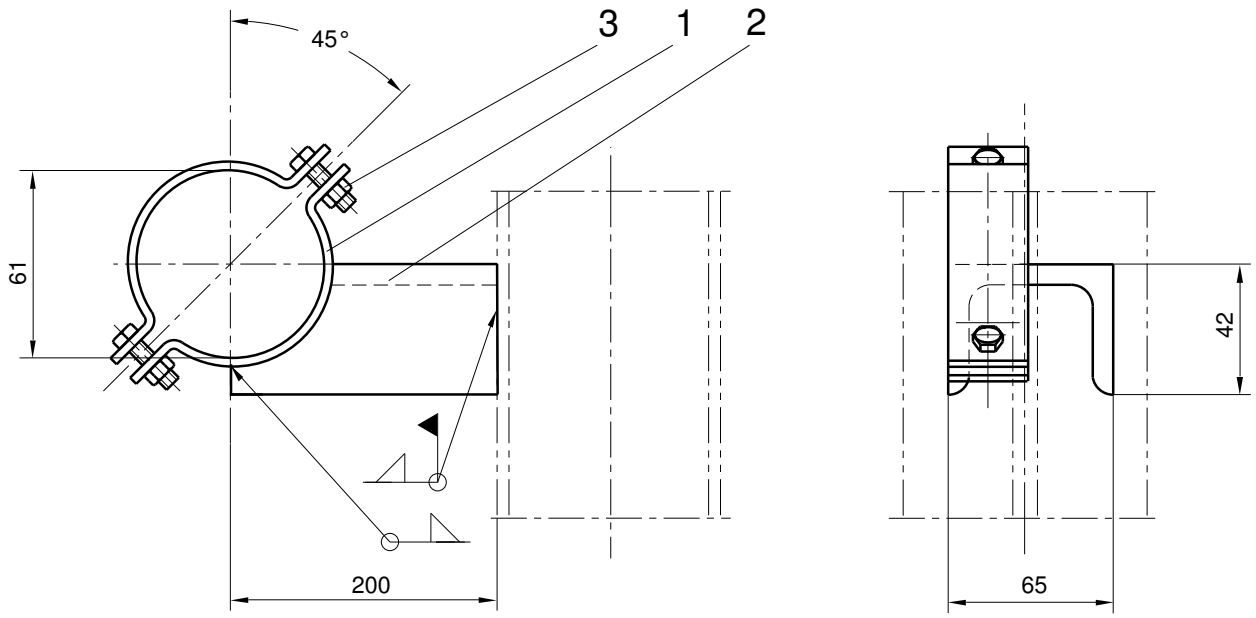
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEX003D Marking : 50/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 200	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,170 kg

1) A193GR.B7/A194GR.2H

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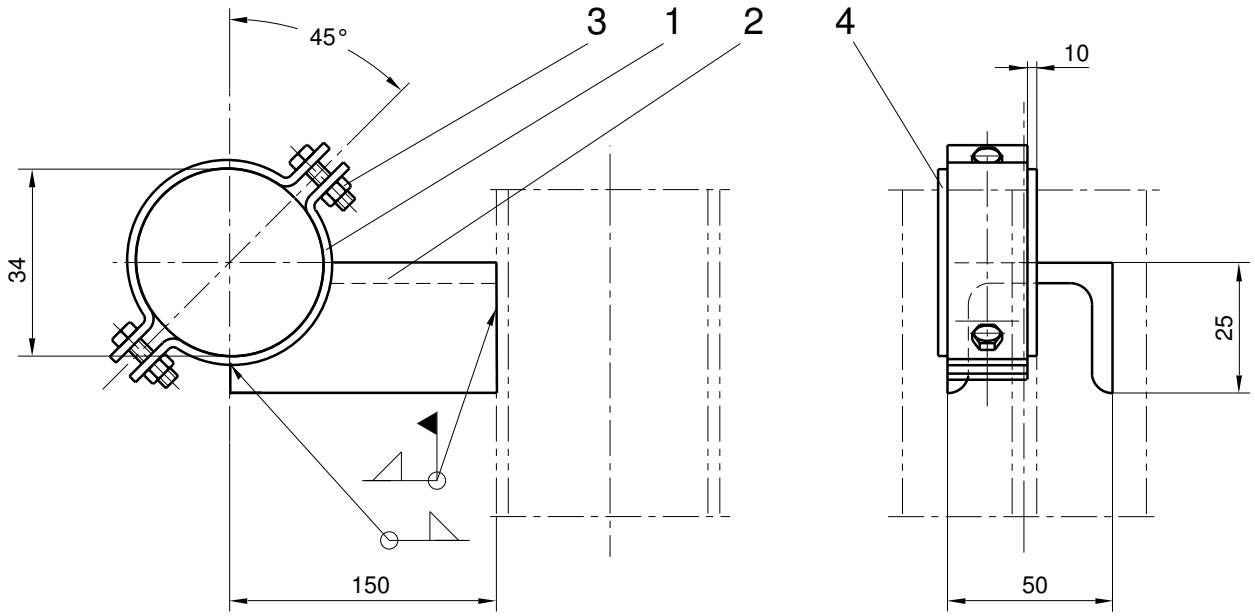
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				66-6695-700

tkIS

Pipe support

Code No.:AEX052D **Marking:** 25/150

Manufacturing drawing



Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
4	1	SHEET LINER 0,3 x 50 x 117	UN 3790-14	1.4541	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 50 x 25 x 150	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 34	UN 3790-01	1.0038	MS0001D

Remarks: Total weight = 0,940 kg

1) A193 GR.B7/A194 GR.2H

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

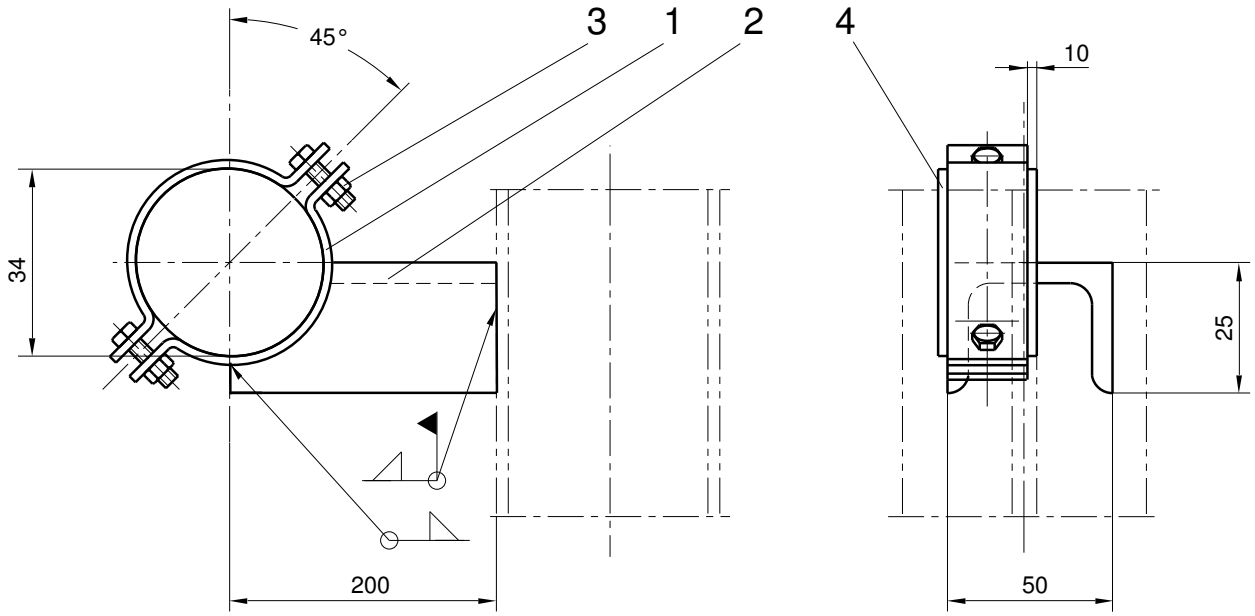
Plant	Client	Code	Doc ID Code	UAN
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tkIS

Pipe support

Code No.:AEX052D **Marking:** 25/200

Manufacturing drawing



Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
4	1	SHEET LINER 0,3 x 50 x 117	UN 3790-14	1.4541	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 50 x 25 x 200	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 34	UN 3790-01	1.0038	MS0001D

Remarks: Total weight = 1,130 kg

1) A193 GR.B7/A194 GR.2H

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

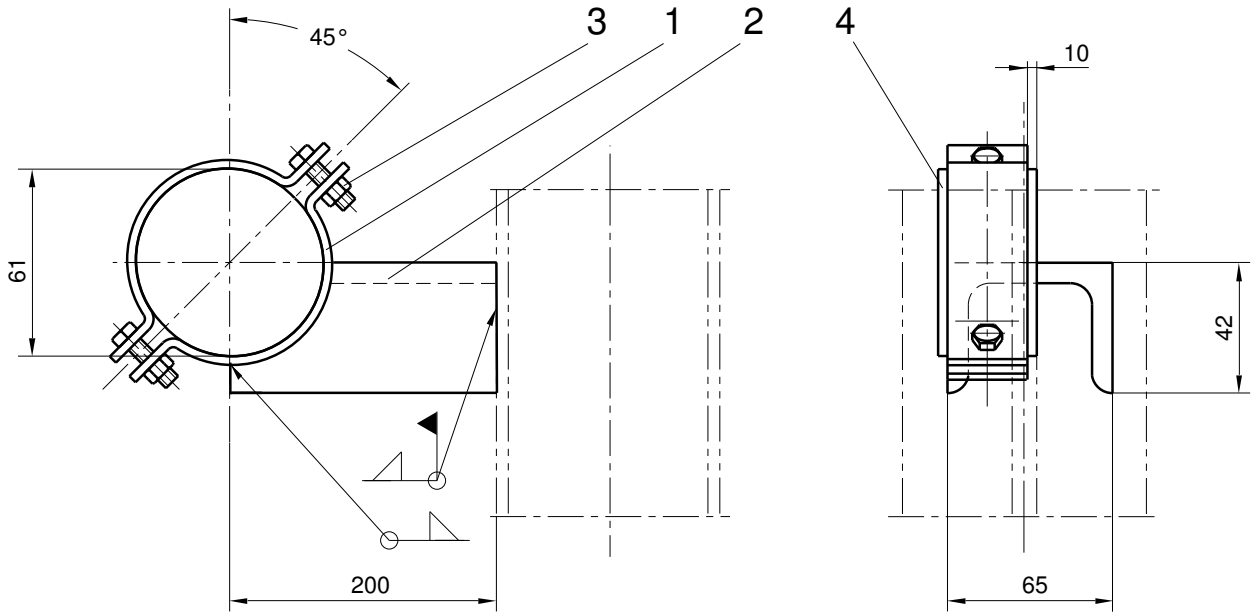
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				66-6695-700

tkIS

Pipe support

Code No.:AEX053D **Marking:** 50/200

Manufacturing drawing



Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
4	1	SHEET LINER 0,3 x 60 x 207	UN 3790-14	1.4541	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 200	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	1.0038	MS0001D

Remarks: Total weight = 2,220 kg

1) A193 GR.B7/A194 GR.2H

Rev.	Description	Date	Prepared	Date	Checked	Date	Approved

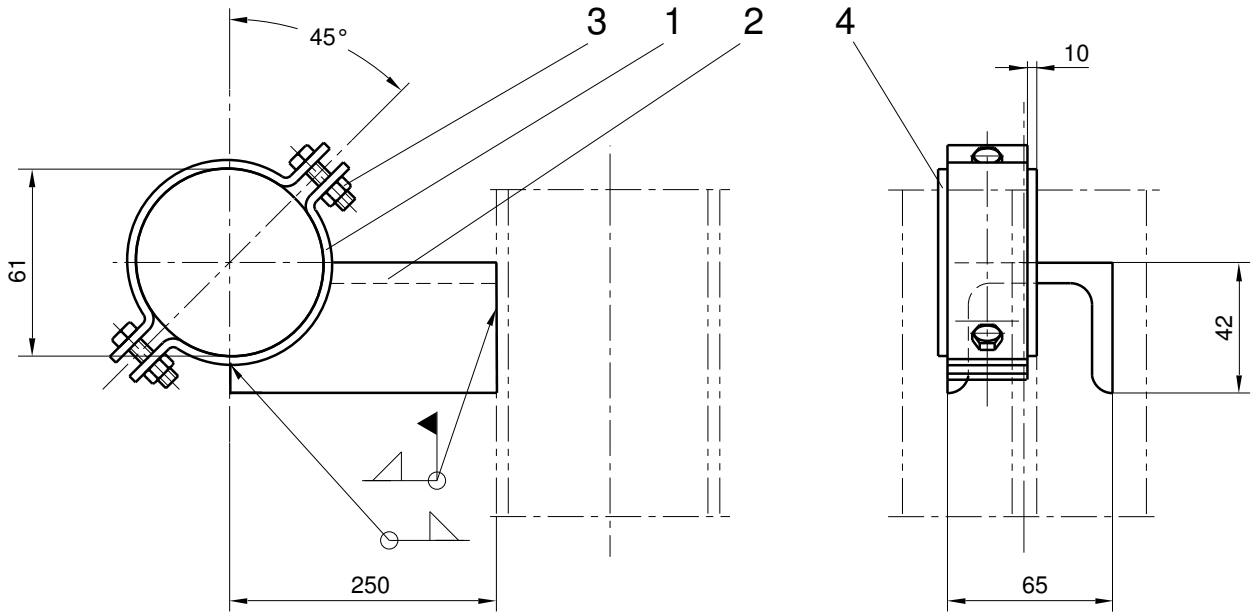
Plant	Client	Code	Doc ID Code	UAN
				66-6695-700

tkIS

Pipe support

Code No.:AEX053D **Marking:** 50/250

Manufacturing drawing



Weld thickness shall be approx. 0,7 x minimum wall thickness

Pos.	Quantity	Description	Standard	Material No.	Code No.
4	1	SHEET LINER 0,3 x 60 x 207	UN 3790-14	1.4541	OE0041D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 250	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	1.0038	MS0001D

Remarks: Total weight = 2,570 kg

1) A193 GR.B7/A194 GR.2H

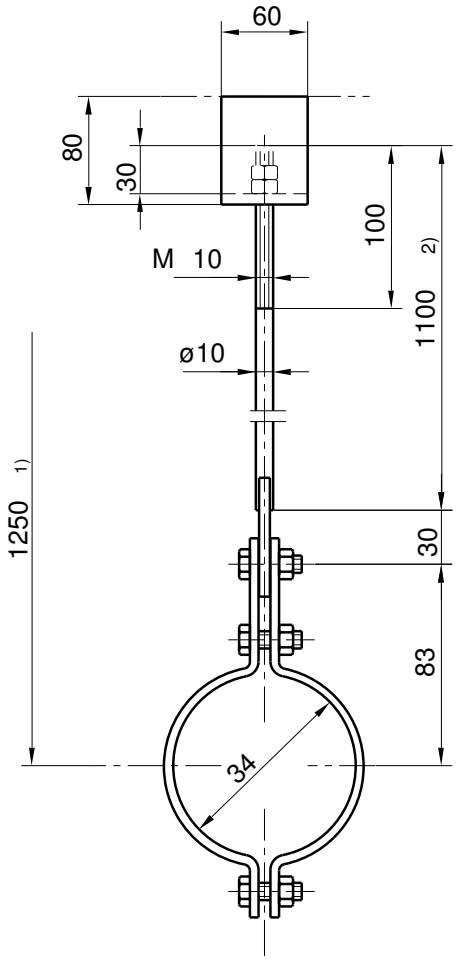
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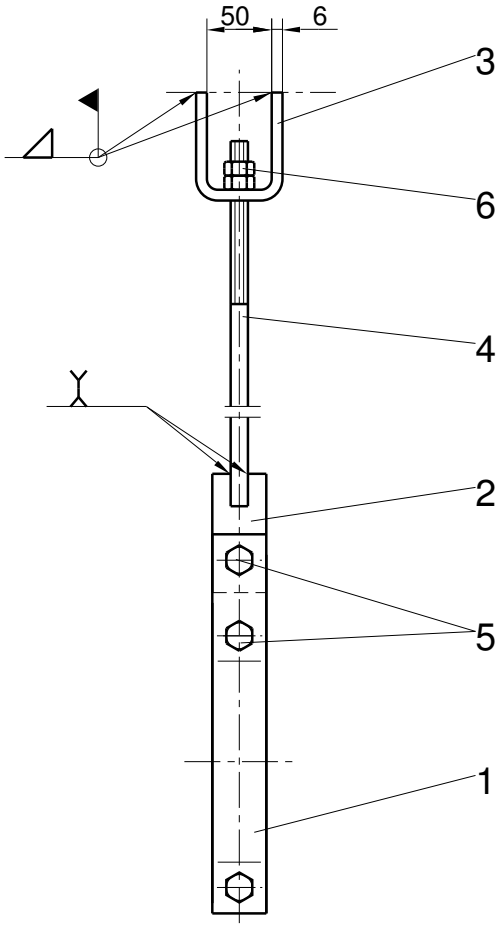
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 25/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1100	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 34	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 1,860 kg

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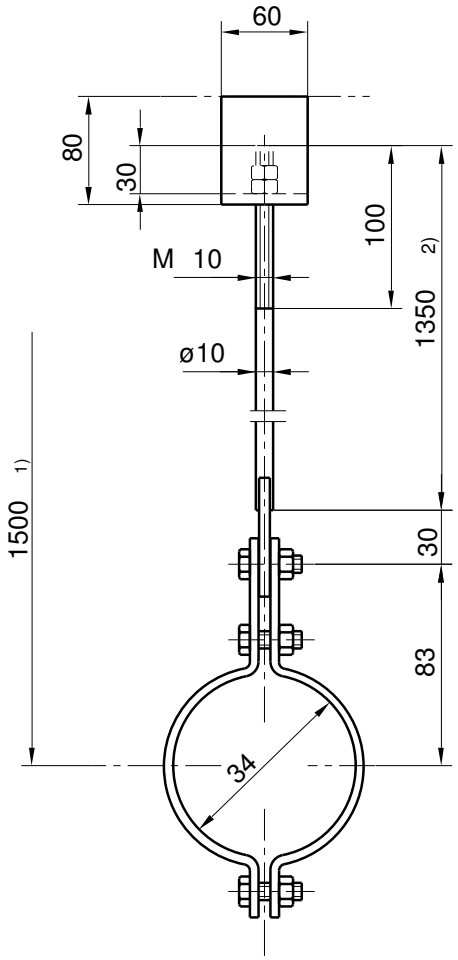
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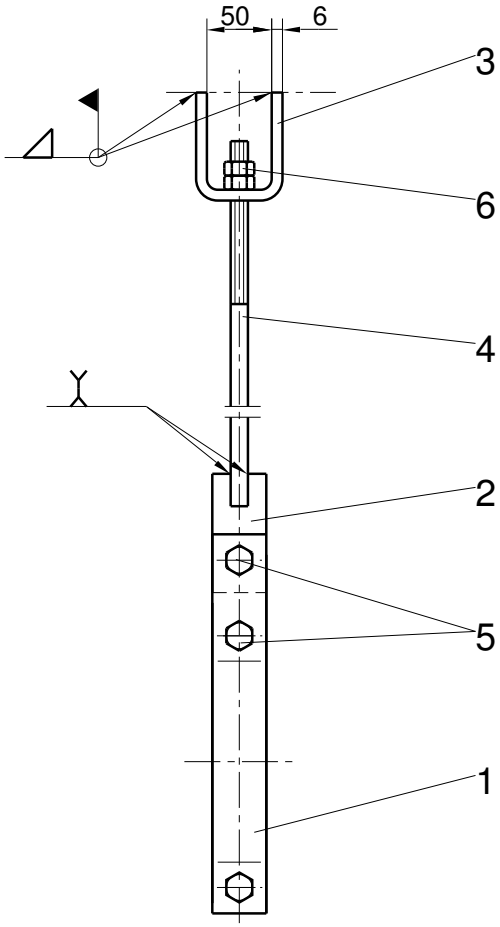
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 25/1500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1350	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 34	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 2,010 kg

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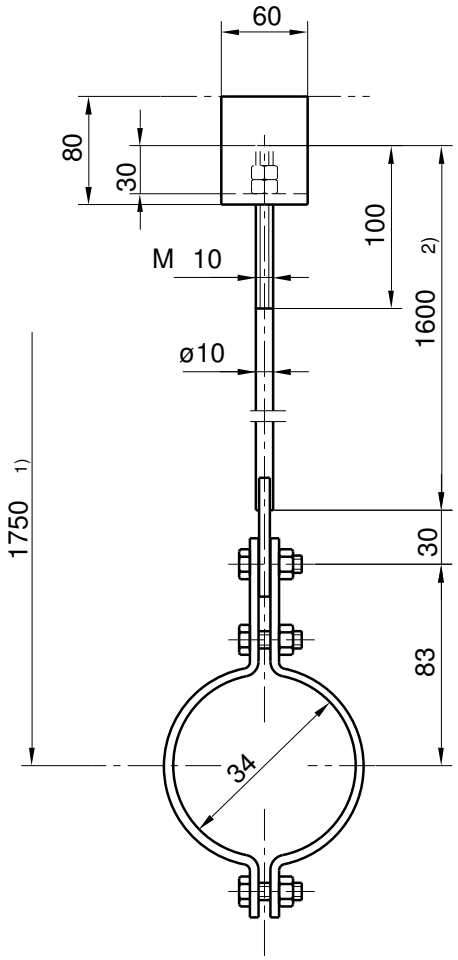
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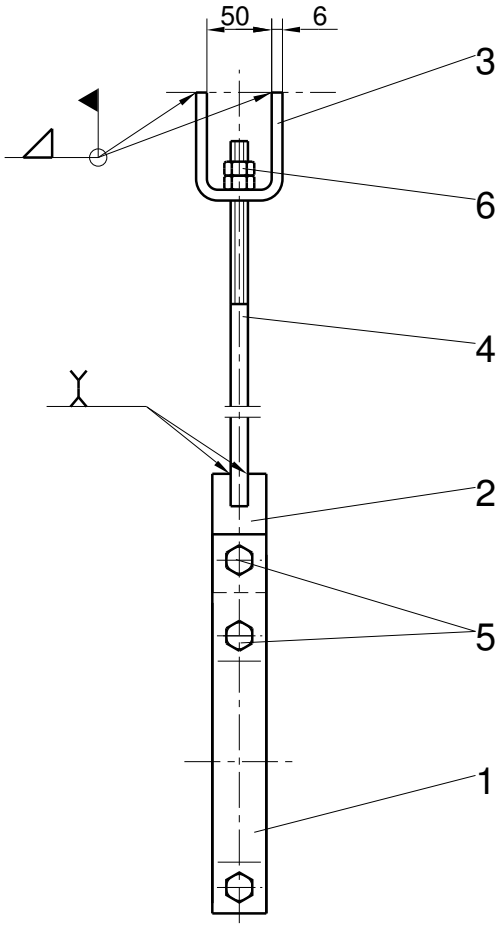
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 25/1750





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1600	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 34	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 2,170 kg

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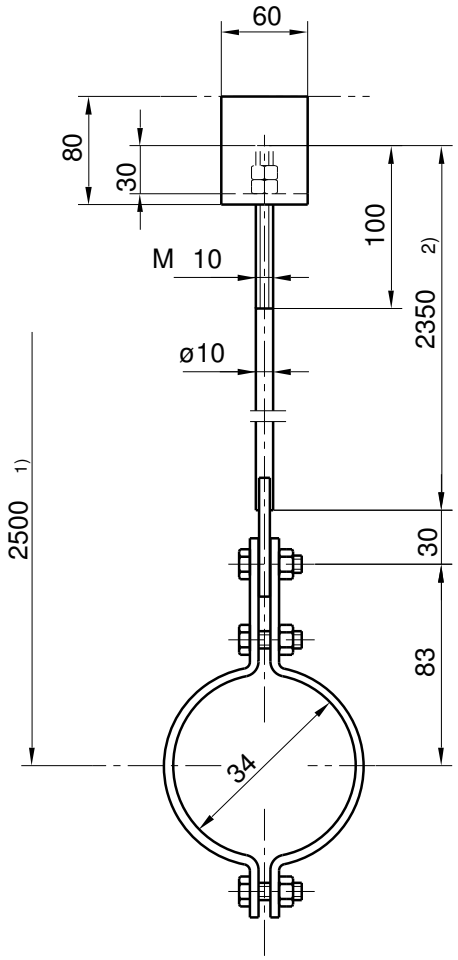
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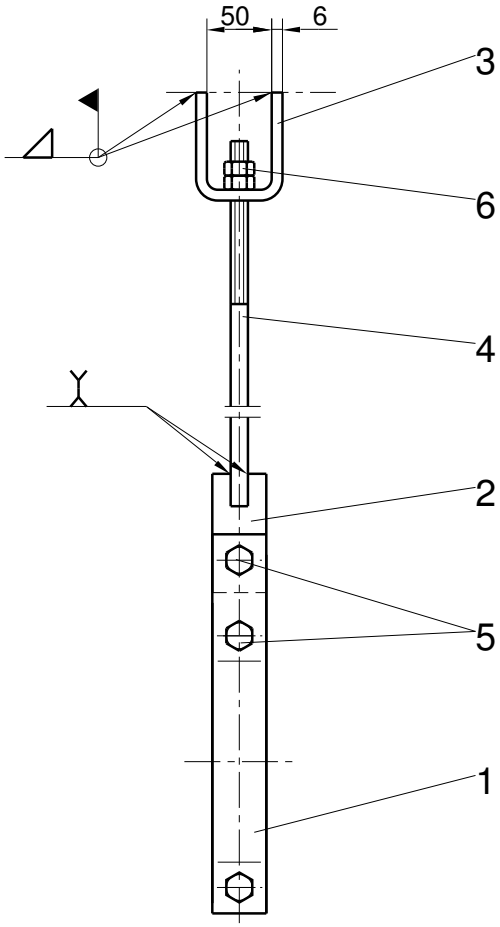
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 25/2500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 2350	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 34	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 2,630 kg

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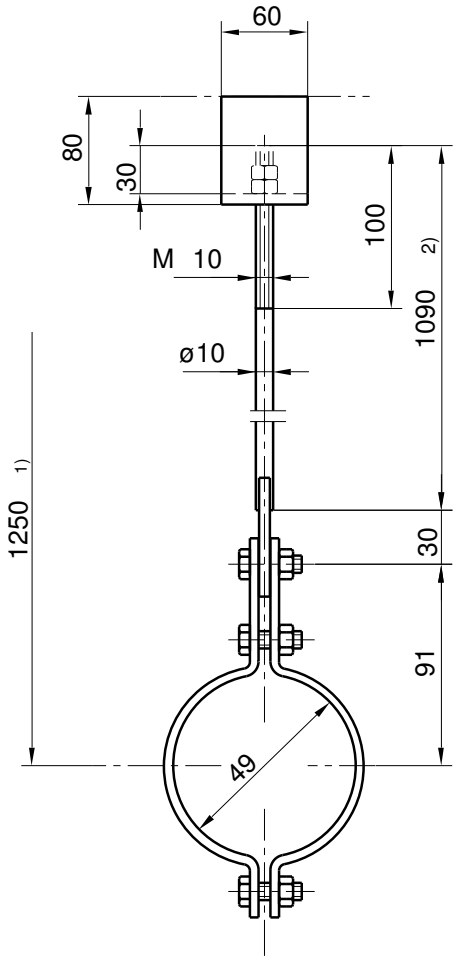
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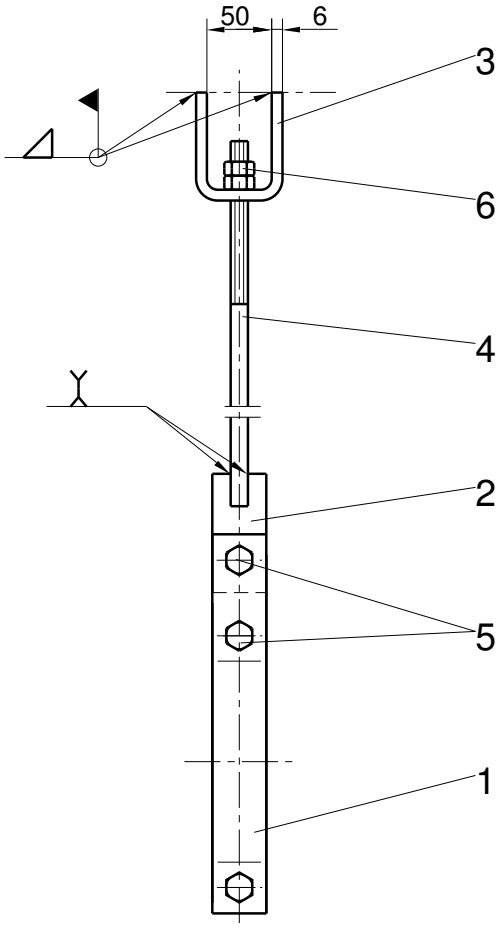
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 40/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1090	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 49	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 1,900 kg

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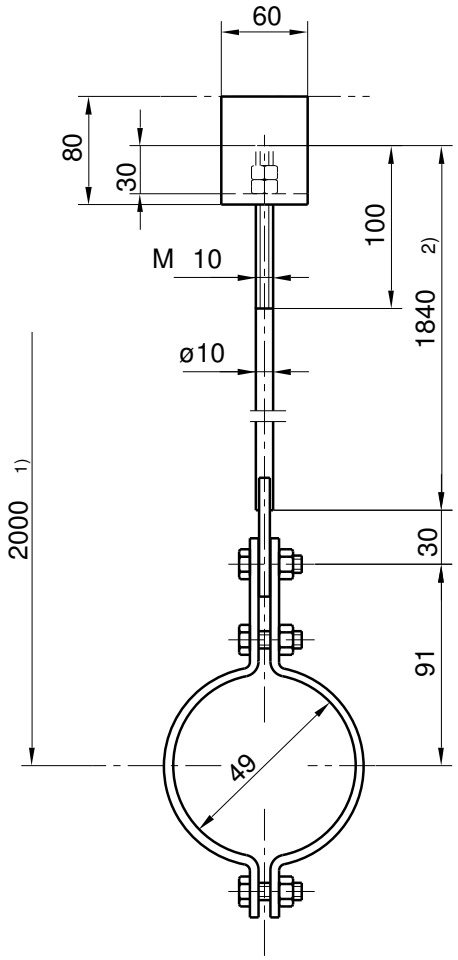
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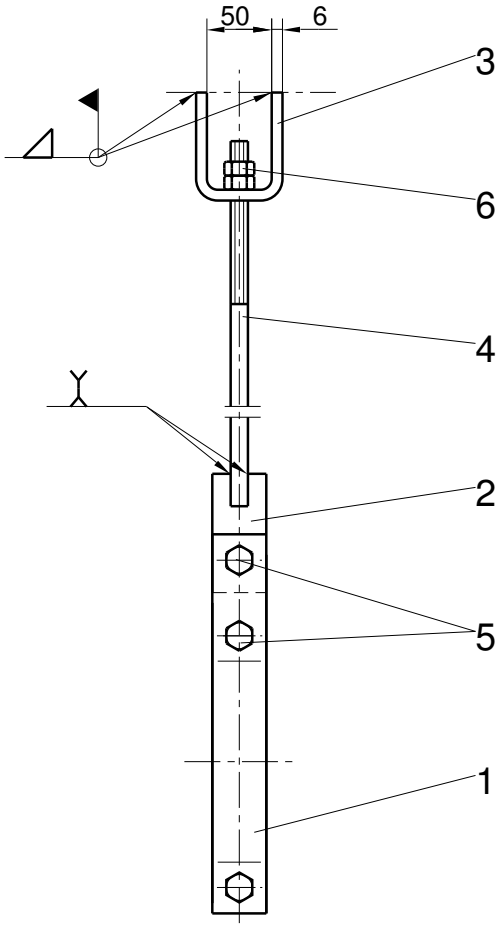
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 40/2000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1840	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 49	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 2,360 kg

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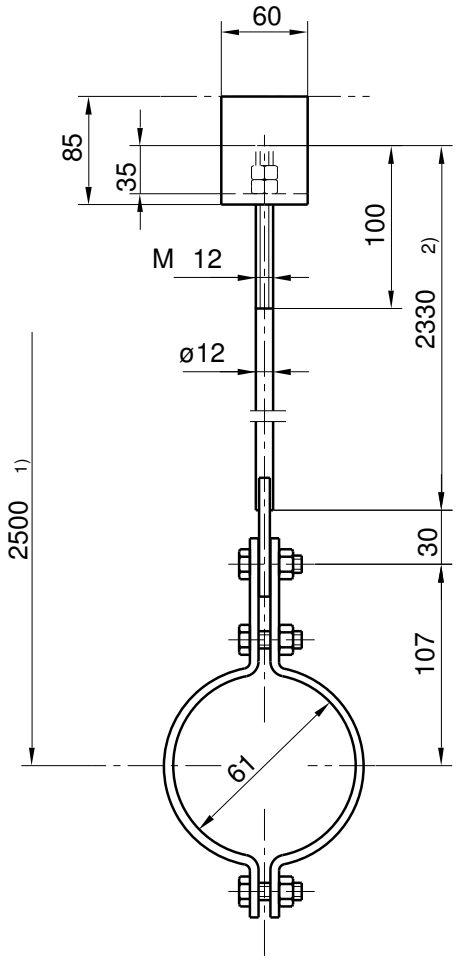
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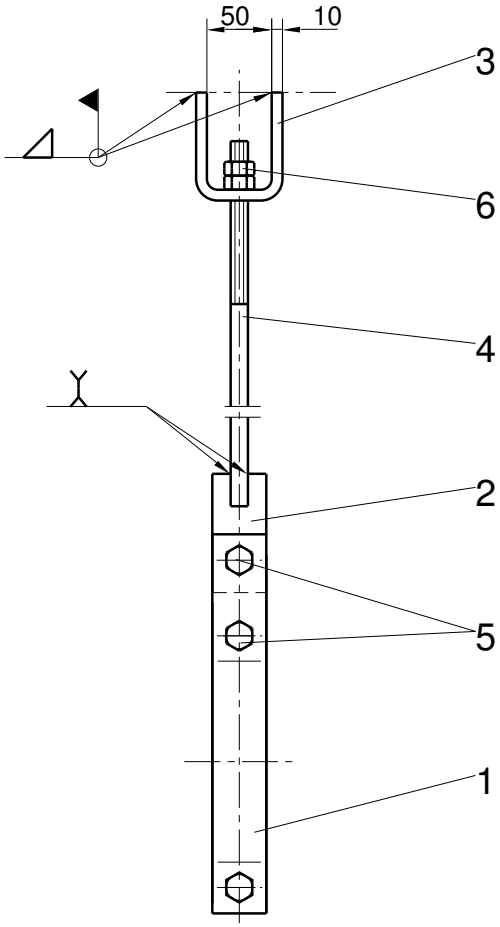
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 50/2500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 2330	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 4,280 kg

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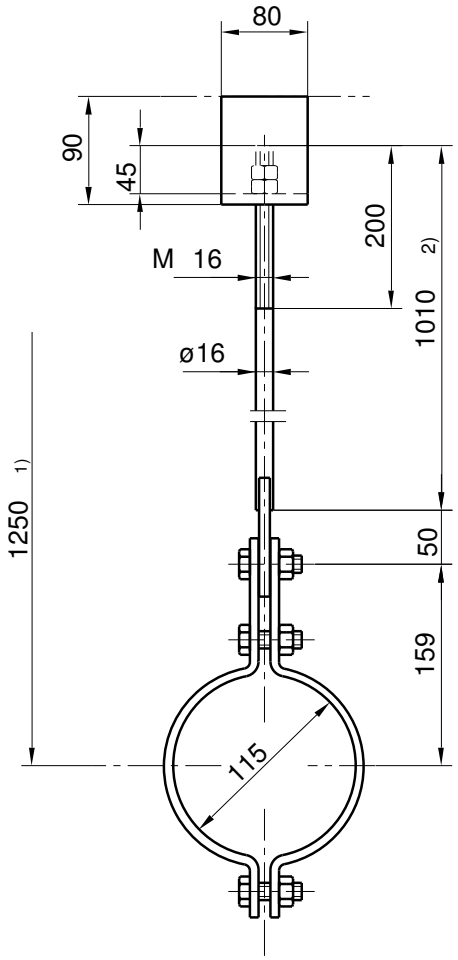
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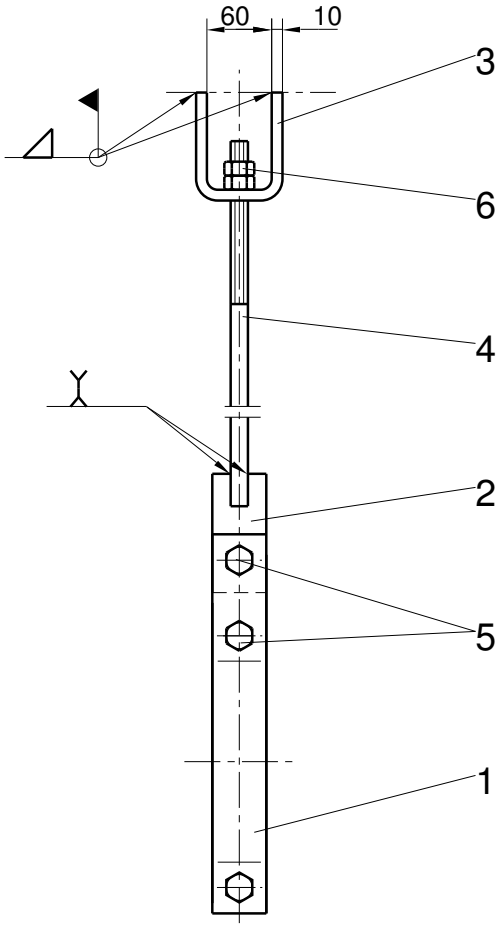
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 100/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1010	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,060 kg

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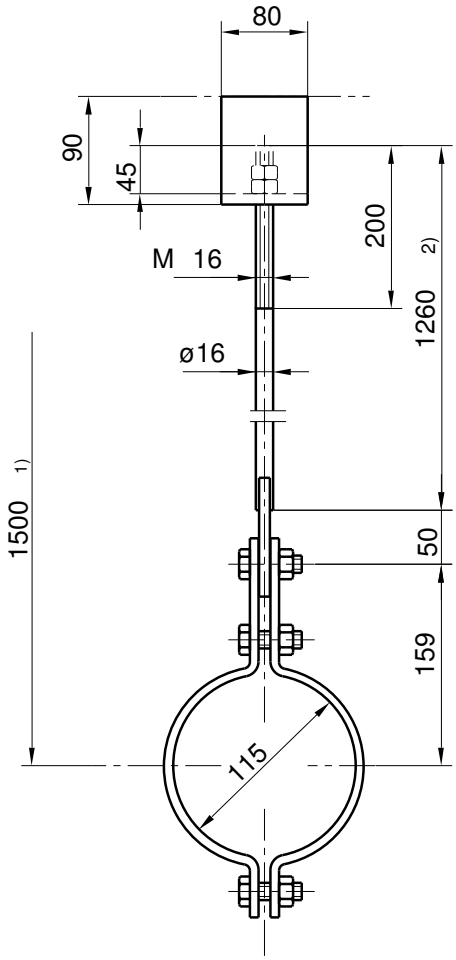
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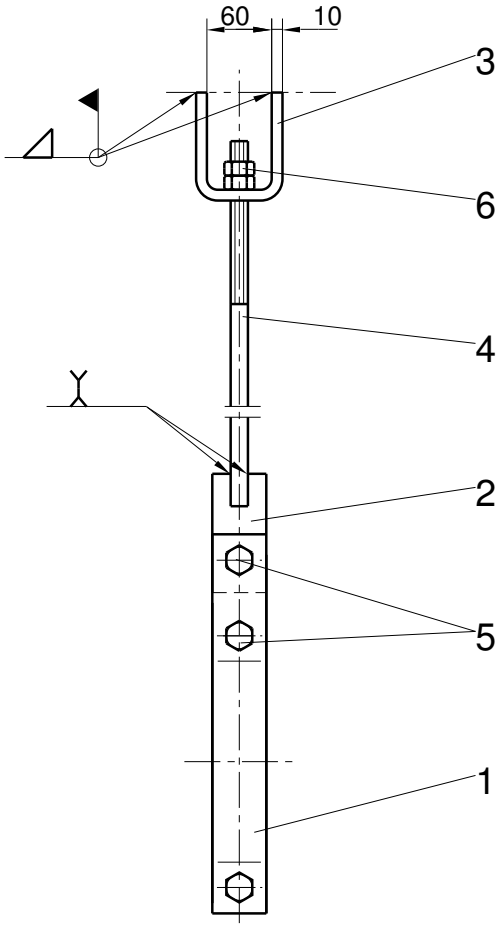
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 100/1500





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1260	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,460 kg

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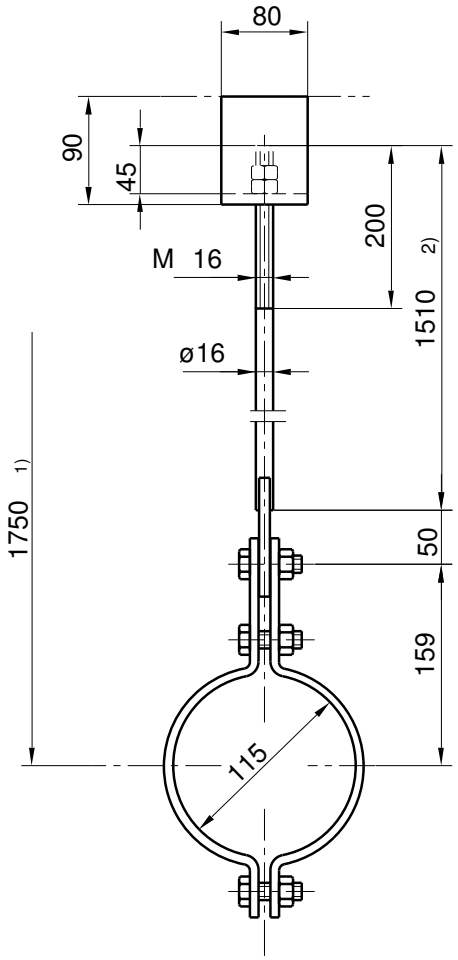
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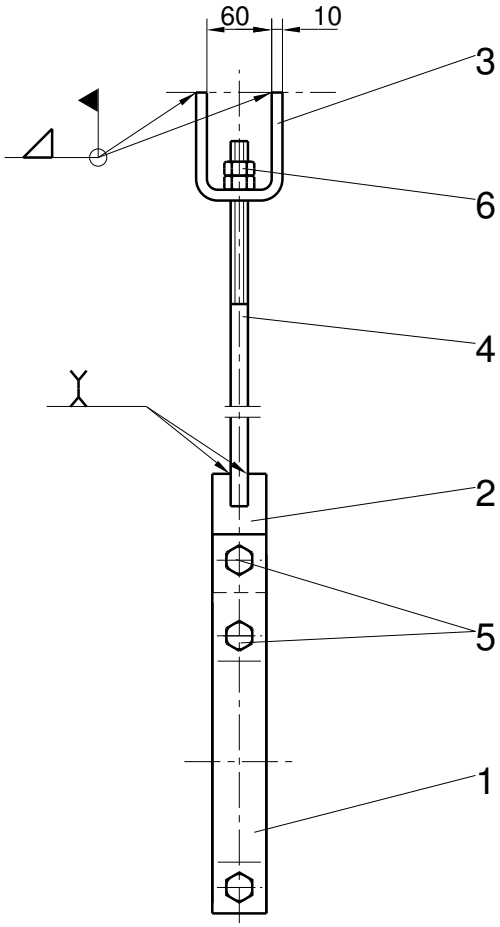
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 100/1750

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1510	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,850 kg

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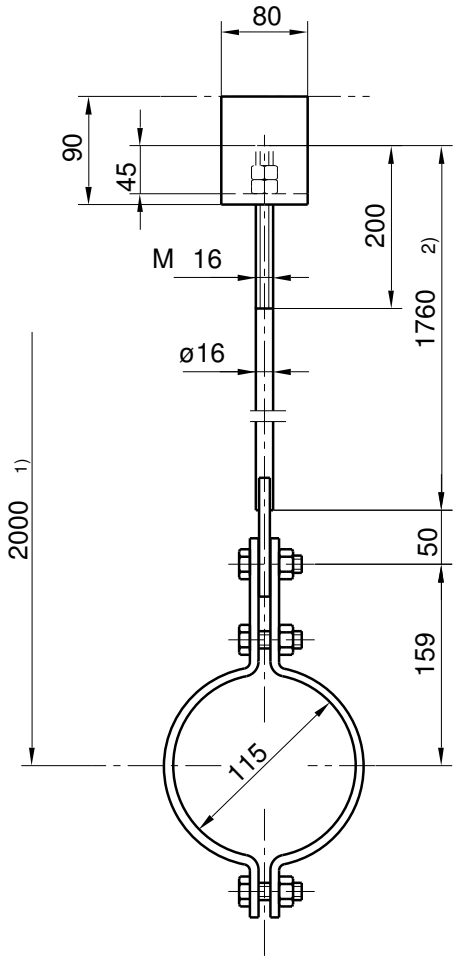
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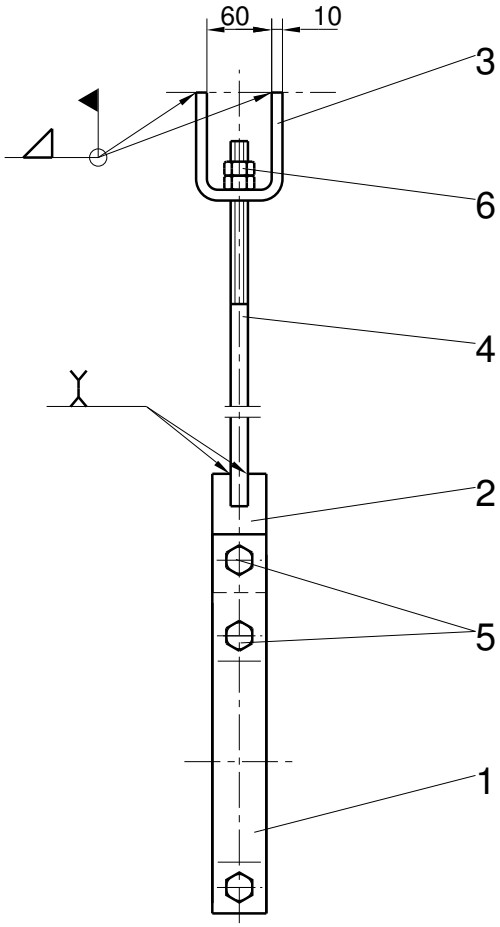
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 100/2000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1760	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 7,340 kg

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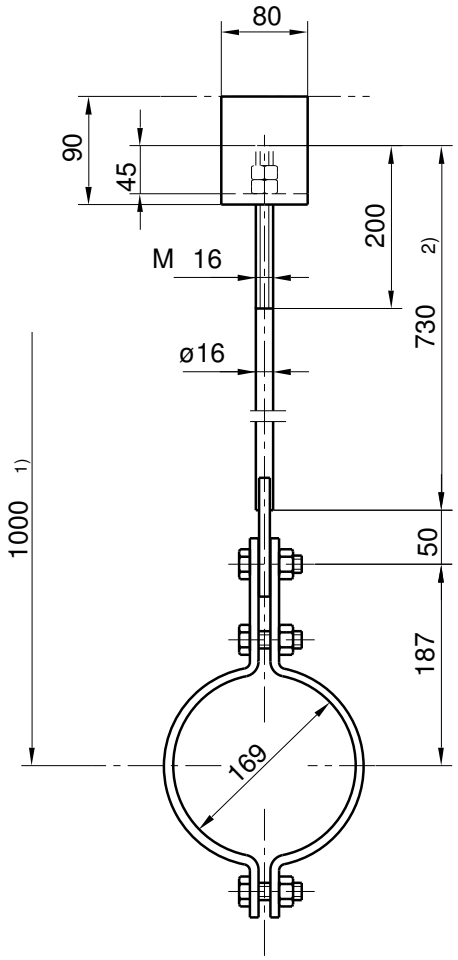
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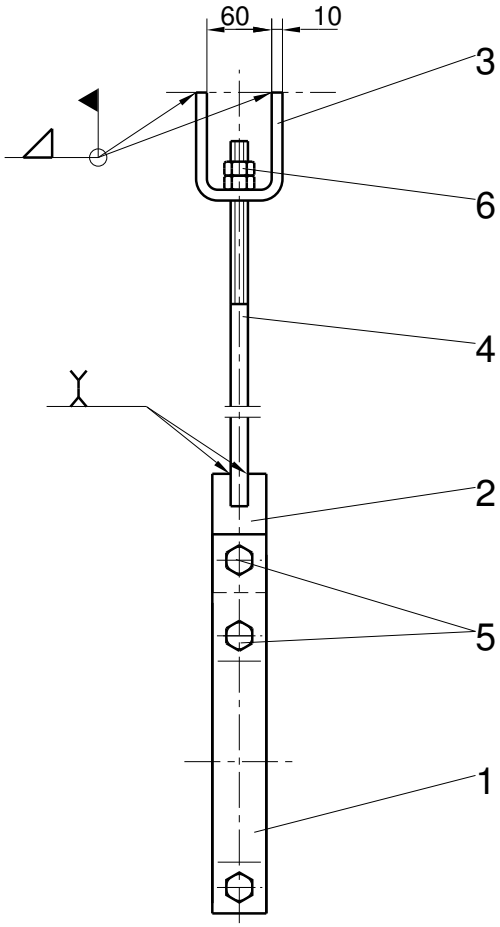
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX003D Marking : 150/1000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 730	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 169	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,160 kg

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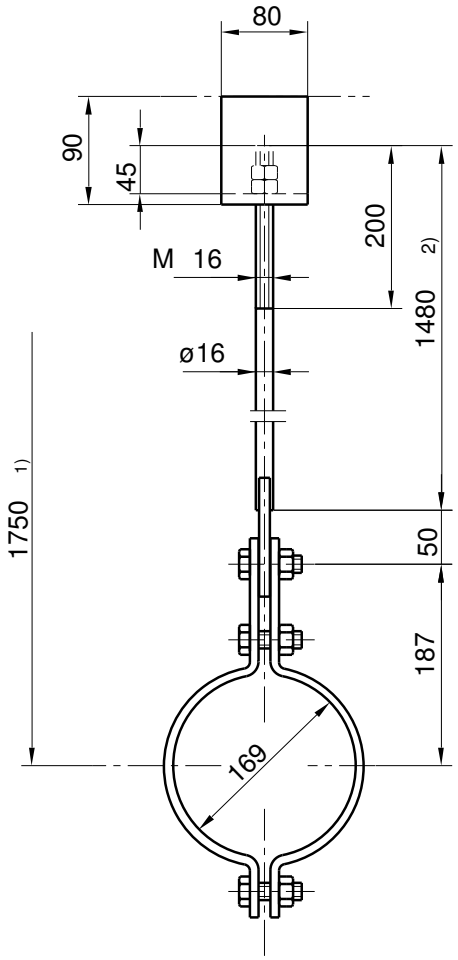
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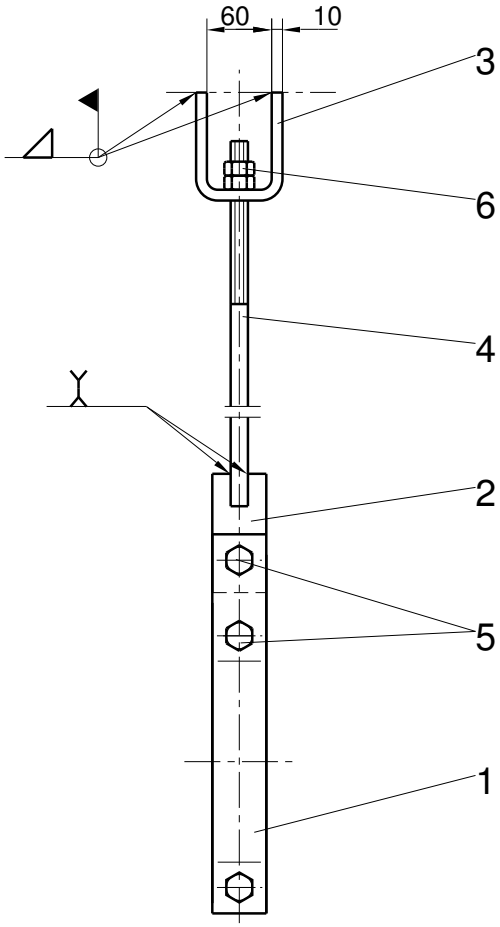
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 150/1750

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1480	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 169	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 7,350 kg

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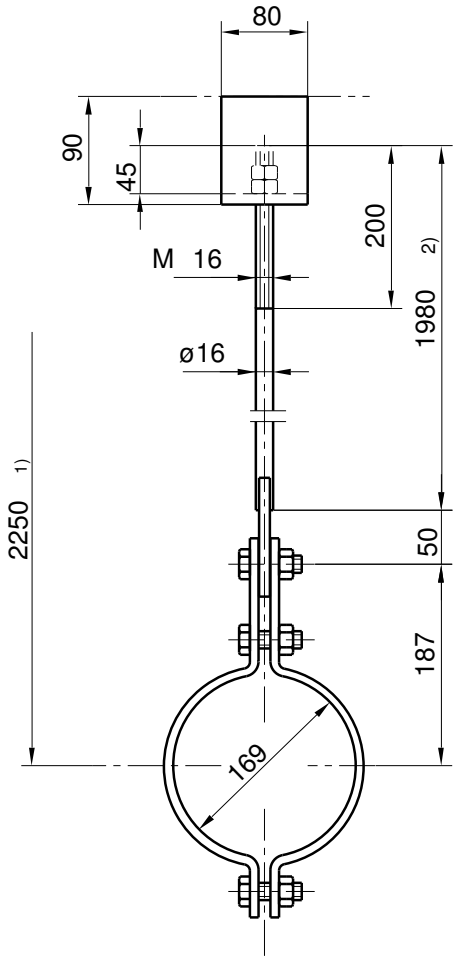
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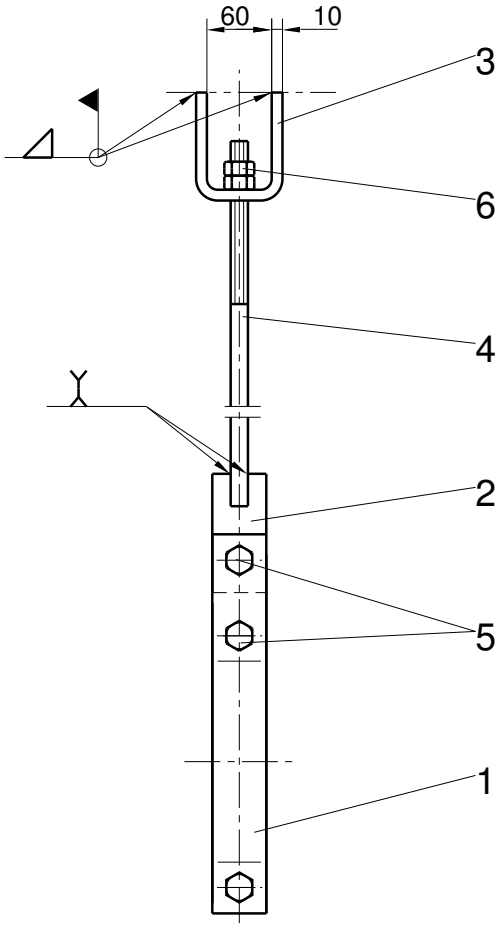
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 150/2250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1980	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 169	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 8,140 kg

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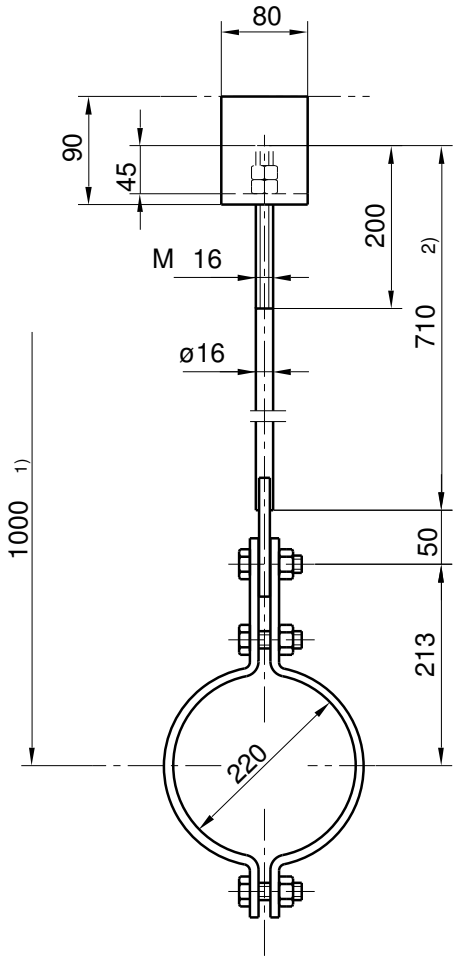
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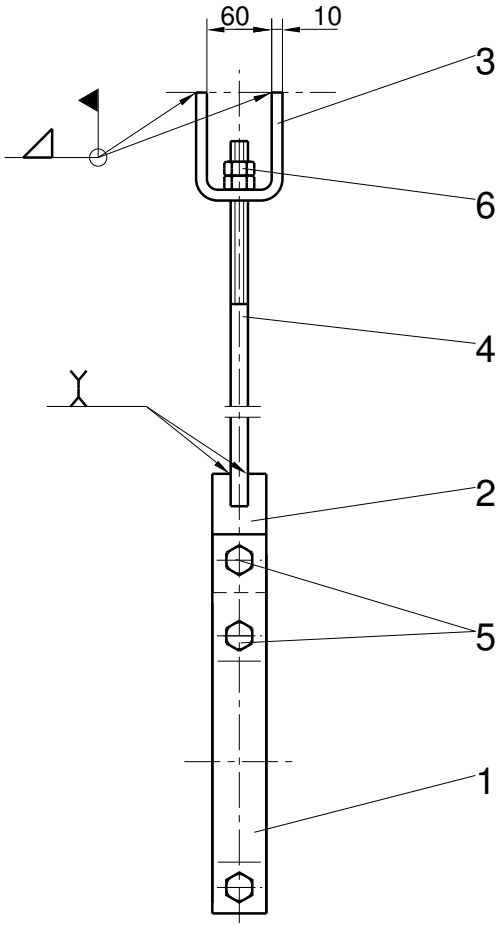
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 200/1000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 710	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 220	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,630 kg

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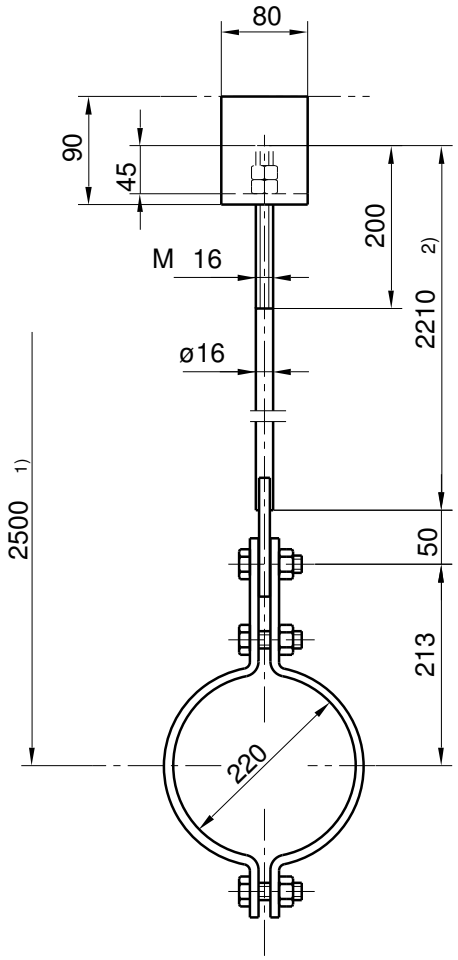
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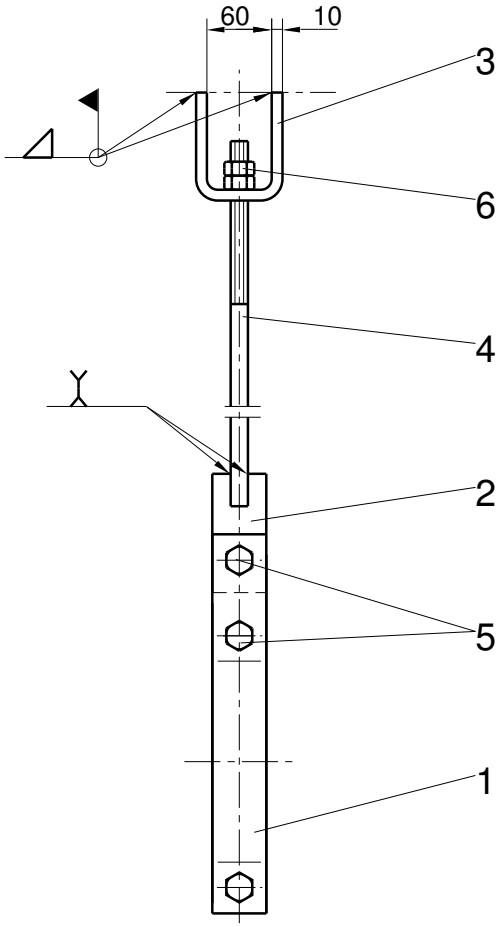
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 200/2500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 2210	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 220	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 9,000 kg

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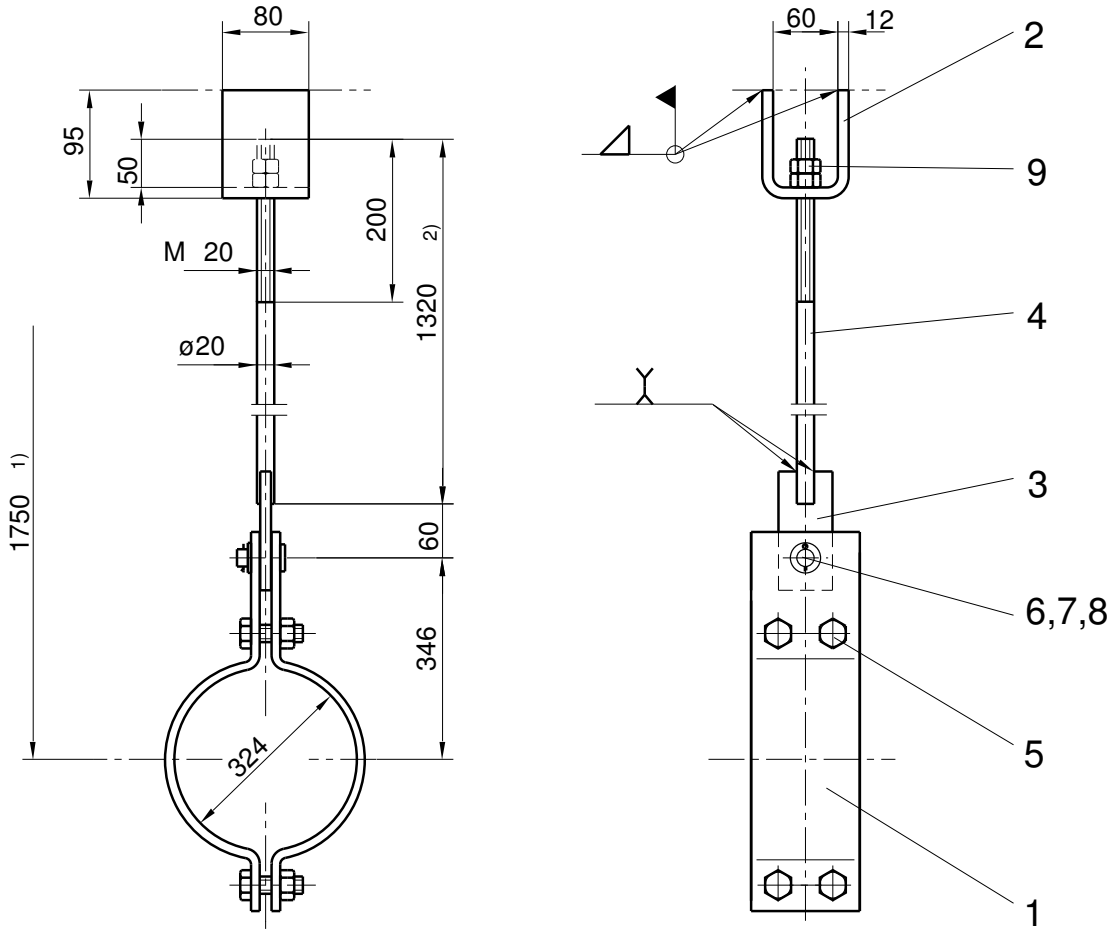
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX004D Marking : 300/1750

U Item



1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 1320	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 324	UN 3790-11	1.0038	MS0071D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 28,560 kg

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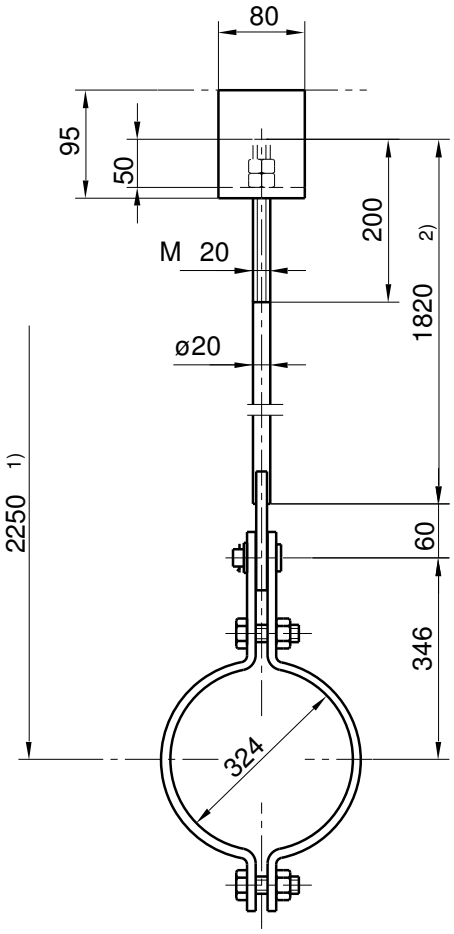
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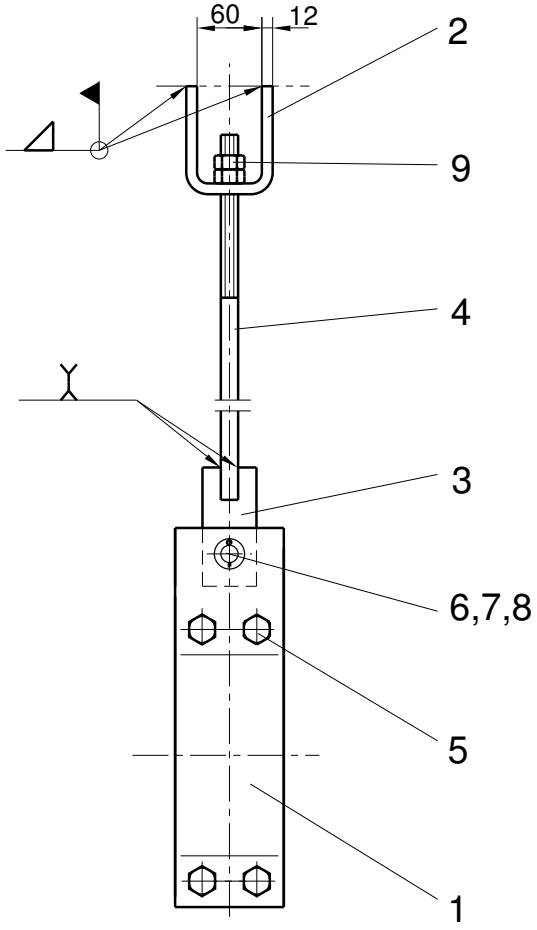
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX004D Marking : 300/2250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 1820	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 324	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 29,790 kg

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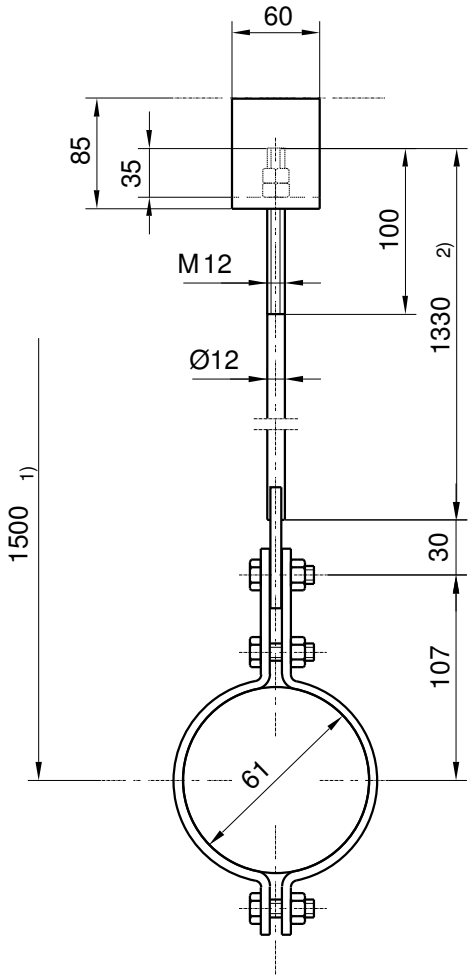
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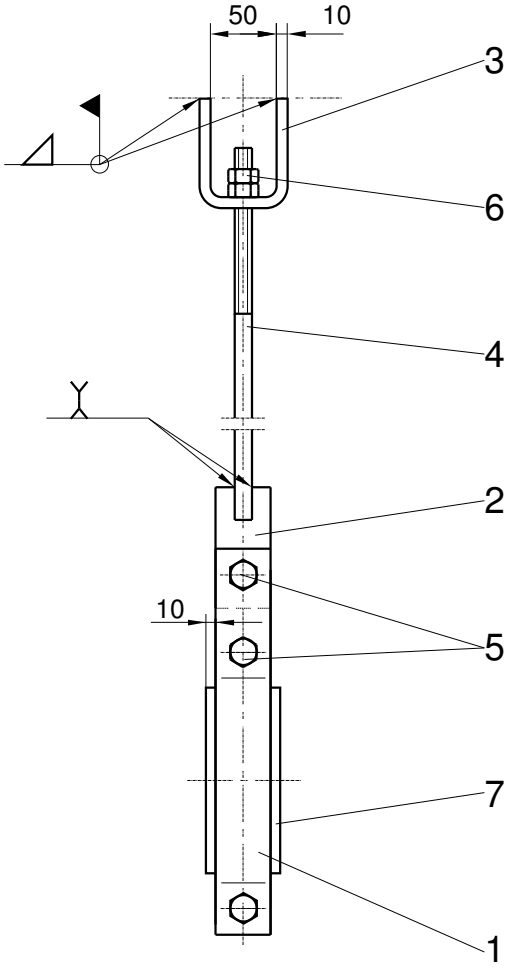
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX053D Marking : 50/1500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	1	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 1330	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 3,440 kg

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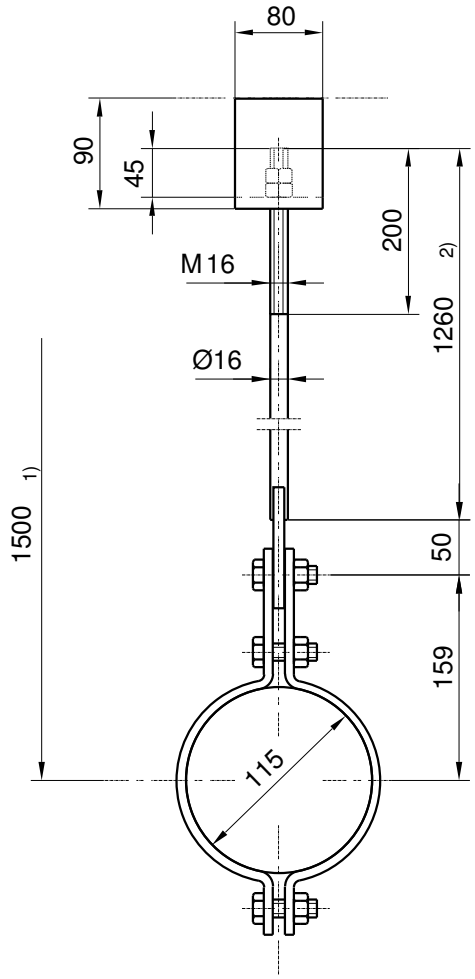
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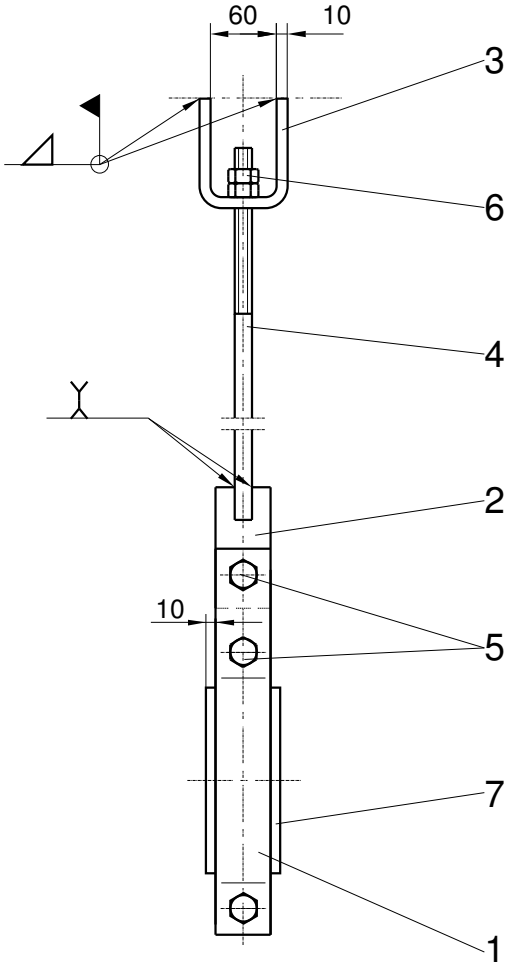
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX053D Marking : 100/1500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1260	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,560 kg

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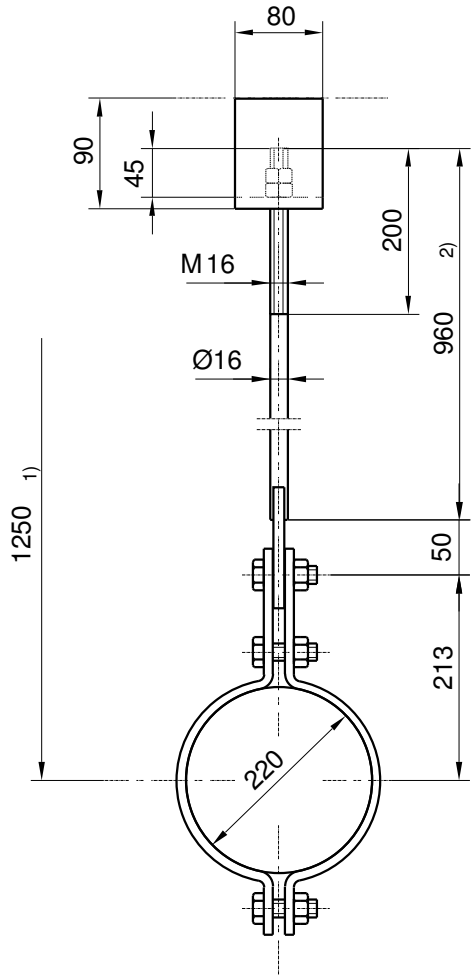
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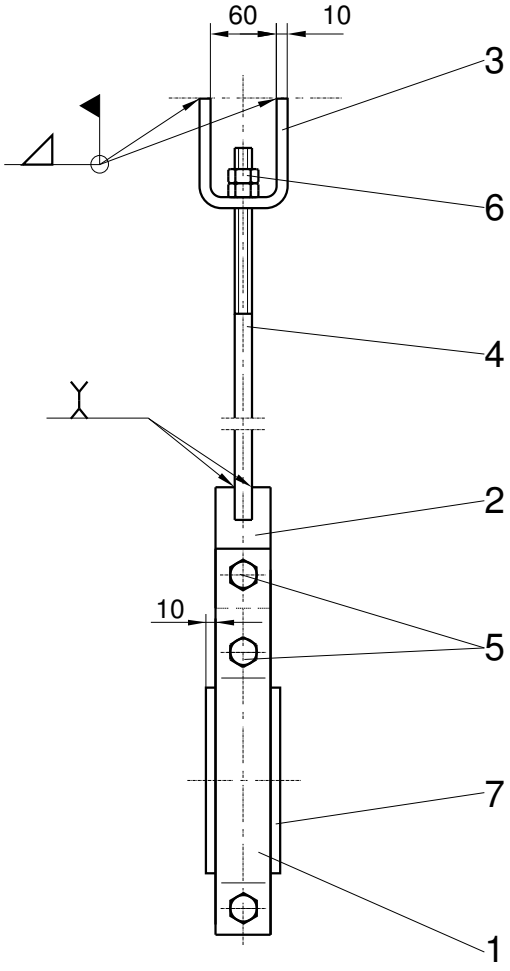
tkIS		Code	Page	UAN	V	L S
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PIPE SUPPORT

Code No.: HAX053D Marking : 200/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	1	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 960	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 220	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 7,230 kg

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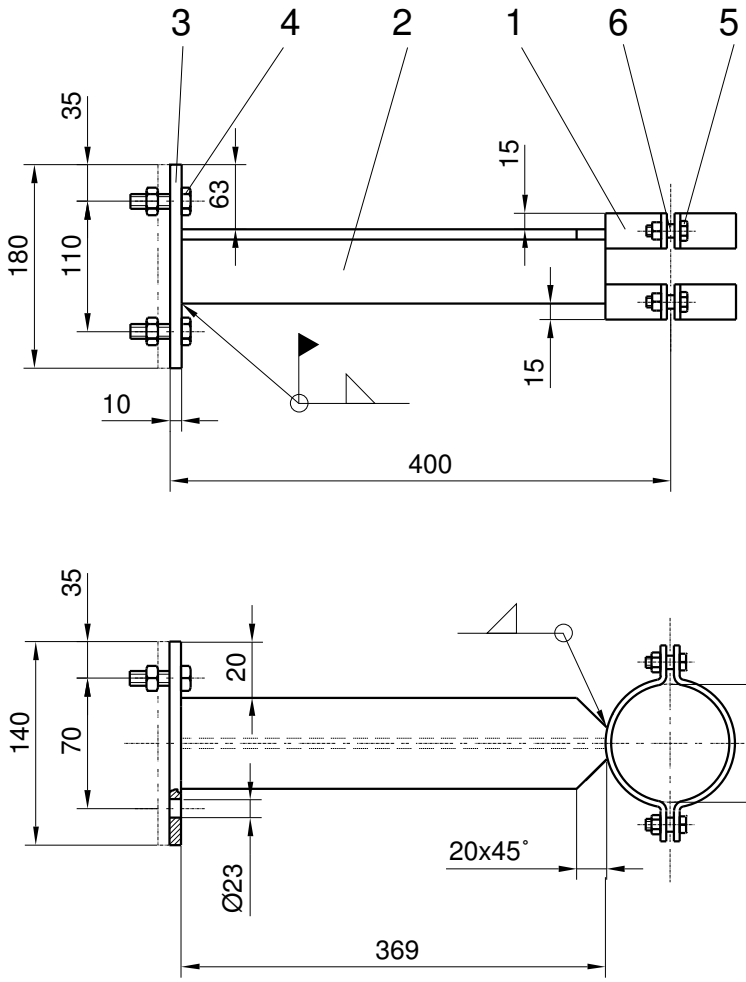
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PIPE SUPPORT

Code No.: KNB001D Marking : 50/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 10	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 369	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,530 kg

1) A193GR.B7/A194GR.2H

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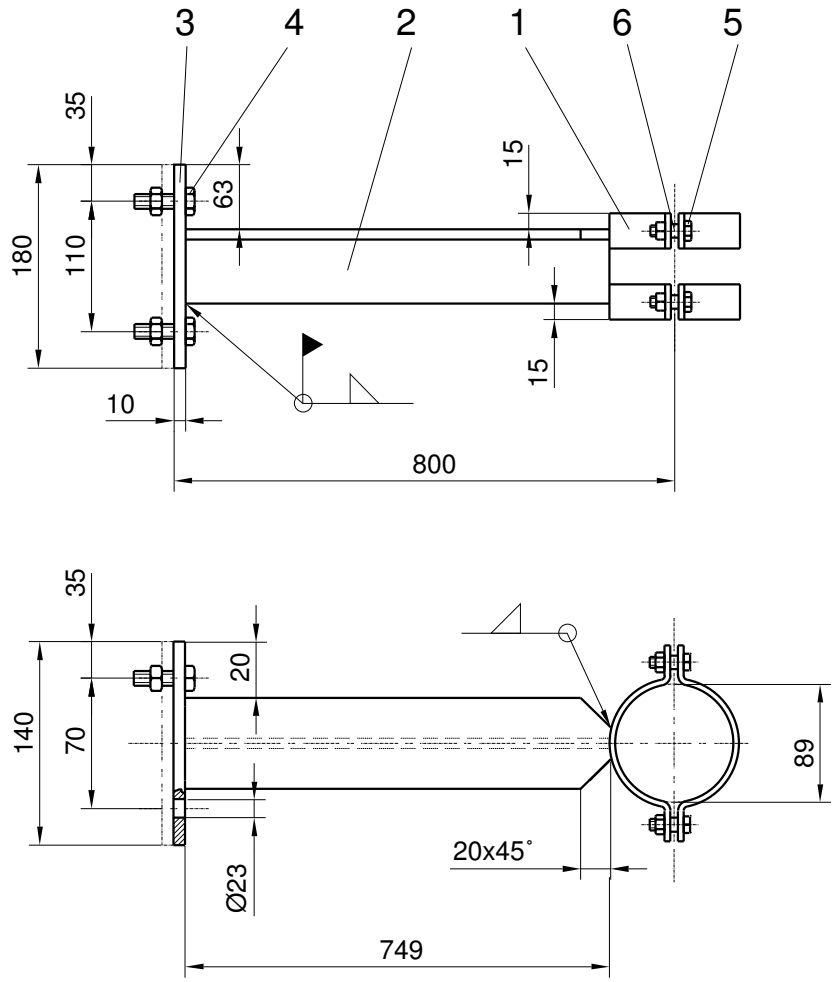
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB001D Marking : 80/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 10	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 749	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 17,070 kg

1) A193GR.B7/A194GR.2H

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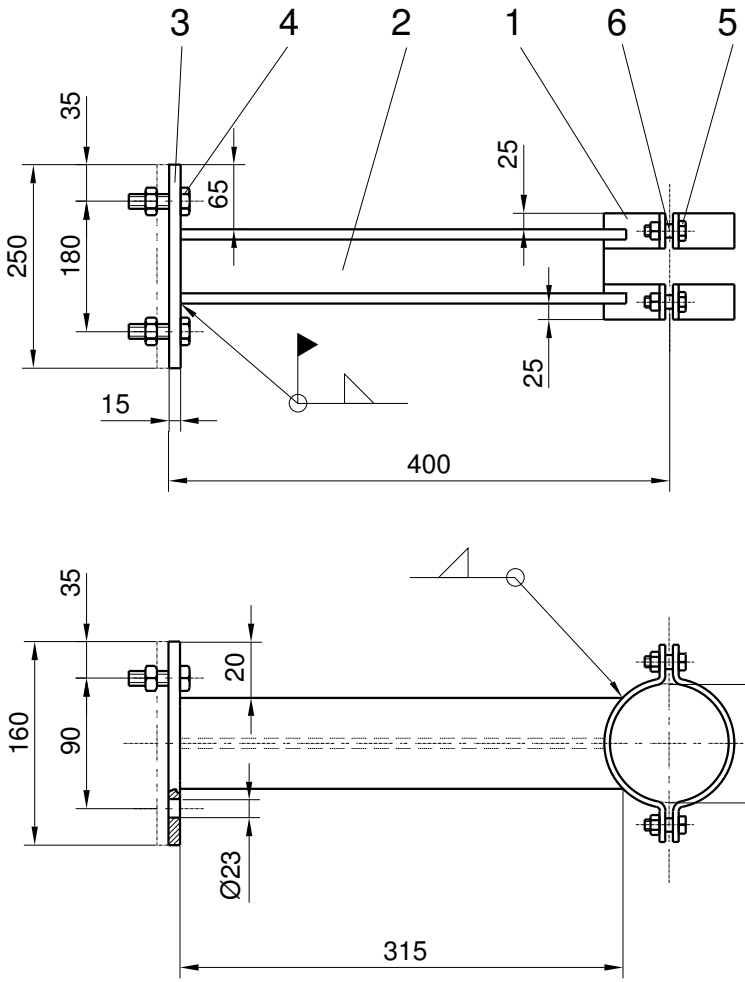
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB003D Marking : 150/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 315	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,210 kg

1) A193GR.B7/A194GR.2H

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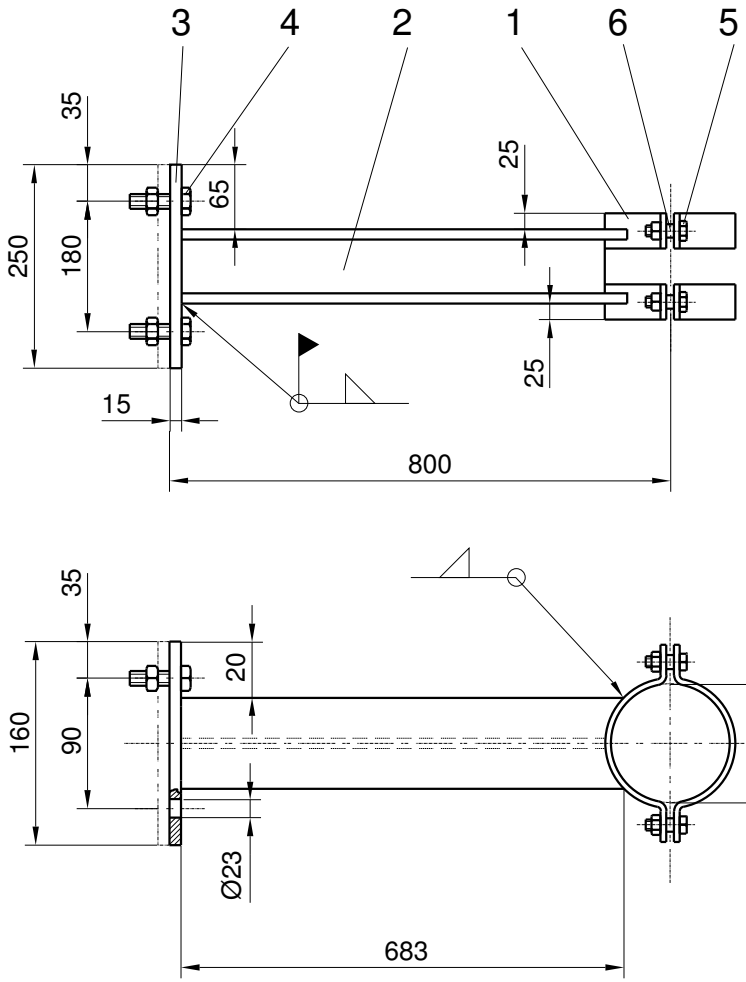
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB003D Marking : 200/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 683	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 30,060 kg

1) A193GR.B7/A194GR.2H

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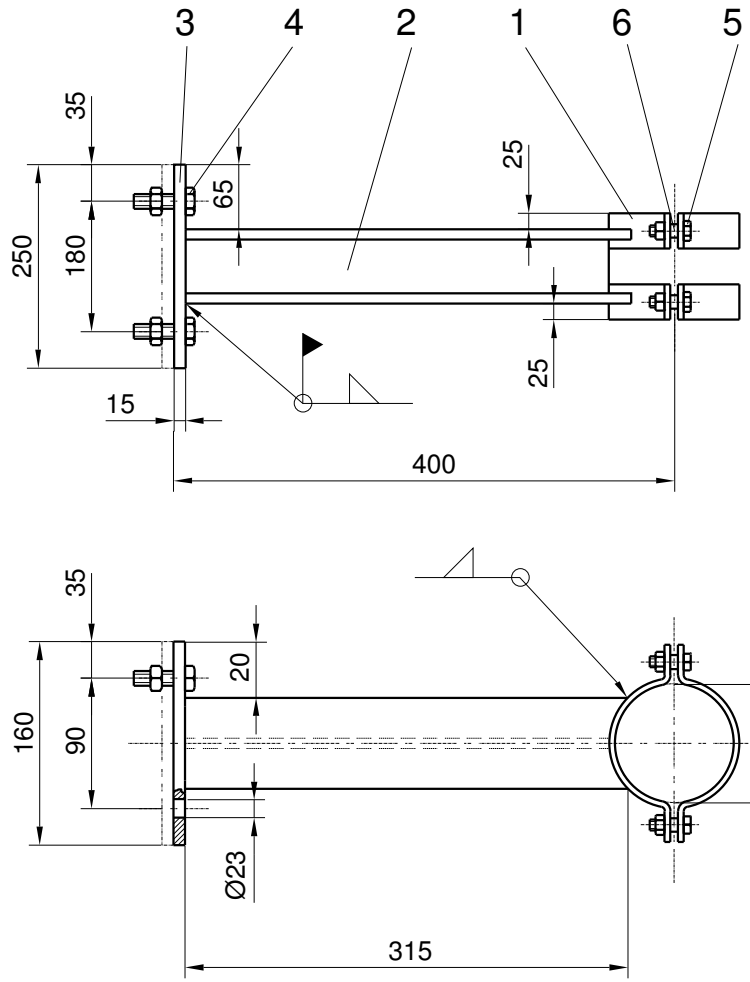
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB053D Marking : 150/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 315	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,210 kg

1) A193GR.B7/A194GR.2H

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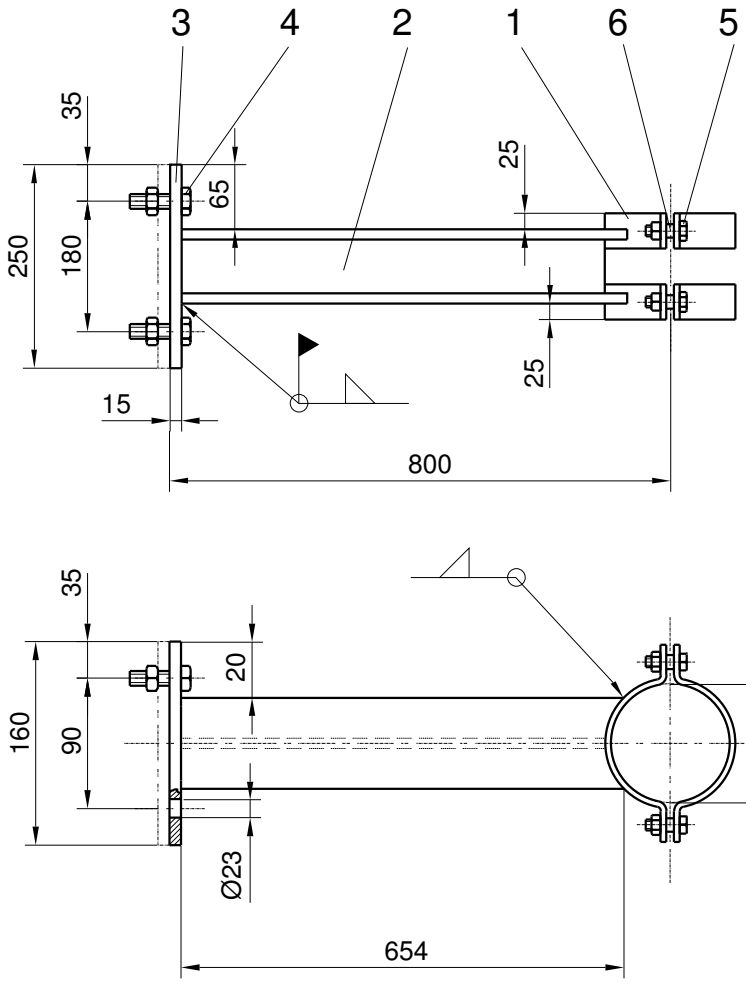
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB053D Marking : 250/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 33,7 x 2,6 x 15	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 654	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 32,400 kg

1) A193GR.B7/A194GR.2H

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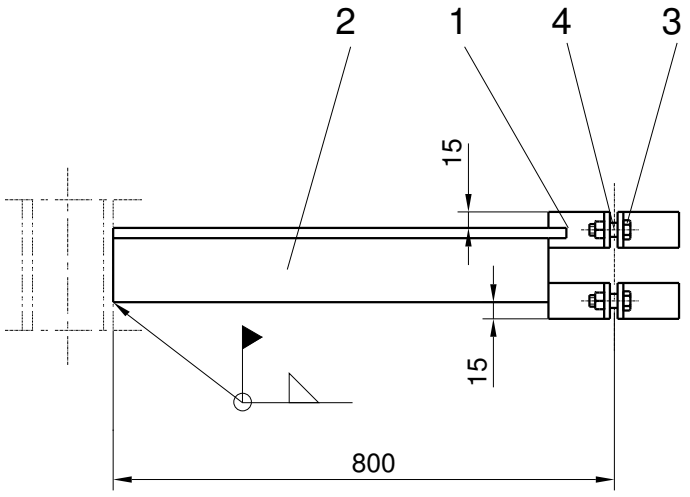
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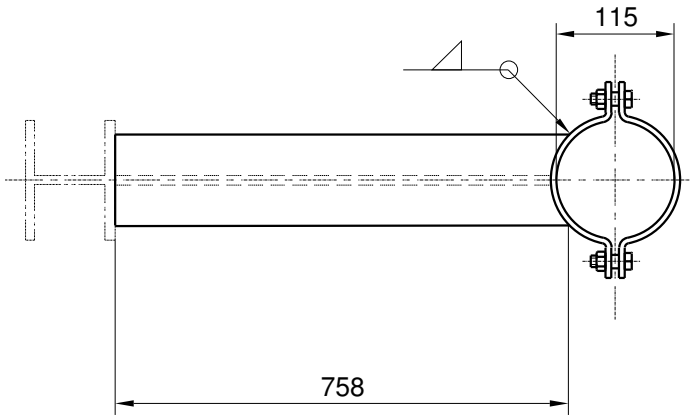
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB902D Marking : 100/800

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 758	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 17,190 kg

1) A193GR.B7/A194GR.2H

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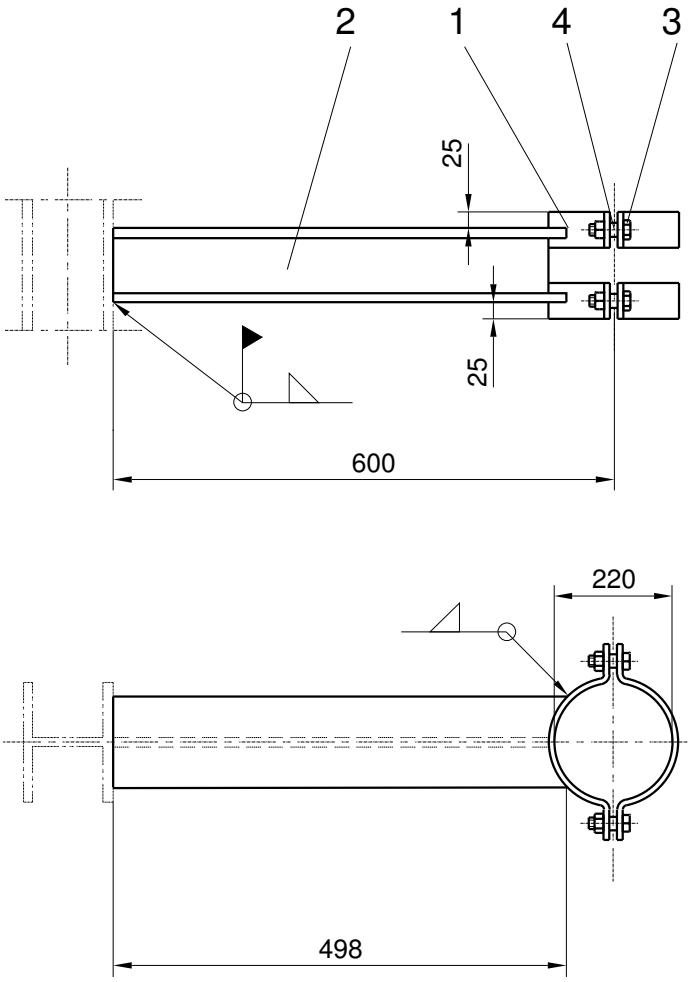
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PIPE SUPPORT

Code No.: KNB903D Marking : 200/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 498	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,000 kg

1) A193GR.B7/A194GR.2H

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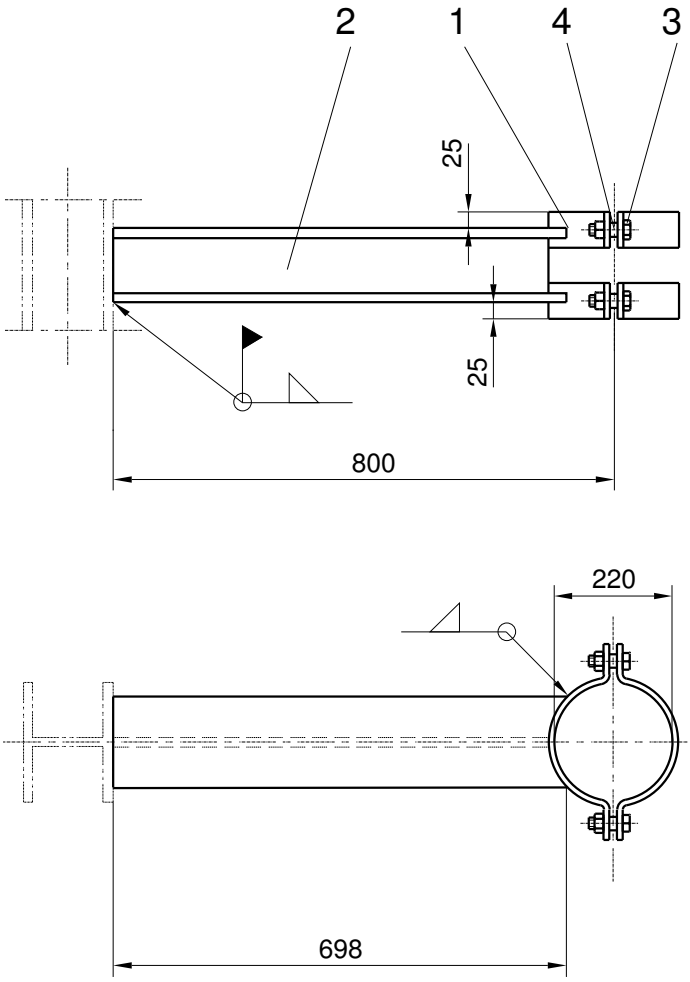
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PIPE SUPPORT

Code No.: KNB903D Marking : 200/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 698	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 25,340 kg

1) A193GR.B7/A194GR.2H

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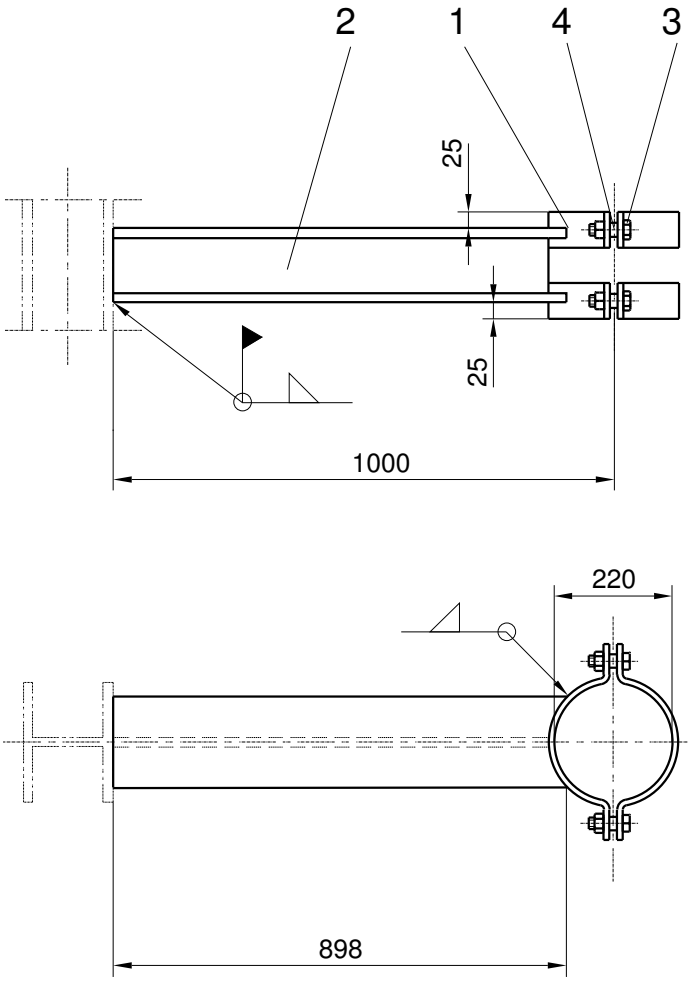
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB903D Marking : 200/1000

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 898	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 30,680 kg

1) A193GR.B7/A194GR.2H

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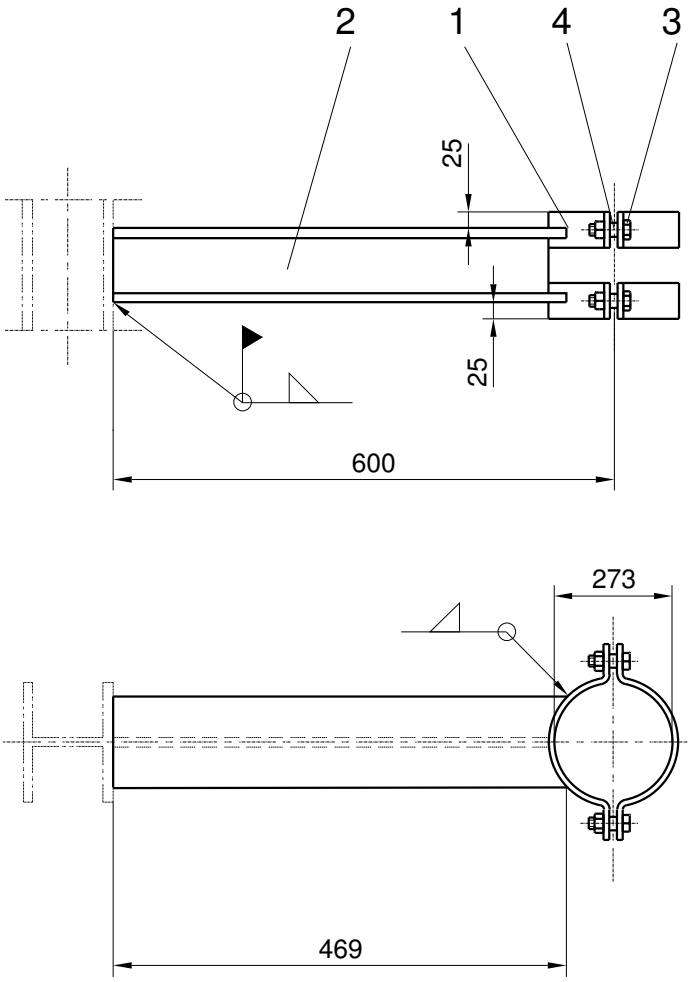
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB903D Marking : 250/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 33,7 x 2,6 x 15	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 469	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 22,340 kg

1) A193GR.B7/A194GR.2H

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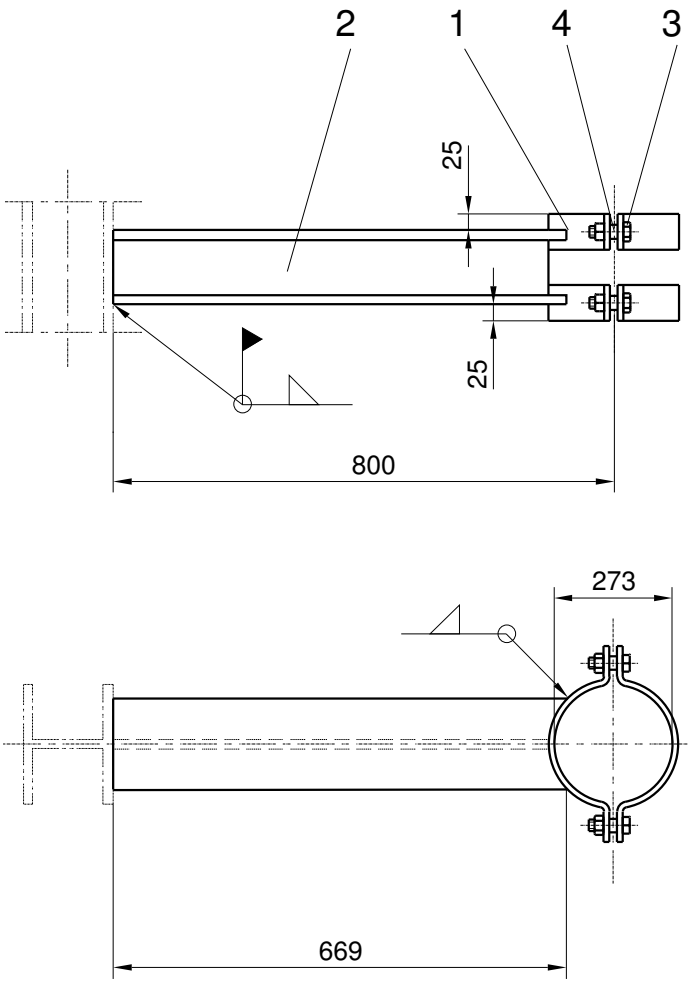
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB903D Marking : 250/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 33,7 x 2,6 x 15	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 669	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 27,680 kg

1) A193GR.B7/A194GR.2H

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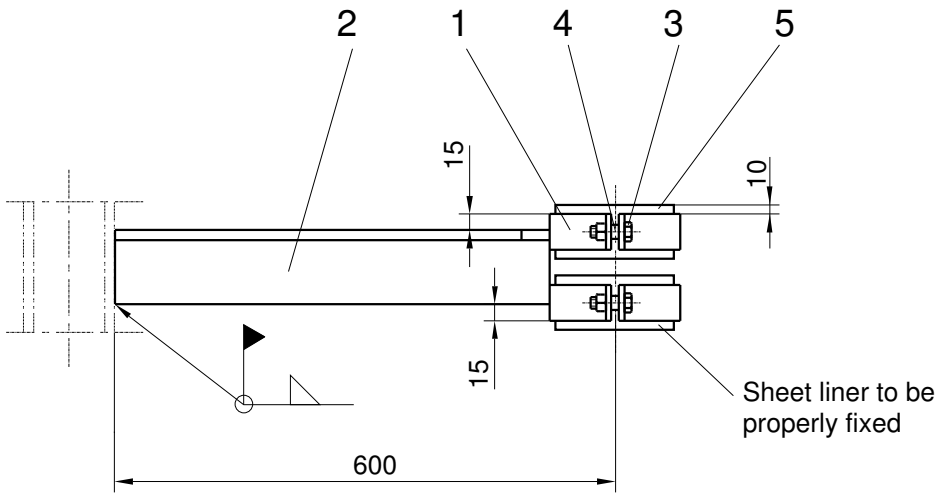
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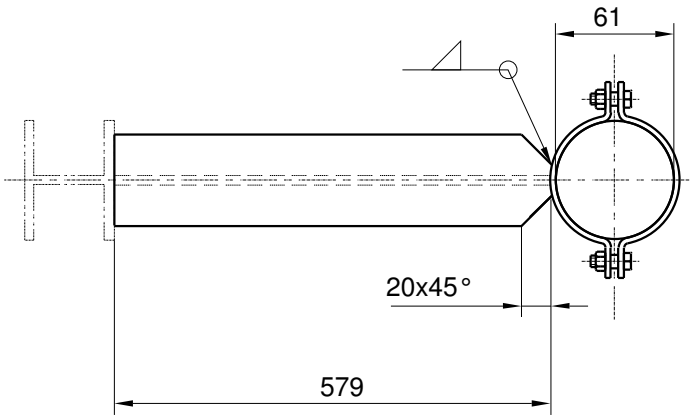
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB951D Marking : 50/600

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 579	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,830 kg

1) A193GR.B7/A194GR.2H

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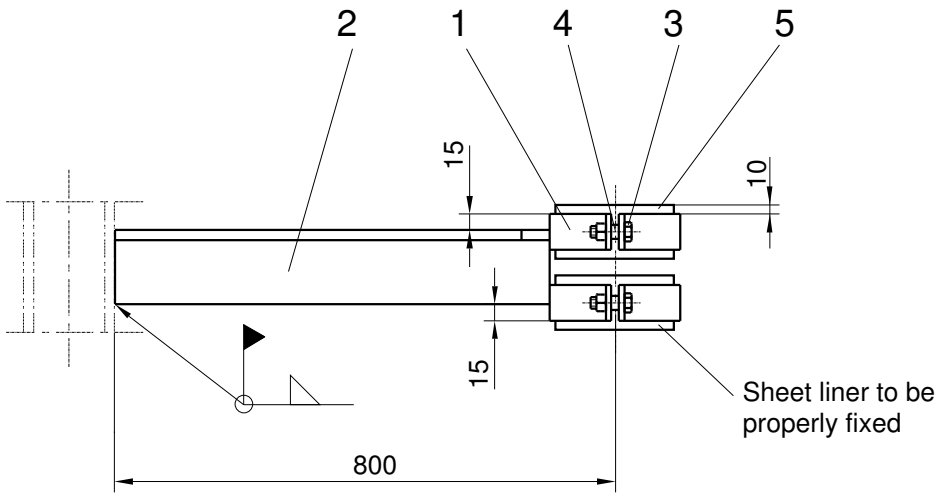
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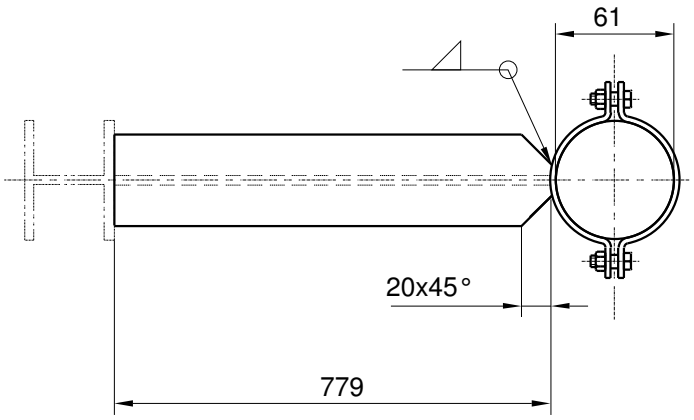
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB951D Marking : 50/800

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 779	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,110 kg

1) A193GR.B7/A194GR.2H

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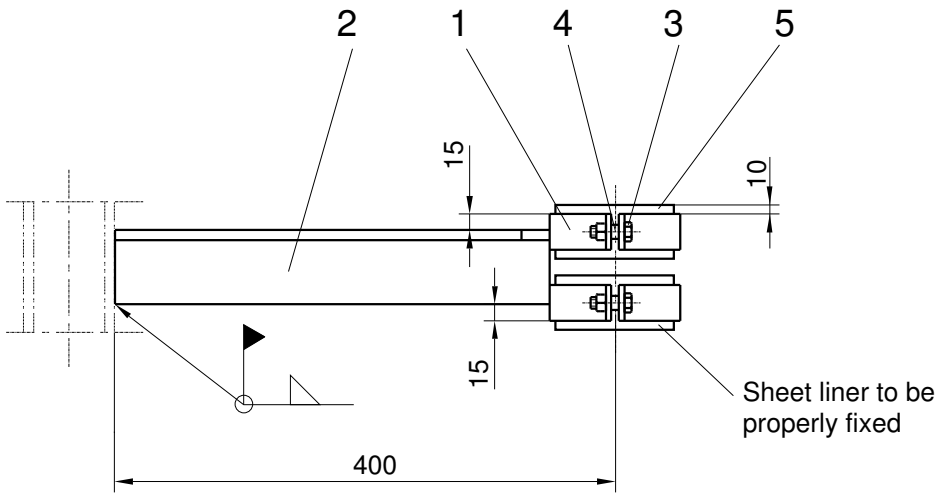
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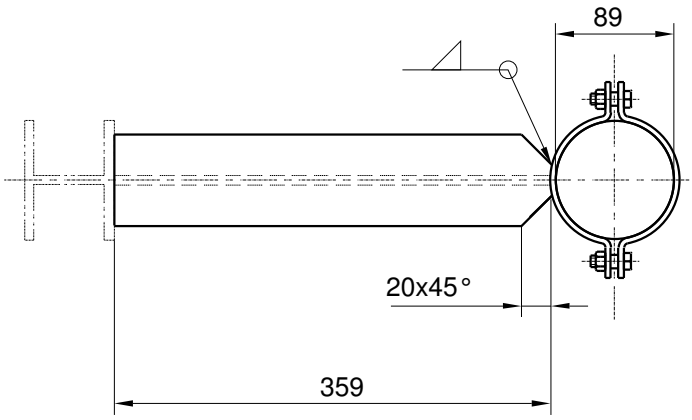
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PIPE SUPPORT

Code No.: KNB951D Marking : 80/400

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 60 x 295	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 359	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,530 kg

1) A193GR.B7/A194GR.2H

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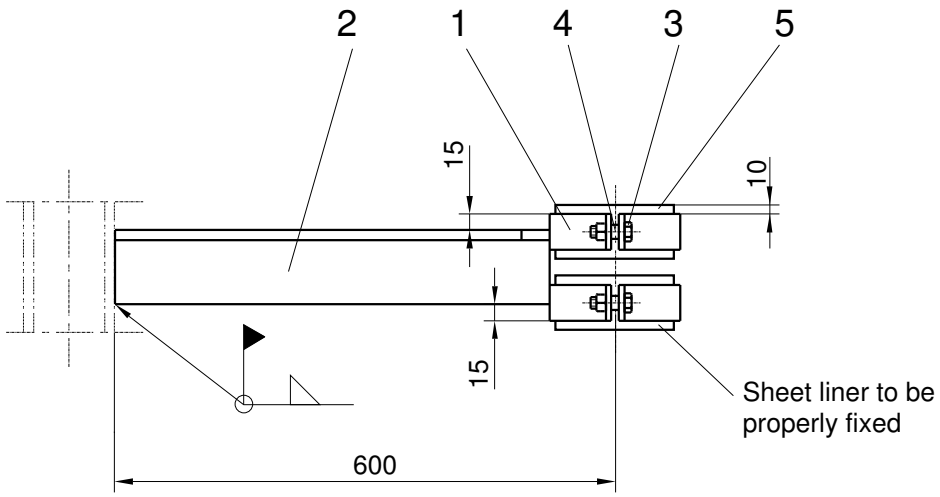
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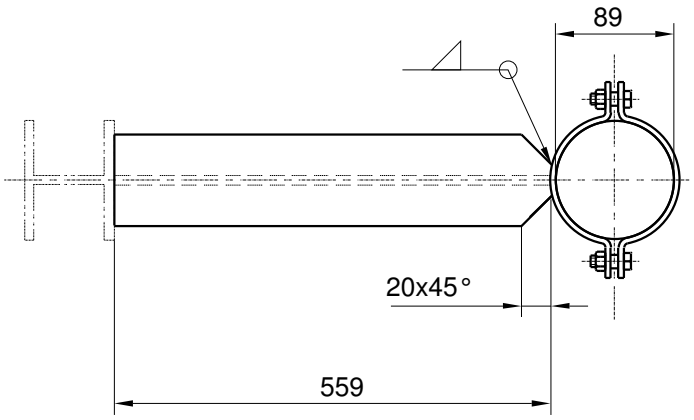
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB951D Marking : 80/600

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 60 x 295	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 559	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,810 kg

1) A193GR.B7/A194GR.2H

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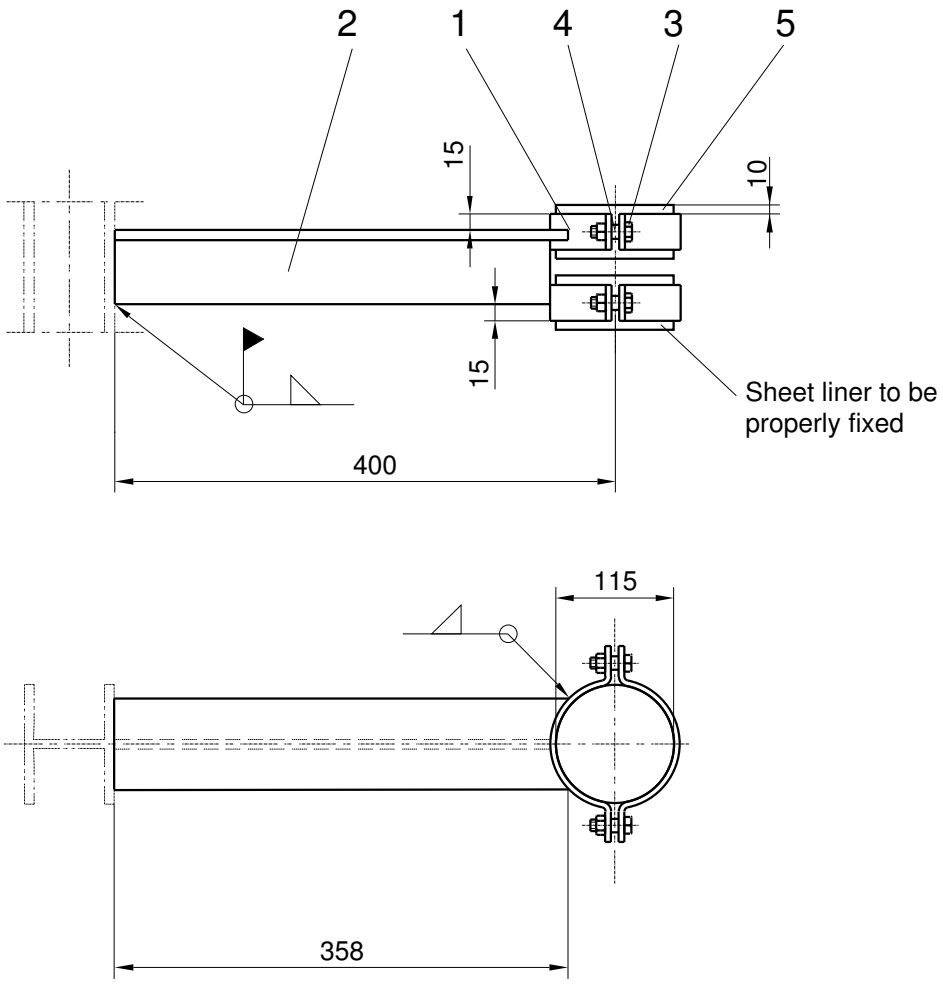
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB952D Marking : 100/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 14	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 358	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,630 kg

1) A193GR.B7/A194GR.2H

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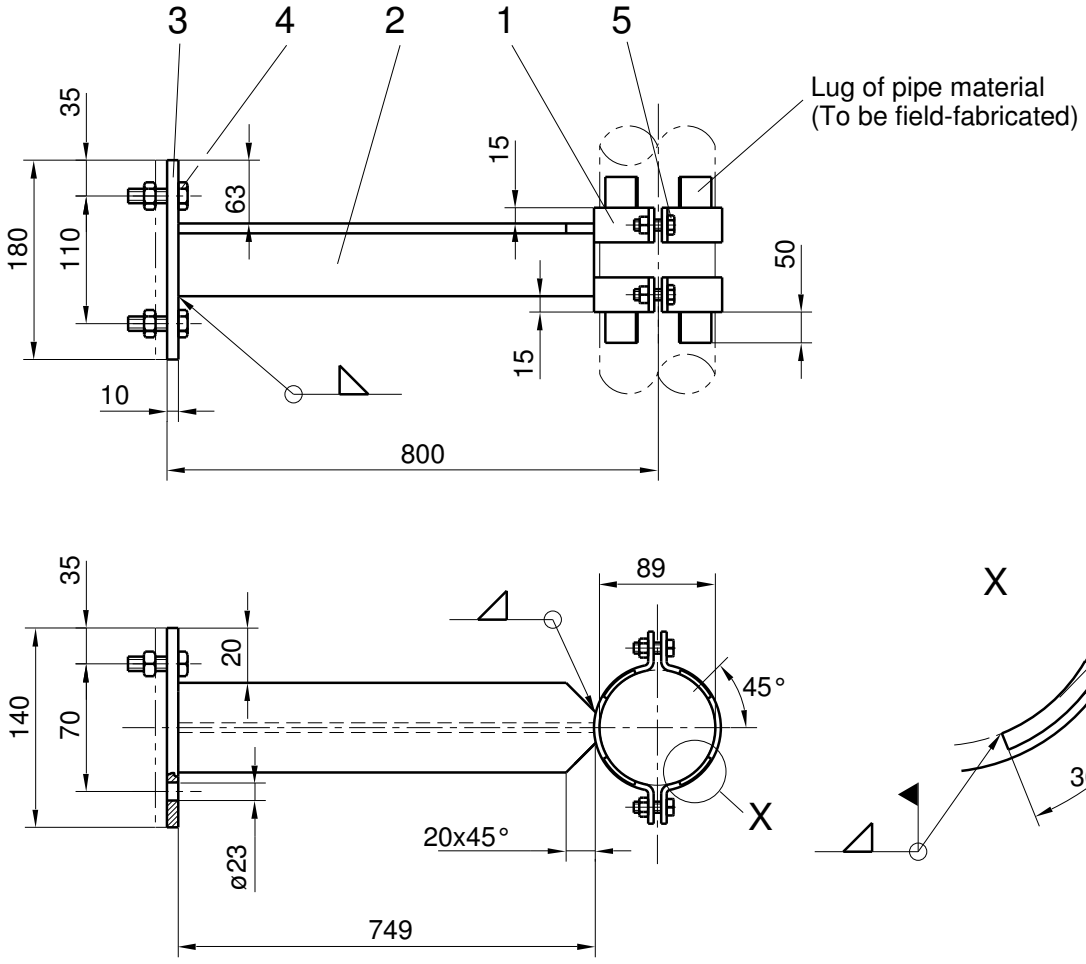
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC001D Marking : 80/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 749	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 17,030 kg

1) A193GR.B7/A194GR.2H

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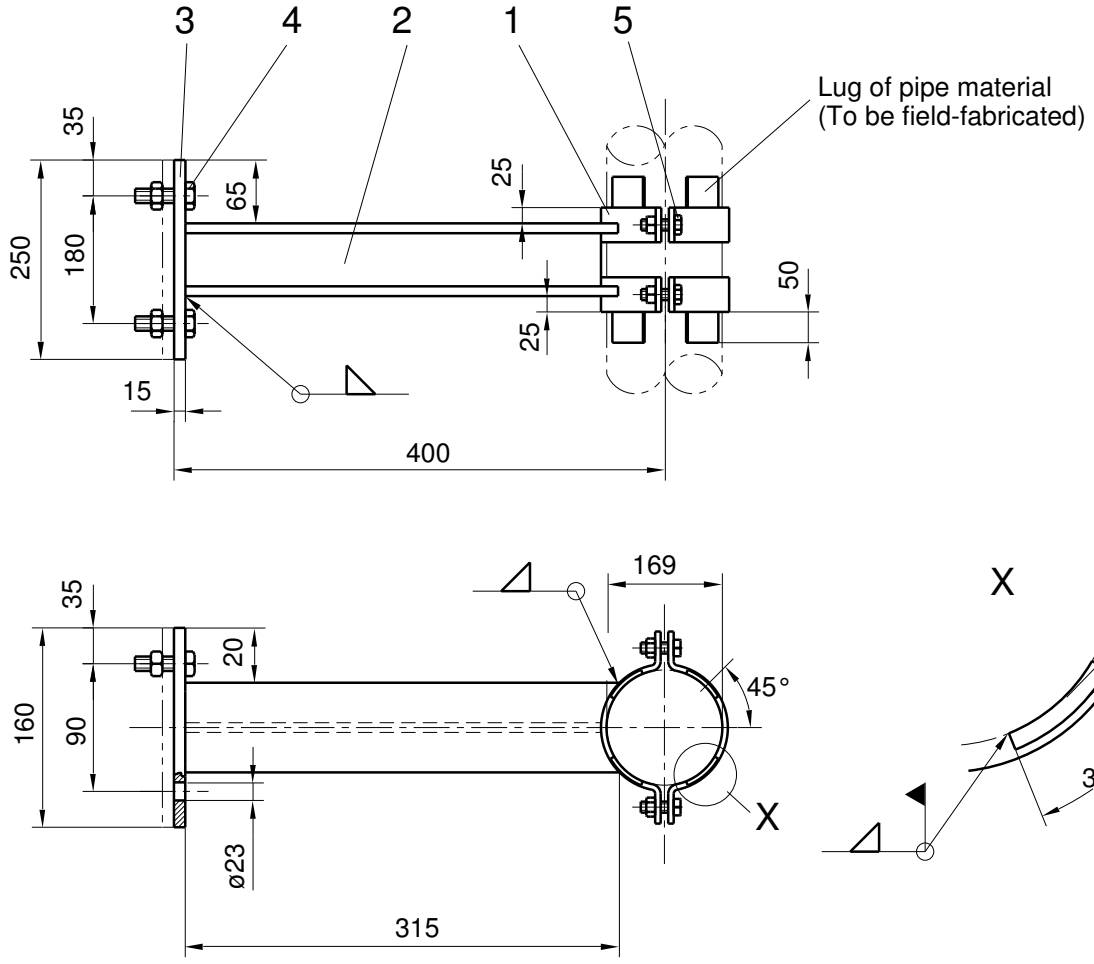
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC003D Marking : 150/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 315	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,170 kg

1) A193GR.B7/A194GR.2H

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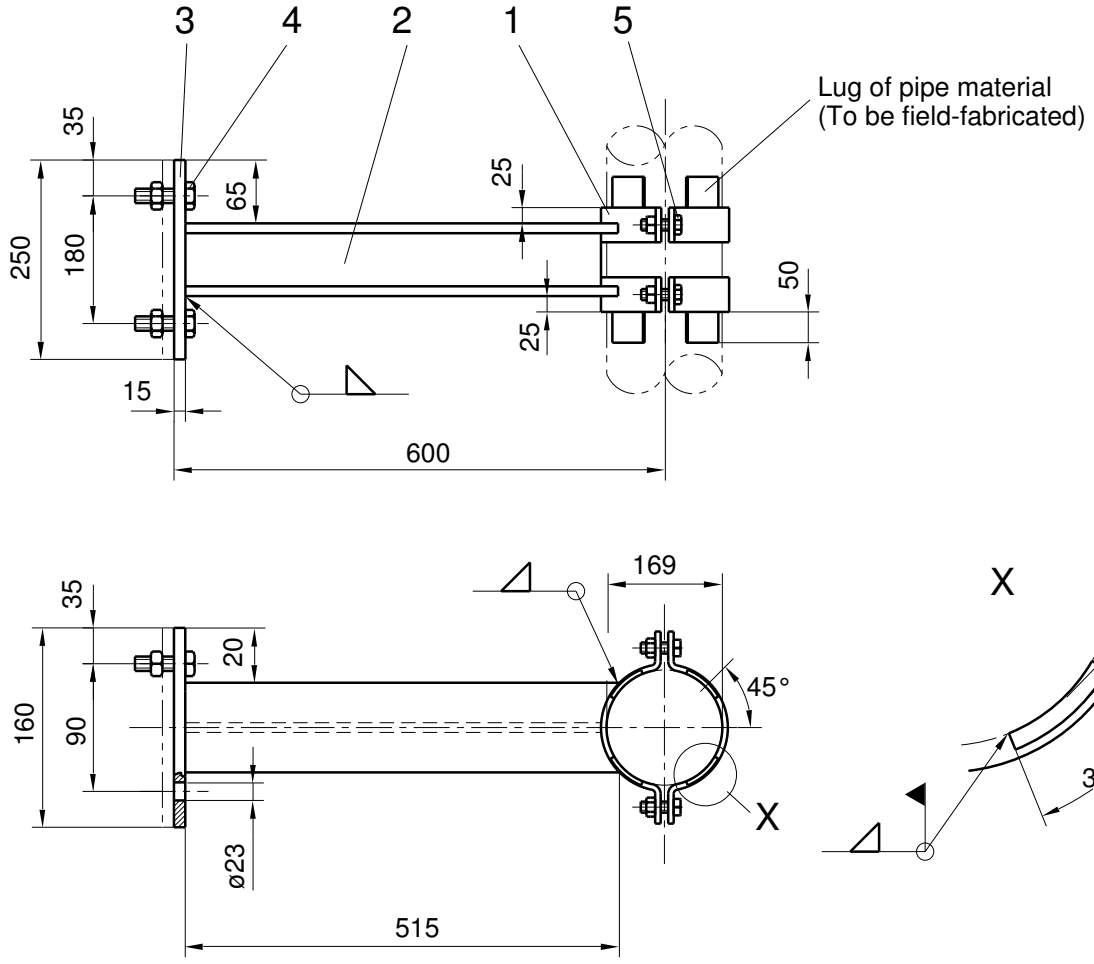
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC003D Marking : 150/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 515	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 24,510 kg

1) A193GR.B7/A194GR.2H

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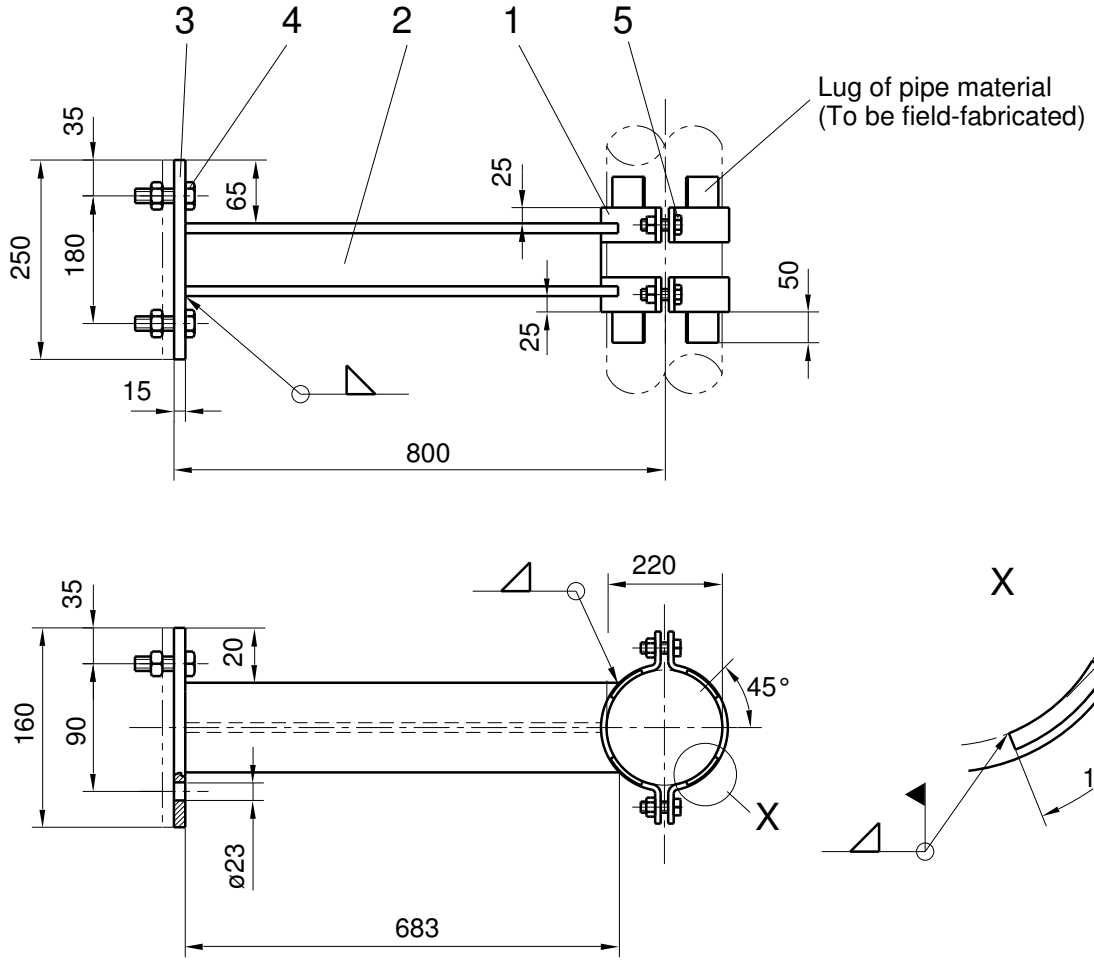
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC003D Marking : 200/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 683	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 30,020 kg

1) A193GR.B7/A194GR.2H

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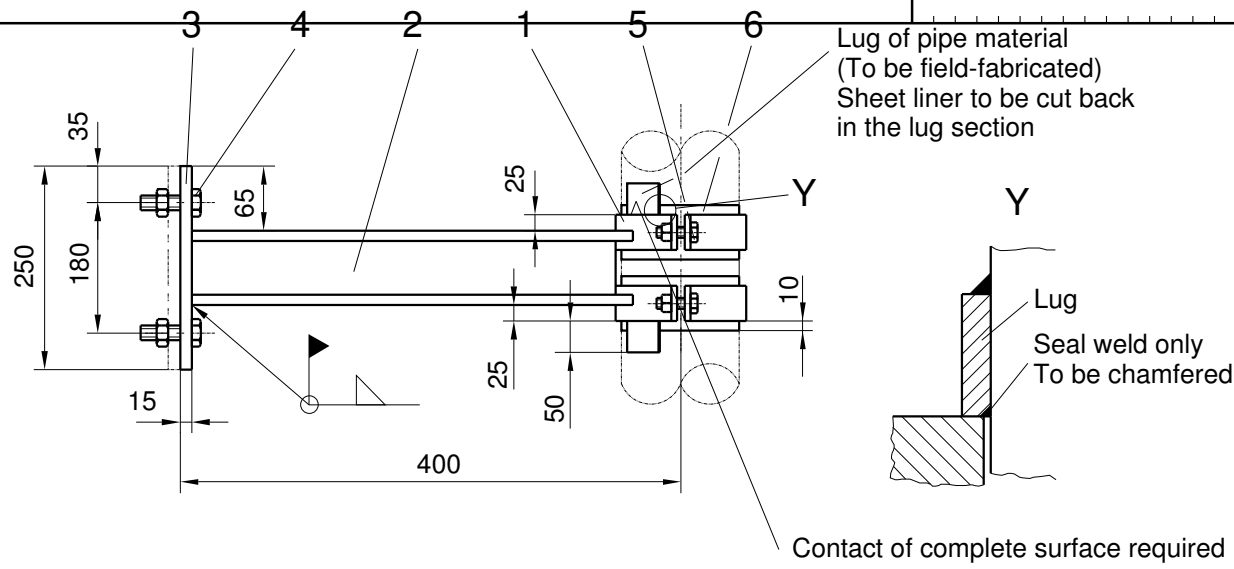
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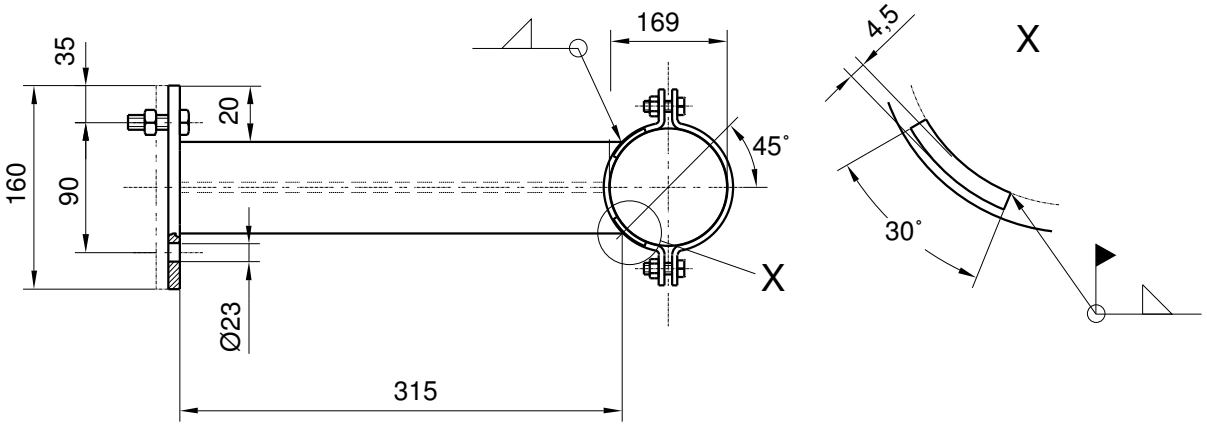
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		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: KNC053D Marking : 150/400





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 70 x 551	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 315	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,470 kg

1) A193GR.B7/A194GR.2H

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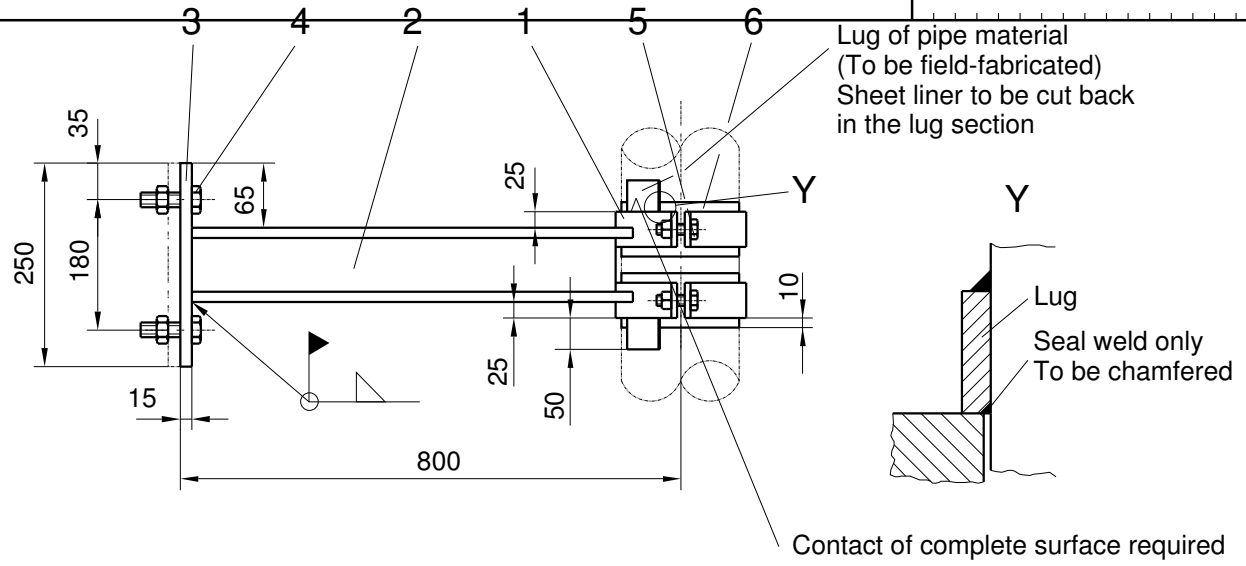
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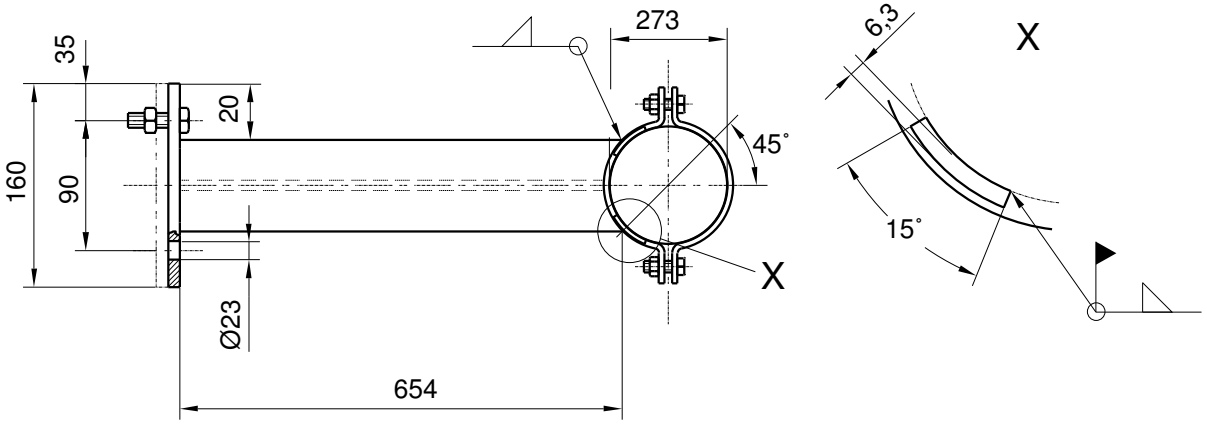
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: KNC053D Marking : 250/800





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 654	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 32,840 kg

1) A193GR.B7/A194GR.2H

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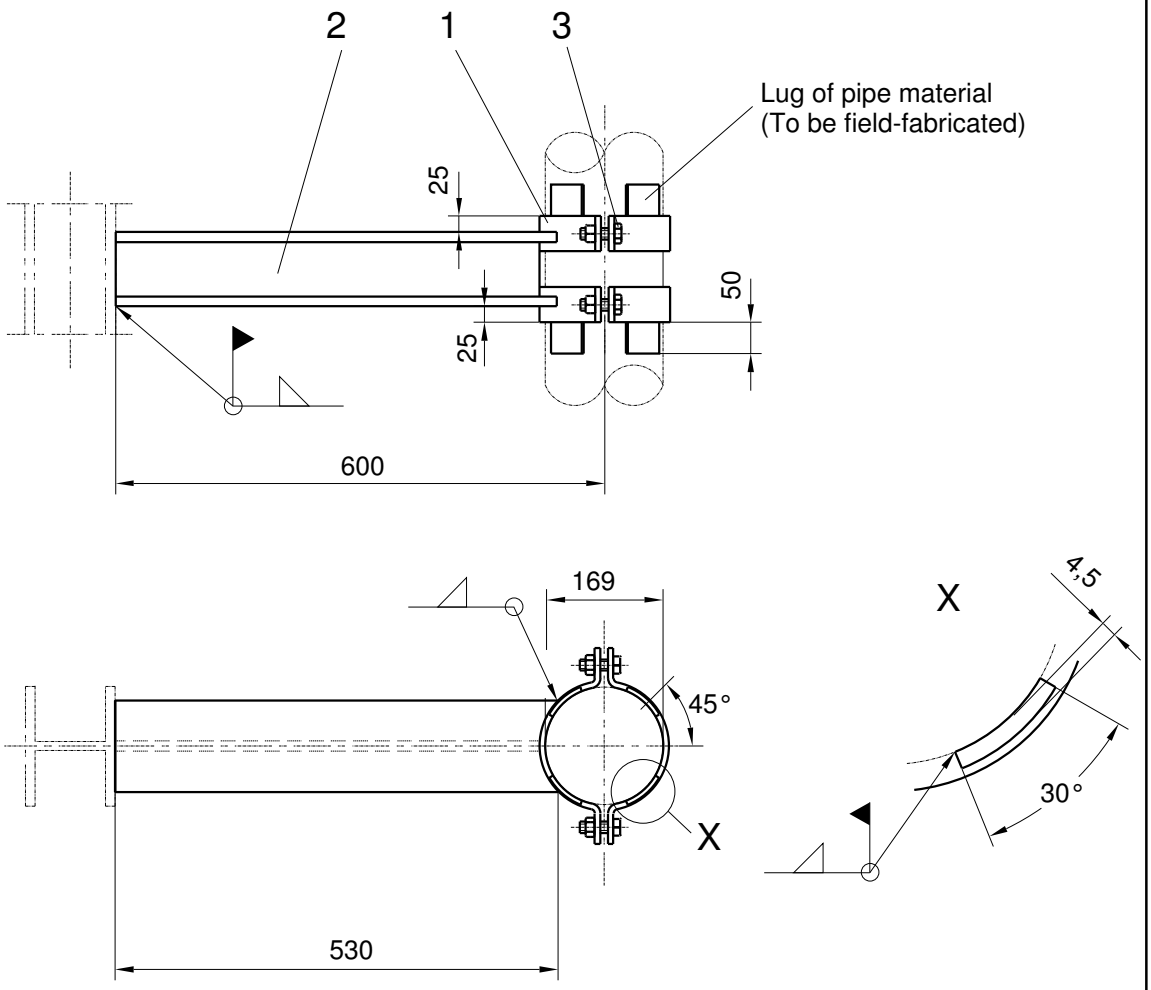
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 150/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 530	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,790 kg

1) A193GR.B7/A194GR.2H

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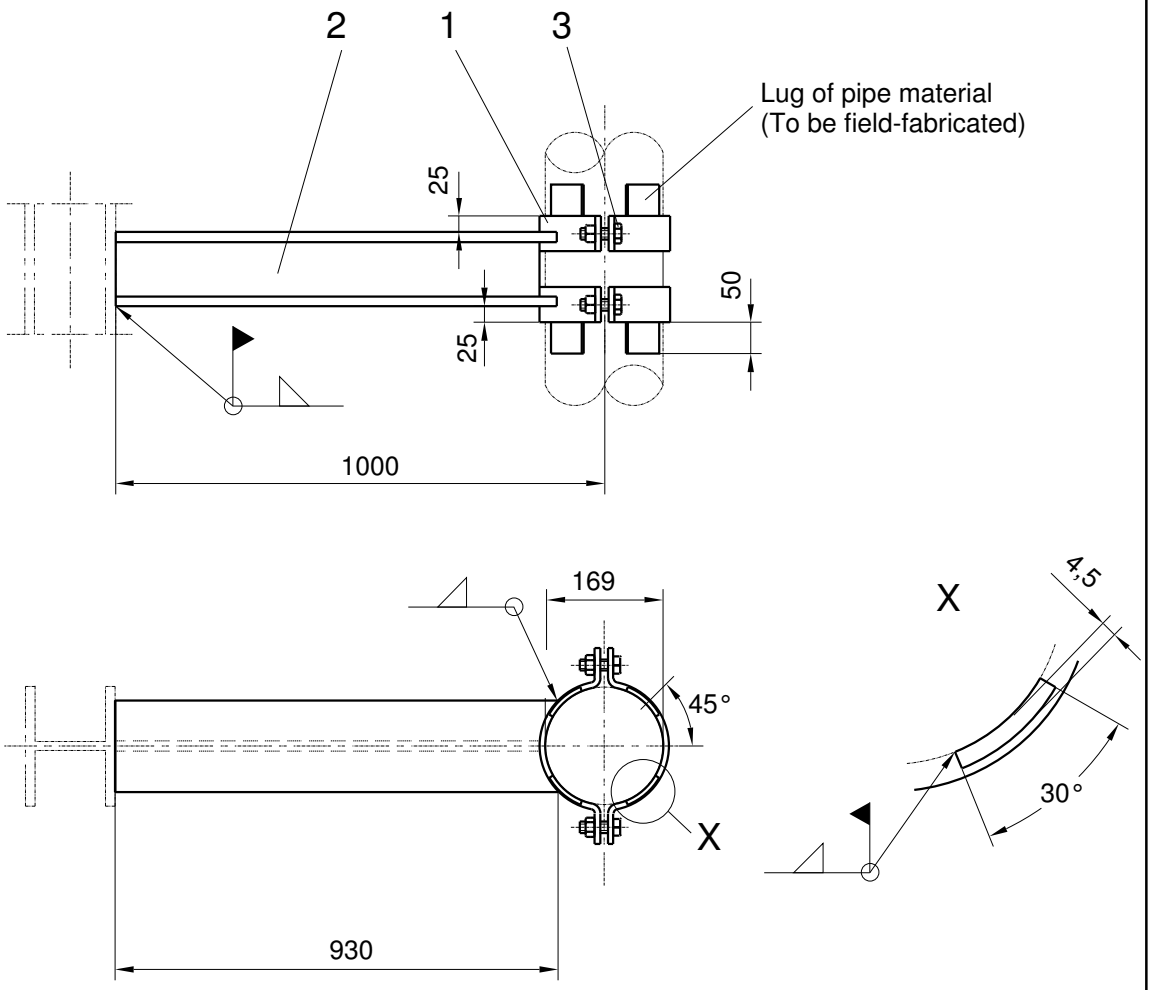
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 150/1000

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 930	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 30,470 kg

1) A193GR.B7/A194GR.2H

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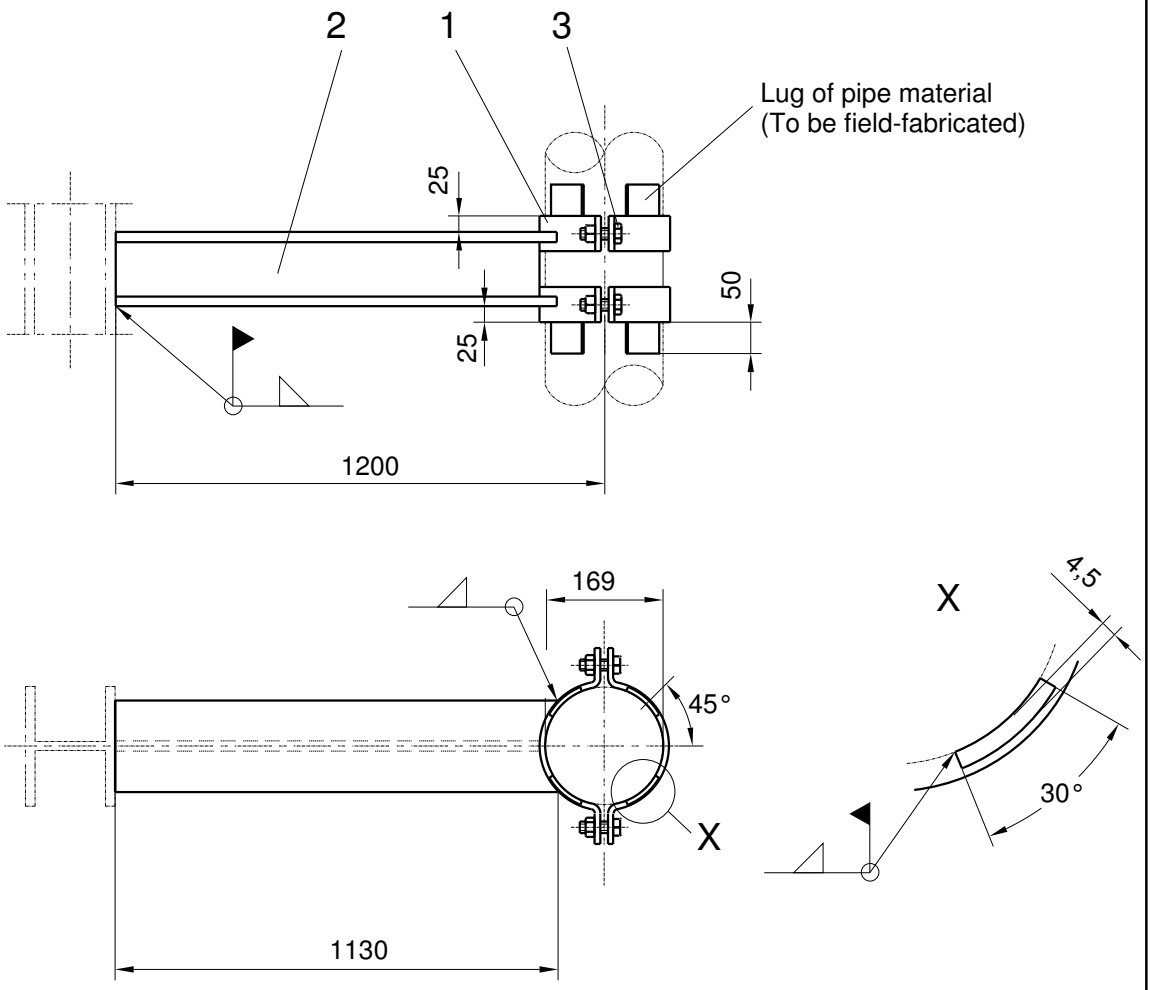
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 150/1200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 1130	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 35,810 kg

1) A193GR.B7/A194GR.2H

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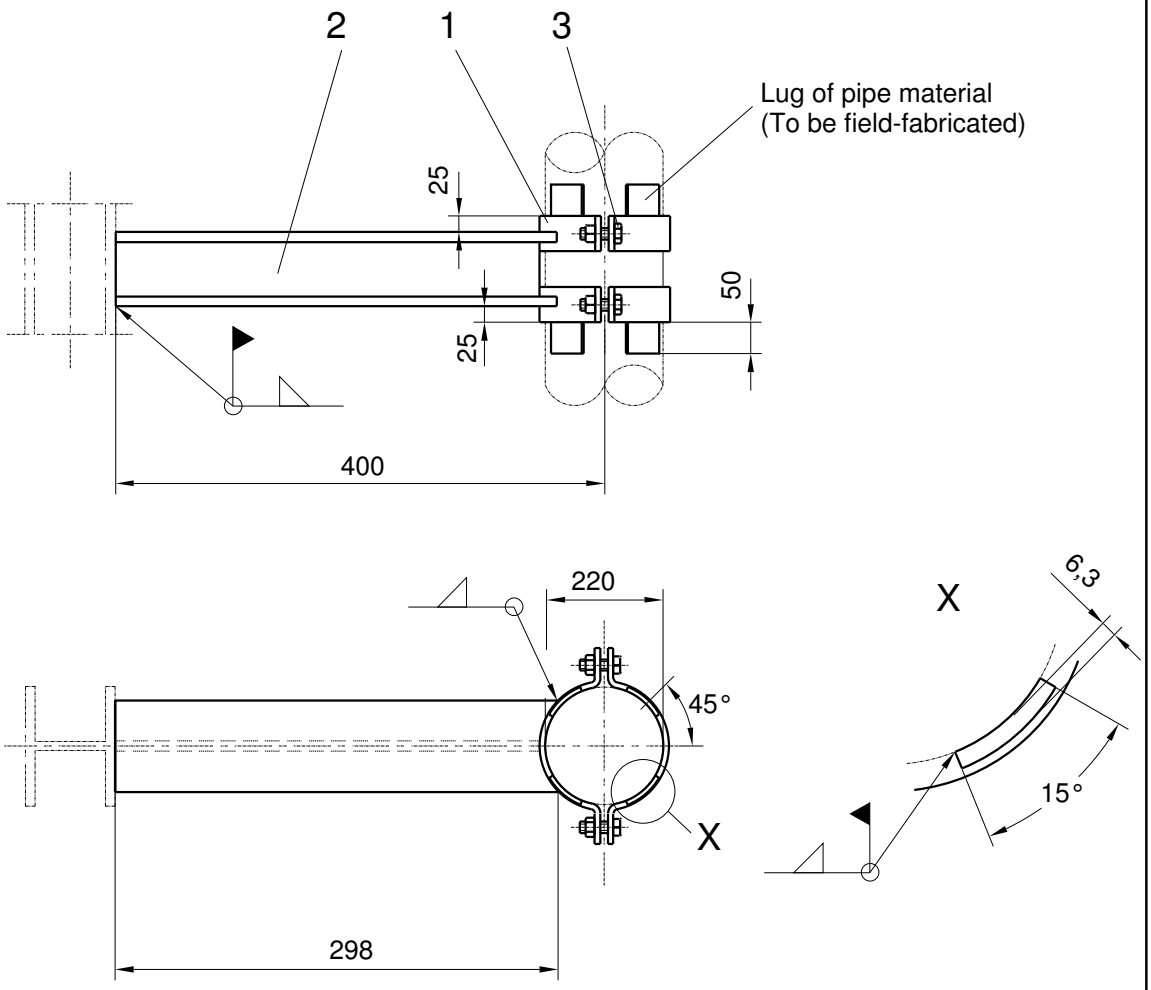
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 200/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 298	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,620 kg

1) A193GR.B7/A194GR.2H

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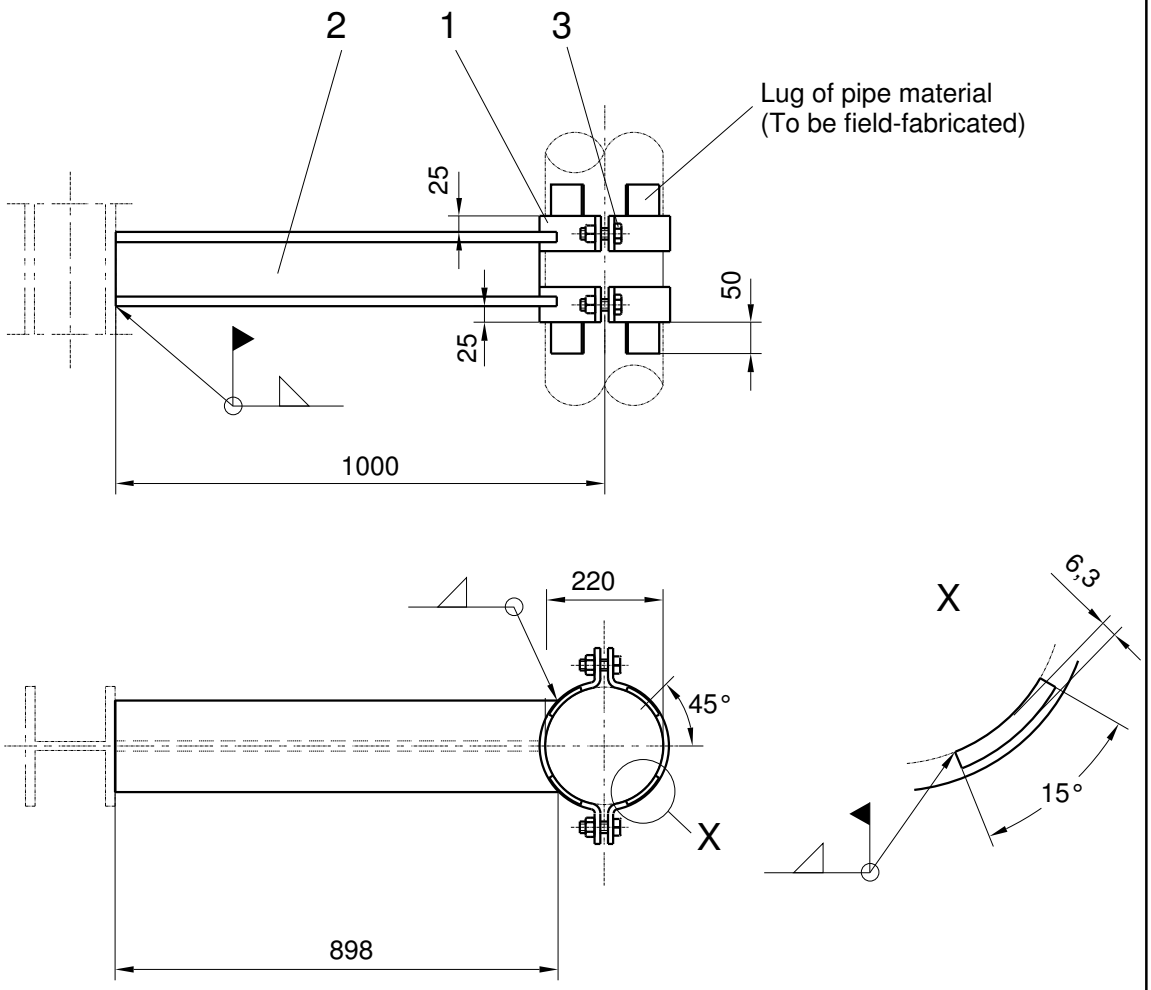
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 200/1000

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 898	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 30,640 kg

1) A193GR.B7/A194GR.2H

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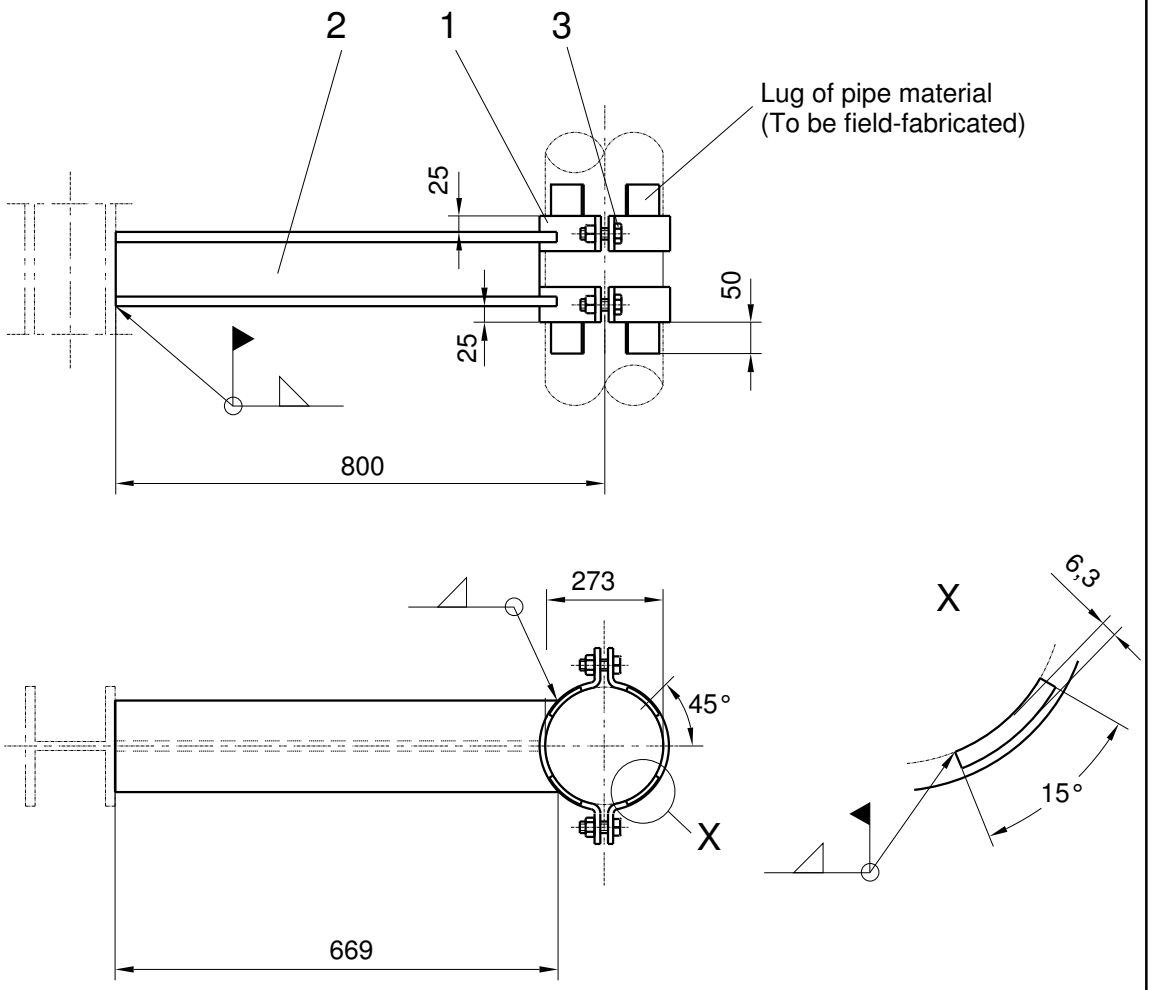
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 250/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 669	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 27,560 kg

1) A193GR.B7/A194GR.2H

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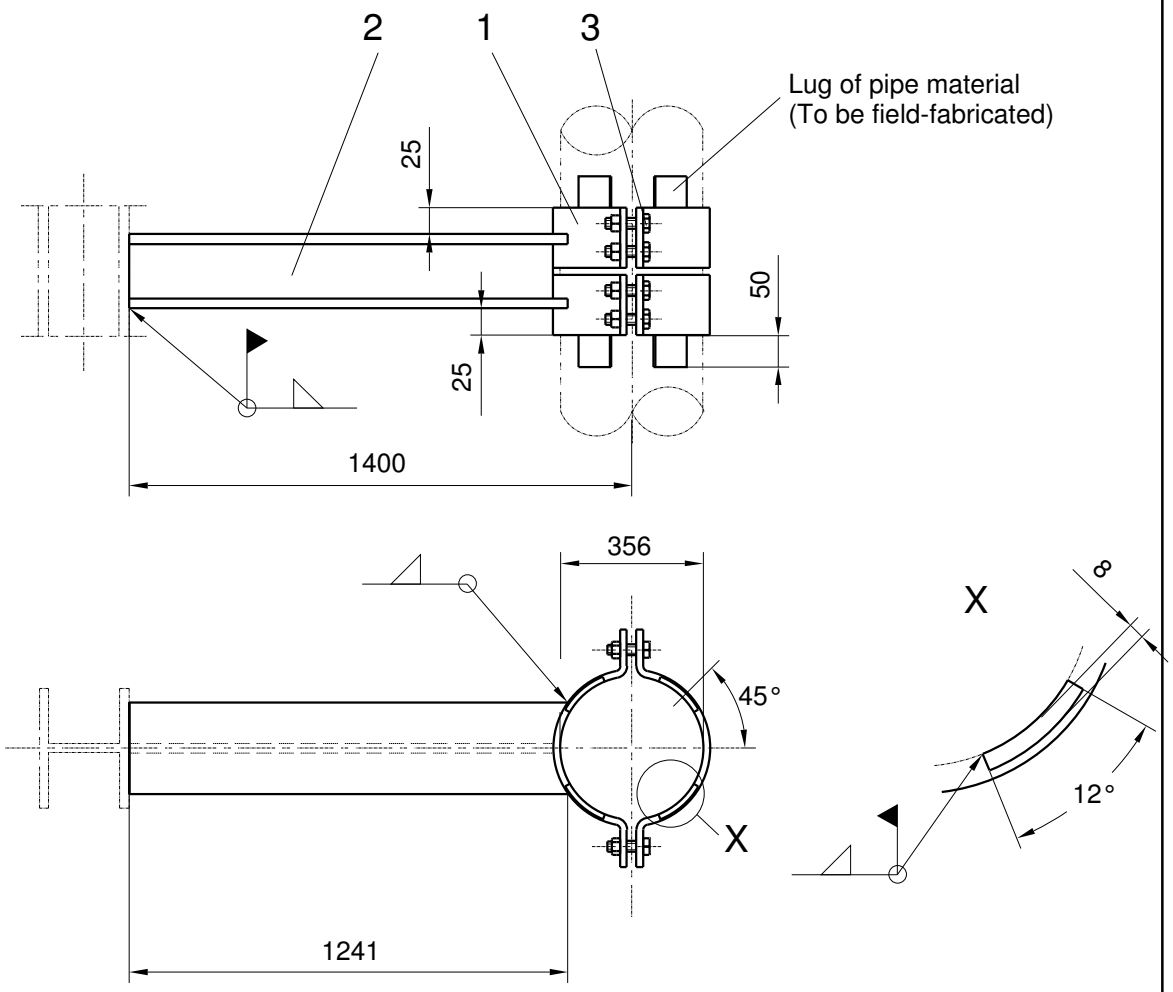
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC904D Marking : 350/1400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 200 x 1241	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A, REINFORCED DS 356	UN 3790-02	A283GR.B	MS0101D

Remarks: Total weight = 98,640 kg

1) A193GR.B7/A194GR.2H

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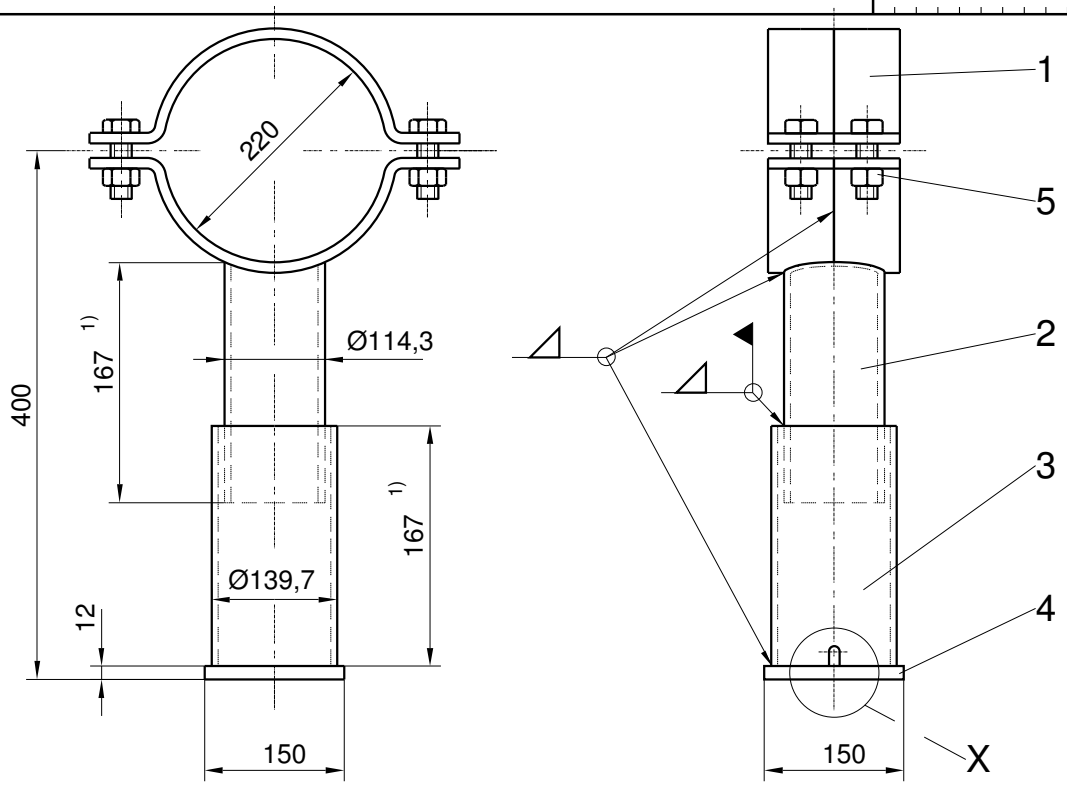
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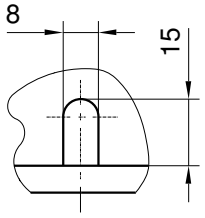
PIPE SUPPORT

Code No.: NAA003D Marking : 200/400

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
3	1	PIPE 139,7 x 10 x 167	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 114,3 x 6,3 x 167	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 220	UN 3790-02	A283GR.B	MS0101D

Remarks: Total weight = 22,500 kg

1) A193GR.B7/A194GR.2H

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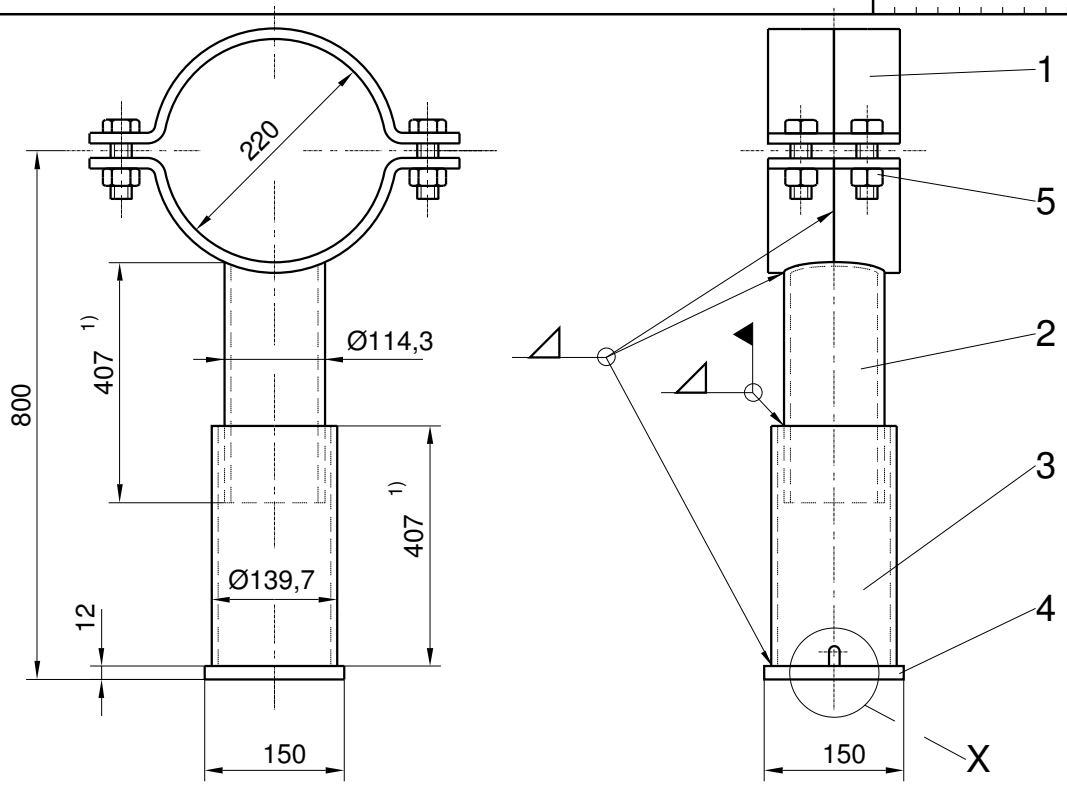
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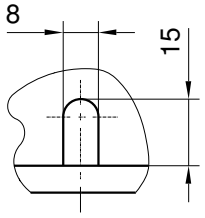
PIPE SUPPORT

Code No.: NAA003D Marking : 200/800

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
3	1	PIPE 139,7 x 10 x 407	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 114,3 x 6,3 x 407	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 220	UN 3790-02	A283GR.B	MS0101D

Remarks: Total weight = 34,210 kg

1) A193GR.B7/A194GR.2H

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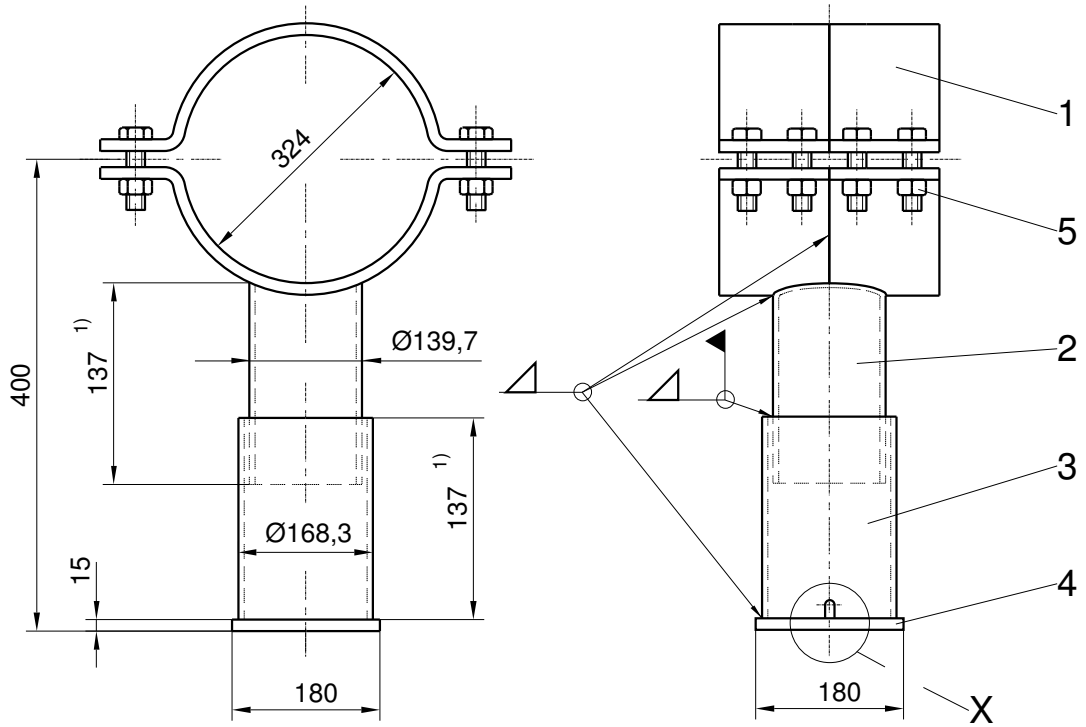
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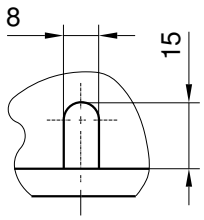
PIPE SUPPORT

Code No.: NAA004D Marking : 300/400

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
3	1	PIPE 168,3 x 11 x 137	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 139,7 x 7,1 x 137	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 324	UN 3790-02	A283GR.B	MS0101D

Remarks: Total weight = 32,830 kg

1) A193GR.B7/A194GR.2H

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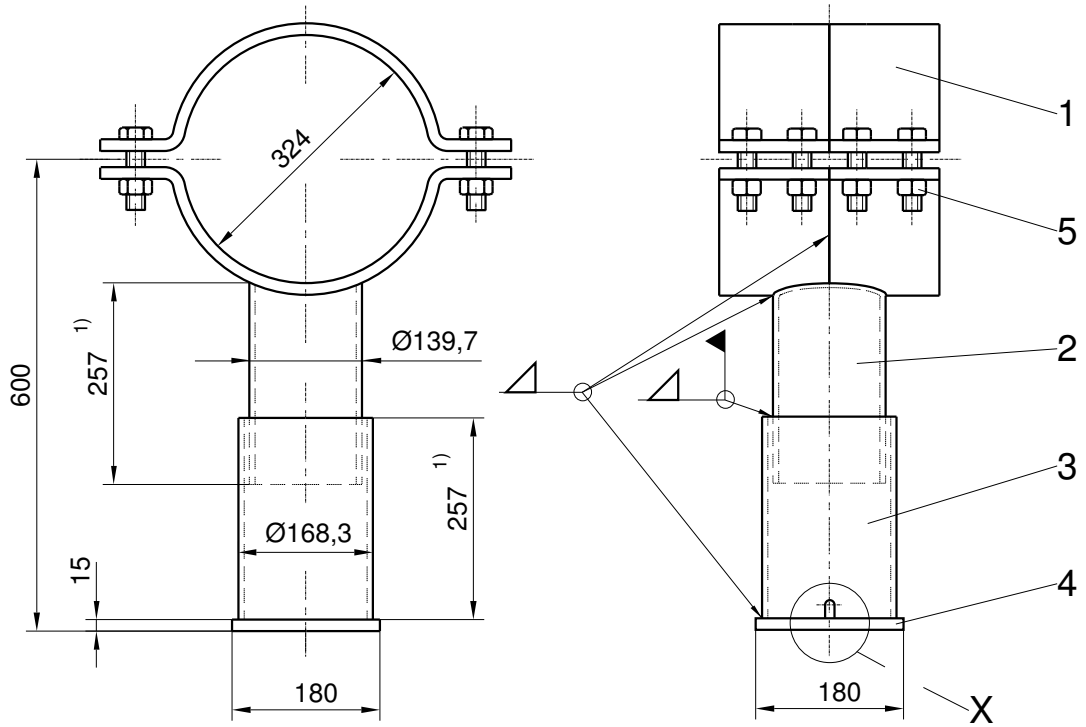
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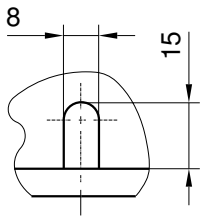
PIPE SUPPORT

Code No.: NAA004D Marking : 300/600

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
3	1	PIPE 168,3 x 11 x 257	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 139,7 x 7,1 x 257	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 324	UN 3790-02	A283GR.B	MS0101D

Remarks: Total weight = 40,740 kg

1) A193GR.B7/A194GR.2H

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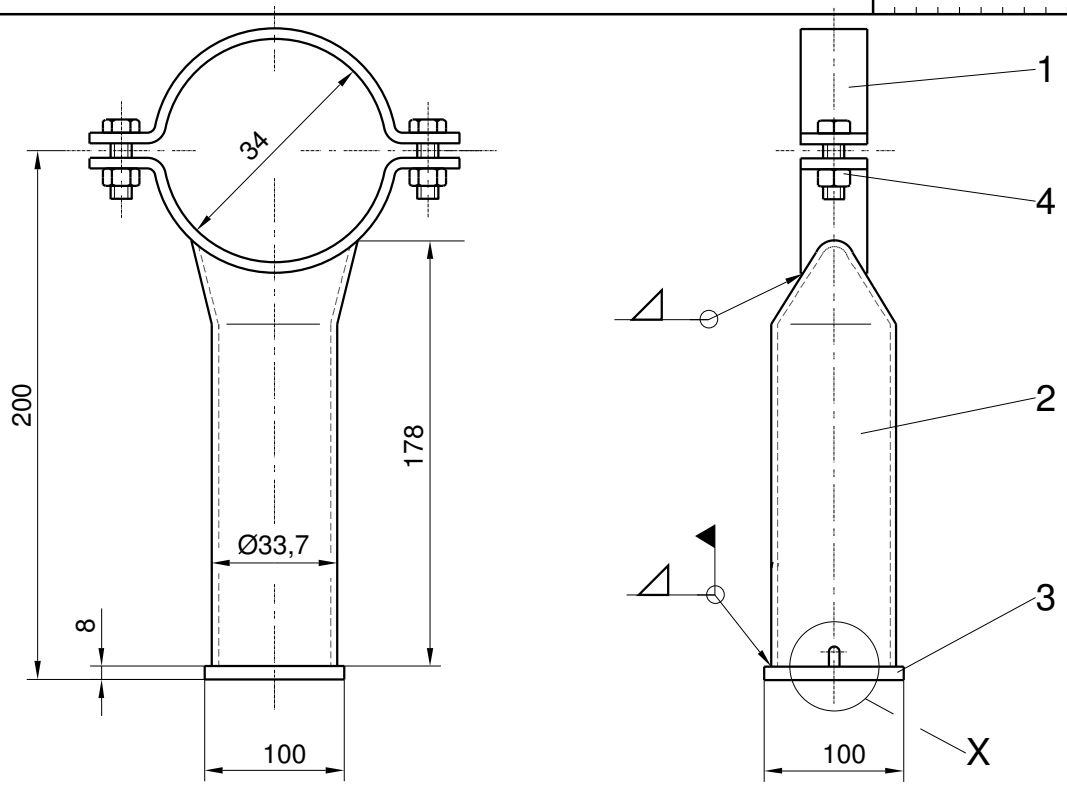
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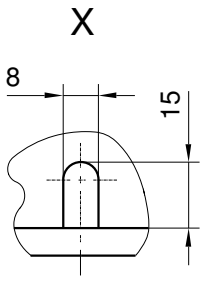
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NAA101D Marking : 25/200

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
2	1	PIPE 33,7 x 2,6 x 178	DIN 2448	A53GR.B	GR0011D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,330 kg

1) A193GR.B7/A194GR.2H

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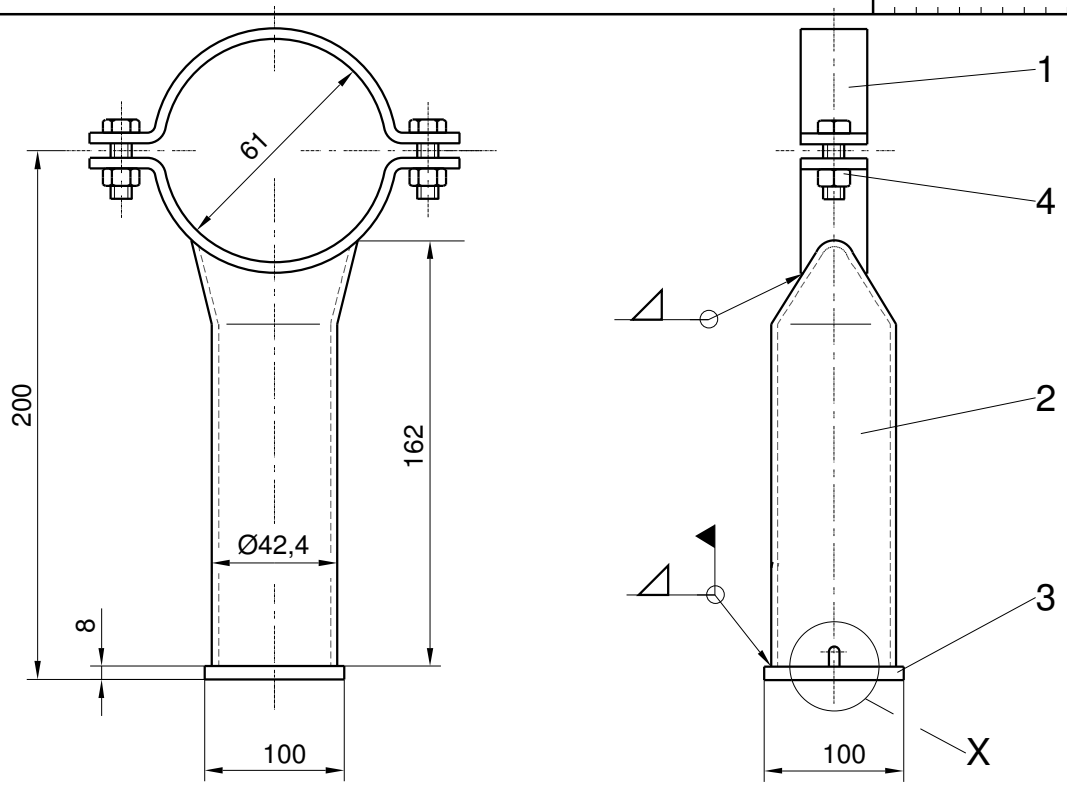
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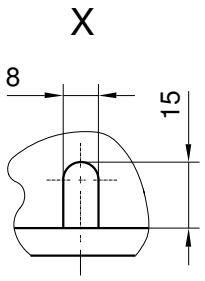
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PIPE SUPPORT

Code No.: NAA101D Marking : 50/200

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
2	1	PIPE 42,4 x 2,6 x 162	DIN 2448	A53GR.B	GR0011D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,790 kg

1) A193GR.B7/A194GR.2H

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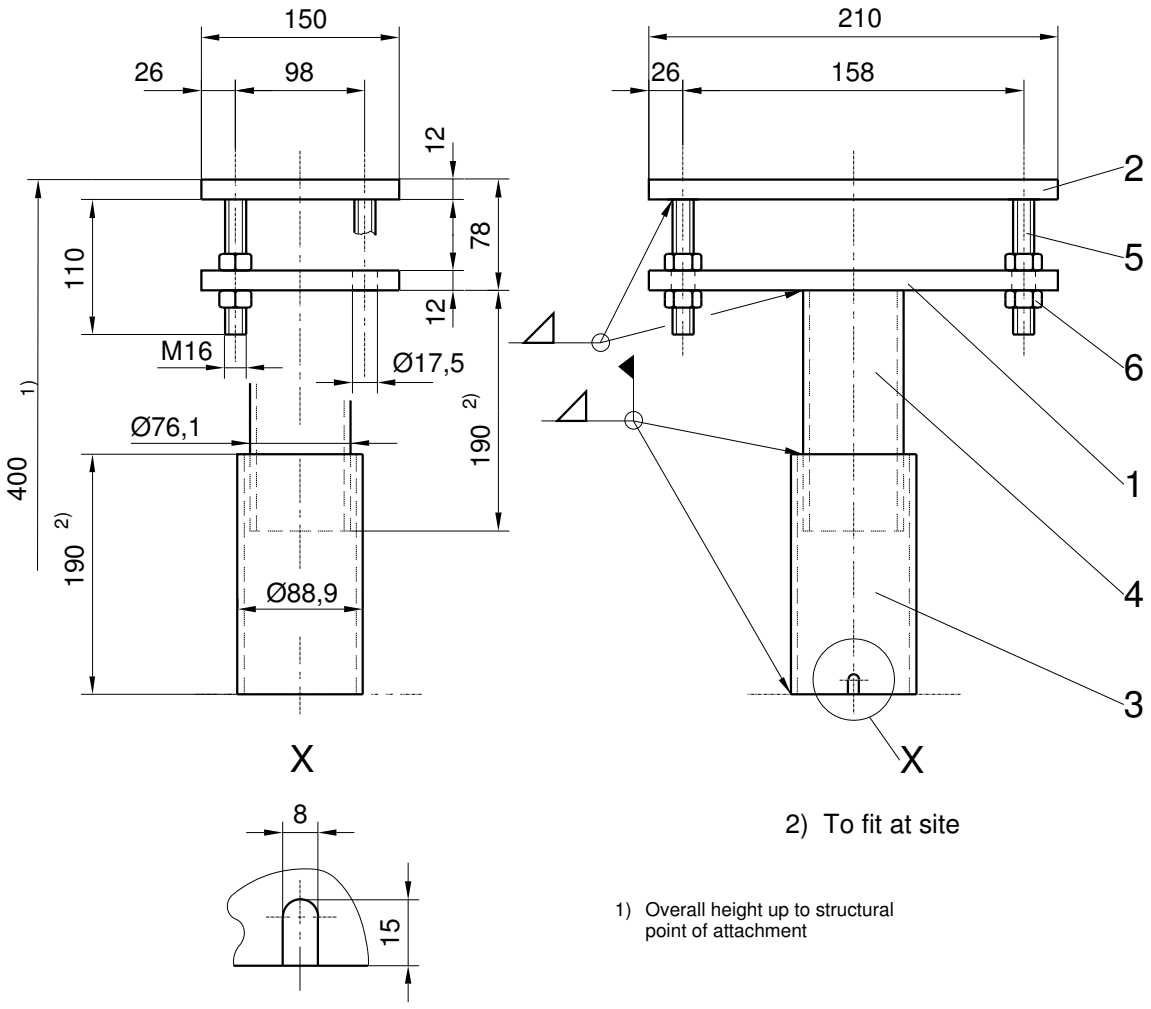
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NCX002D Marking : 100/400

U Item



2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	4	THREADED ROD M 16 x 110	DIN 975	4.6	MB0201D
4	1	PIPE 76,1 x 5 x 190	EN 10220	A53GR.B	GR0001D
3	1	PIPE 88,9 x 5 x 190	DIN 2448	A53GR.B	GR0011D
2	1	PLATE 12 x 210 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 12 x 210 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 10,370 kg

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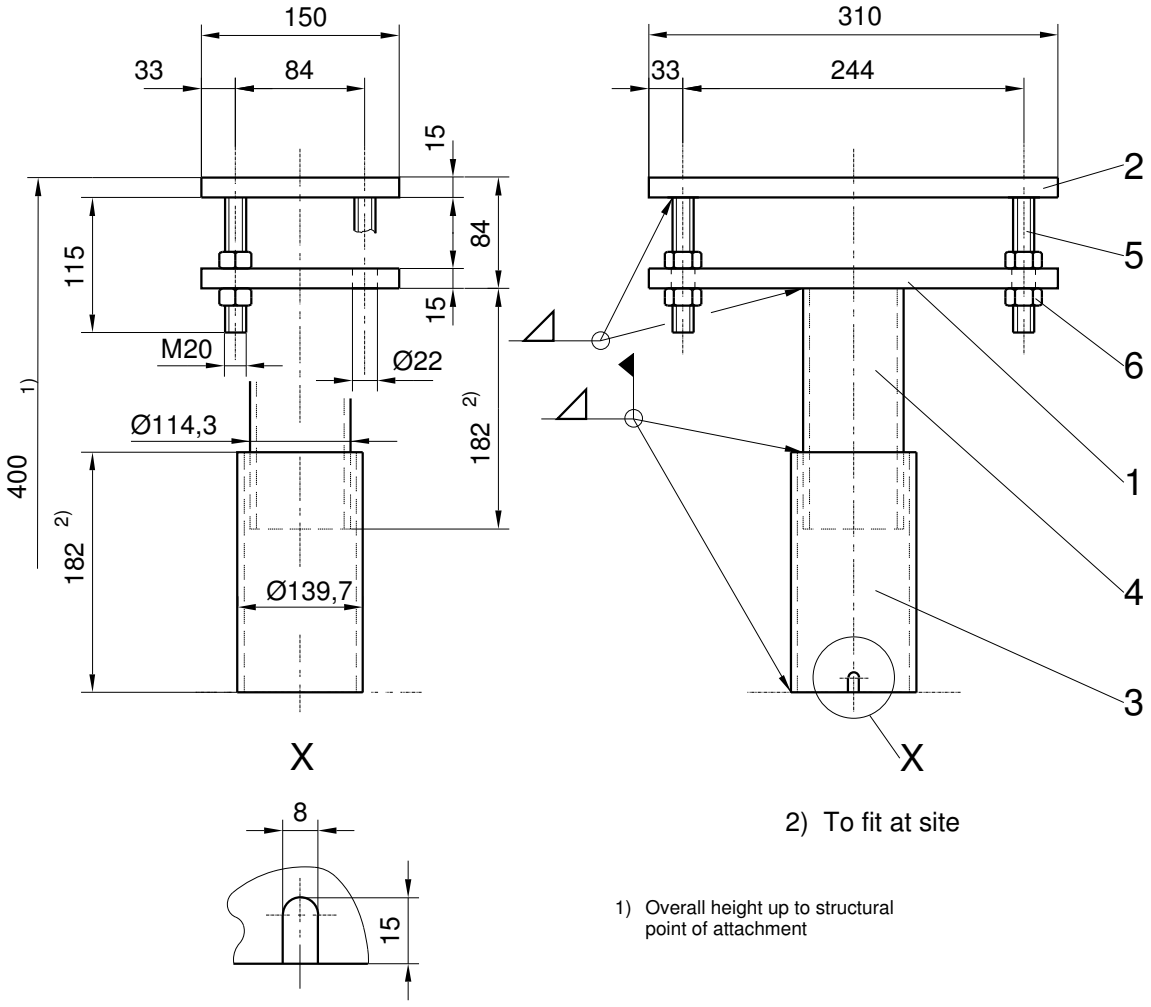
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NCX002D Marking : 200/400

U Item



2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 20	DIN 555	5	MM0001D
5	4	THREADED ROD M 20 x 115	DIN 975	4.6	MB0201D
4	1	PIPE 114,3 x 6,3 x 182	EN 10220	A53GR.B	GR0001D
3	1	PIPE 139,7 x 10 x 182	DIN 2448	A53GR.B	GR0011D
2	1	PLATE 15 x 310 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 15 x 310 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 21,270 kg

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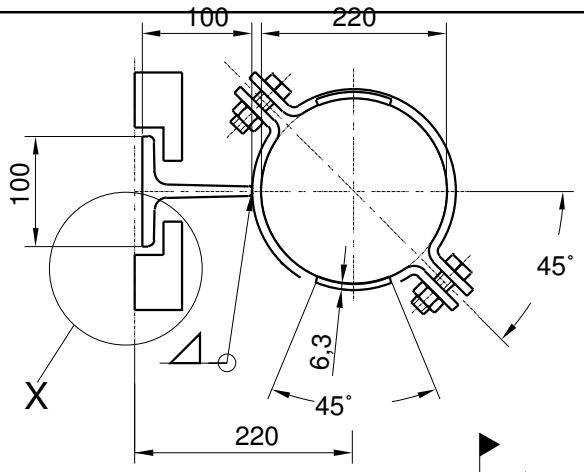
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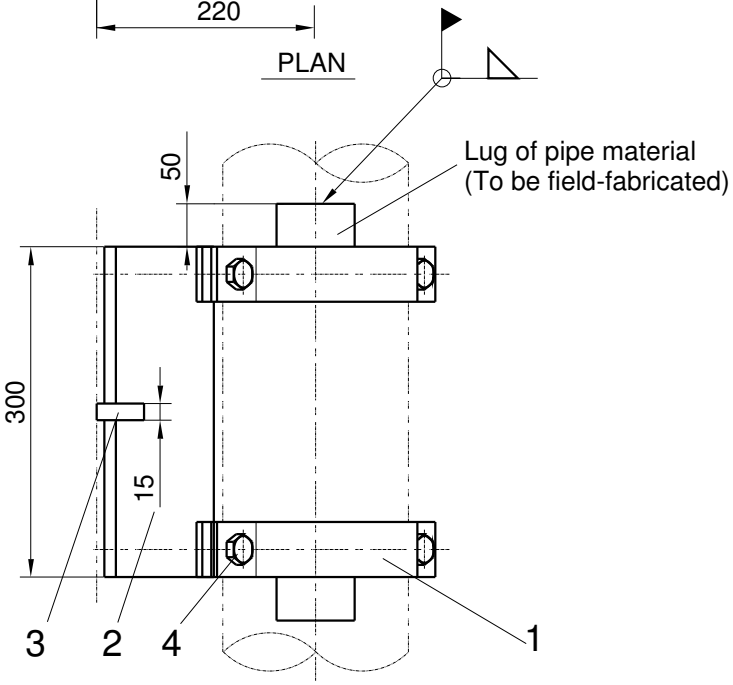
PIPE SUPPORT

Code No.: NMB002D Marking : 200/2

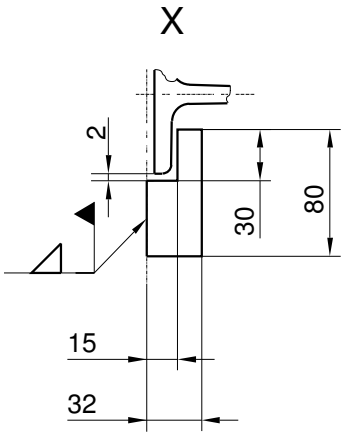
U Item



PLAN



ELEVATION



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
3	2	FLAT BAR 32 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,500 kg

1) A193GR.B7/A194GR.2H

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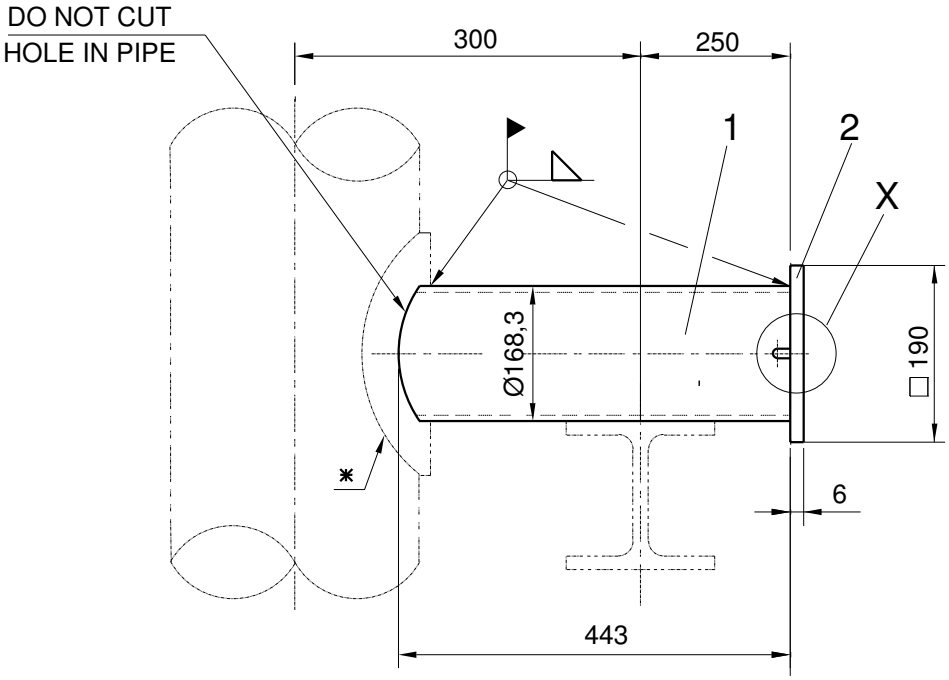
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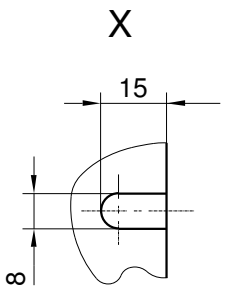
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 250/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 443	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 20,620 kg

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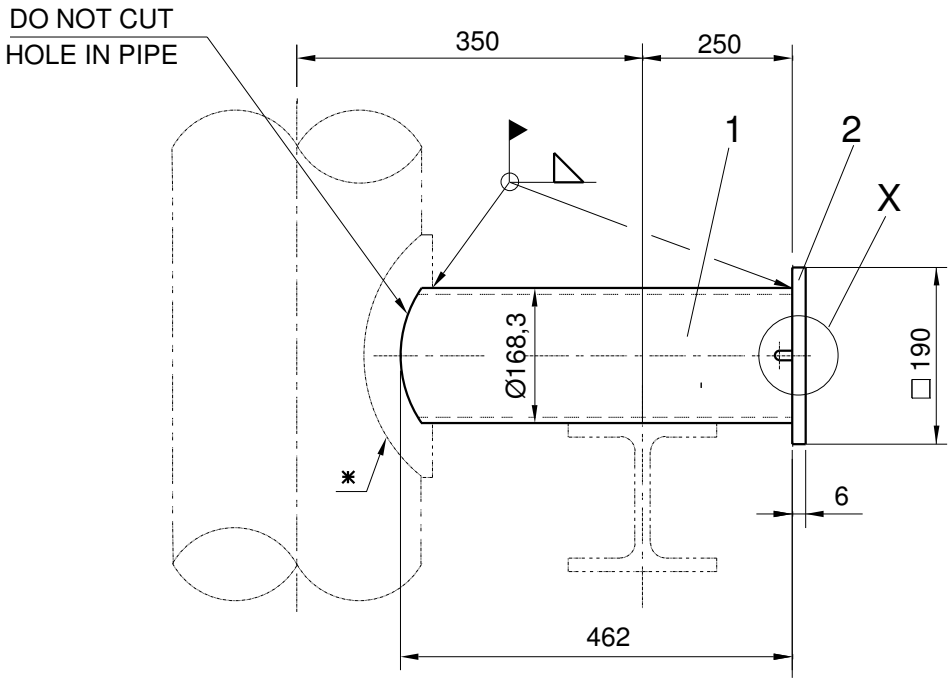
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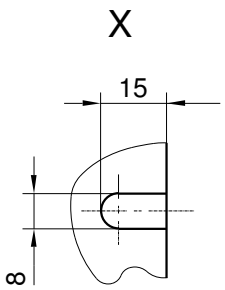
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 300/350

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 462	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 21,430 kg

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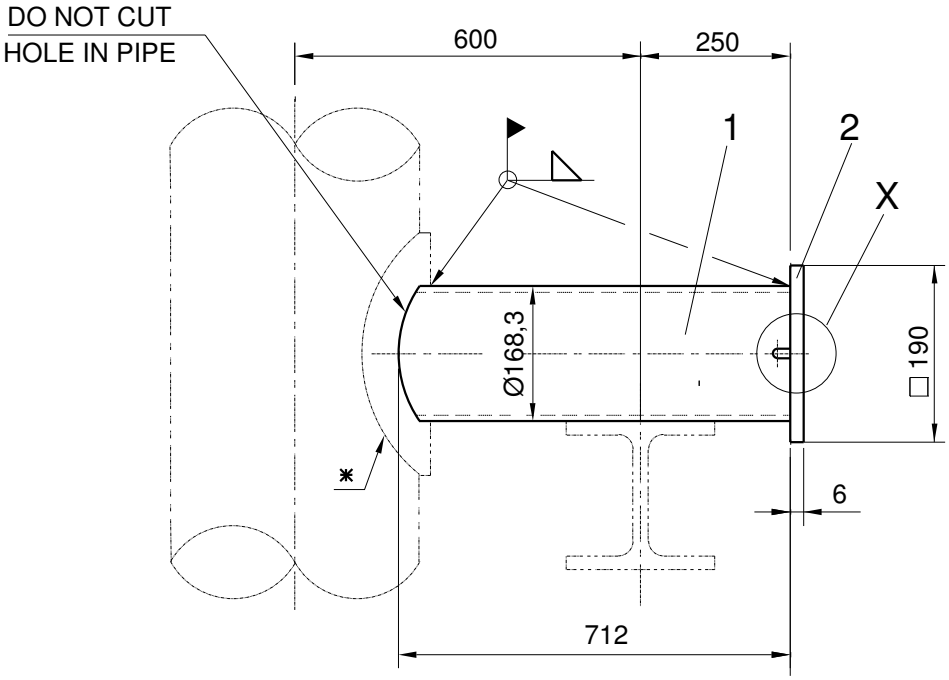
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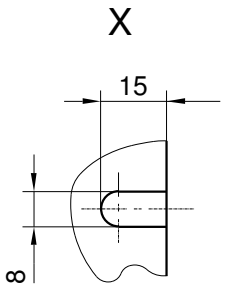
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 300/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 712	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 32,100 kg

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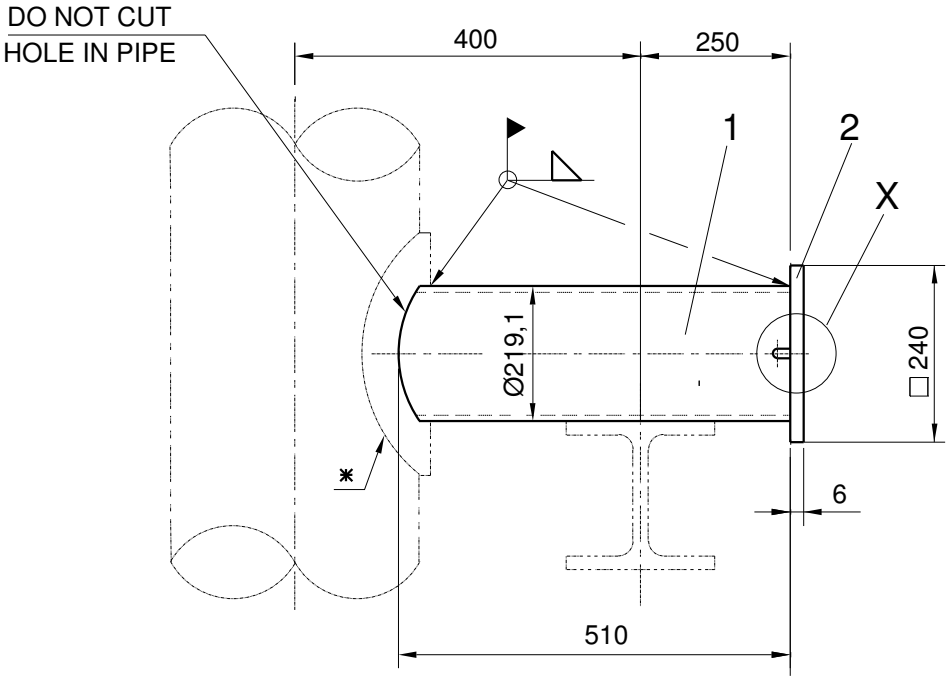
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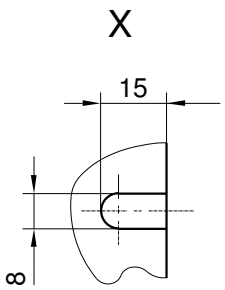
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 350/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 510	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 29,030 kg

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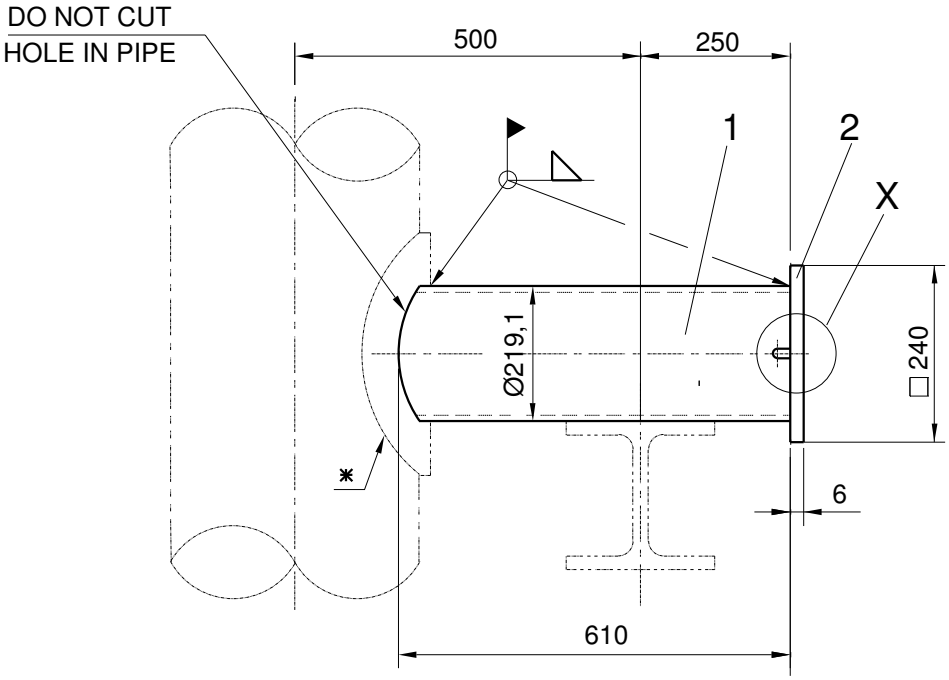
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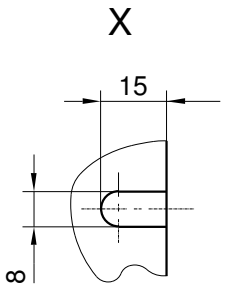
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 350/500

U Item





✱ Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 610	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 34,190 kg

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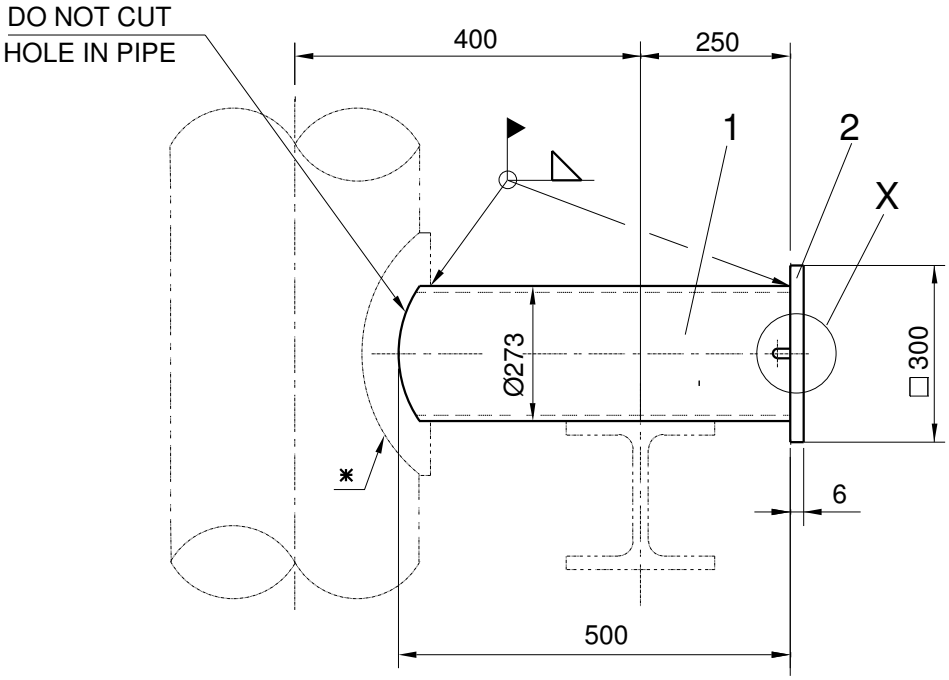
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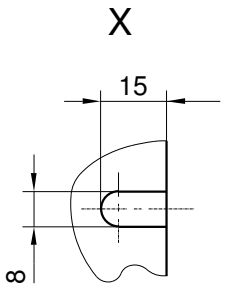
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 400/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 500	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 36,690 kg

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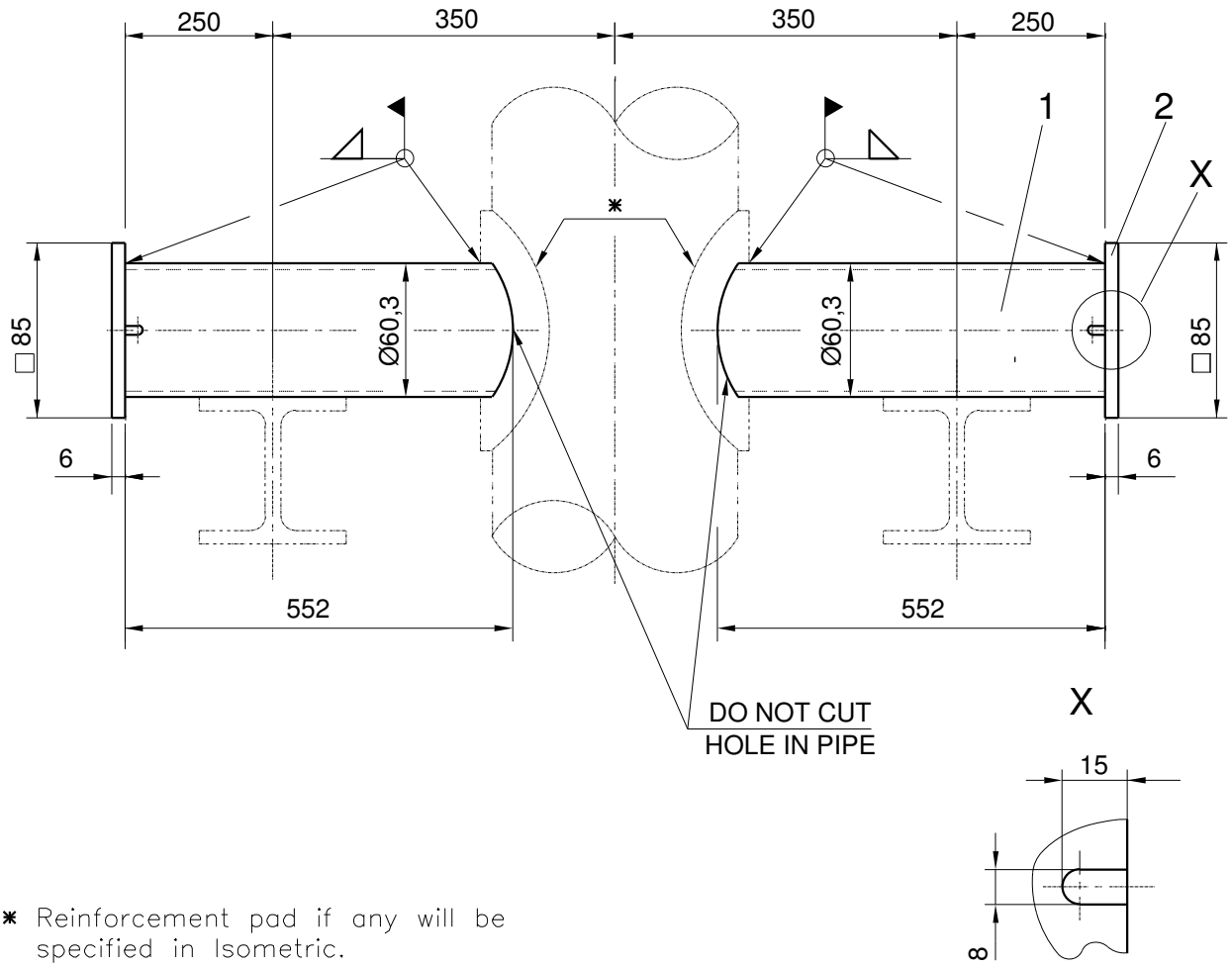
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 100/350

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	2	PIPE 60,3 x 4 x 552	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 6,810 kg

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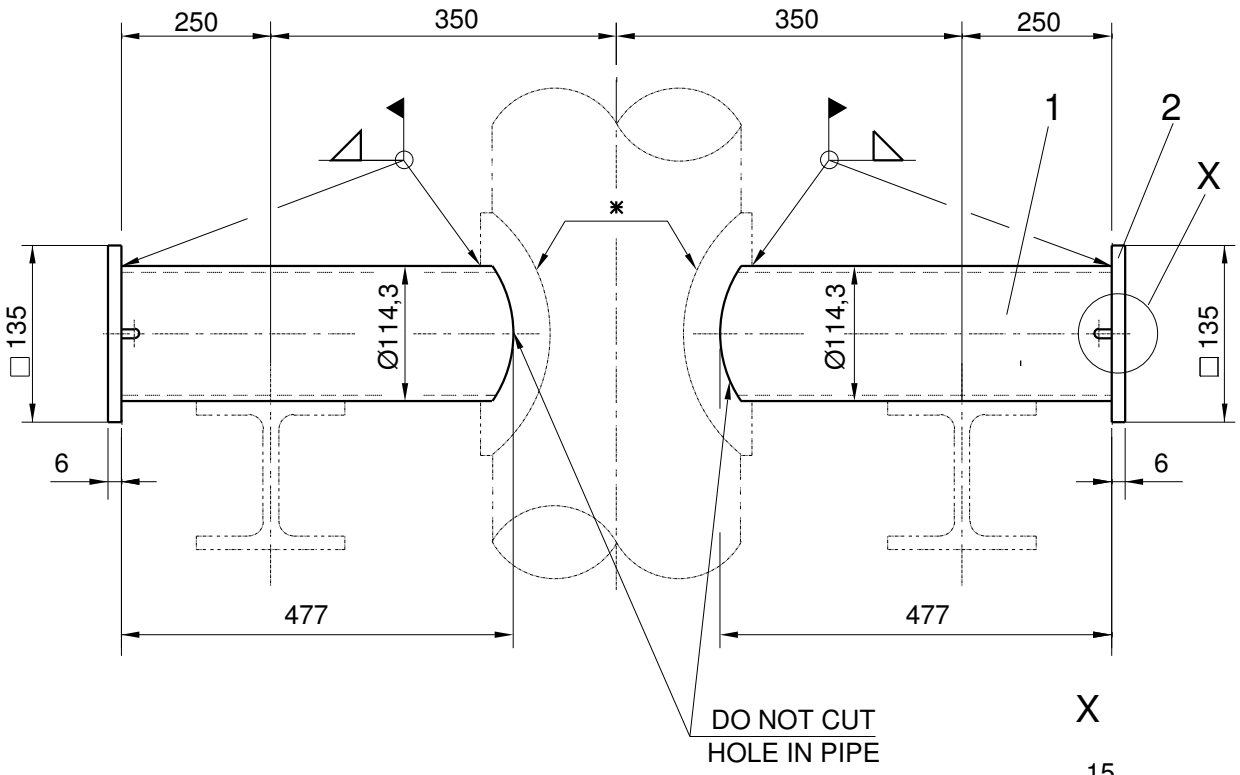
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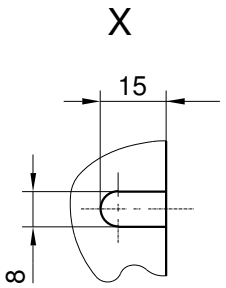
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 250/350

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	2	PIPE 114,3 x 6,3 x 477	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 17,740 kg

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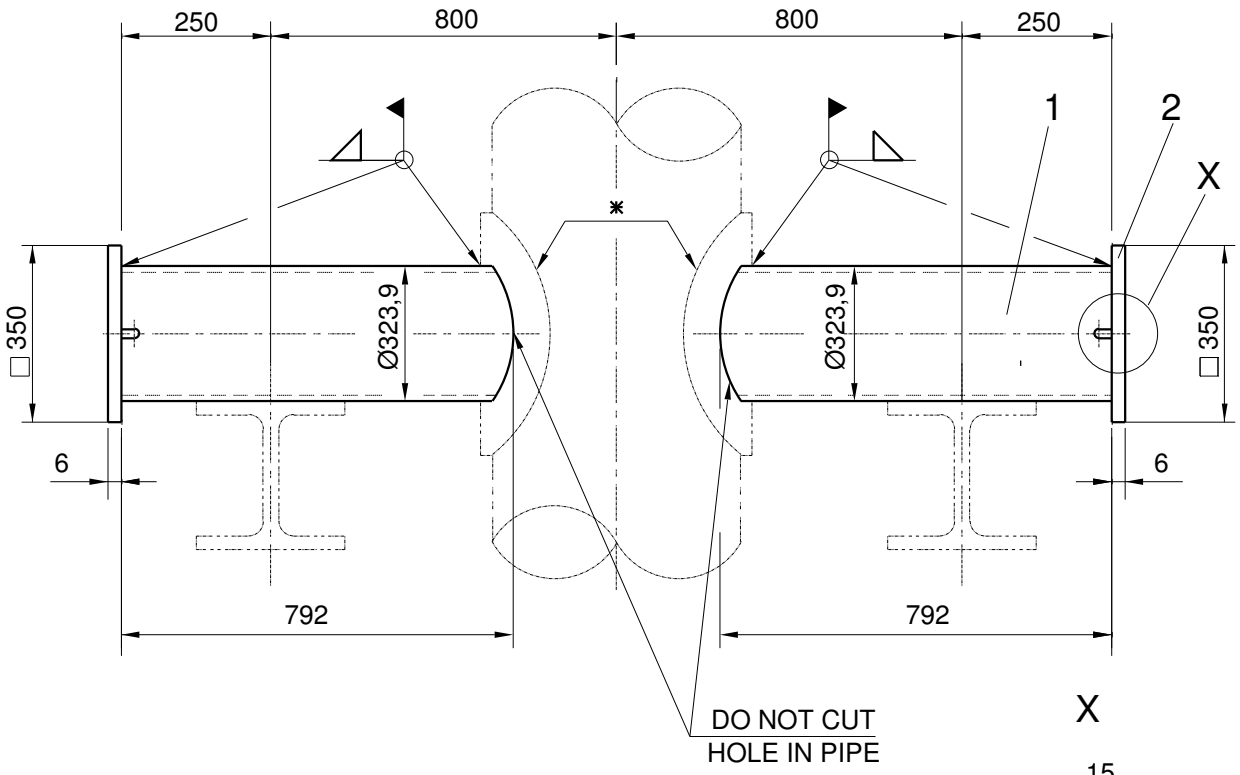
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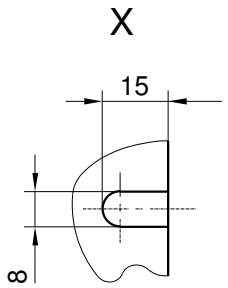
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NTA001D Marking : 600/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	PLATE 6 x 350 x 350	EN 10029	A283GR.B	GB0001D
1	2	PIPE 323,9 x 10 x 792	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 134,140 kg

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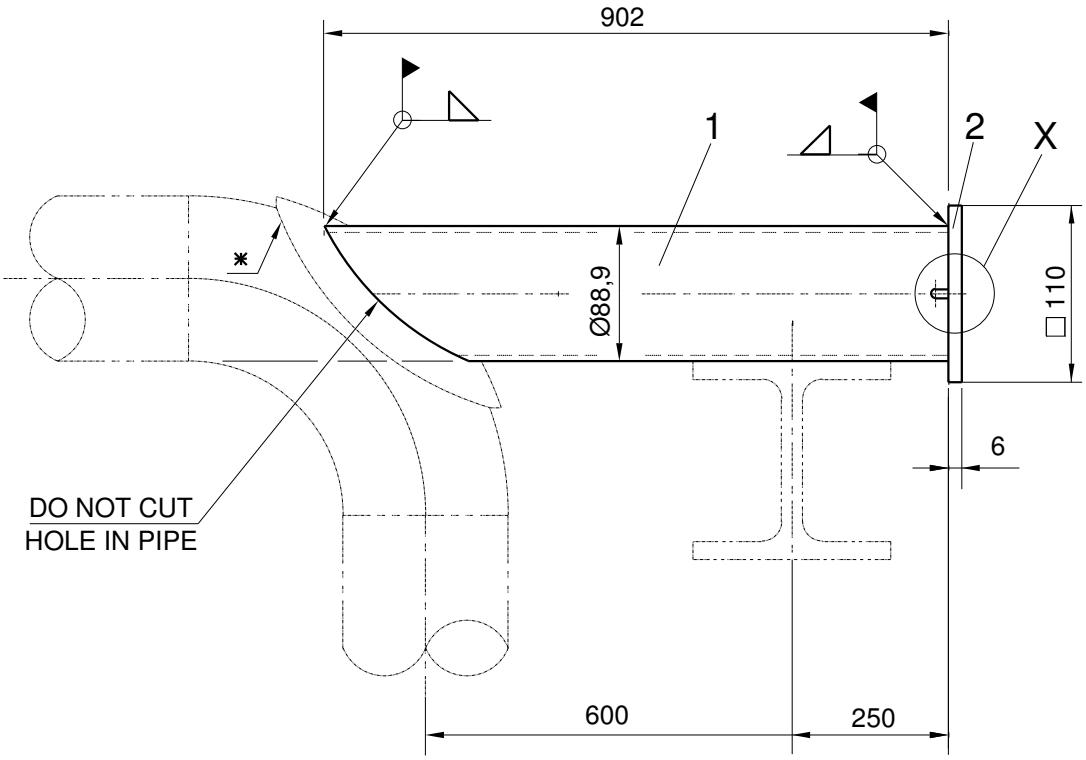
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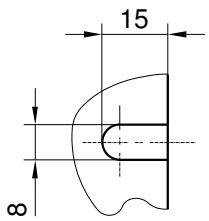
PIPE SUPPORT

Code No.: NUA001D Marking : 100/600

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 902	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 9,860 kg

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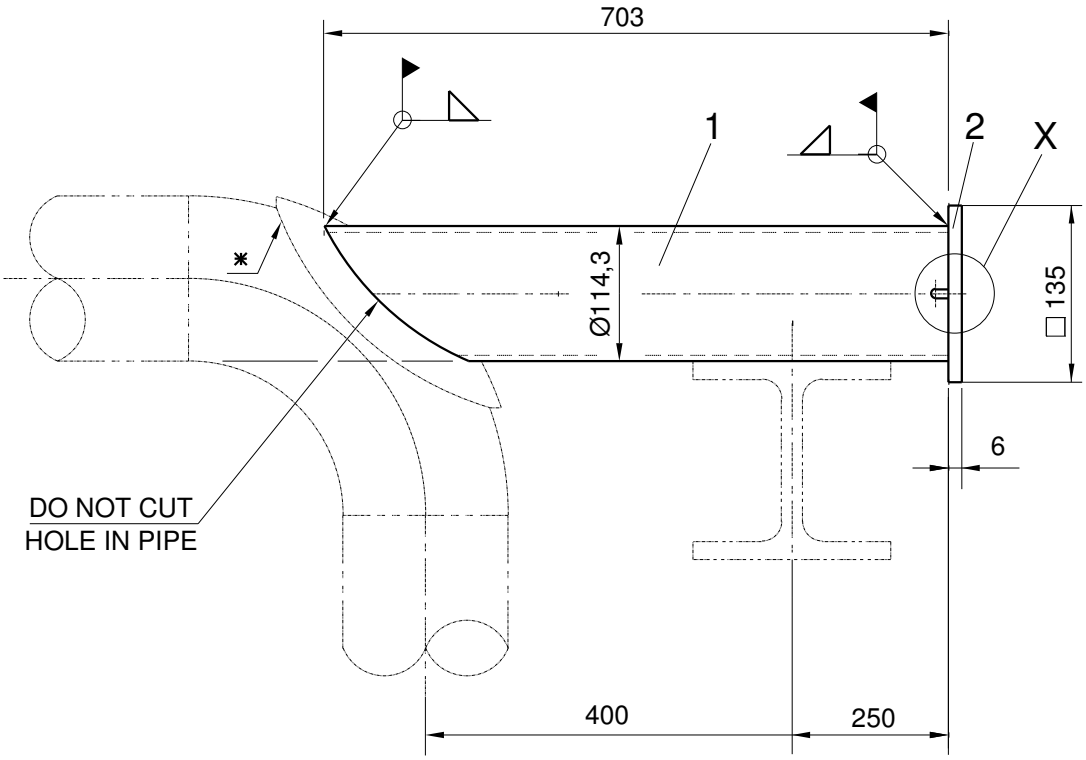
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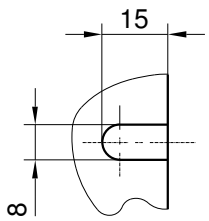
PIPE SUPPORT

Code No.: NUA001D Marking : 150/400

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 703	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 12,670 kg

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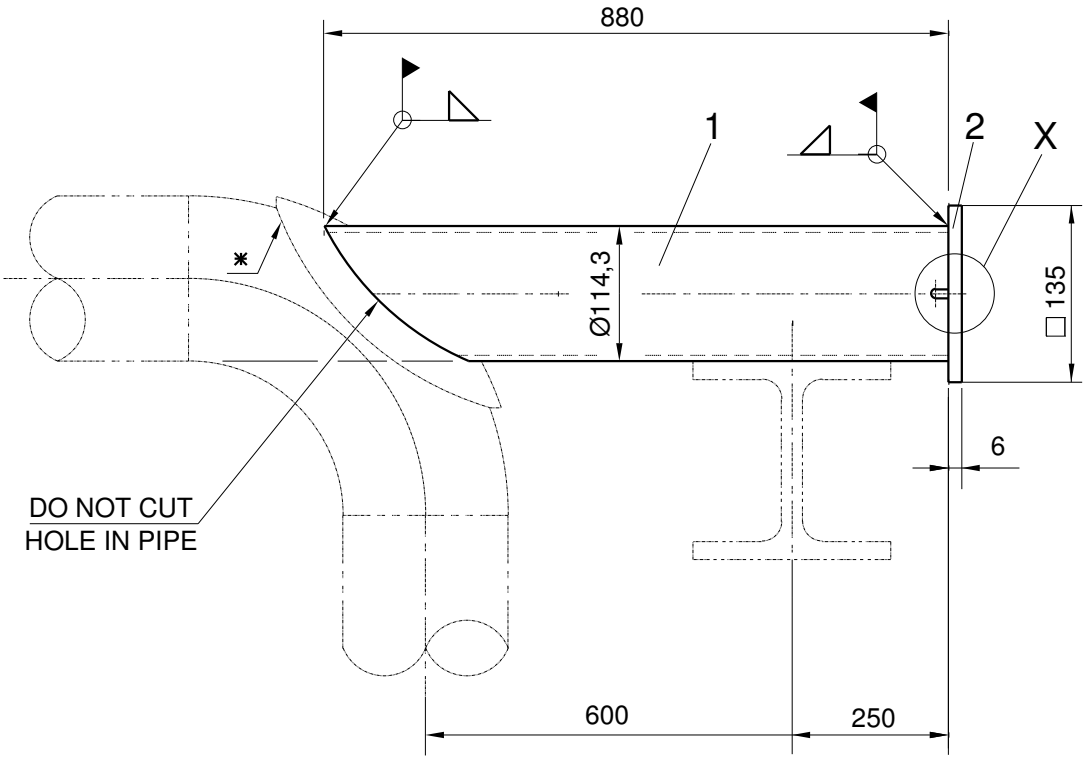
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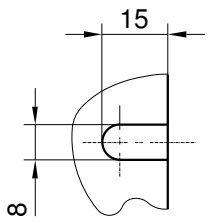
PIPE SUPPORT

Code No.: NUA001D Marking : 200/600

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 880	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 15,630 kg

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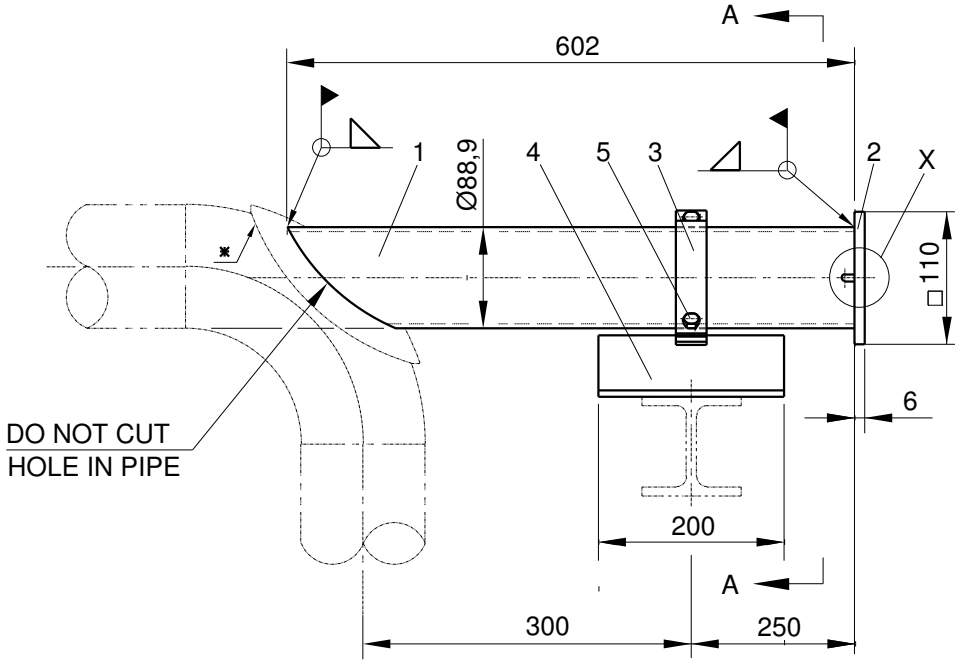
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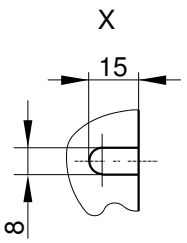
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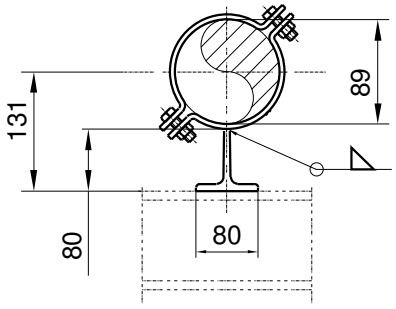
PIPE SUPPORT

Code No.: NUG001D Marking : 100/1/300

U Item







A-A

✱ Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 602	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 9,810 kg

1) A193GR.B7/A194GR.2H

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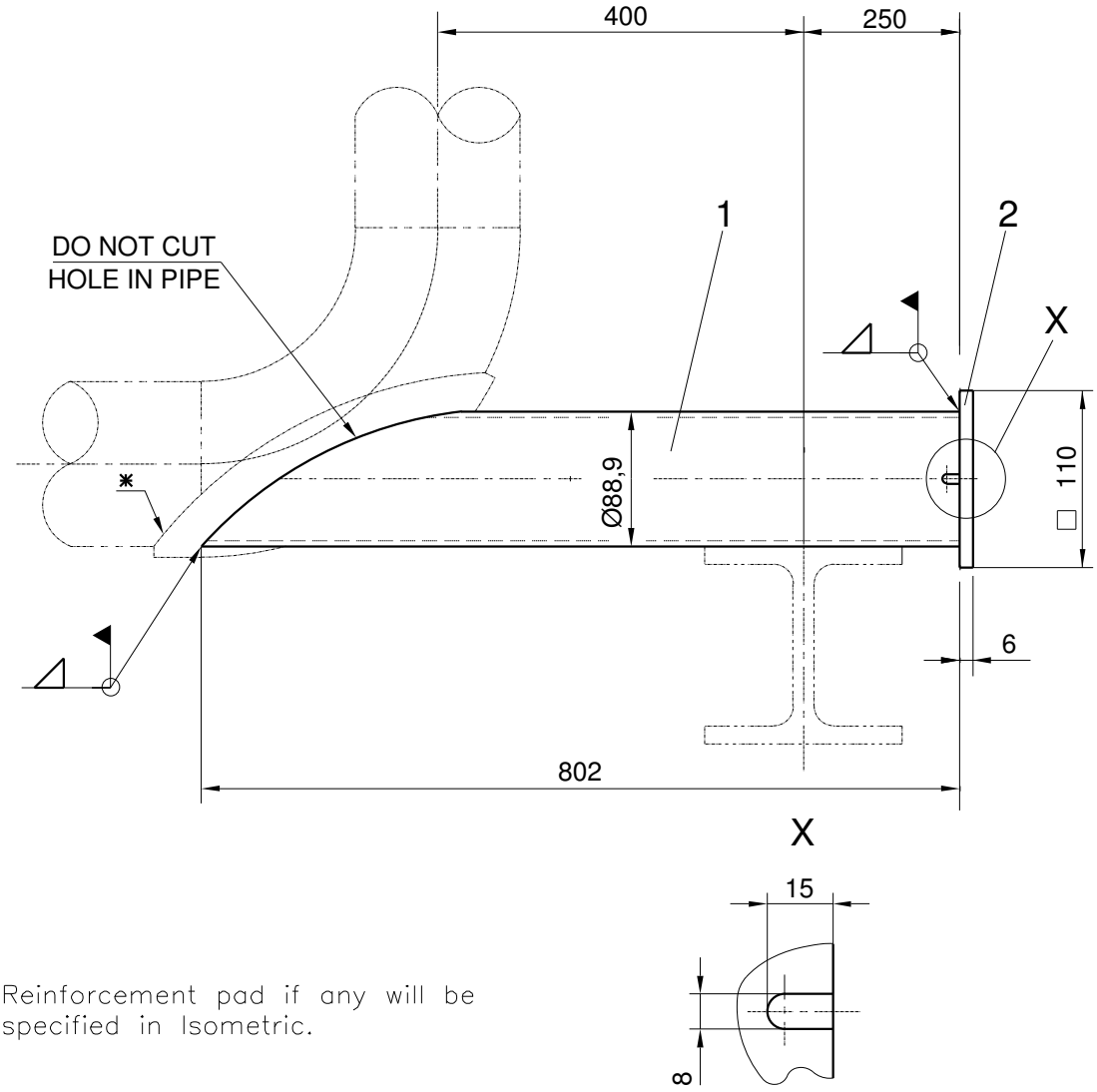
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NVA001D Marking : 100/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 802	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 8,830 kg

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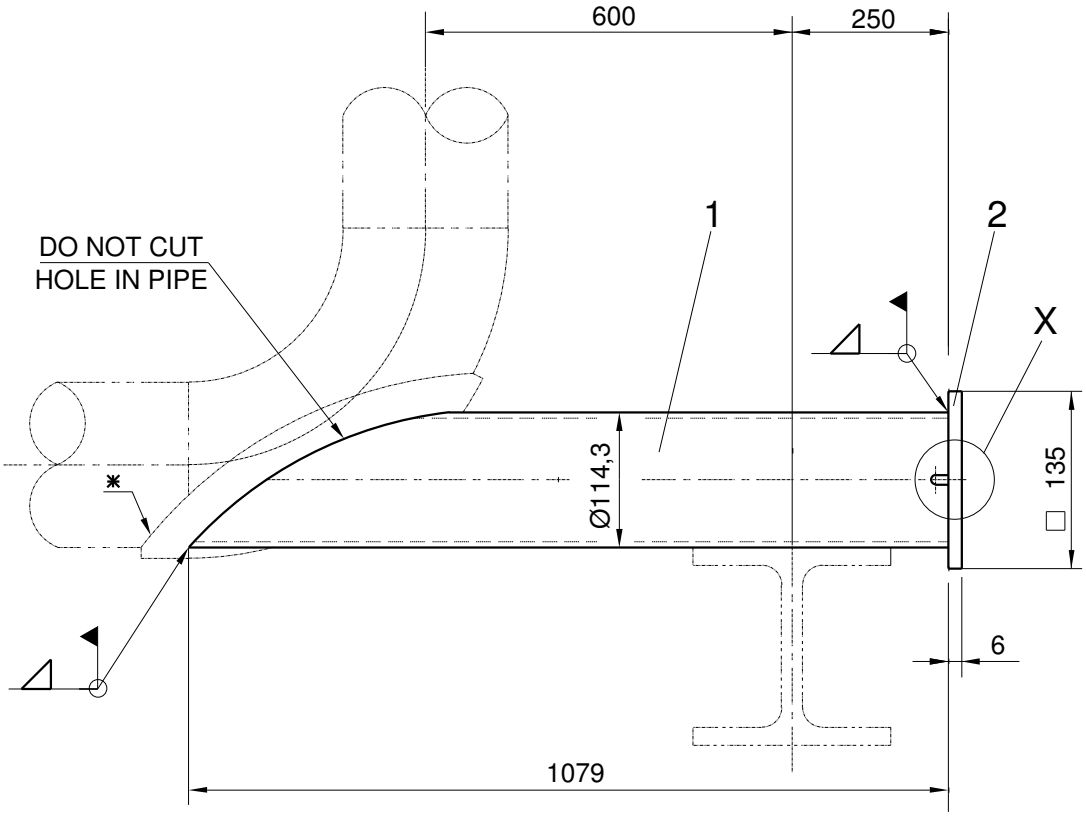
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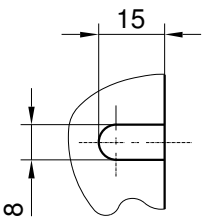
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NVA001D Marking : 150/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1079	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 18,990 kg

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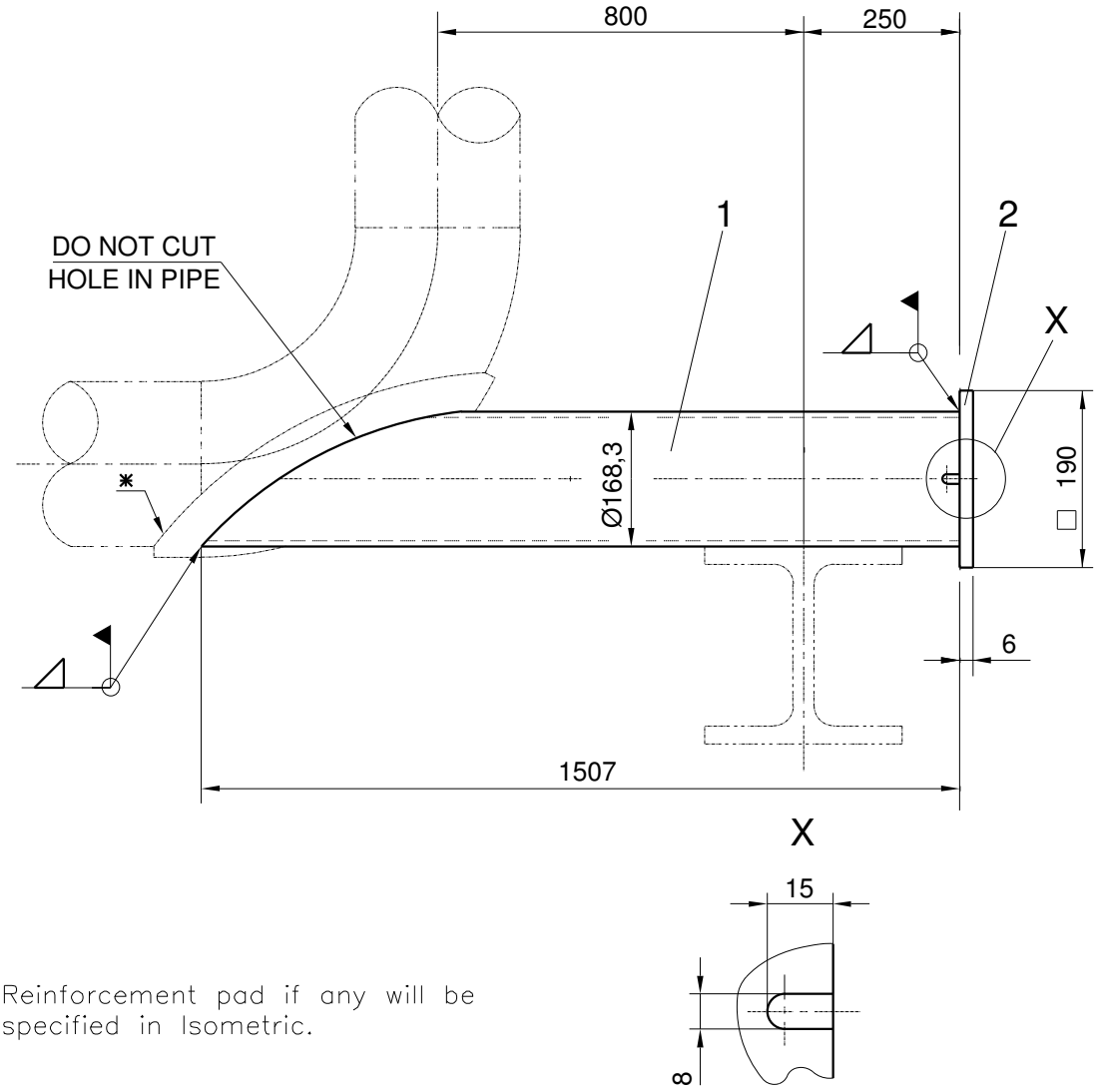
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NVA001D Marking : 300/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 1507	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 66,050 kg

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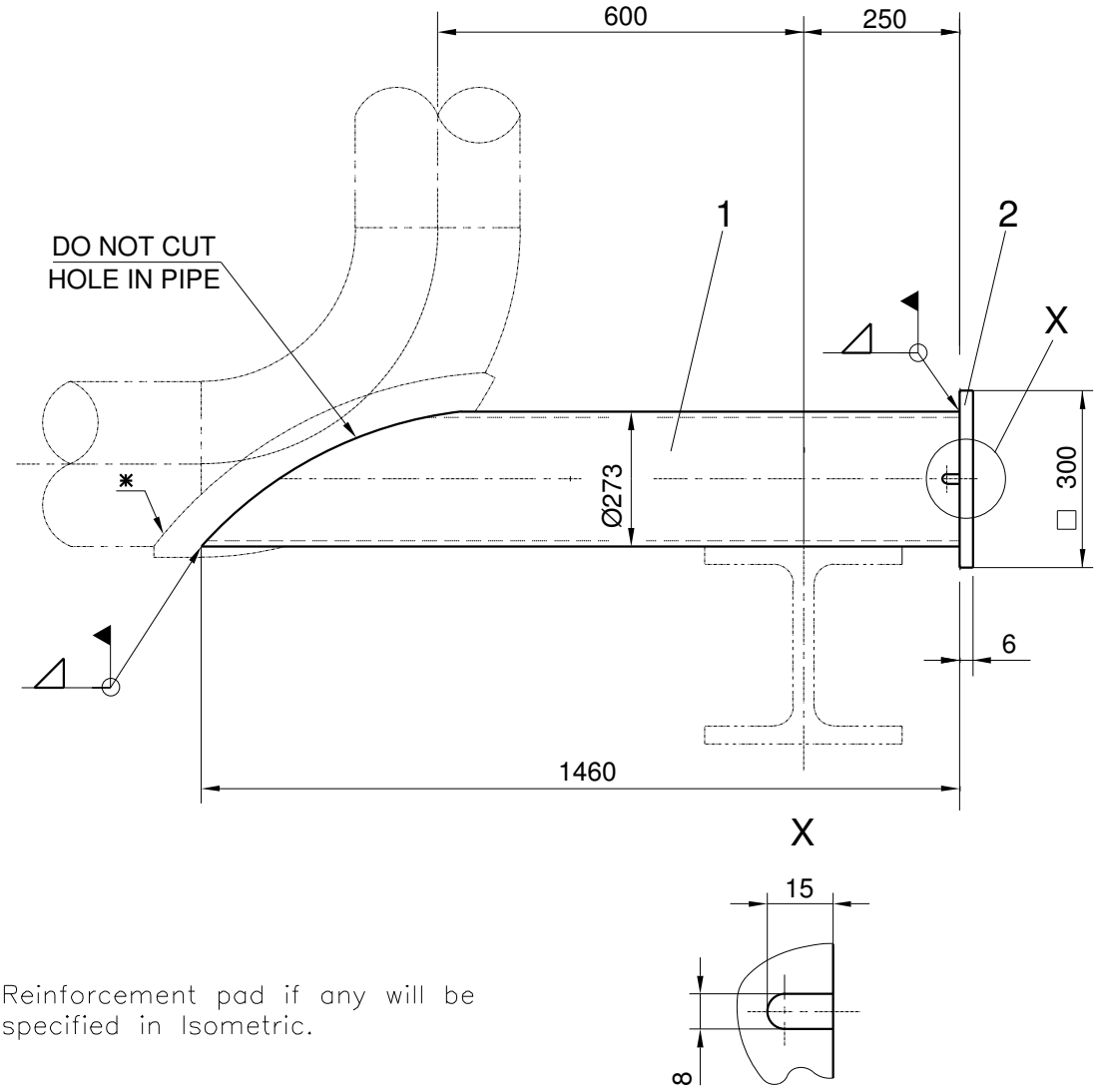
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NVA001D Marking : 400/600

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1460	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 98,990 kg

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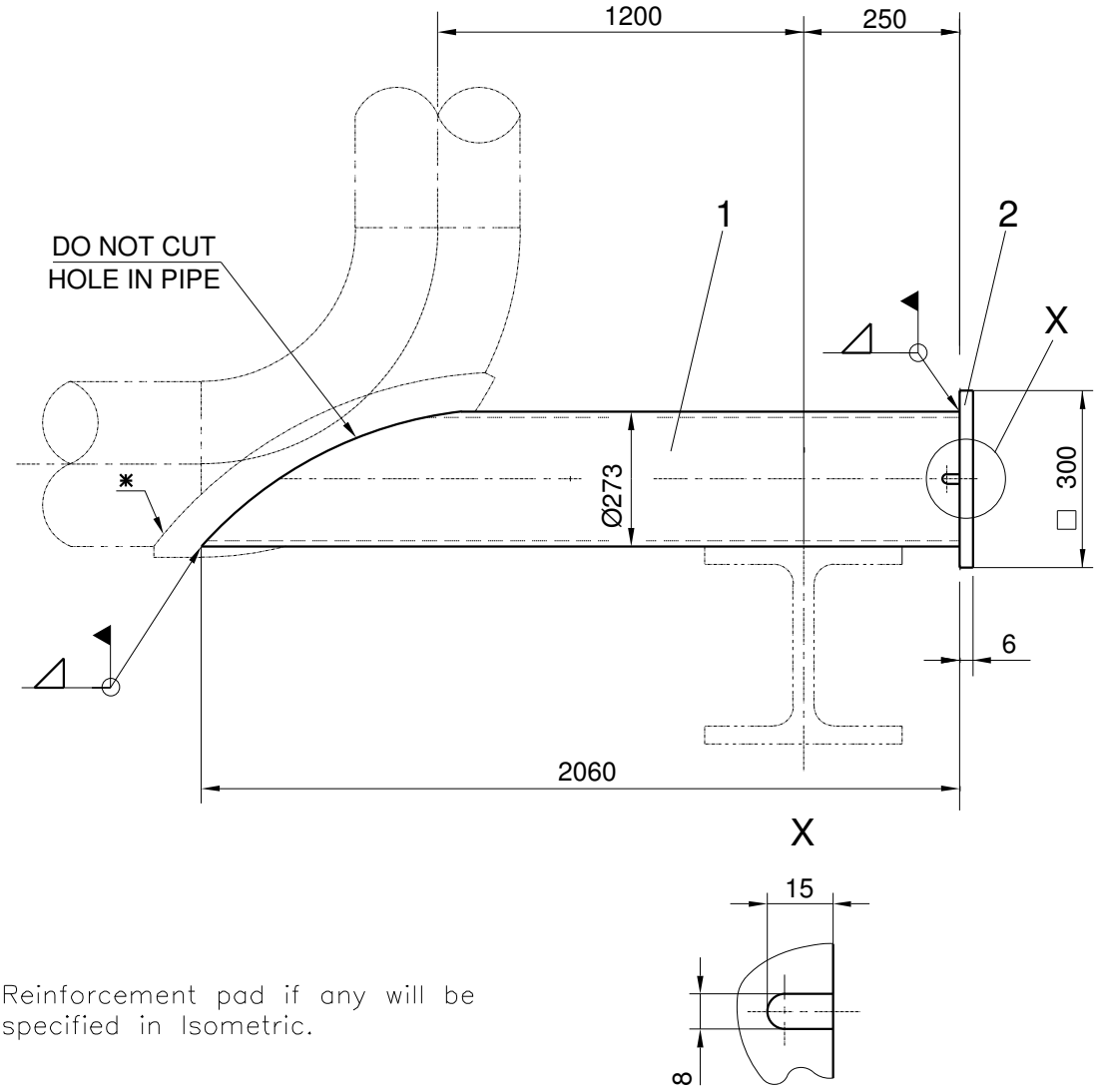
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NVA001D Marking : 400/1200

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 2060	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 137,930 kg

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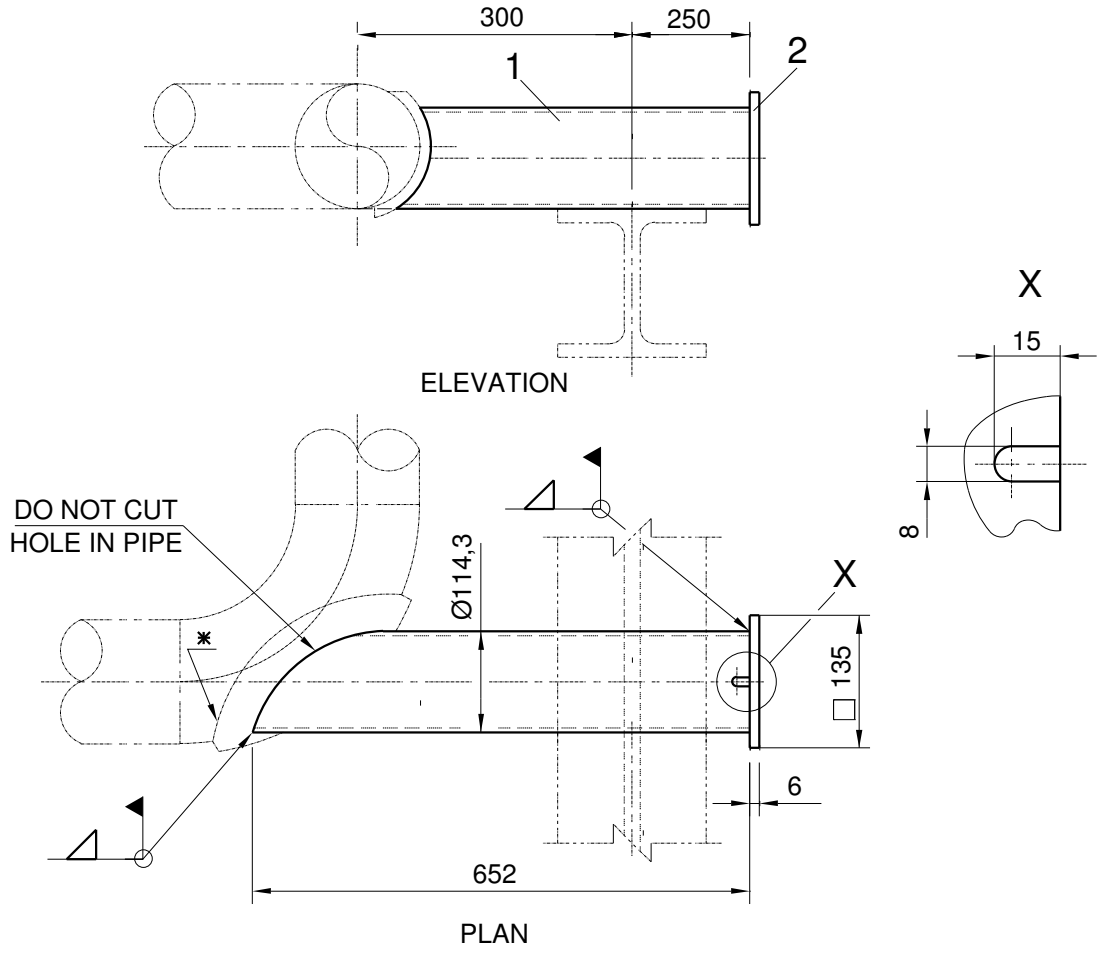
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 150/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 652	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 11,810 kg

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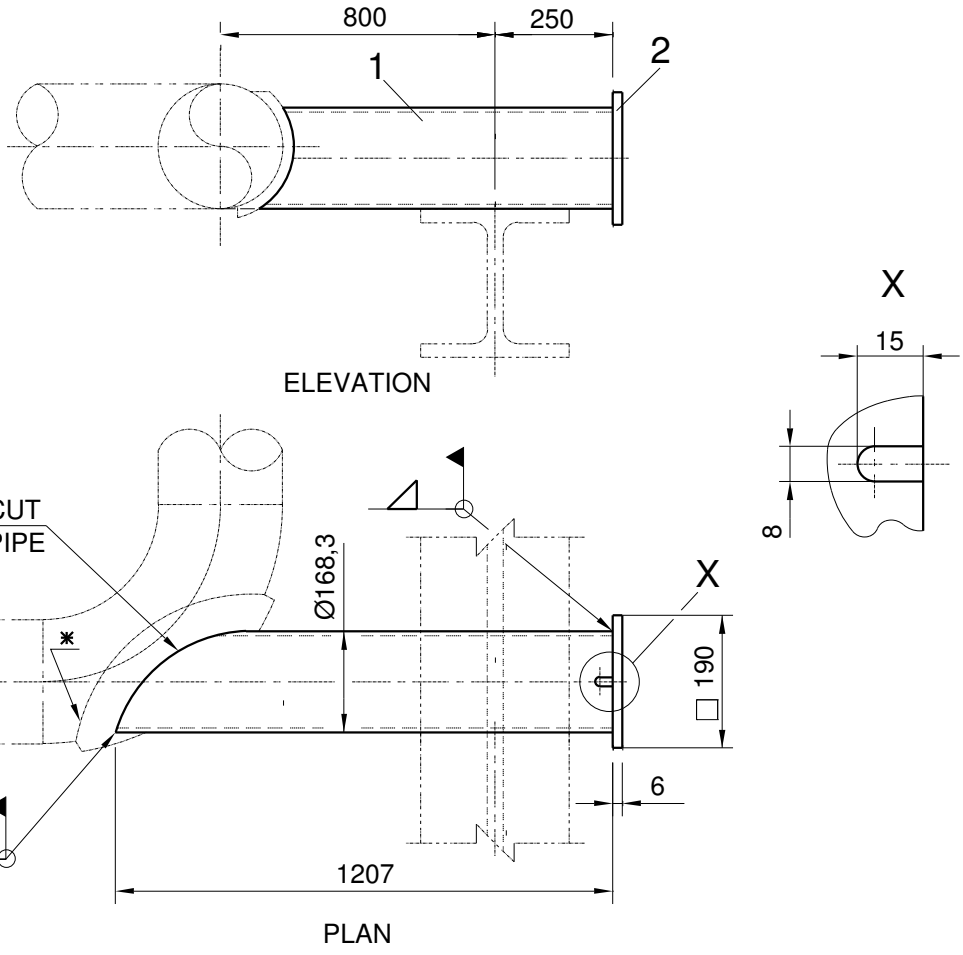
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 300/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 1207	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 53,220 kg

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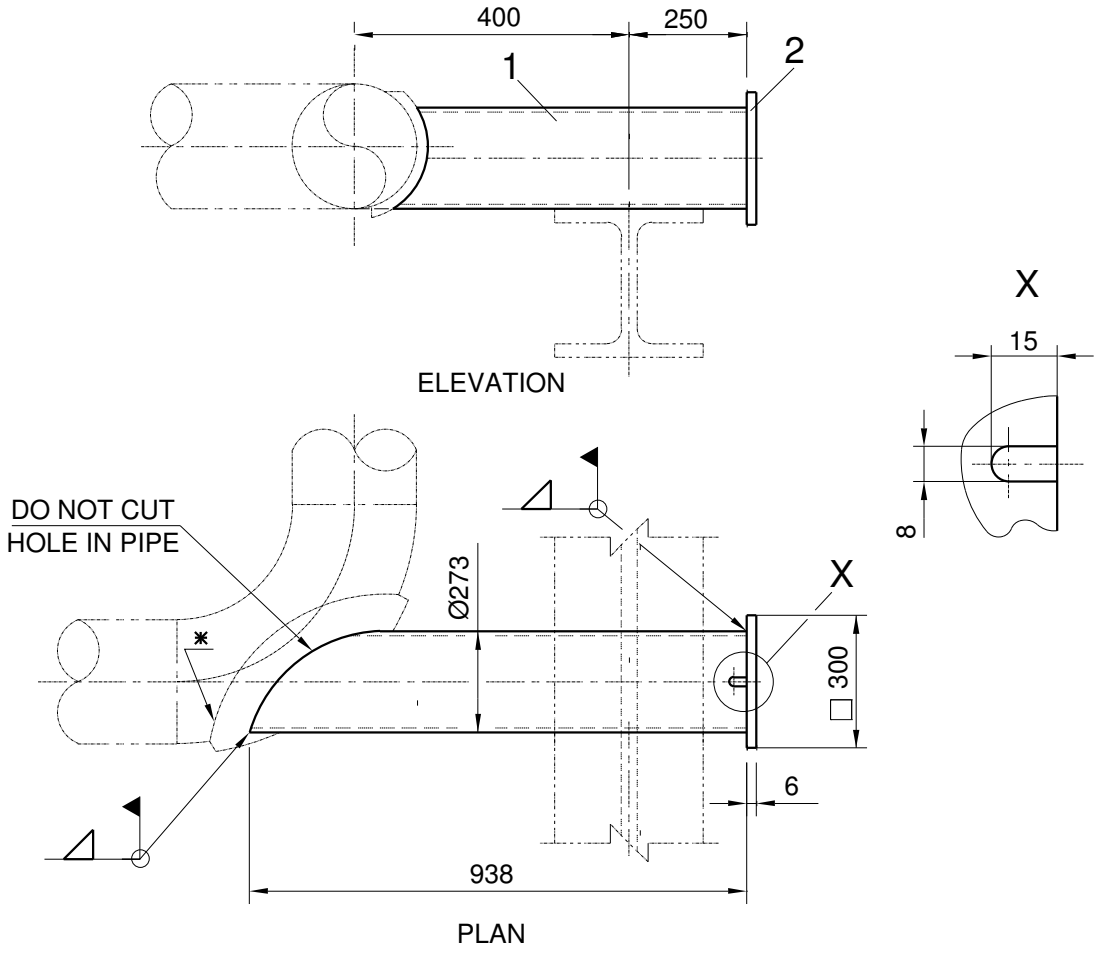
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 400/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 938	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 65,080 kg

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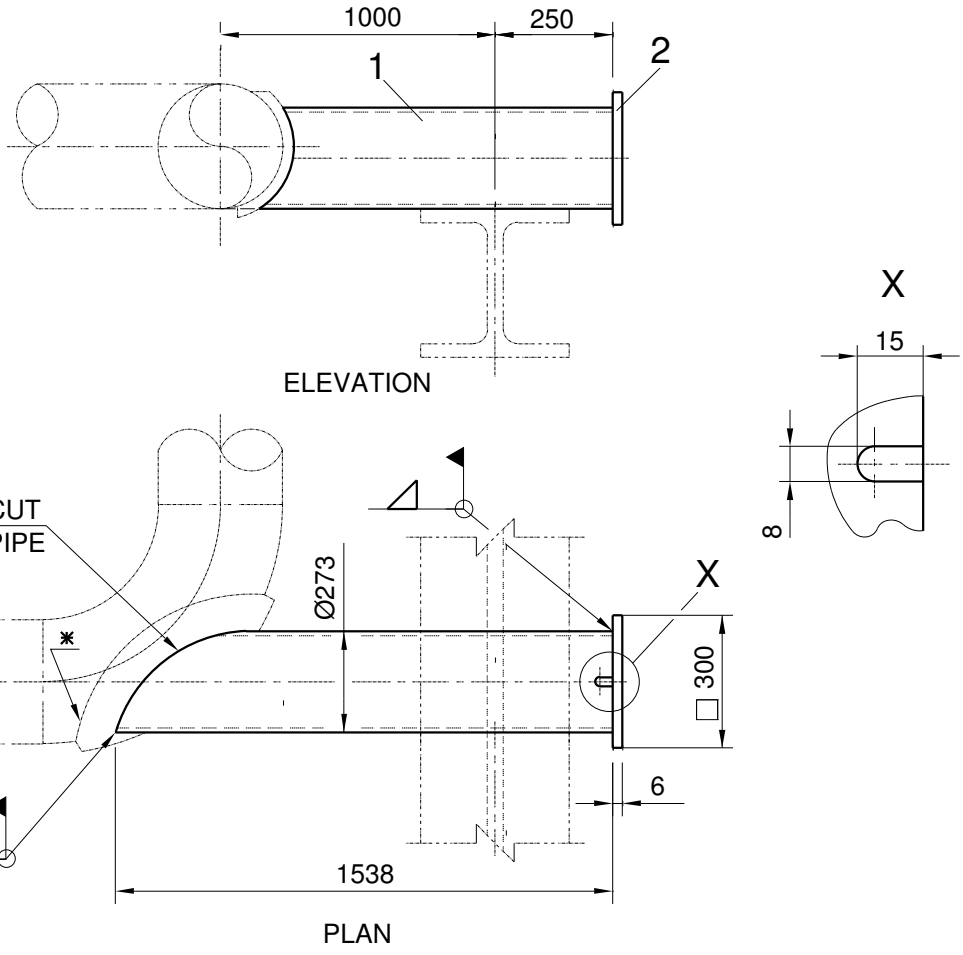
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 400/1000

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1538	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 104,020 kg

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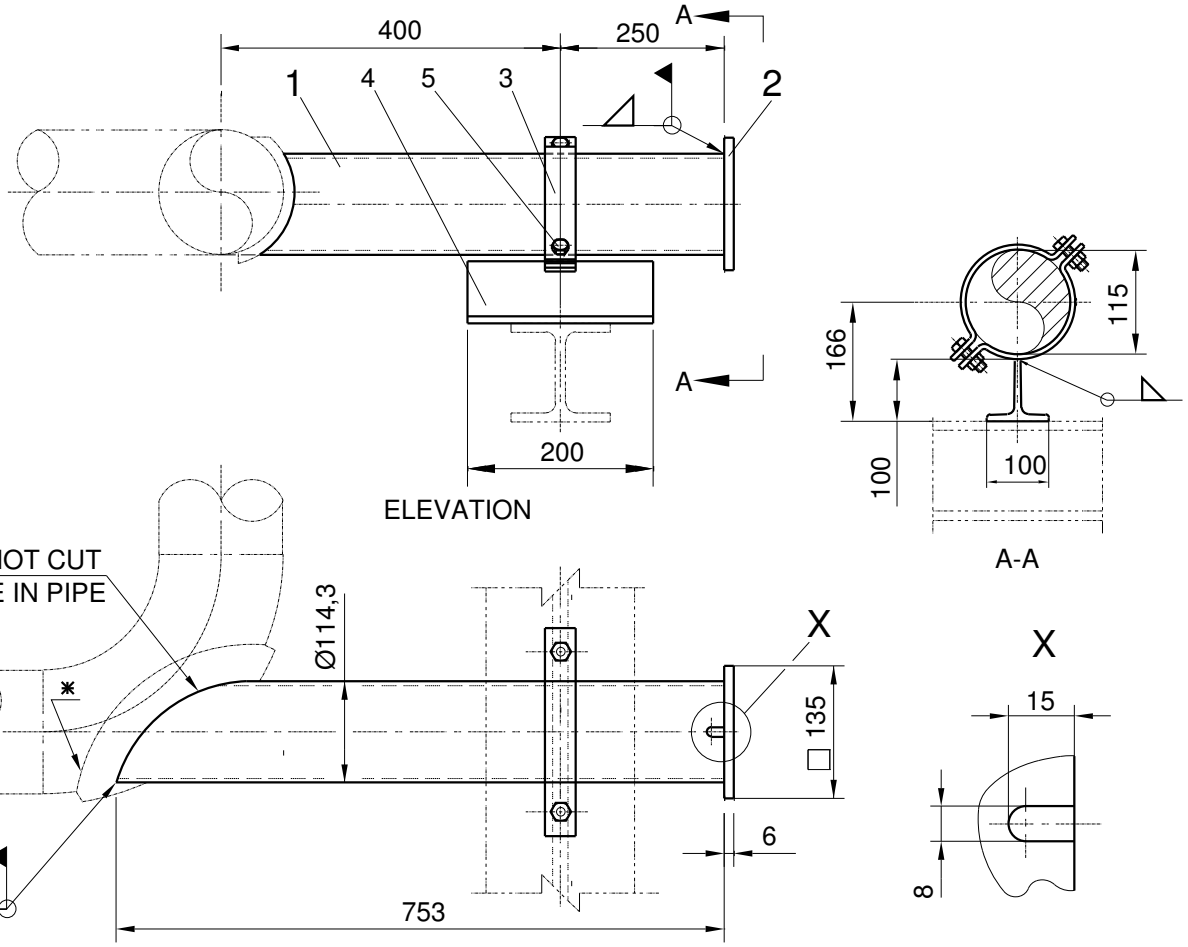
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 200/2/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 753	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 18,760 kg

1) A193GR.B7/A194GR.2H

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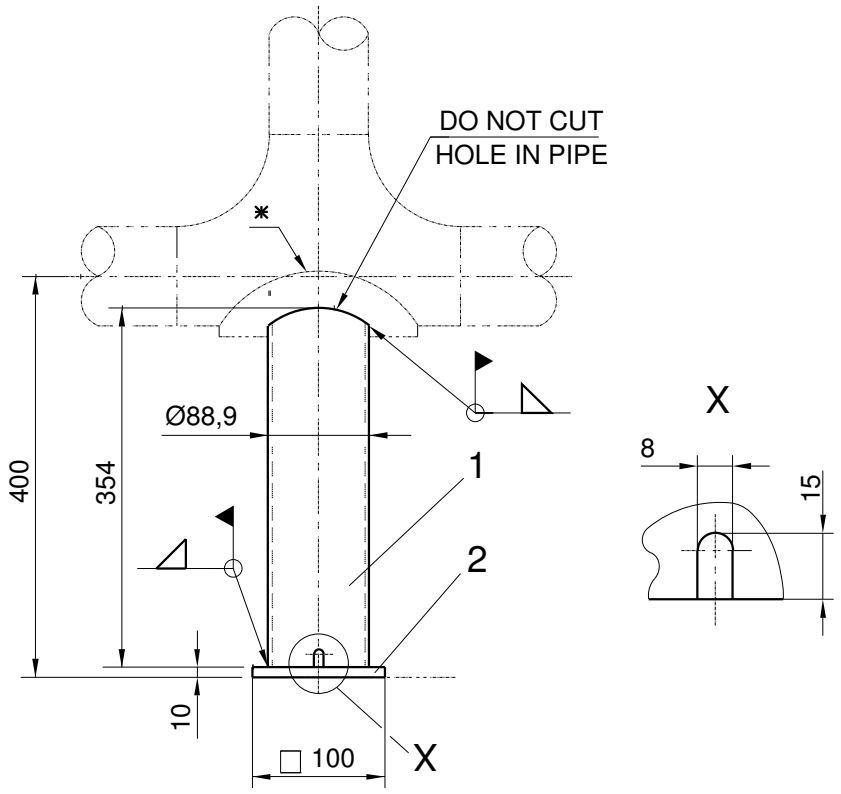
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NXA001D Marking : 100/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 354	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 4,430 kg

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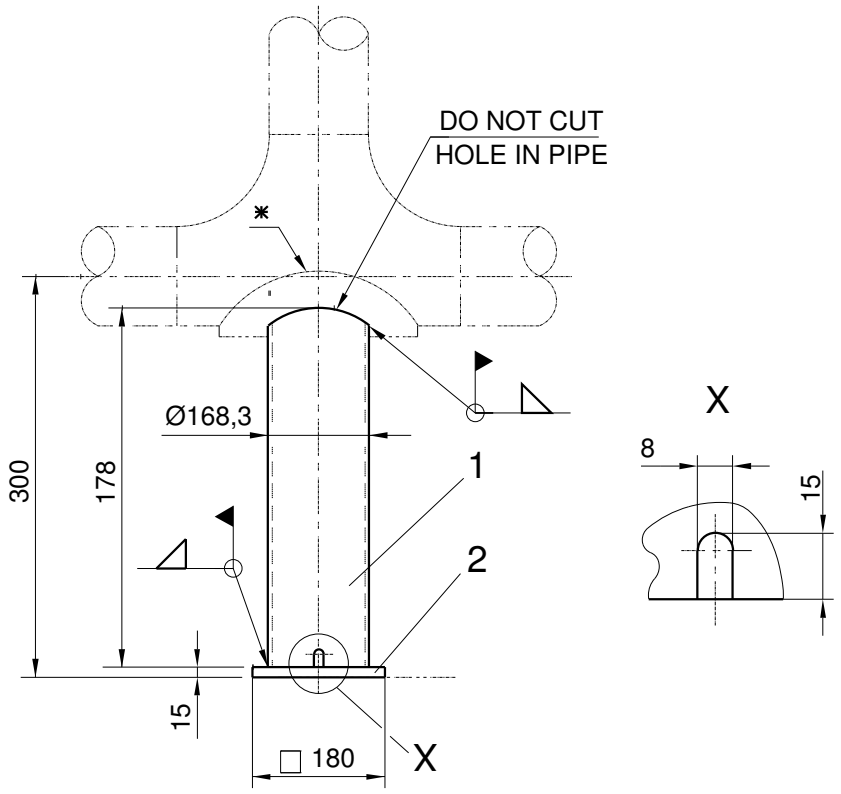
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NXA001D Marking : 250/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 178	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 11,400 kg

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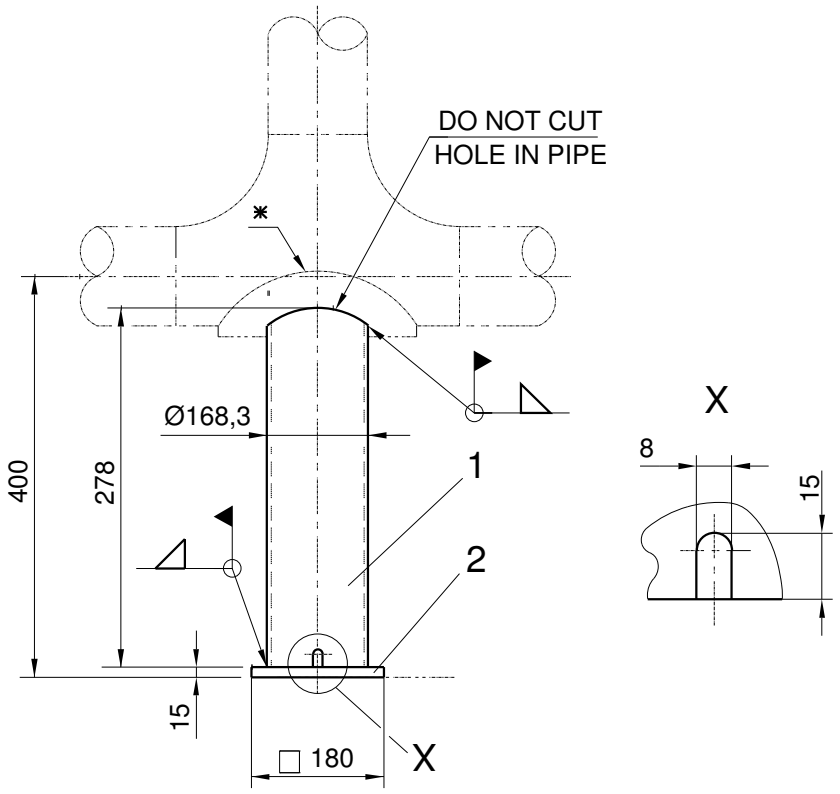
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: NXA001D Marking : 250/400



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 278	DIN 2448	A53GR.B	GR0011D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 15,670 kg

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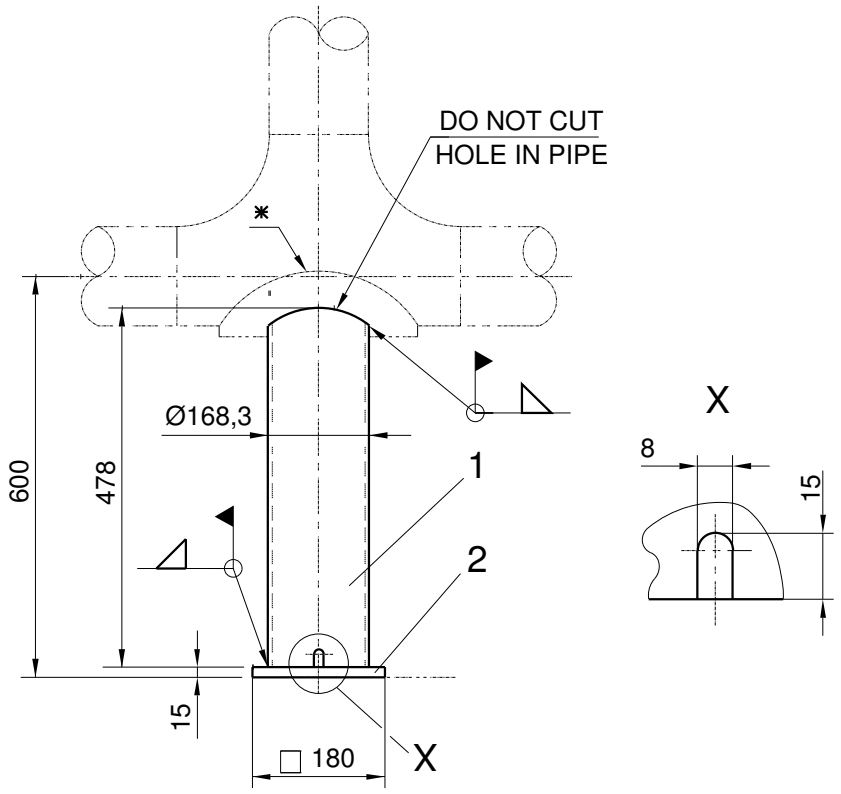
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NXA001D Marking : 250/600

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 478	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 24,210 kg

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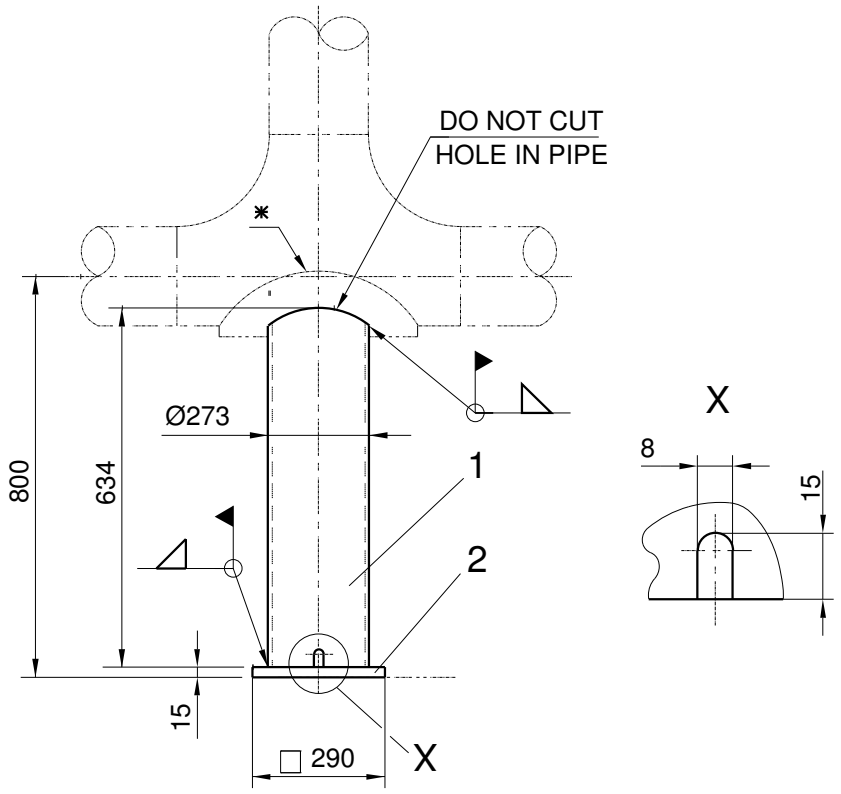
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NXA001D Marking : 400/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 634	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 51,080 kg

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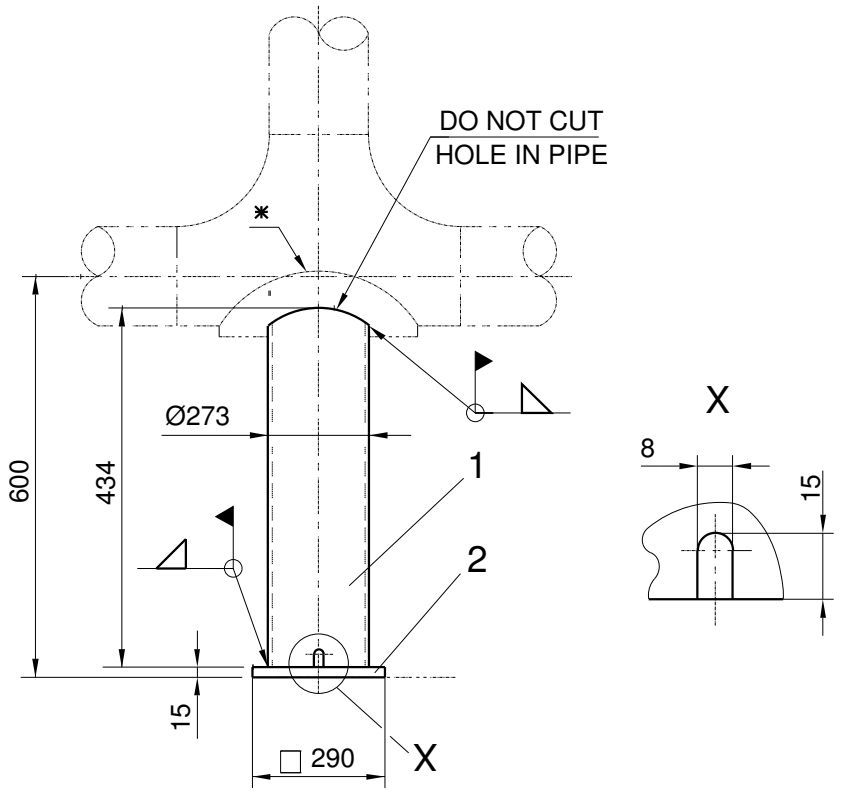
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PIPE SUPPORT

Code No.: NXA001D Marking : 400/600

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 434	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 38,100 kg

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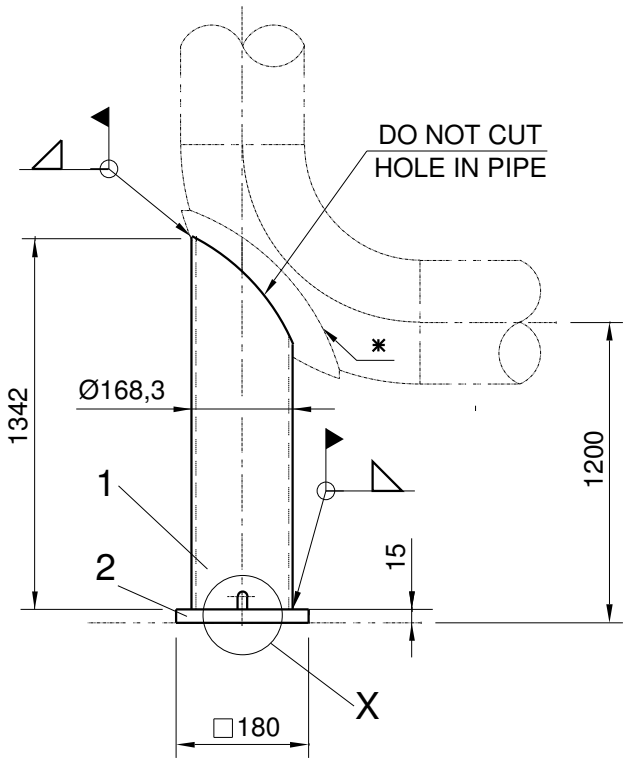
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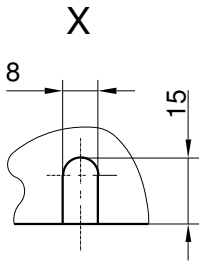
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 300/1200

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 1342	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 61,100 kg

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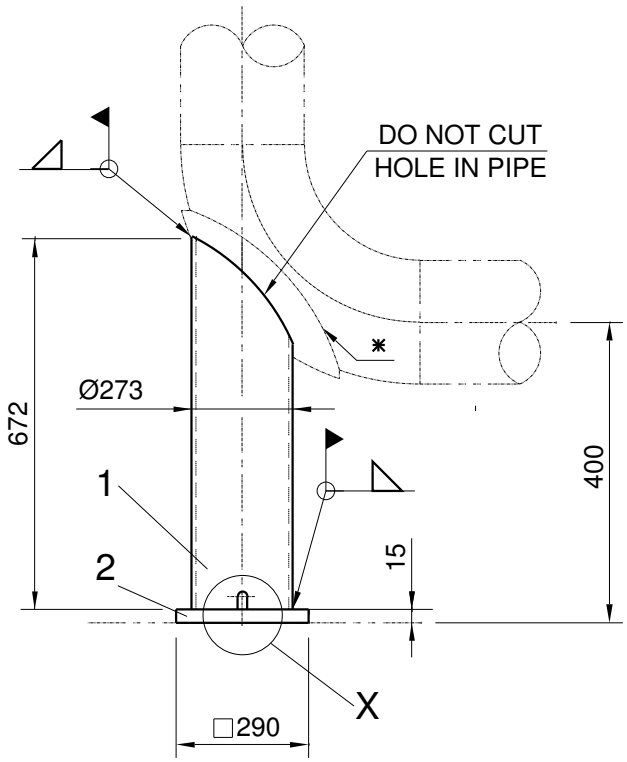
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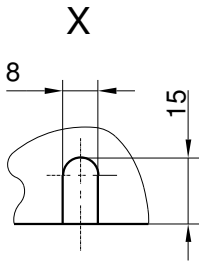
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PIPE SUPPORT

Code No.: NYA001D Marking : 450/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 672	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,100 kg

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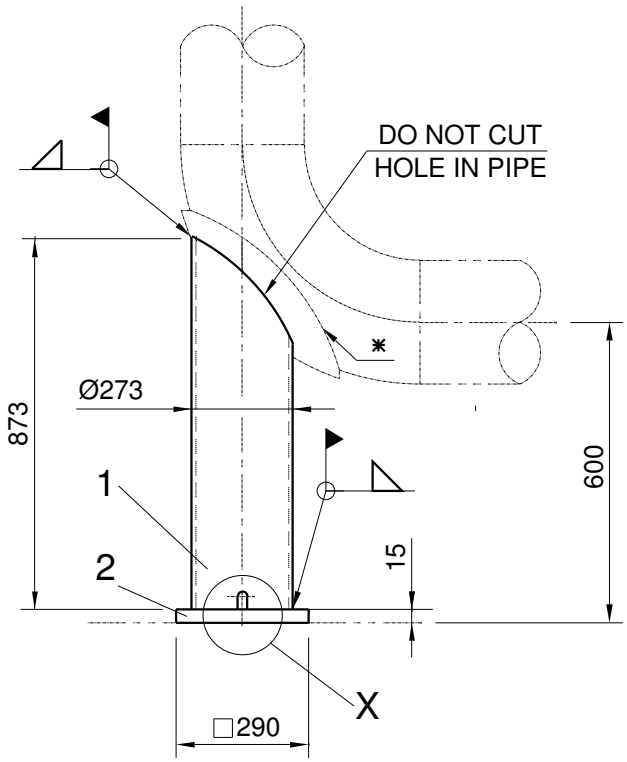
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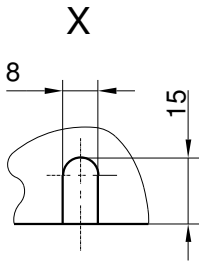
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 500/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 873	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 66,540 kg

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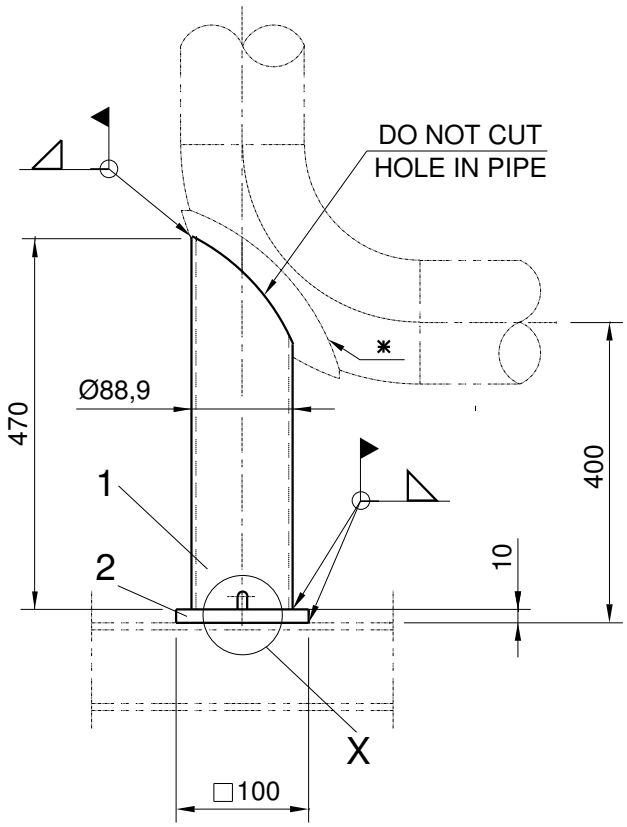
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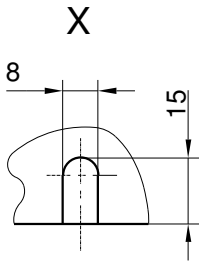
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 100/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 470	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 5,630 kg

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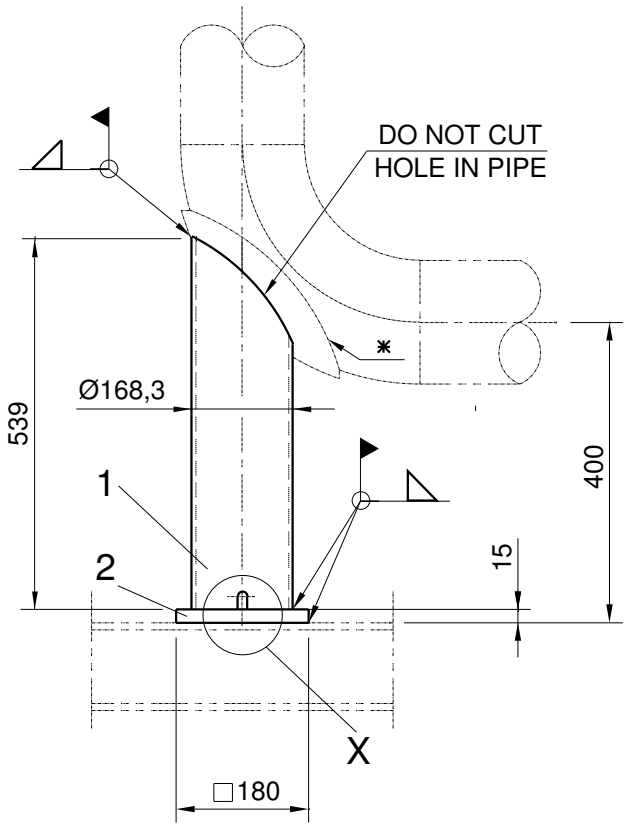
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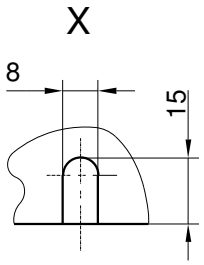
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 250/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 539	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 26,840 kg

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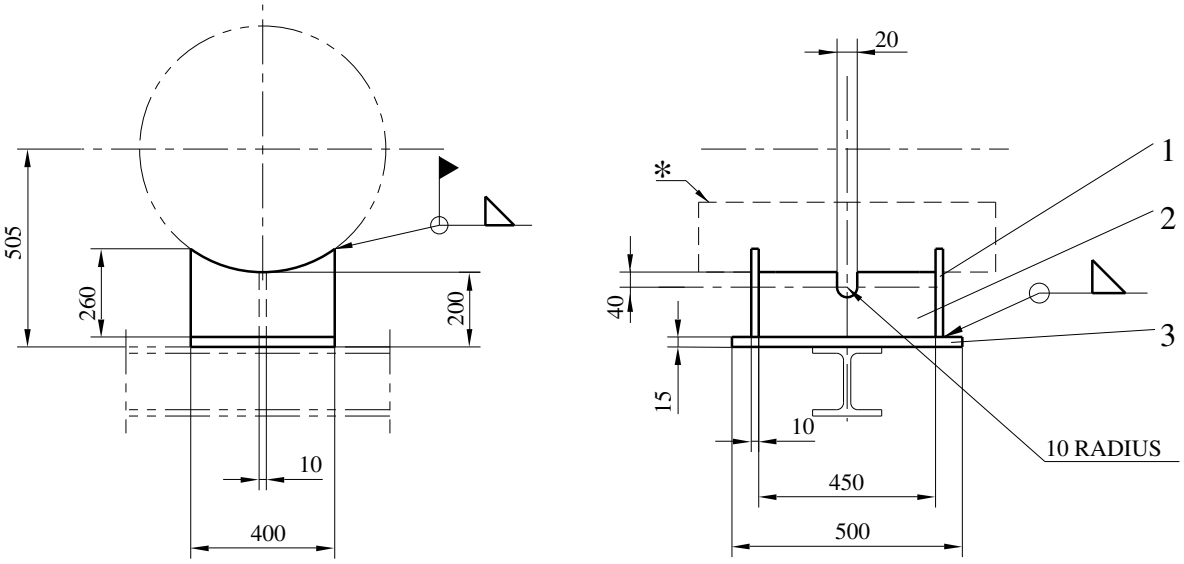
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: WCA004D Marking : 600/5



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 185 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 260 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

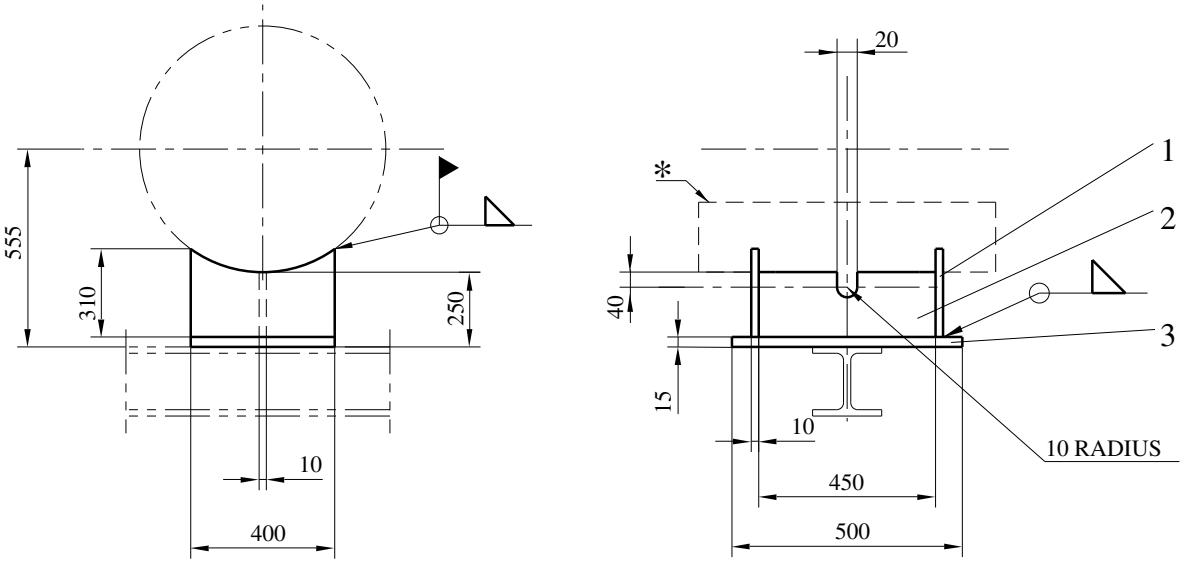
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCA004D Marking : 600/6

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 235 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 310 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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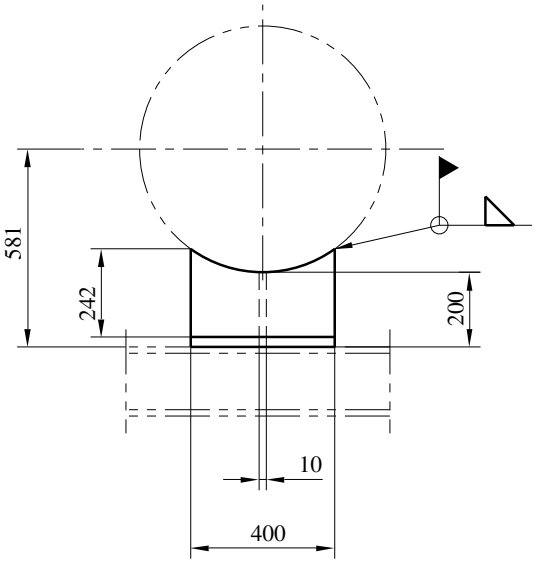
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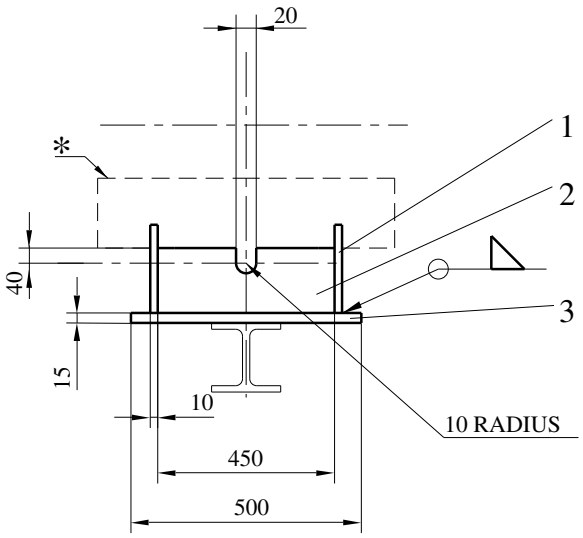
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA004D Marking : 750/5

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 185 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 242 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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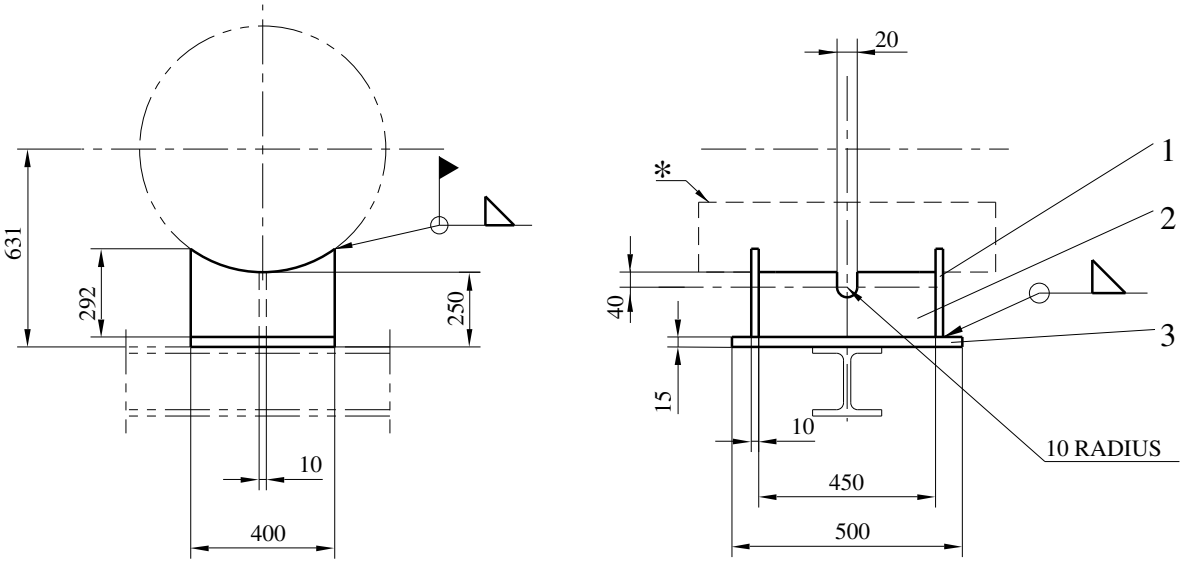
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCA004D Marking : 750/6

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 400 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 235 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 292 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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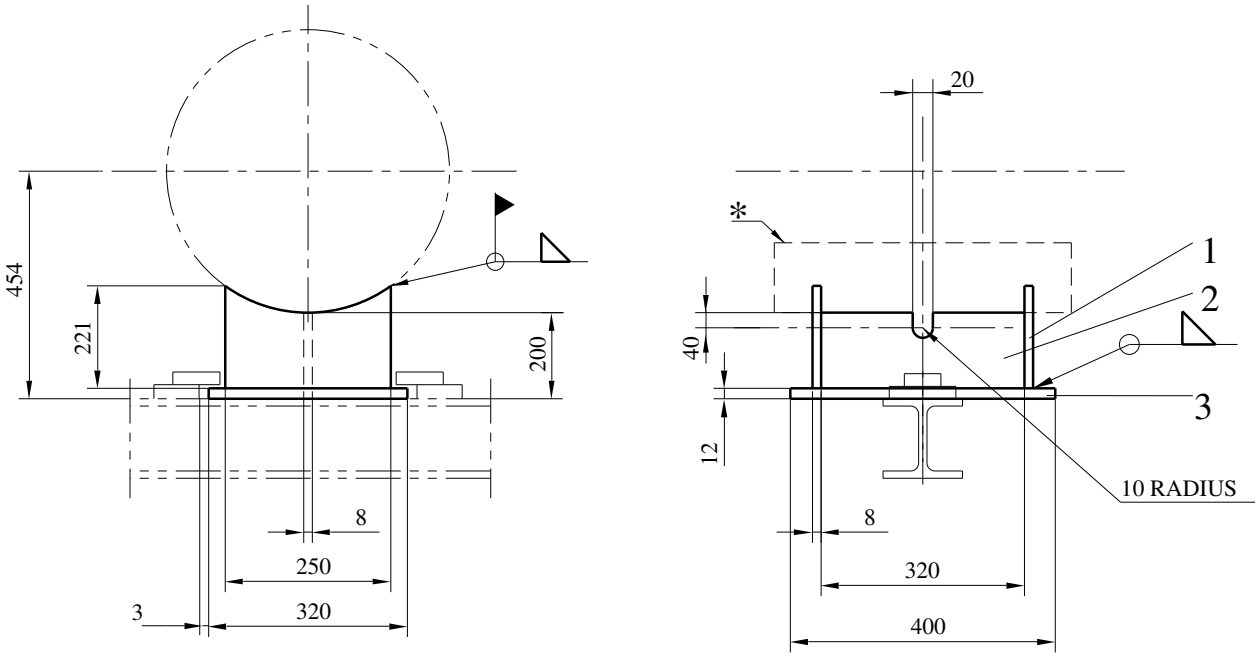
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCB005D Marking : 500/5

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
2	1	PLATE 8 x 188 x 320	EN 10029	A283GR.B	GB0001D
1	2	PLATE 8 x 221 x 250	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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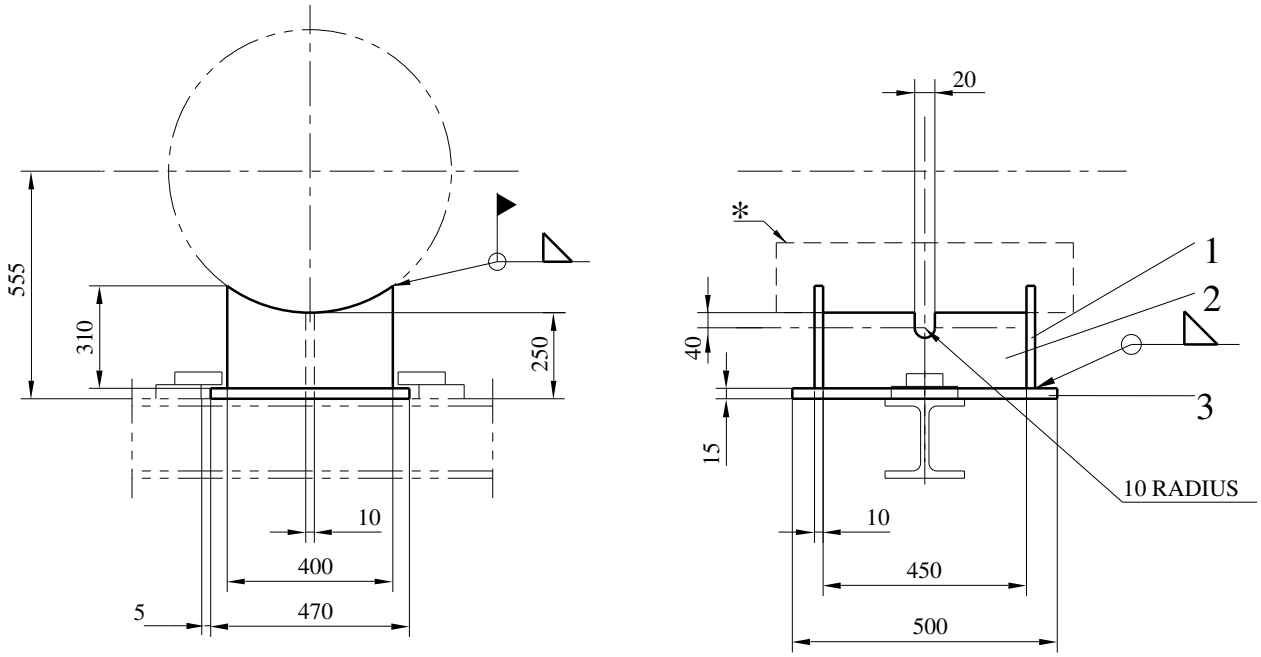
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WCB006D Marking : 600/6

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 470 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 235 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 310 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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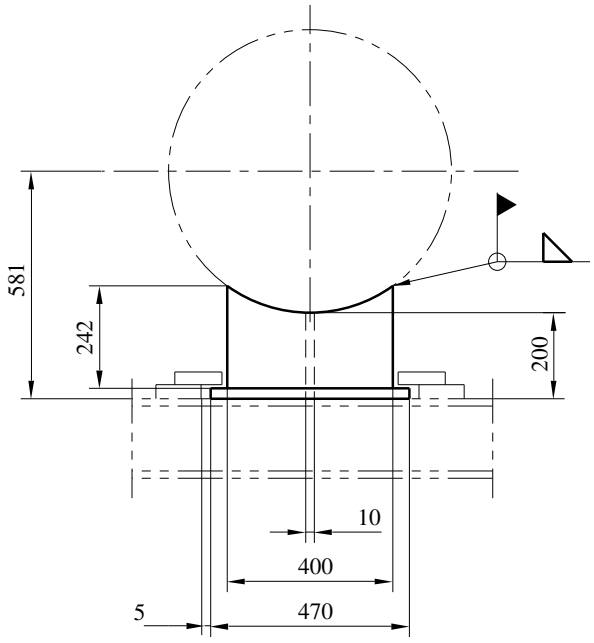
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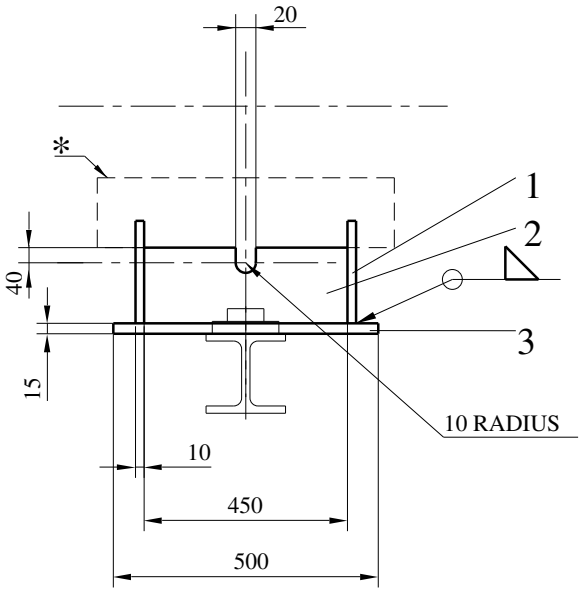
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB006D Marking : 750/5

U Item





* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 470 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 185 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 242 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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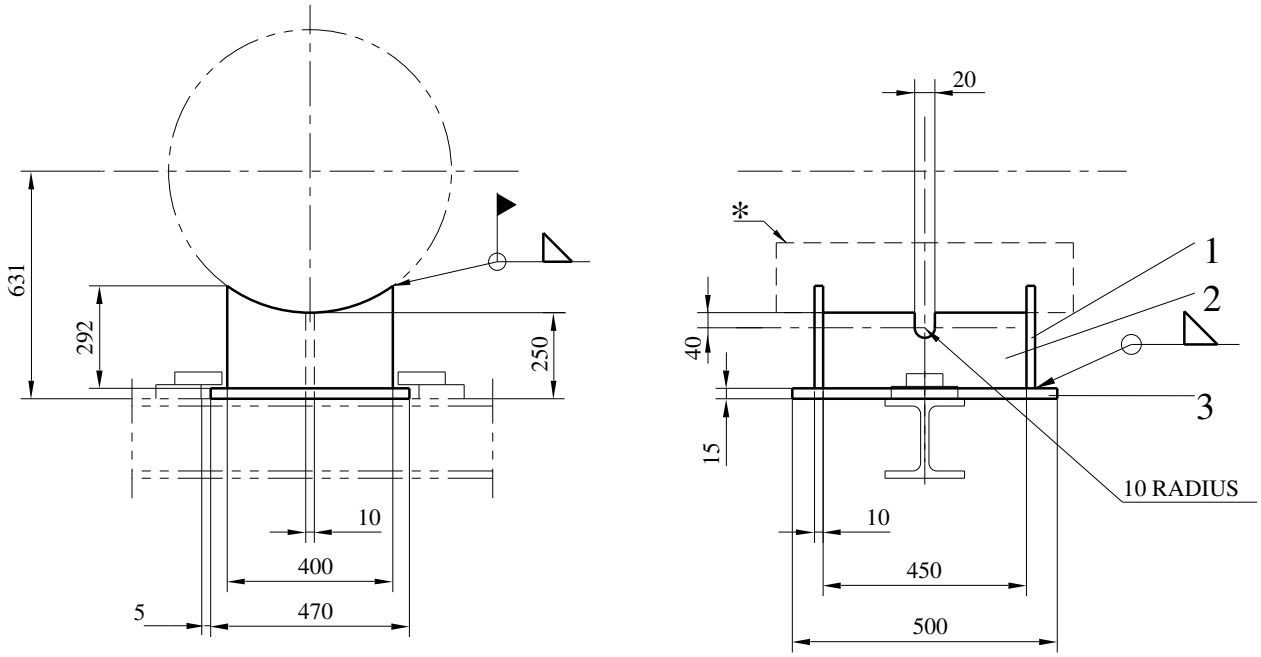
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCB006D Marking : 750/6

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 15 x 470 x 500	EN 10029	A283GR.B	GB0001D
2	1	PLATE 10 x 235 x 450	EN 10029	A283GR.B	GB0001D
1	2	PLATE 10 x 292 x 400	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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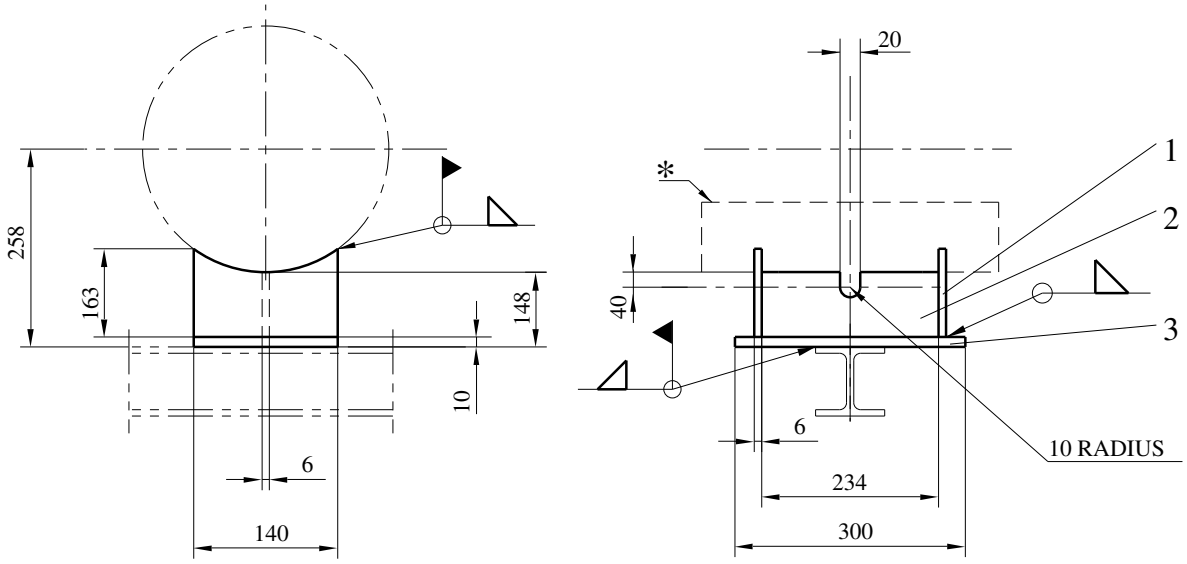
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC007D Marking : 200/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 140 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 163 x 140	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = 0,000 kg

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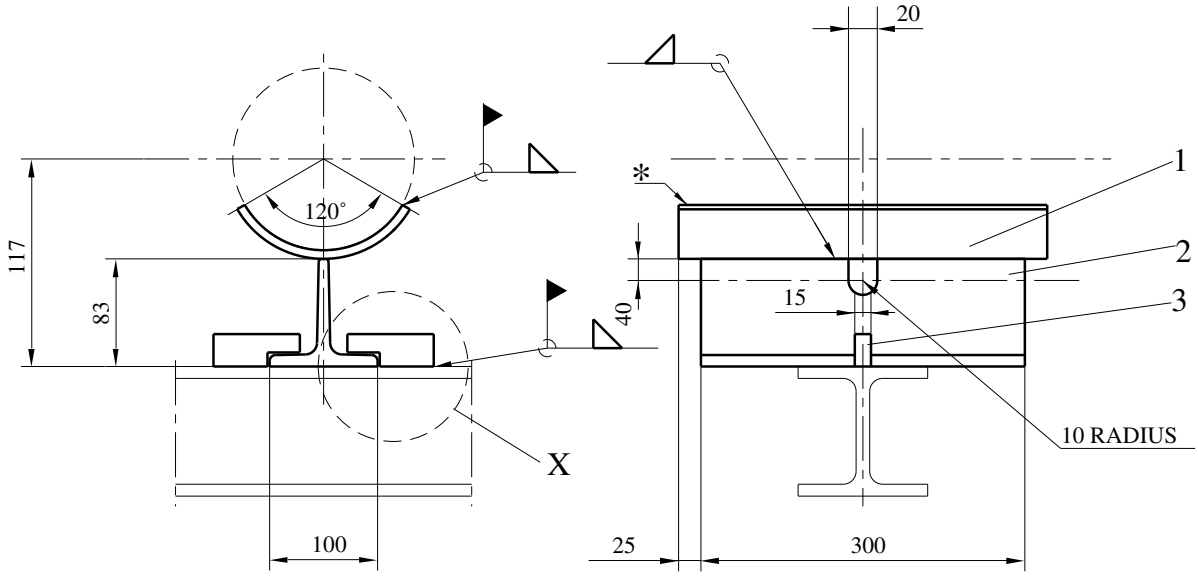
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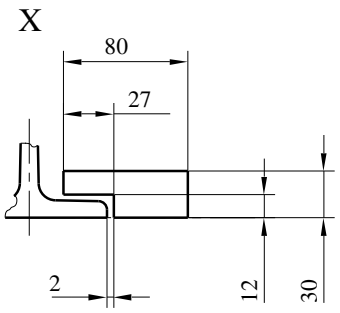
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB051D Marking : 50/1

U Item





∗ Reinforcement Pad shall have Material and Thickness same as Parent Pipe

Thickness of pipe 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
2	1	T-BAR CUT FROM ISMB 200 , 83 x 100 x 300 Long	IS 808	IS 2062	GTI099D
1	1	RF PAD DSS DN 50 x 350 LONG		UNS S31803	RF0001D

Remarks: Total weight = 0,000 kg

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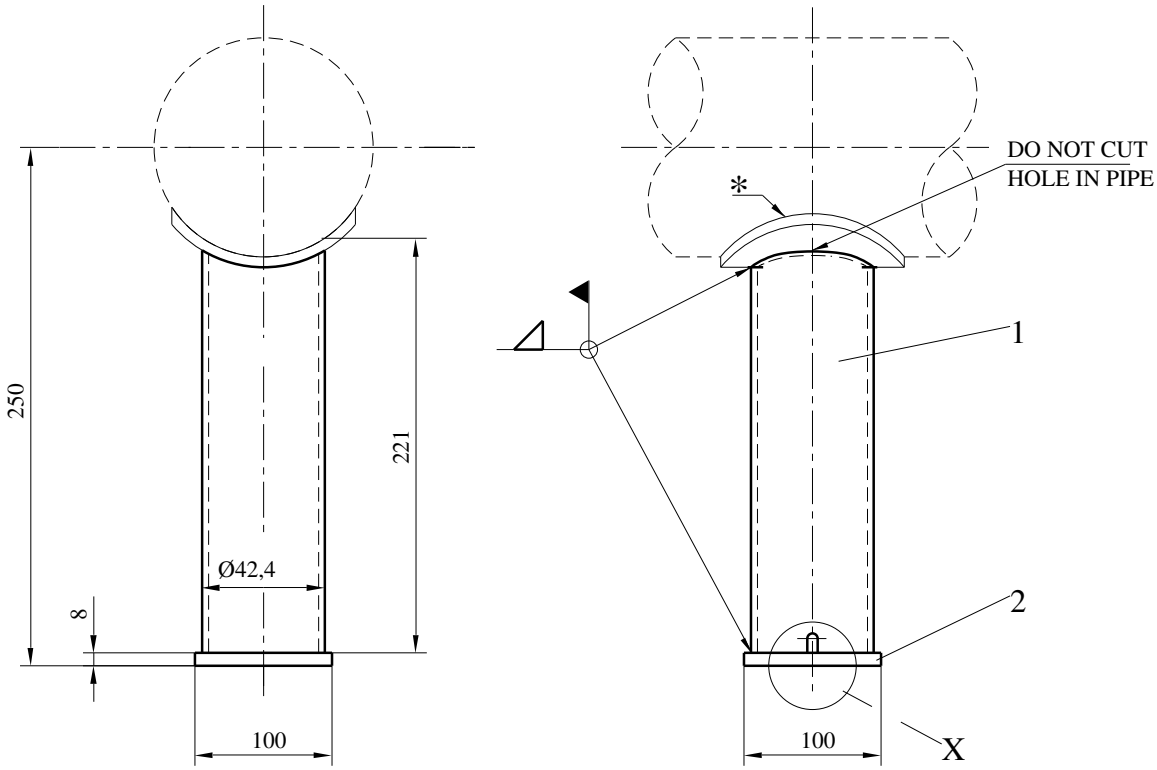
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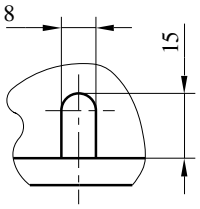
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 50/250

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 42,4 x 2,6 x 221	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

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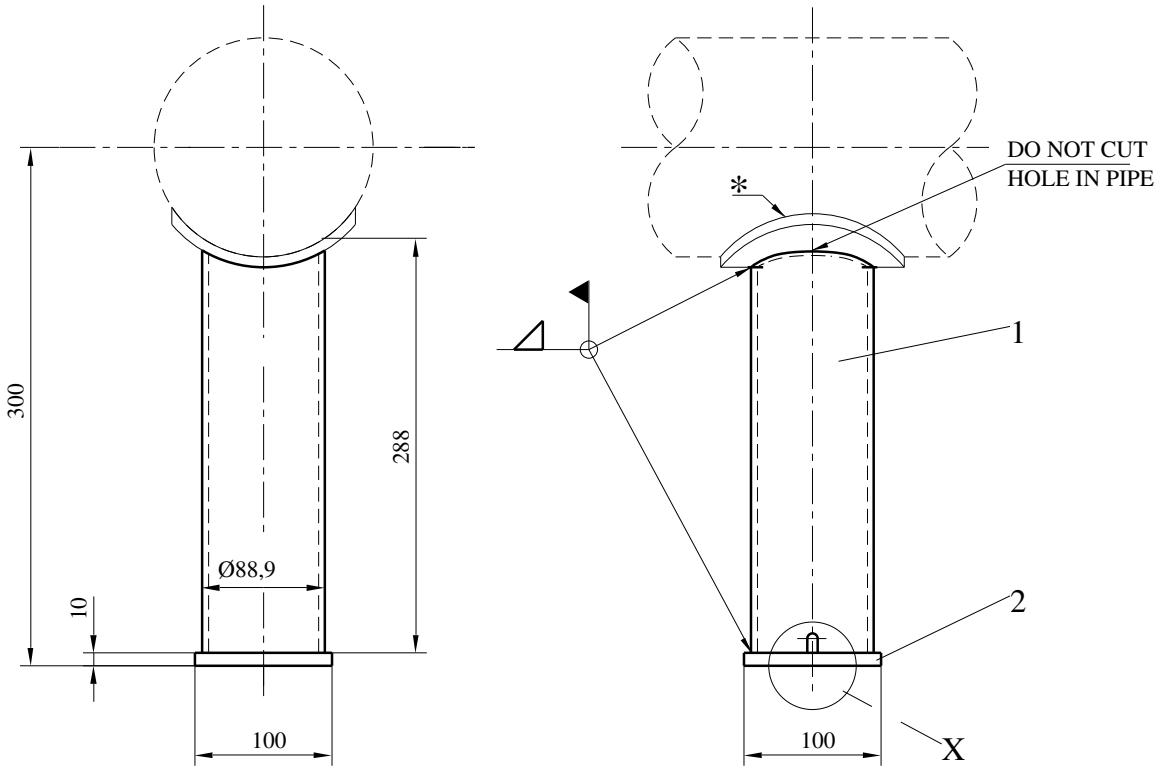
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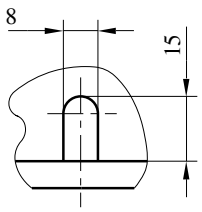
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 80/300

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 288	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

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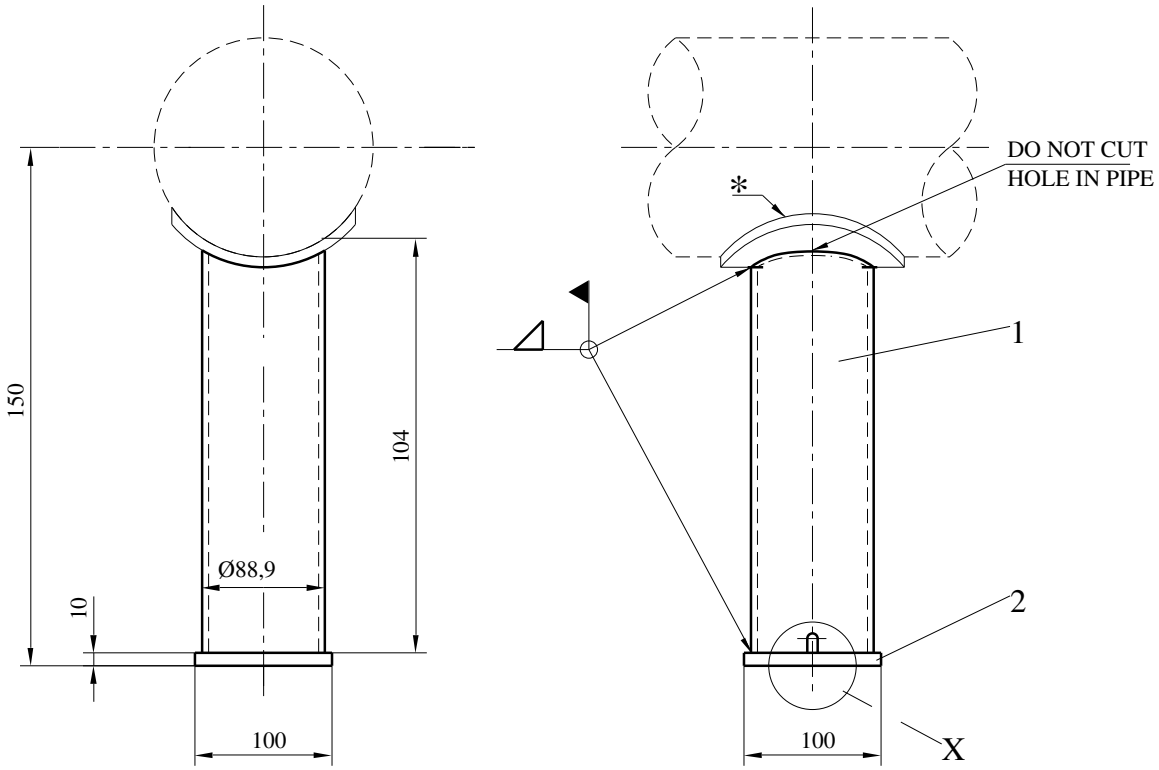
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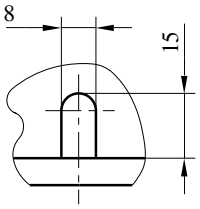
PIPE SUPPORT

Code No.: WNA102D Marking : 100/150

U Item



X



* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 104	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

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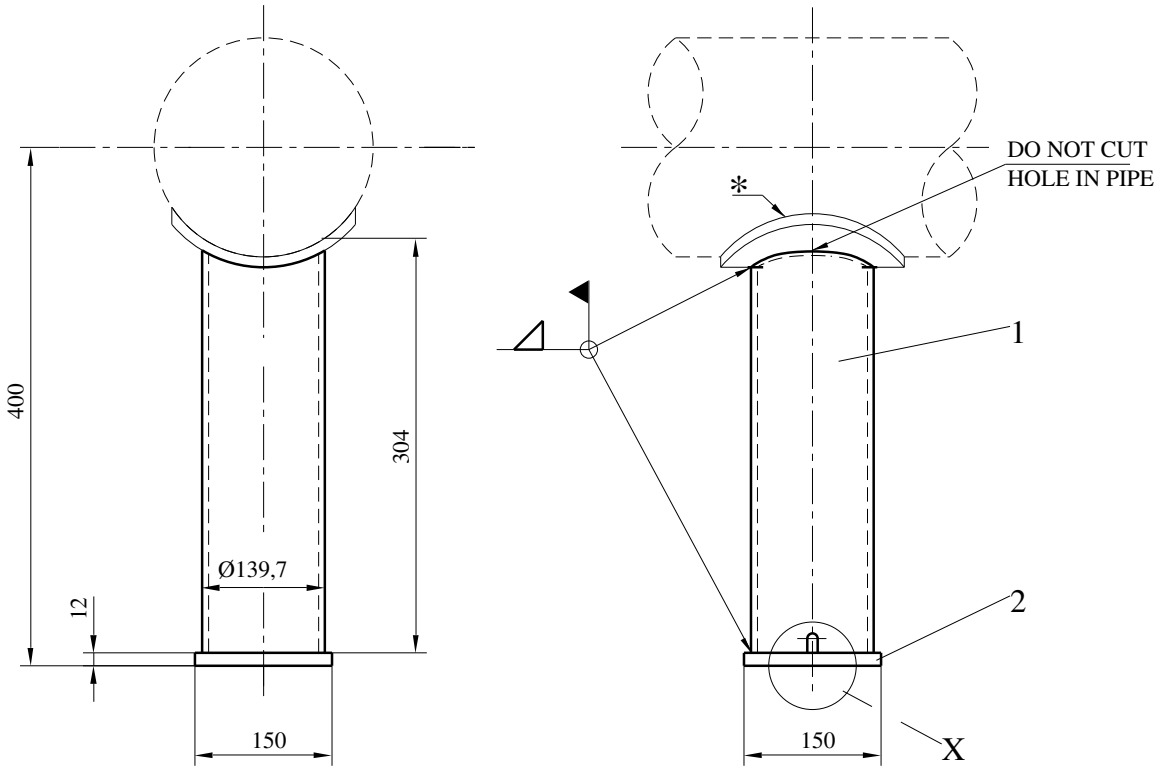
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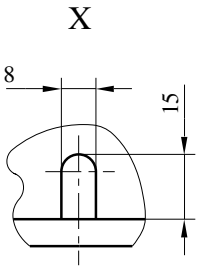
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 200/400

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
1	1	PIPE 139,7 x 10 x 304	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

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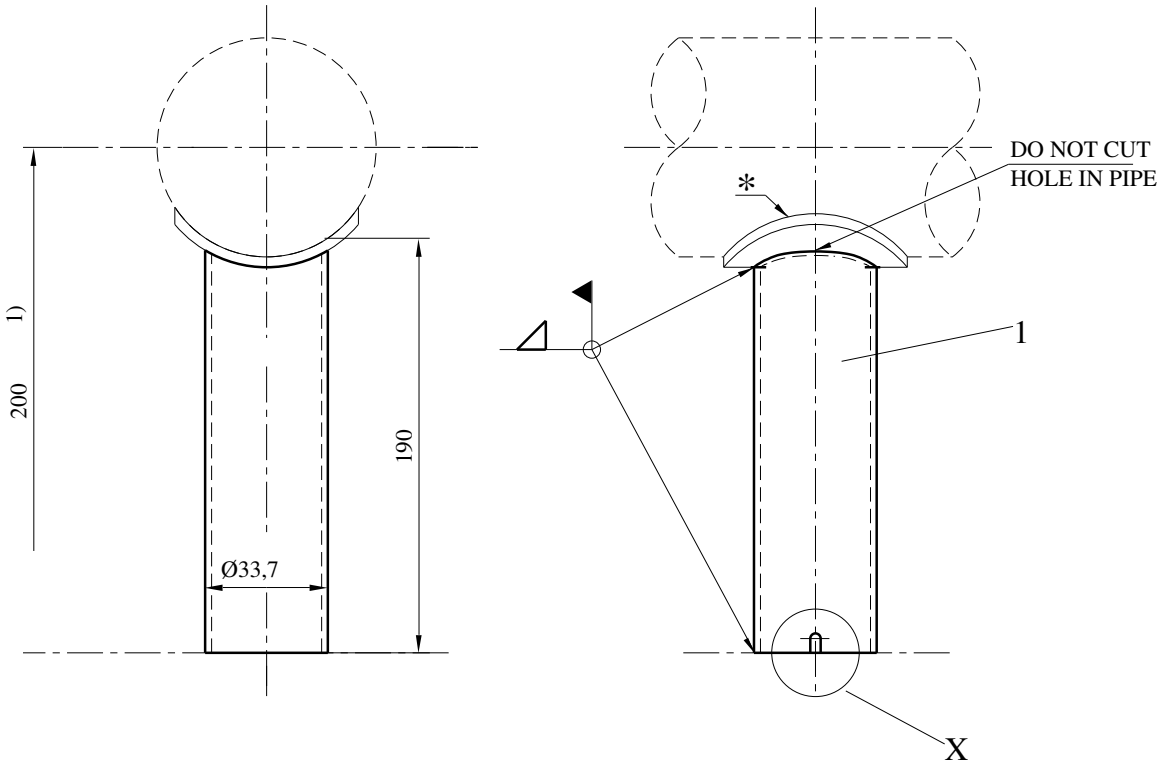
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC102D Marking : 25/200

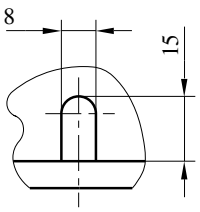
U Item



1) Overall height up to structural point of attachment

* Reinforcement pad if any will be specified in Isometric

X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	PIPE 33,7 x 2,6 x 188	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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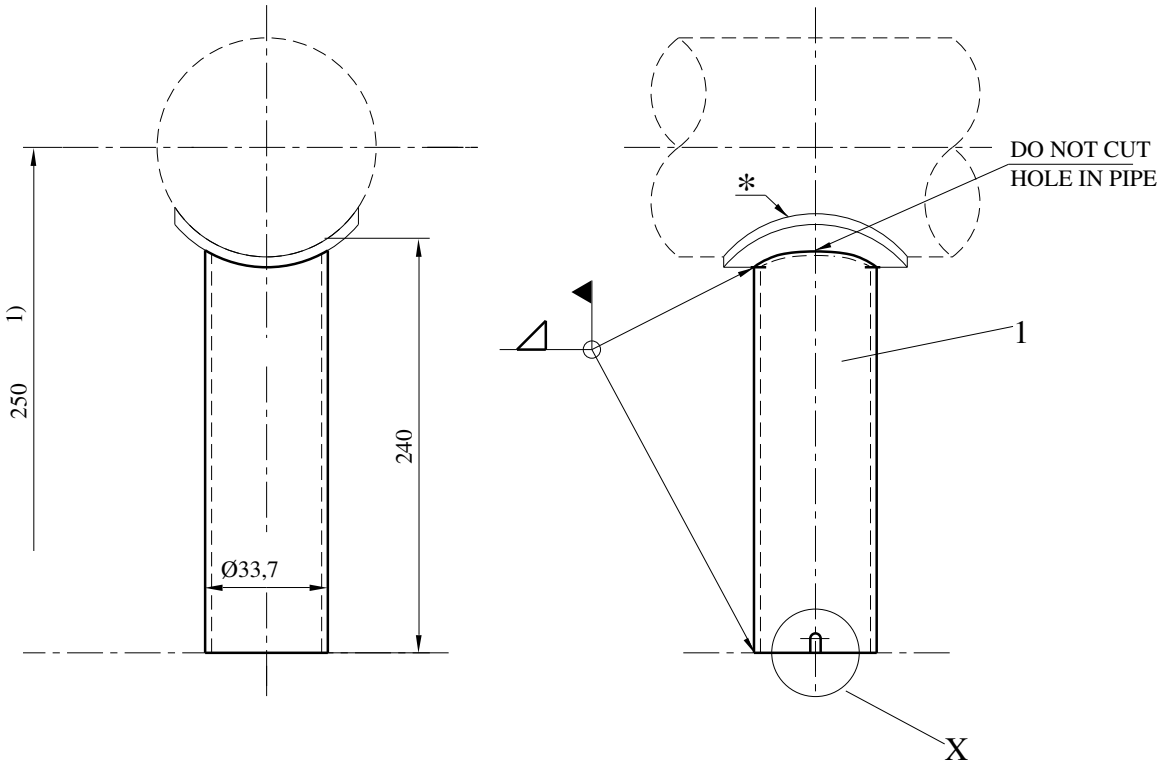
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC102D Marking : 25/250

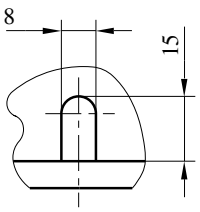
U Item



1) Overall height up to structural point of attachment

* Reinforcement pad if any will be specified in Isometric

X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	PIPE 33,7 x 2,6 x 238	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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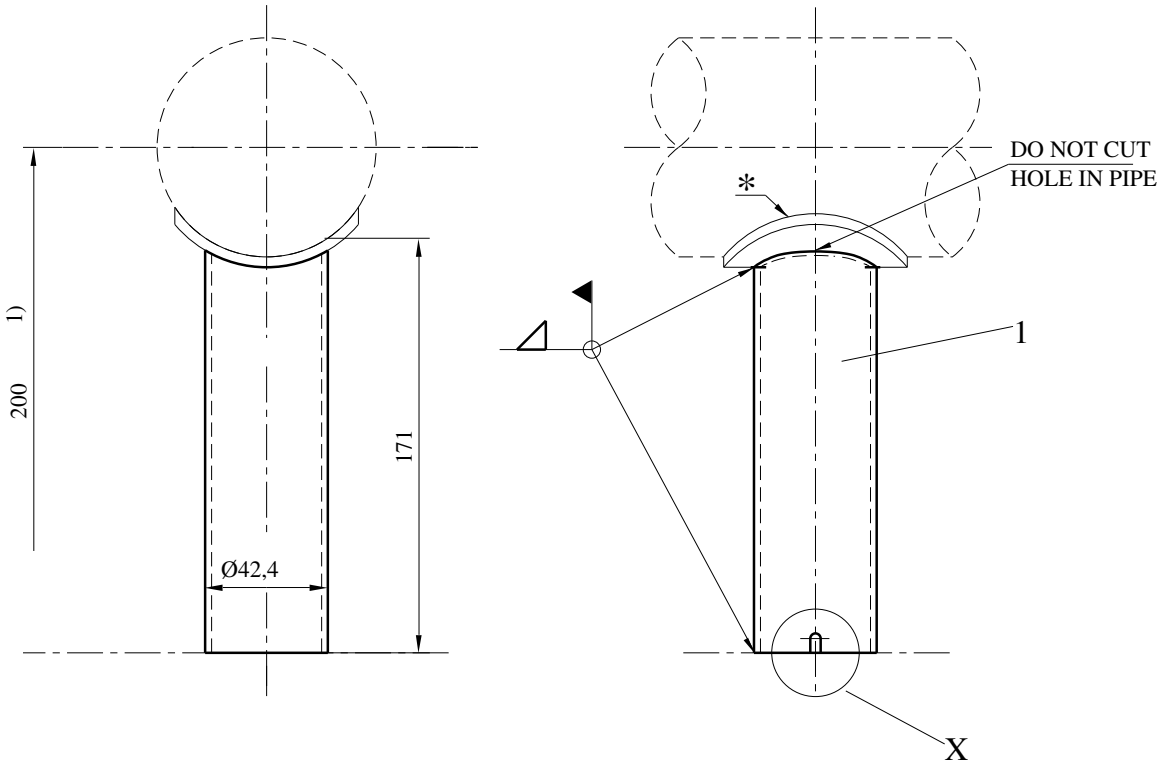
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC102D Marking : 50/200

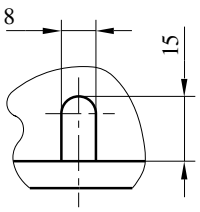
U Item



1) Overall height up to structural point of attachment

* Reinforcement pad if any will be specified in Isometric

X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	PIPE 42,4 x 2,6 x 169	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

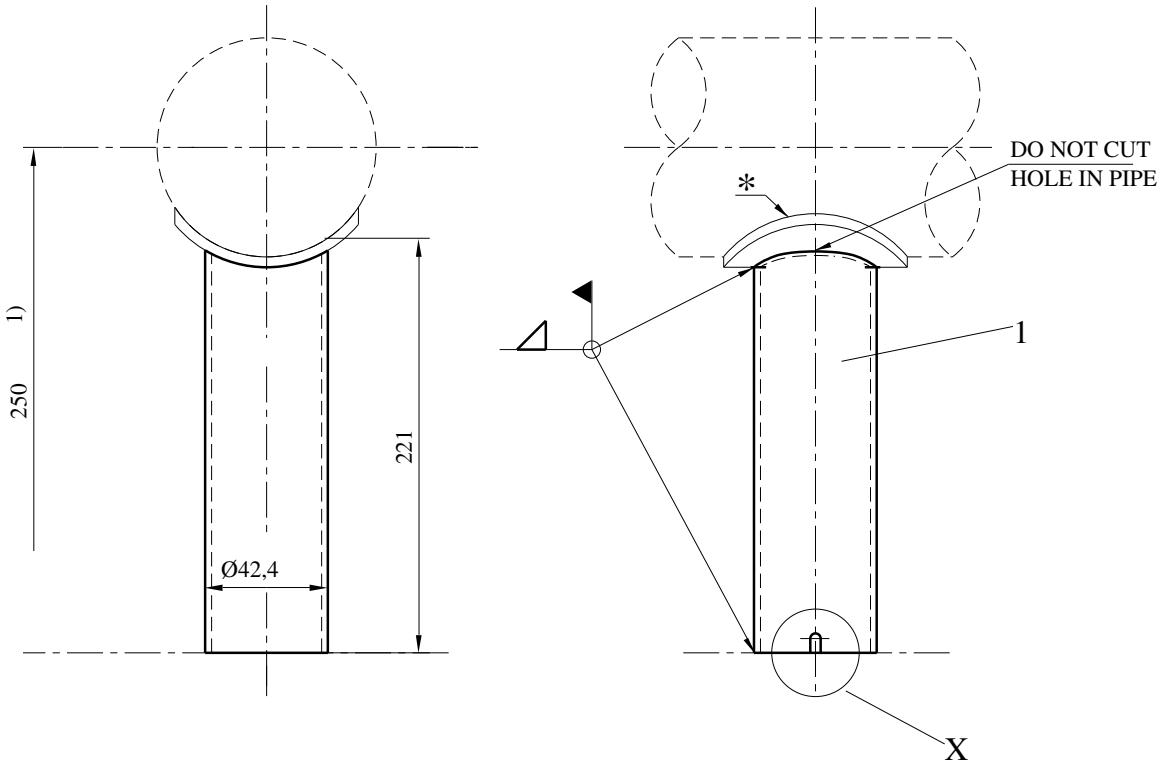
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC102D Marking : 50/250

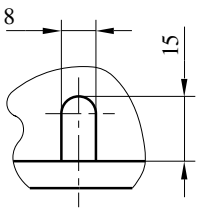
U Item



1) Overall height up to structural point of attachment

* Reinforcement pad if any will be specified in Isometric

X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	PIPE 42,4 x 2,6 x 219	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

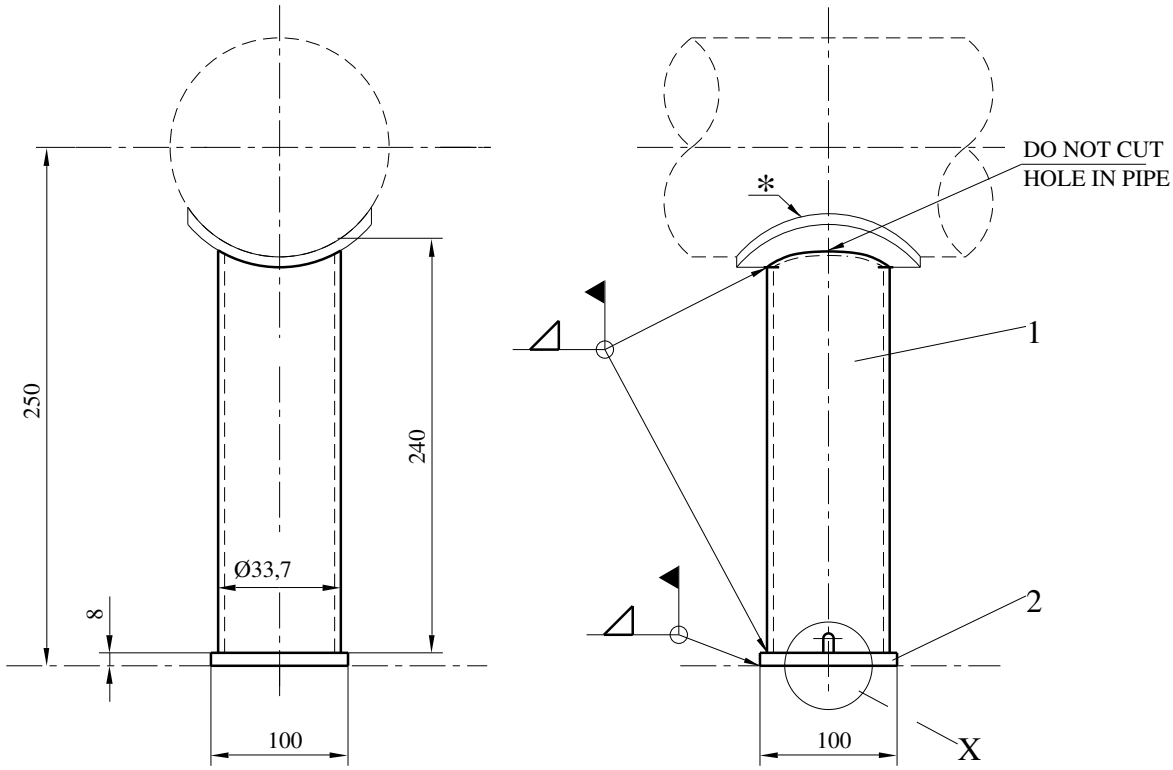
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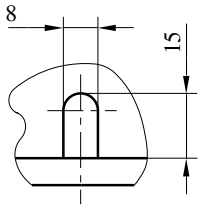
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/250

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 240	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

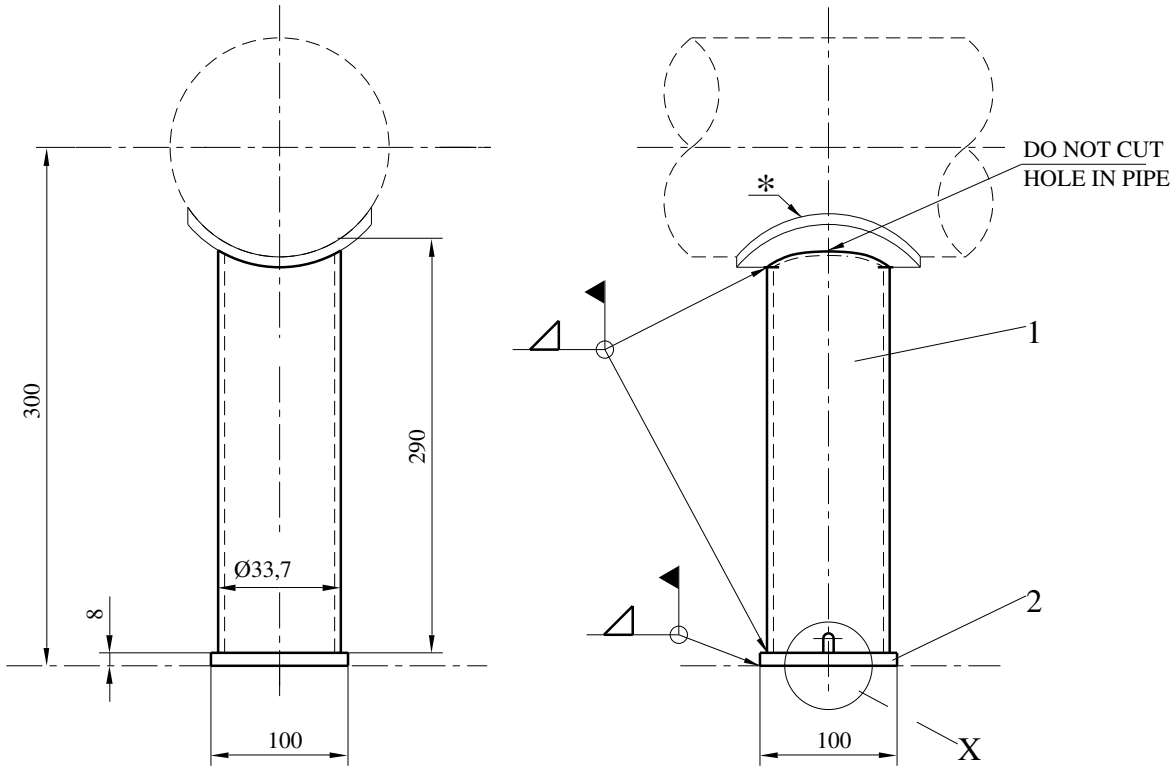
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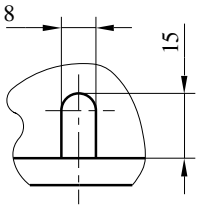
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/300

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 290	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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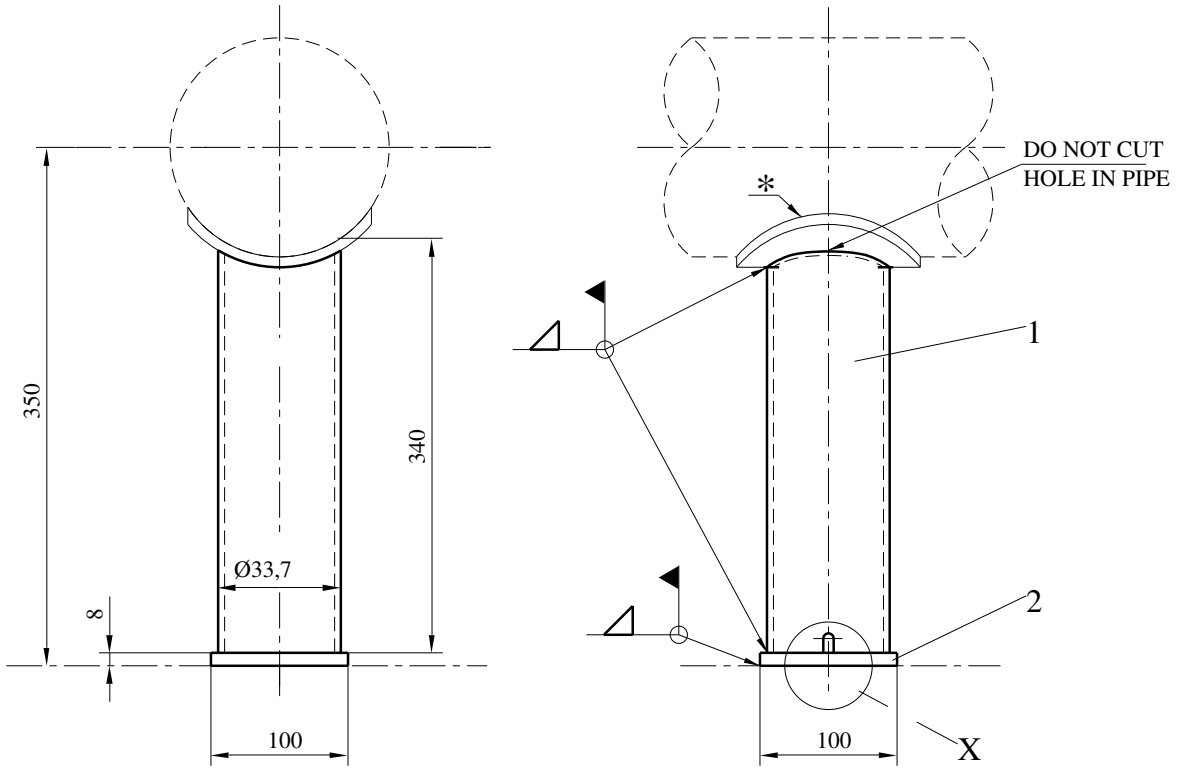
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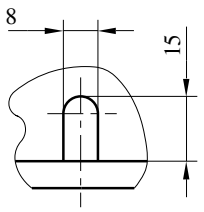
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/350

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 340	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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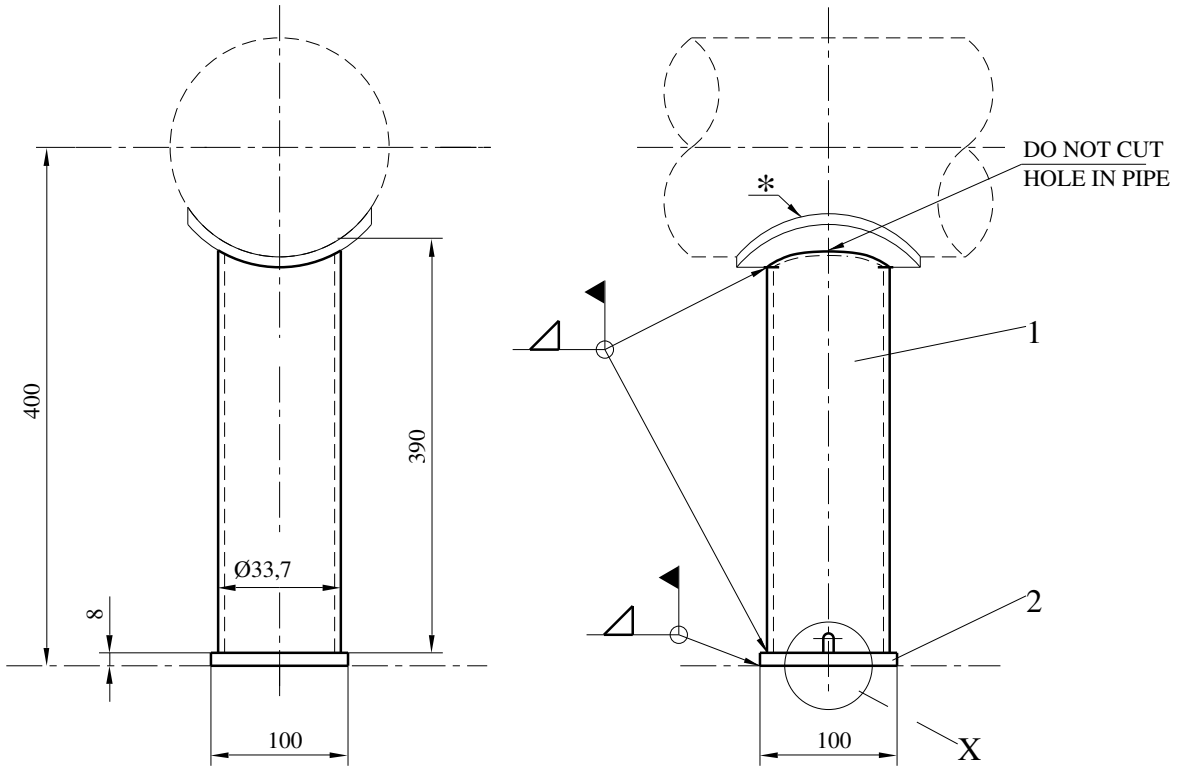
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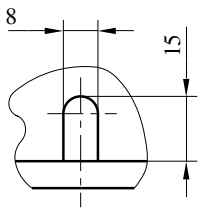
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/400

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 390	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,000 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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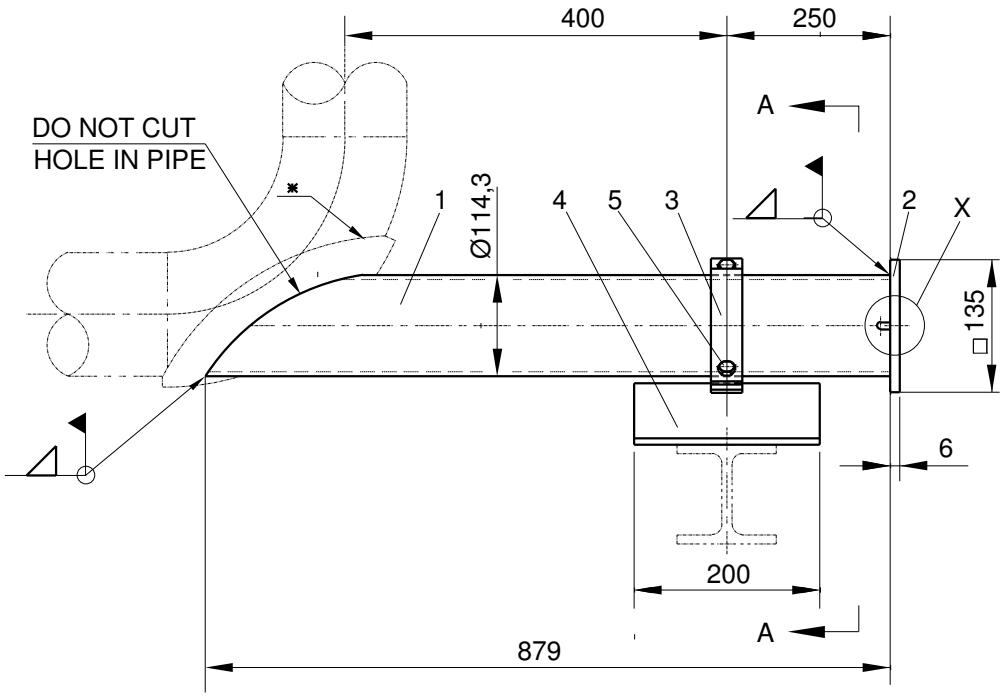
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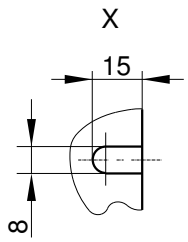
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		Manufacturer drawing	1	66-6695-700		

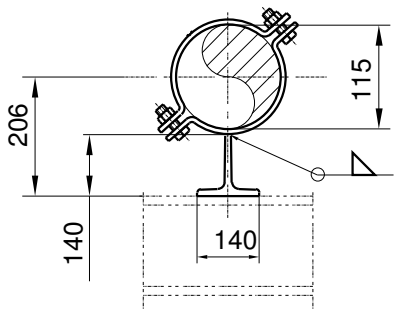
PIPE SUPPORT

Code No.: NVG001D Marking : 150/3/400

U Item







A-A

* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 879	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 23,860 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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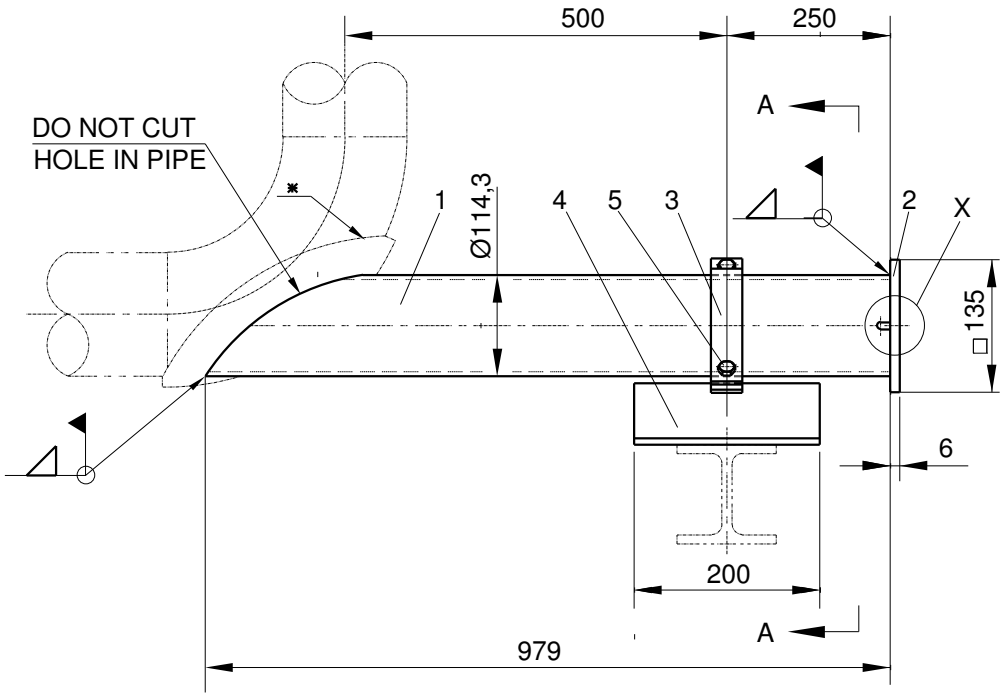
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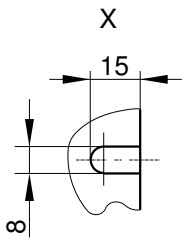
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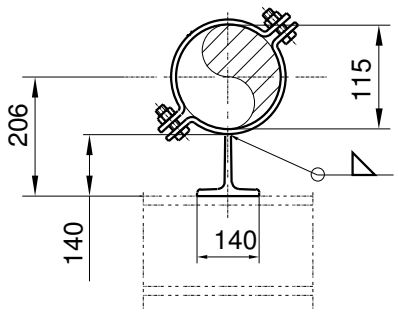
PIPE SUPPORT

Code No.: NVG001D Marking : 150/3/500

U Item







A-A

* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 979	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 25,540 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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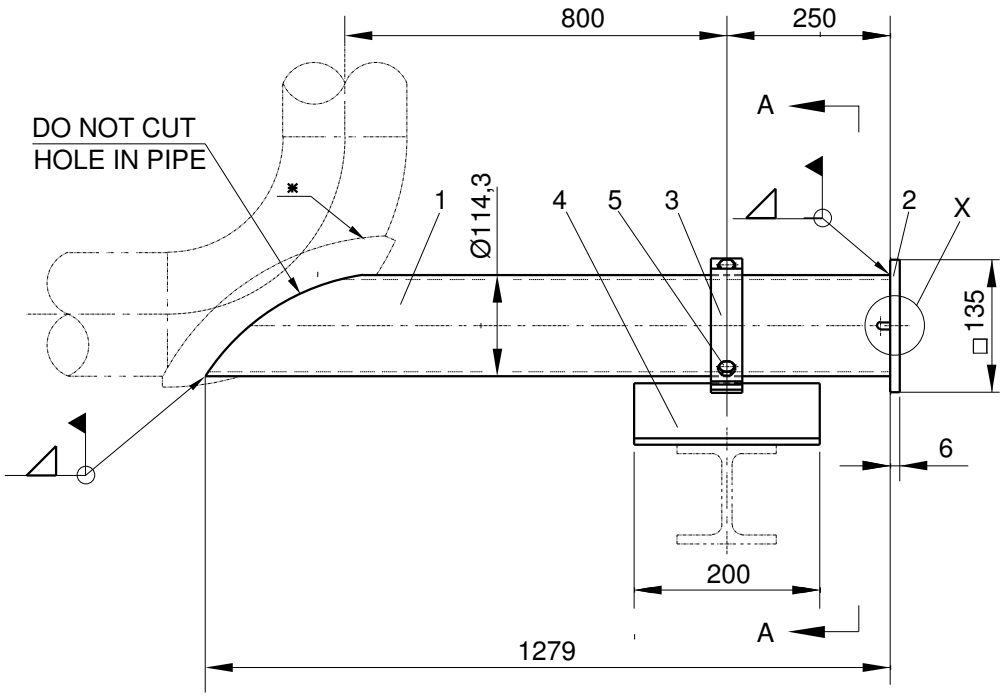
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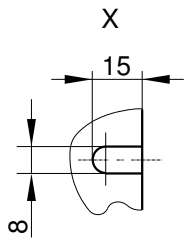
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		Manufacturer drawing	1	66-6695-700		

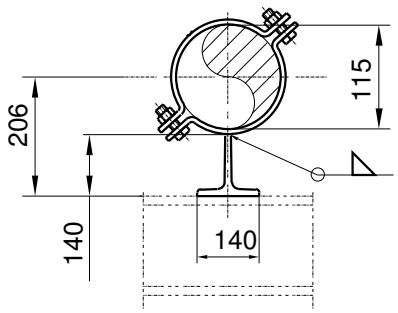
PIPE SUPPORT

Code No.: NVG001D Marking : 150/3/800

U Item







A-A

✱ Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1279	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 30,580 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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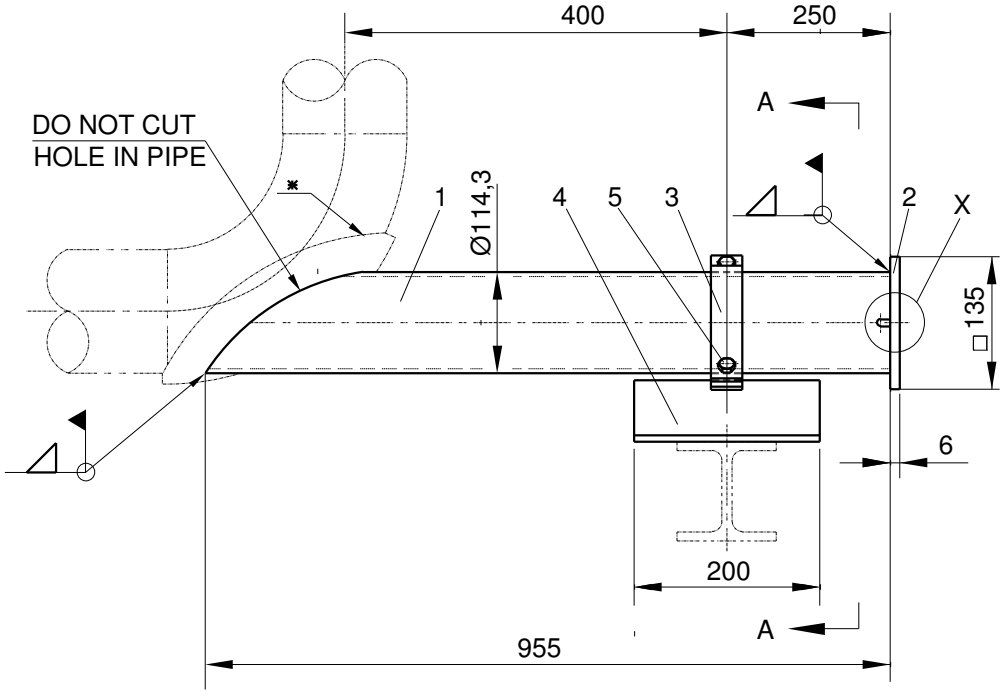
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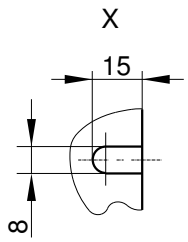
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		Manufacturer drawing	1	66-6695-700		

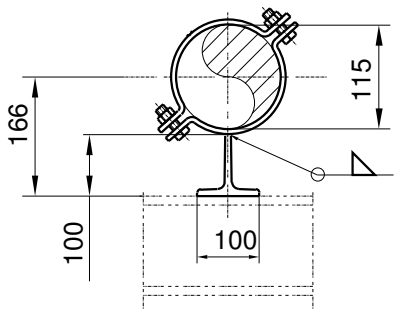
PIPE SUPPORT

Code No.: NVG001D Marking : 200/2/400

U Item







A-A

* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 955	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 22,150 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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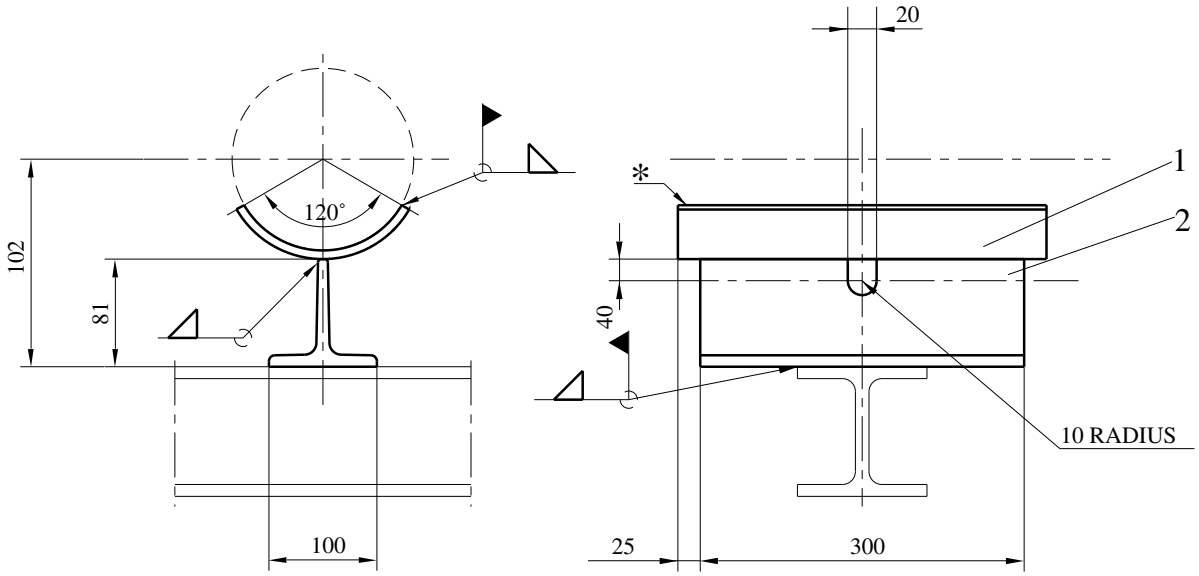
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC051D Marking : 25/1

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe

Thickness of pipe 40S

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	T-BAR CUT FROM ISMB 200 , 81 x 100 x 300 Long	IS 808	IS 2062	GTI099D
1	1	RF PAD DSS DN 25 x 350 LONG		UNS S31803	RF0001D

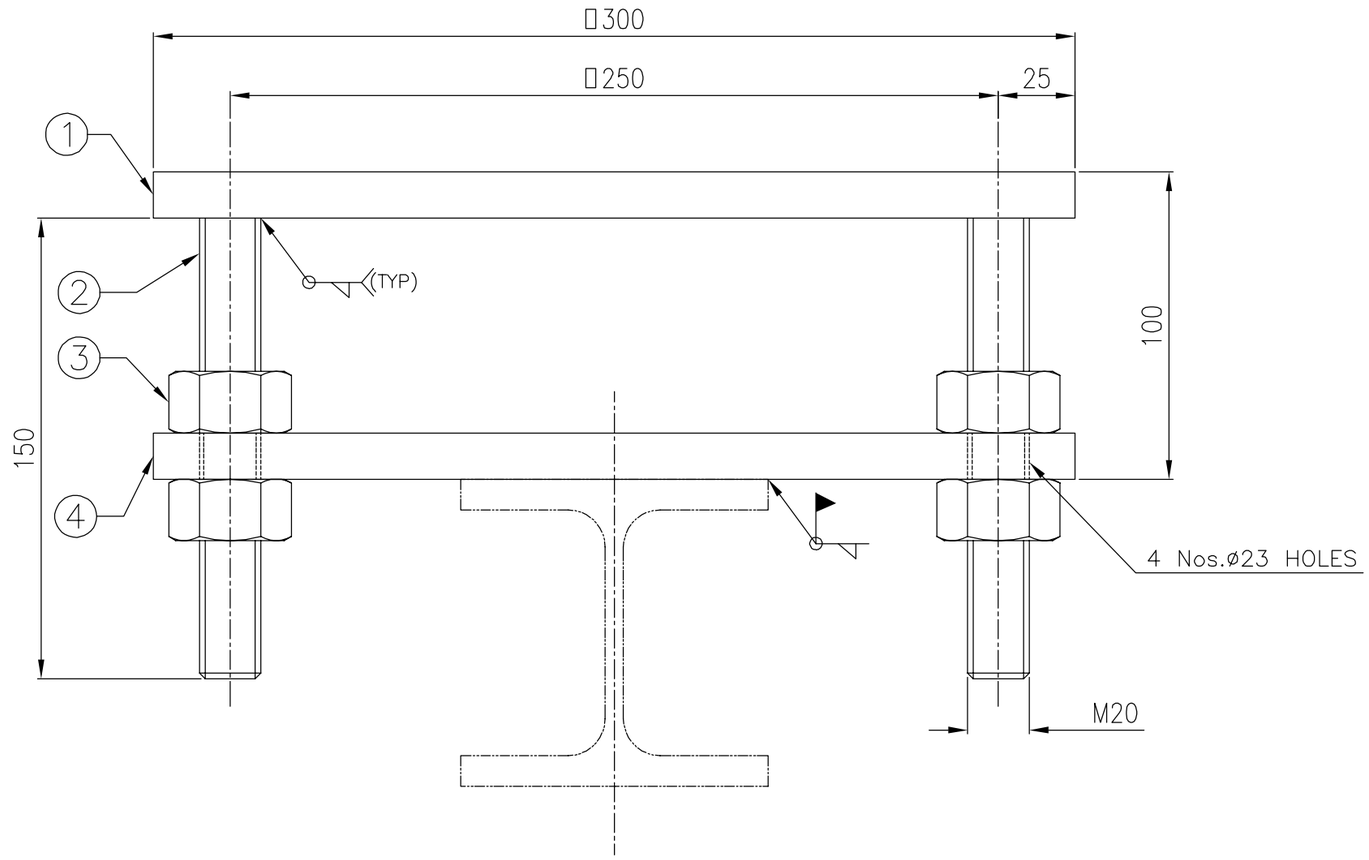
Remarks: Total weight = kg

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Source file name = WDC051D



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
4	1	PLATE 300 x 300 x 16 THK	IS 1730	IS 2062 Gr.B	11.30
3	8	HEXAGONAL NUT M20	IS	IS 1363/IS 1367/Cl.4	0.13
2	4	THREADED ROD M20 x 150	IS	IS 2062 Gr.B	0.40
1	1	PLATE 300 x 300 x 16 THK	IS 1730	IS 2062 Gr.B	11.30
				Total approx weight = 23.13kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
––			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	IQRA
Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share: \\P666695–ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS00024

Contract No.: 66–6695
Document ID: –
Part:
Rev.: 00

thyssenkrupp
thyssenkrupp Uhde India Private Limited 2023

नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

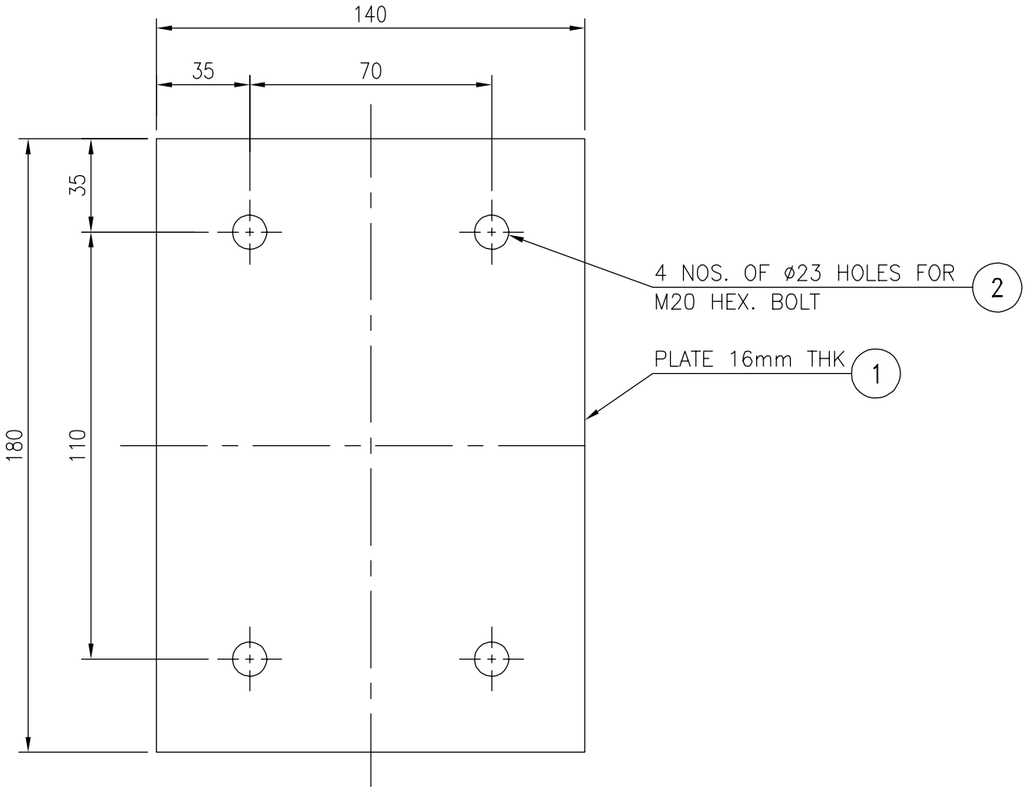
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS00024
HKL7/UGB2,
ADJUSTABLE STOOL

ISO A3

UH_BO_ISO_A3_L_E_tktSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
2	4	HEXAGON BOLT WITH NUT M20 x 60mm NUT	IS	IS 1363/ IS1367 Cl.5.6/6	1.04
1	1	PLATE 180 X 140 X 16 THK	IS 1730	IS 2062 Gr.B	3.15
				Total approx weight = 4.19 kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) PRIOR TO INSTALLATION, EXACT LENGTH SHALL BE MEASURED AT SITE & CUT ACCORDINGLY.
3) WELD THICKNESS SHALL BE APPROX 0.7 x MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
		Drawn/Prepared		Checked		Approved		
00	15/01/24	IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
––			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	IQRA
Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS02051

Contract No. 66–6695 | Document ID – – | Part | Rev. 00

thyssenkrupp
thyssenkrupp Uhde India Private Limited 2023

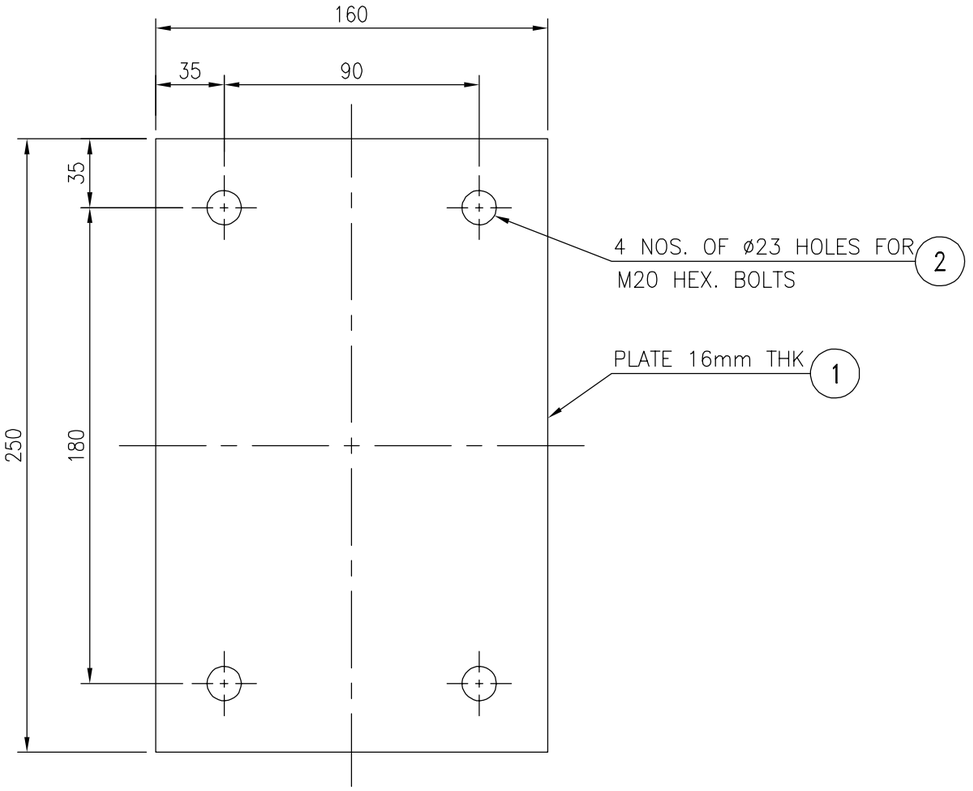
नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS02051
CONNECTING PLATE
FOR VESSEL CLIP TYPE '1C'

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
				Total approx weight = 6.06 kg	
1	1	PLATE 250 X 160 X 16 THK	IS1730	IS2062 Gr.B	5.02
2	4	HEXAGON BOLT WITH NUT M20 x 60mm NUT	IS	IS 1363/ IS1367 Cl.5.6/6	1.04

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) PRIOR TO INSTALLATION, EXACT LENGTH SHALL BE MEASURED AT SITE & CUT ACCORDINGLY.
3) WELD THICKNESS SHALL BE APPROX 0.7 x MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

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Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	15/01/24	IQRA IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	15/01/24	IQRA
Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share
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Store Location: Folder
\RLSUPSP\DRG\CS

Store Name
CS02052

Contract No. 66–6695

Document ID –

Part

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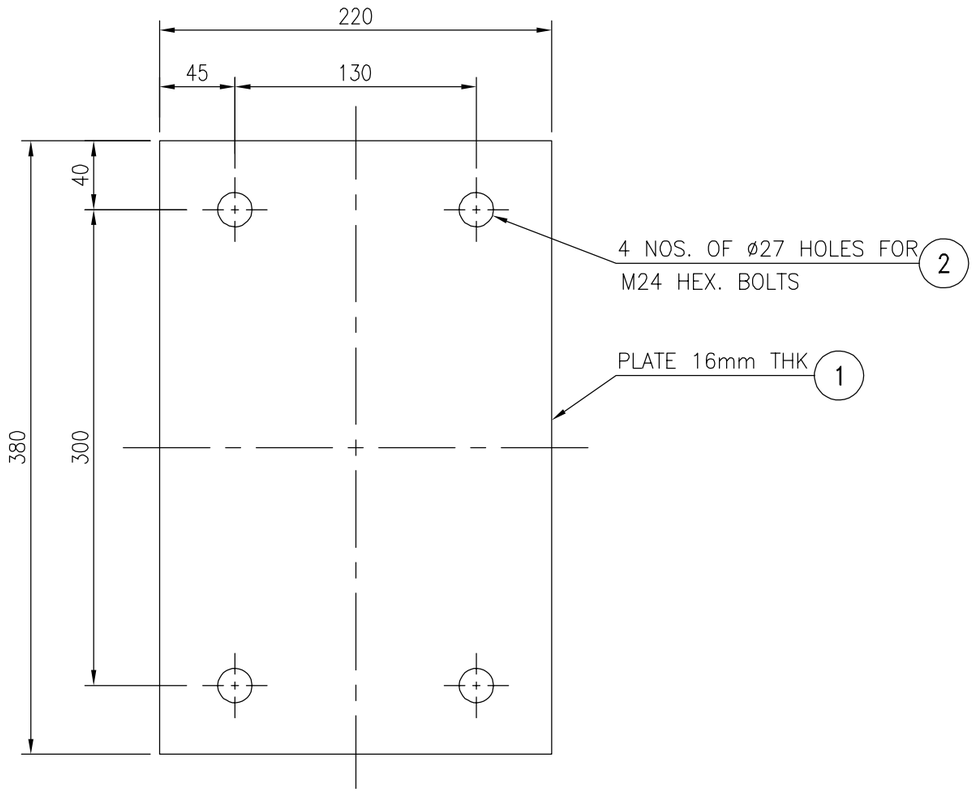
नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS02052
CONNECTING PLATE
FOR VESSEL CLIP TYPE '3C'

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
2	4	HEXAGON BOLT WITH NUT M24 x 60mm NUT	IS	IS 1363/ IS1367 Cl.5.6/6	1.47
1	1	PLATE 380 X 220 X 16 THK	IS1730	IS2062 Gr.B	10.50
				Total approx weight = 11.97 kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) PRIOR TO INSTALLATION, EXACT LENGTH SHALL BE MEASURED AT SITE & CUT ACCORDINGLY.
3) WELD THICKNESS SHALL BE APPROX 0.7 x MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name Drawn/Prepared	Date	Name Checked	Date	Name Approved	Description	Acc. Code
00	15/01/24	HHJ TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	15/01/24	HHJ
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS02053

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

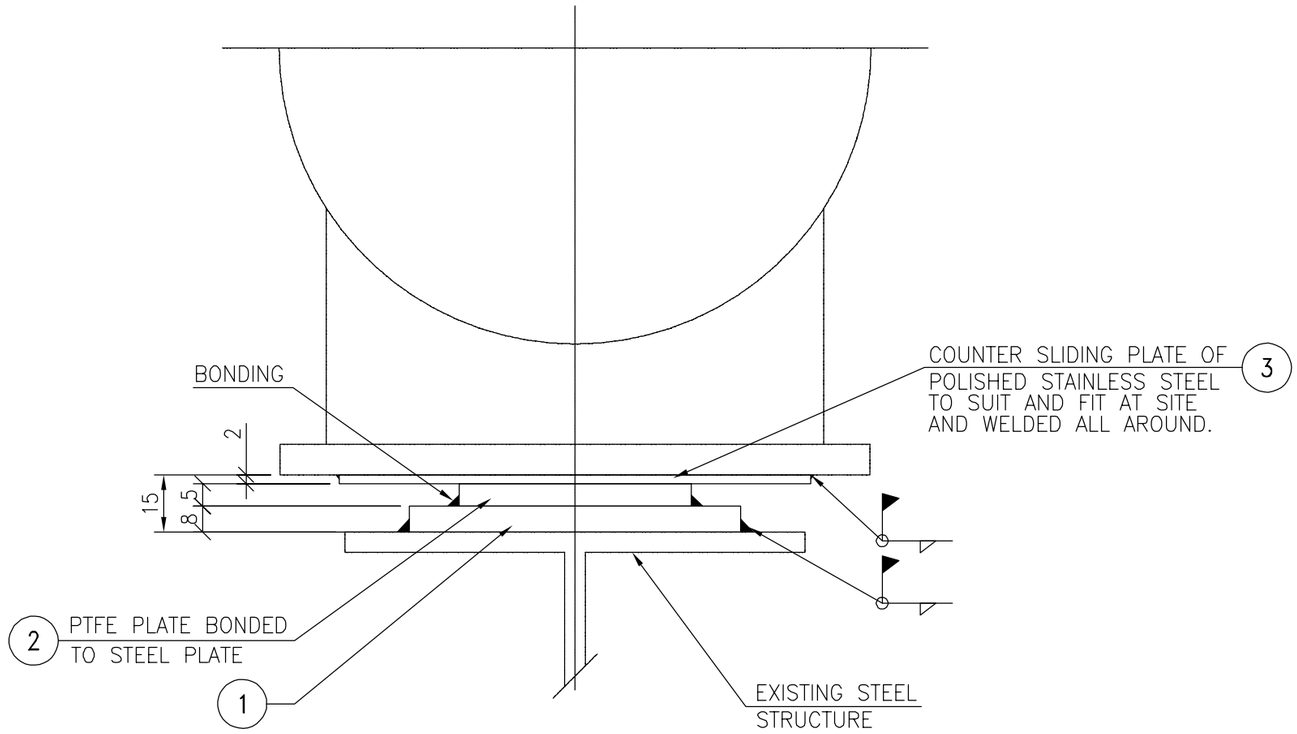
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CS02053
CONNECTING PLATE
FOR VESSEL CLIP TYPE '5C'

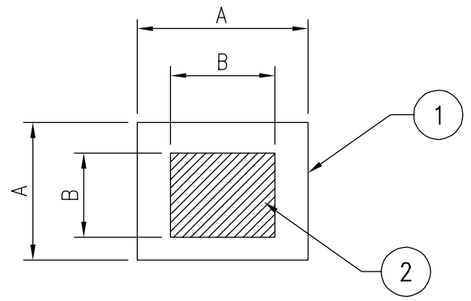
UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm

50 mm





PLAN VIEW

LOAD TABLE IS DEFINED BASED ON
MINIMUM BEARING PRESSURE OF 2 N/mm² &
MINIMUM BEARING PRESSURE OF 10 N/mm²
FRICTION COEFFICIENT =0.1

PIPE NB	TEFLON PAD DIENSIONS B X B (mm)	DIMENSION OF BOTTOM STEEL PLATE A X A (mm)	ALLOWABLE VERTICAL LOAD RANGE (kN)
2"–6"	30 X 30	100 X 100	1.8 TO 9
8"–12"	45 X 45	100 X 100	4 TO 20
14"–24"	60 X 60	100 X 100	7.2 TO 36
26"–36"	70 X 70	100 X 100	9.8 TO 49

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	SHEET 400 x 300 X 2 THK	ASTM A480M	A240 Gr.316	1.92
2	1	VIRGIN PTFE (5mm THICK)	MANUFACTURER	–	–
1	1	PLATE 100 x 100 x 8 THK	IS 1730	IS 2062 Gr.B	0.63
				Total approx weight = 2.55 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) APPLICABLE UP TO LINE TEMP: 120°C.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

	Date	Name
Drawn	15/01/24	IQRA
Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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Store Location: Server/Share	Store Location: Folder	Store Name
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Contract No.	Document ID	Part	Rev.
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National Aluminium Company Ltd.

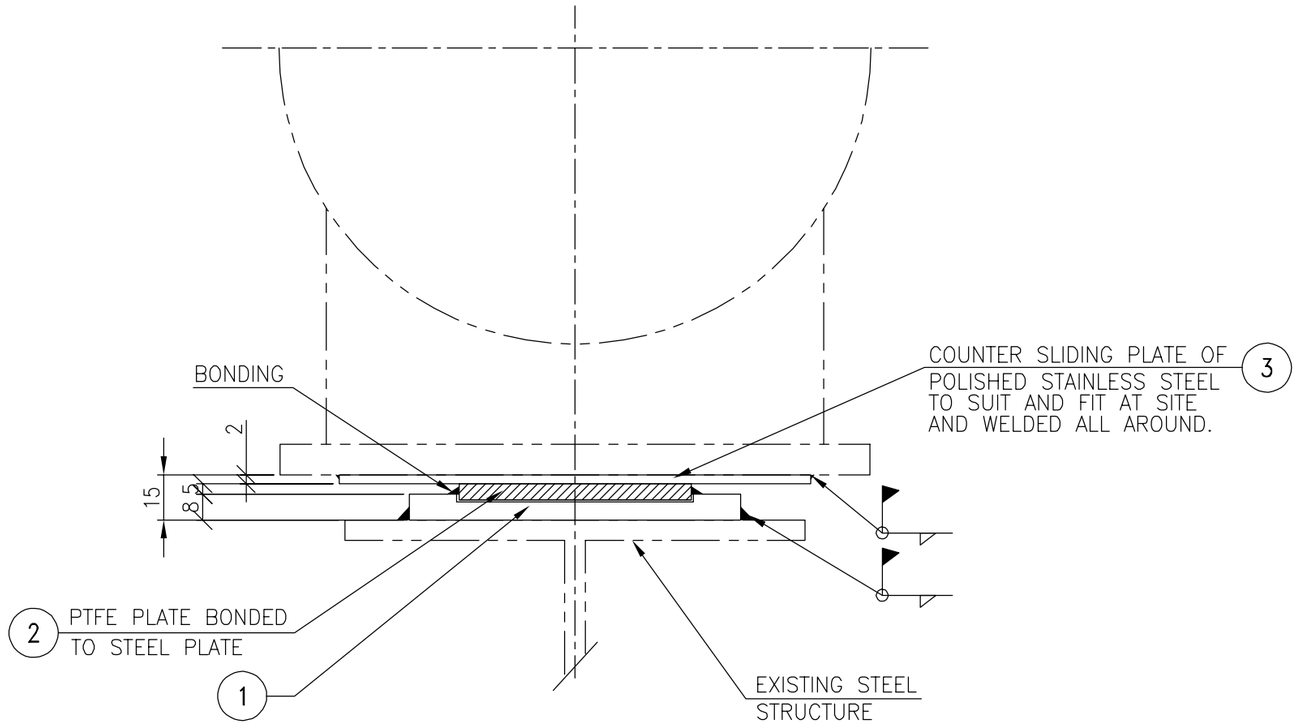
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DAMANJODI, ODISHA

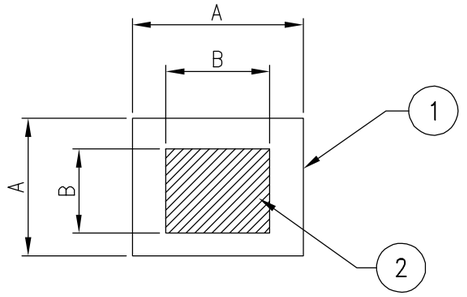
Description

CS03000–01
PTFE–SS FRICTION PLATE

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3





PLAN VIEW

LOAD TABLE IS DEFINED BASED ON
MINIMUM BEARING PRESSURE OF 2 N/mm² &
MINIMUM BEARING PRESSURE OF 10 N/mm²
FRICTION COEFFICIENT =0.1

PIPE NB	TEFLON PAD DIENSIONS B X B (mm)	DIMENSION OF BOTTOM STEEL PLATE A X A (mm)	ALLOWABLE VERTICAL LOAD RANGE (kN)
2"–6"	60 X 60	130 X 130	7.2 TO 36
8"–12"	75 X 75	130 X 130	11.25 TO 56.25
14"–24"	90 X 90	130 X 130	16.2 TO 81
26"–36"	100 X 100	130 X 130	20 TO 100

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	SHEET 400 x 300 X 2 THK	ASTM A480M	A240 Gr.316	1.93
2	1	VIRGIN PTFE (8mm THICK)	MANUFACTURER	–	–
1	1	PLATE 130 x 130 x 8 THK	IS 1730	IS 2062 Gr.B	1.06
				Total approx weight = 3 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/23	IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS03000–02

Contract No.	Document ID	Part	Rev.
66–6695	–		00

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National Aluminium Company Ltd.

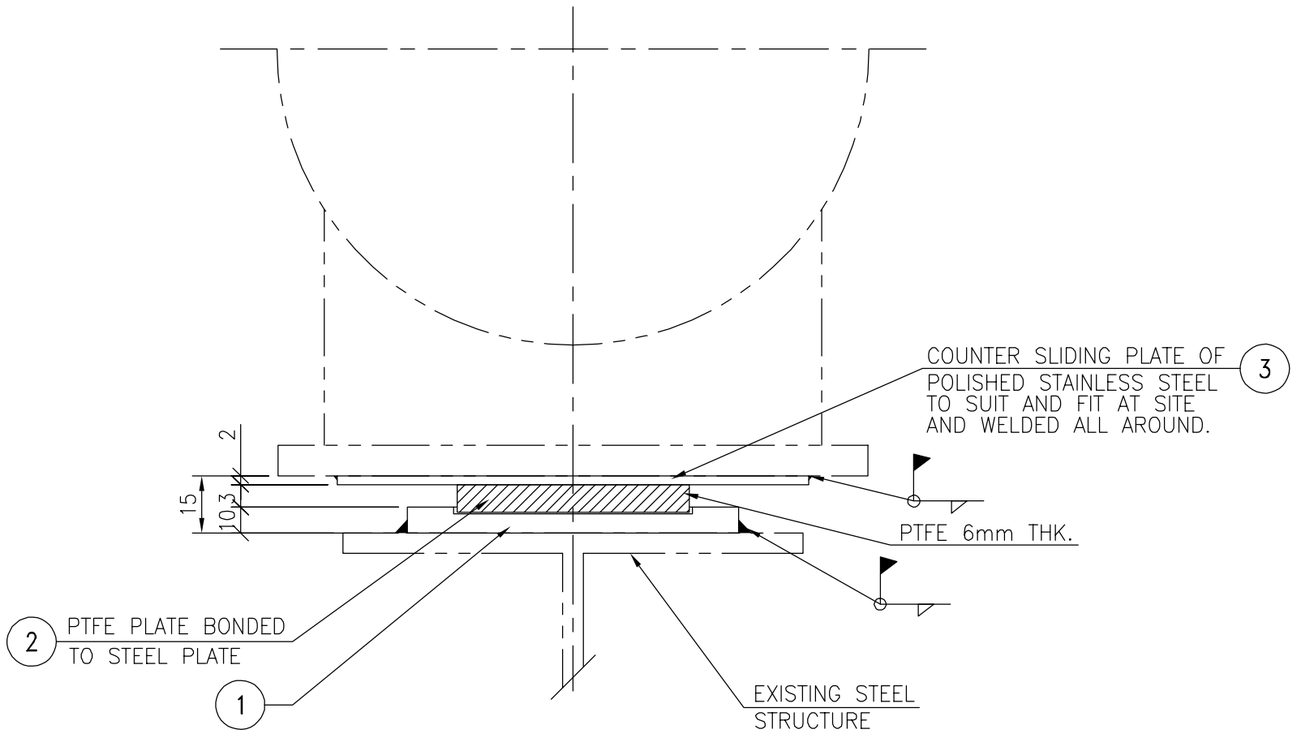
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DAMANJODI, ODISHA

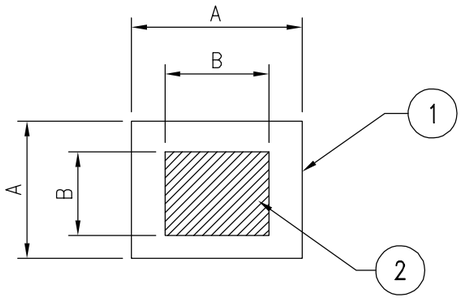
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CS03000–02
PTFE–SS FRICTION PLATE

UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm





PLAN VIEW

LOAD TABLE IS DEFINED BASED ON
MINIMUM BEARING PRESSURE OF 2 N/mm² &
MINIMUM BEARING PRESSURE OF 10 N/mm²
FRICTION COEFFICIENT =0.1

PIPE NB	TEFLON PAD DIENSIONS B X B (mm)	DIMENSION OF BOTTOM STEEL PLATE A X A (mm)	ALLOWABLE VERTICAL LOAD RANGE (kN)
2"–6"	100 X 100	170 X 170	20 TO 100
8"–12"	115 X 115	170 X 170	26.45 TO 132.25
14"–24"	130 X 130	170 X 170	33.8 TO 169
26"–36"	140 X 140	170 X 170	39.2 TO 196

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	SHEET 400 x 300 X 2 THK	ASTM A480M	A240 Gr.316	1.93
2	1	VIRGIN PTFE (6mm THICK)	MANUFACTURER	–	–
1	1	PLATE 170 x 170 x 10 THK	IS 1730	IS 2062 Gr.B	1.81
				Total approx weight = 3.74 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
		Drawn/Prepared		Checked		Approved		
00	15/01/24	IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

	Date	Name
Drawn	15/01/24	IQRA
Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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\\P666695–ADA	\RLSUPSP\DRG\CS	CS03000–03

Contract No.	Document ID	Part	Rev.
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National Aluminium Company Ltd.

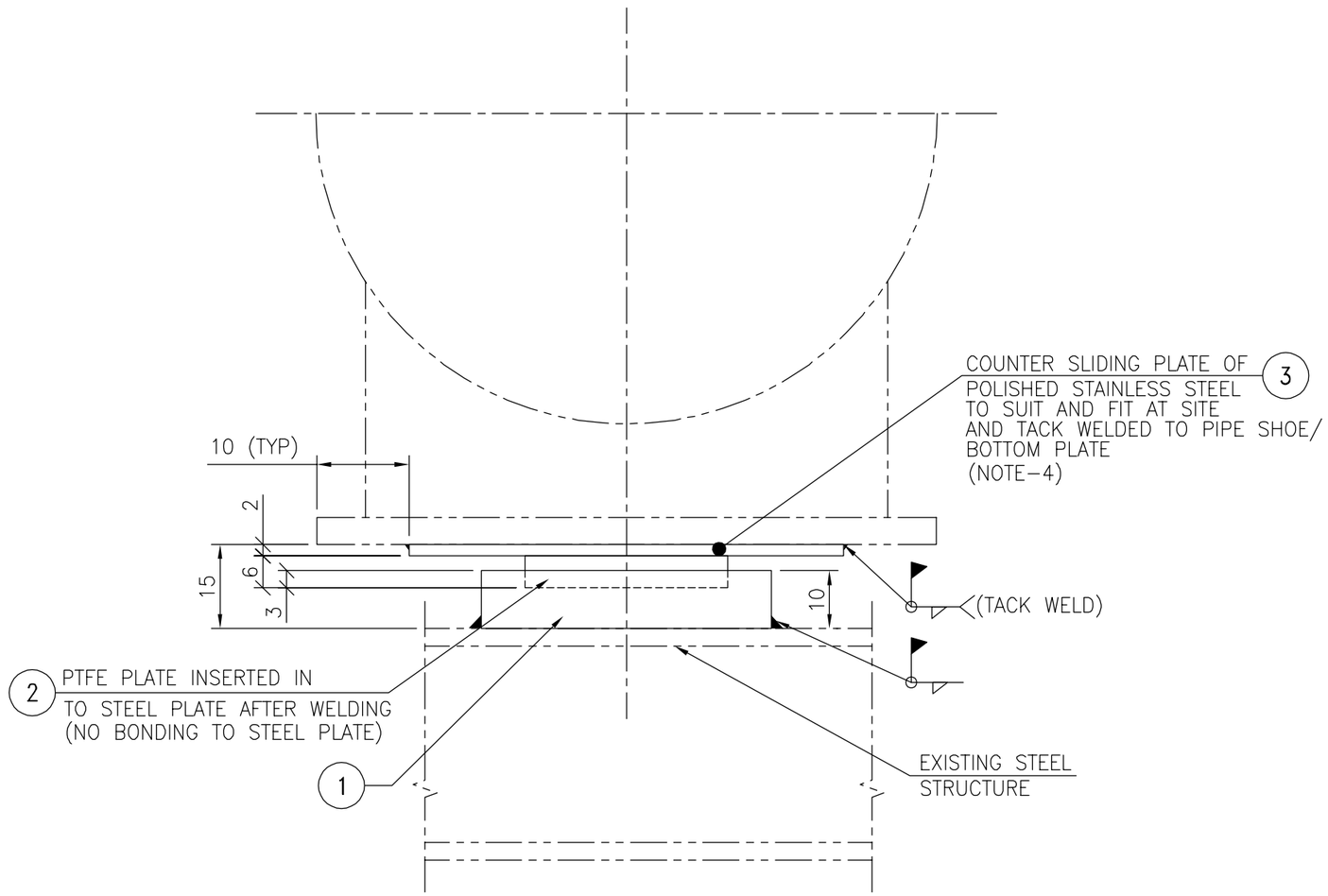
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DAMANJODI, ODISHA

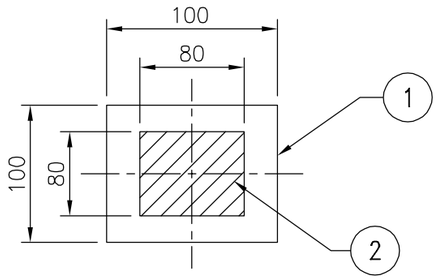
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CS03000–03
PTFE–SS FRICTION PLATE

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm





PLAN VIEW

ALLOWABLE VERTICAL LOAD = 64KN
BASED ON MAXIMUM BEARING PRESSURE OF 10N/mm²
FRICTION COEFFICIENT = 0.1

Pos.	Qty.	Description	Standard	Material-No.	Weight(kg)
3	1	POLISHED SS SHEET 300 x 200 x 2THK.	ASTM A480M	A240 Gr.304	0.94
2	1	SHEET 80 x 80 x 6 THK.	MANUFACTURER	GRAPHITED PTFE	–
1	1	PLATE 100 x 100 x 10 THK	IS 1730	IS2062 Gr.E250 BR	0.79
				Total approx weight = 1.73 kg	

NOTE:-
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	SAHIL TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

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BAR-Code

Contract No.	Document ID	Part	Rev.
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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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Drawn	29/01/24	SAHIL
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

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National Aluminium Company Ltd.

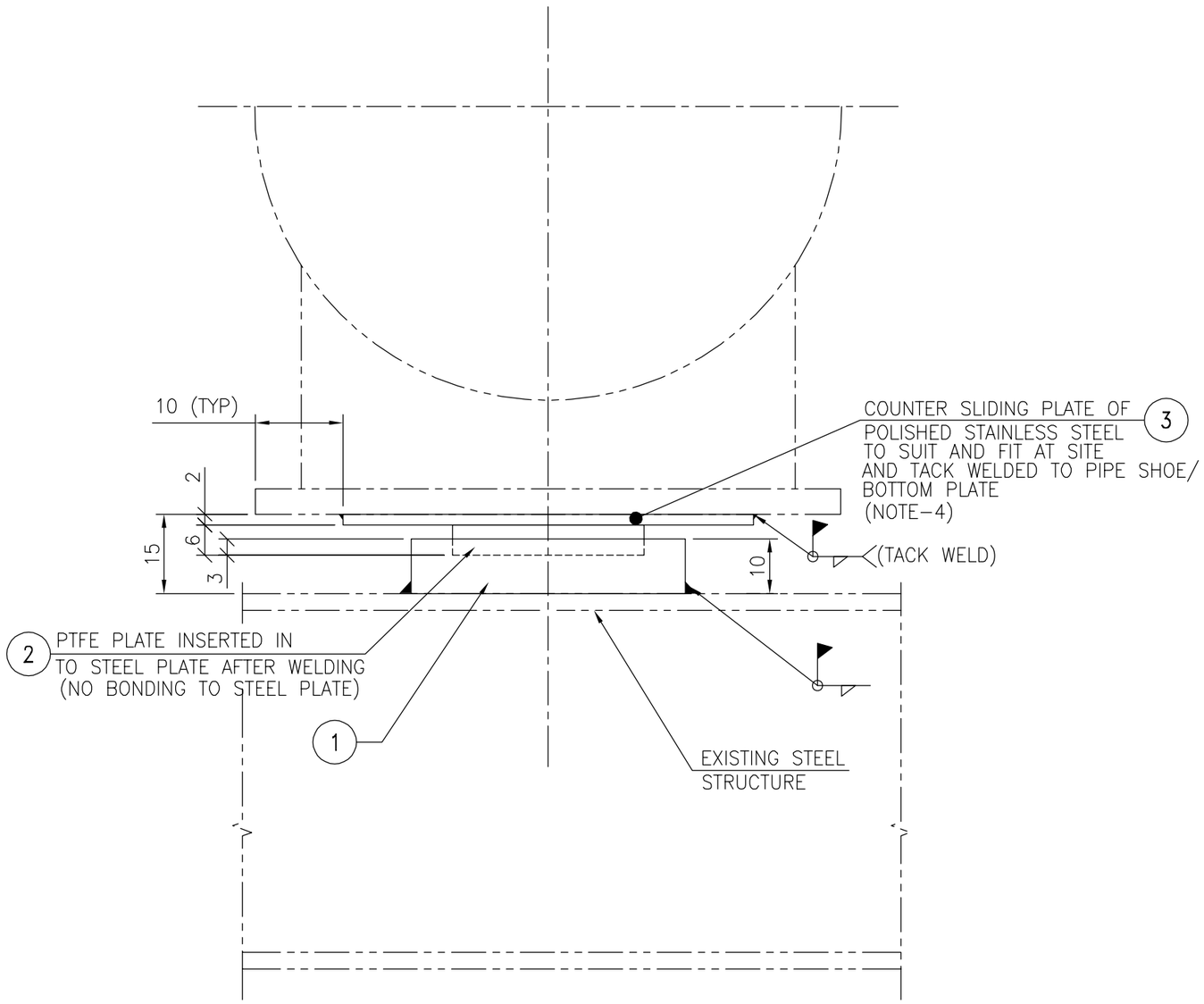
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DAMANJODI, ODISHA

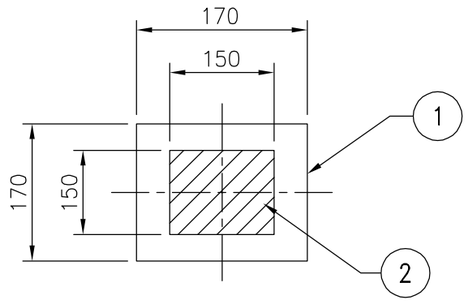
Description
CS03001-01
GRAPHITED PTFE SLIDE PLATE
ASSEMBLY PIPE SIZE UPTO 8" &
TEMP. UP TO 200°C

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695-ADA	\RLSUPSP\DRG\CS	CS03001-01

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





PLAN VIEW

ALLOWABLE VERTICAL LOAD = 225KN
BASED ON MAXIMUM BEARING PRESSURE OF 10N/mm²
FRICTION COEFFICIENT = 0.1

Pos.	Qty.	Description	Standard	Material-No.	Weight(kg)
3	1	POLISHED SS SHEET 400 x 300 x 2 THK	ASTM A480M	A240 Gr.304	1.93
2	1	SHEET 150 x 150 x 6THK.	MANUFACTURER	GRAPHITED PTFE	–
1	1	PLATE 170 x 170 x 10THK.	IS 1730	IS2062 Gr.E250 BR	2.27
				Total approx weight = 4.2 kg	

NOTE:-
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	29/01/24	SAHIL	TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

BAR-Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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Drawn	29/01/24	SAHIL
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

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Document ID –
Part
Rev. 00

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National Aluminium Company Ltd.

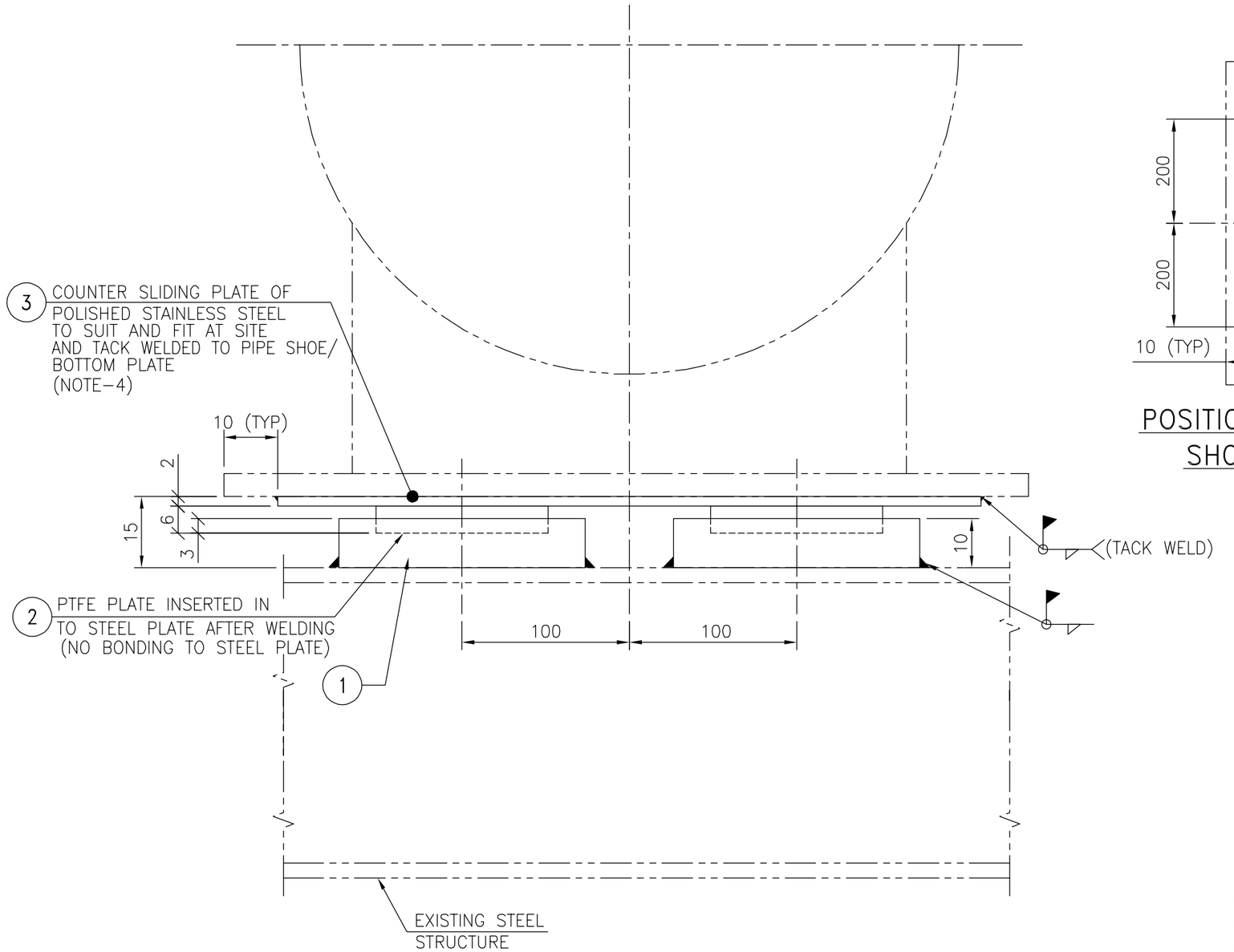
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DAMANJODI, ODISHA

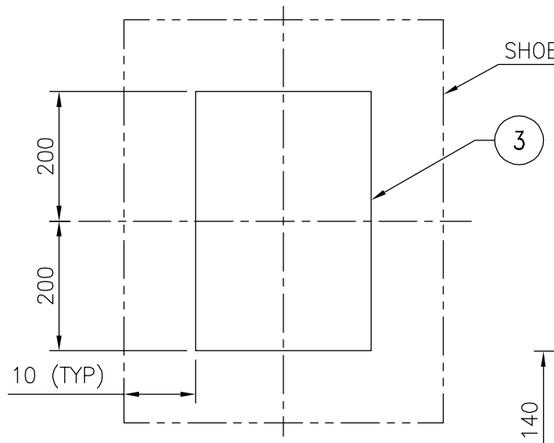
Description
CS03001-02
GRAPHITED PTFE SLIDE PLATE
ASSEMBLY PIPE SIZE 10" TO 20"
TEMP. UP TO 200°C

Store Location: Server/Share: \\P666695-ADA
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Store Name: CS03001-02

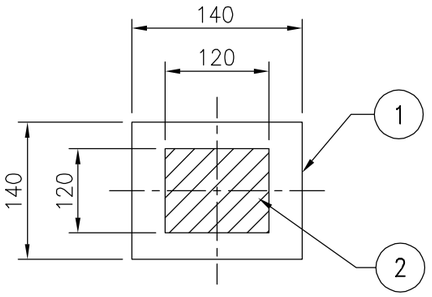
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ISO A3





POSITION OF SS SHEET ON SHOE BOTTOM PLATE



PLAN VIEW

ALLOWABLE VERTICAL LOAD = 225KN
BASED ON MAXIMUM BEARING PRESSURE OF 10N/mm²
FRICTION COEFFICIENT = 0.1

Pos.	Qty.	Description	Standard	Material-No.	Weight(kg)
3	1	POLISHED SS SHEET 400 x 300 x 2 THK	ASTM A480M	A240 Gr.304	1.93
2	2	SHEET 120 x 120 x 6 THK.	MANUFACTURER	GRAPHITED PTFE	–
1	2	PLATE 140 x 140 x 10 THK	IS 1730	IS2062 Gr.E250 BR	3.08
				Total approx weight = 5.01 kg	

NOTE:-
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	29/01/24	SAHIL TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

BAR-Code

Contract No. 66-6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	29/01/24	SAHIL
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

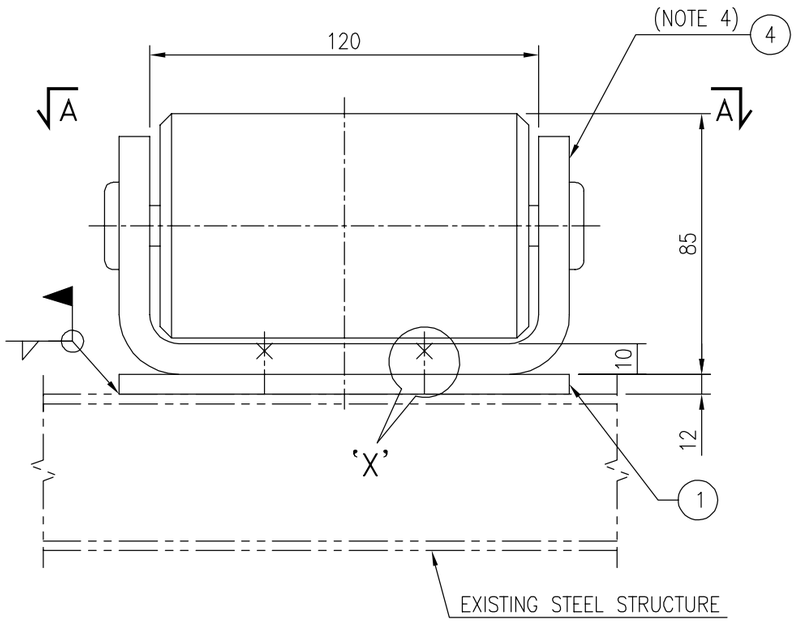
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DAMANJODI, ODISHA

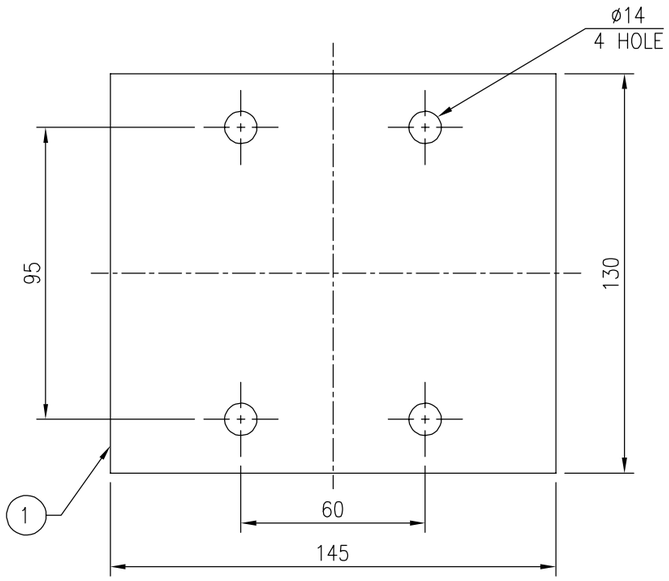
Description
CS03001-03
GRAPHITED PTFE SLIDE PLATE
ASSEMBLY PIPE SIZE UPTO 24"TO 36"
TEMP. UP TO 200°C

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695-ADA	\RLSUPSP\DRG\CS	CS03001-03

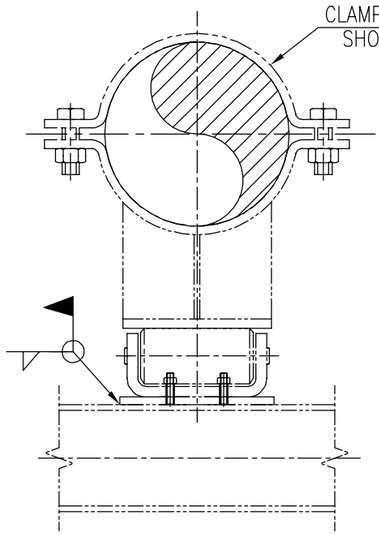
UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

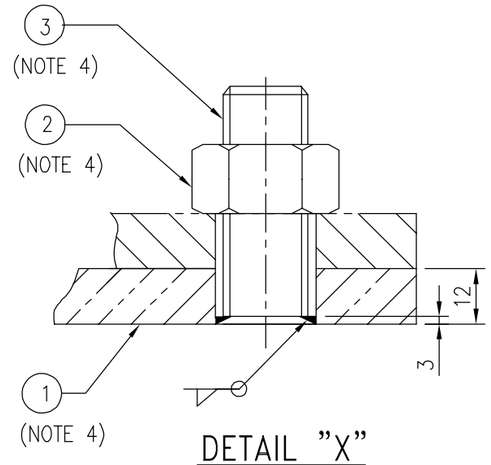




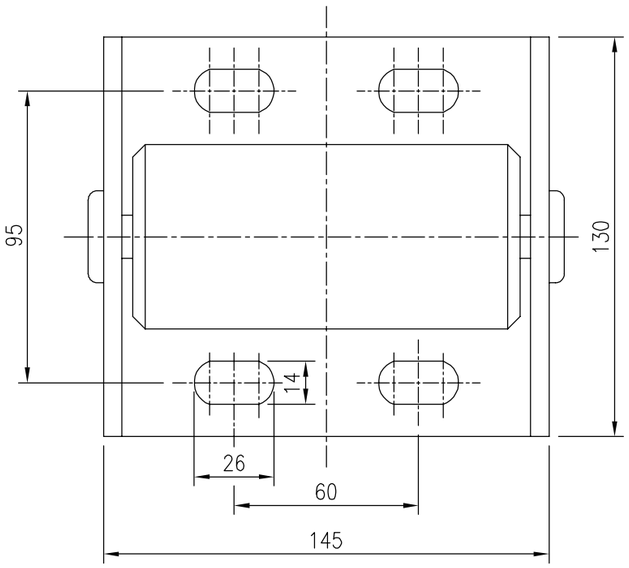
DETAIL OF POS. 1



(TYP.EXAMPLE SHOWING INSTALLATION)



DETAIL "X"



VIEW A–A

TOTAL ASSEMBLY MTO BY VENDOR SUPPLY.
DRAWING IS ONLY FOR ARRANGEMENT

Pos.	Qty.	Description	Standard	Material–No.	Weight
4	1	ROLLER BEARING	MANUFACTURER	–	–
3	4	THREADED ROD M12 x 50	IS 1732	IS 2062 Gr. E250 BR	0.04
2	4	HEXAGON NUT M12	IS	IS 1363/ IS 1367 Cl. 4.6	0.02
1	1	PLATE 145 X 130 X 12	IS 1730	IS 2062 Gr. E250 BR	1.78
				Total approx weight = 1.84kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
		Drawn/Prepared		Checked		Approved		
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
--			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
--	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

BAR–Code

Store Location: Server/Share: \\P666695–ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS03003

Contract No.: 66–6695
Document ID: –
Part:
Rev.: 00

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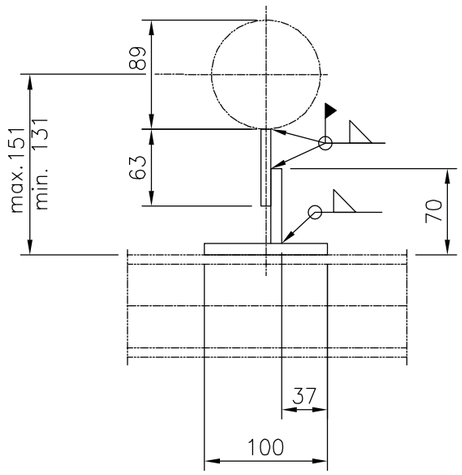
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

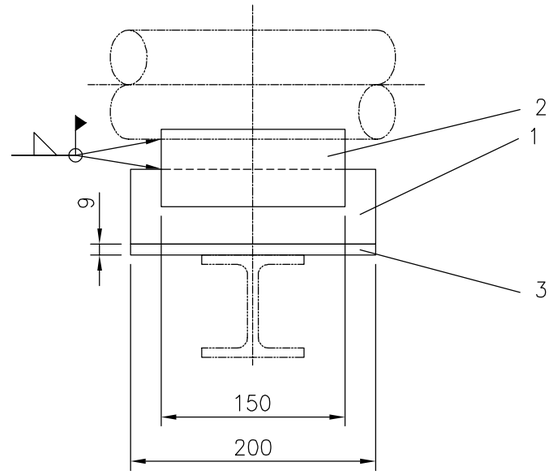
Description
CS03003
CYLINDER ROLLER BEARING

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 10 X 100 X 200	IS 1730	IS2062 Gr.B	1.57
2	1	PLATE 10 X 63 X 150	IS 1730	IS2062 Gr.B	0.74
1	1	PLATE 10 X 61 X 200	IS 1730	IS2062 Gr.B	0.96
				Total approx weight = 3.27kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	NOOR TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

Drawn/Prepared | Checked | Approved

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
––			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	29/01/24	NOOR
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

Contract No. 66–6695

Document ID –

Part

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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description CS04003–01S

WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT.
HEAT INSULATED CS UP TO 300°C 3'' LINE.
INSULATION THK 50mm

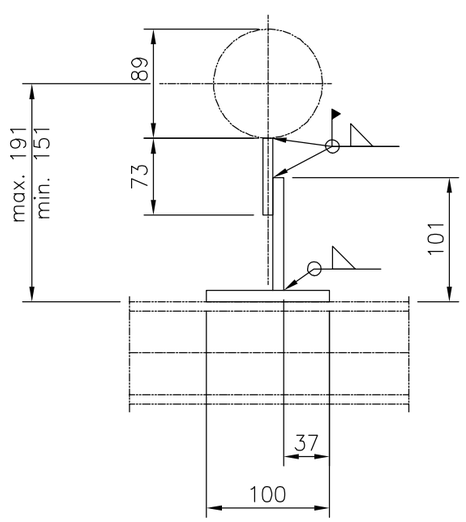
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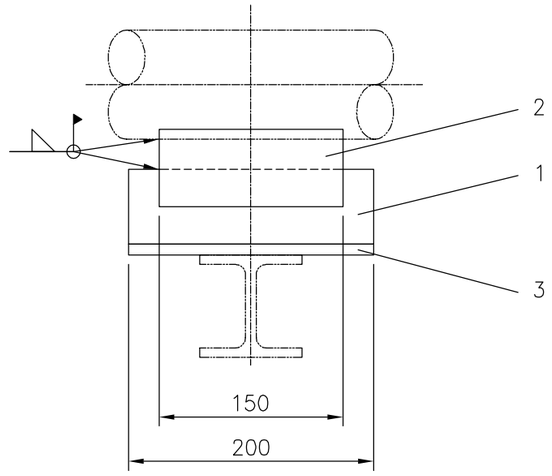
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\RLSUPSP\DRG\CS

Store Name
CS04003–01S

ISO A3

UH_BO_ISO_A3_L_E_tkiSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 10 X 100 X 200	IS 1730	IS2062 Gr.B	1.57
2	1	PLATE 10 X 73 X 150	IS 1730	IS2062 Gr.B	0.74
1	1	PLATE 10 X 91 X 200	IS 1730	IS2062 Gr.B	1.43
				Total approx weight = 3.74kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	29/01/24	NOOR TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
--	TB		NTS	1 OF 1

	Date	Name
Drawn	29/01/24	NOOR
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

Store Location: Server/Share: \\P666695–ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04003–02S

Contract No.: 66–6695
Document ID: –
Part:
Rev.: 00

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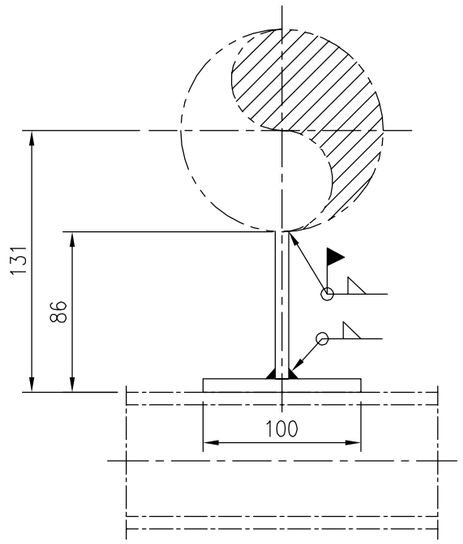
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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

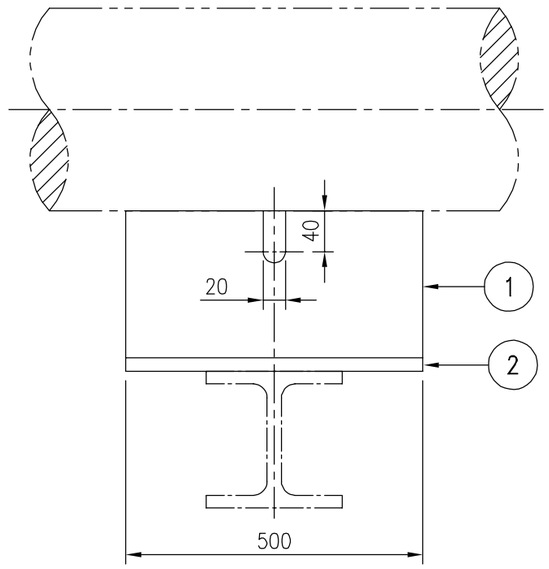
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description: CS04003–02S
WELDED SLOPE SHOE FOR VERTICAL ADJUSTMENT.
HEAT INSULATED CS UPTO 300° C
INSULATION THK 70mm.

ISO A3

UH_BO_ISO_A3_L_E_tkiSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−15 kN
LATERAL LOAD	15 kN
AXIAL LOAD	15 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 x 100 x 12THK	IS1730	IS 2062 Gr.B	8.80
1	1	PLATE 500 x 74 x 12 THK	IS1730	IS 2062 Gr.B	8.35
				Total approx weight =17.15kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE ALLOWABLE.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	TANVI	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	TANVI
Prepared	15/01/24	TANVI
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04003−11

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

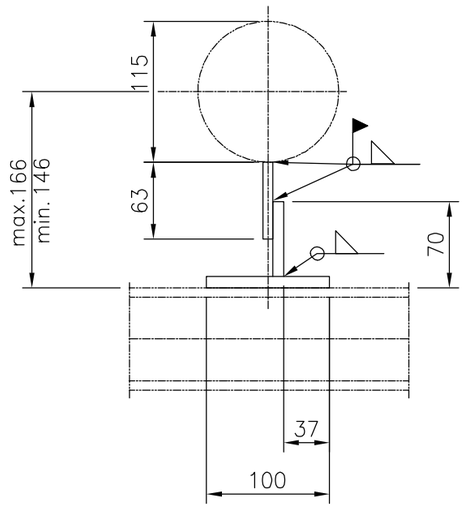
Description
CS04003−11
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 3"
MAX.INSULATION 50mm

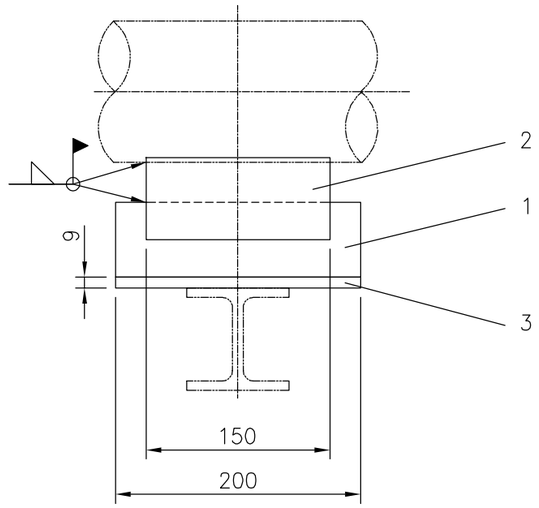
ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 10 X 100 X 200	IS 1730	IS2062 Gr.B	1.57
2	1	PLATE 10 X 63 X 150	IS 1730	IS2062 Gr.B	0.74
1	1	PLATE 10 X 61 X 200	IS 1730	IS2062 Gr.B	0.96
				Total approx weight = 3.27kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	NOOR TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

Drawn/Prepared · Checked · Approved

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
––			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	29/01/24	NOOR
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

Contract No. 66–6695 · Document ID – · Part · Rev. 00

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National Aluminium Company Ltd.

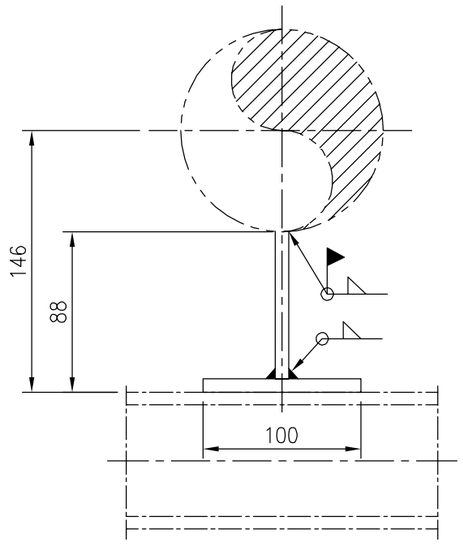
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

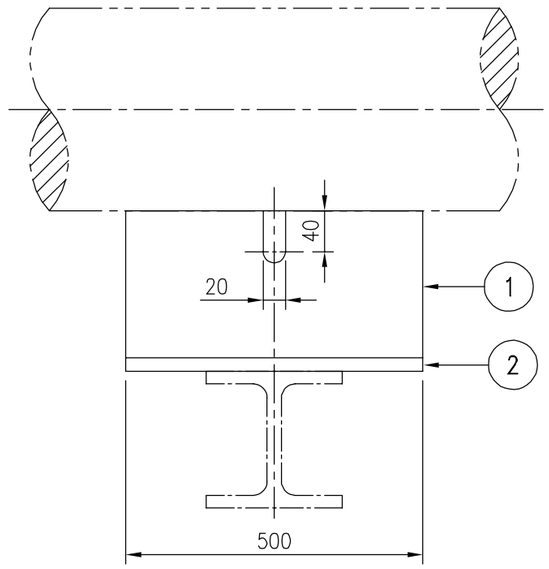
Description
CS04004–02S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT. 4" PIPE
HEAT INSULATED CS UPTO 300° C
INSULATION THK 70mm.

Store Location: Server/Share: \\P666695–ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04004–02S

ISO A3

UH_BO_ISO_A3_L_E_tkiSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−15 kN
LATERAL LOAD	15 kN
AXIAL LOAD	15 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 x 100 x 12THK	IS1730	IS 2062 Gr.B	8.80
1	1	PLATE 500 x 76 x 12 THK	IS1730	IS 2062 Gr.B	8.35
				Total approx weight =17.15kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE ALLOWABLE.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	TANVI	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	TANVI
Prepared	15/01/24	TANVI
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04004−11

Contract No.	Document ID	Part	Rev.
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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

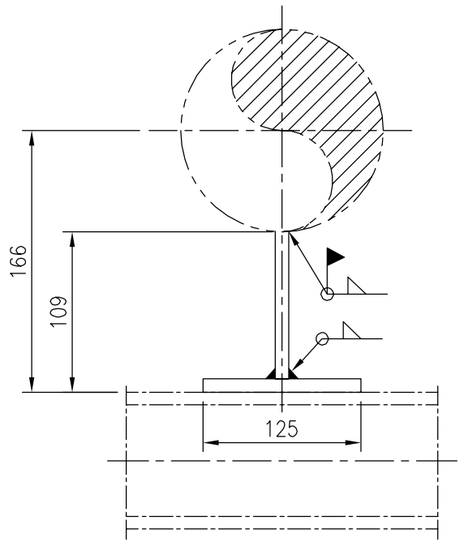
CS04004−11
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 4"
MAX.INSULATION 50mm

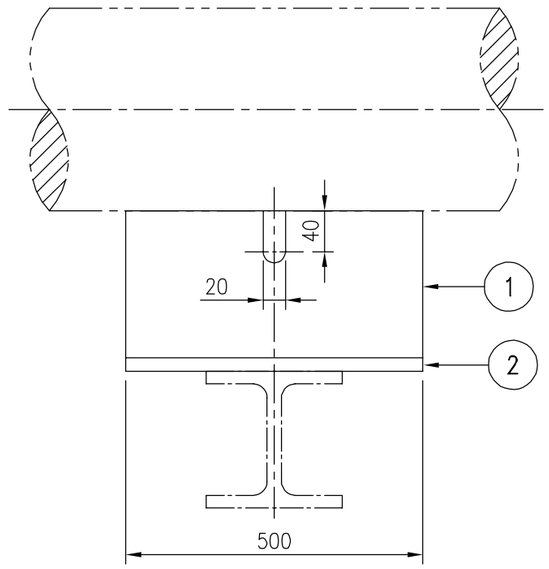
UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm

50 mm





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−15 kN
LATERAL LOAD	15 kN
AXIAL LOAD	15 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 x 125 x 12THK	IS1730	IS 2062 Gr.B	8.80
1	1	PLATE 500 x 97 x 12 THK	IS1730	IS 2062 Gr.B	8.35
				Total approx weight =17.15kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE ALLOWABLE.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	TANVI TANVI	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	TANVI
Prepared	15/01/24	TANVI
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04004−12

Contract No.	Document ID	Part	Rev.
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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

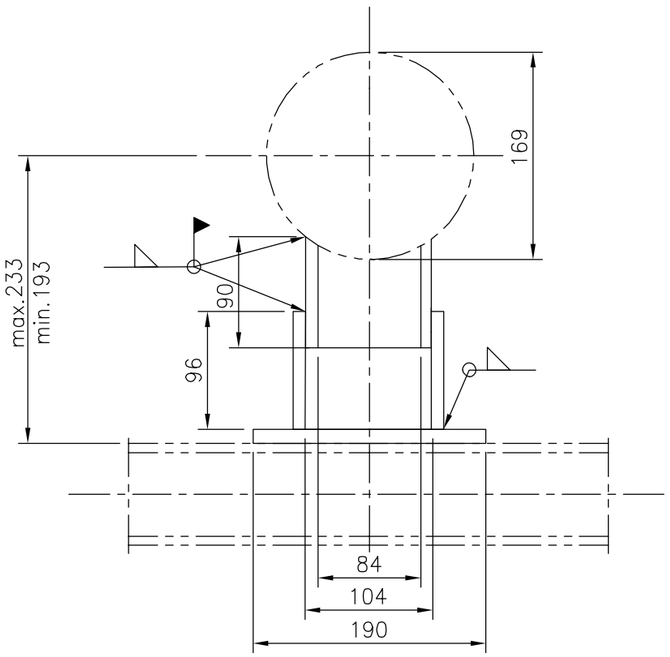
CS04004−12
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C
MAX.INSULATION 70mm

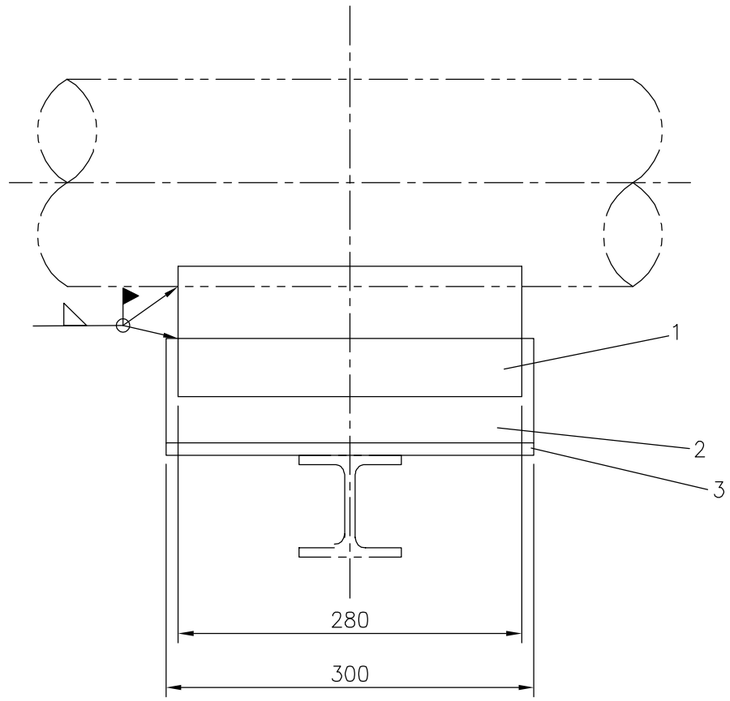
UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 190 X 300	IS 1730	IS2062 Gr.B	5.37
2	2	PLATE 10 X 96 X 300	IS 1730	IS2062 Gr.B	4.52
1	2	PLATE 10 X 90 X 280	IS 1730	IS2062 Gr.B	3.96
				Total approx weight = 13.85kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	NOOR TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

Drawn/Prepared · Checked · Approved

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
--			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
--	TB		NTS	1 OF 1

	Date	Name
Drawn	29/01/24	NOOR
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

Store Location: Server/Share: \\P666695–ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04006–02S

Contract No.: 66–6695
Document ID: –
Part:
Rev.: 00

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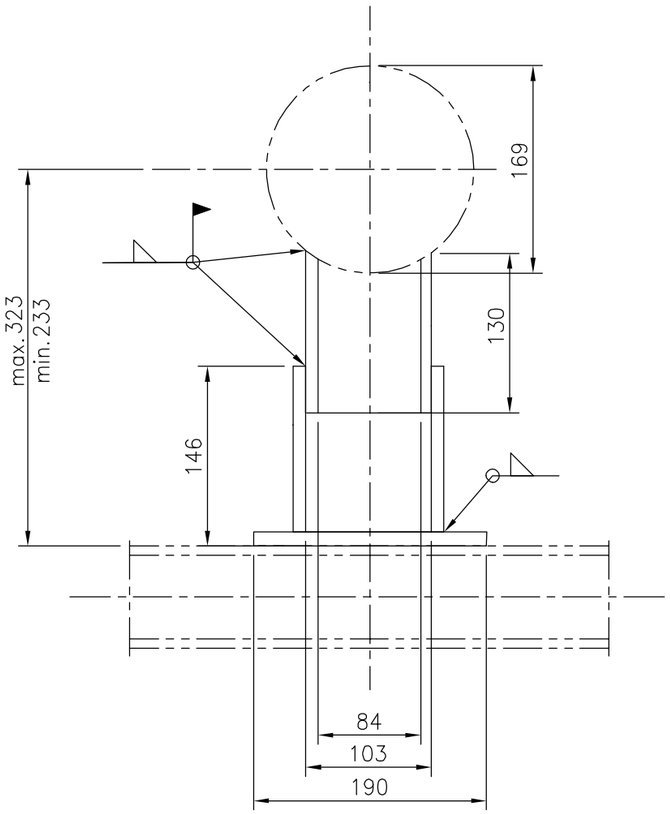
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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

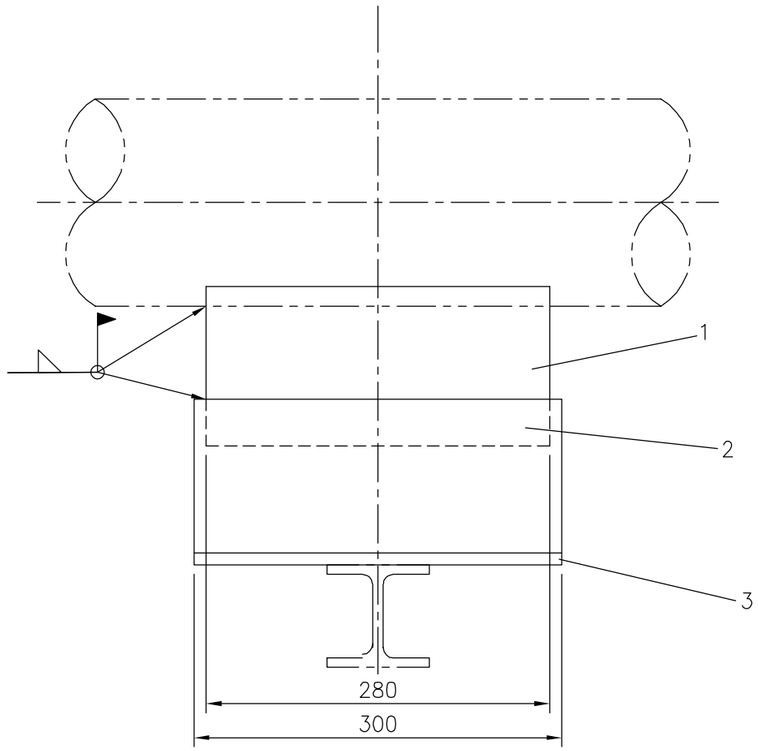
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description: CS04006–02S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT.6"
HEAT INSULATED CS UPTO 300° C
INSULATION THK 70mm.

ISO A3

UH_BO_ISO_A3_L_E_tkiSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 190 X 300	IS 1730	IS2062 Gr.B	5.37
2	2	PLATE 10 X 135 X 300	IS 1730	IS2062 Gr.B	6.36
1	2	PLATE 10 X 130 X 280	IS 1730	IS2062 Gr.B	5.72
				Total approx weight = 17.45kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	NOOR TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR–Code

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	29/01/24	NOOR
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

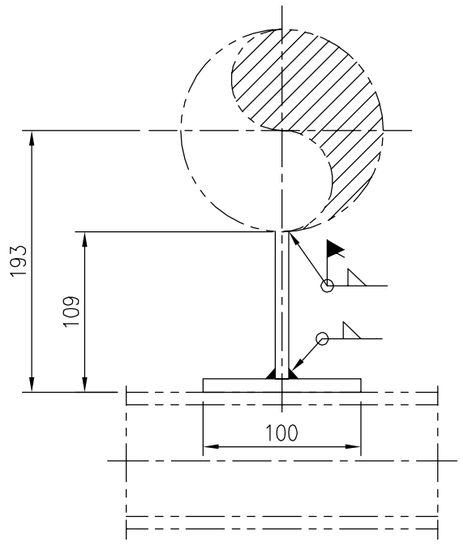
Description
CS04006–03S

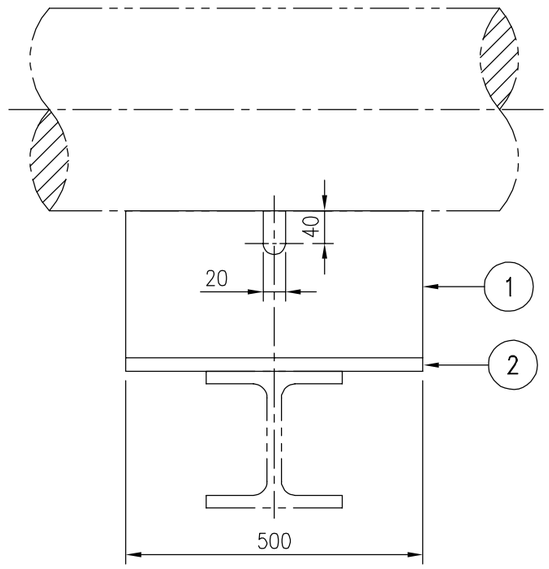
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT.
HEAT INSULATED CS UP TO 300oC 6''.
INSULATION THK 110mm

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04006–03S

UH_BO_ISO_A3_L_E_tkiSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−20 kN
LATERAL LOAD	20 kN
AXIAL LOAD	20 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 X 100 X 12 THK	IS 1730	IS 2062 Gr.B	4.71
1	1	PLATE 500 X 97 X 12 THK	IS 1730	IS 2062 Gr.B	4.57
				Total approx weight = 9.28 kg	

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	12/02/24	HHJ TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	12/02/2024	HHJ
Prepared	12/02/2024	TGP
Checked	12/02/2024	SJP
Approved	12/02/2024	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04006−12

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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National Aluminium Company Ltd.

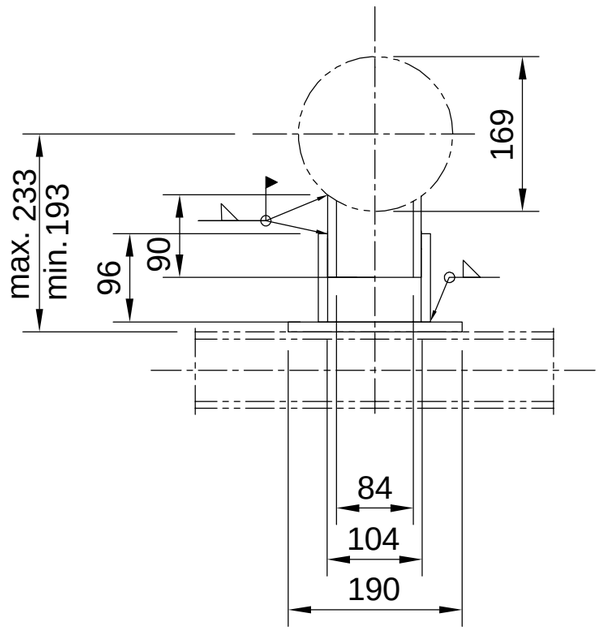
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

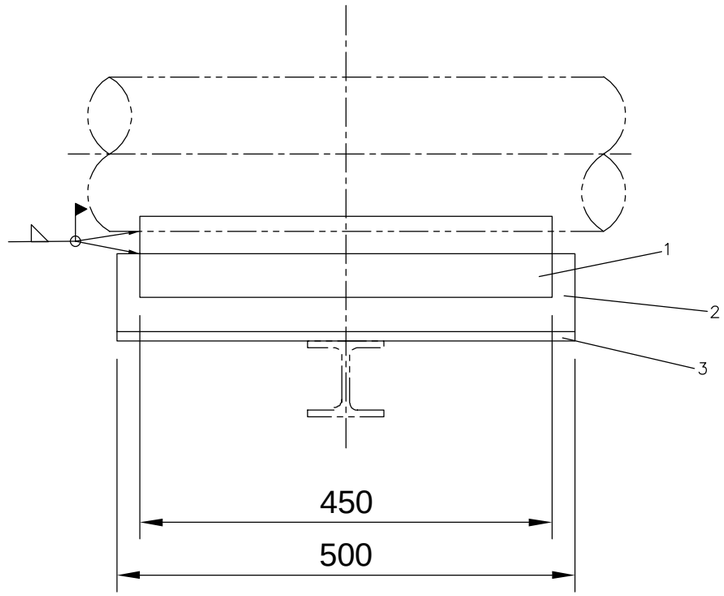
Description
CS04006−12
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 6"
LINE MAX.INSULATION −70mm

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 190 X 500	IS 1730	IS2062 Gr.B	8.95
2	2	PLATE 10 X 96 X 500	IS 1730	IS2062 Gr.B	7.54
1	2	PLATE 10 X 90 X 450	IS 1730	IS2062 Gr.B	6.36

Total approx weight = 22.85kg

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
	Drawn/Prepared		Checked		Approved			
00	12/02/24	HHJ TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	12/02/2024	HHJ
Prepared	12/02/2024	TGP
Checked	12/02/2024	SJP
Approved	12/02/2024	MLN

Contract No. 66–6695

Document ID –

Part 100. Rev.

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

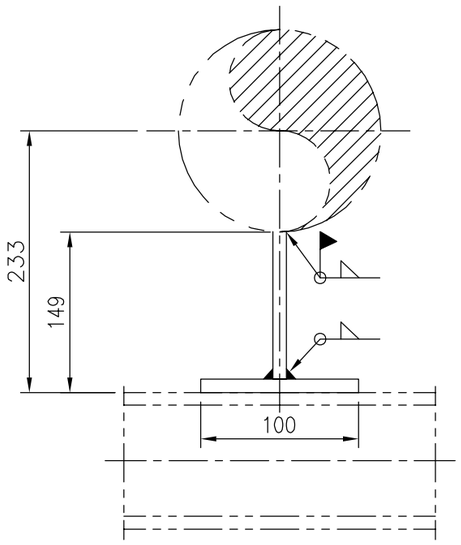
CS04006–12S

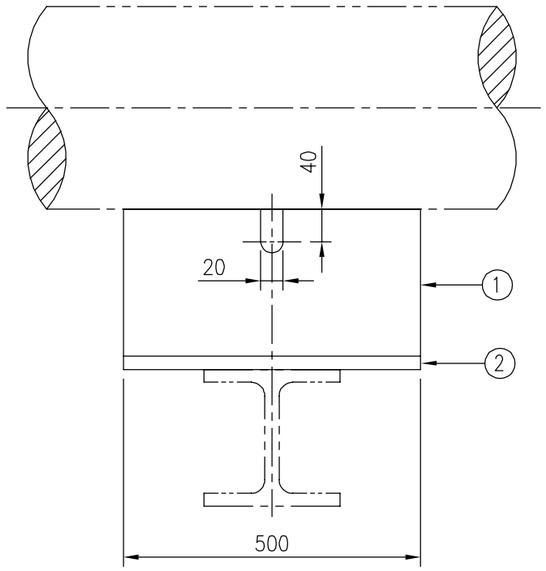
WELDED SLOPE LONG SHOE FOR VERTICAL ADJUSTMENT.
HEAT INSULATED CS UPTO 300° C 6" LINE
INSULATION THK 70mm.

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04006–12S

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−25 kN
LATERAL LOAD	25 kN
AXIAL LOAD	25 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 X 100 X 12 THK	IS 1730	IS 2062 Gr.B	4.71
1	1	PLATE 500 X 137 X 12 THK	IS 1730	IS 2062 Gr.B	4.52
				Total approx weight = 9.23 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	12/02/24	HHJ TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	12/02/2024	HHJ
Prepared	12/02/2024	TGP
Checked	12/02/2024	SJP
Approved	12/02/2024	MLN

Store Location: Server/Share: \\P666703−ADA\ACAD
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04006−13

Contract No.: 66−6695
Document ID: −
Part:
Rev.: 00

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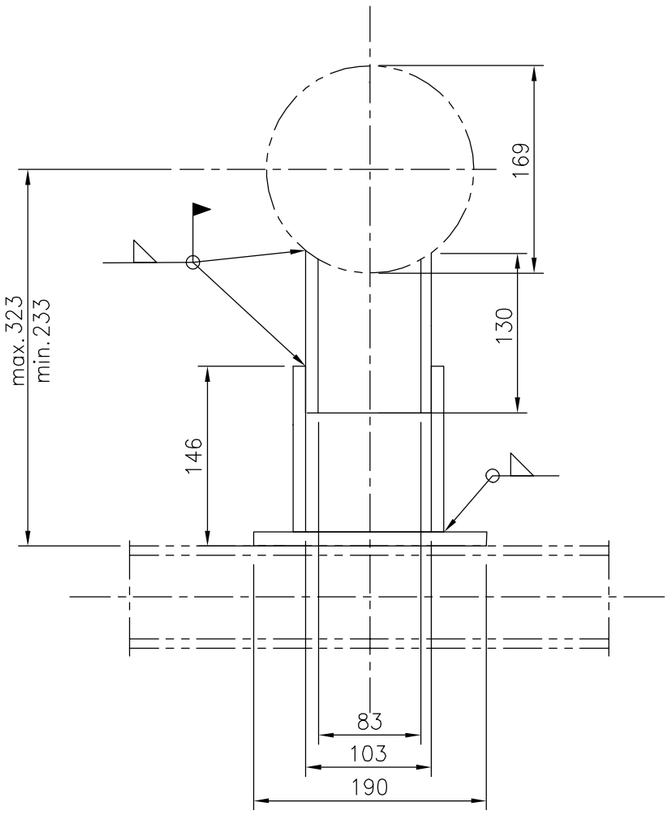
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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

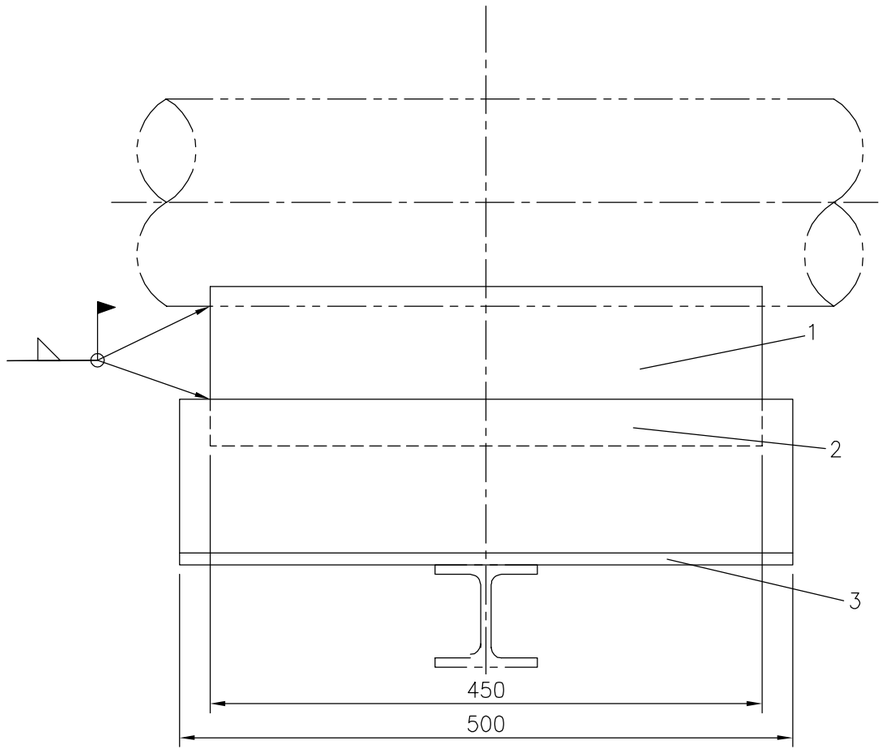
PROJECT : 1.5MTPA TO 2.0MTPA ALUMINA REFINERY EXPANSION.
DORAGURHA, RAYAGADA, ODISHA.

Description
CS04006−13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UPTO 300°C 6" LINE
MAX. INSULATION = 110mm

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 190 X 500	IS 1730	IS2062 Gr.B	8.95
2	2	PLATE 10 X 135 X 500	IS 1730	IS2062 Gr.B	10.60
1	2	PLATE 10 X 130 X 450	IS 1730	IS2062 Gr.B	9.18
				Total approx weight = 28.73kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	NOOR TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	
		Drawn/Prepared		Checked		Approved		

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	29/01/24	NOOR
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04006–13S

WELDED SLOPE LONG SHOE FOR VERTICAL ADJUSTMENT.
HEAT INSULATED CS UP TO 300o C 6''.
INSULATION THK 110mm

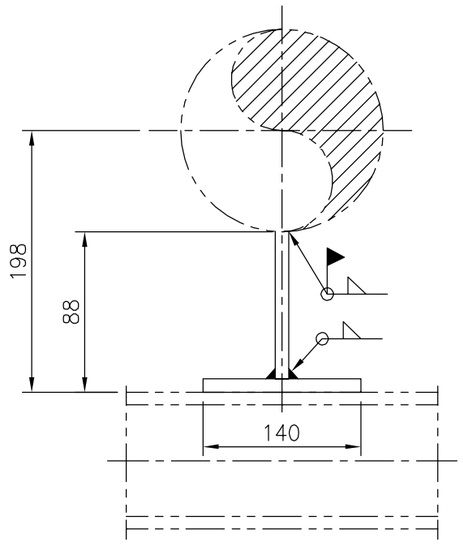
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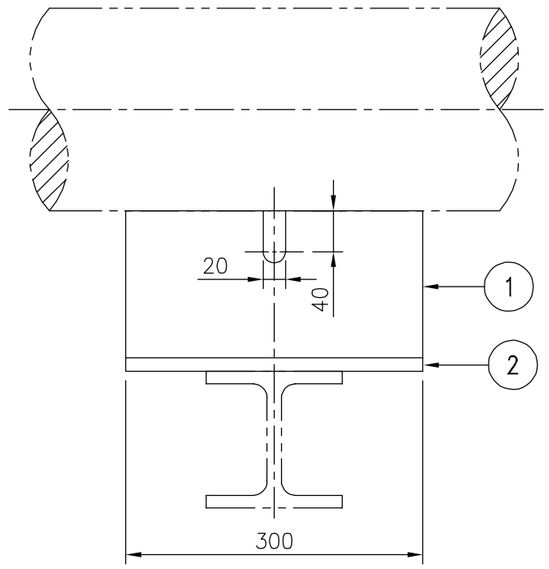
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\RLSUPSP\DRG\CS

Store Name
CS04006–13S

UH_BO_ISO_A3_L_E_tkiSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−25 kN
LATERAL LOAD	25 kN
AXIAL LOAD	25 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 300 x 140 x 12 THK	IS 1730	IS 2062 Gr.B	3.96
1	1	PLATE 300 x 76 x 12 THK	IS 1730	IS 2062 Gr.B	2.49
				Total approx weight = 6.44 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE ALLOWABLE.

Document−ID−BAR−Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	29/01/24	HHJ TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
−−		8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	29/01/24	HHJ
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

UAN	Code Document ID	Part	Group	Rev.
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National Aluminium Company Ltd.

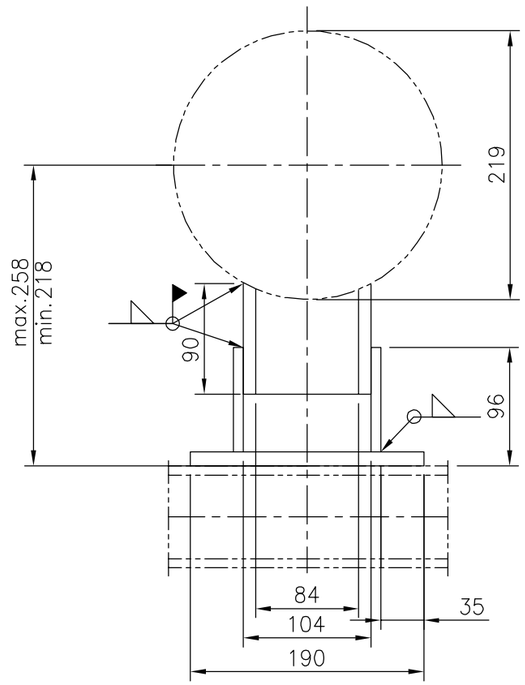
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

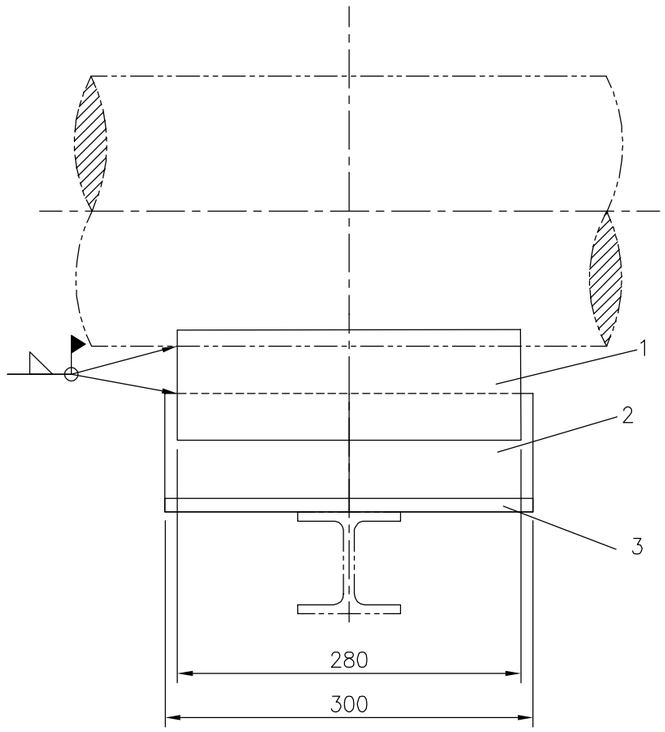
Description
CS04008−01
WELDED SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 8" LINE
MAX.INSULATION 50mm

Store Location: Server/Share: \\P666665−ADA\ACAD
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04008−01

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

TKIS - India ISO A3





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 190 X 300	IS 1730	IS2062 Gr.B	5.37
2	2	PLATE 10 X 86 X 300	IS 1730	IS2062 Gr.B	4.05
1	2	PLATE 10 X 90 X 280	IS 1730	IS2062 Gr.B	3.96
				Total approx weight =	13.38kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	29/01/24	SAHIL TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	29/01/24	SAHIL
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

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Document ID –
Part
Rev. 00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04008–02S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT. 8''
HEAT INSULATED CS UP TO 300°C.
INSULATION THK 70mm

Store Location: Server/Share
\\P666695–ADA

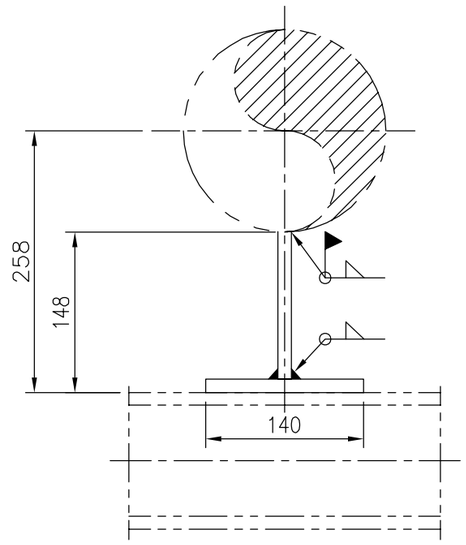
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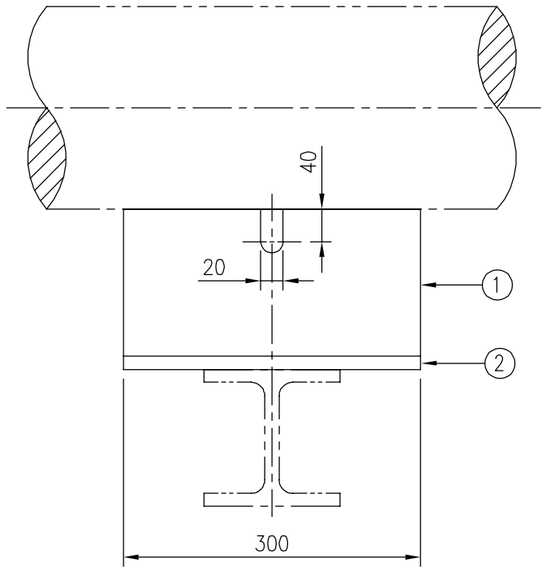
Store Name
CS04008–02S

ISO A3

50 mm

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−25 kN
LATERAL LOAD	25 kN
AXIAL LOAD	25 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 300 X 100 X 12 THK	IS 1730	IS 2062 Gr.B	5.28
1	1	PLATE 300 X 137 X 12 THK	IS 1730	IS 2062 Gr.B	8.29
				Total approx weight = 10.25 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

BAR−Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	15/01/24	KNM KNM	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	−		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	KNM
Prepared	15/01/24	KNM
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666703−ADA\ACAD	\RLSUPSP\DRG\CS	CS04008−03

Contract No.	Document ID	Part	Rev.
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National Aluminium Company Ltd.

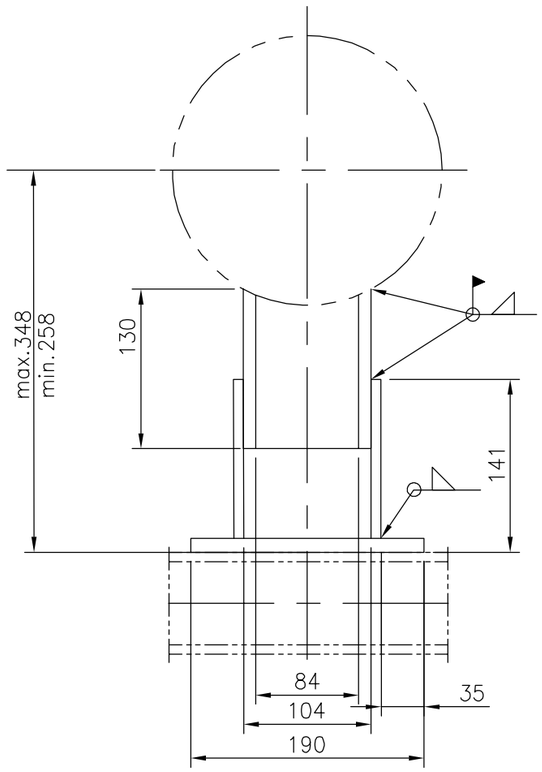
PROJECT : 1.5MTPA TO 2.0MTPA ALUMINA REFINERY EXPANSION. DORAGURHA, RAYAGADA, ODISHA.

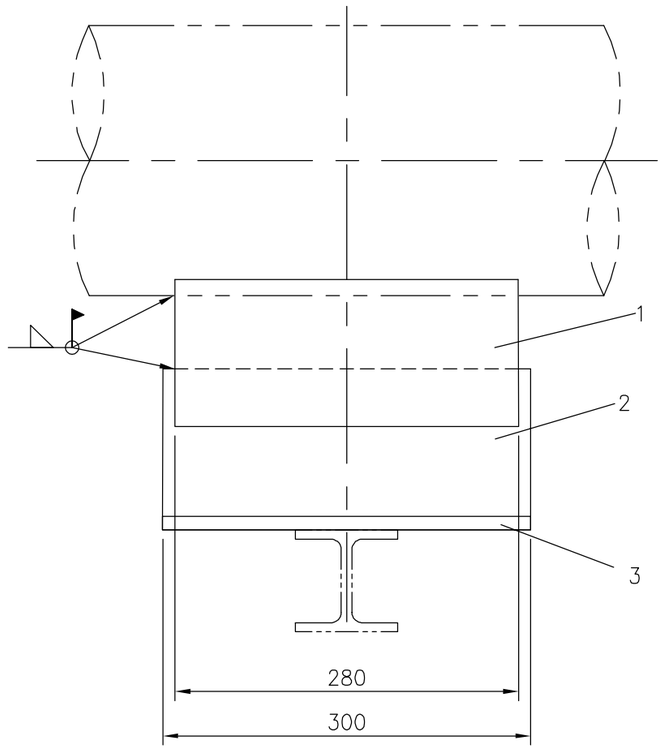
Description

CS04008−03
WELDED LONG SHOE SUPPORT HEAT INSULATED CS UPTO 300°C 8" LINE MAX. INSULATION = 110mm

ISO A3

UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 190 X 300	IS 1730	IS2062 Gr.B	5.37
2	2	PLATE 10 X 129 X 300	IS 1730	IS2062 Gr.B	6.08
1	2	PLATE 10 X 130 X 280	IS 1730	IS2062 Gr.B	5.71
				approx weight = 17.16 kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	12/02/24	HHJ TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	
		Drawn/Prepared		Checked		Approved		

Contract No. 66–6695 | Document ID – | Part | Rev. 00

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	HHJ
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

Store Location: Server/Share \\P666695–ADA
Store Location: Folder \RLSUPSP\DRG\CS
Store Name CS04008–03S

नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

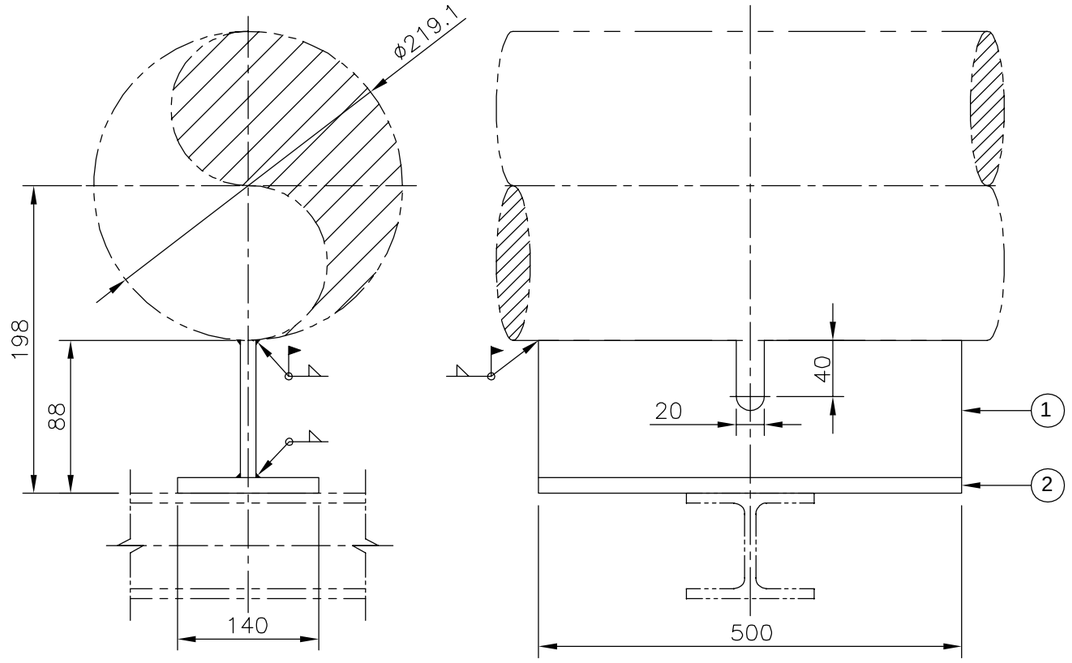
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

thyssenkrupp
thyssenkrupp Uhde India Private Limited 2023

Description
CS04008–03S
WELDED SLOPE SHOE FOR VERTICAL ADJUSTMENT.
HEAT INSULATED CS UP TO 300°C 8".
INSULATION THK 110mm

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018



LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−25 kN
LATERAL LOAD	25 kN
AXIAL LOAD	25 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 x 140 x 12 THK	IS 1730	IS 2062 Gr.B	6.59
1	1	PLATE 500 x 76 x 12 THK	IS 1730	IS 2062 Gr.B	4.14
				Total approx weight = 10.4 kg	

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE ALLOWABLE.

Document−ID−BAR−Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
		Drawn/Prepared		Checked		Approved		
00	29/01/24	HHJ TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
−−		8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	29/01/24	HHJ
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666665−ADA\ACAD	\RLSUPSP\DRG\CS	CS04008−11

UAN	Code Document ID	Part	Group	Rev.
66−6665	−			00

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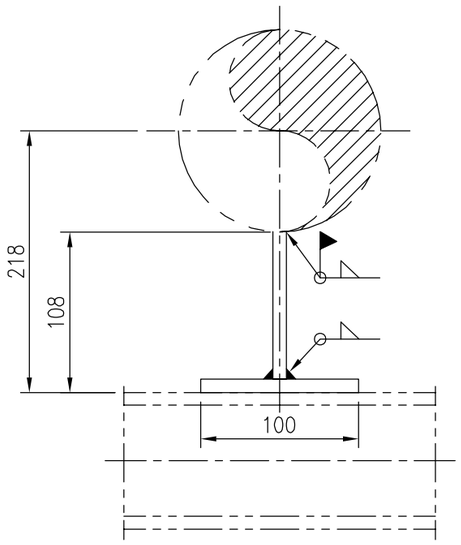
नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

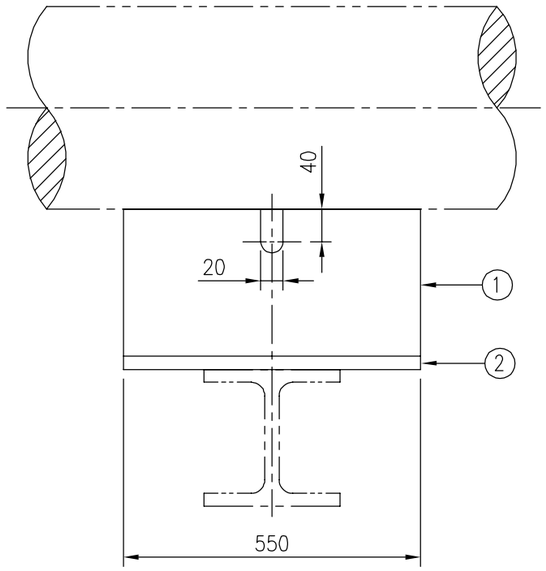
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04008− 11
WELDED SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 8" LINE
MAX.INSULATION 50mm

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

TKIS - India ISO A3





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−25 kN
LATERAL LOAD	25 kN
AXIAL LOAD	25 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 X 100 X 12 THK	IS 1730	IS 2062 Gr.B	4.71
1	1	PLATE 500 X 96 X 12 THK	IS 1730	IS 2062 Gr.B	4.52
				Total approx weight = 9.23 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	TANVI TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

	Date	Name
Drawn	15/01/24	TANVI
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04008−12

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

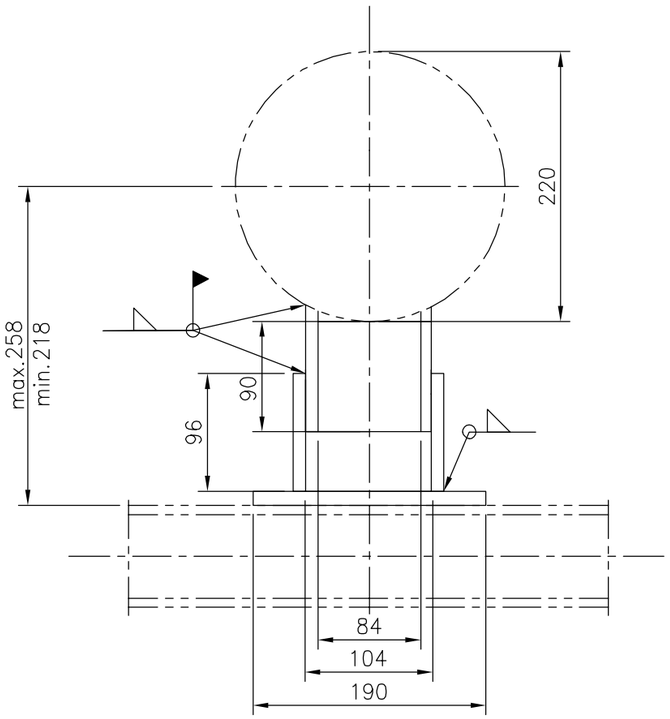
CS04008−12
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UPTO 300°C 8"
MAX. INSULATION = 70mm

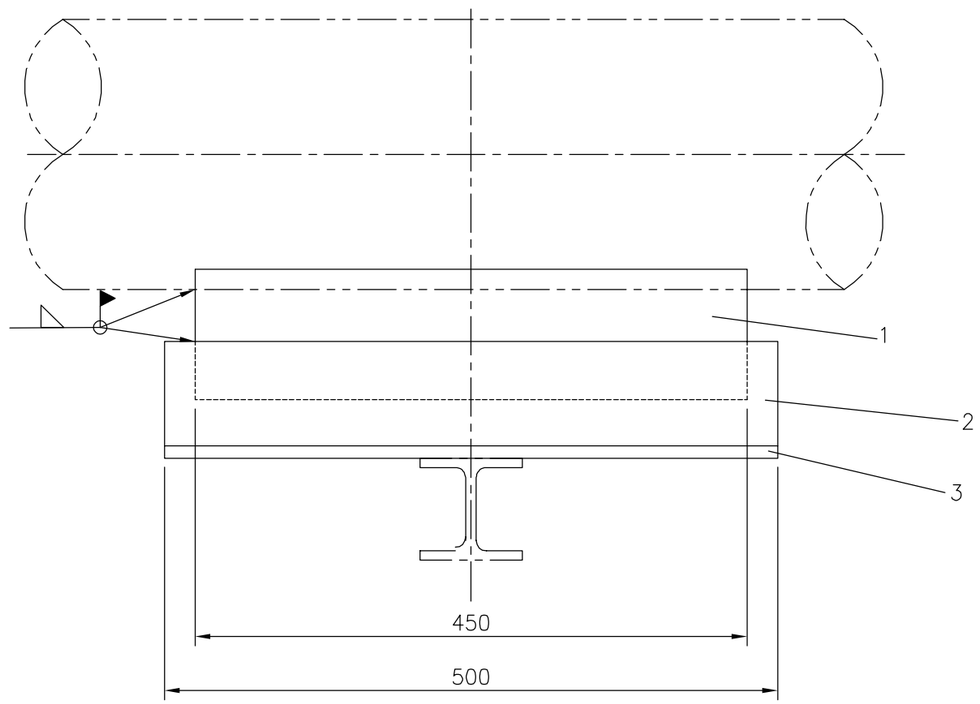
UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 190 X 500	IS 1730	IS2062 Gr.B	8.95
2	2	PLATE 10 X 84 X 500	IS 1730	IS2062 Gr.B	6.59
1	2	PLATE 10 X 90 X 450	IS 1730	IS2062 Gr.B	6.36
				Total approx weight = 21.90 kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	NOOR TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	

Drawn/Prepared · Checked · Approved

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
--	TB		NTS	1 OF 1

	Date	Name
Drawn	29/01/24	JOSHI
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

Store Location: Server/Share: \\P666695–ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04008–12S

Contract No.: 66–6695
Document ID: –
Part:
Rev.: 100.

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National Aluminium Company Ltd.

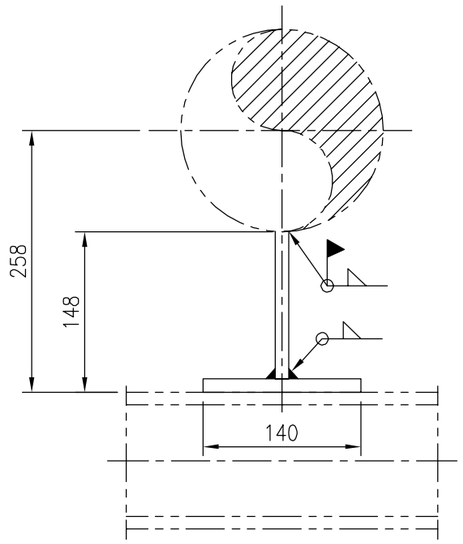
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

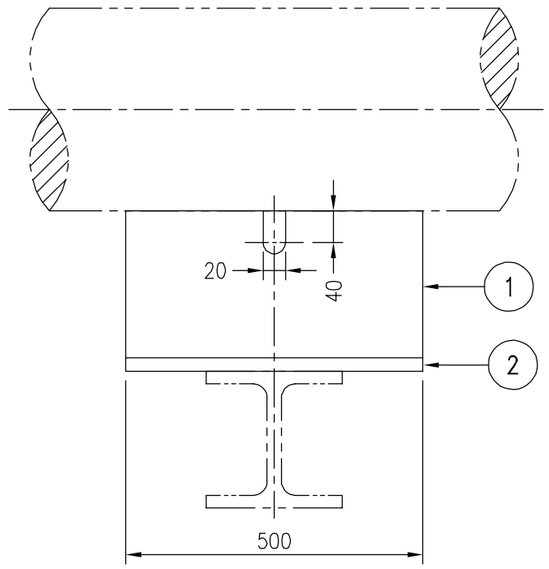
thyssenkrupp
thyssenkrupp Uhde India Private Limited 2023

Description
CS04008–12S
WELDED SLOPE LONG FOR
VERTICAL ADJUSTMENT 8"
HEAT INSULATED CS UPTO 300° C
INSULATION THK 70mm.

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−25 kN
LATERAL LOAD	25 kN
AXIAL LOAD	25 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 X 140 X 16 THK	IS 1730	IS 2062 Gr.B	8.79
1	1	PLATE 500 X 132 X 16 THK	IS 1730	IS 2062 Gr.B	8.29
				Total approx weight = 17.09 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	TANVI	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	TANVI
Prepared	15/01/24	TANVI
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04008−13

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

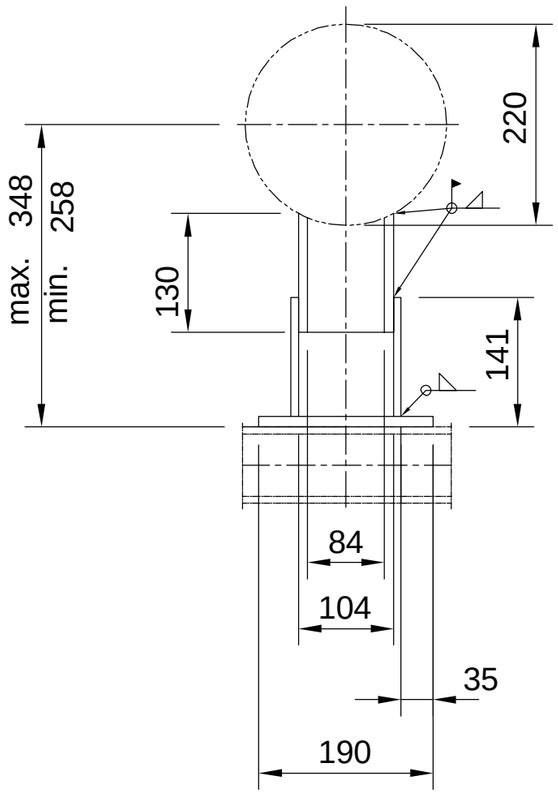
CS04008−13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 8" LINE
MAX.INSULATION −110mm

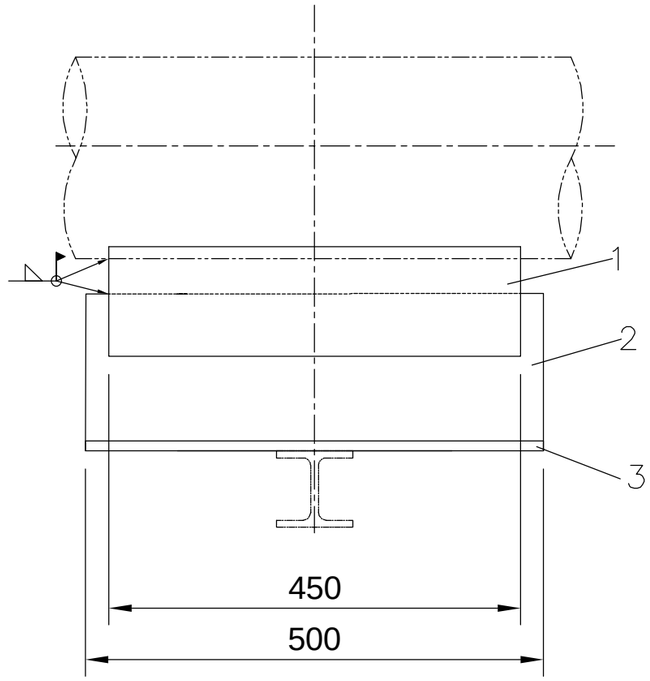
UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 190 X 500	IS 1730	IS2062 Gr.B	8.95
2	2	PLATE 10 X 129 X 500	IS 1730	IS2062 Gr.B	10.13
1	2	PLATE 10 X 130 X 450	IS 1730	IS2062 Gr.B	9.18
				approx weight = 28.26kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	12/02/24	HHJ TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/2024	HHJ
Prepared	12/02/2024	TGP
Checked	12/02/2024	SJP
Approved	12/02/2024	MLN

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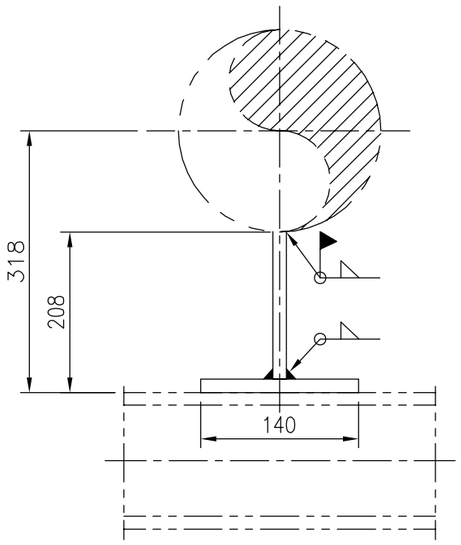
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

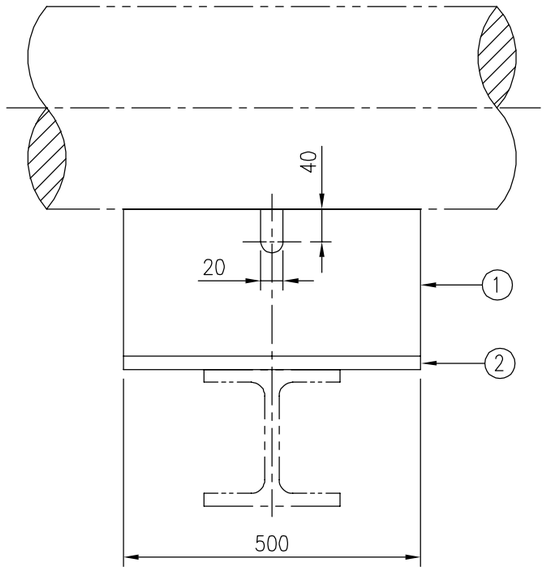
Description
CS04008–13S
WELDED SLOPE LONG FOR VERTICAL ADJUSTMENT.
HEAT INSULATED CS UP TO 300°C.
INSULATION THK 110mm

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04008–13S

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−25 kN
LATERAL LOAD	25 kN
AXIAL LOAD	25 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 X 140 X 16 THK	IS 1730	IS 2062 Gr.B	8.79
1	1	PLATE 500 X 192 X 16 THK	IS 1730	IS 2062 Gr.B	12.6
				Total approx weight = 17.03 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	HHJ TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	−		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	HHJ
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share: \\P666703−ADA\ACAD

Store Location: Folder: \RLSUPSP\DRG\CS

Store Name: CS04008−14

Contract No.: 66−6695

Document ID: −

Part:

Rev.: 00

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National Aluminium Company Ltd.

PROJECT : 1.5MTPA TO 2.0MTPA ALUMINA REFINERY EXPANSION. DORAGURHA, RAYAGADA, ODISHA.

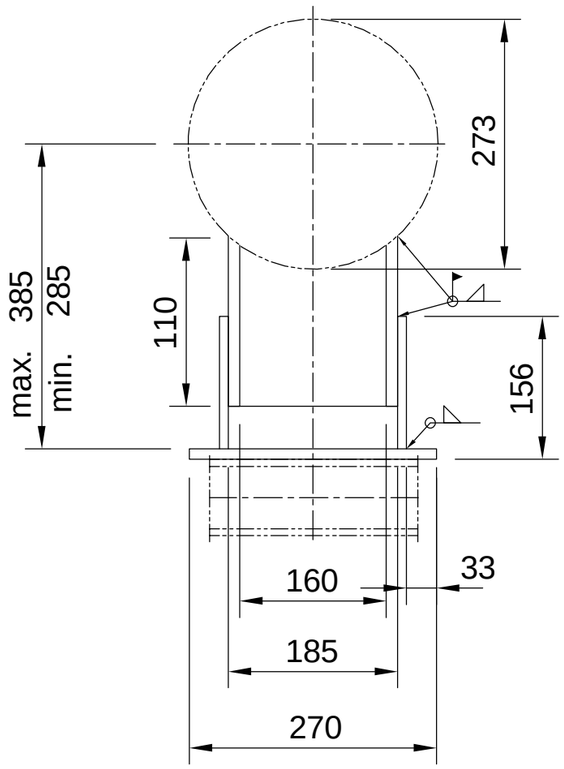
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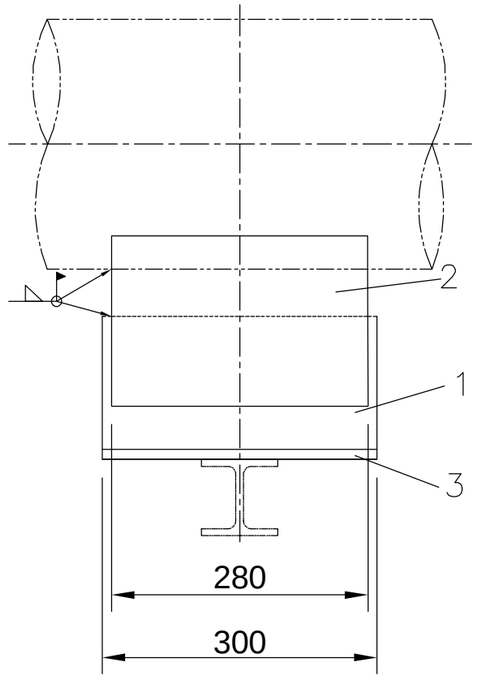
CS04008−14
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UPTO 300°C 8" LINE
MAX. INSULATION = 170mm

ISO A3

50 mm

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 270 X 300	IS 1730	IS2062 Gr.B	7.63
2	2	PLATE 10 X 144 X 300	IS 1730	IS2062 Gr.B	6.78
1	2	PLATE 10 X 110 X 280	IS 1730	IS2062 Gr.B	2.42
				Total approx weight = 16.83kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	13/02/24	SAW TGP	13/02/24	SJP	13/02/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
––			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	13/02/24	SAW
Prepared	13/02/24	TGP
Checked	13/02/24	SJP
Approved	13/02/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04010–03S

Contract No.	Document ID	Part	Rev.
66–6695	–		00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

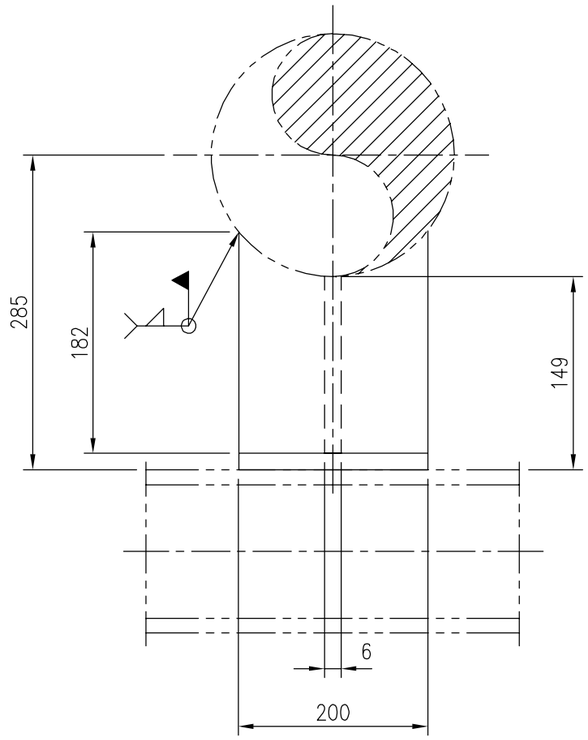
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thyssenkrupp Uhde India Private Limited 2023

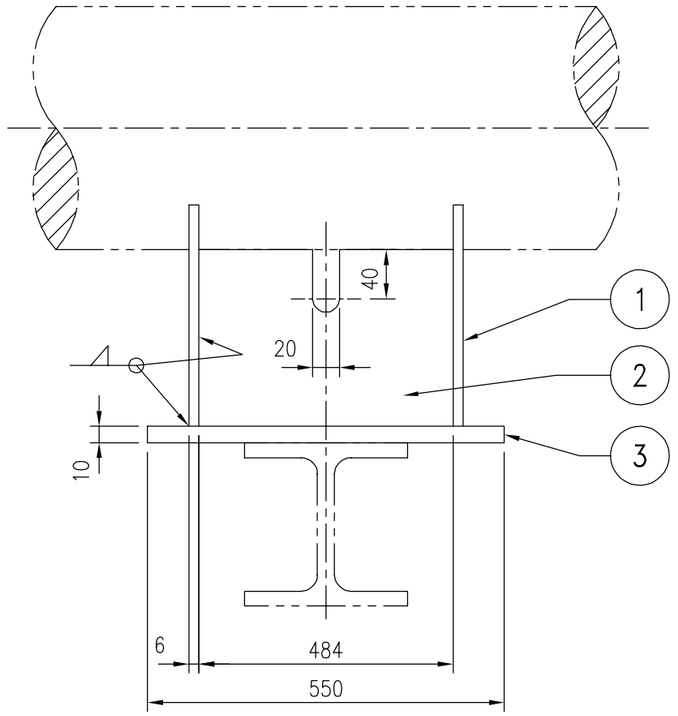
Description
CS04010–03S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT.
HEAT INSULATED CS UP TO 300°C.10"
INSULATION THK 110mm

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 550 X 200 X 10 THK	IS 1730	IS 2062 Gr.B	8.64
2	1	PLATE 484 X 139 X 6 THK	IS 1730	IS 2062 Gr.B	3.17
1	2	PLATE 200 X 182 X 6 THK	IS 1730	IS 2062 Gr.B	3.43
				Total approx weight = 15.24 kg	

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	SAW	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	SAW
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04010−13

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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thyssenkrupp Uhde India Private Limited 2023

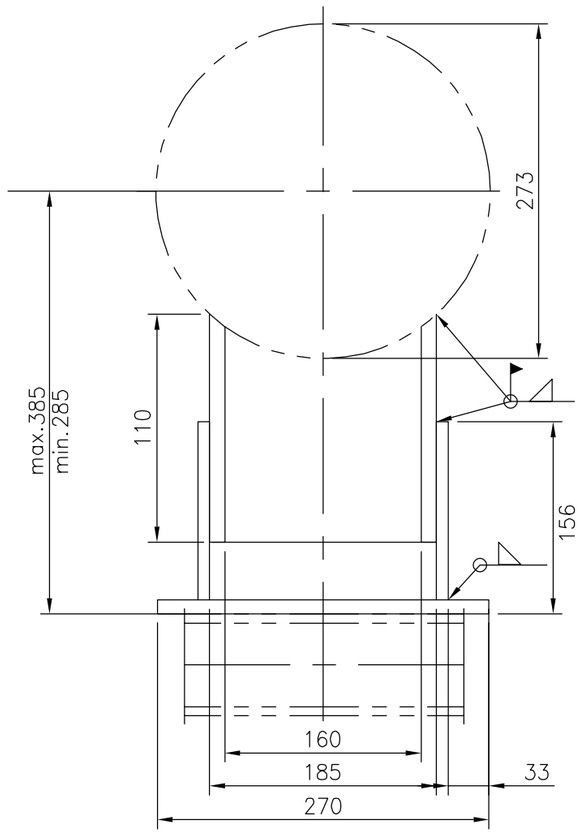
नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

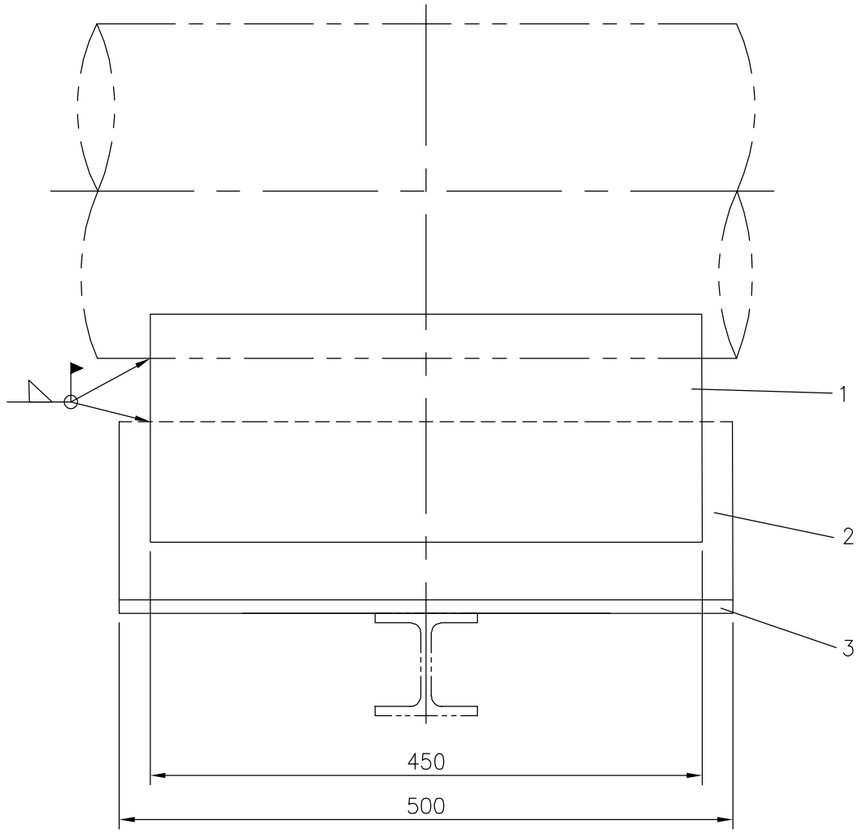
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04010−13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 10"
MAX.INSULATION THK−110mm

ISO A3

UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 11 X 270 X 500	IS 1730	IS2062 Gr.B	11.66
2	2	PLATE 11 X 156 X 500	IS 1730	IS2062 Gr.B	13.47
1	2	PLATE 11 X 110 X 450	IS 1730	IS2062 Gr.B	8.55
				Total approx weight = 33.68kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	13/02/24	SAW TGP	13/02/24	SJP	13/02/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
––			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	13/02/24	SAW
Prepared	13/02/24	TGP
Checked	13/02/24	SJP
Approved	13/02/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04010–13S

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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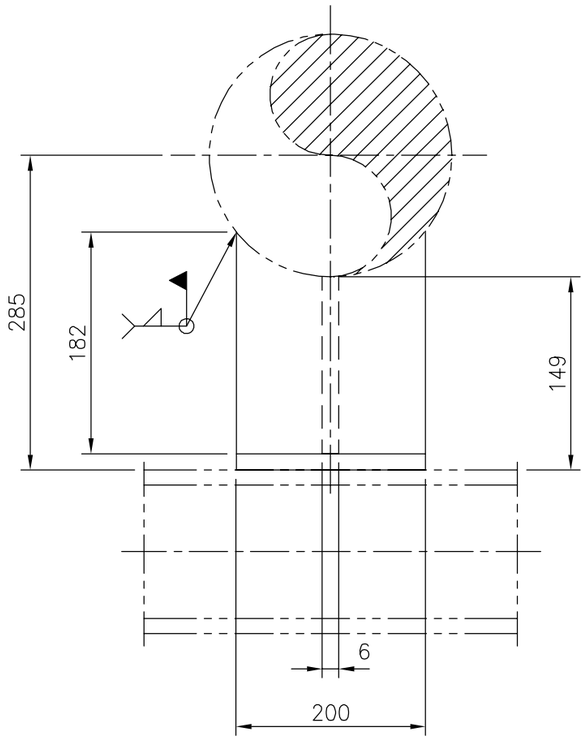
नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

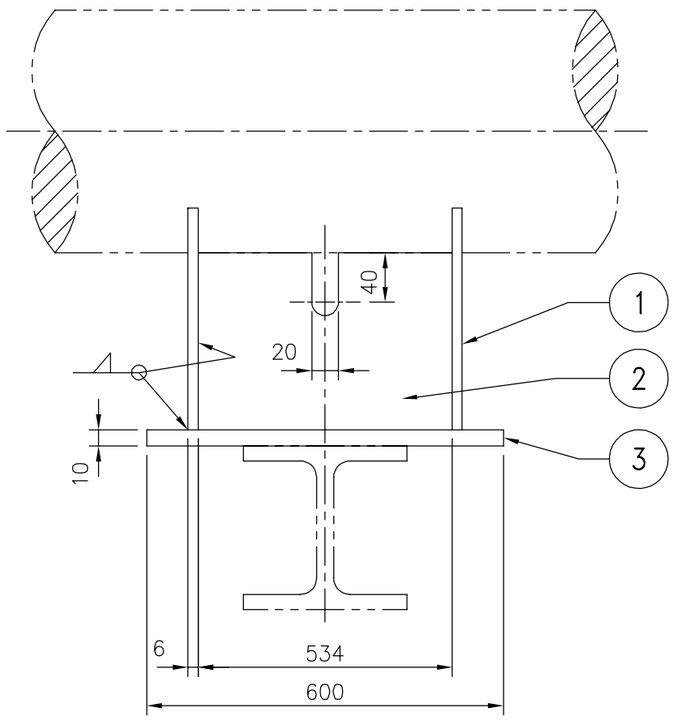
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04010–13S
WELDED SLOPE LONG SHOE FOR VERTICAL ADJUSTMENT.
HEAT INSULATED CS UP TO 300°C.10" INSULATION THK 110mm

ISO A3

UH_BO_ISO_A3_L_E_tktSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 600 X 200 X 10 THK	IS 1730	IS 2062 Gr.B	8.64
2	1	PLATE 534 X 139 X 6 THK	IS 1730	IS 2062 Gr.B	3.17
1	2	PLATE 200 X 182 X 6 THK	IS 1730	IS 2062 Gr.B	3.43
				Total approx weight = 15.24 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	14/02/24	SAW TGP	14/02/24	SJP	14/02/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

Document−ID−BAR−Code

Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
−−		8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	14/02/24	SAW
Prepared	14/02/24	TGP
Checked	14/02/24	SJP
Approved	14/02/24	MLN

UAN	Code: Document ID	Part	Group	Rev.
66−6695	−			00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

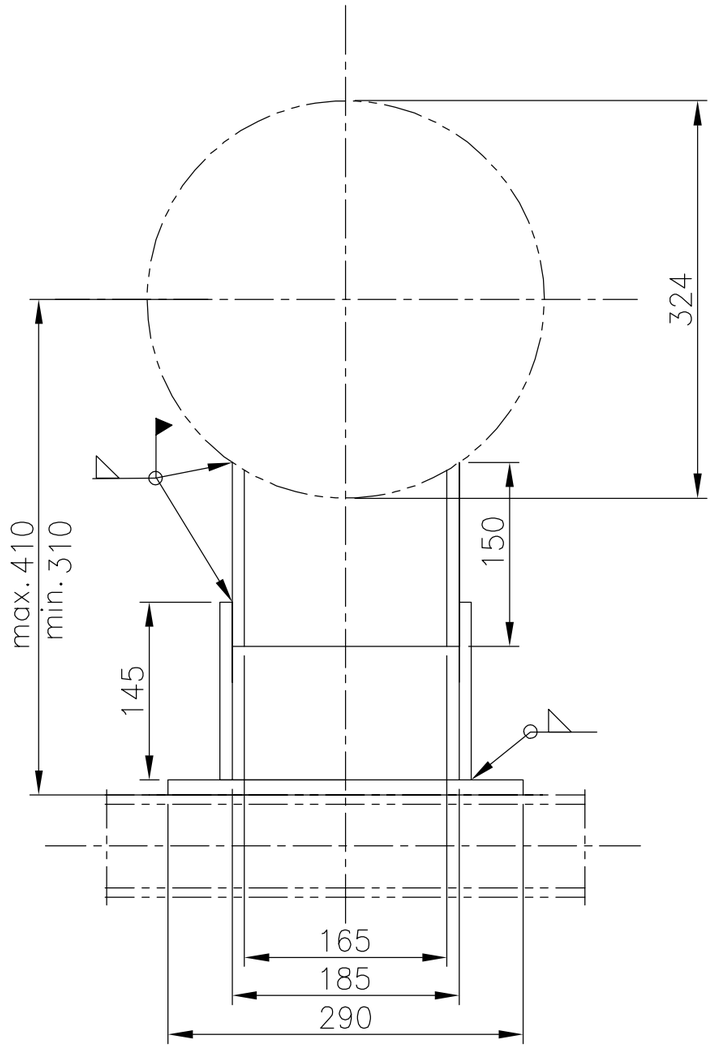
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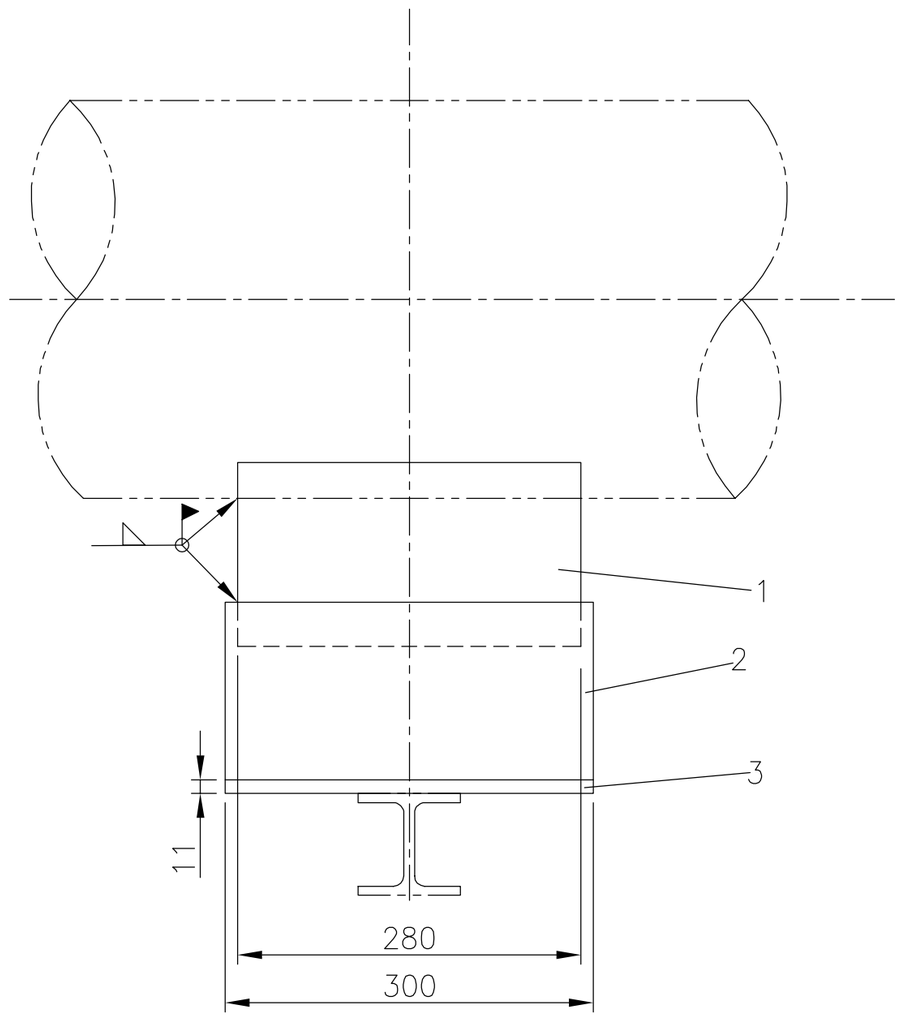
CS04010−23
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 10"LINE
MAX.INSULATION THK−110mm

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA\ACAD	\RLSUPSP\DRG\CS	CS04010−23

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

TKIS - India ISO A3





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 290 X 300	IS 1730	IS2062 Gr.B	8.20
2	2	PLATE 12 X 145 X 300	IS 1730	IS2062 Gr.B	8.20
1	2	PLATE 12 X 150 X 280	IS 1730	IS2062 Gr.B	7.91

Total approx weight = 24.31kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04012–03S
WELDED SLOPE SHOE FOR VERTICAL ADJUSTMENT. 12''
HEAT INSULATED CS UP TO 300°C.
INSULATION THK 110mm

Store Location: Server/Share
\\P666695–ADA

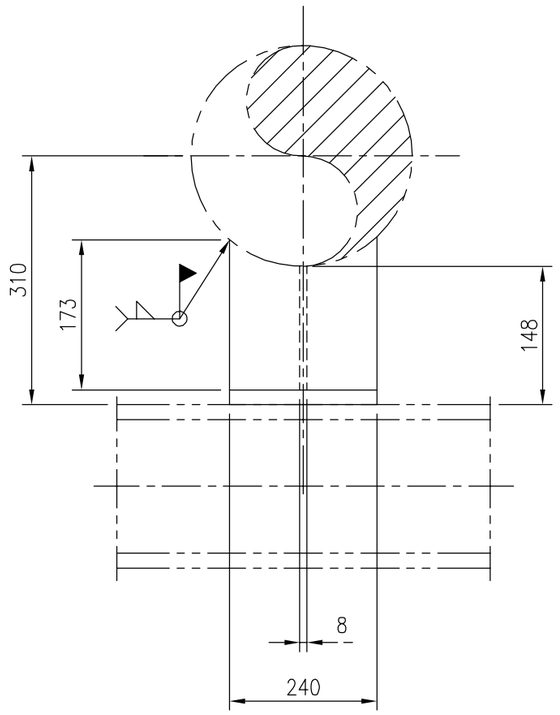
Store Location: Folder
\RLSUPSP\DRG\CS

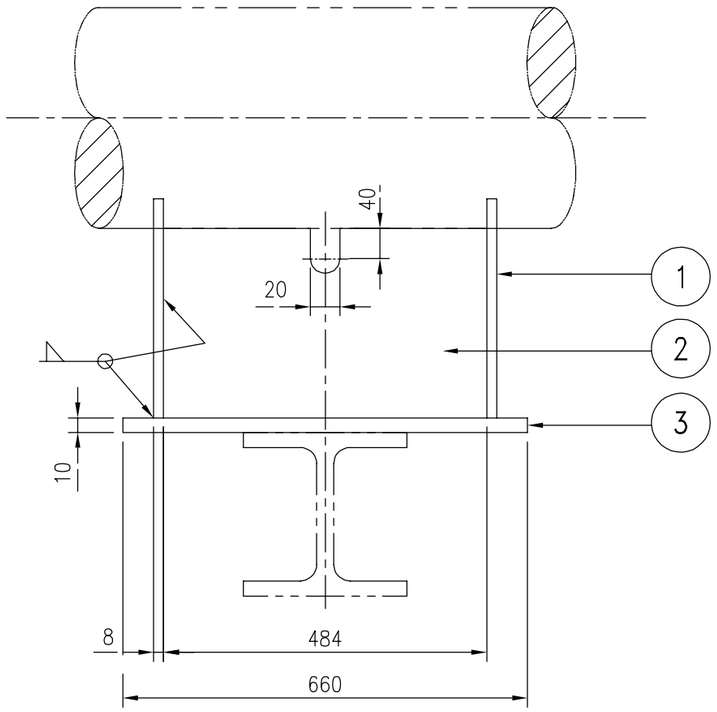
Store Name
CS04012–03S

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 550 X 200 X 10 THK	IS 1730	IS 2062 Gr.B	8.64
2	1	PLATE 484 X 138 X 8 THK	IS 1730	IS 2062 Gr.B	4.19
1	2	PLATE 200 X 173 X 8 THK	IS 1730	IS 2062 Gr.B	4.34
				Total approx weight =17.18 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	JOSHI TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	JOSHI
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04012−13

BAR−Code

Contract No. 66−6695 | Document ID − | Part | Rev. 00

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thyssenkrupp Uhde India Private Limited 2023

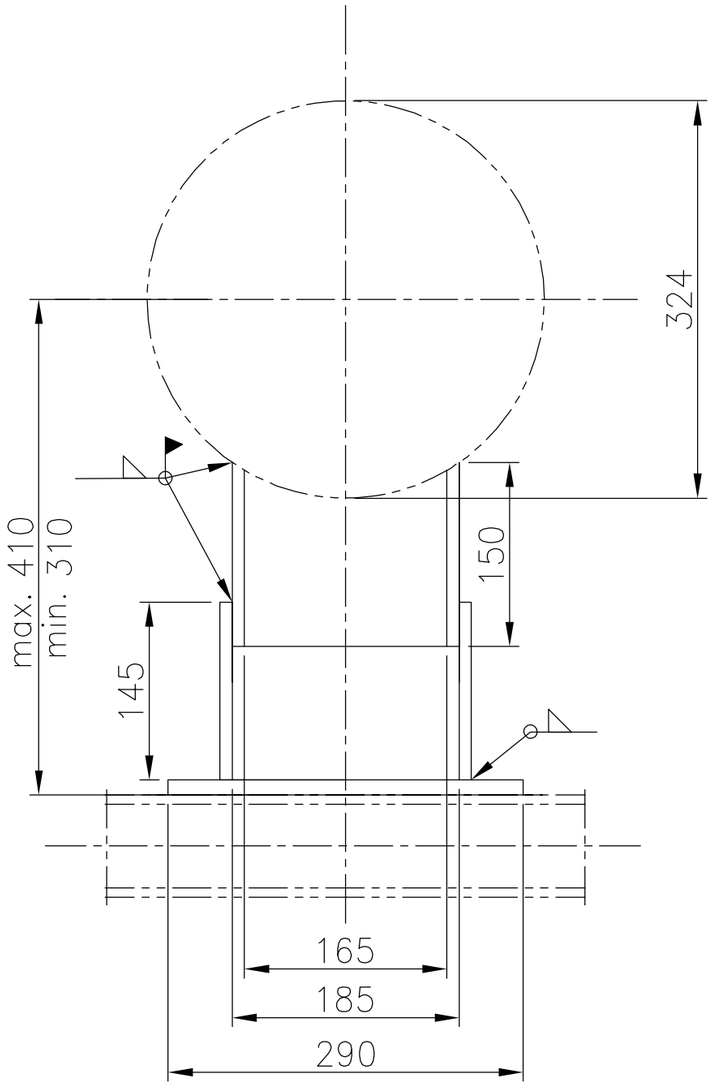
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National Aluminium Company Ltd.

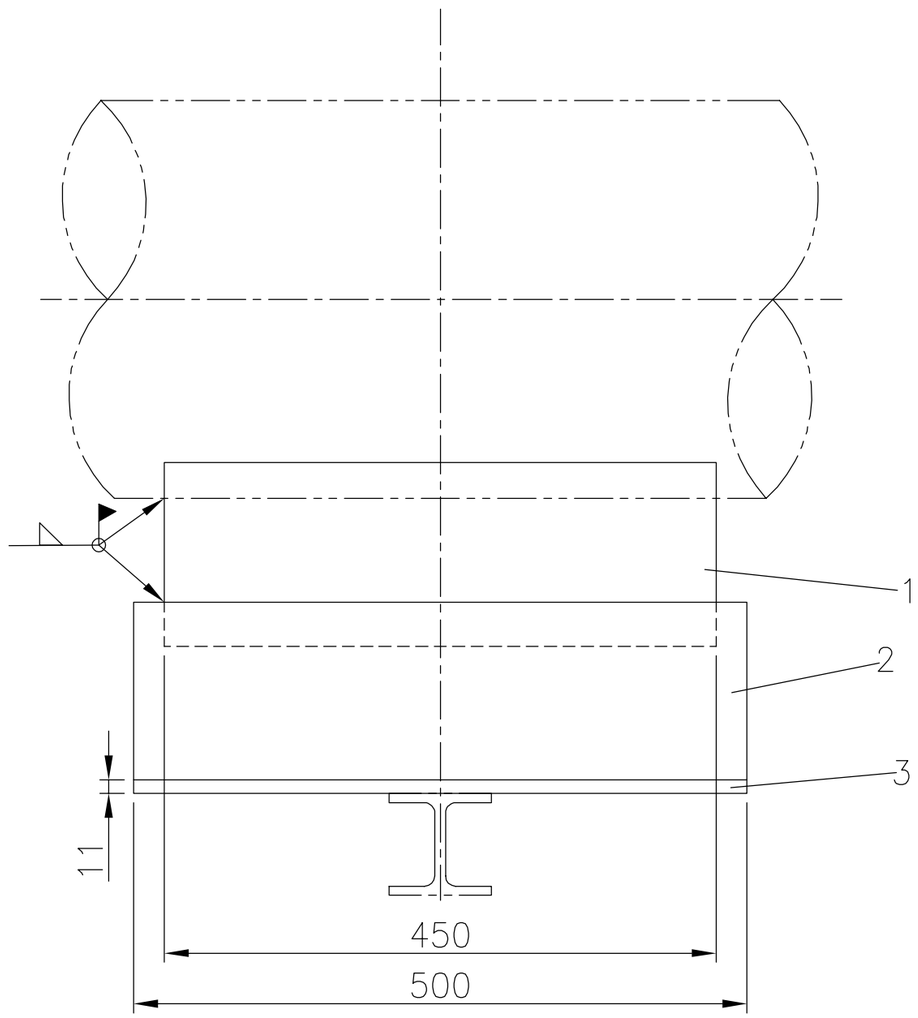
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04012−13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 12"
MAX.INSULATION THK−110mm

ISO A3

UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 290 X 500	IS 1730	IS2062 Gr.B	13.66
2	2	PLATE 12 X 145 X 500	IS 1730	IS2062 Gr.B	13.66
1	2	PLATE 12 X 150 X 450	IS 1730	IS2062 Gr.B	12.72

Total approx weight = 40.04kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
		Drawn/Prepared		Checked		Approved		
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

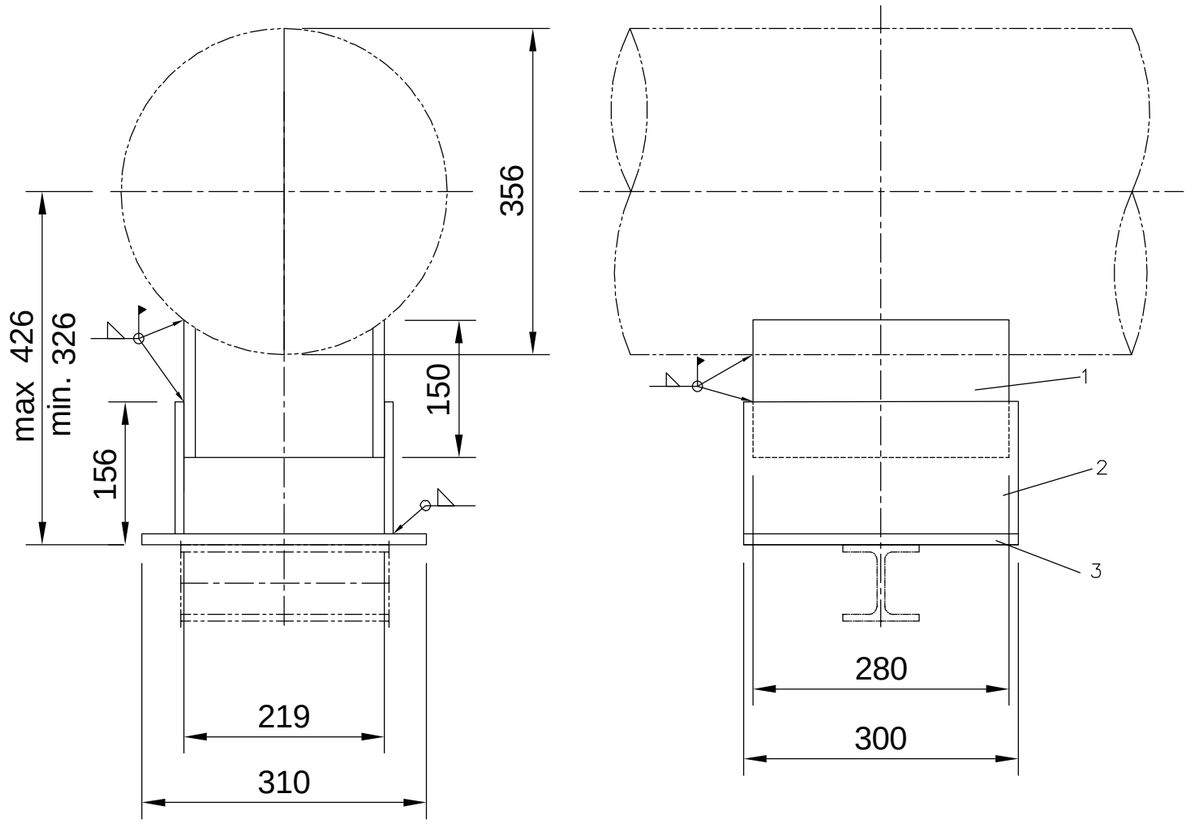
Description
CS04012–13S
WELDED SLOPE LONG SHOE FOR VERTICAL ADJUSTMENT. 12''
HEAT INSULATED CS UP TO 300°C.
INSULATION THK 110mm

Store Location: Server/Share \\P666695–ADA
Store Location: Folder \RLSUPSP\DRG\CS
Store Name CS04012–13S

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 310 X 300	IS 1730	IS2062 Gr.B	08.76
2	2	PLATE 12 X 144 X 300	IS 1730	IS2062 Gr.B	08.14
1	2	PLATE 12 X 150 X 280	IS 1730	IS2062 Gr.B	07.91

Total approx weight = 24.35kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name Drawn/Prepared	Date	Name Checked	Date	Name Approved	Description	Acc. Code
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
––			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

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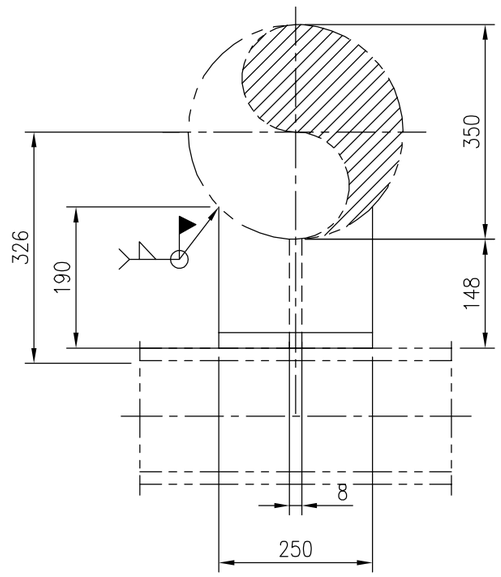
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

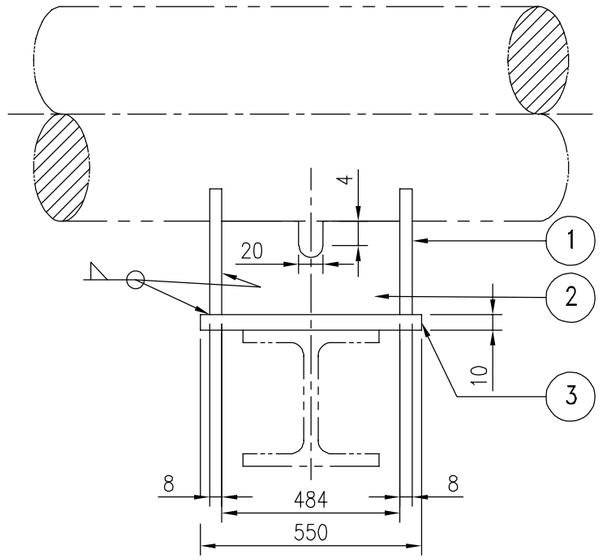
Description
CS04014–03S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT.
HEAT INSULATED CS UP TO 300°C,14"
INSULATION THK 110mm

Store Location: Server/Share \\P666695–ADA
Store Location: Folder \RLSUPSP\DRG\CS
Store Name CS04014–03S

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 550 X 250 X 10 THK	IS 1730	IS 2062 Gr.B	10.80
2	1	PLATE 484 X 138 X 8 THK	IS 1730	IS 2062 Gr.B	4.19
1	2	PLATE 250 X 190 X 8 THK	IS 1730	IS 2062 Gr.B	5.96
				Total approx weight = 20.95 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04014−13

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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thyssenkrupp Uhde India Private Limited 2023

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

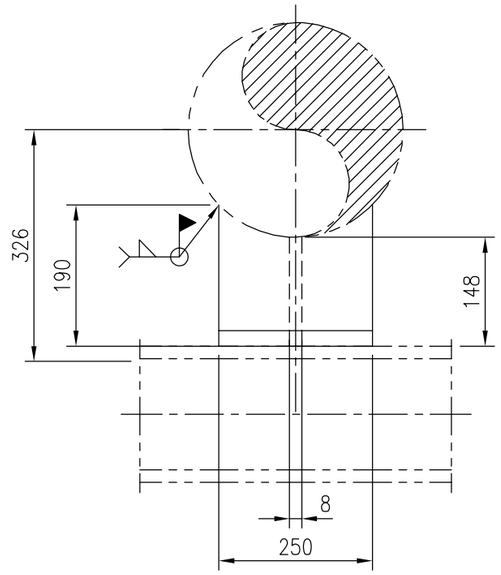
CS04014−13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 14" LINE
MAX.INSULATION THK−110mm

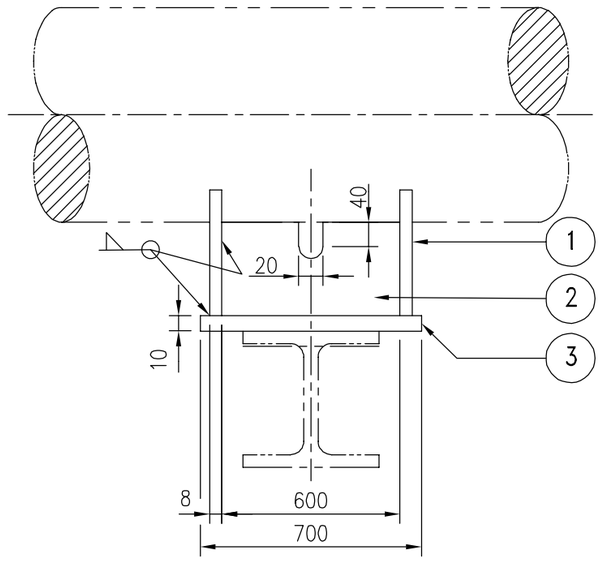
UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm

50 mm





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 700 X 250 X 10 THK	IS 1730	IS 2062 Gr.B	10.80
2	1	PLATE 600 X 138 X 8 THK	IS 1730	IS 2062 Gr.B	4.19
1	2	PLATE 250 X 190 X 8 THK	IS 1730	IS 2062 Gr.B	5.96
				Total approx weight = 20.95 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	15/01/24	MK TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	MK
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04014−16

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

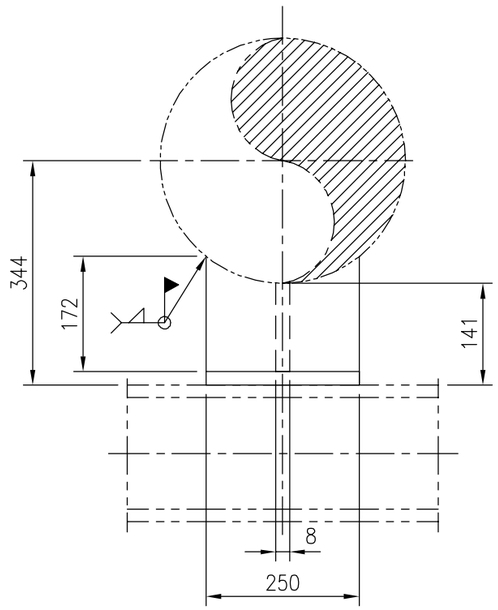
CS04014−16
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 14"
MAX. INSULATION THK 110mm

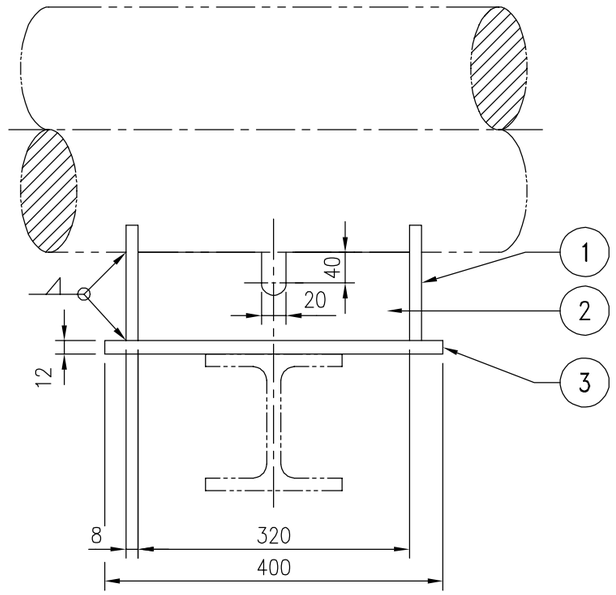
UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm

50 mm





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 400 X 250 X 12 THK	IS 1730	IS 2062 Gr.B	09.42
2	1	PLATE 320 X 129 X 8 THK	IS 1730	IS 2062 Gr.B	02.59
1	2	PLATE 250 X 172 X 8 THK	IS 1730	IS 2062 Gr.B	05.40
					Total approx weight = 17.41 kg

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	JOSHI TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

Drawn/Prepared | Checked | Approved

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	JOSHI
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04016−03

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

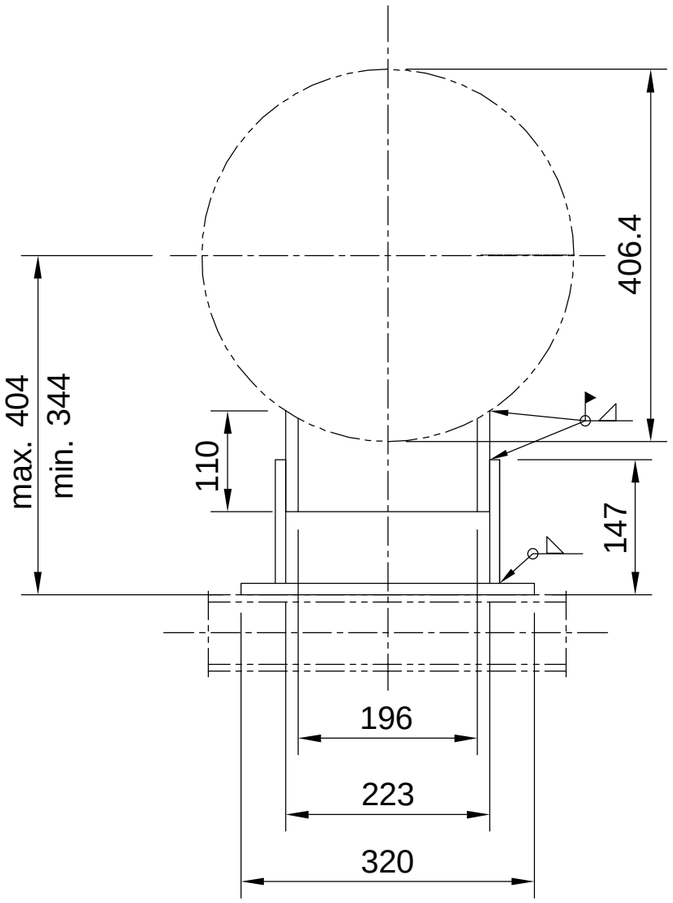
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

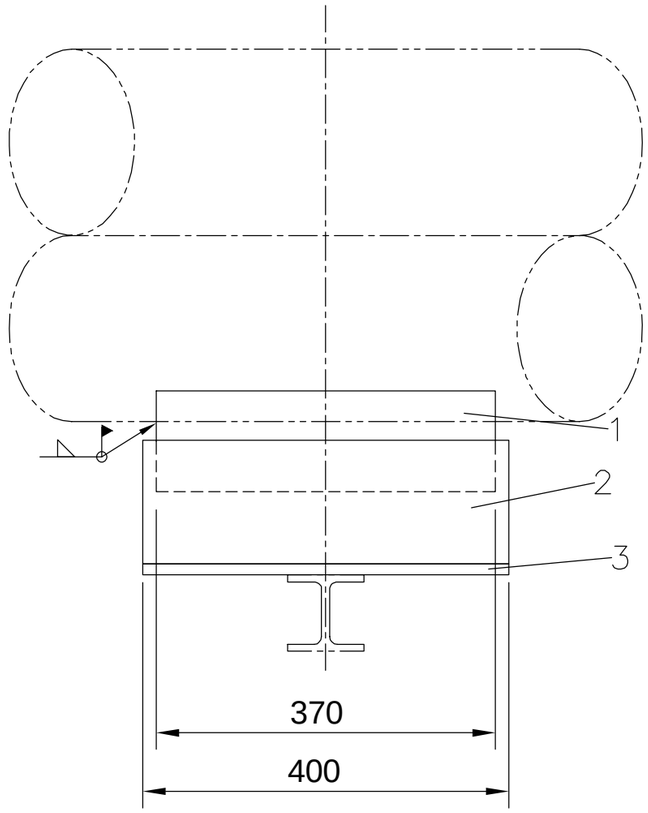
Description
CS04016−03
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 16
MAX.INSULATION THK−110mm

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 320 X 400	IS 1730	IS2062 Gr.B	12.06
2	2	PLATE 12 X 135 X 400	IS 1730	IS2062 Gr.B	10.17
1	2	PLATE 12 X 110 X 370	IS 1730	IS2062 Gr.B	07.67
				Total approx weight	=29.09kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	SAHIL TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	29/01/24	SAHIL
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

नालको NALCO
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National Aluminium Company Ltd.

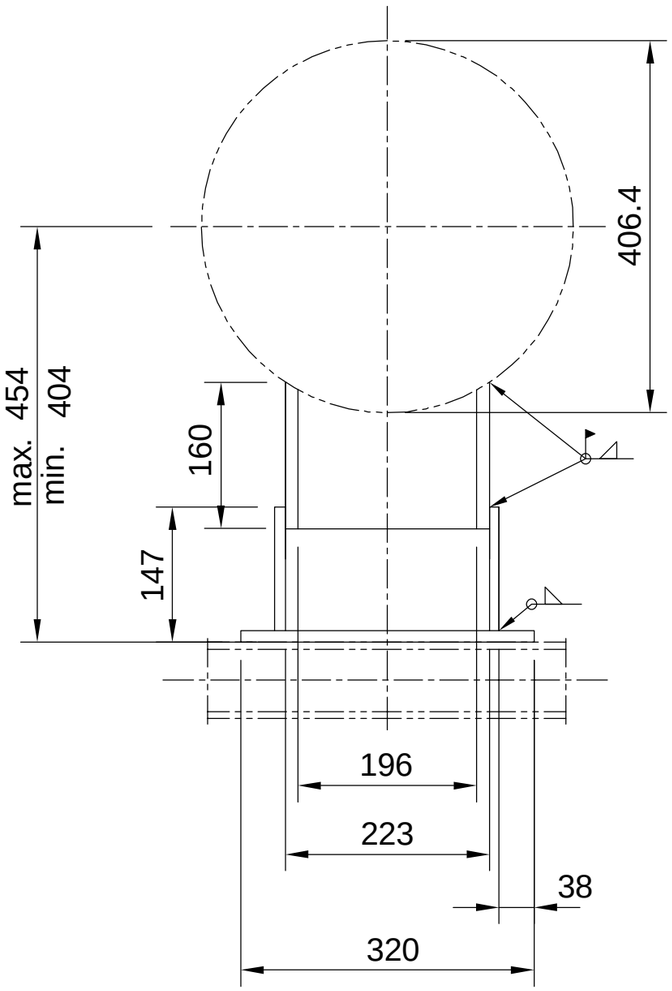
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

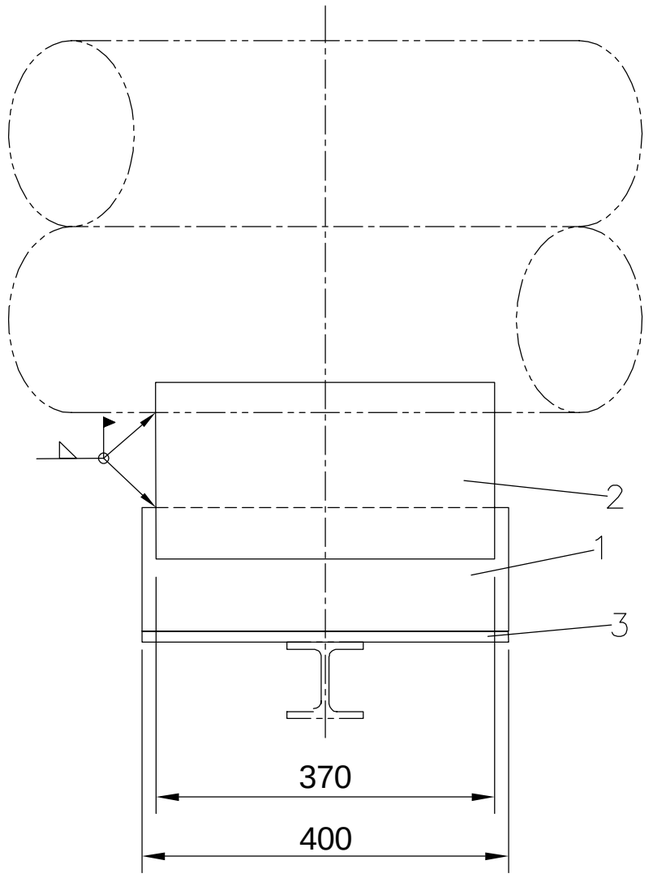
Description
CS04016–04S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT. 16''
HEAT INSULATED CS UP TO 300°C.
INSULATION THK 110mm

Store Location: Server/Share \\P666695–ADA
Store Location: Folder \RLSUPSP\DRG\CS
Store Name CS04016–04S

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 320 X 400	IS 1730	IS2062 Gr.B	12.06
2	2	PLATE 12 X 160 X 370	IS 1730	IS2062 Gr.B	11.15
1	2	PLATE 12 X 135 X 400	IS 1730	IS2062 Gr.B	10.17
				Total approx weight = 33.38kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

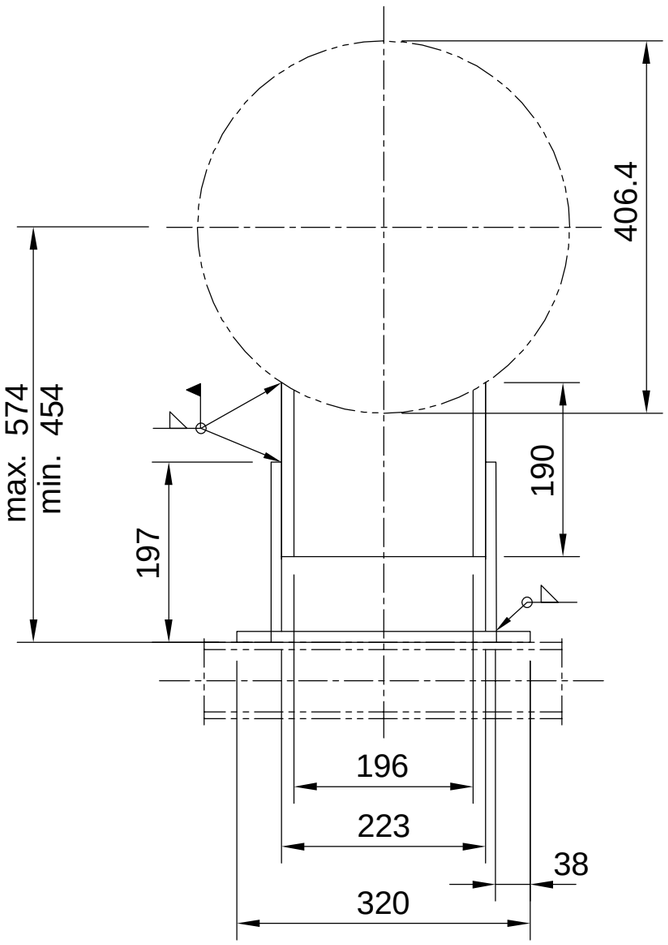
Description
CS04016–05S
WELDED SLOPE SHOE FOR VERTICAL ADJUSTMENT 16''
HEAT INSULATED CS UP TO 300°C.
INSULATION THK 170mm

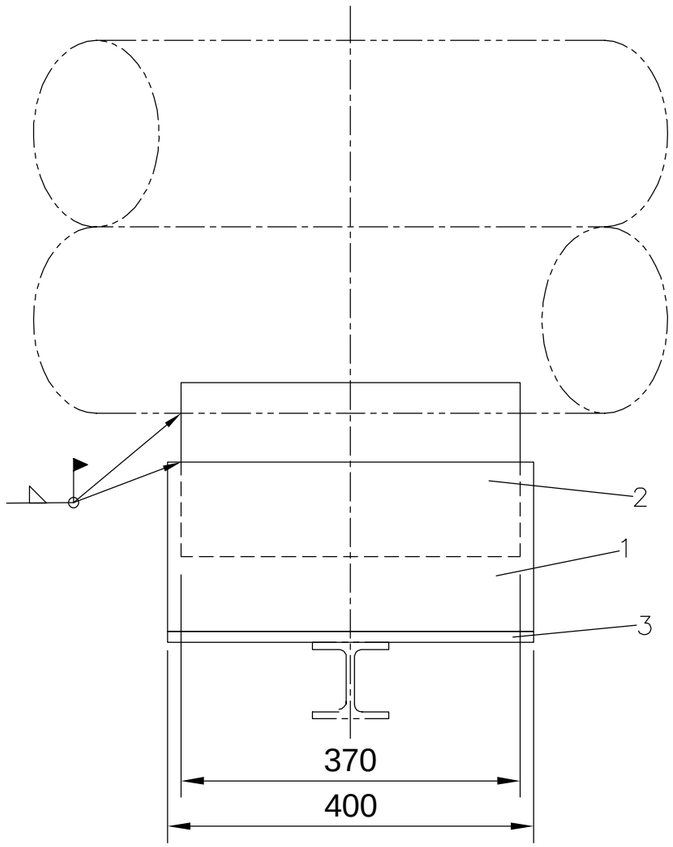
Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04016–05S

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 320 X 400	IS 1730	IS2062 Gr.B	12.06
2	2	PLATE 12 X 190 X 370	IS 1730	IS2062 Gr.B	13.24
1	2	PLATE 12 X 185 X 400	IS 1730	IS2062 Gr.B	13.94
				Total approx weight = 39.24kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	
		Drawn/Prepared		Checked		Approved		

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04016–06S

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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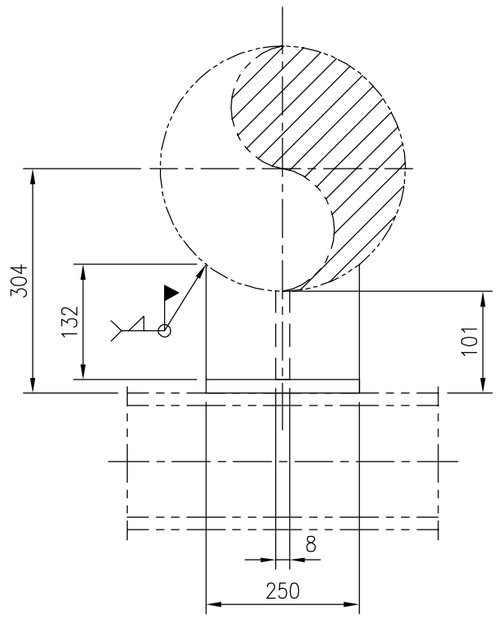
नालको NALCO
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National Aluminium Company Ltd.

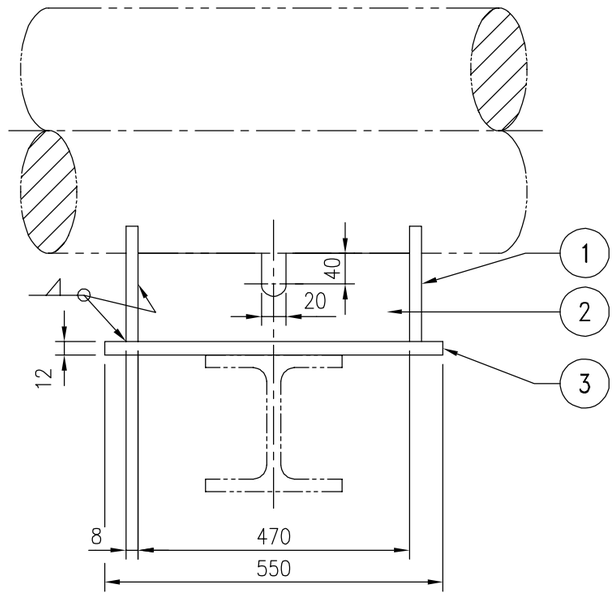
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04016–06S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT 16''
HEAT INSULATED CS UP TO 300°C.
INSULATION THK 220mm

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 550 X 250 X 12 THK	IS 1730	IS 2062 Gr.B	12.95
2	1	PLATE 470 X 89 X 8 THK	IS 1730	IS 2062 Gr.B	3.81
1	2	PLATE 250 X 132 X 8 THK	IS 1730	IS 2062 Gr.B	8.10
				Total approx weight = 24.86 kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	MK TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

Drawn/Prepared | Checked | Approved

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	MK
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

BAR−Code

Store Location: Server/Share: \\P666695−ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04016−12

Contract No.: 66−6695
Document ID: −
Part:
Rev.: 00

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National Aluminium Company Ltd.

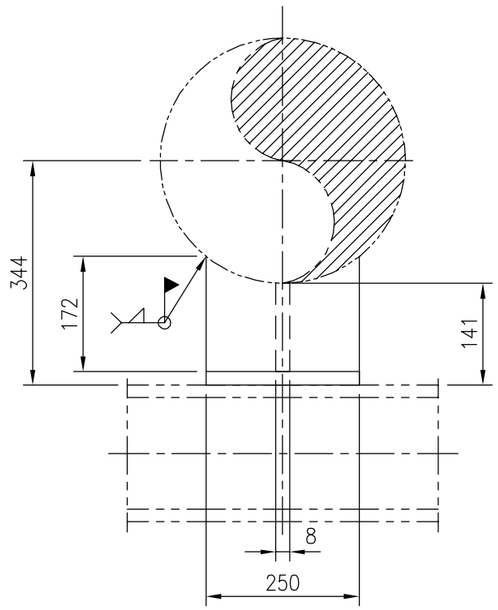
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

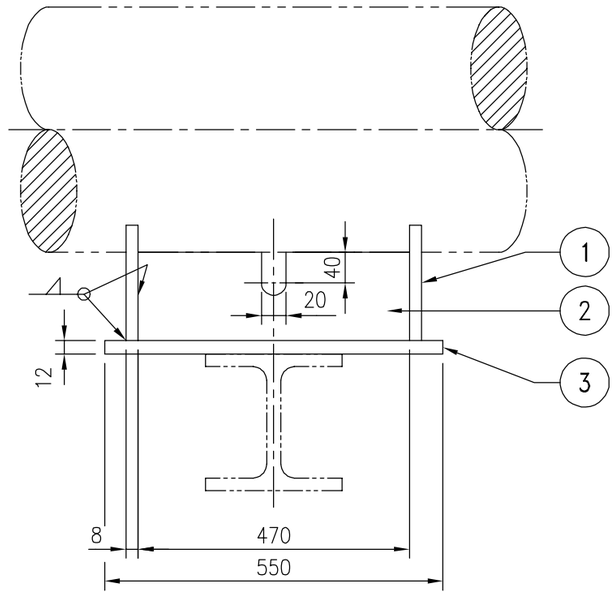
Description
CS04016−12
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 16
MAX.INSULATION THK−70mm

ISO A3

UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 550 X 250 X 12 THK	IS 1730	IS 2062 Gr.B	12.95
2	1	PLATE 470 X 129 X 8 THK	IS 1730	IS 2062 Gr.B	3.81
1	2	PLATE 250 X 172 X 8 THK	IS 1730	IS 2062 Gr.B	8.10
				Total approx weight = 24.86 kg	

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	MK TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	MK
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04016−13

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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National Aluminium Company Ltd.

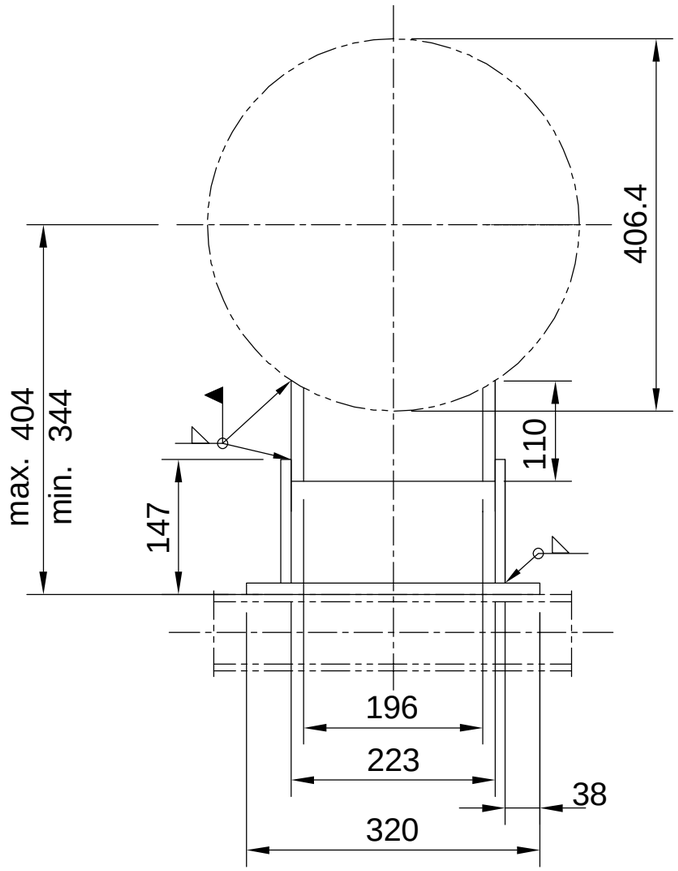
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

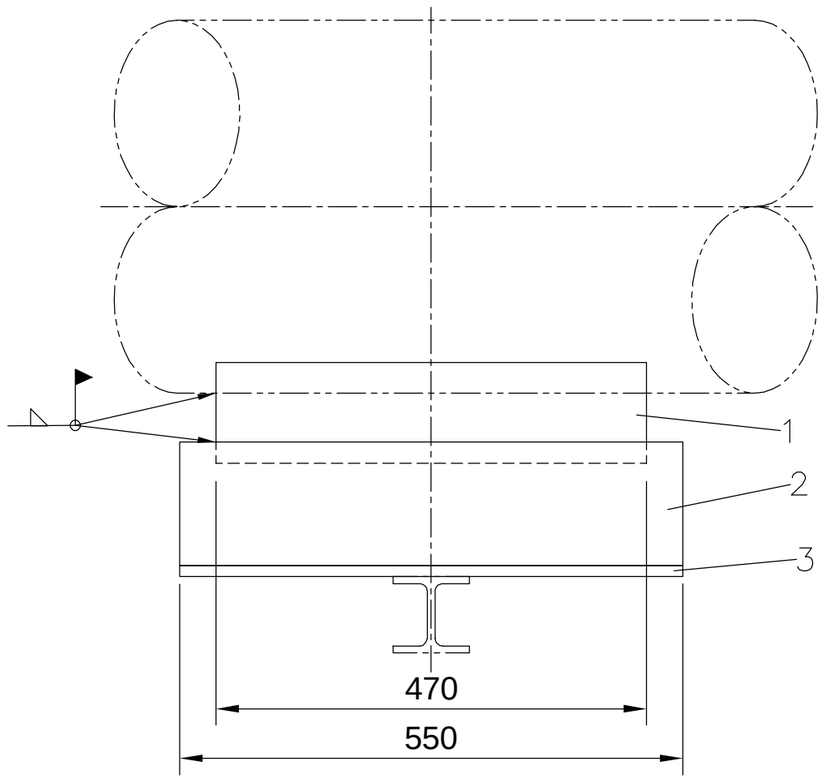
Description
CS04016−13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 16
MAX.INSULATION THK−110mm

ISO A3

UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 320 X 550	IS 1730	IS2062 Gr.B	16.58
2	2	PLATE 12 X 135 X 550	IS 1730	IS2062 Gr.B	13.99
1	2	PLATE 12 X 110 X 470	IS 1730	IS2062 Gr.B	09.74
				Total approx weight	=40.31kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
	Drawn/Prepared		Checked		Approved			
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

Contract No. 66–6695
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Part
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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04016–13S
WELDED SLOPE LONG SHOE FOR VERTICAL ADJUSTMENT. 16''
HEAT INSULATED CS UP TO 300°C.
INSULATION THK 110mm

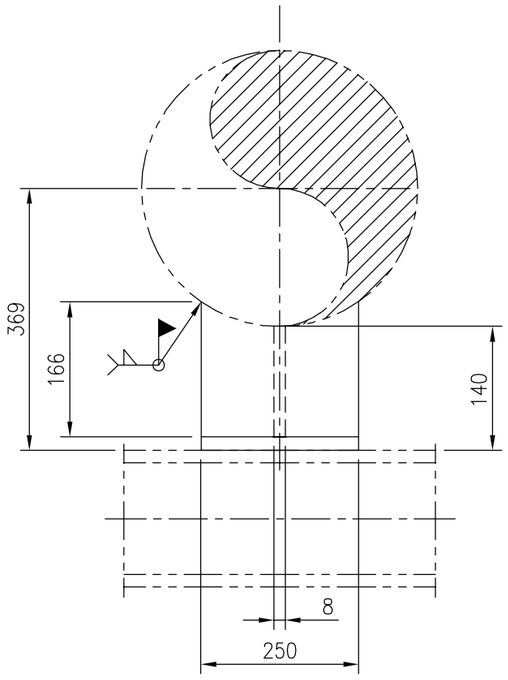
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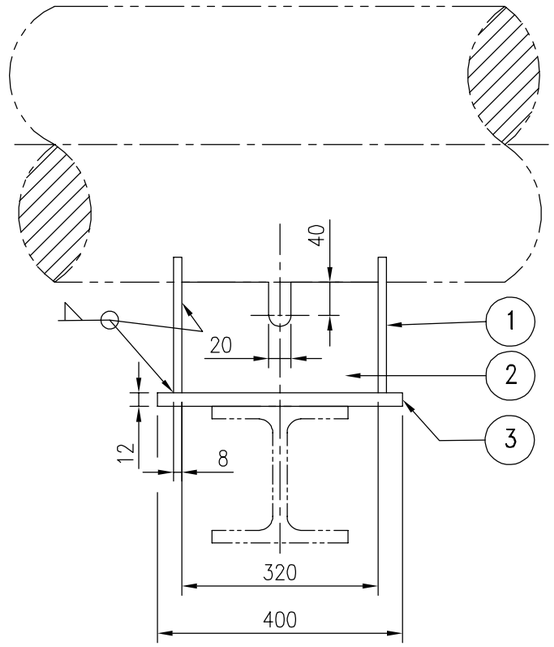
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\RLSUPSP\DRG\CS

Store Name
CS04016–13S

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 400 X 250 X 12 THK	IS 1730	IS 2062 Gr.B	9.42
2	1	PLATE 320 X 128 X 8 THK	IS 1730	IS 2062 Gr.B	2.57
1	2	PLATE 250 X 166 X 8 THK	IS 1730	IS 2062 Gr.B	5.21
				Total approx weight = 17.20kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	MK TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	MK
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04018−03

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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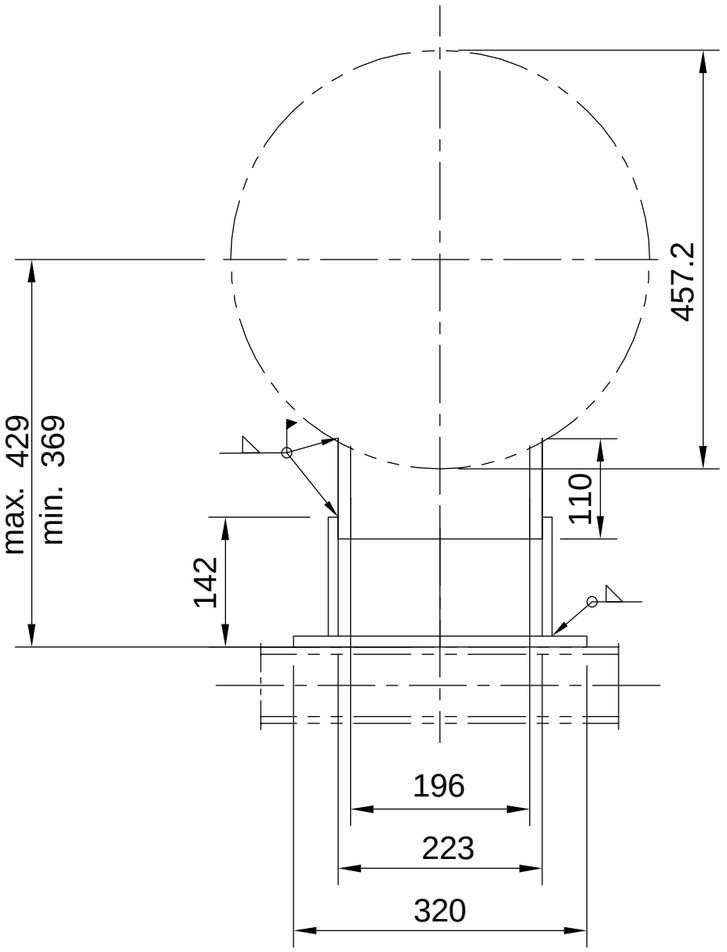
नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

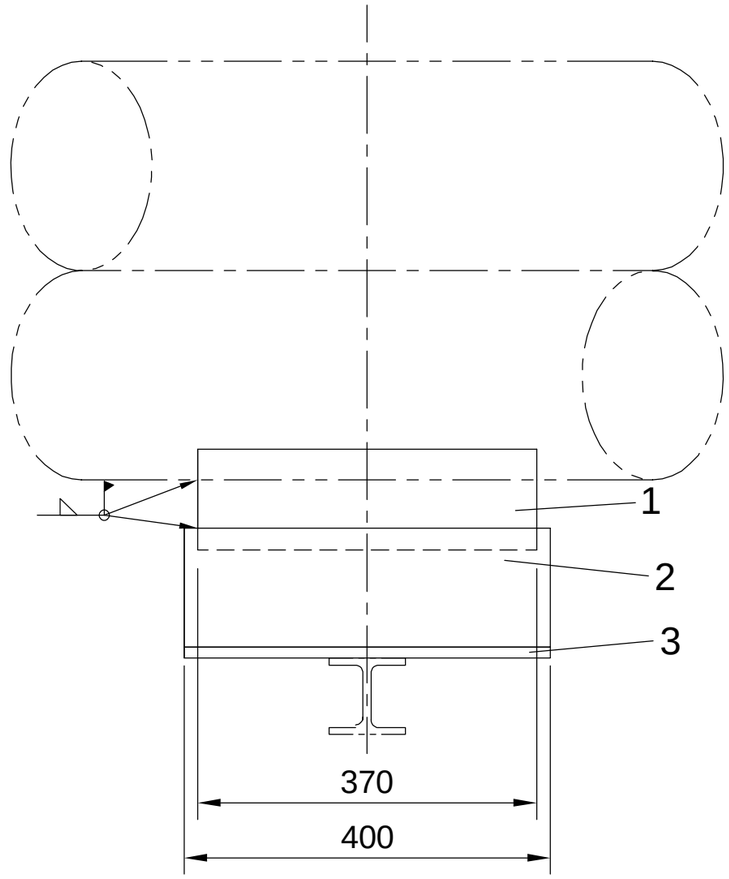
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04018−03
WELDED SHOE SUPPORT
HEAT INSULATED CS UPTO 300°C 18"
MAX. INSULATION THK = 110mm

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 320 X 400	IS 1730	IS2062 Gr.B	12.06
2	2	PLATE 12 X 110 X 370	IS 1730	IS2062 Gr.B	7.67
1	2	PLATE 12 X 130 X 400	IS 1730	IS2062 Gr.B	9.80
				Total approx weight = 29.52kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

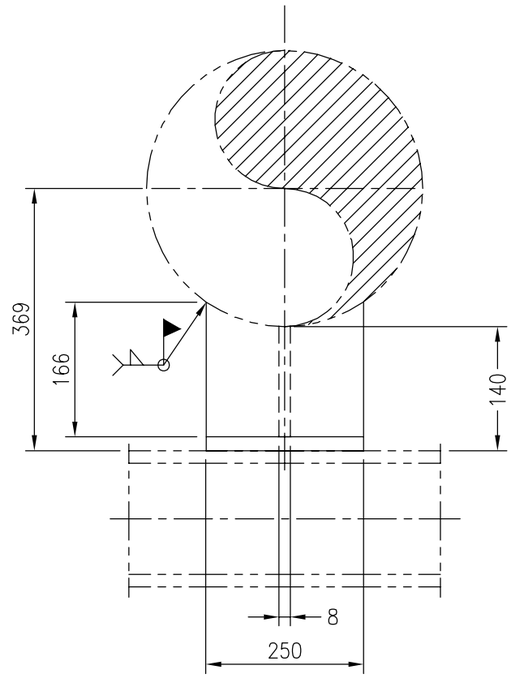
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

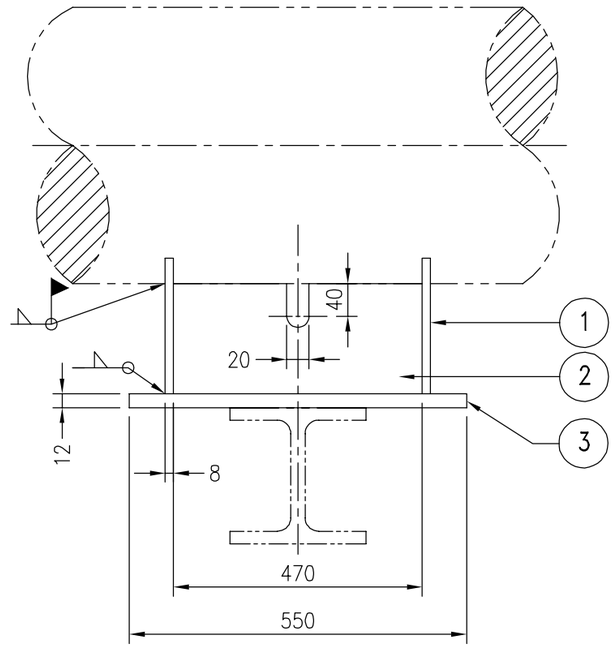
Description
CS04018–04S
WELDED SLOPE LONG SHOE FOR
VERTICAL ADJUSTMENT. 18"
HEAT INSULATED CS UP TO 300 o C .
INSULATION THK 110mm.

Store Location: Server/Share \\P666695–ADA
Store Location: Folder \RLSUPSP\DRG\CS
Store Name CS04018–04S

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 550 X 250 X 12 THK	IS 1730	IS 2062 Gr.B	12.95
2	1	PLATE 470 X 128 X 8 THK	IS 1730	IS 2062 Gr.B	3.78
1	2	PLATE 250 X 166 X 8 THK	IS 1730	IS 2062 Gr.B	5.21
				Total approx weight = 21.94 kg	

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	TANVI TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	TANVI
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

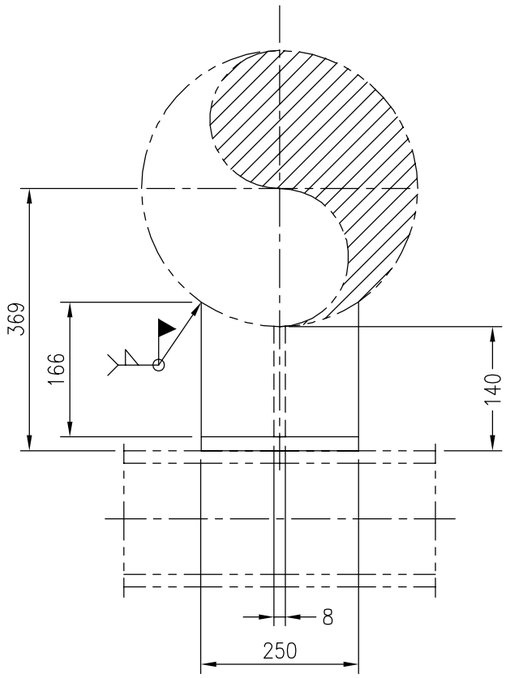
Description
CS04018−13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UPTO 300°C 18"
MAX. INSULATION THK = 110mm

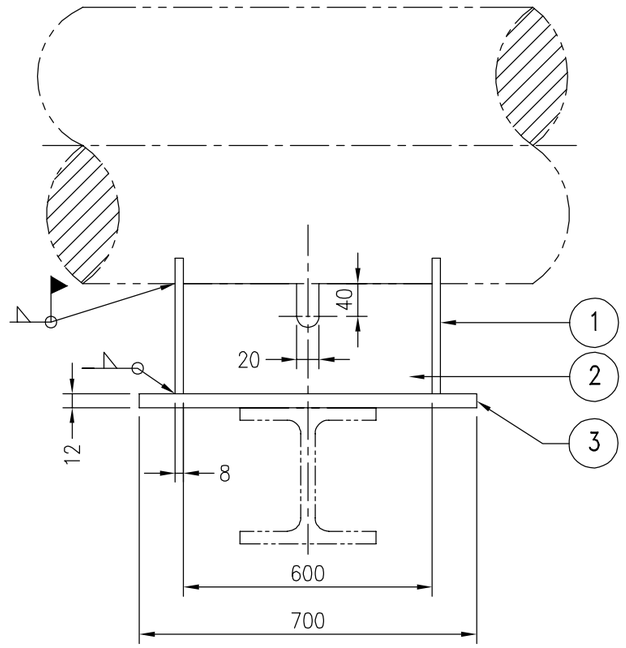
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\\P666695−ADA	\RLSUPSP\DRG\CS	CS04018−13

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 700 X 250 X 12 THK	IS 1730	IS 2062 Gr.B	16.49
2	1	PLATE 600 X 128 X 8 THK	IS 1730	IS 2062 Gr.B	4.82
1	2	PLATE 250 X 166 X 8 THK	IS 1730	IS 2062 Gr.B	5.21
				Total approx weight = 26.52 kg	

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	KNM TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	KNM
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666703−ADA\ACAD	\RLSUPSP\DRG\CS	CS04018−15

Contract No.	Document ID	Part	Rev.
66−6695	−		00

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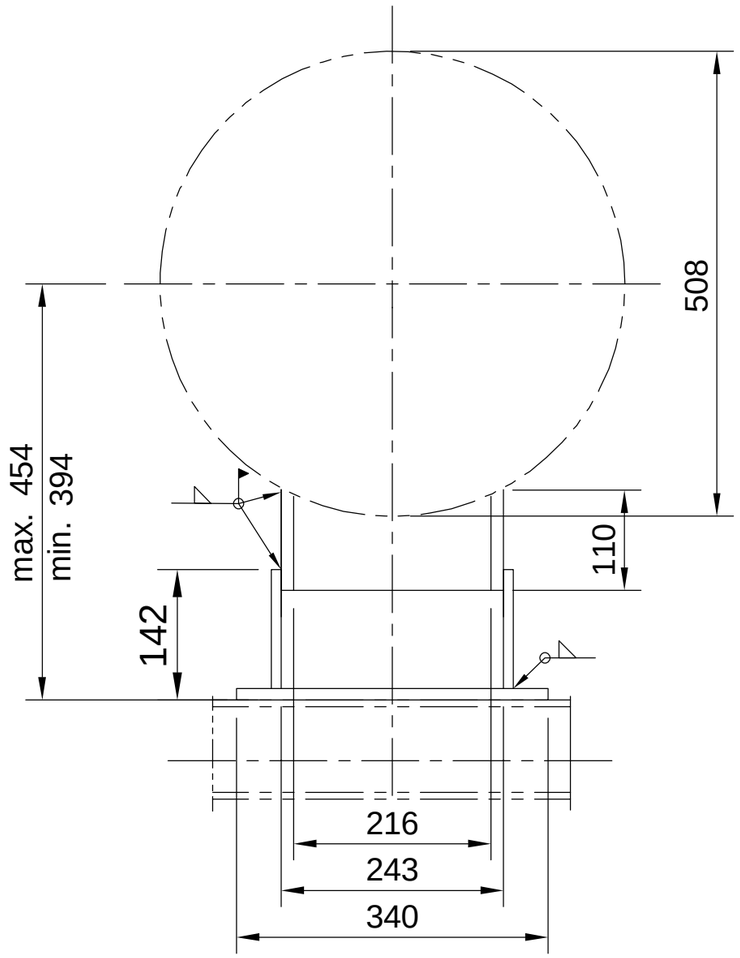
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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

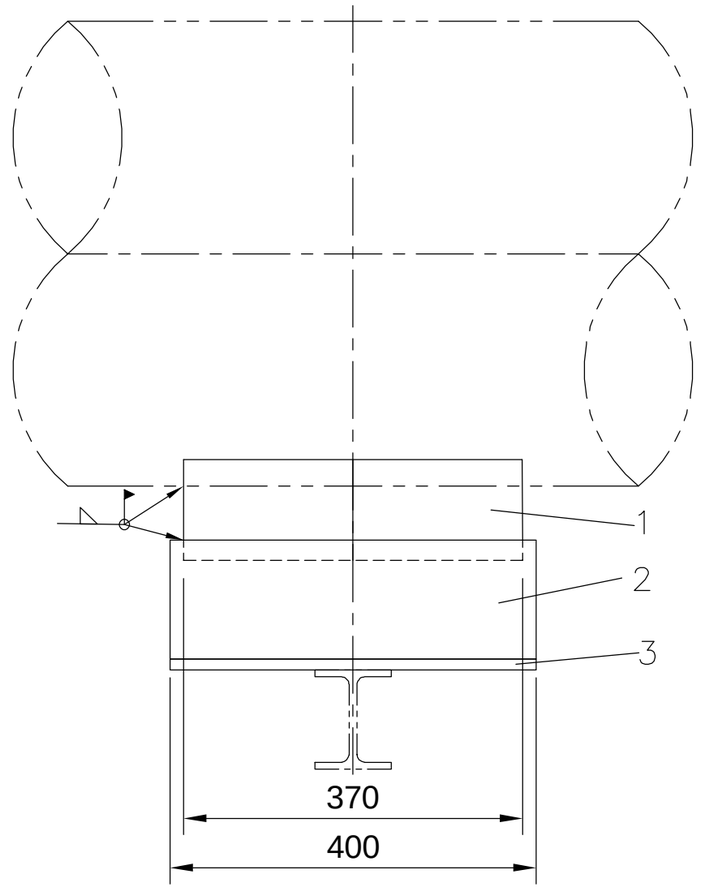
PROJECT : 1.5MTPA TO 2.0MTPA ALUMINA REFINERY EXPANSION.
DORAGURHA, RAYAGADA, ODISHA.

Description
CS04018−15
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UPTO 300°C 18" LINE
MAX. INSULATION THK = 110mm

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 340 X 400	IS 1730	IS2062 Gr.B	12.81
2	2	PLATE 12 X 130 X400	IS 1730	IS2062 Gr.B	9.80
1	2	PLATE 12 X 110 X 370	IS 1730	IS2062 Gr.B	7.67

Total approx weight = 30.28 kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	09/02/24	NOOR	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR–Code

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	09/02/24	NOOR
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

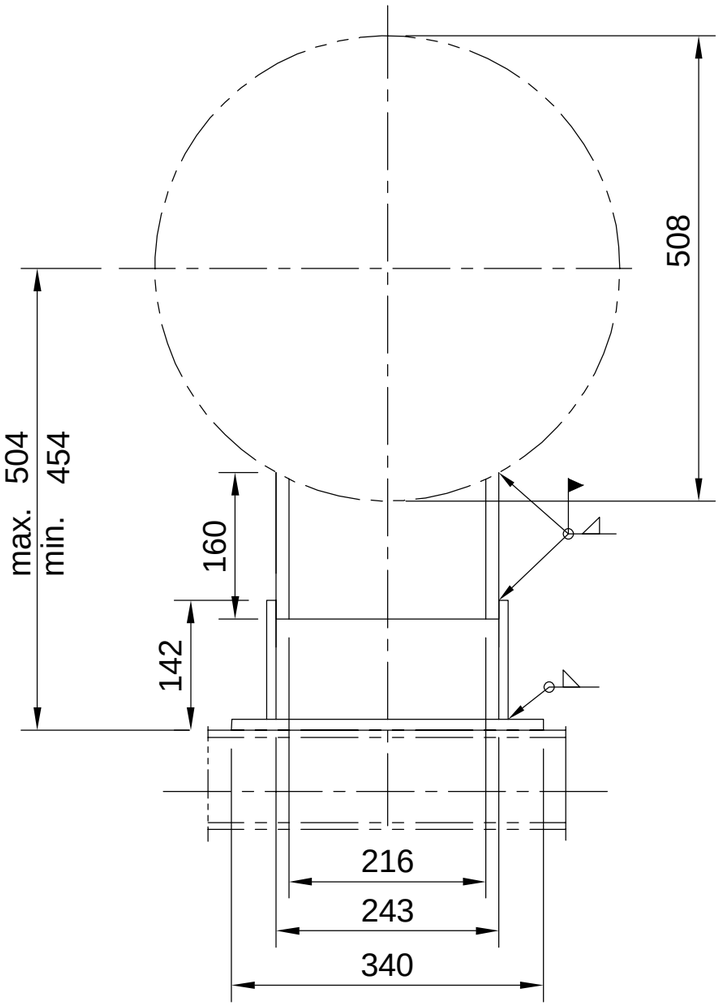
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

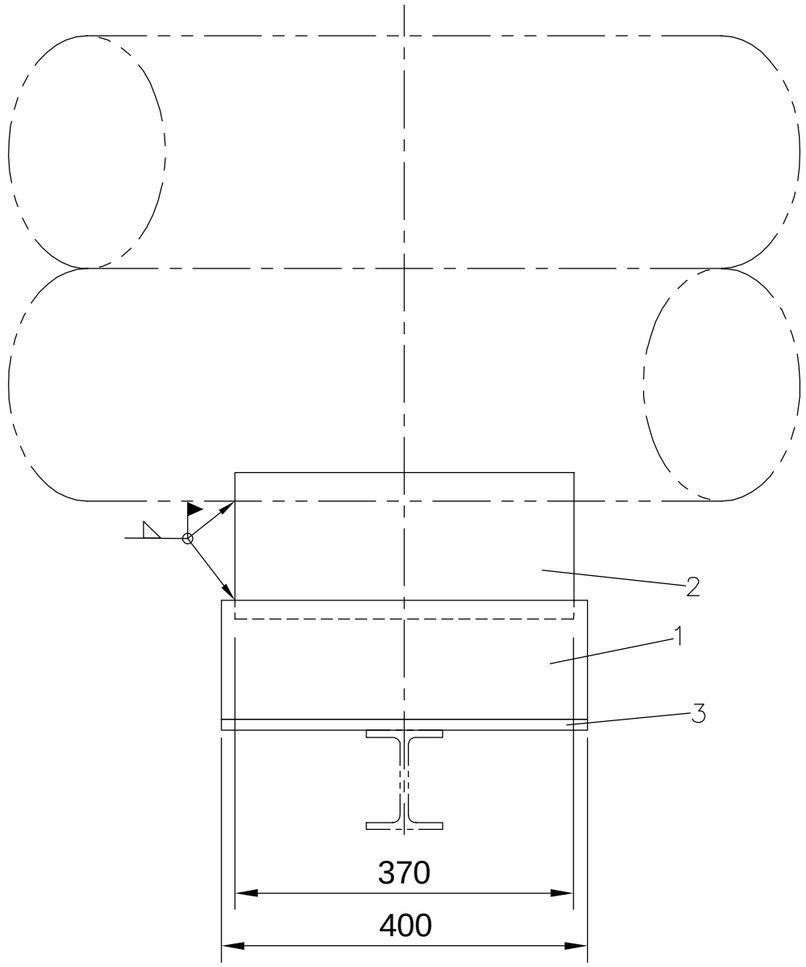
Description
CS04020–03S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT. 20"
HEAT INSULATED CS UP TO 300oC
INSULATION THK 110.

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04020–03S

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 340 X 400	IS 1730	IS2062 Gr.B	12.81
2	2	PLATE 12 X 160 X 370	IS 1730	IS2062 Gr.B	11.15
1	2	PLATE 12 X 130 X 400	IS 1730	IS2062 Gr.B	9.80

Total approx weight = 33.76kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date Drawn/Prepared	Name	Date Checked	Name	Date Approved	Name	Description	Acc. Code
00	12/02/24	NOOR TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	NOOR
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04020–04S

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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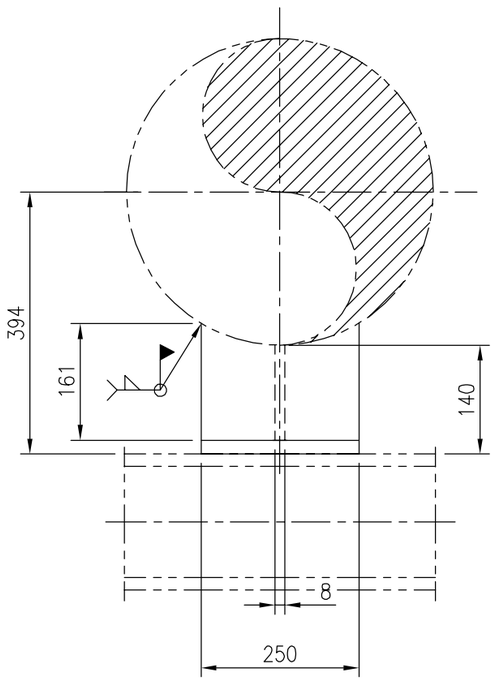
नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

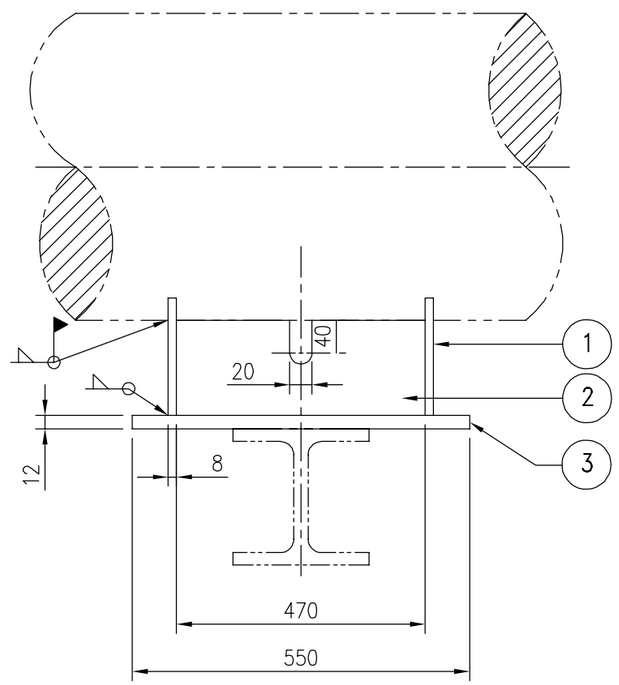
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04020–04S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT.20''
HEAT INSULATED CS UP TO 300°C.
ISULATION THK 170mm.

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 550 X 250 X 12 THK	IS1730	IS2062 Gr.B	12.95
2	1	PLATE 470 X 128 X 8 THK	IS1730	IS2062 Gr.B	3.78
1	2	PLATE 250 X 161 X 8 THK	IS1730	IS2062 Gr.B	5.10
				Total approx weight = 21.83 kg	

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	15/01/24	KAJAL TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
−−			8	−	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	15/01/24	KAJAL
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share: \\P666695−ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04020−13

Contract No.: 66−6695
Document ID: −
Part:
Rev.: 00

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National Aluminium Company Ltd.

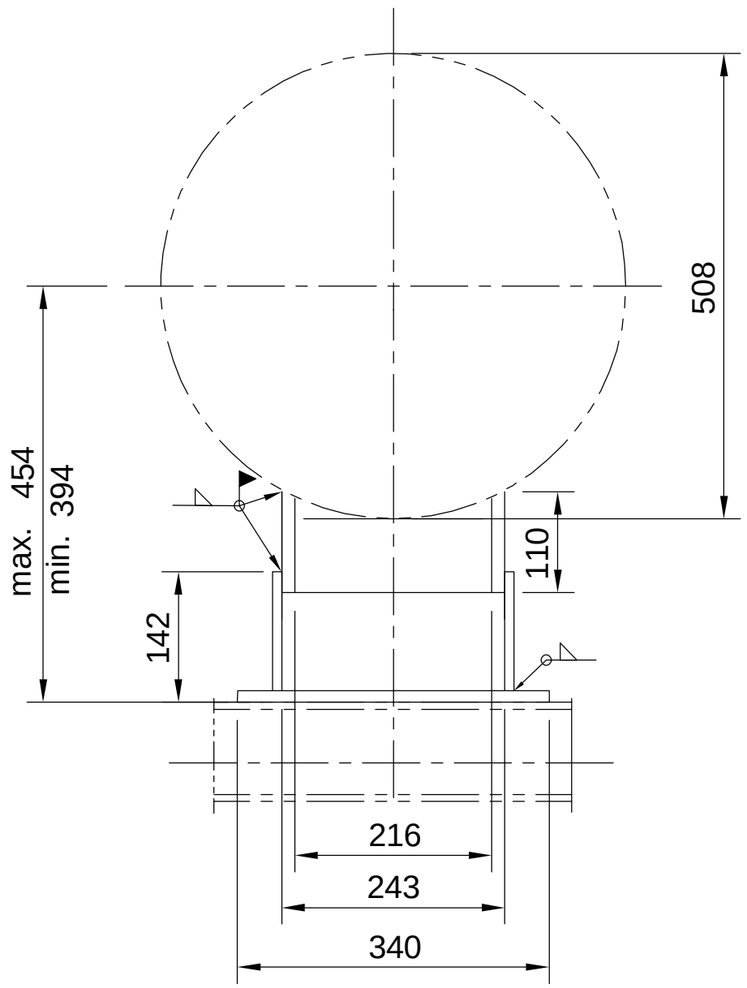
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

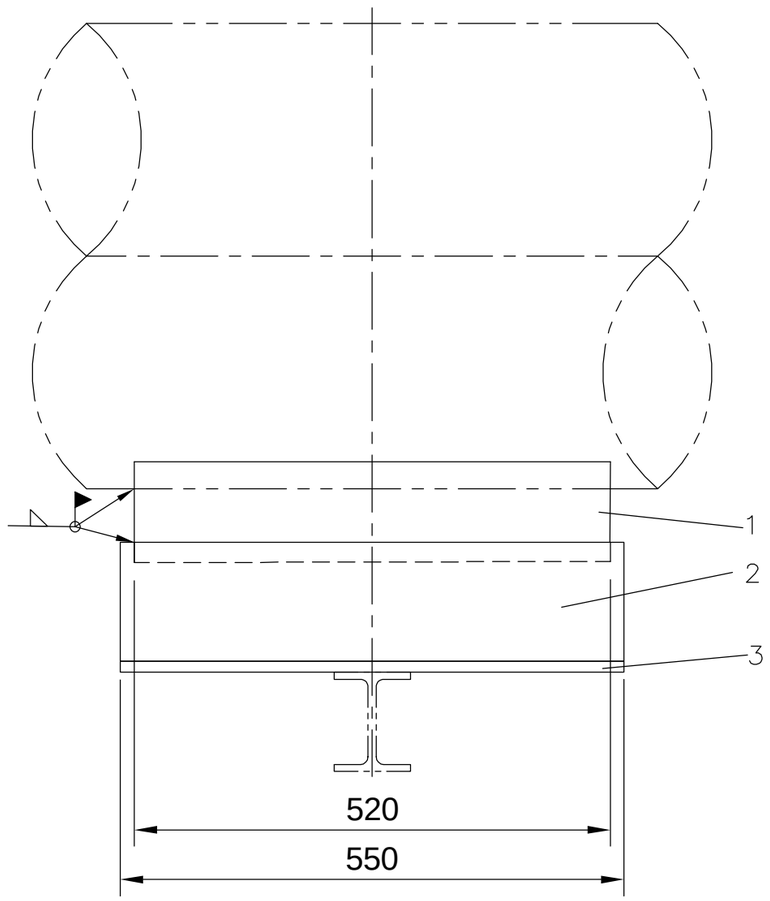
Description
CS04020−13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 20
MAX.INSULATION THK−110mm

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 340 X 550	IS 1730	IS2062 Gr.B	17.62
2	2	PLATE 12 X 130 X 550	IS 1730	IS2062 Gr.B	13.47
1	2	PLATE 12 X 110 X 520	IS 1730	IS2062 Gr.B	10.78

Total approx weight = 41.86kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	09/02/24	NOOR TGP	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
--	TB		NTS	1 OF 1

	Date	Name
Drawn	09/02/24	NOOR
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

Store Location: Server/Share
\\P666695–ADA

Store Location: Folder
\RLSUPSP\DRG\CS

Store Name
CS04020–13S

Contract No. 66–6695

Document ID –

Part

Rev. 00

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National Aluminium Company Ltd.

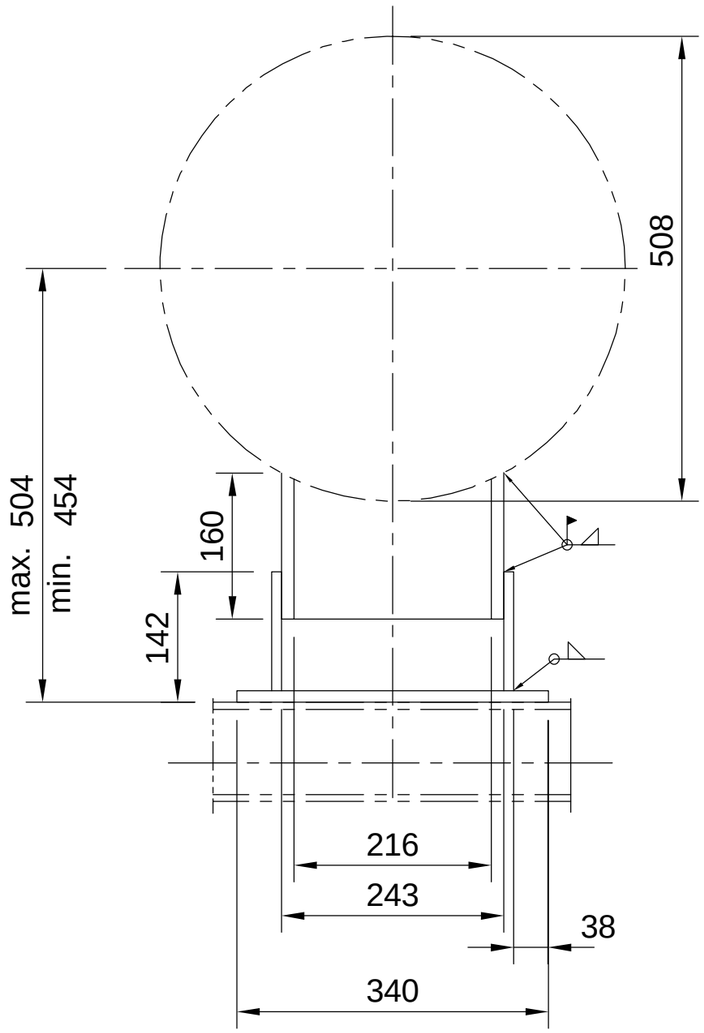
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

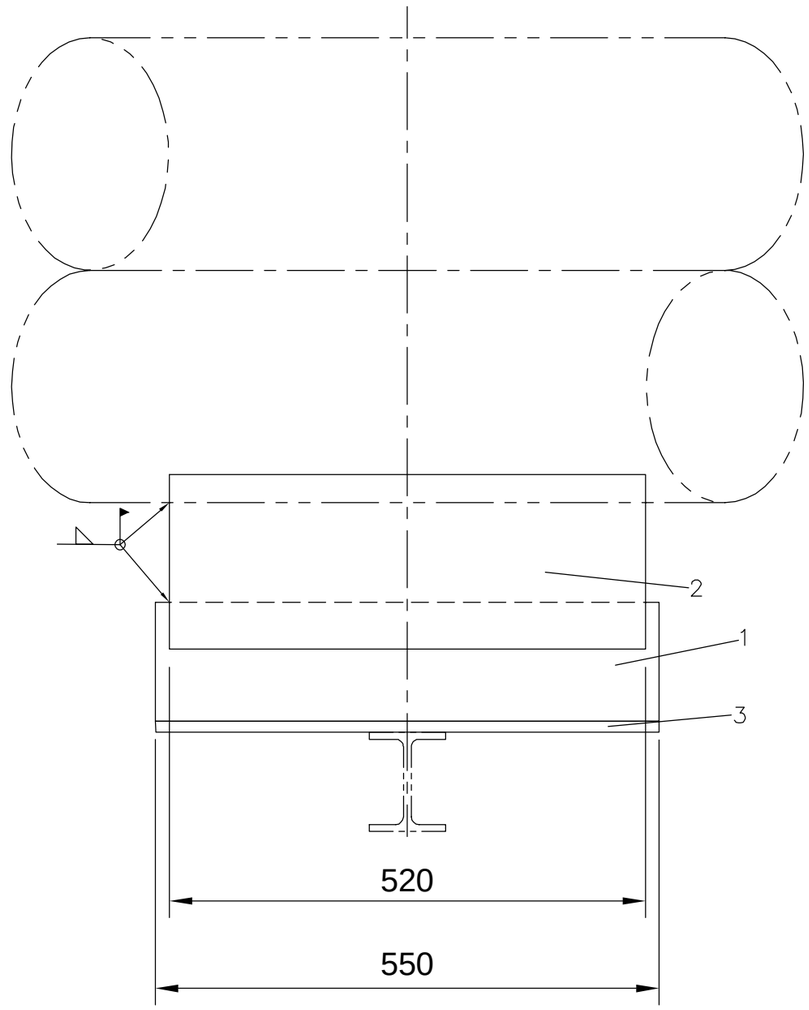
Description
CS04020–13S
WELDED SLOPE LONG SHOE FOR VERTICAL ADJUSTMENT. 20"
HEAT INSULATED CS UP TO 300oC
INSULATION THK 110.

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 340 X 550	IS 1730	IS2062 Gr.B	17.62
2	2	PLATE 12 X 160 X 520	IS 1730	IS2062 Gr.B	15.67
1	2	PLATE 12 X 130 X 550	IS 1730	IS2062 Gr.B	11.23

Total approx weight = 44.52kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	09/02/24	NOOR TGP	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
--			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
--	TB		NTS	1 OF 1

	Date	Name
Drawn	09/02/24	NOOR
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

Contract No. 66–6695
Document ID –
Part
Rev. 00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04020–14S
WELDED SLOPE LONG SHOE FOR VERTICAL ADJUSTMENT.20''
HEAT INSULATED CS UP TO 300°C.
ISULATION THK 170mm.

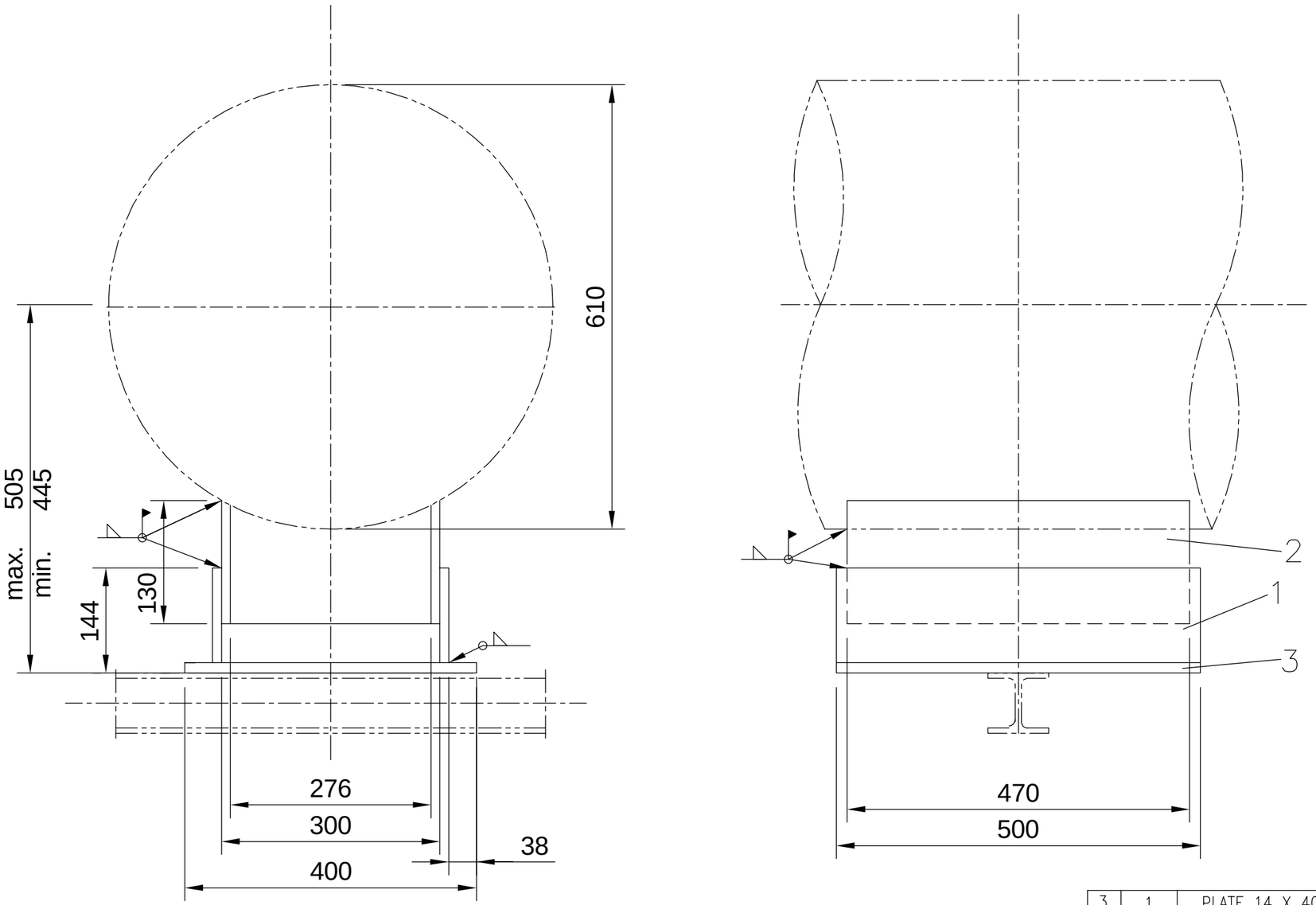
Store Location: Server/Share
\\P666695–ADA

Store Location: Folder
\RLSUPSP\DRG\CS

Store Name
CS04020–14S

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 14 X 400 X 500	IS 1730	IS 2062 Gr.B	21.98
2	2	PLATE 12 X 130 X 470	IS 1730	IS 2062 Gr.B	11.51
1	2	PLATE 12 X 130 X 500	IS 1730	IS 2062 Gr.B	12.25

Total approx weight = 45.74 kg

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	09/02/24	NOOR TGP	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
––			8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Sheet
––	TB		NTS	1 OF 1

	Date	Name
Drawn	09/02/24	NOOR
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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thyssenkrupp Uhde India Private Limited 2023

नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

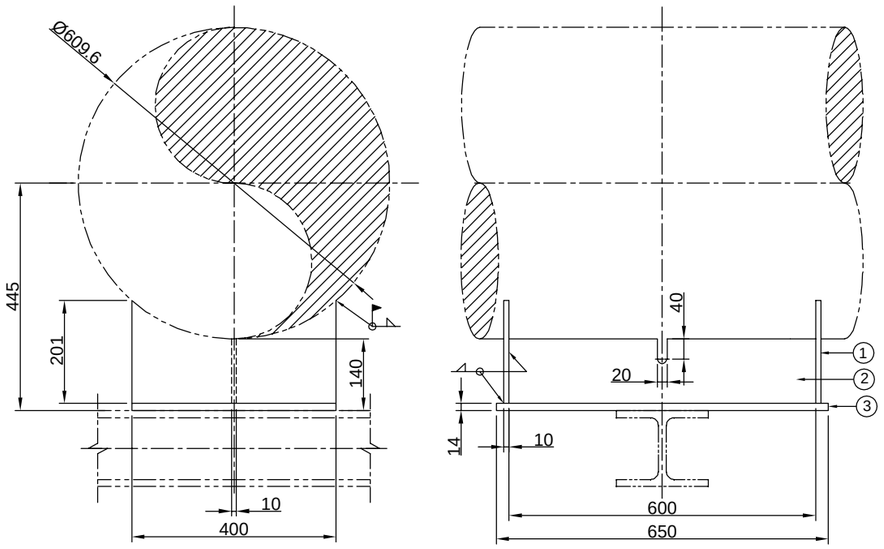
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04024–03S
WELDED SLOPE SHOE SUPPORT
VERTICAL ADJUSTMENT. 24”
HEAT INSULATED CS UP TO 300o C
INSULATION THK110MM

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04024–03S

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 650 x 400 x 14 THK.	IS 1730	IS 2062 Gr.B	28.57
2	1	PLATE 600 x 126 x 10 THK.	IS 1730	IS 2062 Gr.B	5.93
1	2	PLATE 400 x 201 x 10 THK.	IS 1730	IS 2062 Gr.B	12.62

Total approx weight = 47.12kg

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
	Drawn/Prepared		Checked		Approved			
00	23/01/24	SAHIL TGP	23/01/24	SJP	23/01/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	23/01/24	SAHIL
Prepared	23/01/24	TGP
Checked	23/01/24	SJP
Approved	23/01/24	MLN

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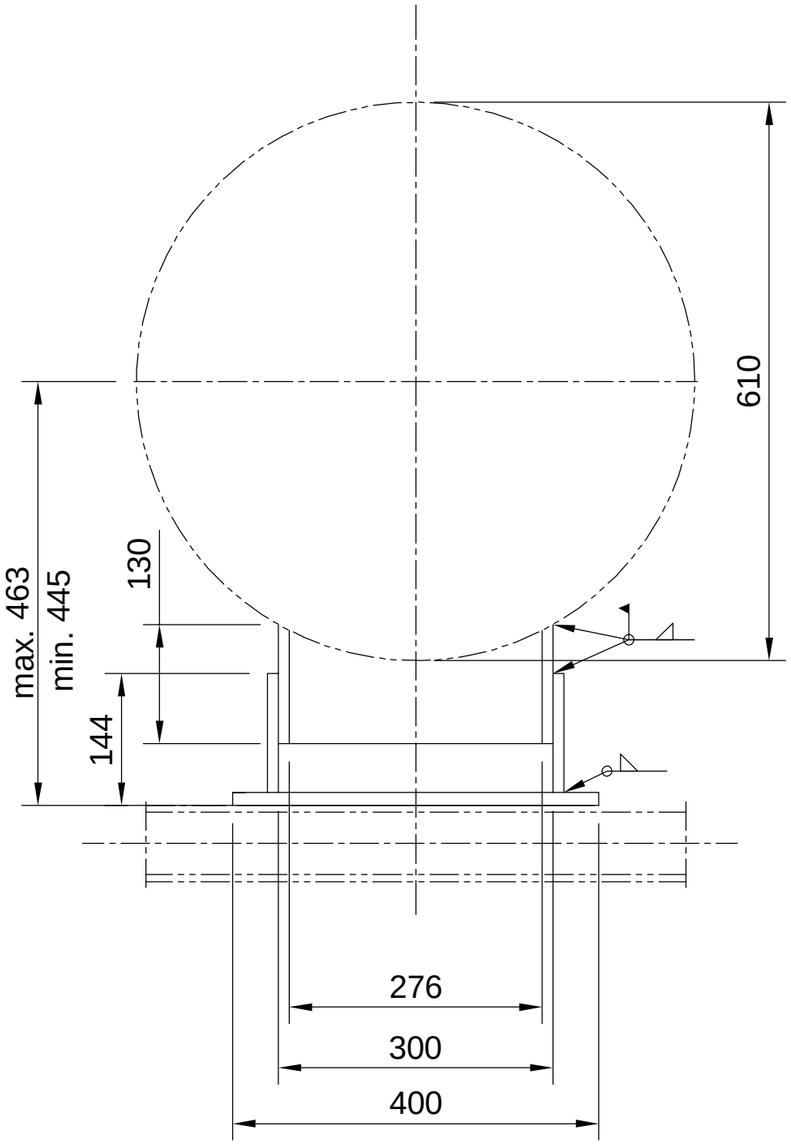
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

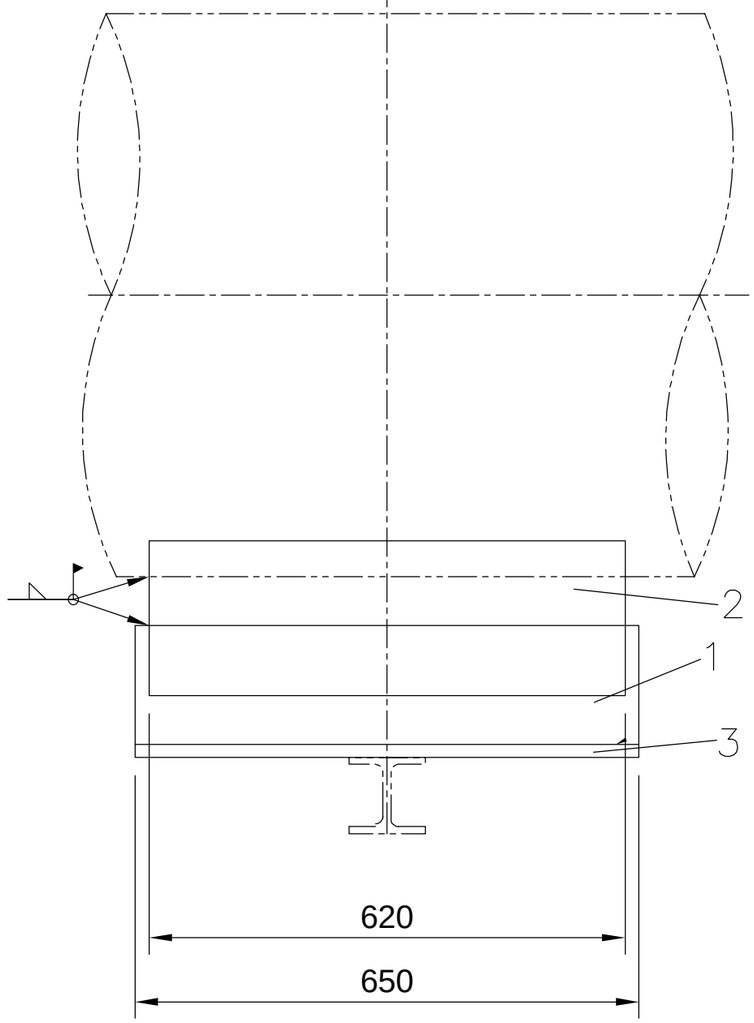
Description
CS04024–13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300 C 24"LINE
MAX.INSULATION THK–110MM

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04024–13

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 14 X 400 X 650	IS 1730	IS 2062 Gr.B	28.57
2	2	PLATE 12 X 130 X 620	IS 1730	IS 2062 Gr.B	15.18
1	2	PLATE 12 X 130 X 650	IS 1730	IS 2062 Gr.B	15.92
				Total approx weight = 49.89kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

BAR–Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	09/02/24	NOOR TGP	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
--	TB		NTS	1 OF 1

	Date	Name
Drawn	09/02/24	NOOR
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

Store Location: Server/Share: \\P666695–ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04024–13S

Contract No. 66–6695
Document ID –
Part
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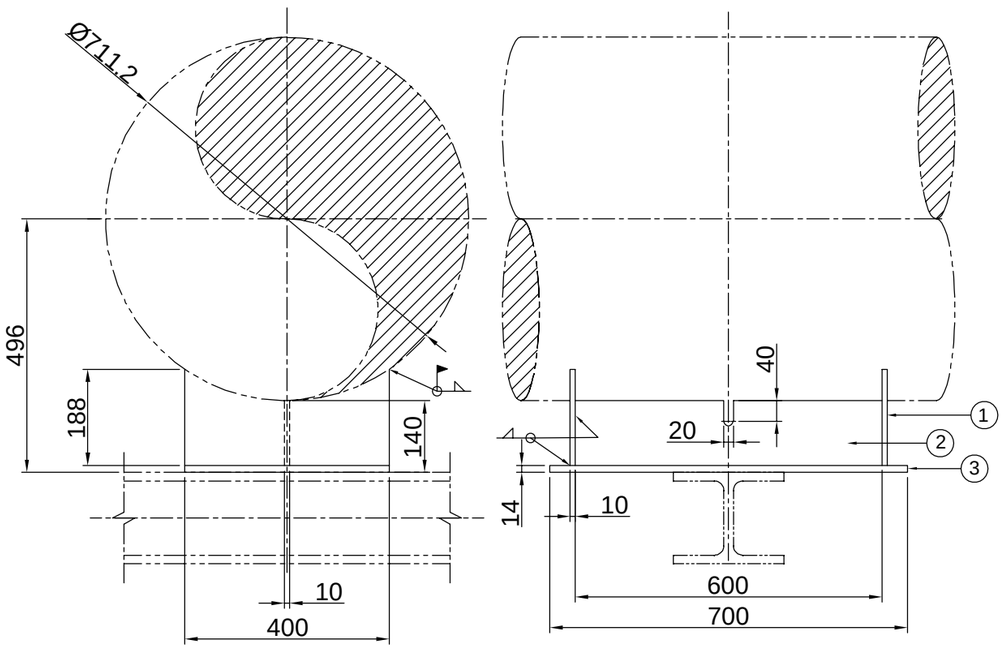
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04024–13S
WELDED SLOPE LONG SHOE FOR VERTICAL ADJUSTMENT. 24"
HEAT INSULATED CS UP TO 300o C
INSULATION THK110MM

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 700 x 400 x 14 THK.	IS 1730	IS 2062 Gr.B	30.77
2	1	PLATE 600 x 126 x 10 THK.	IS 1730	IS 2062 Gr.B	5.93
1	2	PLATE 400 x 188 x 10 THK.	IS 1730	IS 2062 Gr.B	11.81

Total approx weight =48.51kg

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	23/01/24	SAHIL TGP	23/01/24	SJP	23/01/24	MLN	ISSUED FOR FABRICATION	

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BAR–Code

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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Drawn	23/01/24	SAHIL
Prepared	23/01/24	TGP
Checked	23/01/24	SJP
Approved	23/01/24	MLN

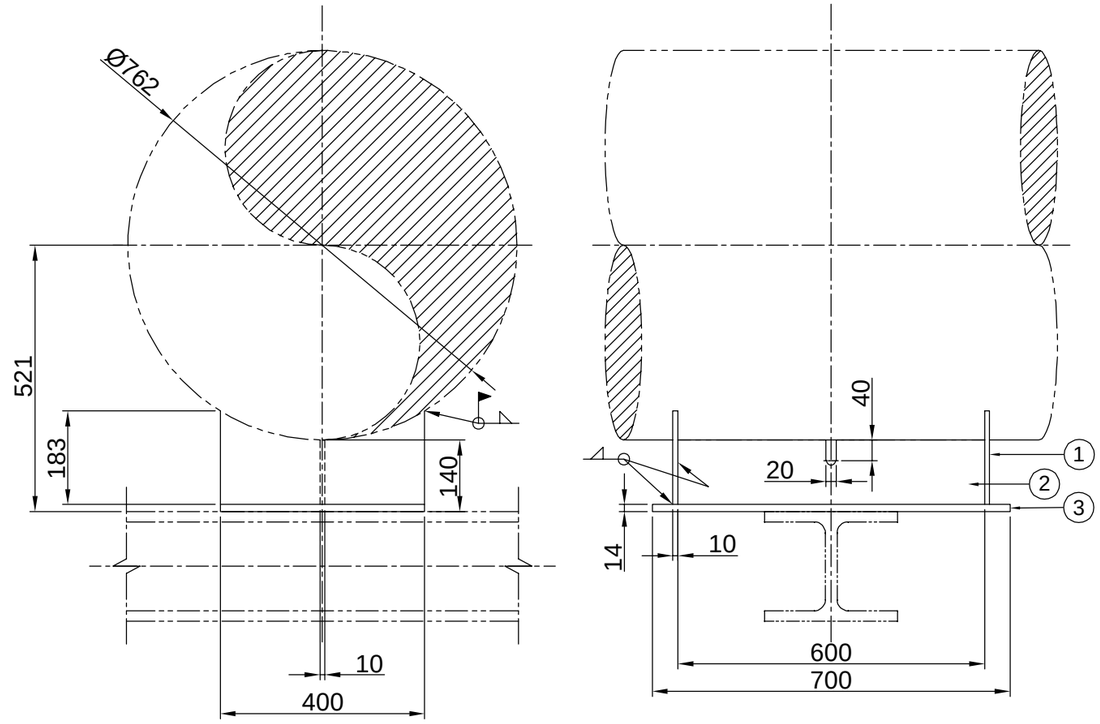
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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04028–13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300 C 28"LINE
MAX.INSULATION THK–110MM

Store Location: Server/Share: \\P666695–ADA
Store Location: Folder: \RLSUPSP\DRG\CS
Store Name: CS04028–13

ISO A3



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 700 x 400 x 14 THK.	IS 1730	IS 2062 Gr.B	30.77
2	1	PLATE 600 x 126 x 10 THK.	IS 1730	IS 2062 Gr.B	5.93
1	2	PLATE 400 x 183 x 10 THK.	IS 1730	IS 2062 Gr.B	11.81

Total approx weight = 48.51kg

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name (Drawn/Prepared)	Date	Name (Checked)	Date	Name (Approved)	Description	Acc. Code
00	23/01/24	SAHIL TGP	23/01/24	SJP	23/01/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	23/01/24	SAHIL
Prepared	23/01/24	TGP
Checked	23/01/24	SJP
Approved	23/01/24	MLN

Contract No. 66–6695

Document ID –

Part

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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

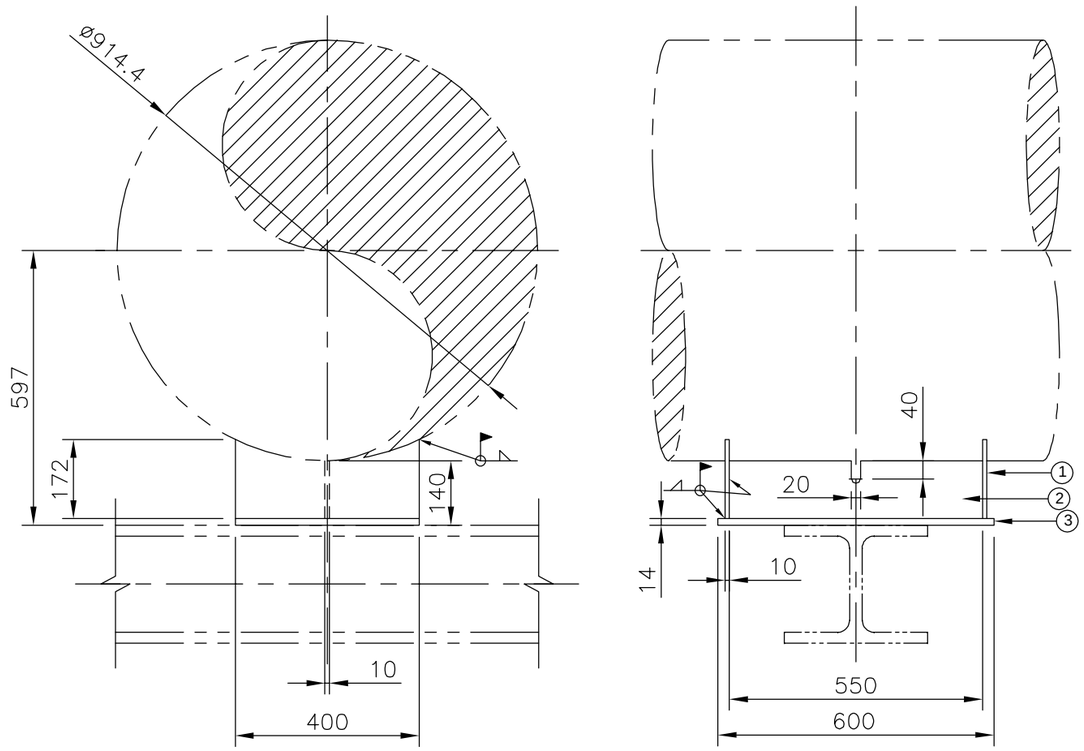
CS04030–13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300 C 30"LINE
MAX.INSULATION THK–110MM

Store Location: Server/Share
\\P666695–ADA

Store Location: Folder
\RLSUPSP\DRG\CS

Store Name
CS04030–13

ISO A3



LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−60 kN
LATERAL LOAD	60 kN
AXIAL LOAD	60 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
3	1	PLATE 600 X 200 X 10 THK	IS 1730	IS 2062 Gr.B	8.64
2	1	PLATE 534 X 139 X 6 THK	IS 1730	IS 2062 Gr.B	3.17
1	2	PLATE 200 X 182 X 6 THK	IS 1730	IS 2062 Gr.B	3.43
				Total approx weight = 15.24 kg	

NOTE:−
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	12/02/24	SAHIL TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

Document−ID−BAR−Code

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Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
−−	TB		NTS	1 OF 1

	Date	Name
Drawn	12/02/24	SAHIL
Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

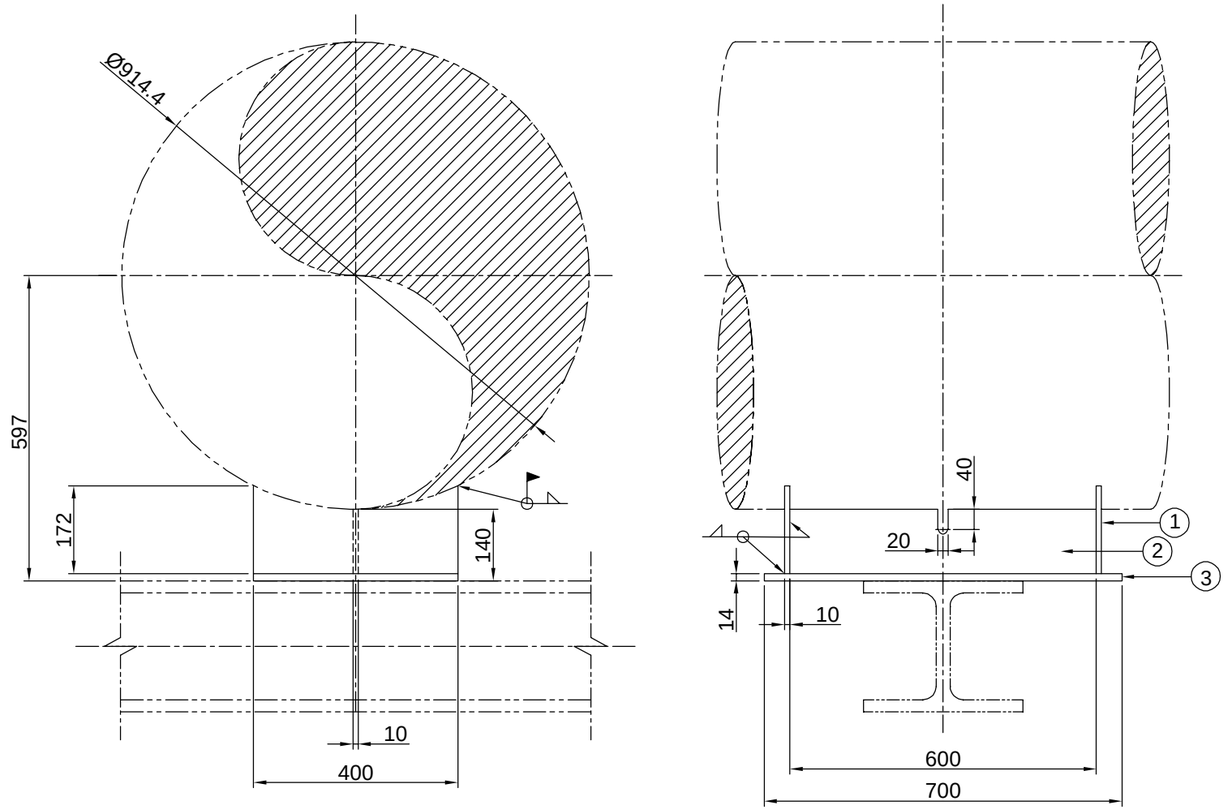
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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS04036−11
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 36" LINE
MAX.INSULATION THK−110mm

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA\ACAD	\RLSUPSP\DRG\CS	CS04010−13

ISO A3



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 700 x 400 x 14 THK.	IS 1730	IS 2062 Gr.B	30.77
2	1	PLATE 600 x 126 x 10 THK.	IS 1730	IS 2062 Gr.B	5.93
1	2	PLATE 400 x 172 x 10 THK.	IS 1730	IS 2062 Gr.B	11.81

Total approx weight = 48.51kg

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	23/01/24	SAHIL TGP	23/01/24	SJP	23/01/24	MLN	ISSUED FOR FABRICATION	

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BAR–Code

Contract No.	Document ID	Part	Rev.
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Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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Drawn	23/01/24	SAHIL
Prepared	23/01/24	TGP
Checked	23/01/24	SJP
Approved	23/01/24	MLN

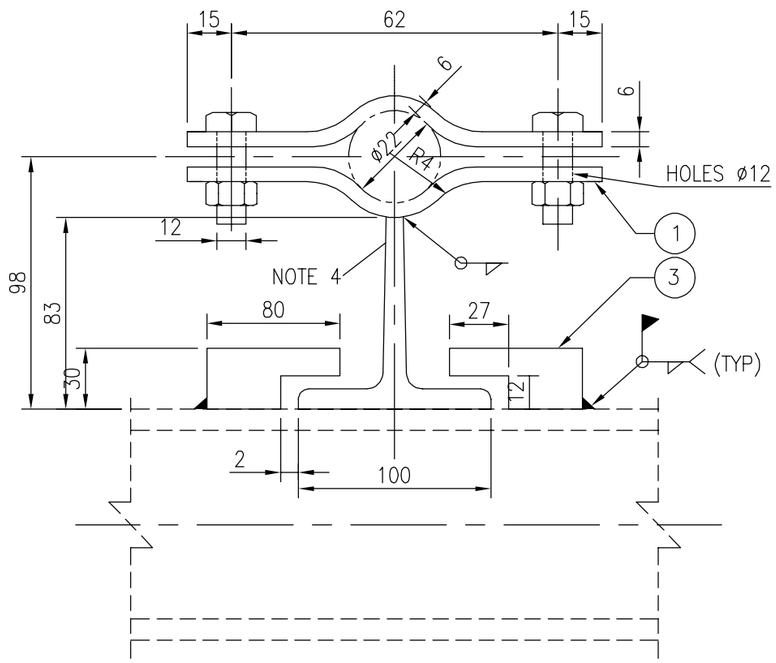
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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

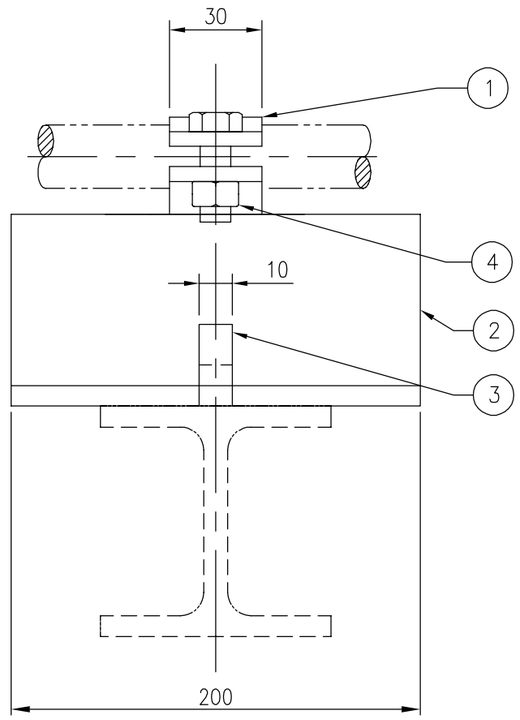
Description
CS04036–13
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300 C 36"LINE
MAX.INSULATION THK–110MM

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04036–13

ISO A3



ELEVATION VIEW



VIEW A–A

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
4	2	HEX.HEAD BOLT WITH NUT M10 x 35/NUT	IS	IS 1363/IS 1367 Cl. 4.6/4	0.08
3	2	PLATE 80 x 30 x 10 THK	IS 1730	IS 2062 Gr.B	0.38
2	1	T 100 x 10 THK 200 LONG	IS 1173	IS 2062 Gr.B	2.98
1	2	PLATE 110 x 30 x 6 THK	IS 1730	IS 2062 Gr.B	0.32
				Total approx weight = 3.76kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) T BAR HEIGHT CUT TO SUIT AT SITE.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	JOSHI TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

Drawn/Prepared — Checked — Approved

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	15/01/24	JOSHI
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS05101

Contract No.	Document ID	Part	Rev.
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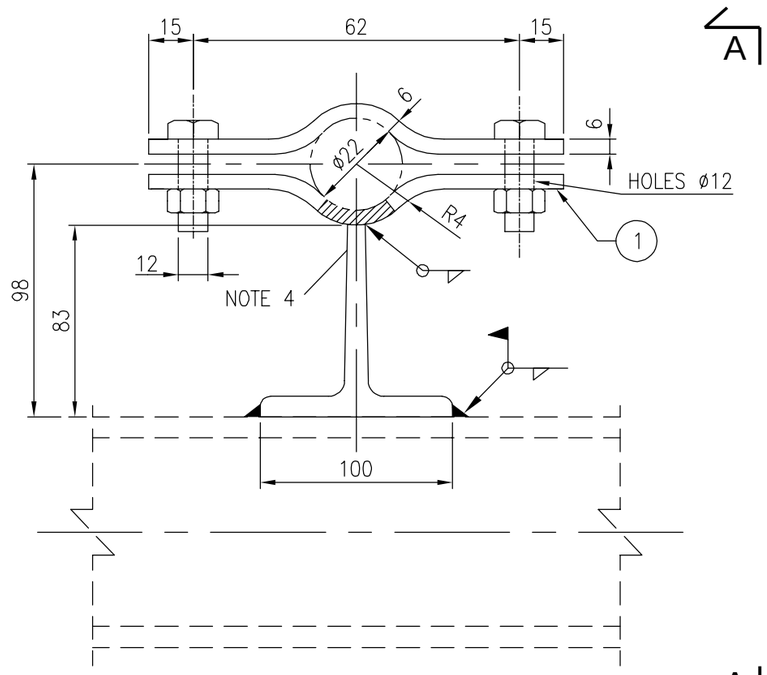
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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

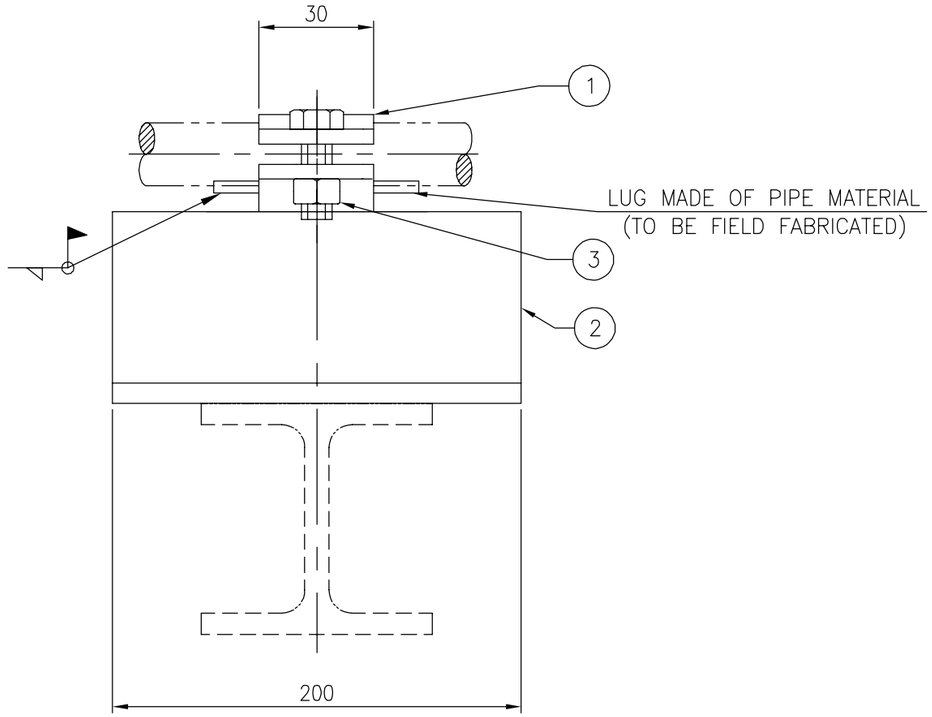
Description
CS05101
GUIDE SUPPORT FOR 1/2" CS LINE

ISO A3

UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018



ELEVATION VIEW



VIEW A–A

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	2	HEX.HEAD BOLT WITH NUT M10 x 35/NUT	IS	IS 1363/IS 1367 Cl. 4.6/4	0.08
2	1	T 100 x 10 THK 200 LONG	IS 1173	IS 2062 Gr.B	2.98
1	2	PLATE 110 x 30 x 6 THK	IS 1730	IS 2062 Gr.B	0.31
				Total approx weight = 3.40kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) T BAR HEIGHT CUT TO SUIT AT SITE.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	JOSHI TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	15/01/24	JOSHI
Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

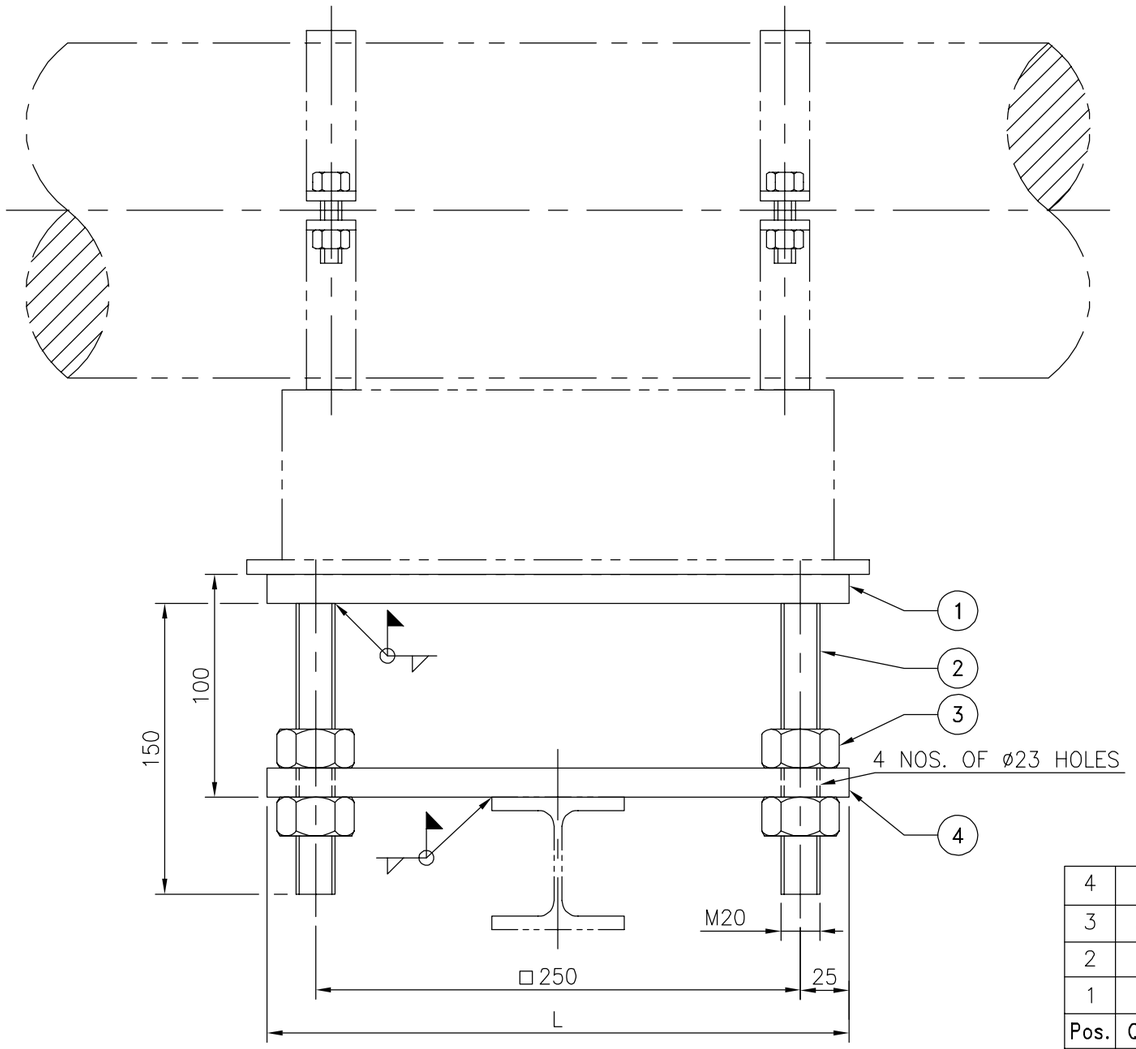
Description
CS05104
FIXED SUPPORT FOR 1/2" CS LINE

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS05104

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ISO A3

50 mm



(TYPICAL EXAMPLE SHOWING INSTALLATION)

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
4	1	PLATE 300 x 300 x 16 THK	IS 1730	IS 2062 Gr.B	11.30
3	8	HEXAGONAL NUT M20	IS	IS 1363/IS 1367/Cl.4	0.13
2	4	THREADED ROD M20 x 150	IS	IS 2062 Gr.B	0.40
1	1	PLATE 300 x 300 x 16 THK	IS 1730	IS 2062 Gr.B	11.30
				Total approx weight = 23.13kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	09/02/24	JOSHI TGP	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	
		Drawn/Prepared		Checked		Approved		

Document–ID–BAR–Code

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Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
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	Date	Name
Drawn	09/02/24	JOSHI
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

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National Aluminium Company Ltd.

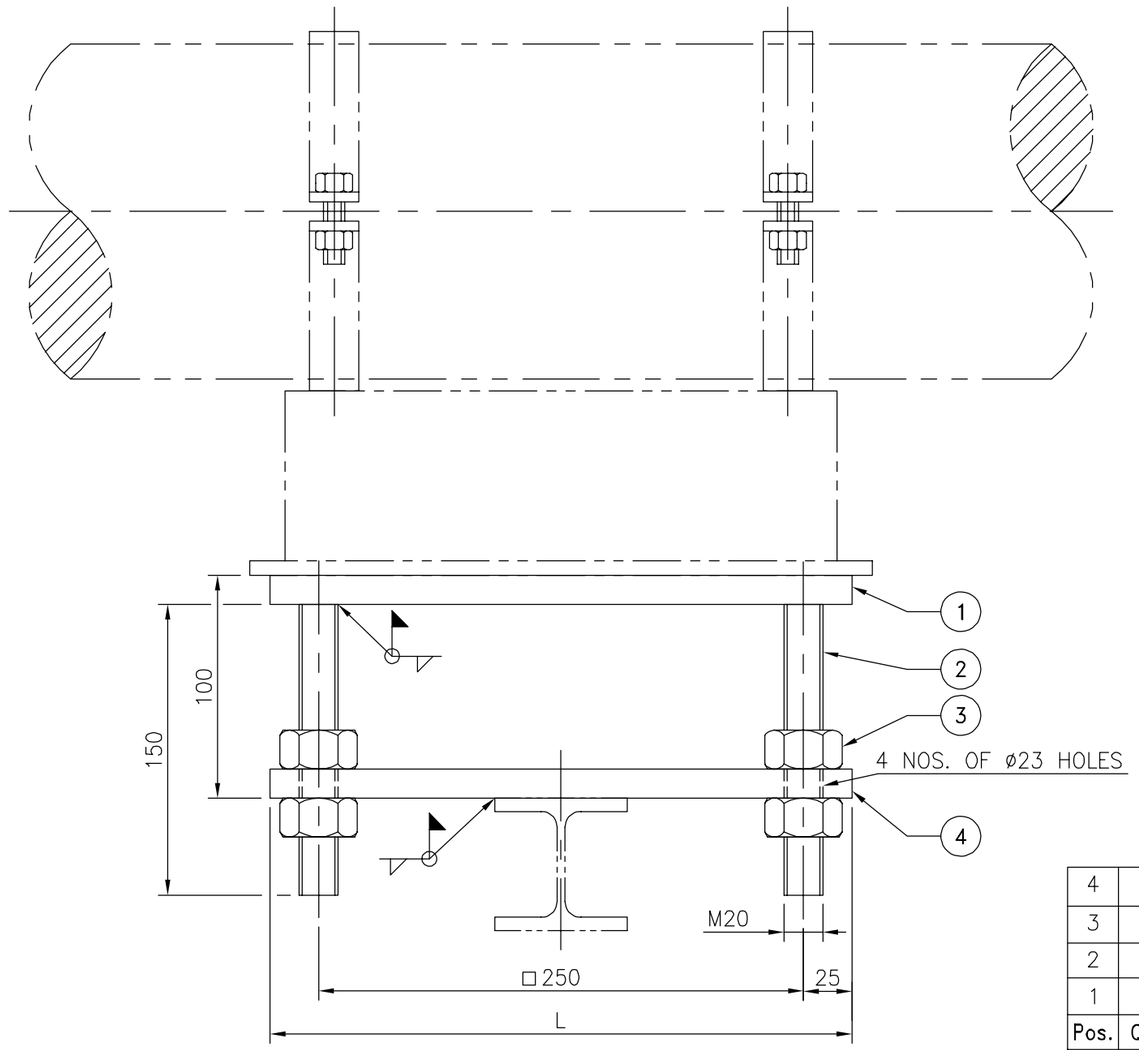
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS06041
ADJUSTABLE STOOL
FOR LOADS UP TO 15KN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA\ACAD	\RLSUPSP\DRG\CS	CS06041

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

ISO A3



(TYPICAL EXAMPLE SHOWING INSTALLATION)

PIPE SIZE	PLATE W X L
200 NB	320 X 300
250 NB	370 X 300
300 NB	420 X 300
350 NB	475 X 300
400 NB	475 X 300

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
4	1	PLATE 300 x 300 x 16 THK	IS 1730	IS 2062 Gr.B	11.30
3	8	HEXAGONAL NUT M20	IS	IS 1363/IS 1367/Cl.4	0.13
2	4	THREADED ROD M20 x 150	IS	IS 2062 Gr.B	0.40
1	1	PLATE AS PER TABLE 1 x 16 THK	IS 1730	IS 2062 Gr.B	11.30
				Total approx weight = 23.13kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Document–ID–BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	29/01/24	TPK TGP	29/01/24	SJP	29/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
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	Date	Name
Drawn	29/01/24	TPK
Prepared	29/01/24	TGP
Checked	29/01/24	SJP
Approved	29/01/24	MLN

UAN	Code Document ID	Part	Group	Rev.
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National Aluminium Company Ltd.

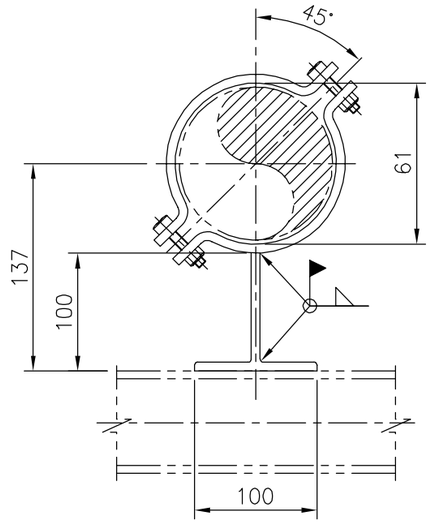
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

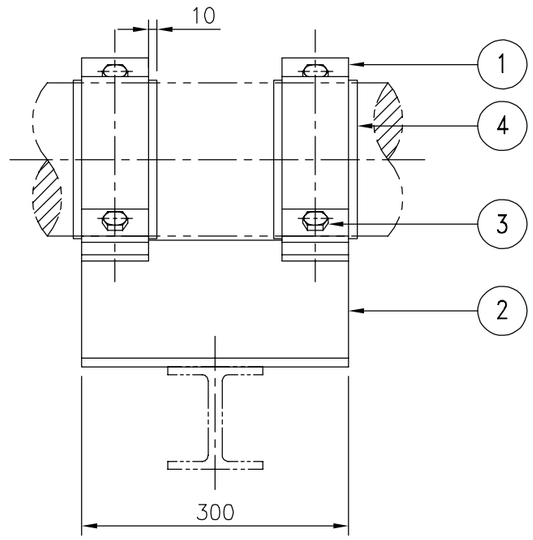
Description
CS06043
ADJUSTABLE STOOL
FOR LOADS UP TO 15KN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA\ACAD	\RLSUPSP\DRG\CS	CS06041

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

ISO A3





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
4	2	SHEET LINE 0.3 X 60 X 207	UN 3790–14	A240 Gr.321	0.06
3	4	HEX. HEAD BOLT WITH NUT M12 X 40/MU	IS	IS 1363/IS 1367 Cl. 4.6/4	0.24
2	1	T–BAR T 100 300 LONG	IS 1173	IS 2062 Gr.B	4.47
1	2	CLAMP FORM A DS 61	UN 3790–01	IS 2062 Gr.B	1.26
				Total approx weight = 6.03 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	09/02/24	TPK TGP	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

Document–ID–BAR–Code

Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
––		8	–	IFC

Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
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	Date	Name
Drawn	09/02/24	TPK
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

UAN	Code Document ID	Part	Group	Rev.
66–6695	–			00

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thyssenkrupp Uhde India Private Limited 2023

नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

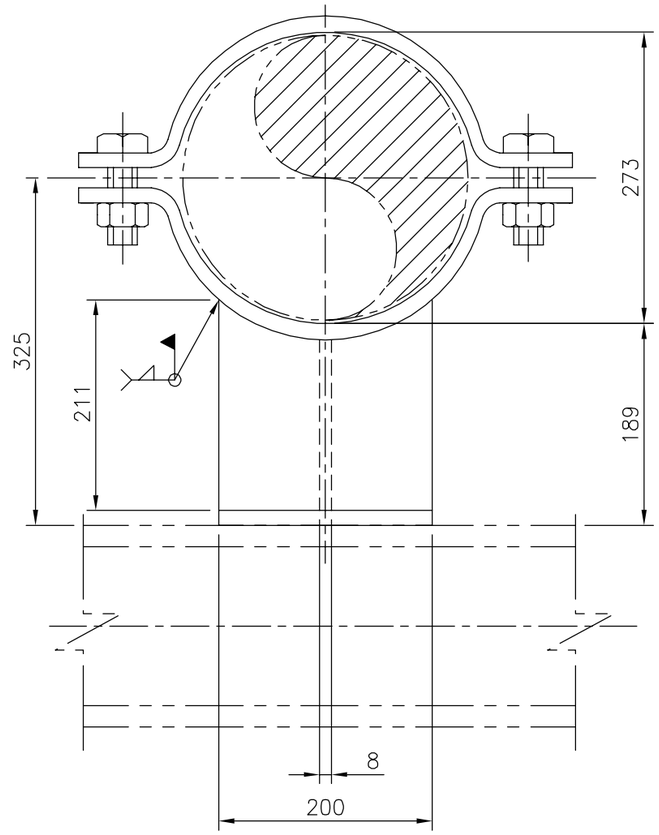
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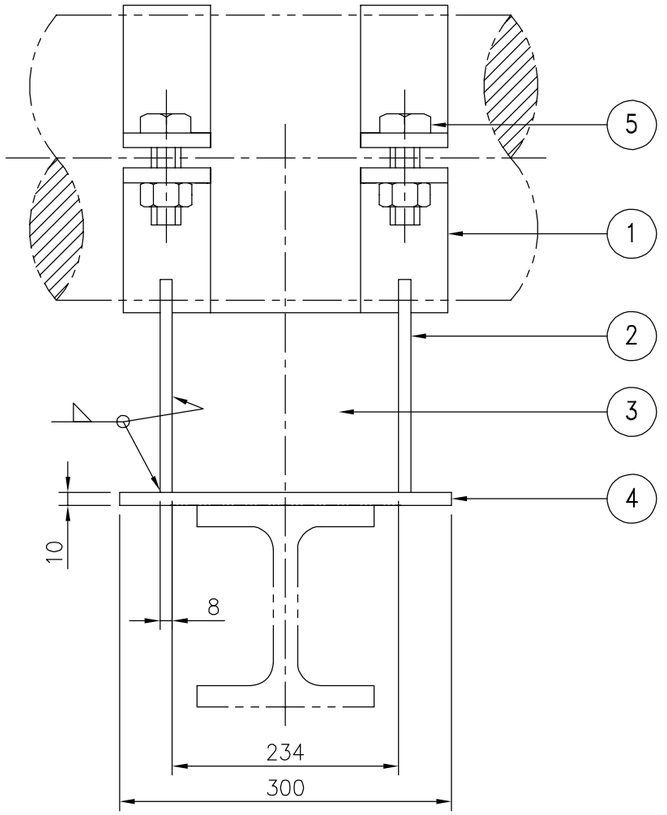
CS06602–02
LOOSE SUPPORT LONGER SHOE
2" SS LINE UPTO TEMP 300°C
MAX. INSULATION THK. = 70mm

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA\ACAD	\RLSUPSP\DRG\CS	CS06602–02

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

ISO A3





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
5	4	HEXAGONAL BOLT WITH NUT M20 X 55/MU	IS	IS 1363/IS 1367 Cl. 4.6/4	0.96
4	1	PLATE 200 X 300 X 10 THK	IS 1730	IS 2062 Gr.B	4.71
3	1	PLATE 171 X 234 X 8 THK	IS 1730	IS 2062 Gr.B	2.51
2	2	PLATE 211 X 200 X 8 THK	IS 1730	IS 2062 Gr.B	3.31
1	2	CLAMP FORM A DS 273	UN 3790–01	IS 2062 Gr.B	8.12
				Total approx weight = 19.61 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	09/02/24	TPK TGP	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	

Document–ID–BAR–Code

Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
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	Date	Name
Drawn	09/02/24	TPK
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

UAN	Code Document ID	Part	Group	Rev.
66–6695	–			00

thyssenkrupp

Thyssenkrupp Uhde India Private Limited 2023

नालको NALCO
नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

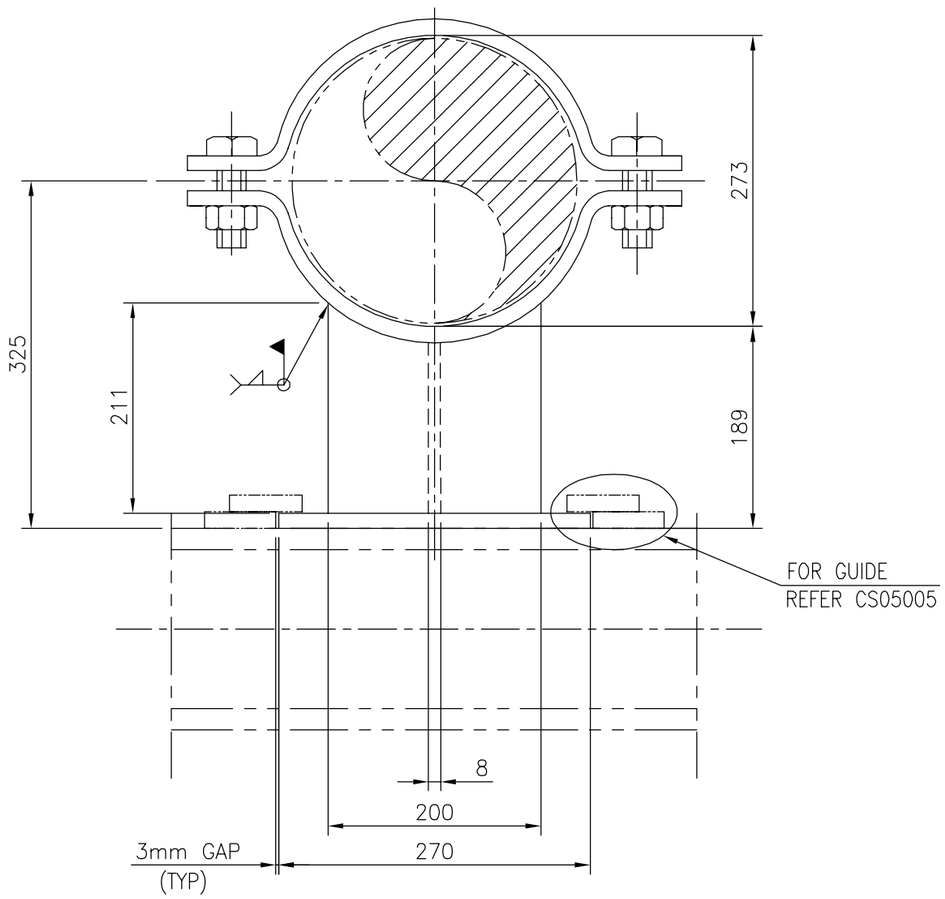
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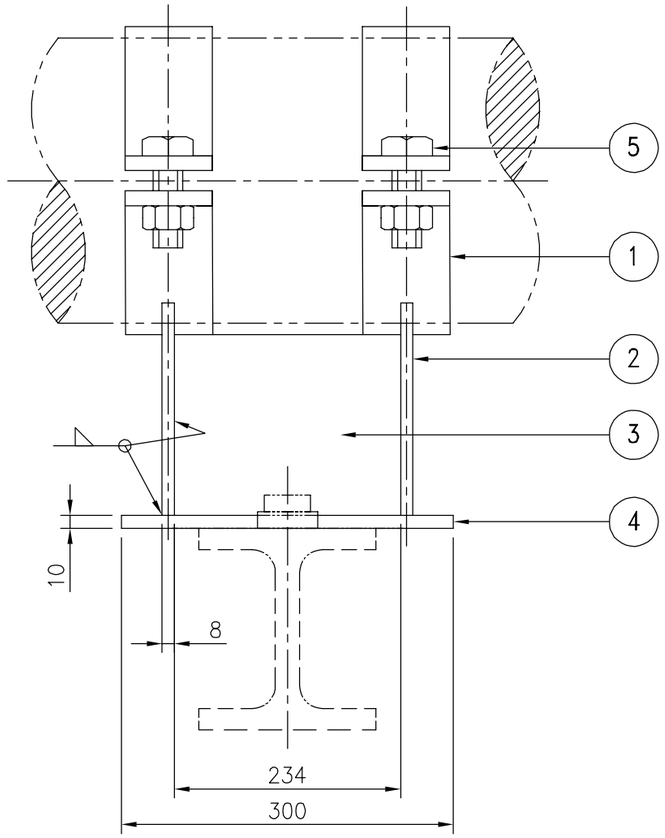
CS07010–01
LOOSE SUPPORT
10" CS LINE UPTO TEMP 300°C
MAX. INSULATION THK = 150mm

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA\ACAD	\RLSUPSP\DRG\CS	CS07010–01

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

ISO A3





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
5	4	HEXAGONAL BOLT WITH NUT M20 X 55/MU	IS	IS 1363/IS 1367 Cl. 4.6/4	0.96
4	1	PLATE 270 X 300 X 10 THK	IS 1730	IS 2062 Gr.B	6.36
3	1	PLATE 171 X 234 X 8 THK	IS 1730	IS 2062 Gr.B	2.51
2	2	PLATE 211 X 200 X 8 THK	IS 1730	IS 2062 Gr.B	3.31
1	2	CLAMP FORM A DS 273	UN 3790–01	IS 2062 Gr.B	8.12
				Total approx weight = 21.26 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	09/02/24	TPK TGP	09/02/24	SJP	09/02/24	MLN	ISSUED FOR FABRICATION	

Document–ID–BAR–Code

Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
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	Date	Name
Drawn	09/02/24	TPK
Prepared	09/02/24	TGP
Checked	09/02/24	SJP
Approved	09/02/24	MLN

UAN	Code Document ID	Part	Group	Rev.
66–6695	–			00

thyssenkrupp
Thyssenkrupp Uhde India Private Limited 2023

नालको NALCO
नेशनल एल्युमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS07010–02
GUIDE SUPPORT
10" CS LINE UPTO TEMP 300°C
MAX. INSULATION THK = 150mm

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA\ACAD	\RLSUPSP\DRG\CS	CS07010–02

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

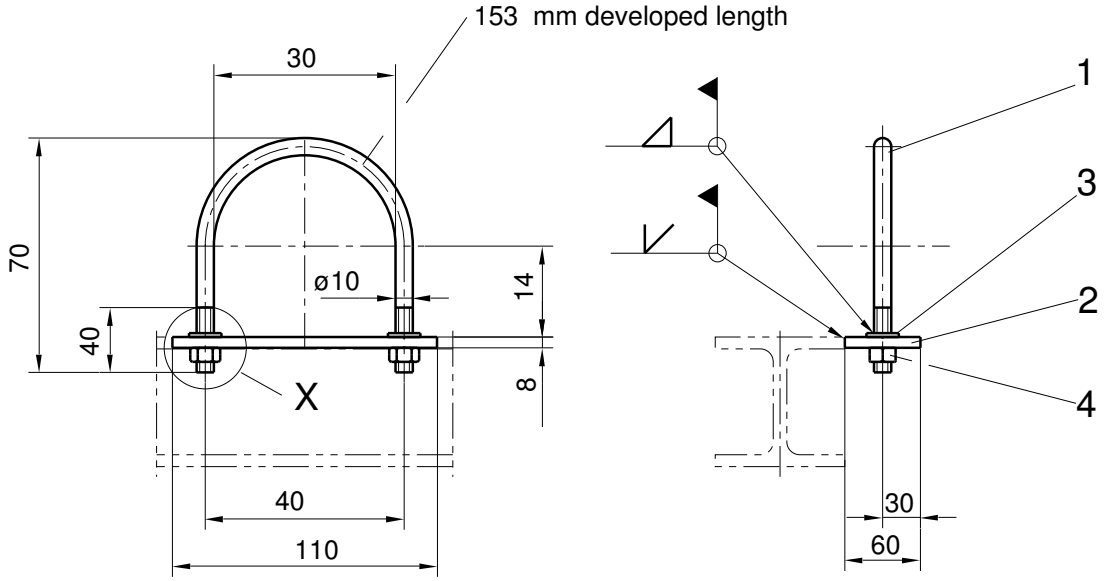
ISO A3

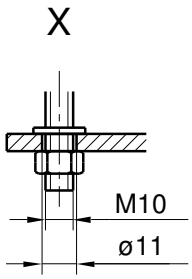
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABB002D Marking : 20

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
3	2	WASHER 11	DIN 126	100 HV	MU0001D
2	1	FLAT BAR 60 x 8 x 110	DIN 1017 P. 1	1.0038	GF0011D
1	1	U-BOLT FORM A A30	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 0,540 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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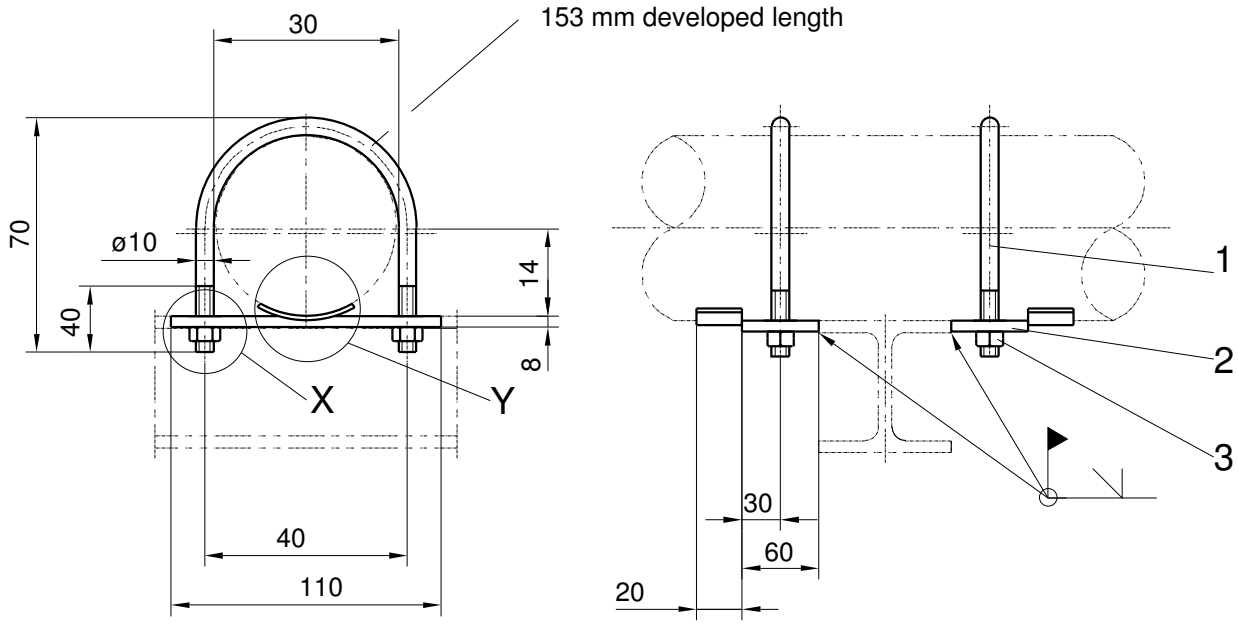
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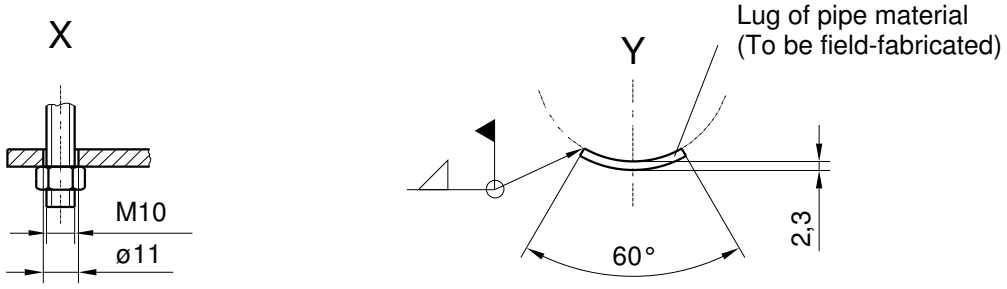
tkIS	Code	Page	UAN	V	L S
	Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ABC002D Marking : 20

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEXAGON NUT M 10	DIN 555	5	MM0001D
2	2	FLAT BAR 60 x 8 x 110	DIN 1017 P. 1	1.0038	GF0011D
1	2	U-BOLT FORM A A30	DIN 3570	1.0036	MA0001D

Remarks: Total weight = 1,040 kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

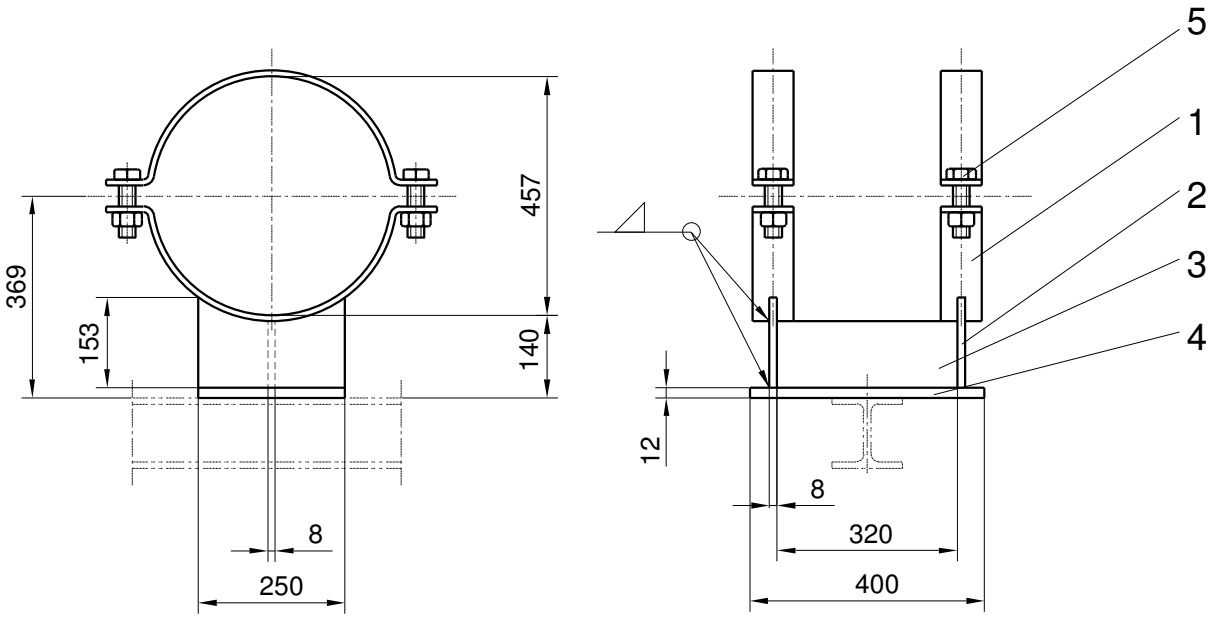
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACA003D Marking : 450/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 153 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 457	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 37,010 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

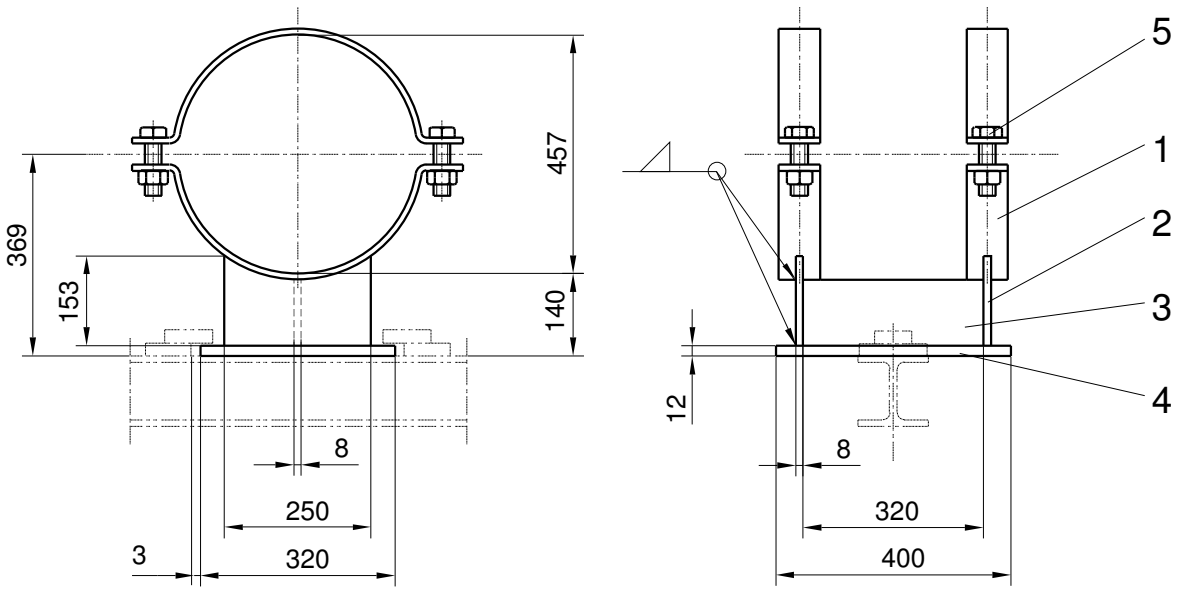
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB005D Marking : 450/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 320 x 400	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 153 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 457	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 39,640 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

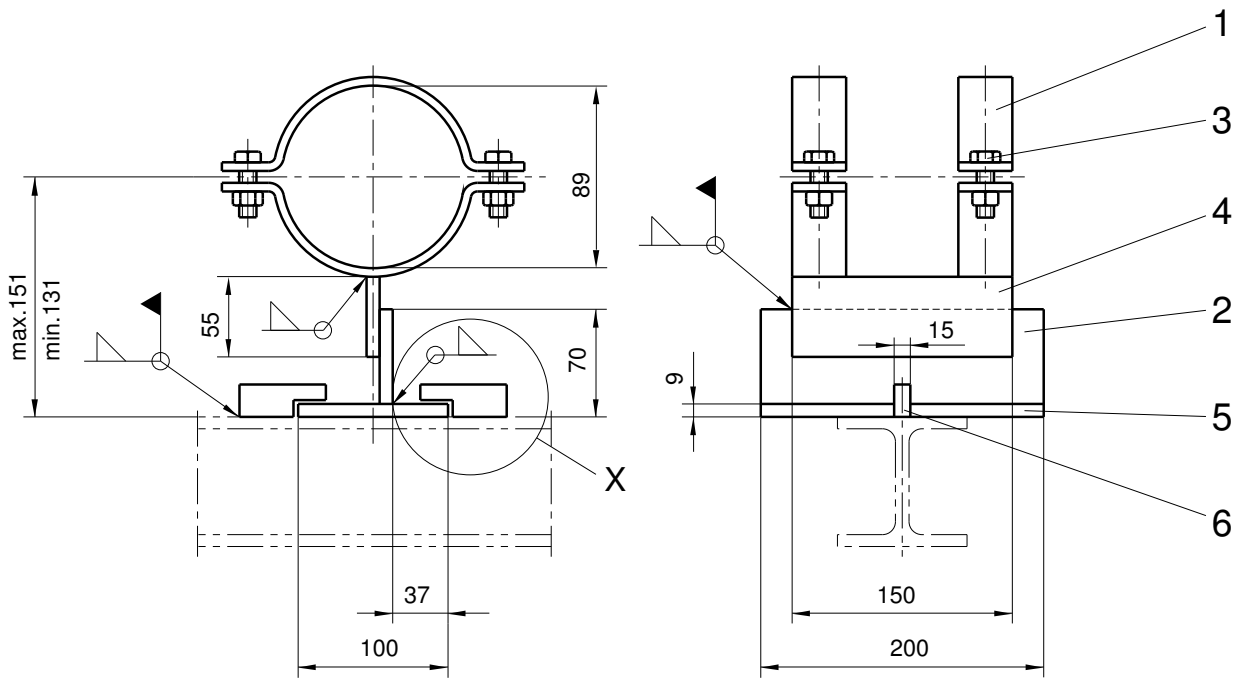
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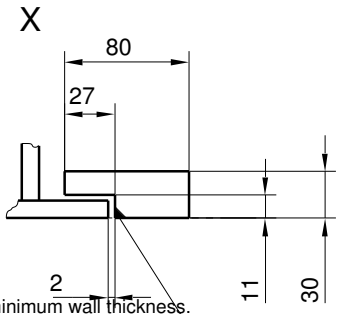
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACB220D Marking : 80/131

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
5	1	PLATE 9 x 100 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 9 x 55 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 9 x 61 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,280 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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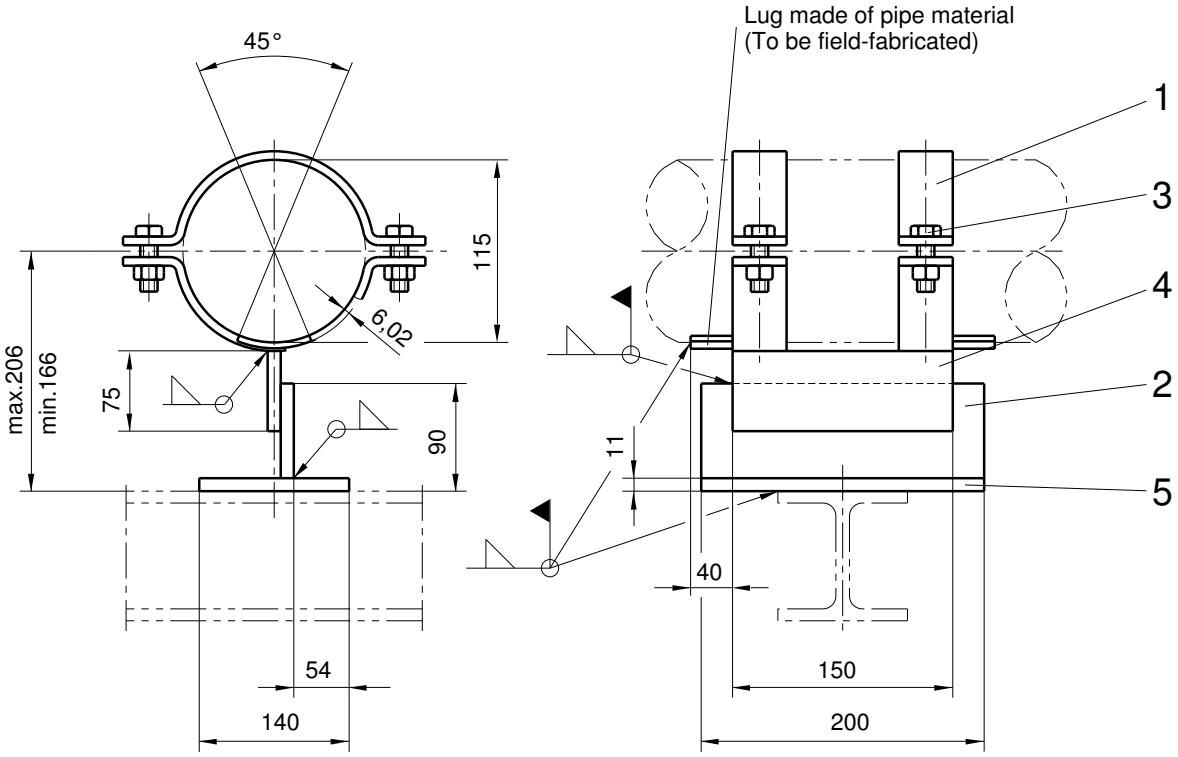
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACC220D Marking : 100/166

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	1	PLATE 11 x 140 x 200	EN 10029	A283GR.B	GB0001D
4	1	PLATE 11 x 75 x 150	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	PLATE 11 x 79 x 200	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,710 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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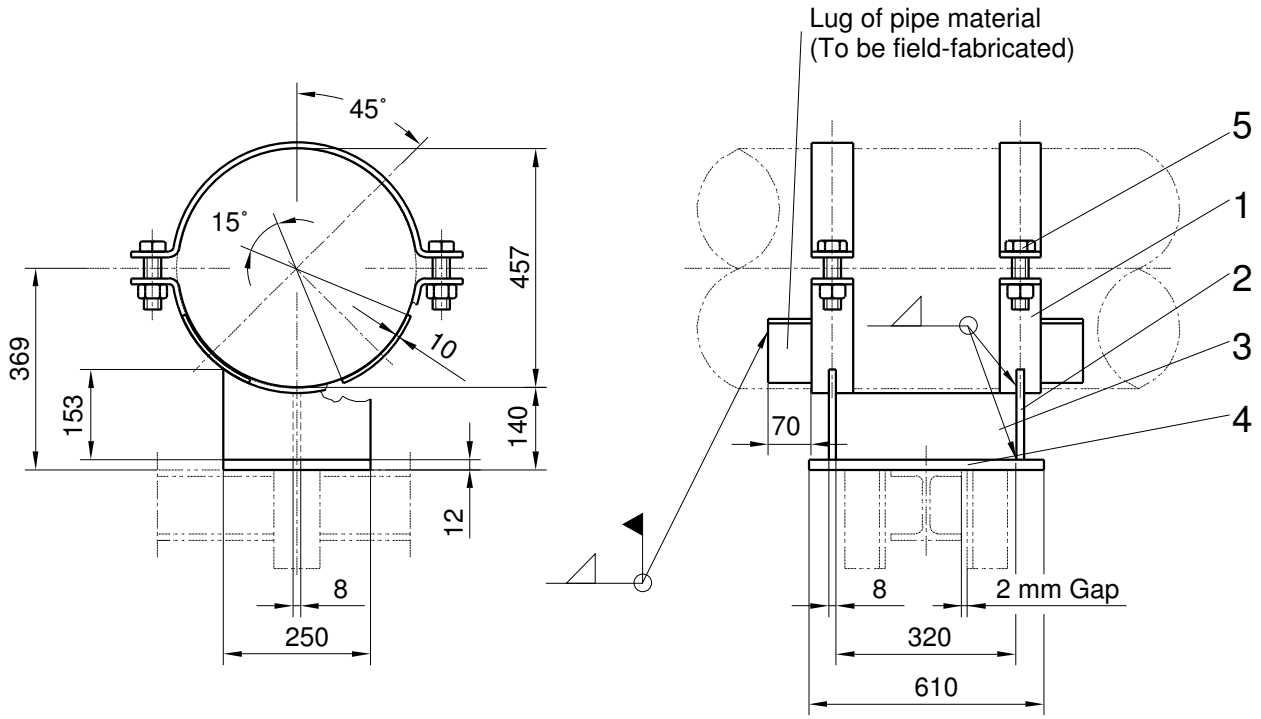
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ACD003D Marking : 450/4

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 250 x 610	EN 10029	A283GR.B	GB0001D
3	1	PLATE 8 x 118 x 320	EN 10029	A283GR.B	GB0001D
2	2	PLATE 8 x 153 x 250	EN 10029	A283GR.B	GB0011D
1	2	CLAMP FORM A DS 457	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 41,850 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

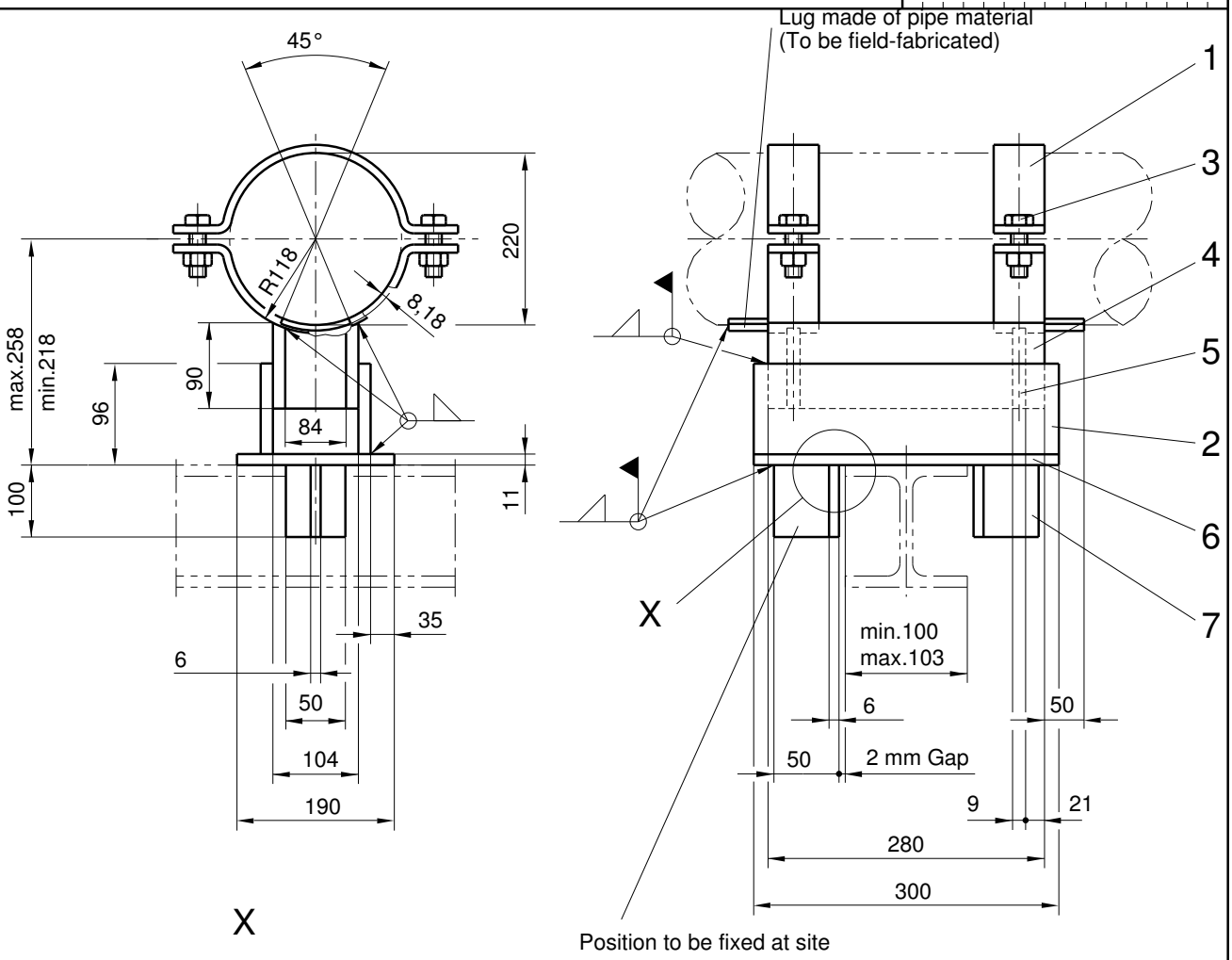
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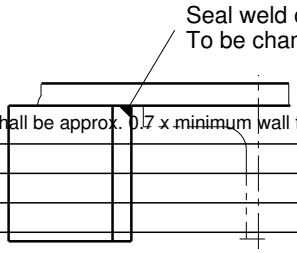
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: ACD221D Marking : 200/218/300

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 86	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 90 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 85 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,340 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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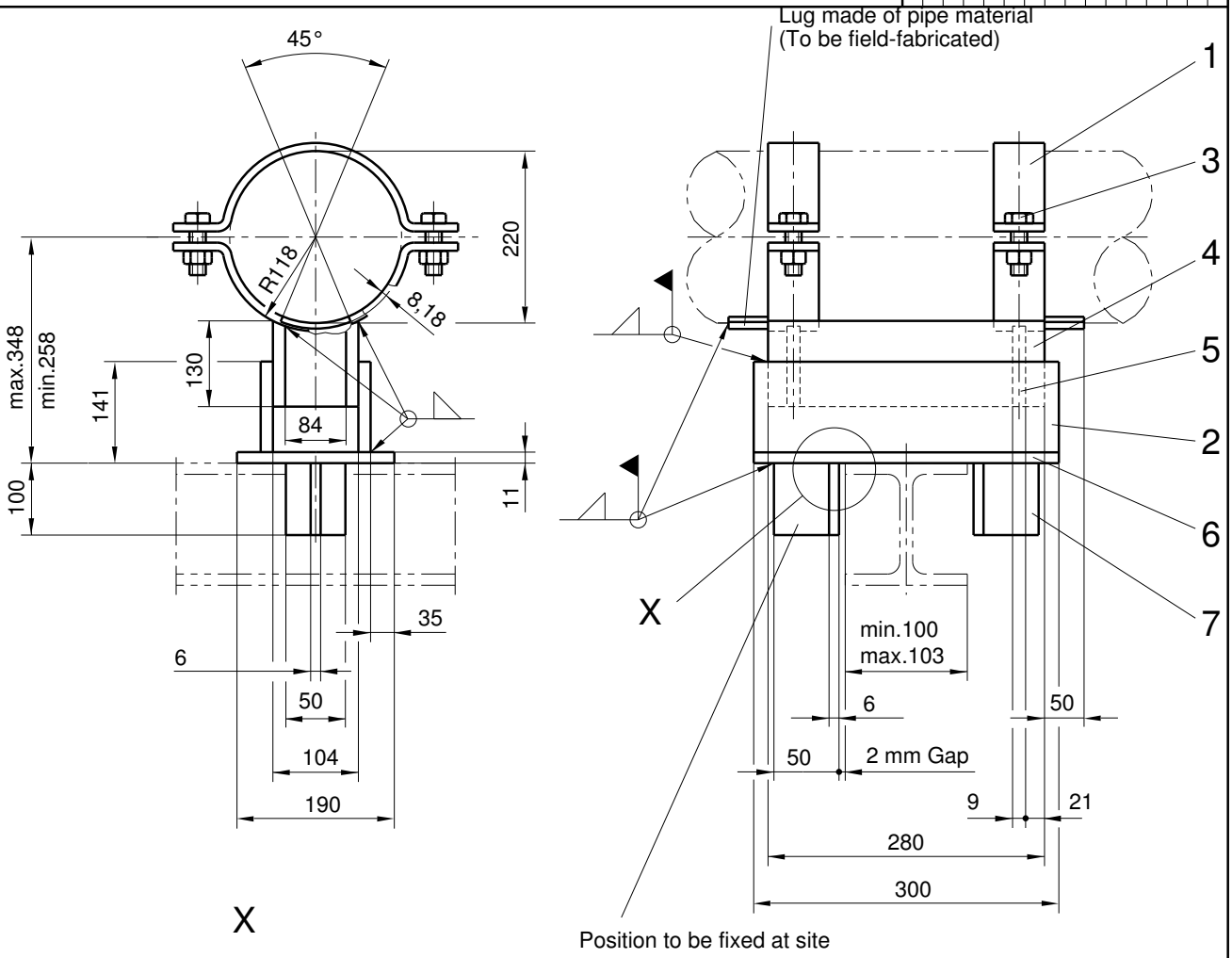
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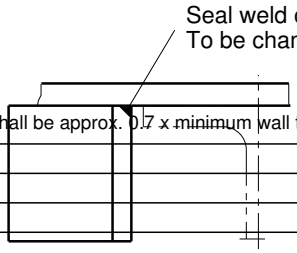
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: ACD221D Marking : 200/258/300





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	2	T-BAR T 50 x 100	EN 10055	A36	GT0001D
6	1	PLATE 11 x 190 x 300	EN 10029	A283GR.B	GB0001D
5	2	PLATE 9 x 84 x 126	EN 10029	A283GR.B	GB0011D
4	2	PLATE 9 x 130 x 280	EN 10029	A283GR.B	GB0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	2	PLATE 9 x 130 x 300	EN 10029	A283GR.B	GB0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 24,310 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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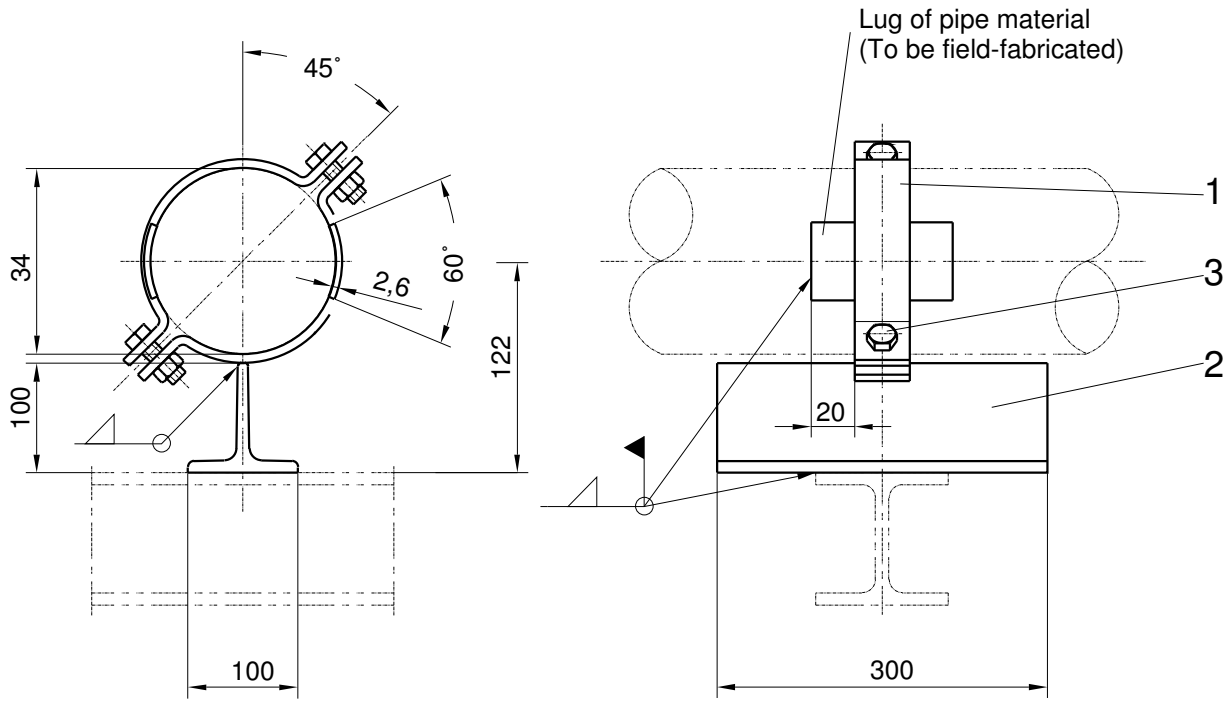
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: ADC001D Marking : 25/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 300	EN 10055	A36	GT0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,620 kg

1) A193GR.B7/A194GR.2H

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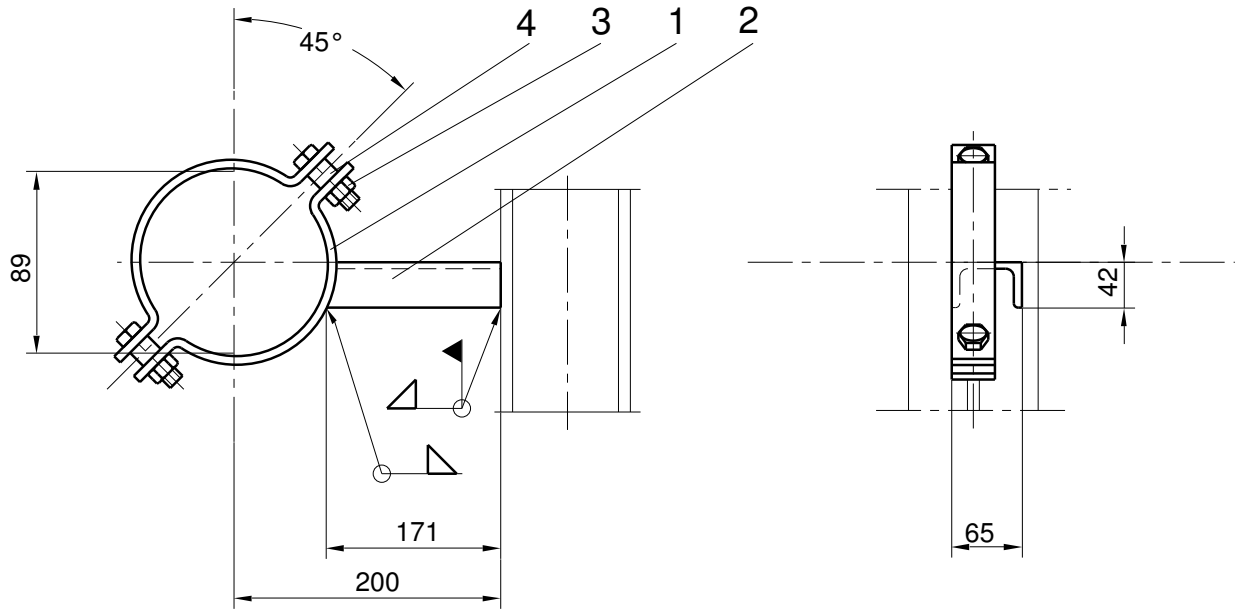
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB004D Marking : 80/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 21,3 x 2 x 10	EN 10220	A53GR.B	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 171	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,130 kg

1) A193GR.B7/A194GR.2H

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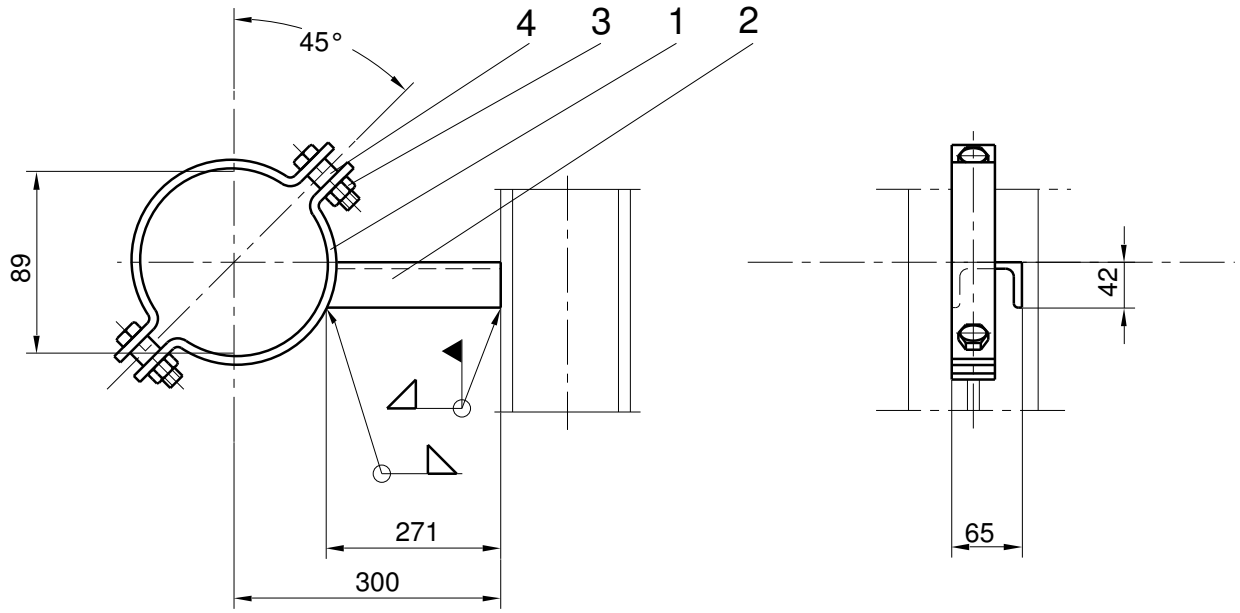
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEB004D Marking : 80/300

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 21,3 x 2 x 10	EN 10220	A53GR.B	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 271	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,840 kg

1) A193GR.B7/A194GR.2H

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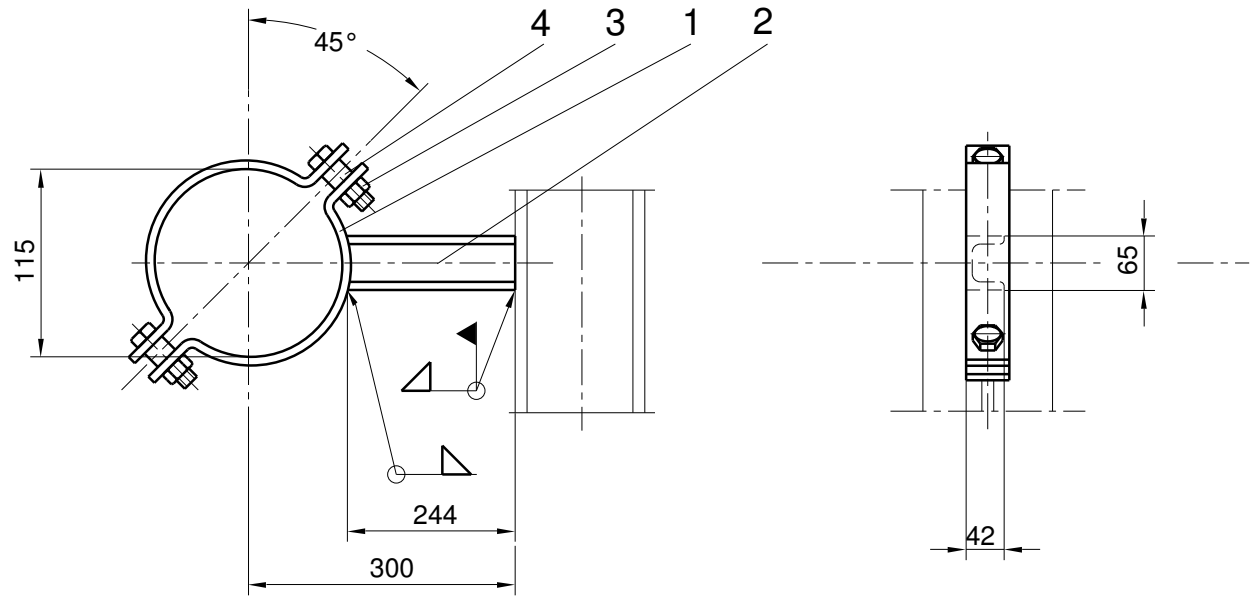
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEB005D Marking : 100/300

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	PIPE 33,7 x 2,6 x 12	EN 10220	A53GR.B	GR0001D
3	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 244	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,740 kg

1) A193GR.B7/A194GR.2H

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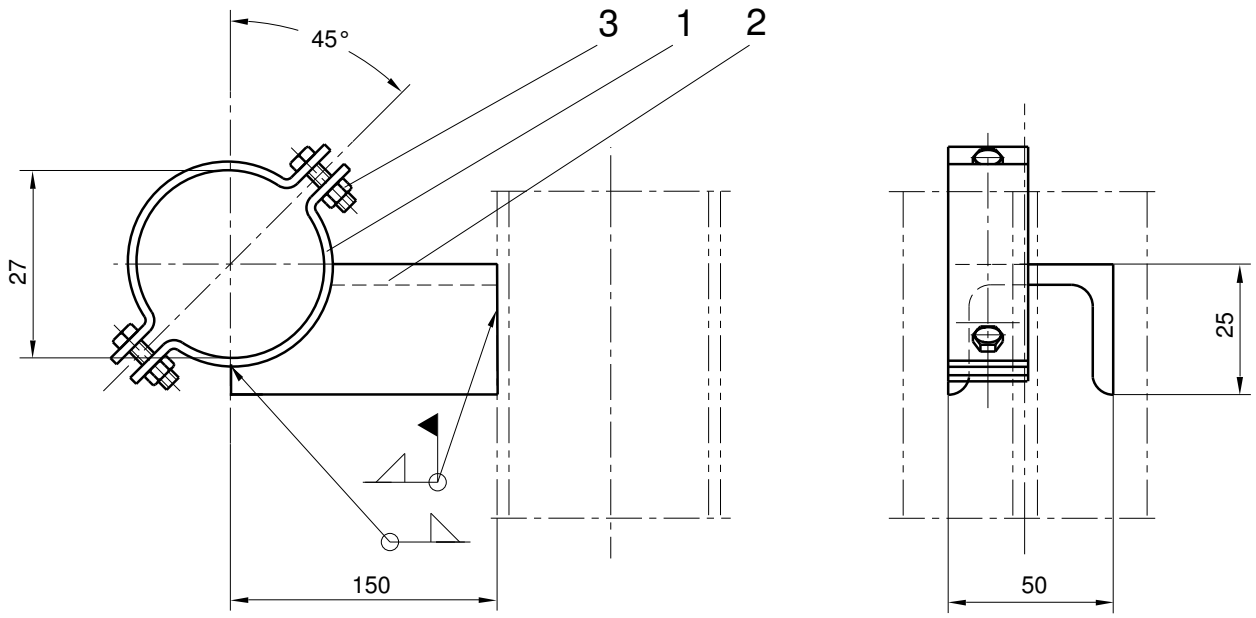
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: AEX002D Marking : 20/150

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
2	1	U-BAR U 50 x 25 x 150	DIN 1026	1.0038	GU0021D
1	1	CLAMP FORM A DS 27	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 0,900 kg

1) A193GR.B7/A194GR.2H

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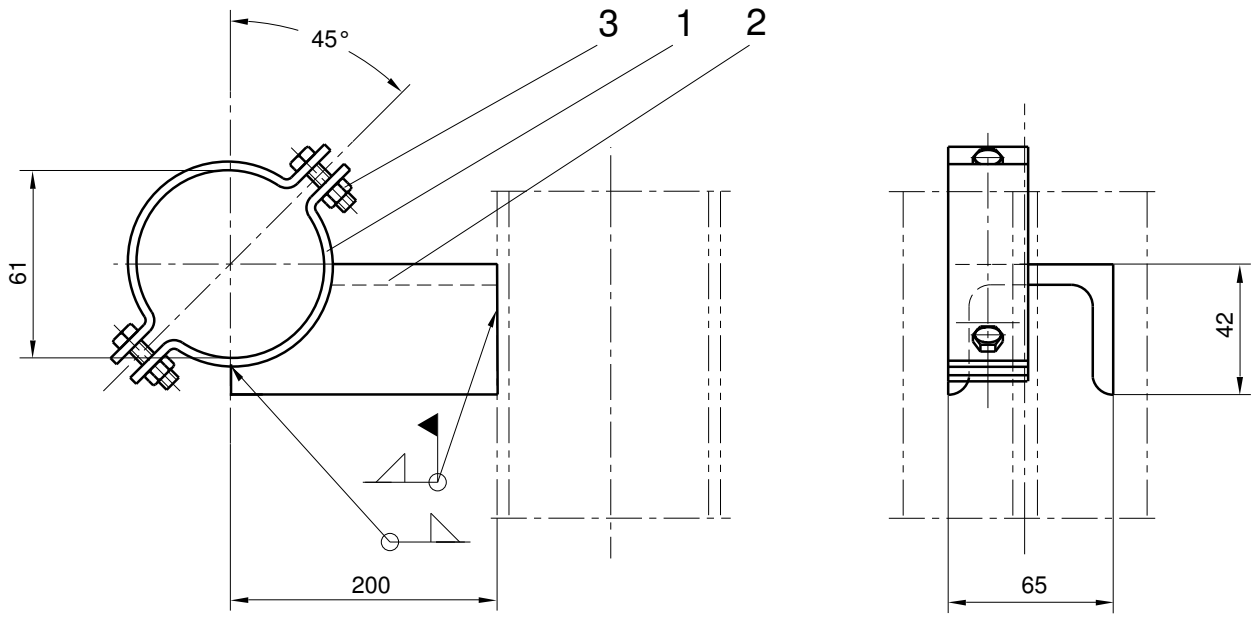
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: AEX003D Marking : 50/200

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	CHANNEL U 65 x 200	DIN 1026	1.0038	GU0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,170 kg

1) A193GR.B7/A194GR.2H

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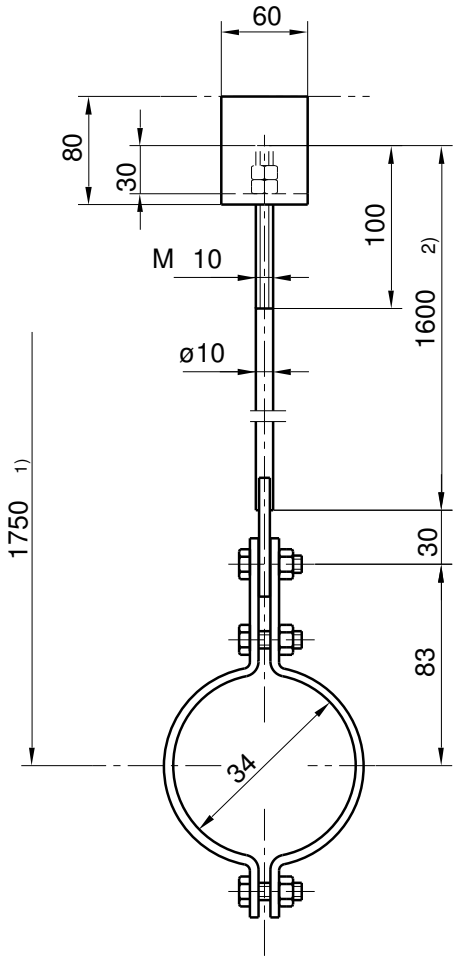
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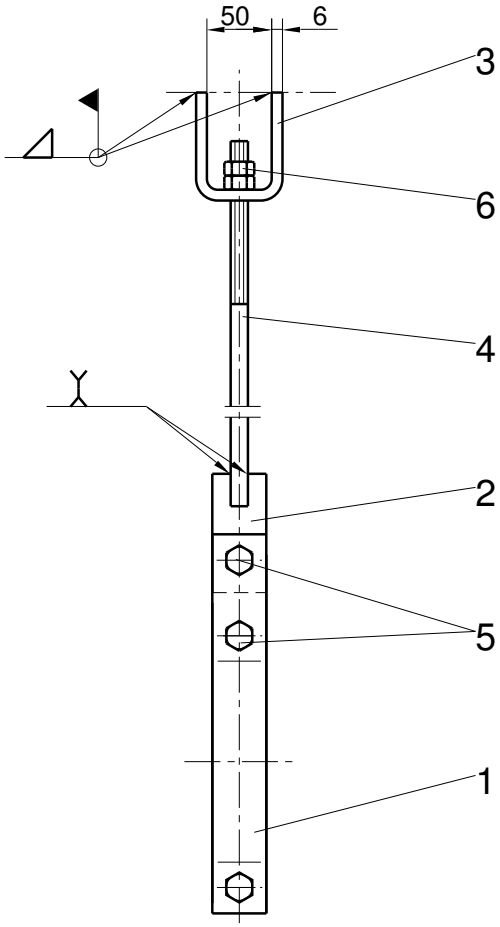
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 25/1750





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1600	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 34	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 2,170 kg

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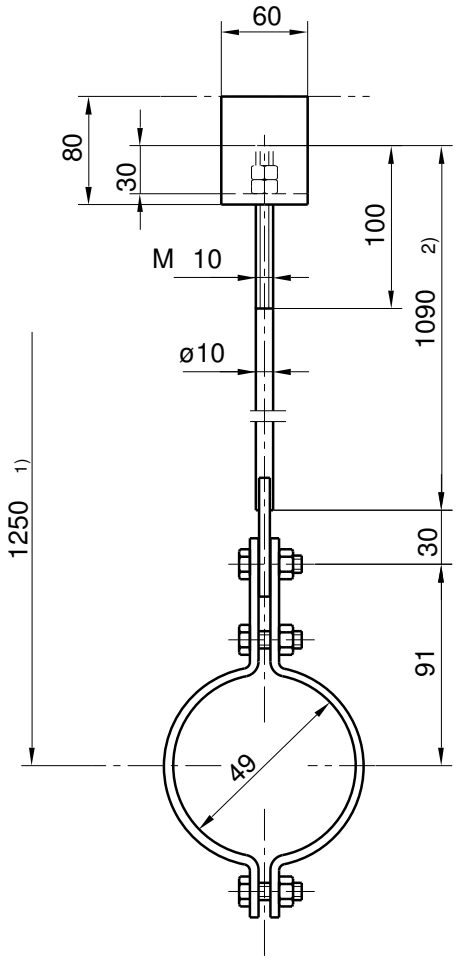
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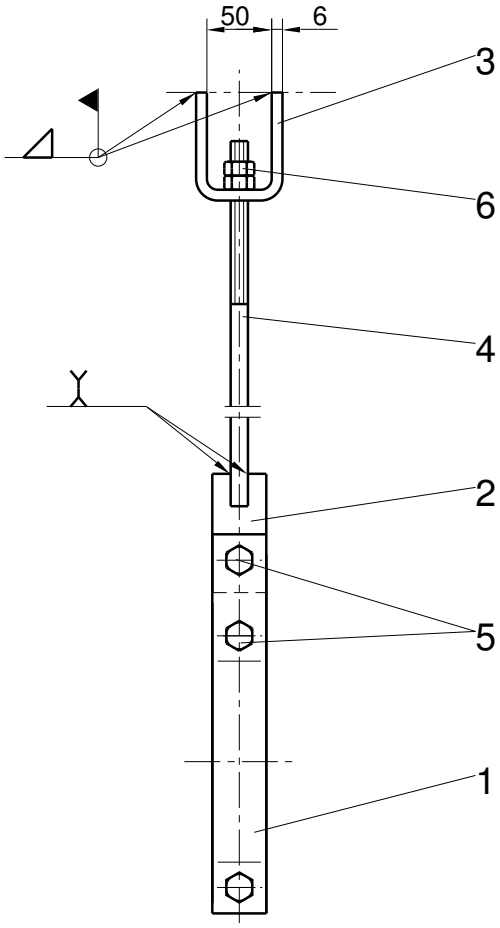
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 40/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1090	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 49	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 1,900 kg

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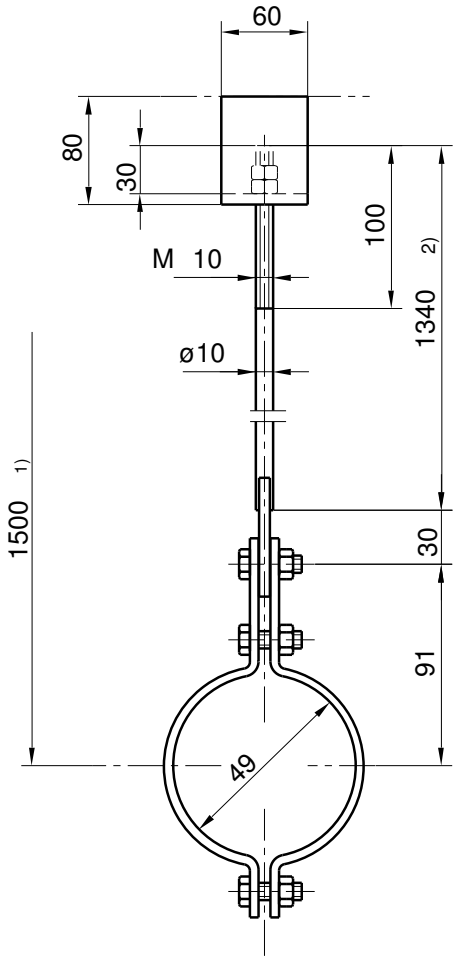
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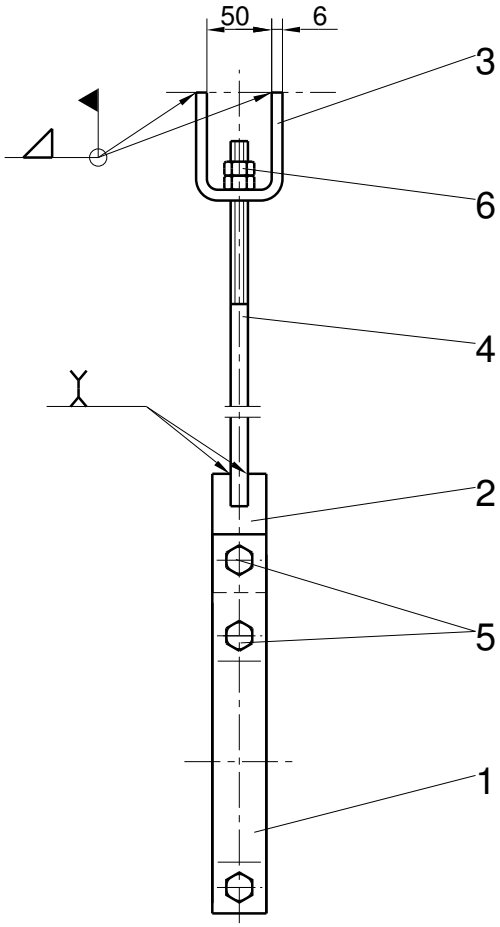
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 40/1500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 1340	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 49	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 2,060 kg

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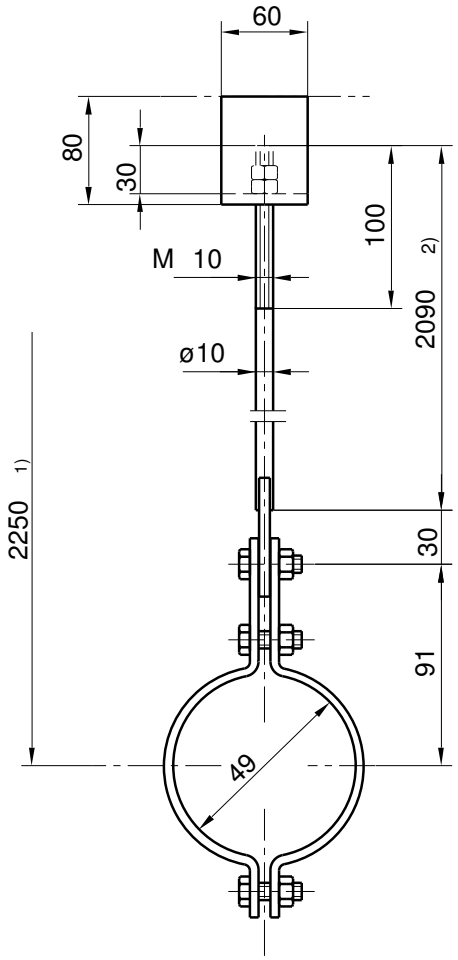
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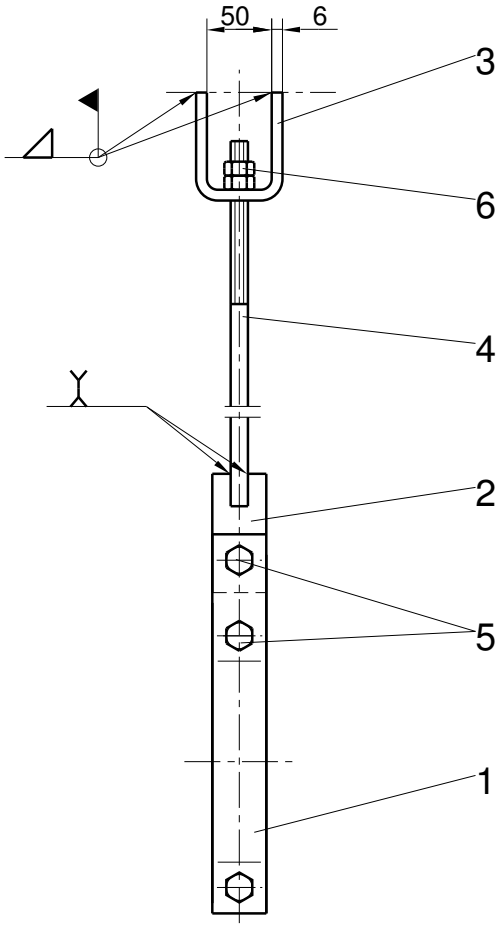
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 40/2250





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 10	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 10 x 2090	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 80	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 70/11	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 49	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 2,520 kg

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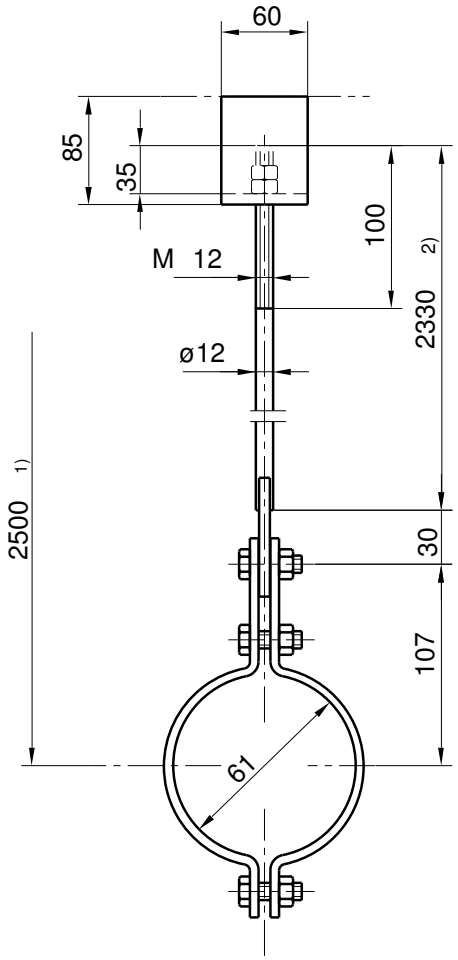
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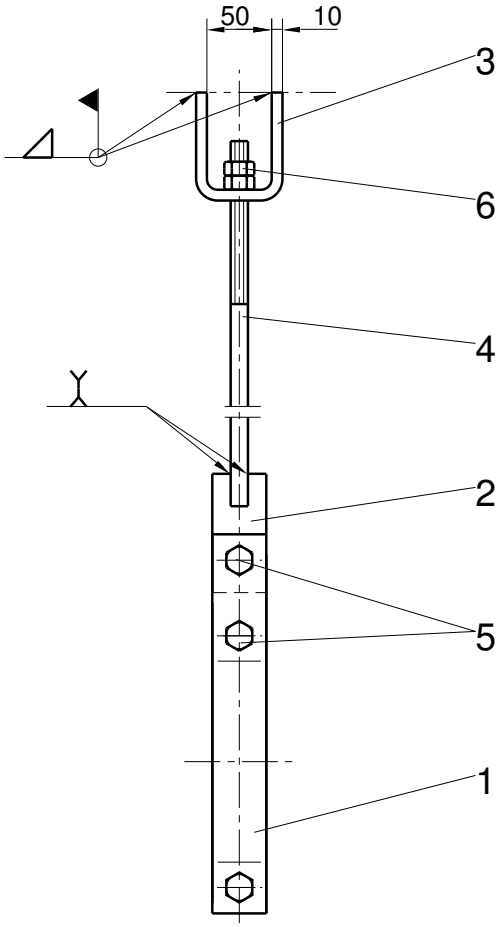
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 50/2500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 12 x 2330	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 85	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 80/13,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 61	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 4,280 kg

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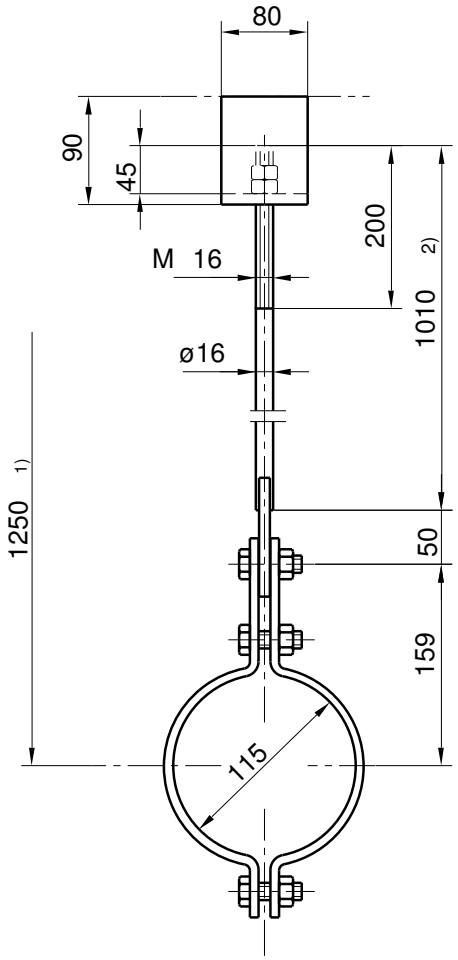
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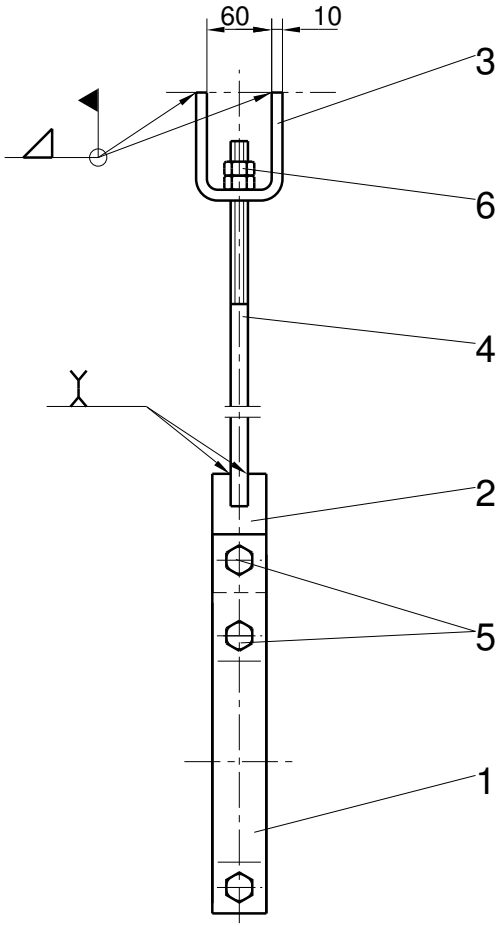
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 100/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1010	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,060 kg

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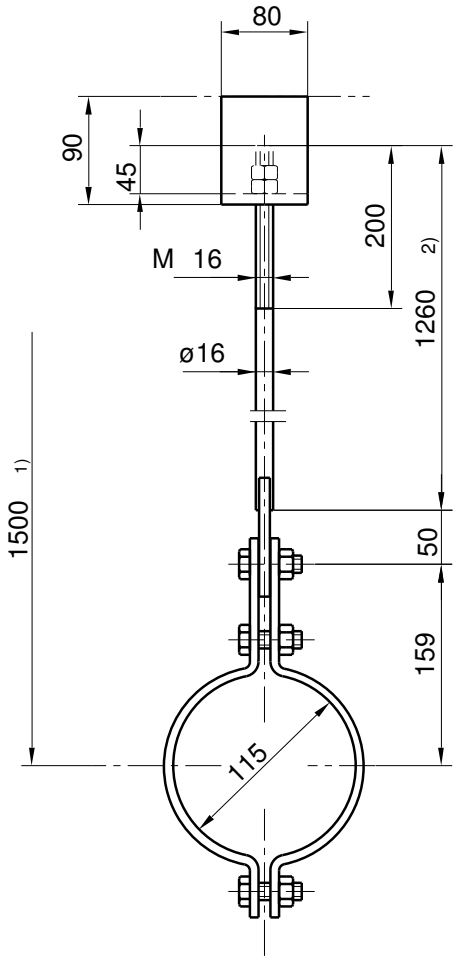
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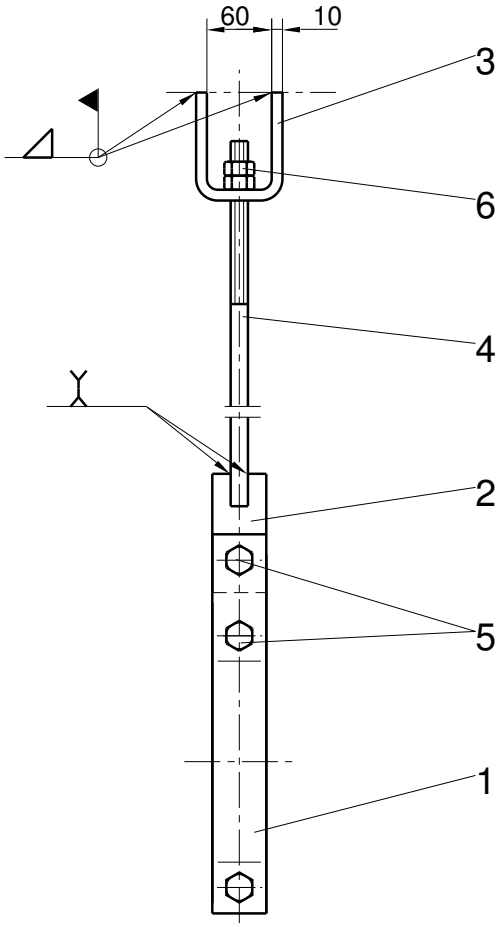
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: HAX003D Marking : 100/1500





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1260	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,460 kg

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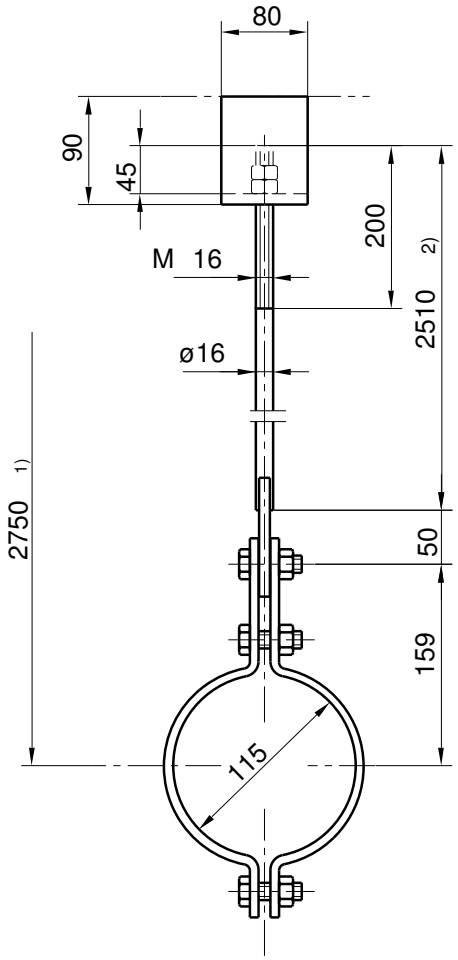
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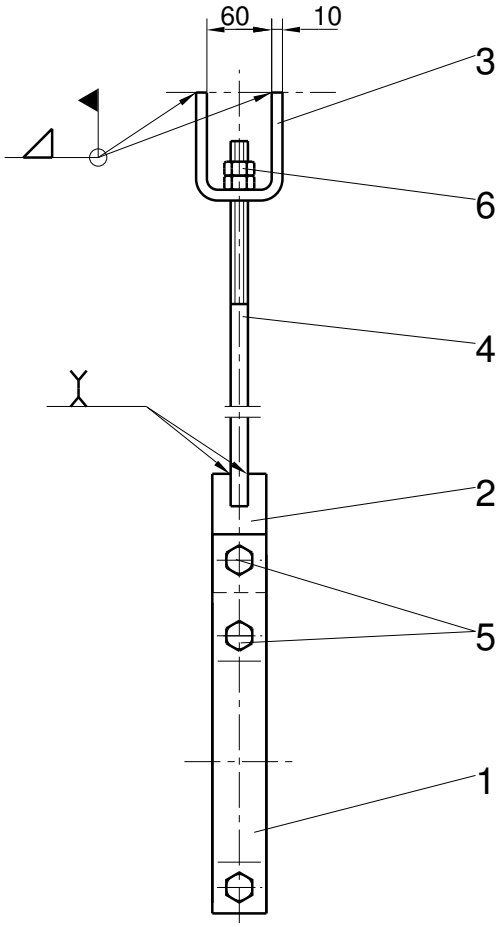
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 100/2750

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 2510	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 8,430 kg

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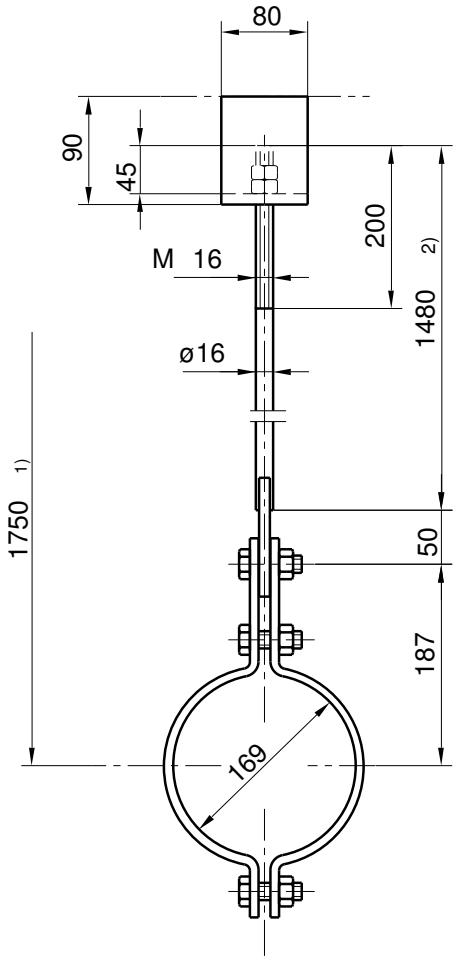
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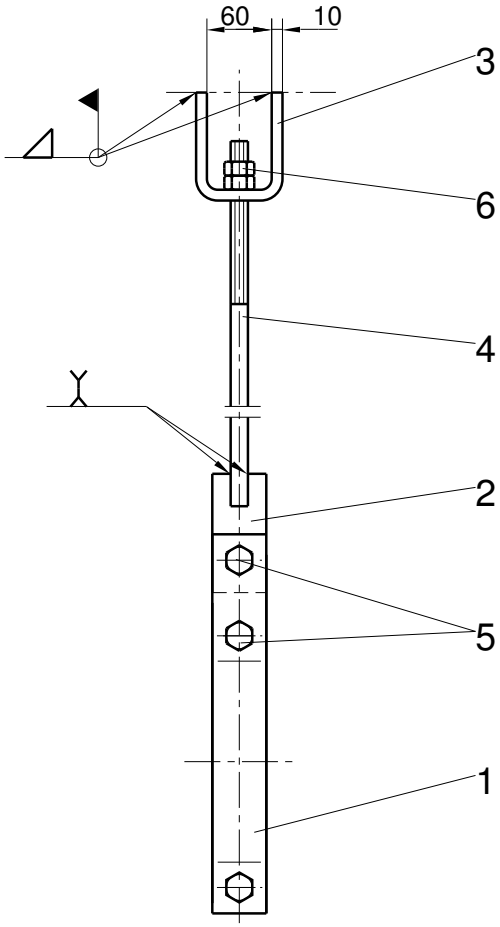
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 150/1750

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1480	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 169	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 7,350 kg

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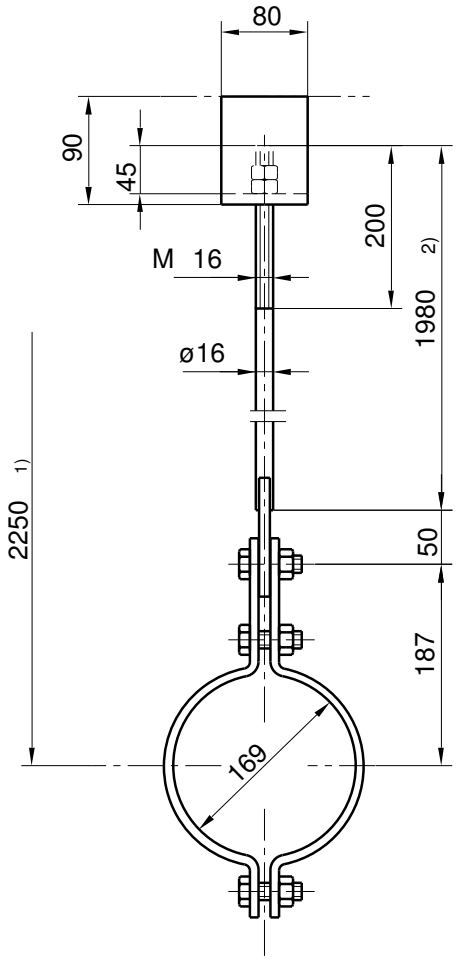
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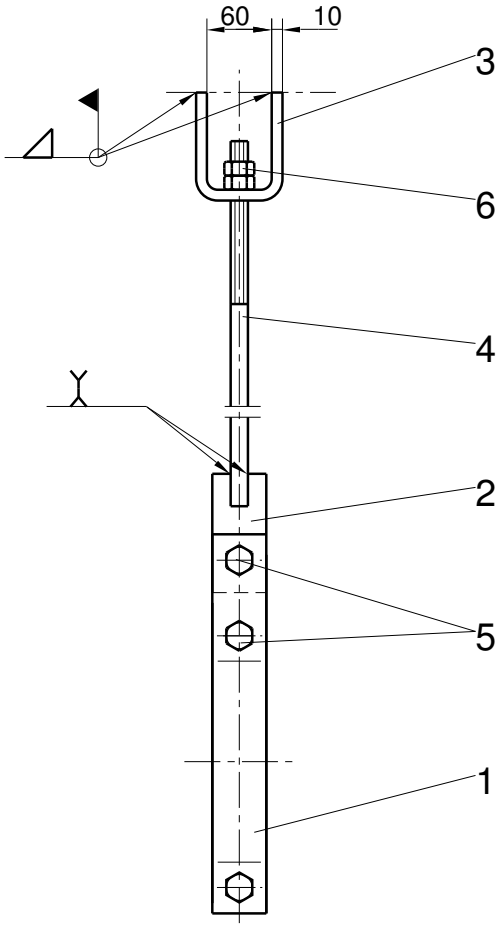
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX003D Marking : 150/2250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1980	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 169	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 8,140 kg

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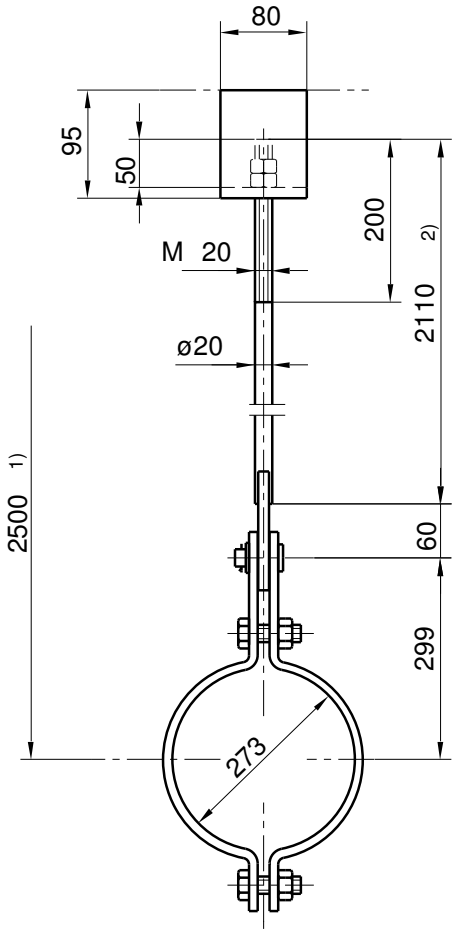
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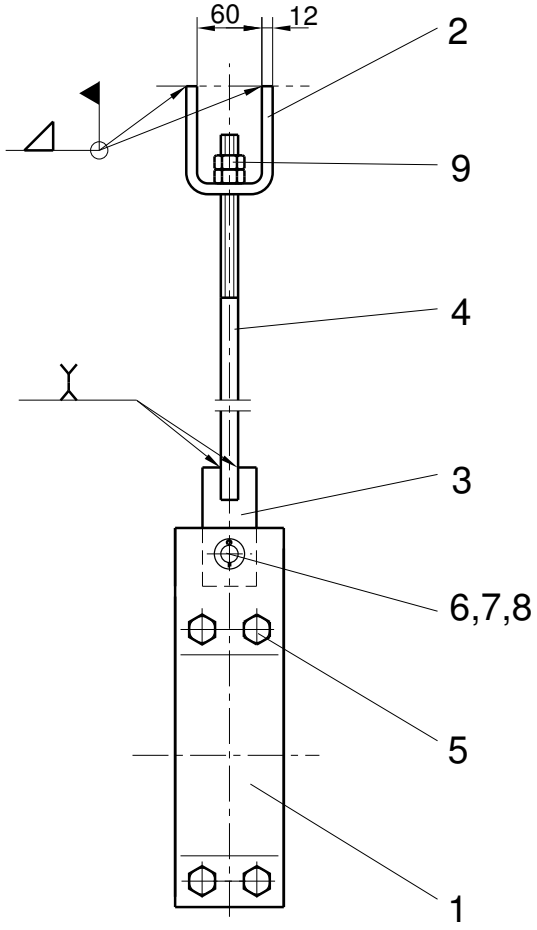
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX004D Marking : 250/2500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 2110	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 273	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 27,690 kg

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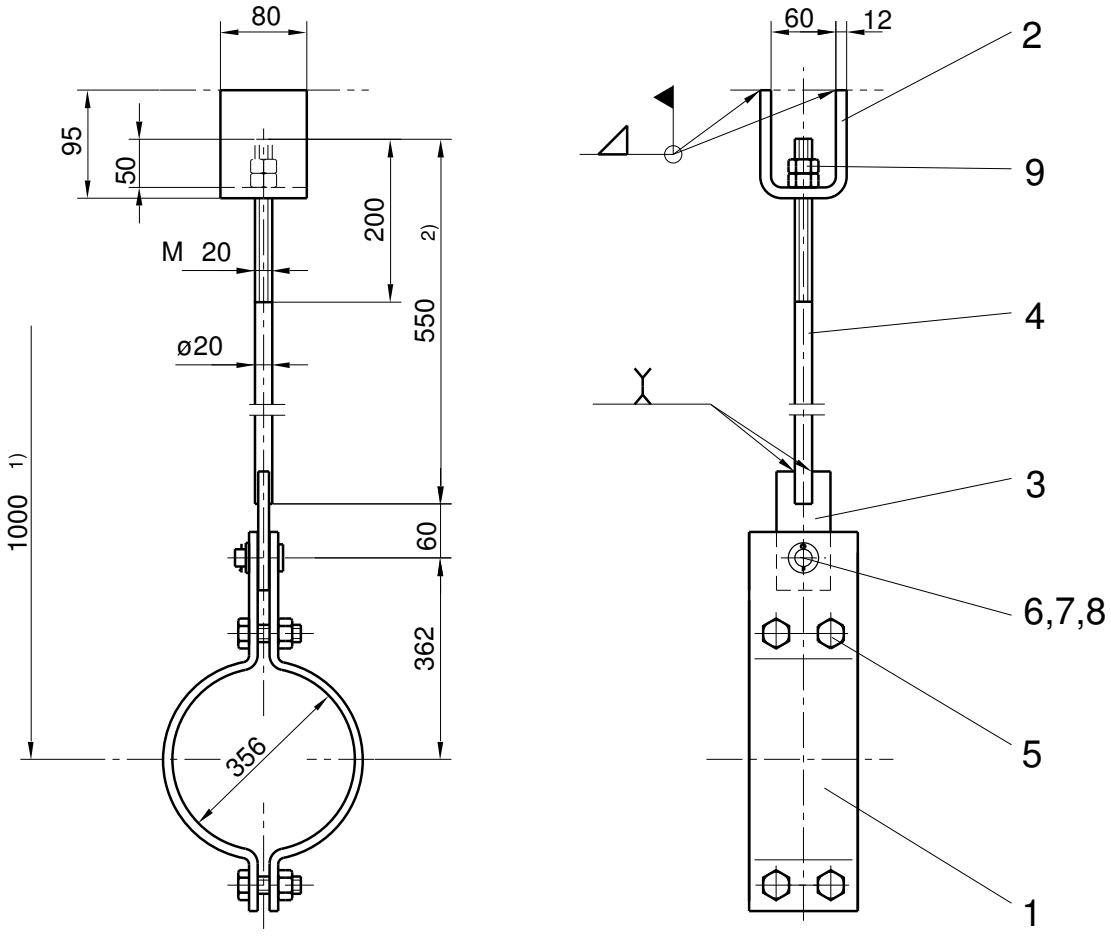
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX004D Marking : 350/1000

U Item



1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 550	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 356	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 28,080 kg

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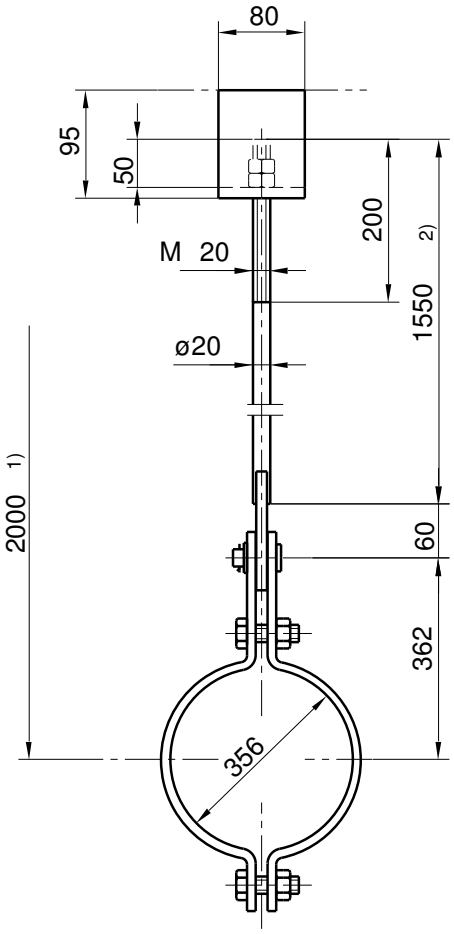
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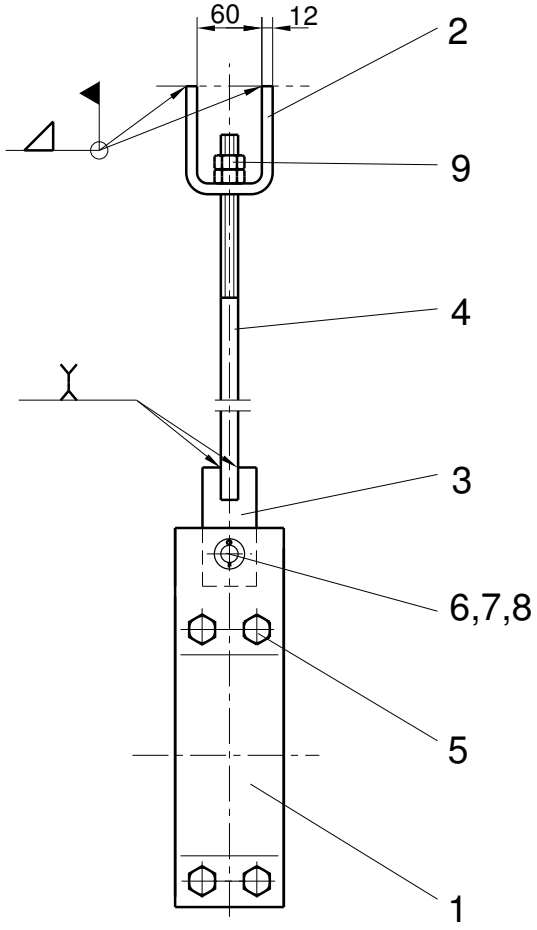
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX004D Marking : 350/2000

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 1550	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 356	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 30,550 kg

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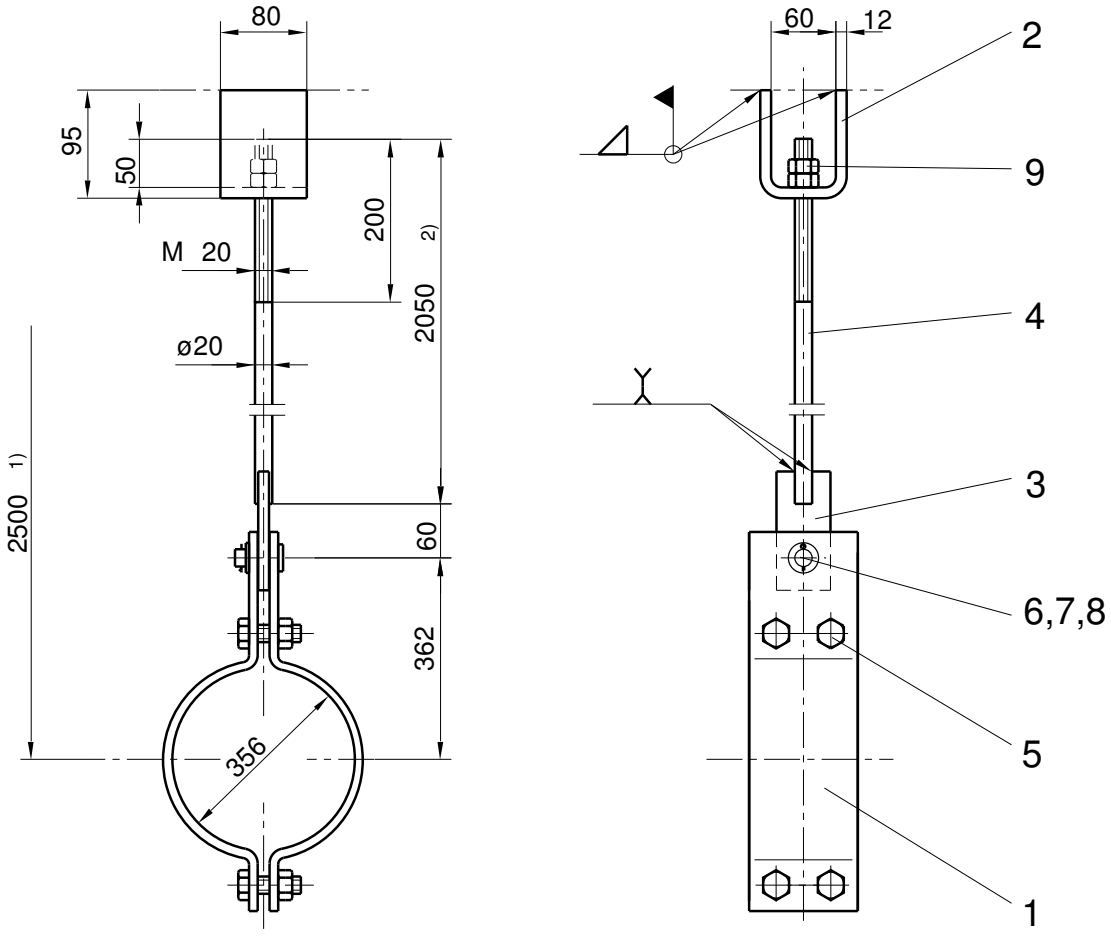
V = Process, TON (L = Line, S = Train, U = Unit, Item)

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX004D Marking : 350/2500

U Item



1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 20	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 20 x 2050	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 140/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 95	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 356	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 31,780 kg

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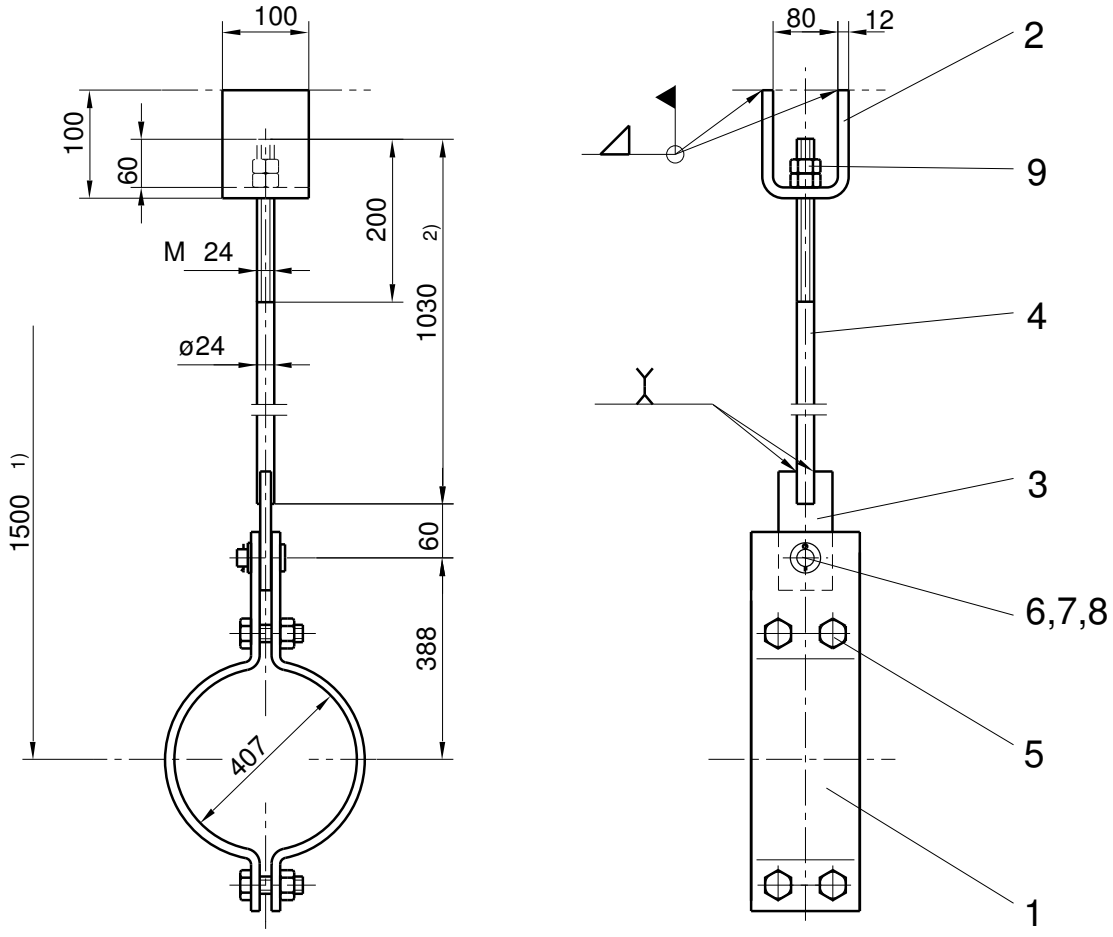
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX004D Marking : 400/1500

U Item



1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 24	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 24 x 1030	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 150/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 100	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 407	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 33,930 kg

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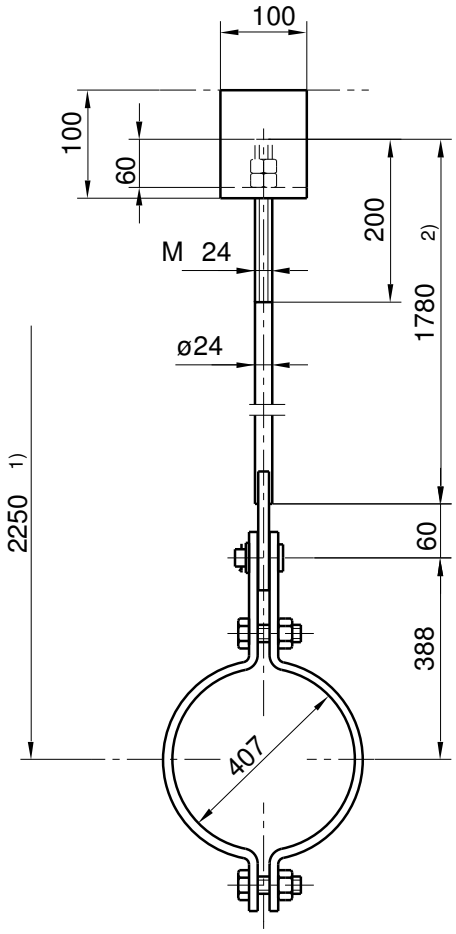
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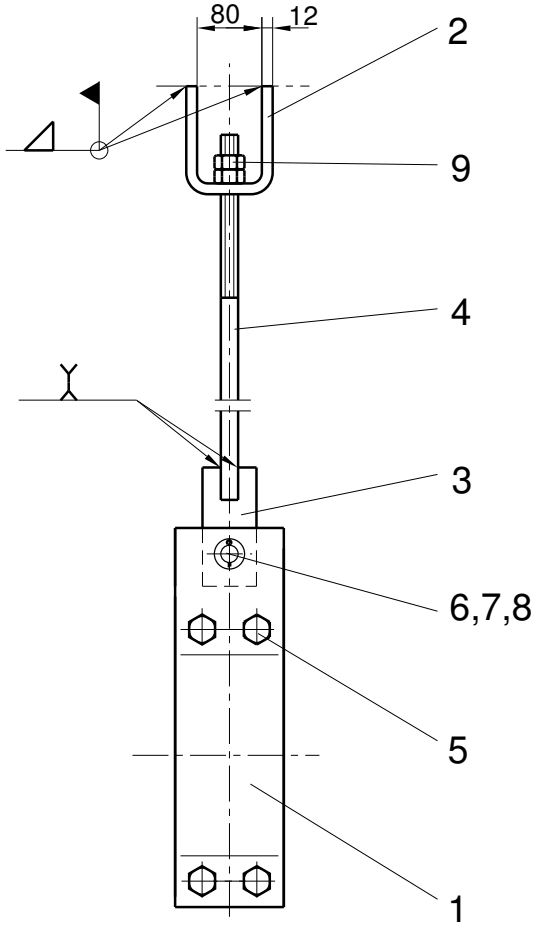
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX004D Marking : 400/2250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 24	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 24 x 1780	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 150/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 100	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 407	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 36,590 kg

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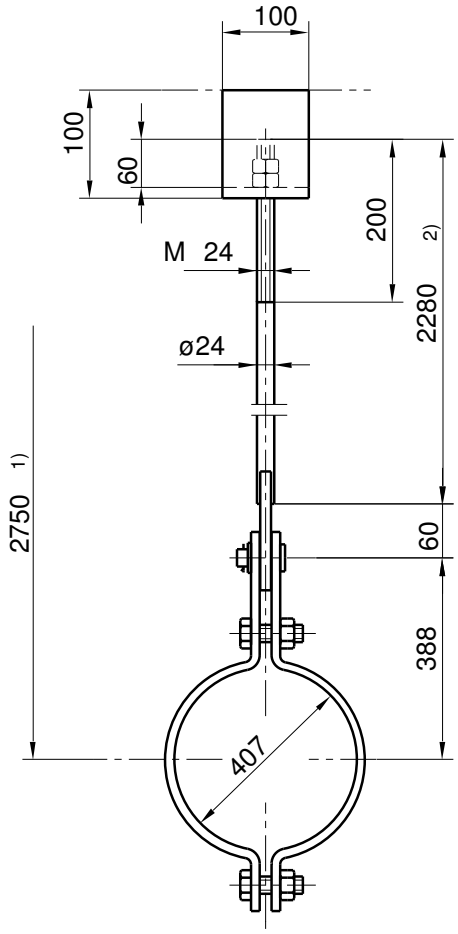
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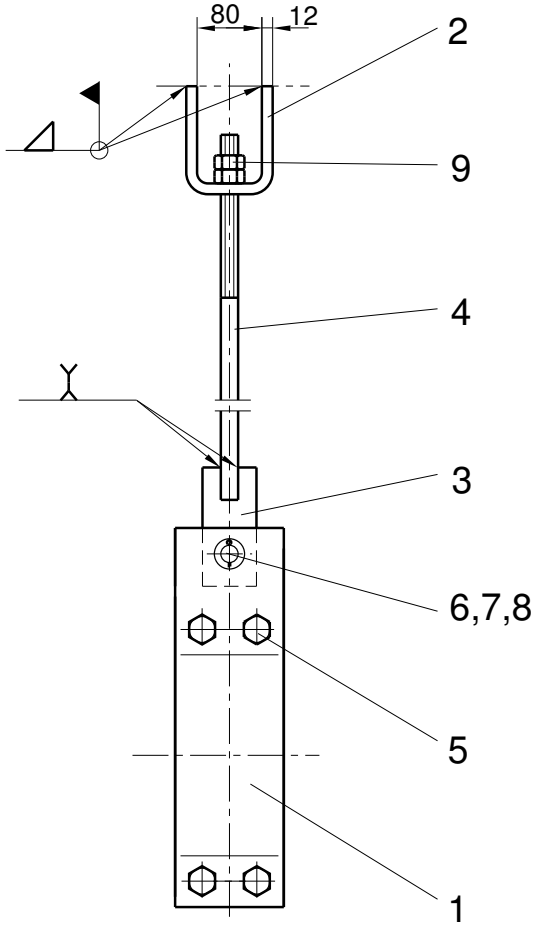
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: HAX004D Marking : 400/2750

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
9	2	HEXAGON NUT M 24	DIN 555	5	MM0001D
8	1	SPLIT PIN 6,3 x 40	DIN 94	STEEL	MP0011D
7	1	WASHER 25	DIN 1441	STEEL	MU0011D
6	1	CLEVIS PIN WITH HEAD 24 x 90	DIN 1444	1.0718	MI0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 100 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 24 x 2280	DIN 1013, P. 1	1.0036	GO0001D
3	1	ANCHOR CLIP 150/26	UN 3790-09	1.0038	OA0001D
2	1	U-SHAPED ATTACHMENT, TYPE 1 100	UN 3790-09	1.0038	MD0001D
1	1	CLAMP FORM BS, TYPE 2 DS 407	UN 3790-11	1.0038	MS0071D

Remarks: Total weight = 38,360 kg

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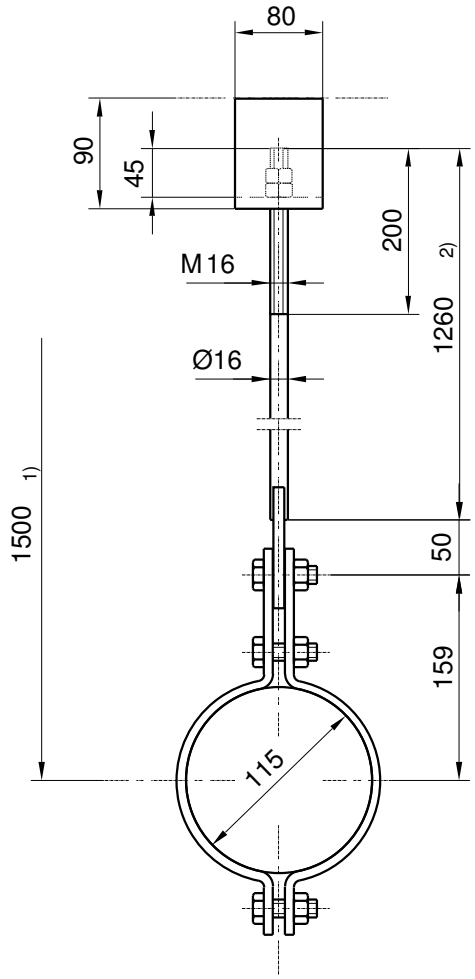
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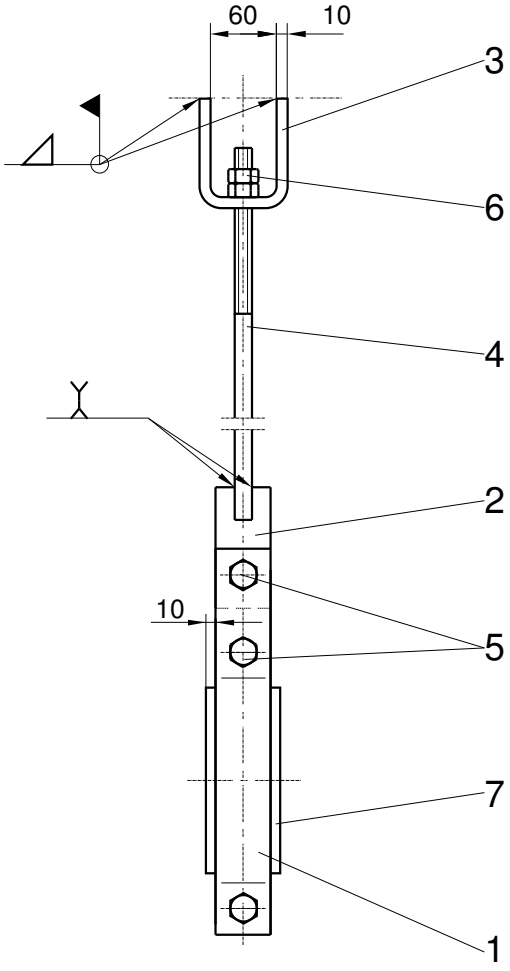
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX053D Marking : 100/1500

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	1	SHEET LINER 0,5 x 70 x 381	UN 3790-14	A240GR.321	OE0041D
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 1260	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 115	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 6,560 kg

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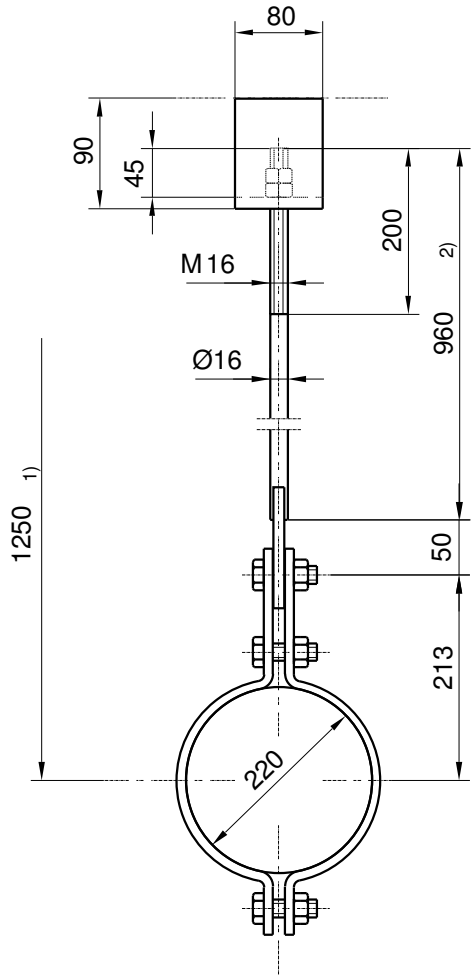
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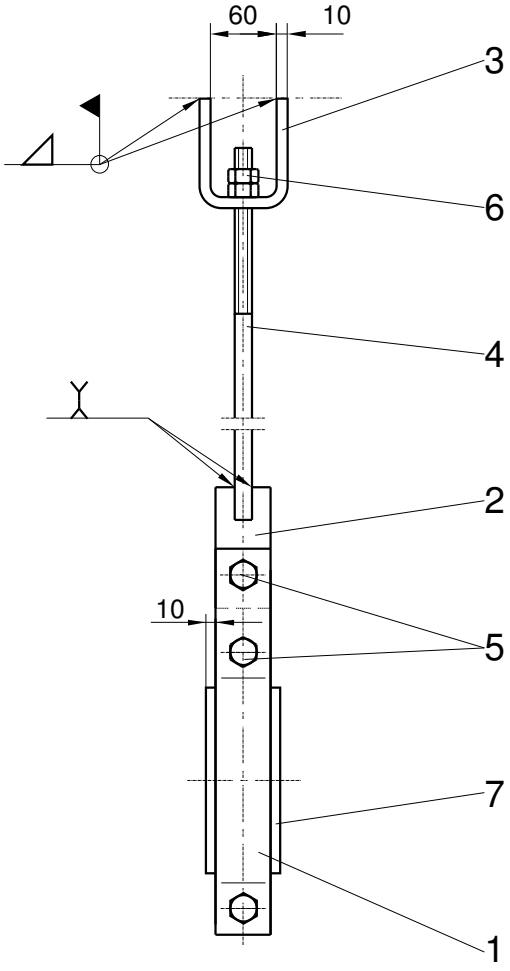
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: HAX053D Marking : 200/1250

U Item





1) Overall length up to structural point of attachment
2) Allowance length

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
7	1	SHEET LINER 0,5 x 70 x 711	UN 3790-14	A240GR.321	OE0041D
6	2	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	3	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	DIN 933/934	5.6/6	MB0021D
4	1	ROUND BAR 16 x 960	DIN 1013, P. 1	1.0036	GO0001D
3	1	U-SHAPED ATTACHMENT, TYPE 1 90	UN 3790-09	1.0038	MD0001D
2	1	ANCHOR CLIP 110/17,5	UN 3790-09	1.0038	OA0001D
1	1	CLAMP FORM BS, TYPE 1 DS 220	UN 3790-11	1.0038	MS0061D

Remarks: Total weight = 7,230 kg

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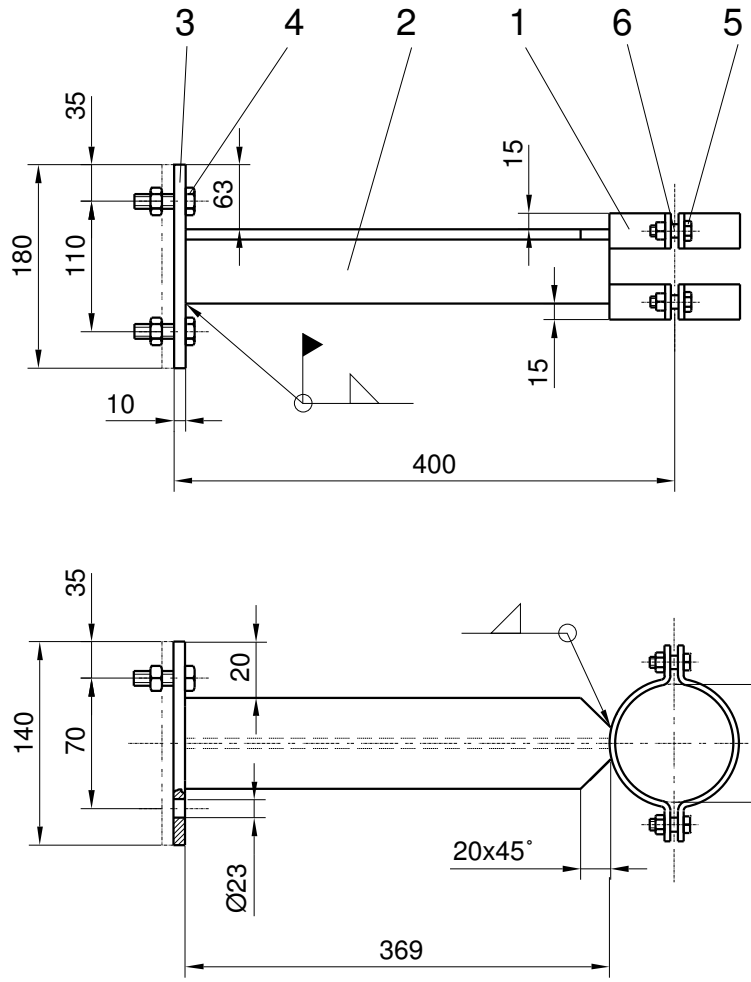
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB001D Marking : 50/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 10	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 369	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 10,530 kg

1) A193GR.B7/A194GR.2H

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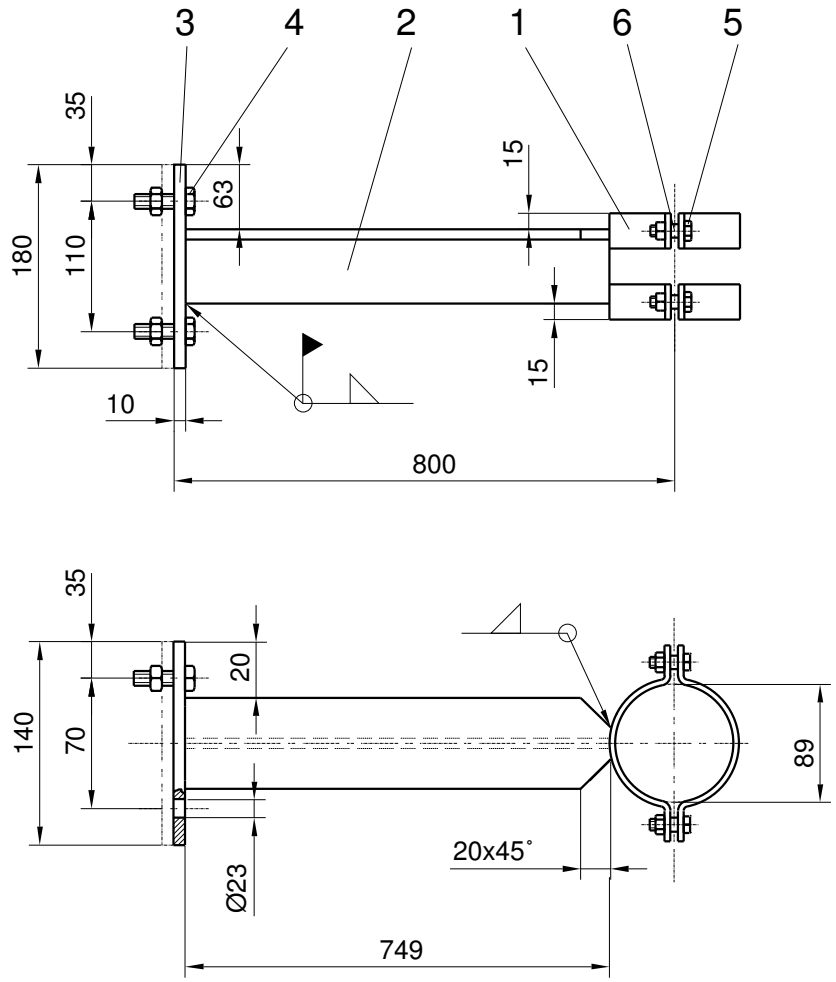
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB001D Marking : 80/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 10	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 749	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 17,070 kg

1) A193GR.B7/A194GR.2H

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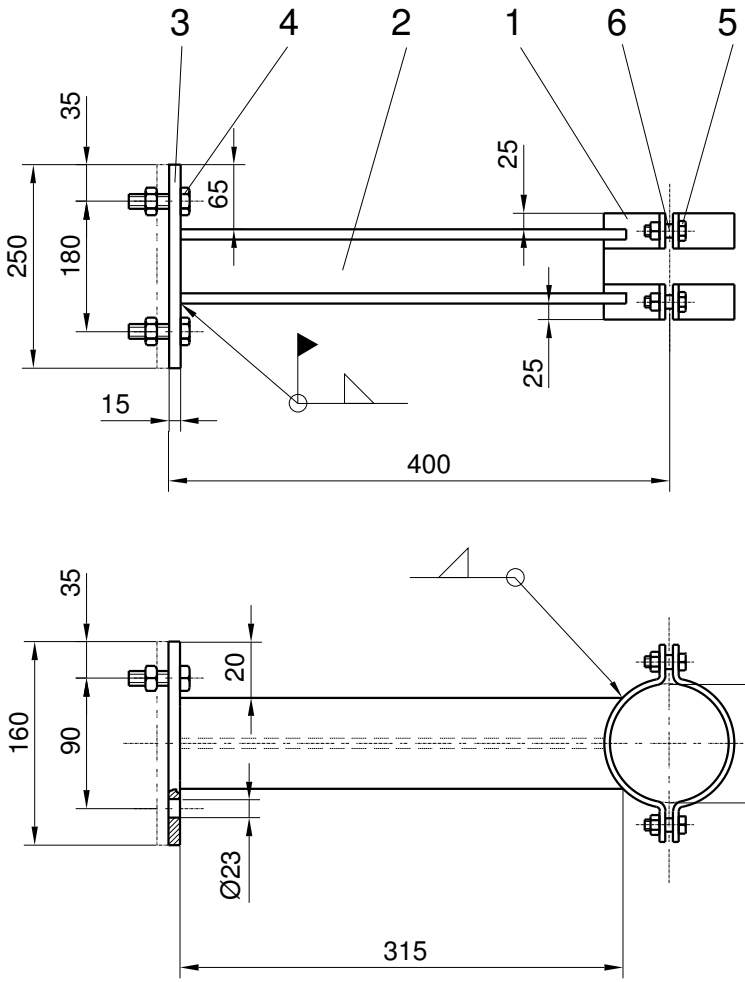
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB003D Marking : 150/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 315	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,210 kg

1) A193GR.B7/A194GR.2H

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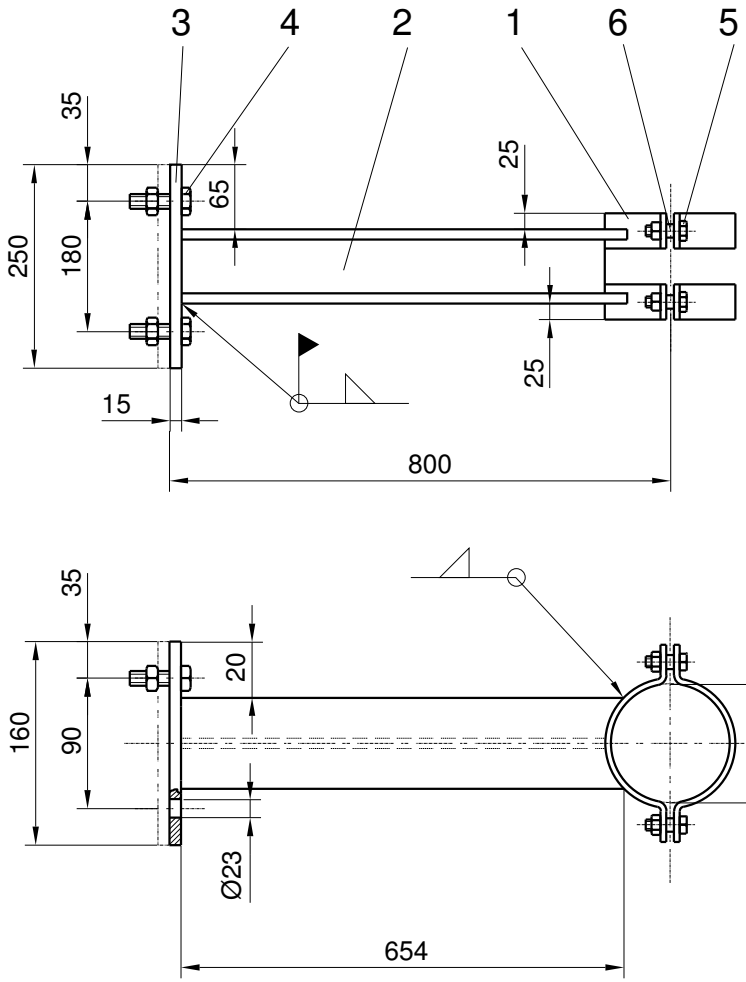
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB053D Marking : 250/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	4	PIPE 33,7 x 2,6 x 15	EN 10220	A53GR.B	GR0001D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 654	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 32,400 kg

1) A193GR.B7/A194GR.2H

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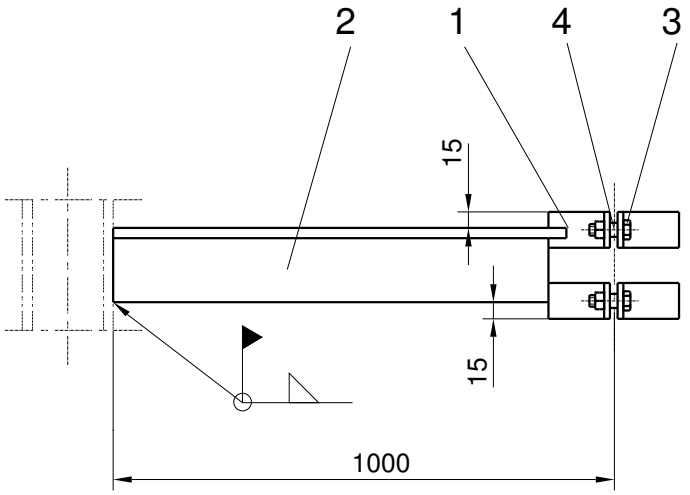
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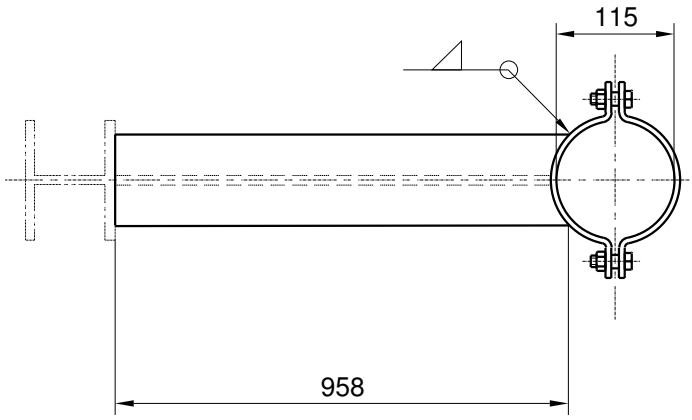
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB902D Marking : 100/1000

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 958	DIN 1024	1.0038	GT0021D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 20,470 kg

1) A193GR.B7/A194GR.2H

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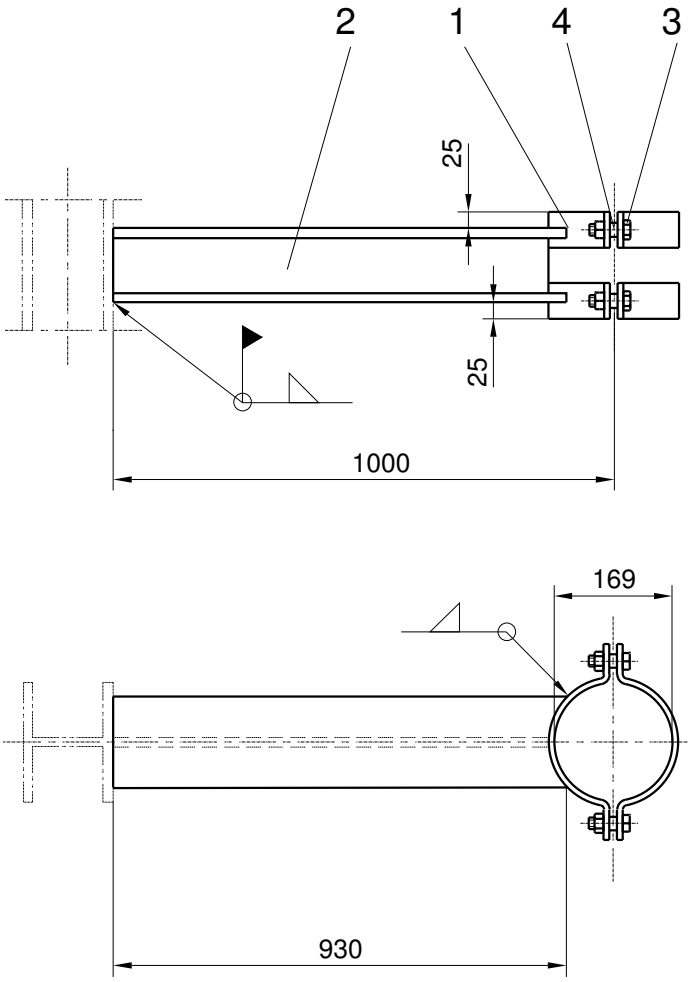
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB903D Marking : 150/1000

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 930	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 30,510 kg

1) A193GR.B7/A194GR.2H

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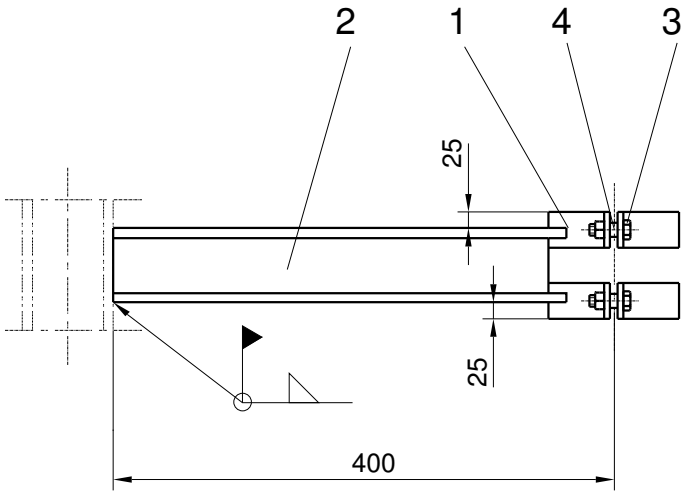
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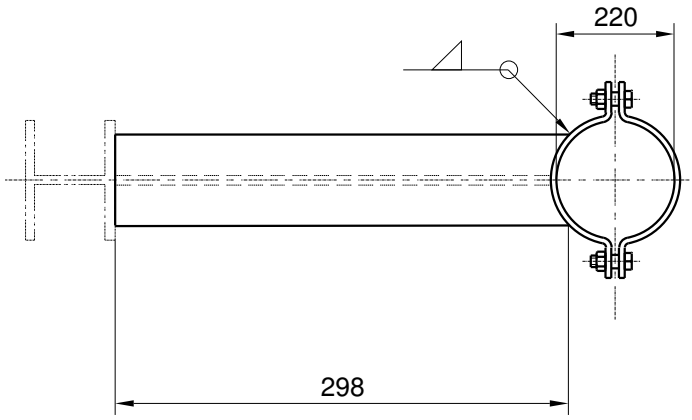
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PIPE SUPPORT

Code No.: KNB903D Marking : 200/400

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 298	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,660 kg

1) A193GR.B7/A194GR.2H

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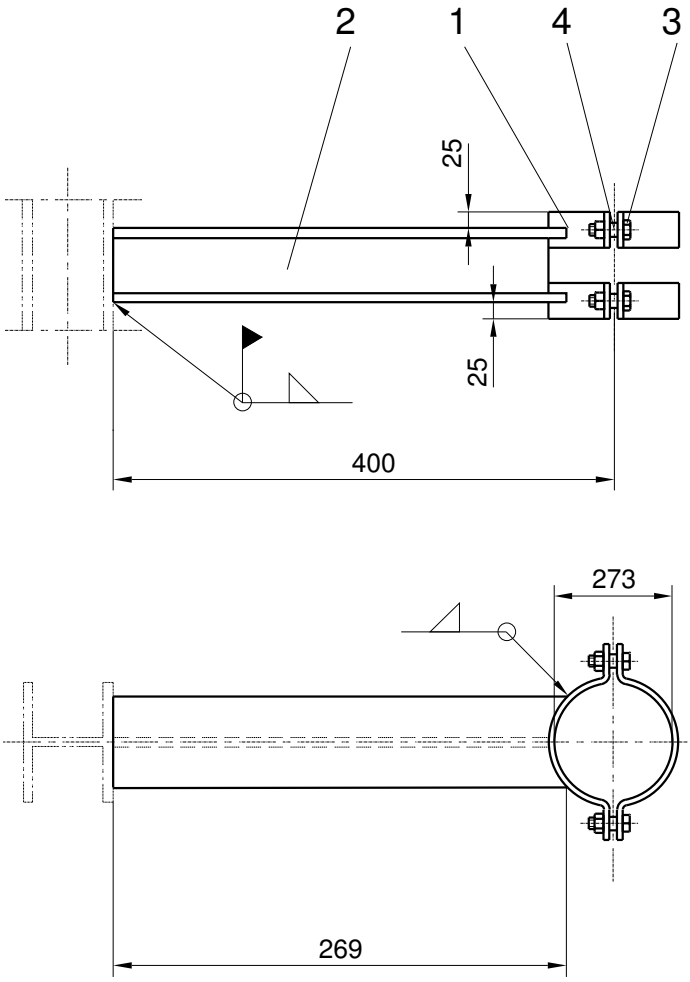
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB903D Marking : 250/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 33,7 x 2,6 x 15	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 269	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 17,000 kg

1) A193GR.B7/A194GR.2H

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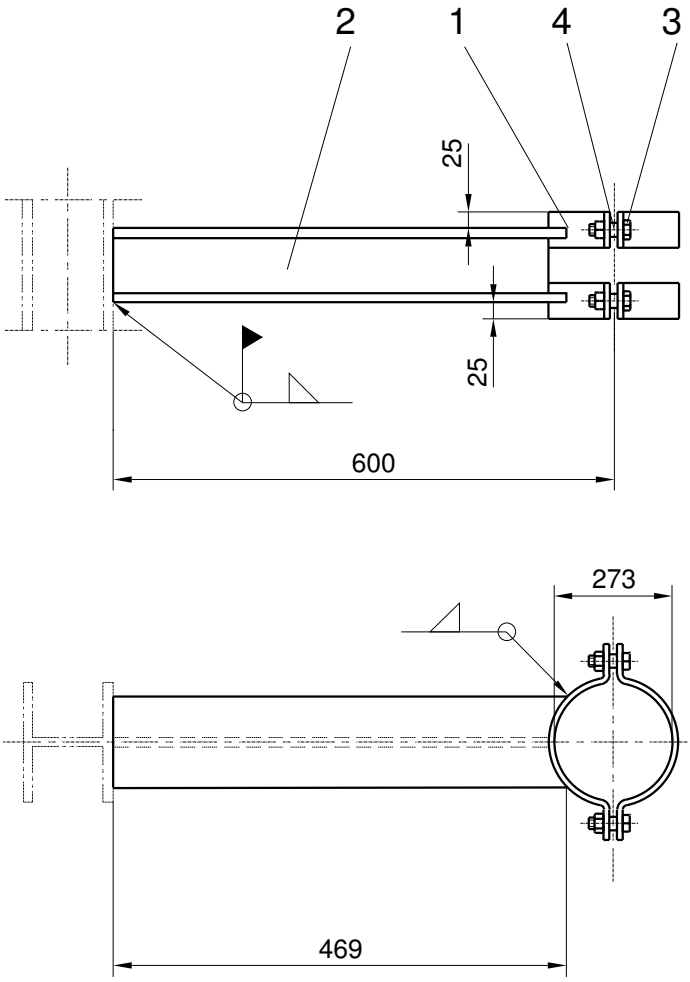
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB903D Marking : 250/600

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 33,7 x 2,6 x 15	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 469	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 22,340 kg

1) A193GR.B7/A194GR.2H

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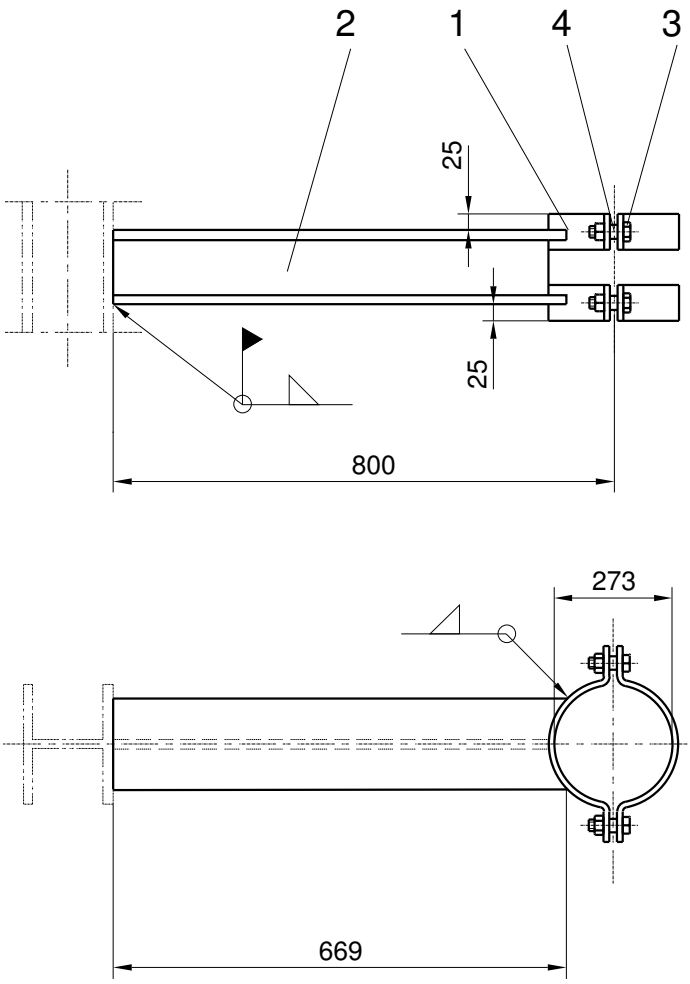
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: KNB903D Marking : 250/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	PIPE 33,7 x 2,6 x 15	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 669	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 27,680 kg

1) A193GR.B7/A194GR.2H

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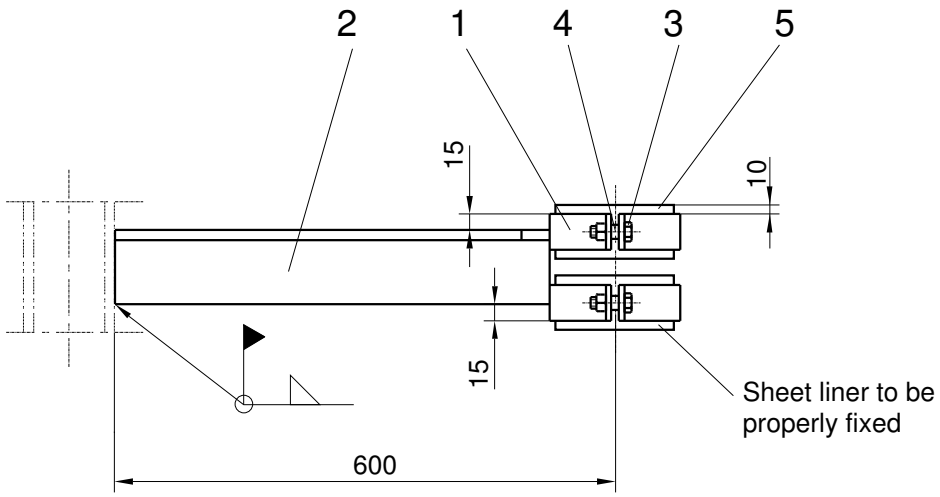
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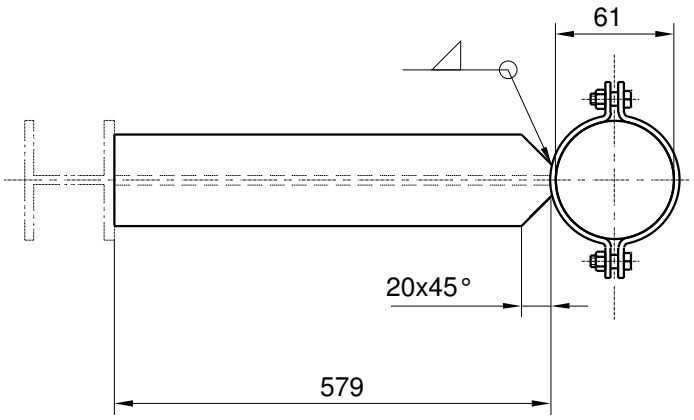
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB951D Marking : 50/600

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 579	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 11,830 kg

1) A193GR.B7/A194GR.2H

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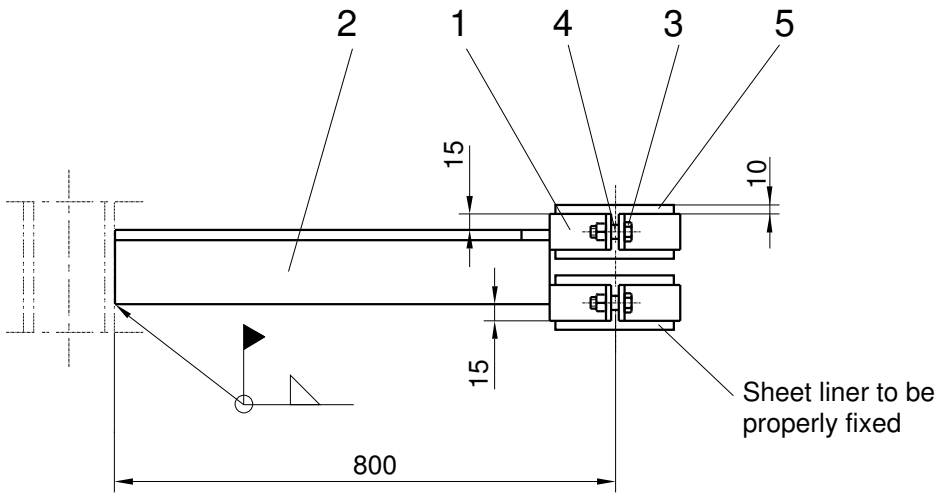
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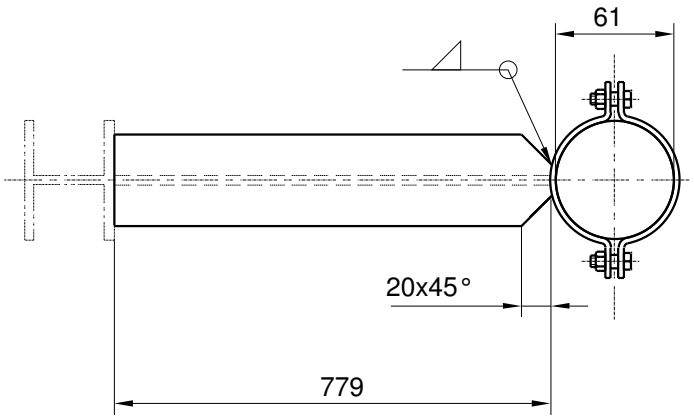
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB951D Marking : 50/800

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 60 x 207	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 21,3 x 2 x 12	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
2	1	T-BAR T 100 x 779	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 15,110 kg

1) A193GR.B7/A194GR.2H

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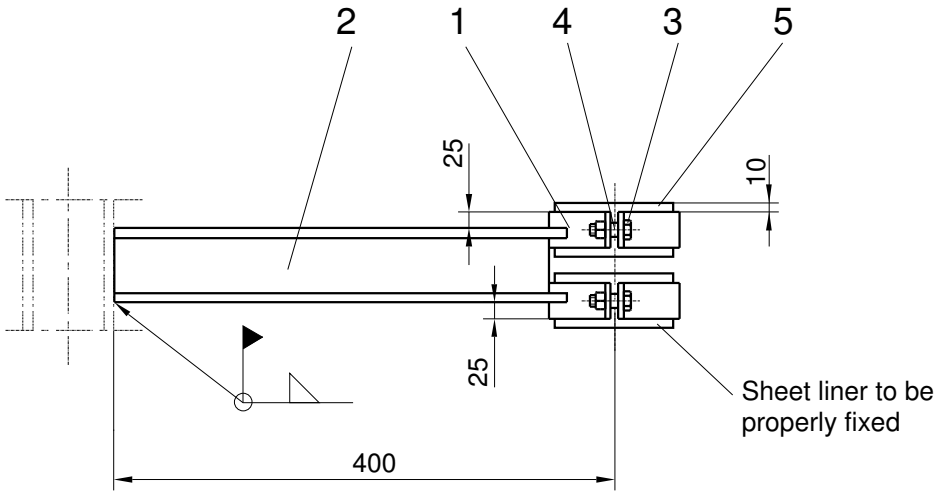
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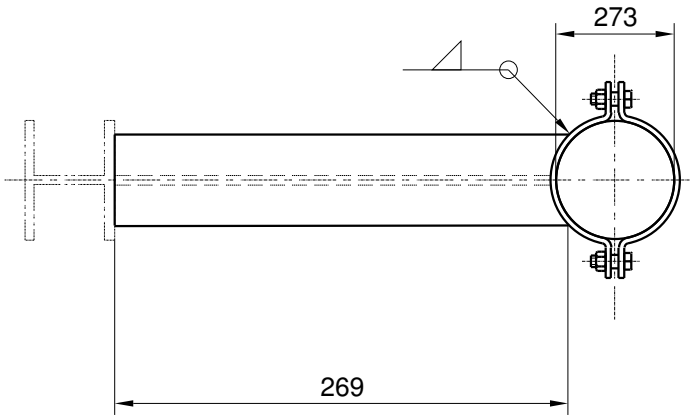
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB953D Marking : 250/400

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 33,7 x 2,6 x 17	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 269	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 17,000 kg

1) A193GR.B7/A194GR.2H

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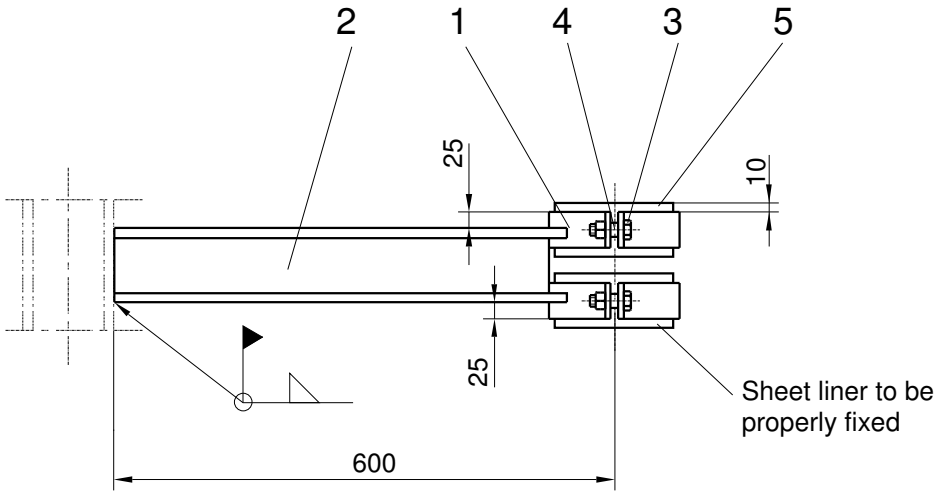
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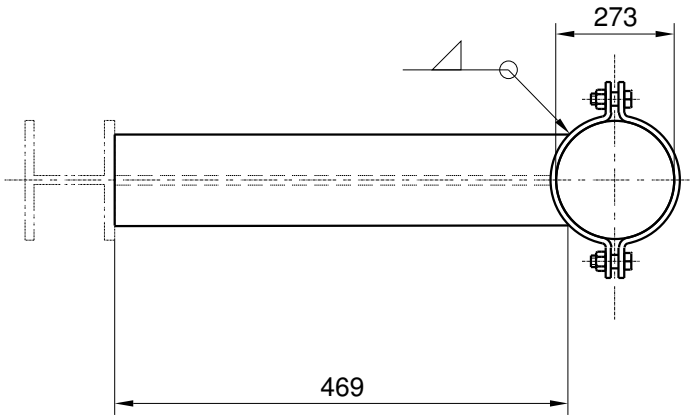
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB953D Marking : 250/600

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 33,7 x 2,6 x 17	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 469	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 22,340 kg

1) A193GR.B7/A194GR.2H

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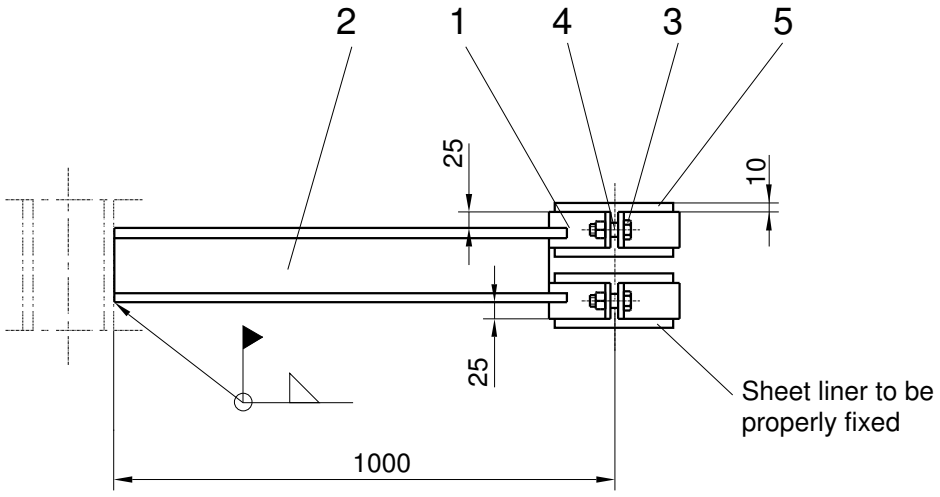
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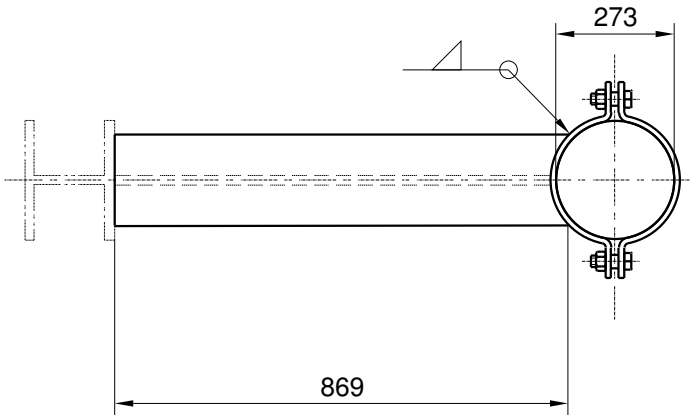
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNB953D Marking : 250/1000

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
4	4	PIPE 33,7 x 2,6 x 17	EN 10220	A53GR.B	GR0001D
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 869	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 33,020 kg

1) A193GR.B7/A194GR.2H

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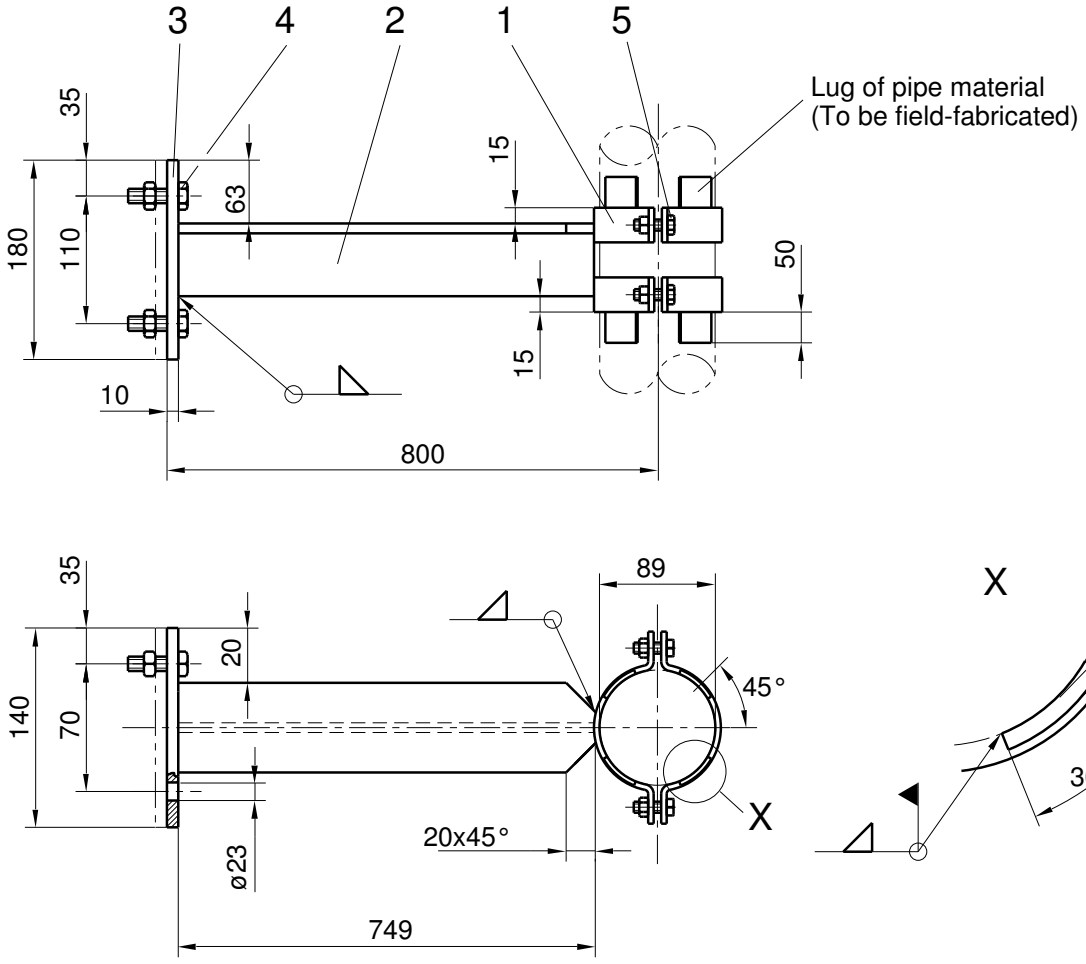
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC001D Marking : 80/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 50 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 10 x 140 x 180	DIN 1543	1.0038	GB0041D
2	1	T-BAR T 100 x 749	DIN 1024	1.0038	GT0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 17,030 kg

1) A193GR.B7/A194GR.2H

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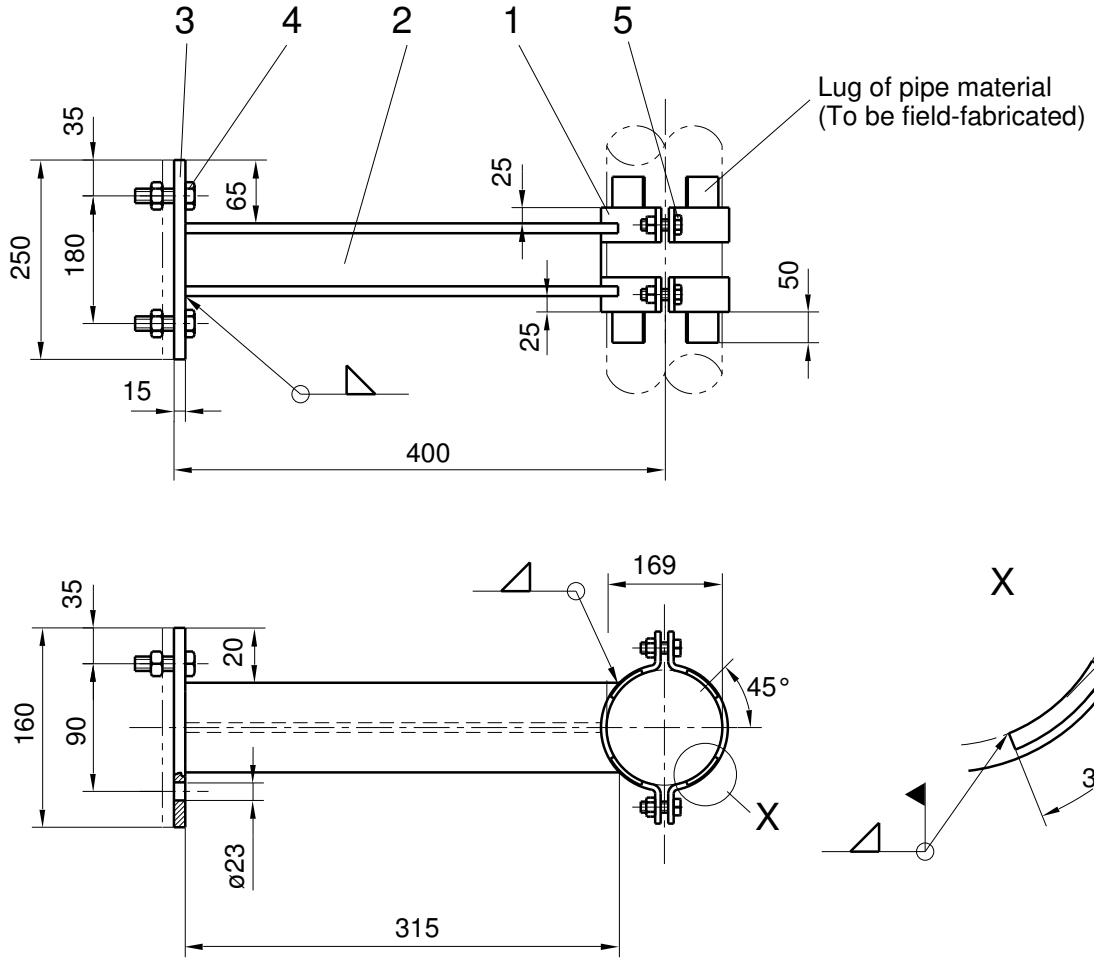
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC003D Marking : 150/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 315	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 19,170 kg

1) A193GR.B7/A194GR.2H

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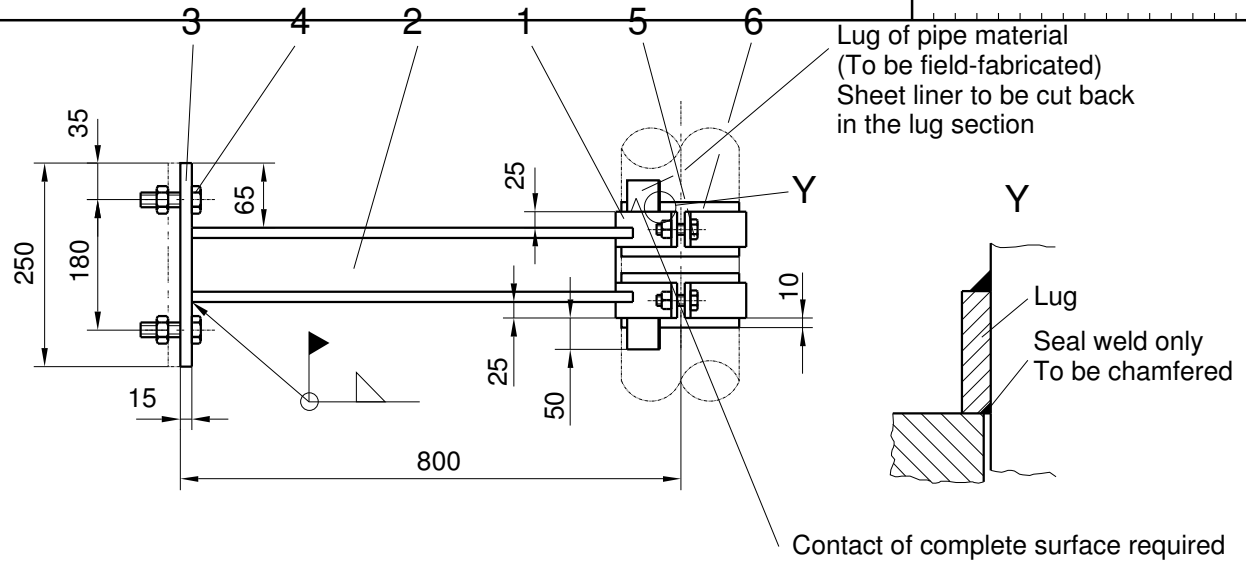
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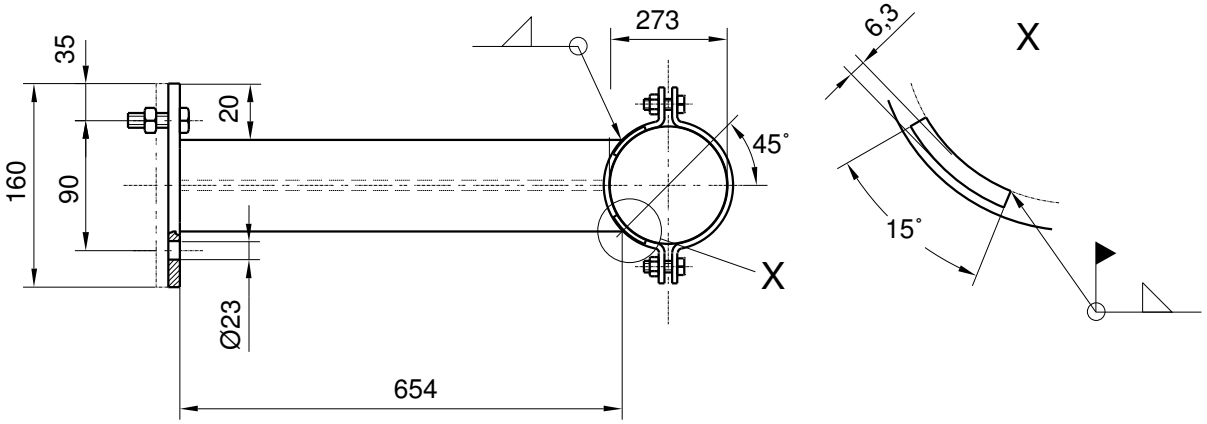
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

U Item

PIPE SUPPORT

Code No.: KNC053D Marking : 250/800





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	2	SHEET LINER 0,5 x 80 x 888	UN 3790-14	A240GR.321	OE0041D
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 654	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 32,840 kg

1) A193GR.B7/A194GR.2H

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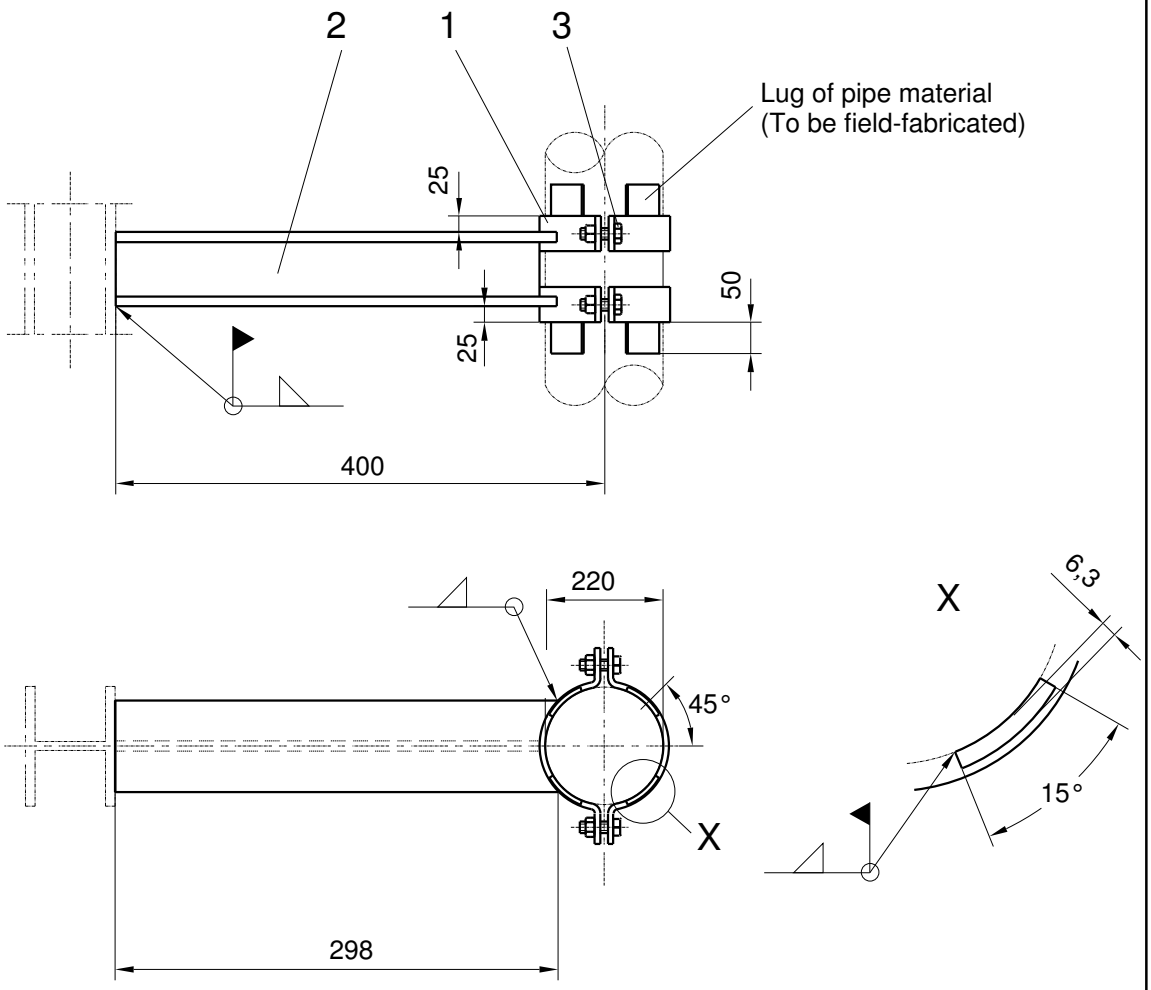
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 200/400

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 298	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 14,620 kg

1) A193GR.B7/A194GR.2H

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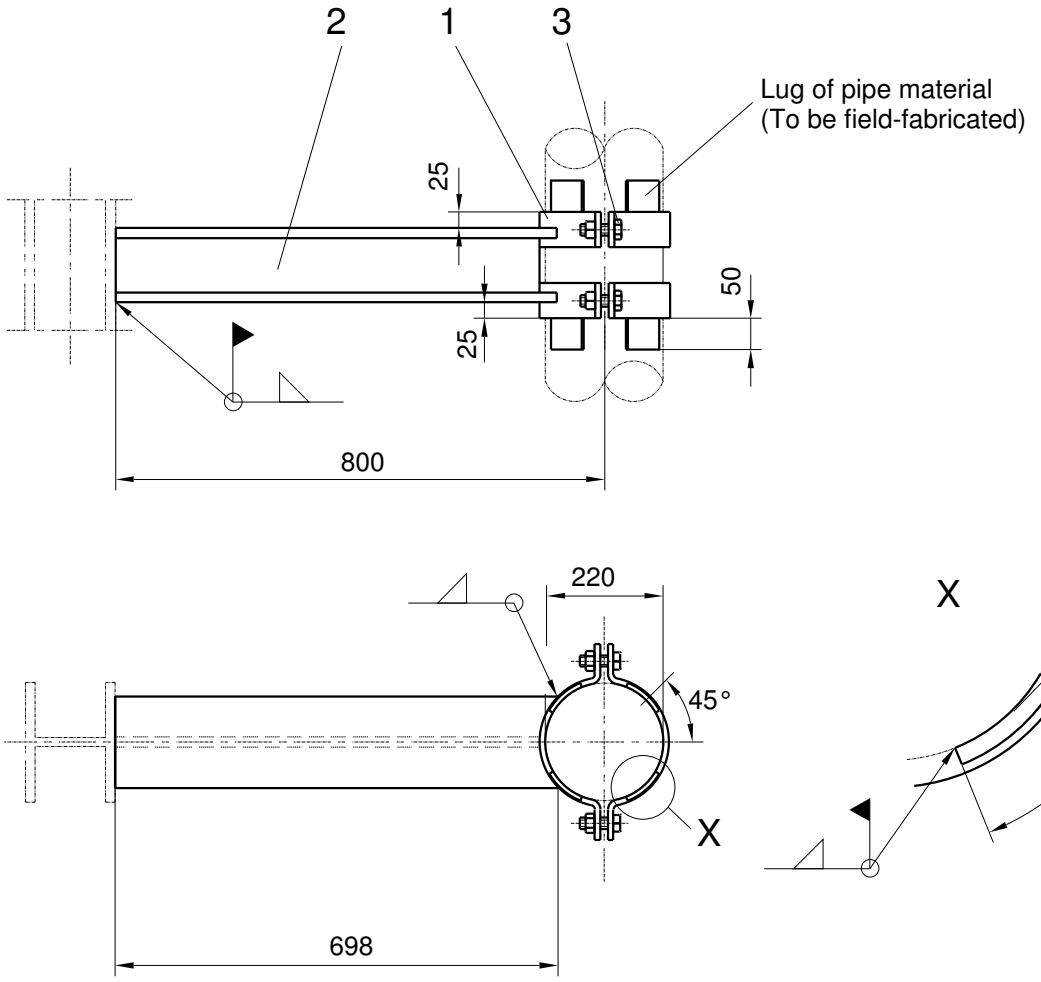
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 200/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 698	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 25,300 kg

1) A193GR.B7/A194GR.2H

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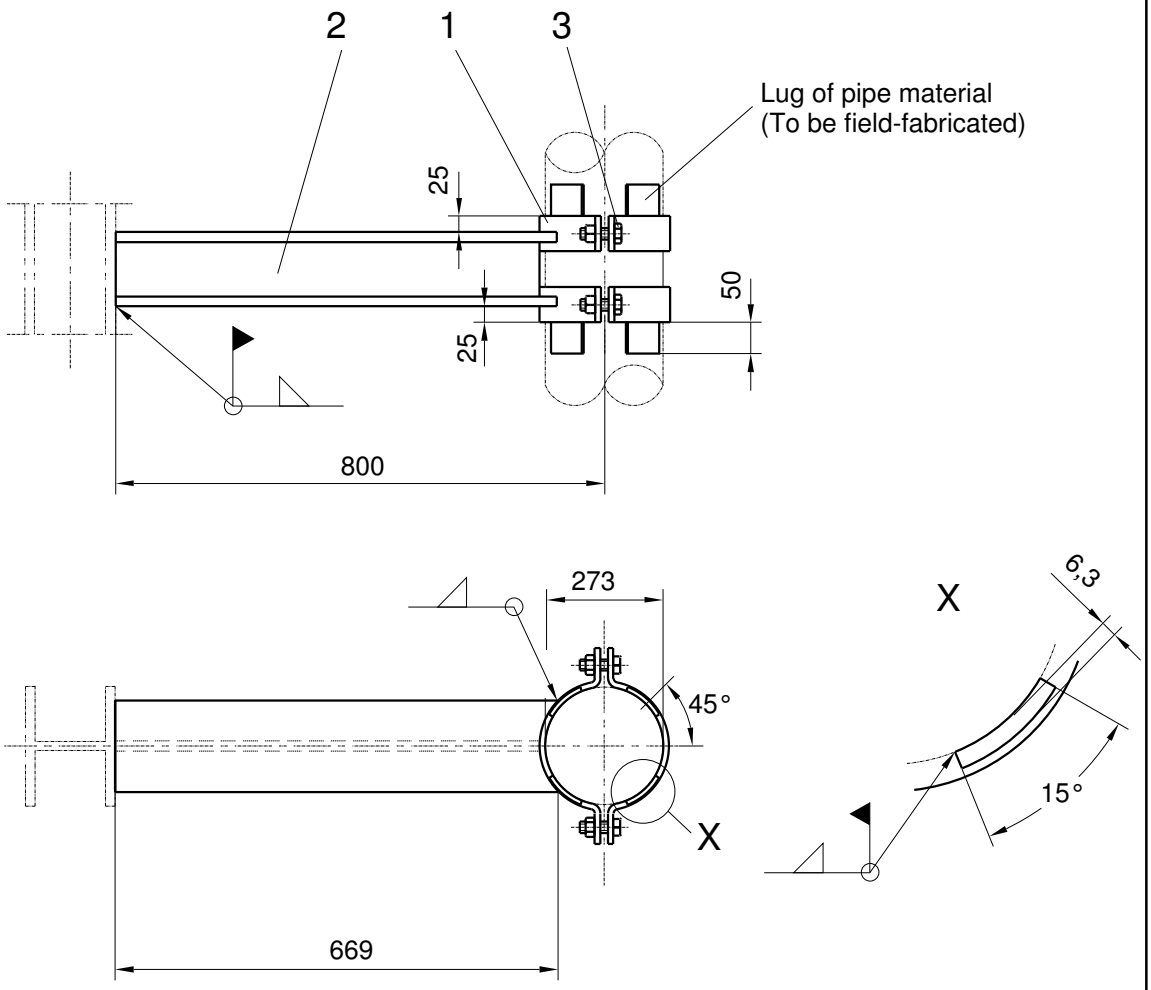
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC903D Marking : 250/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
2	1	HE-B BEAM HE-B 120 x 669	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 27,560 kg

1) A193GR.B7/A194GR.2H

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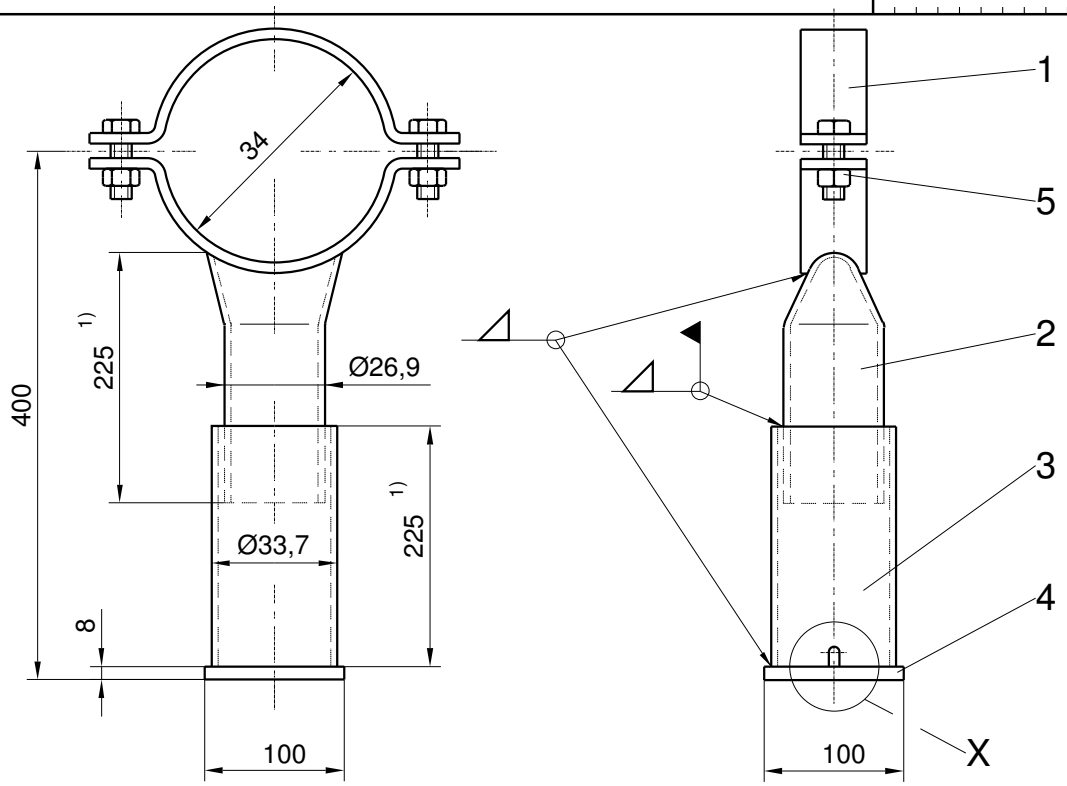
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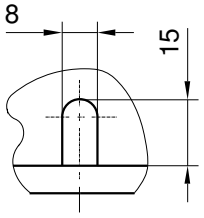
PIPE SUPPORT

Code No.: NAA001D Marking : 25/400

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 33,7 x 2,6 x 225	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 26,9 x 2,3 x 225	EN 10220	A53GR.B	GR0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,710 kg

1) A193GR.B7/A194GR.2H

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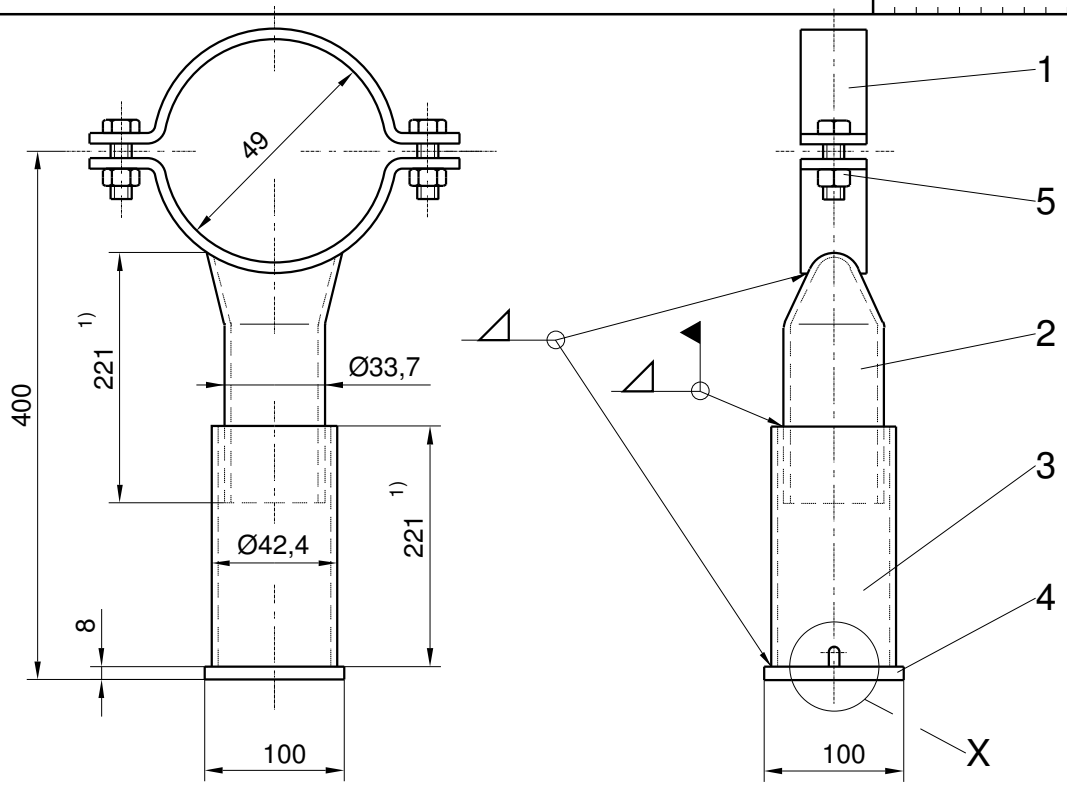
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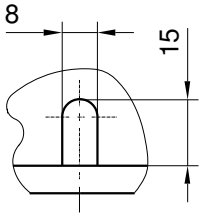
PIPE SUPPORT

Code No.: NAA001D Marking : 40/400

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 42,4 x 2,6 x 221	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 33,7 x 2,6 x 221	EN 10220	A53GR.B	GR0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,020 kg

1) A193GR.B7/A194GR.2H

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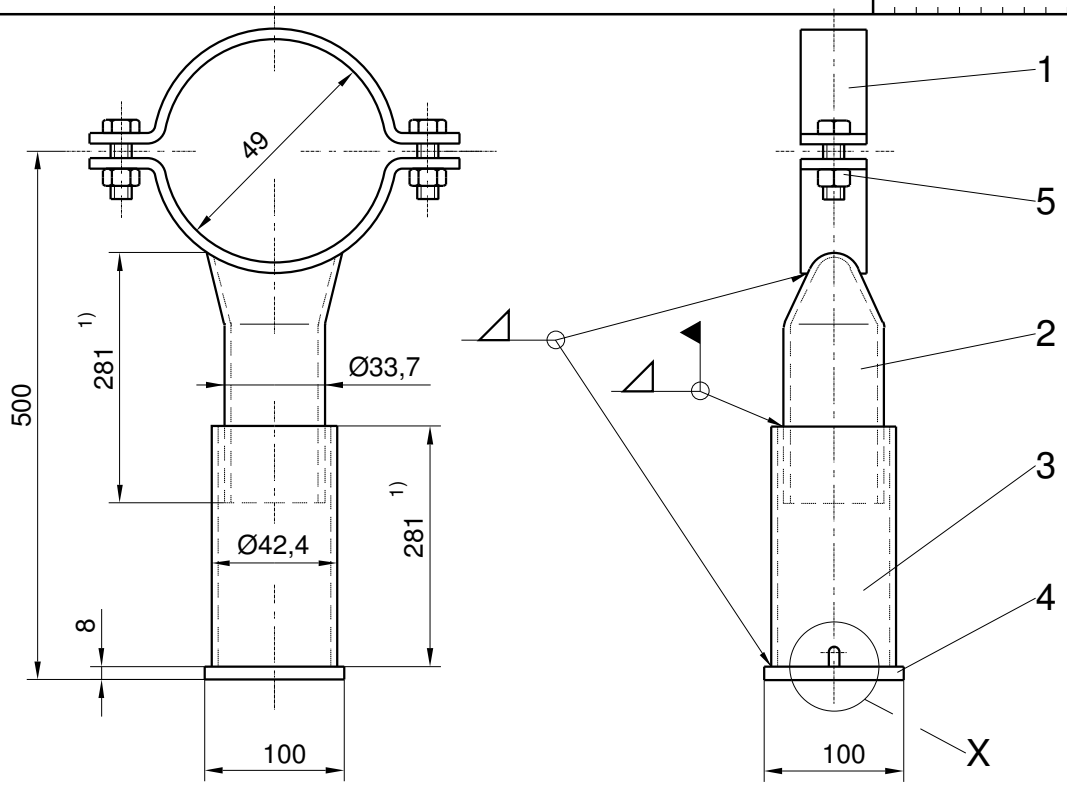
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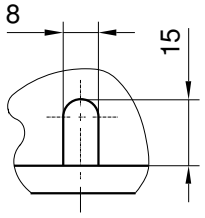
PIPE SUPPORT

Code No.: NAA001D Marking : 40/500

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 42,4 x 2,6 x 281	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 33,7 x 2,6 x 281	EN 10220	A53GR.B	GR0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,290 kg

1) A193GR.B7/A194GR.2H

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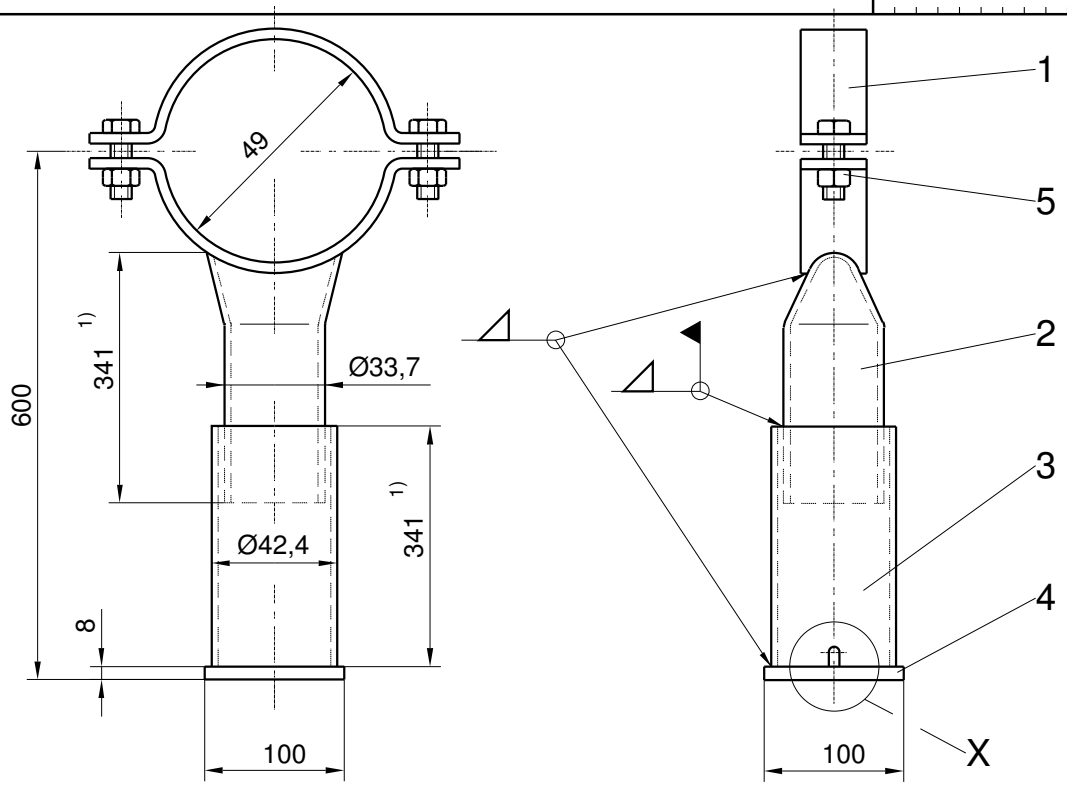
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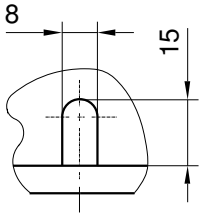
PIPE SUPPORT

Code No.: NAA001D Marking : 40/600

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 42,4 x 2,6 x 341	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 33,7 x 2,6 x 341	EN 10220	A53GR.B	GR0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 2,560 kg

1) A193GR.B7/A194GR.2H

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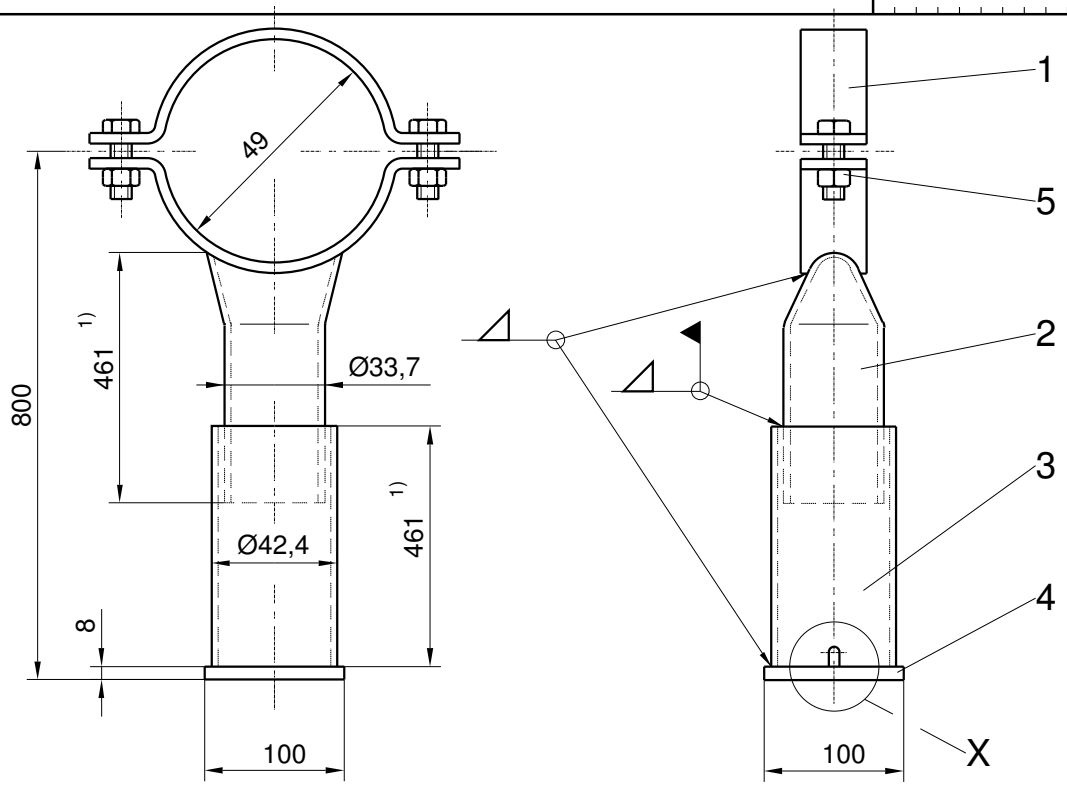
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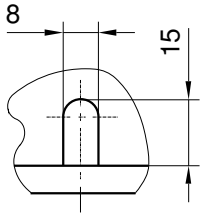
PIPE SUPPORT

Code No.: NAA001D Marking : 40/800

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 42,4 x 2,6 x 461	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 33,7 x 2,6 x 461	EN 10220	A53GR.B	GR0001D
1	1	CLAMP FORM A DS 49	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 3,100 kg

1) A193GR.B7/A194GR.2H

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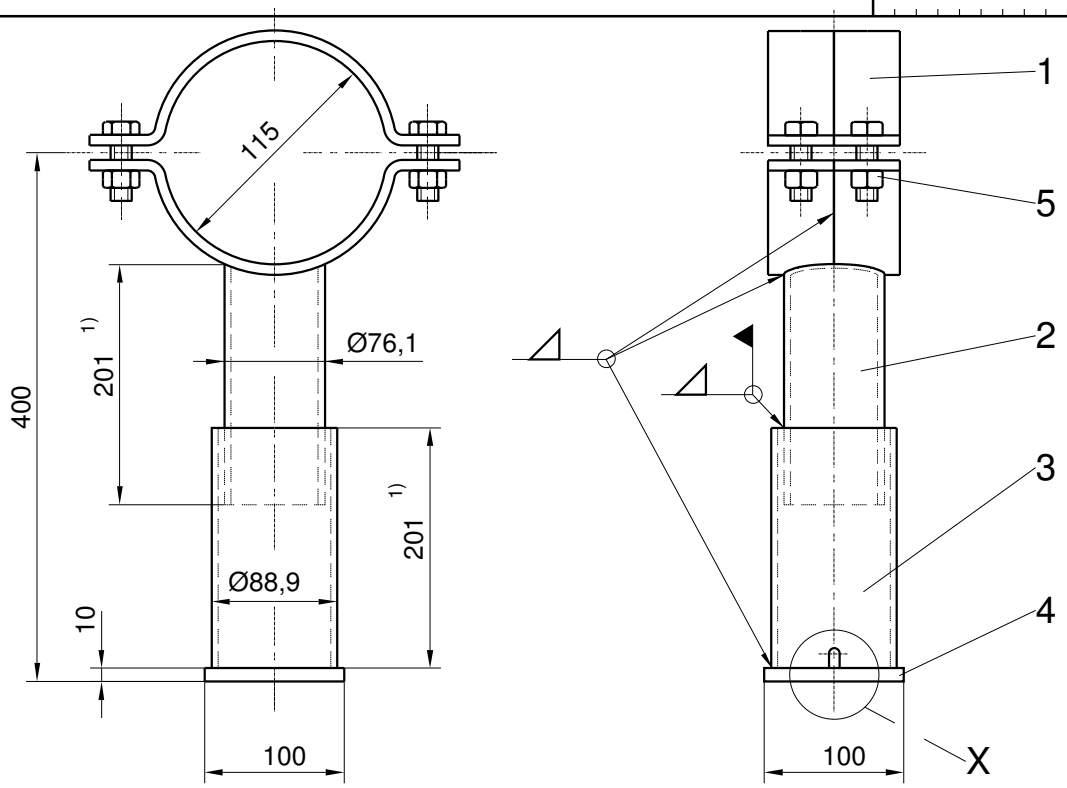
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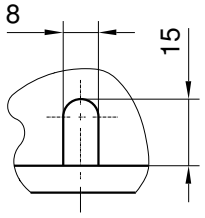
PIPE SUPPORT

Code No.: NAA002D Marking : 100/400

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 88,9 x 5 x 201	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 76,1 x 5 x 201	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 8,550 kg

1) A193GR.B7/A194GR.2H

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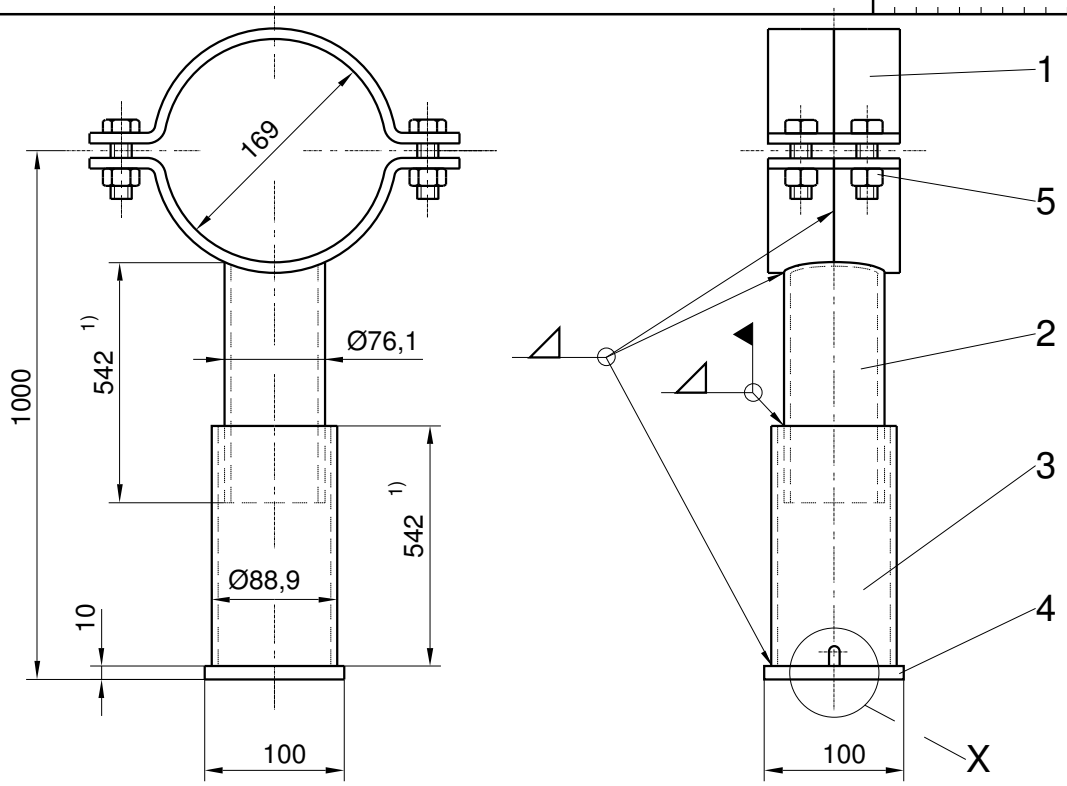
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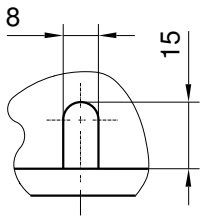
PIPE SUPPORT

Code No.: NAA002D Marking : 150/1000

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
3	1	PIPE 88,9 x 5 x 542	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 76,1 x 5 x 542	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 16,130 kg

1) A193GR.B7/A194GR.2H

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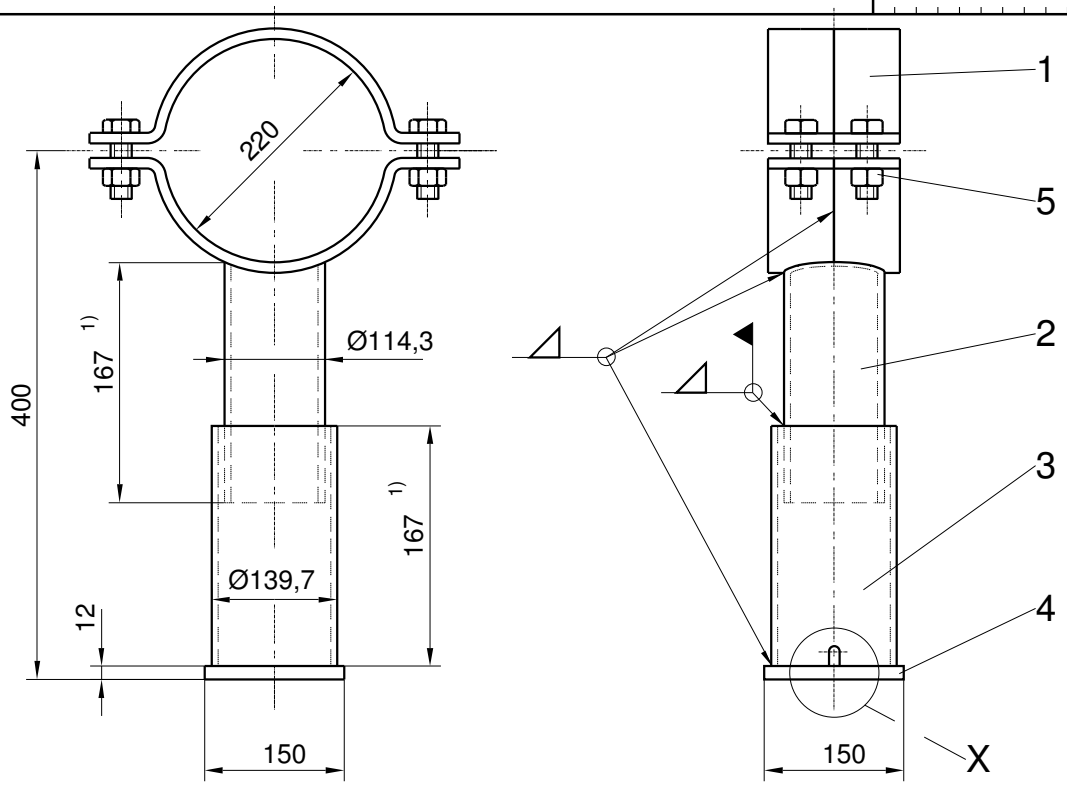
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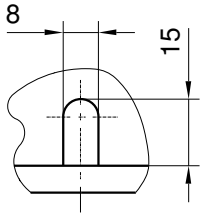
PIPE SUPPORT

Code No.: NAA003D Marking : 200/400

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 24 x 70 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
3	1	PIPE 139,7 x 10 x 167	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 114,3 x 6,3 x 167	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 220	UN 3790-02	A283GR.B	MS0101D

Remarks: Total weight = 22,500 kg

1) A193GR.B7/A194GR.2H

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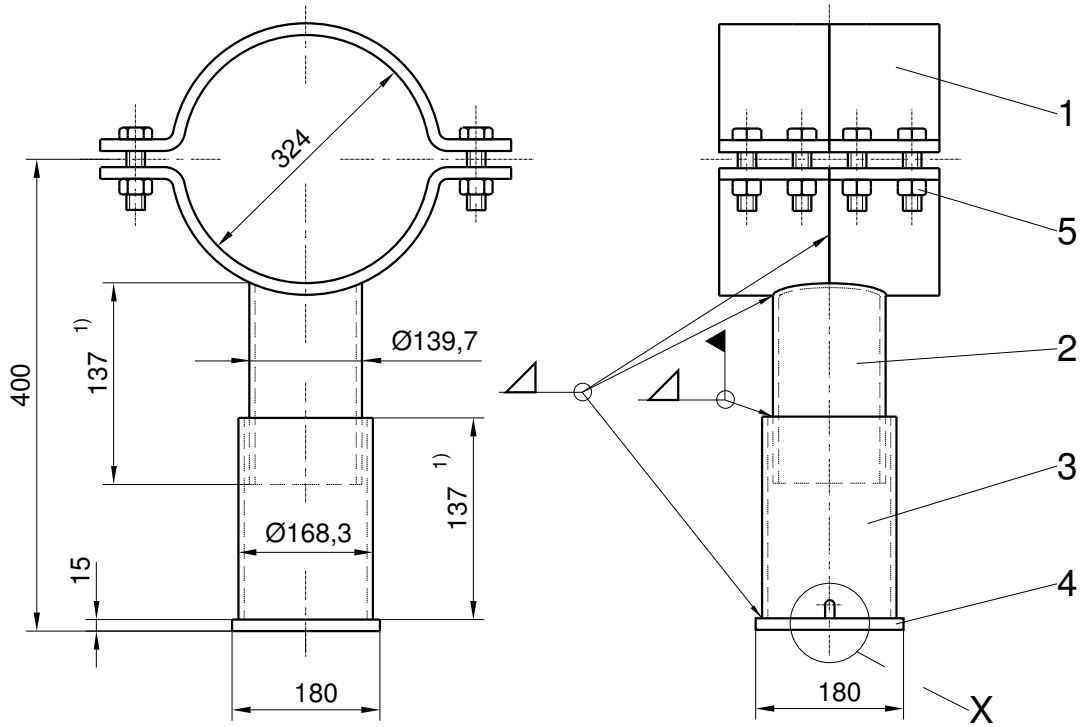
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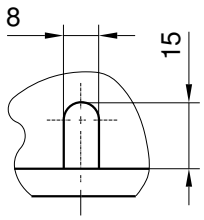
PIPE SUPPORT

Code No.: NAA004D Marking : 300/400

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
3	1	PIPE 168,3 x 11 x 137	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 139,7 x 7,1 x 137	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 324	UN 3790-02	A283GR.B	MS0101D

Remarks: Total weight = 32,830 kg

1) A193GR.B7/A194GR.2H

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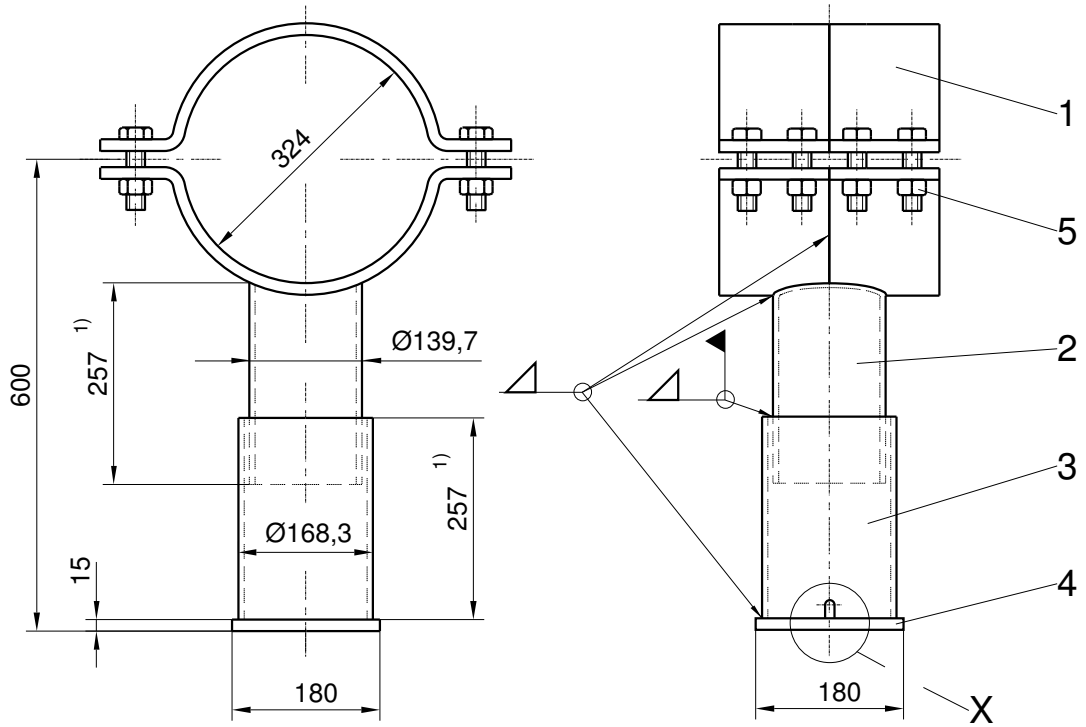
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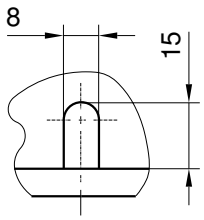
PIPE SUPPORT

Code No.: NAA004D Marking : 300/600

U Item



X



1) To fit at site

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	8	HEX. HEAD BOLT WITH -NUT M 16 x 65 / MU	ENISO 4018/4034	1)	MB0001D
4	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
3	1	PIPE 168,3 x 11 x 257	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 139,7 x 7,1 x 257	EN 10220	A53GR.B	GR0001D
1	2	CLAMP FORM A, REINFORCED DS 324	UN 3790-02	A283GR.B	MS0101D

Remarks: Total weight = 40,740 kg

1) A193GR.B7/A194GR.2H

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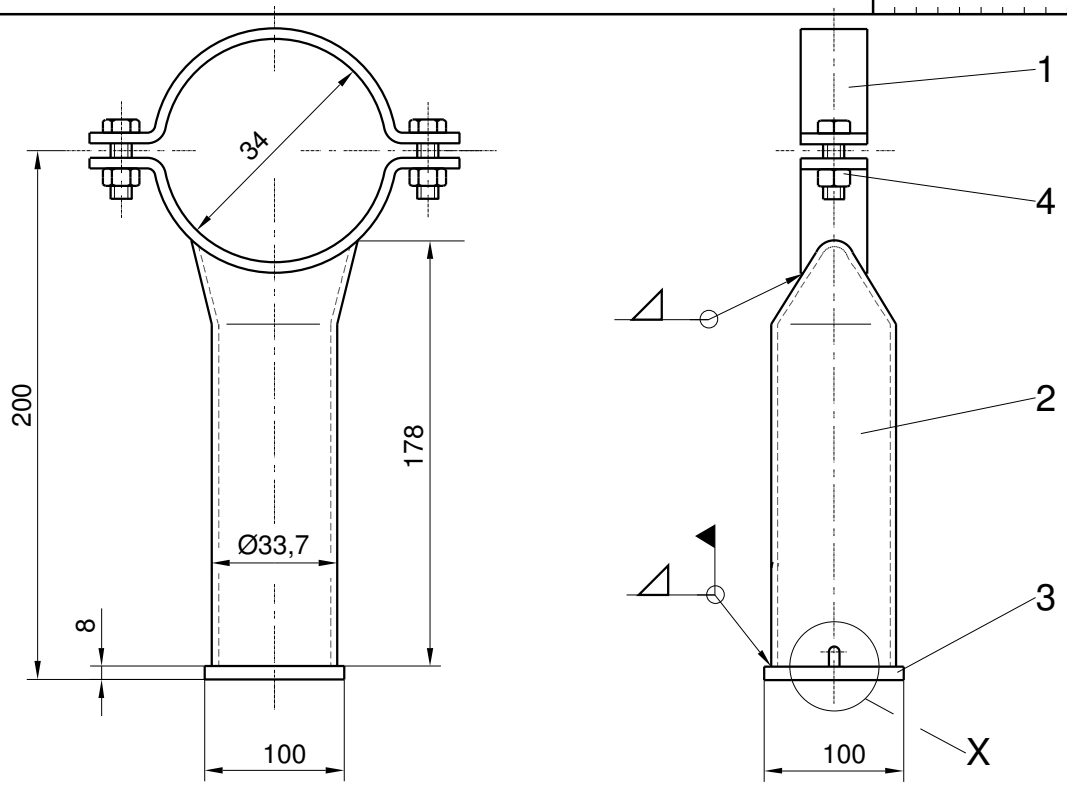
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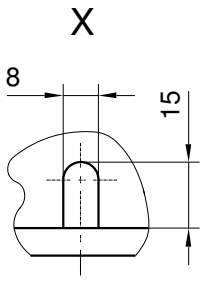
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NAA101D Marking : 25/200

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
2	1	PIPE 33,7 x 2,6 x 178	DIN 2448	A53GR.B	GR0011D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,330 kg

1) A193GR.B7/A194GR.2H

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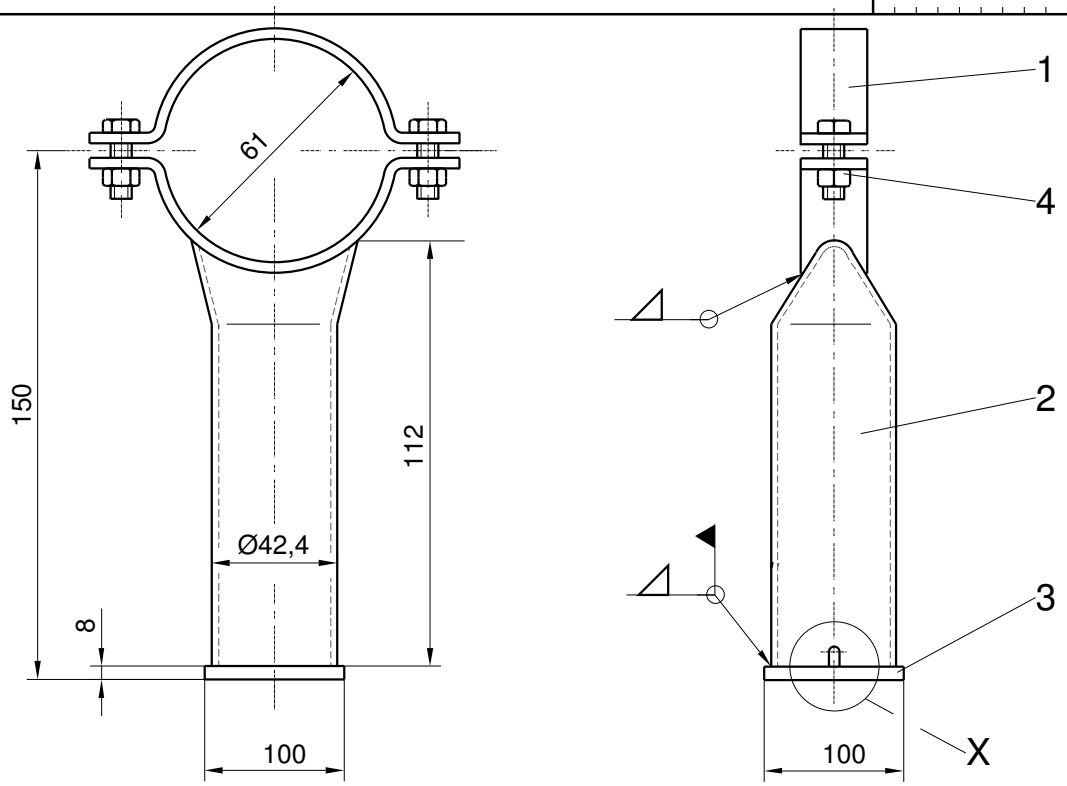
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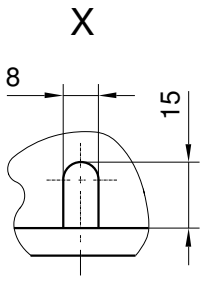
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NAA101D Marking : 50/150

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
2	1	PIPE 42,4 x 2,6 x 112	DIN 2448	A53GR.B	GR0011D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,660 kg

1) A193GR.B7/A194GR.2H

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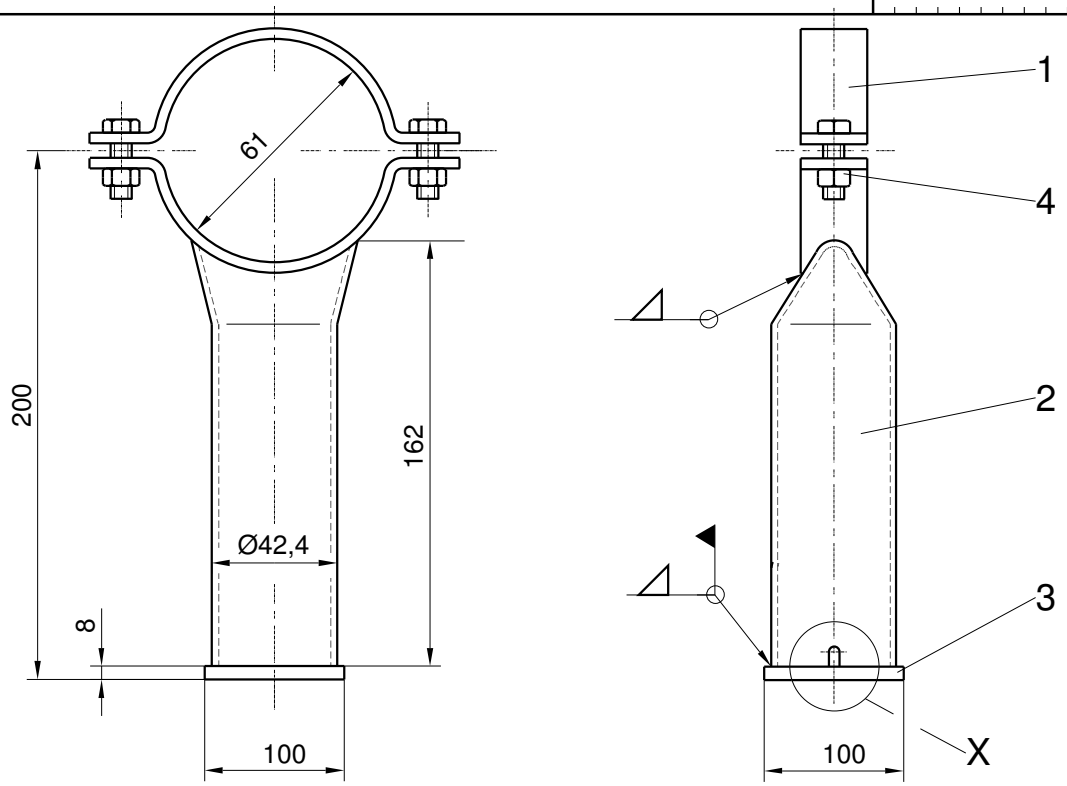
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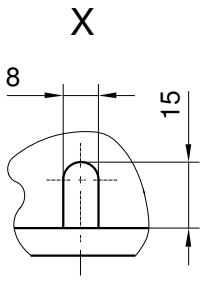
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NAA101D Marking : 50/200

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
2	1	PIPE 42,4 x 2,6 x 162	DIN 2448	A53GR.B	GR0011D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,790 kg

1) A193GR.B7/A194GR.2H

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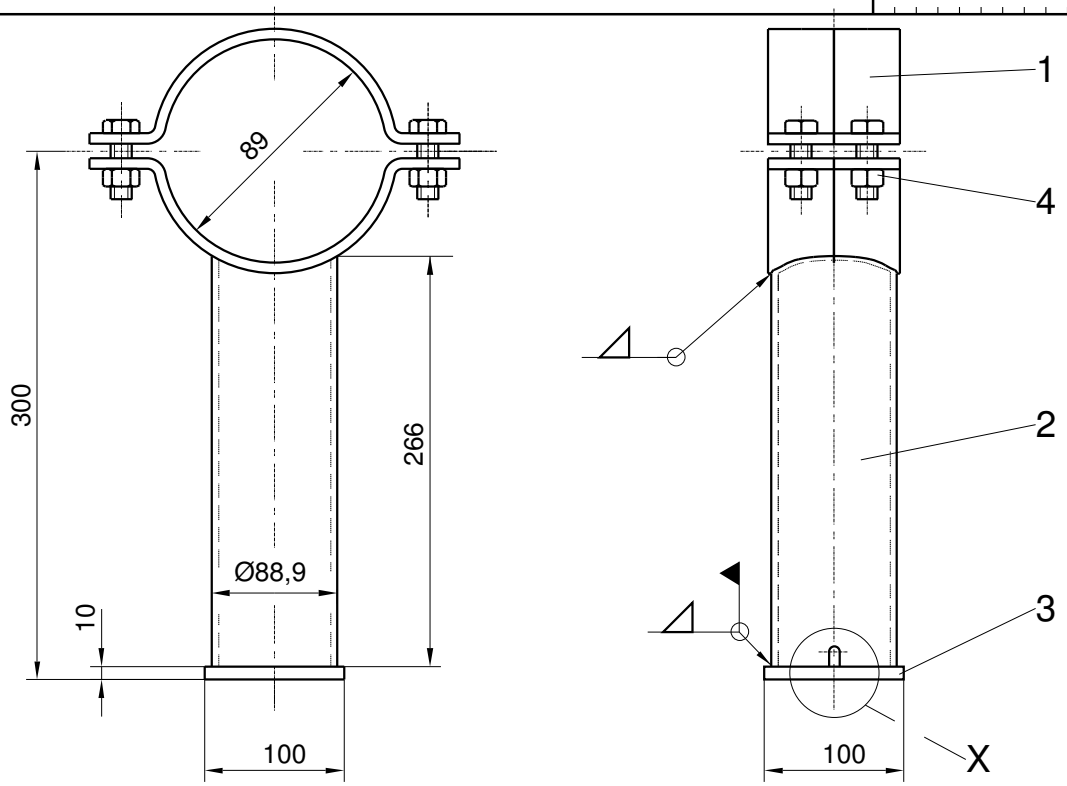
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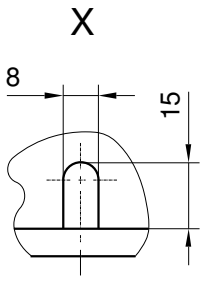
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NAA102D Marking : 80/300

U Item





Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	4	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
2	1	PIPE 88,9 x 5 x 266	DIN 2448	A53GR.B	GR0011D
1	2	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 5,330 kg

1) A193GR.B7/A194GR.2H

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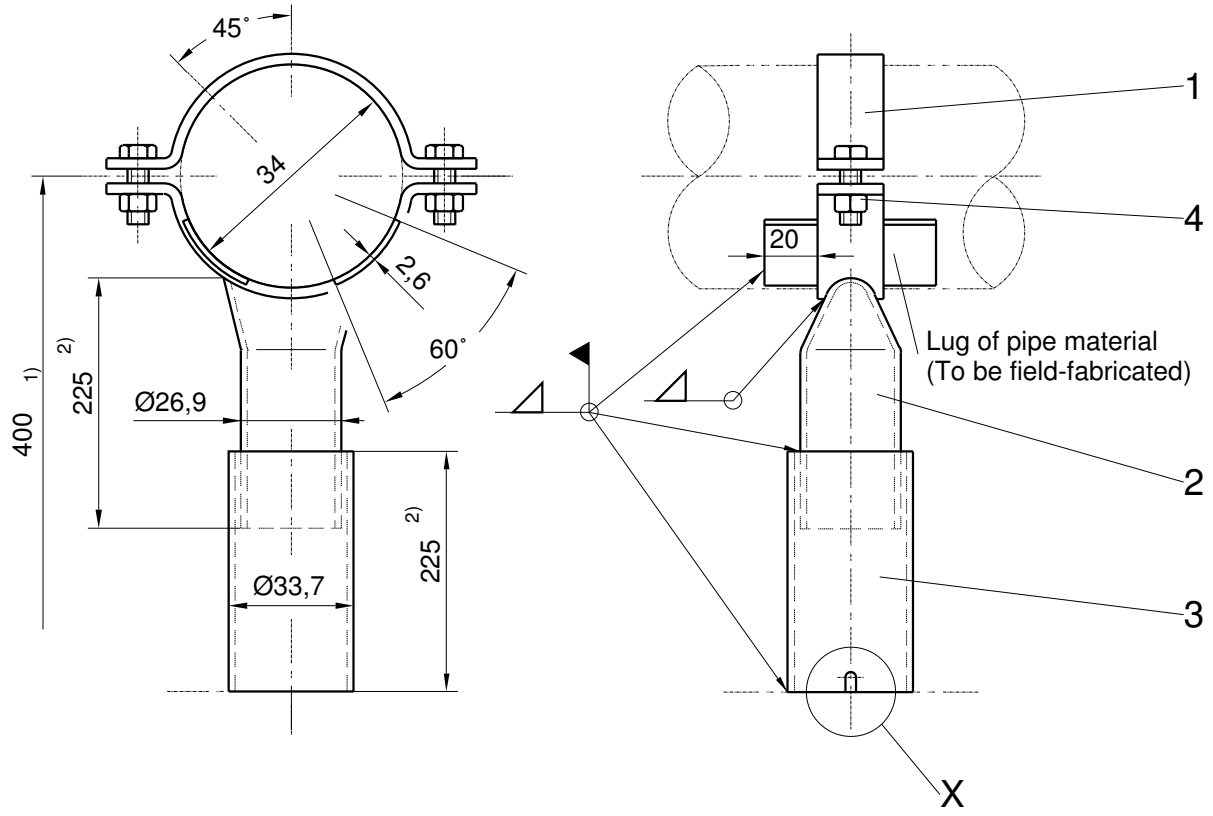
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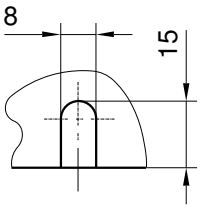
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NAC001D Marking : 25/400

U Item





2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 10 x 35 / MU	ENISO 4018/4034	1)	MB0001D
3	1	PIPE 33,7 x 2,6 x 225	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 26,9 x 2,3 x 225	EN 10220	A53GR.B	GR0001D
1	1	CLAMP FORM A DS 34	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,090 kg

1) A193GR.B7/A194GR.2H

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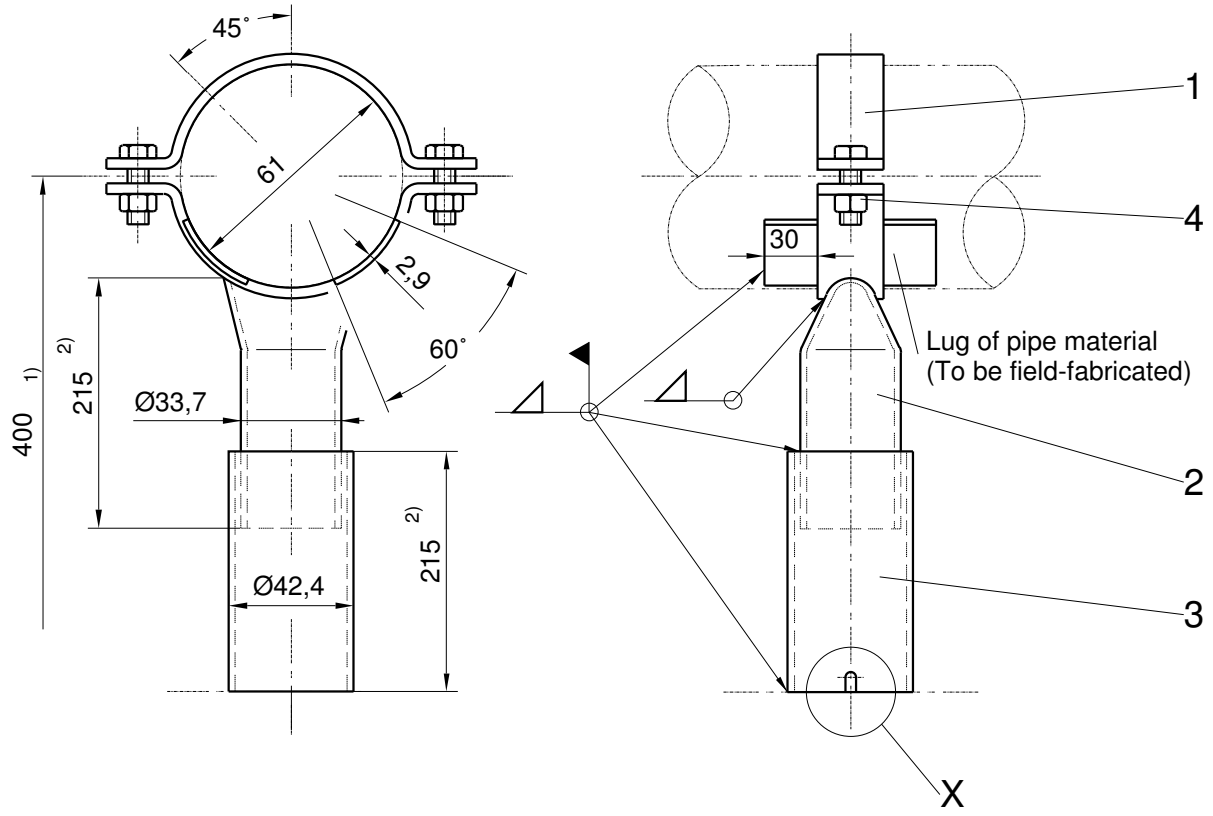
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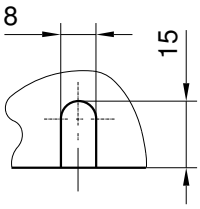
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NAC001D Marking : 50/400

U Item





2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
4	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
3	1	PIPE 42,4 x 2,6 x 215	DIN 2448	A53GR.B	GR0011D
2	1	PIPE 33,7 x 2,6 x 215	EN 10220	A53GR.B	GR0001D
1	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 1,710 kg

1) A193GR.B7/A194GR.2H

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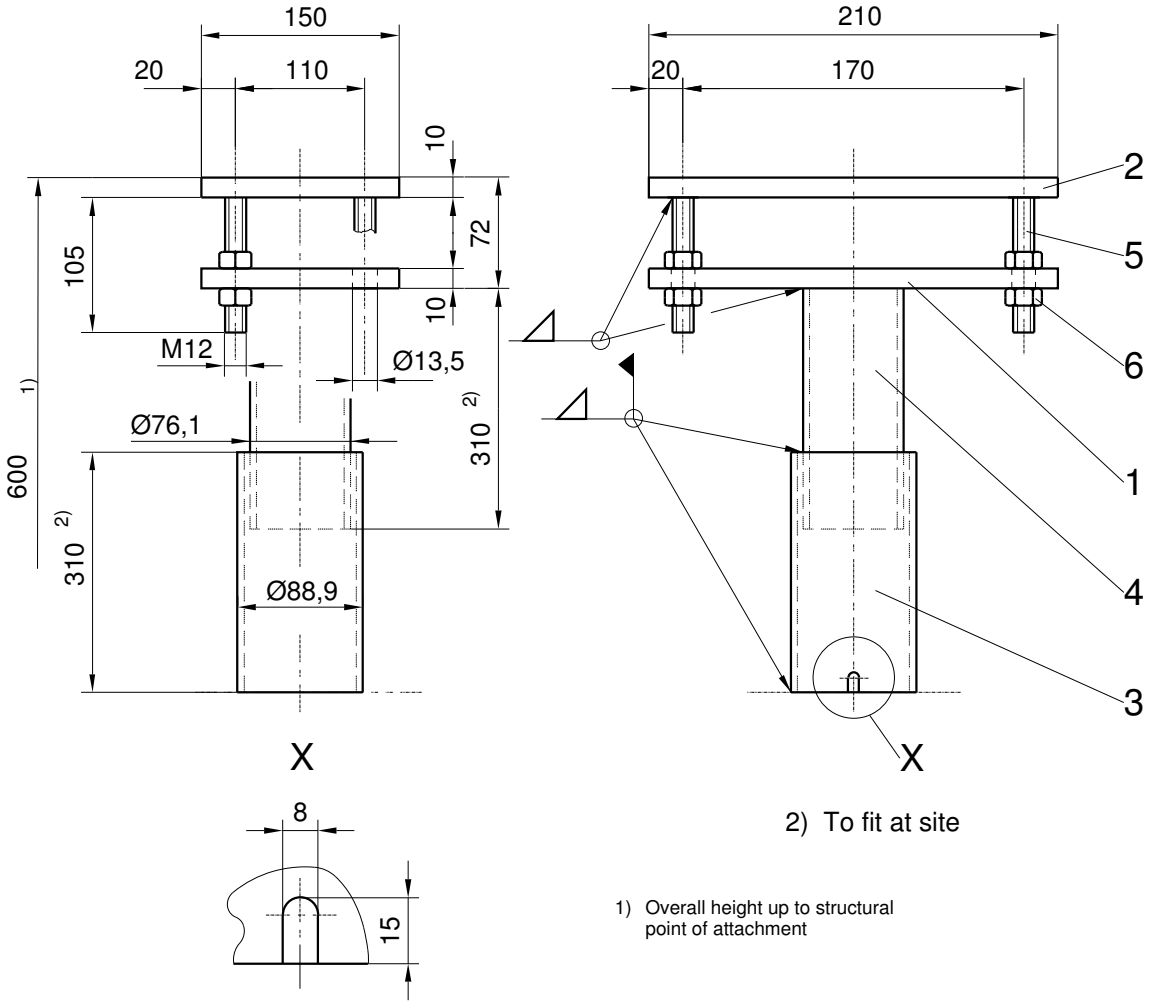
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NCX002D Marking : 80/600

U Item



2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 12	DIN 555	5	MM0001D
5	4	THREADED ROD M 12 x 105	DIN 975	4.6	MB0201D
4	1	PIPE 76,1 x 5 x 310	EN 10220	A53GR.B	GR0001D
3	1	PIPE 88,9 x 5 x 310	DIN 2448	A53GR.B	GR0011D
2	1	PLATE 10 x 210 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 10 x 210 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 11,200 kg

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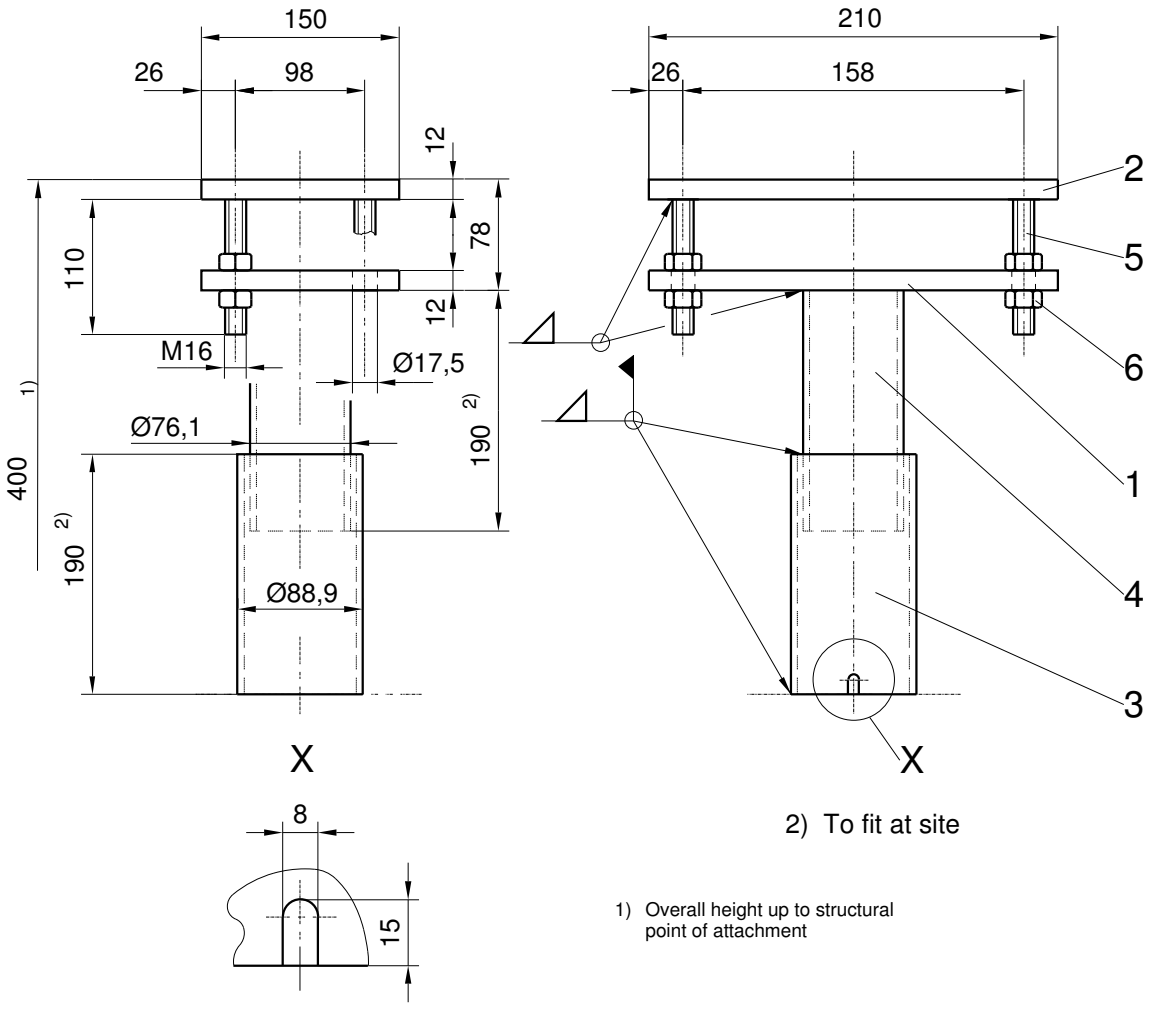
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NCX002D Marking : 100/400

U Item



2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 16	DIN 555	5	MM0001D
5	4	THREADED ROD M 16 x 110	DIN 975	4.6	MB0201D
4	1	PIPE 76,1 x 5 x 190	EN 10220	A53GR.B	GR0001D
3	1	PIPE 88,9 x 5 x 190	DIN 2448	A53GR.B	GR0011D
2	1	PLATE 12 x 210 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 12 x 210 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 10,370 kg

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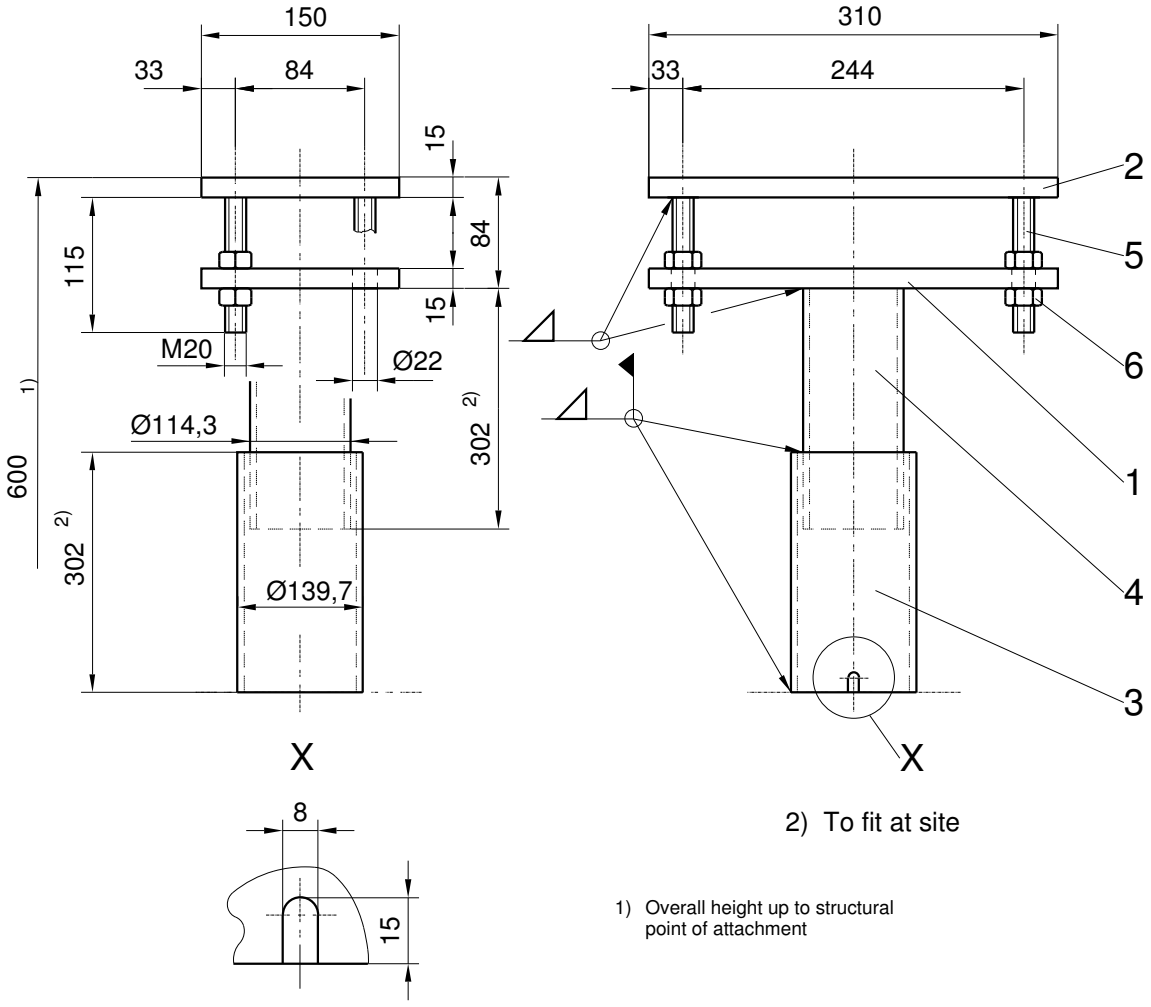
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NCX002D Marking : 200/600

U Item



2) To fit at site

1) Overall height up to structural point of attachment

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
6	8	HEXAGON NUT M 20	DIN 555	5	MM0001D
5	4	THREADED ROD M 20 x 115	DIN 975	4.6	MB0201D
4	1	PIPE 114,3 x 6,3 x 302	EN 10220	A53GR.B	GR0001D
3	1	PIPE 139,7 x 10 x 302	DIN 2448	A53GR.B	GR0011D
2	1	PLATE 15 x 310 x 150	EN 10029	A283GR.B	GB0001D
1	1	PLATE 15 x 310 x 150	DIN 1543	1.0038	GB0041D

Remarks: Total weight = 27,130 kg

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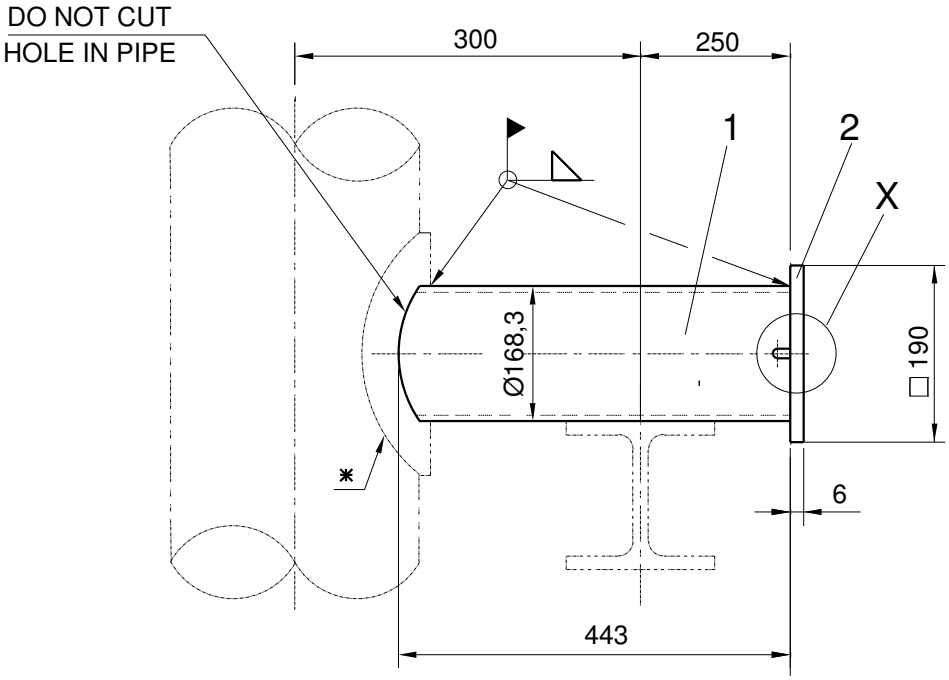
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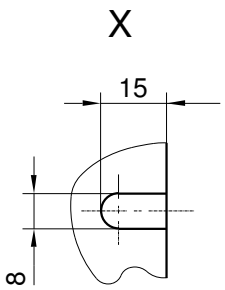
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 250/300

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 443	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 20,620 kg

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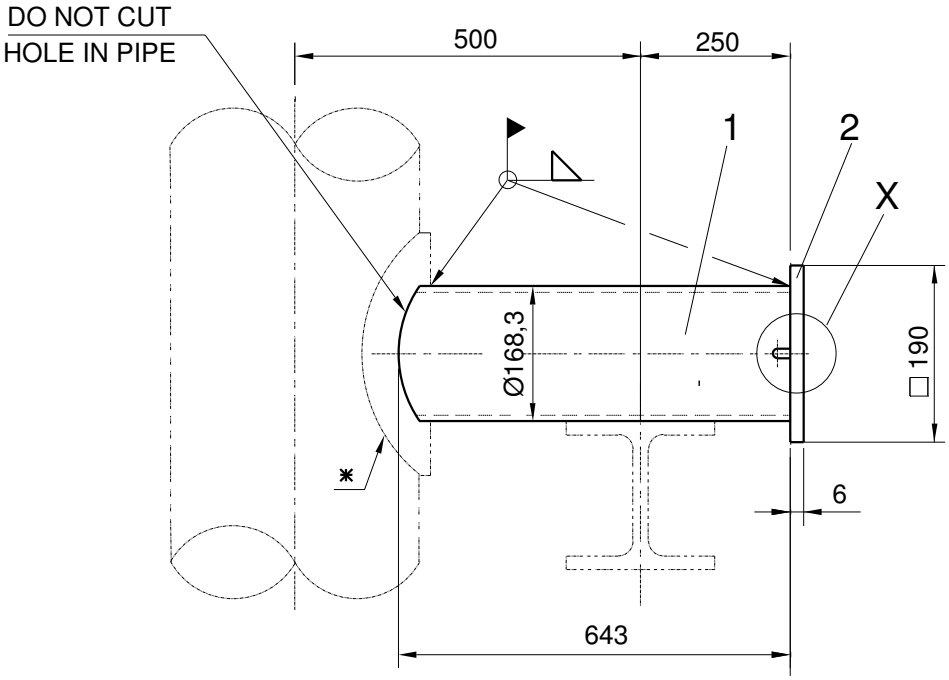
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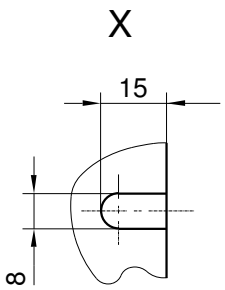
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 250/500

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 643	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 29,160 kg

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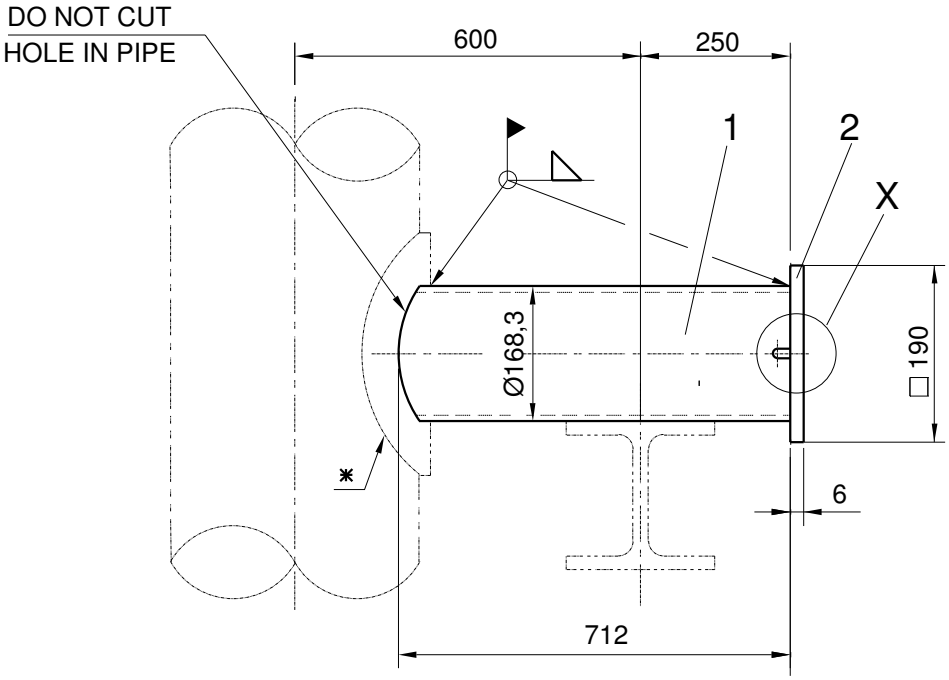
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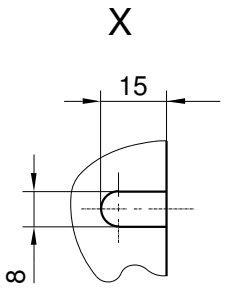
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 300/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 712	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 32,100 kg

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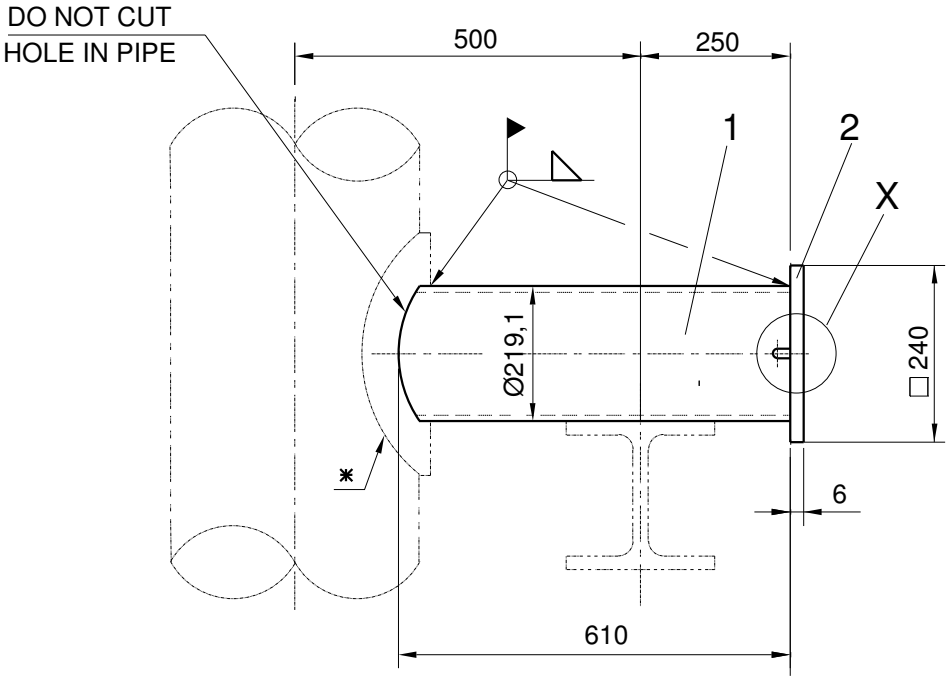
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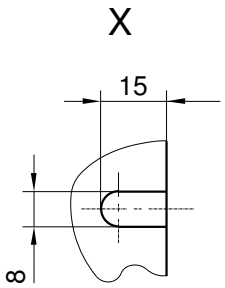
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NSA001D Marking : 350/500

U Item





✱ Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 610	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 34,190 kg

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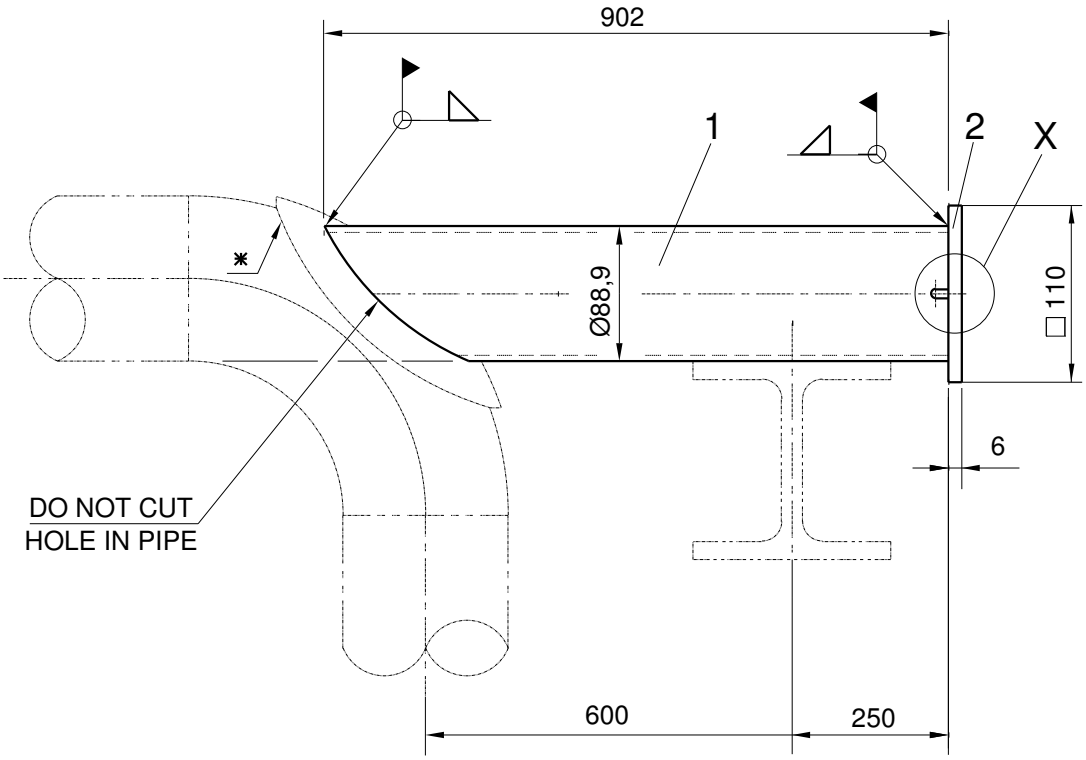
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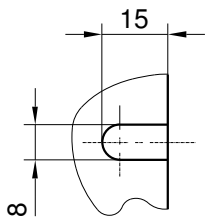
PIPE SUPPORT

Code No.: NUA001D Marking : 100/600

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 902	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 9,860 kg

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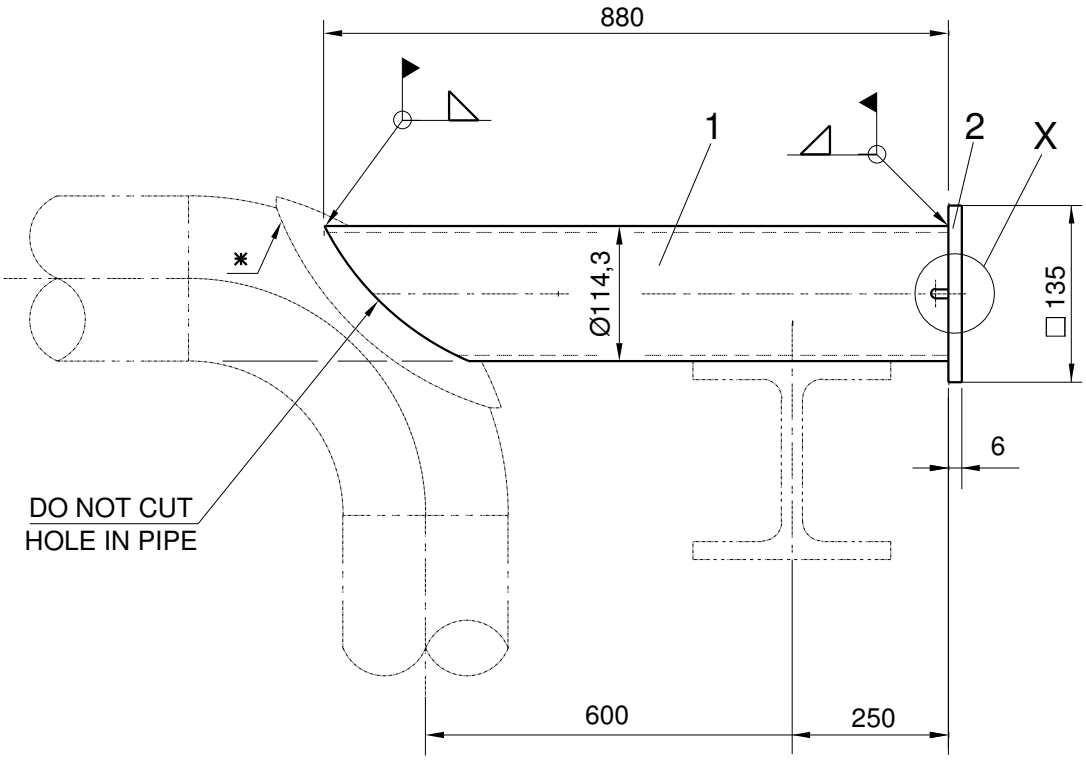
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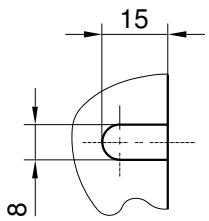
PIPE SUPPORT

Code No.: NUA001D Marking : 200/600

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 880	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 15,630 kg

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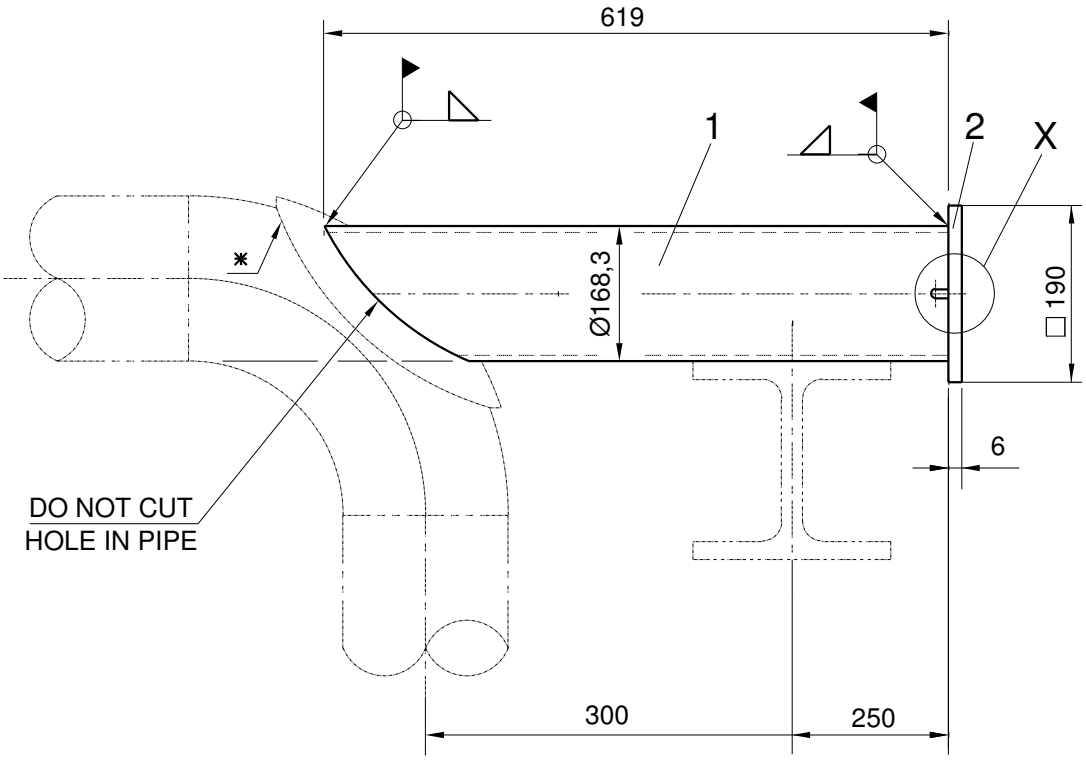
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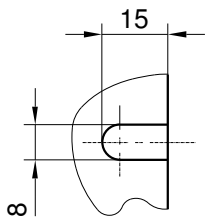
PIPE SUPPORT

Code No.: NUA001D Marking : 250/300

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 619	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 28,130 kg

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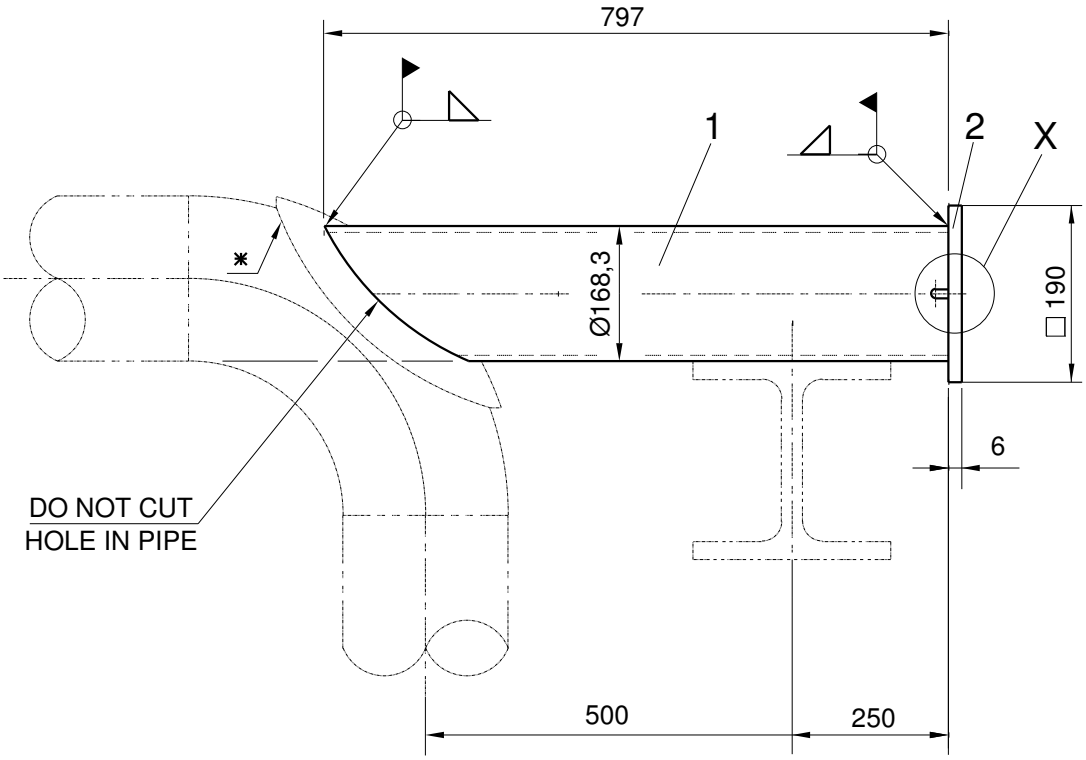
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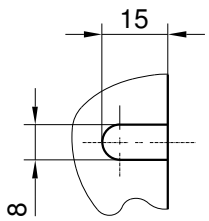
PIPE SUPPORT

Code No.: NUA001D Marking : 300/500

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 797	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 35,720 kg

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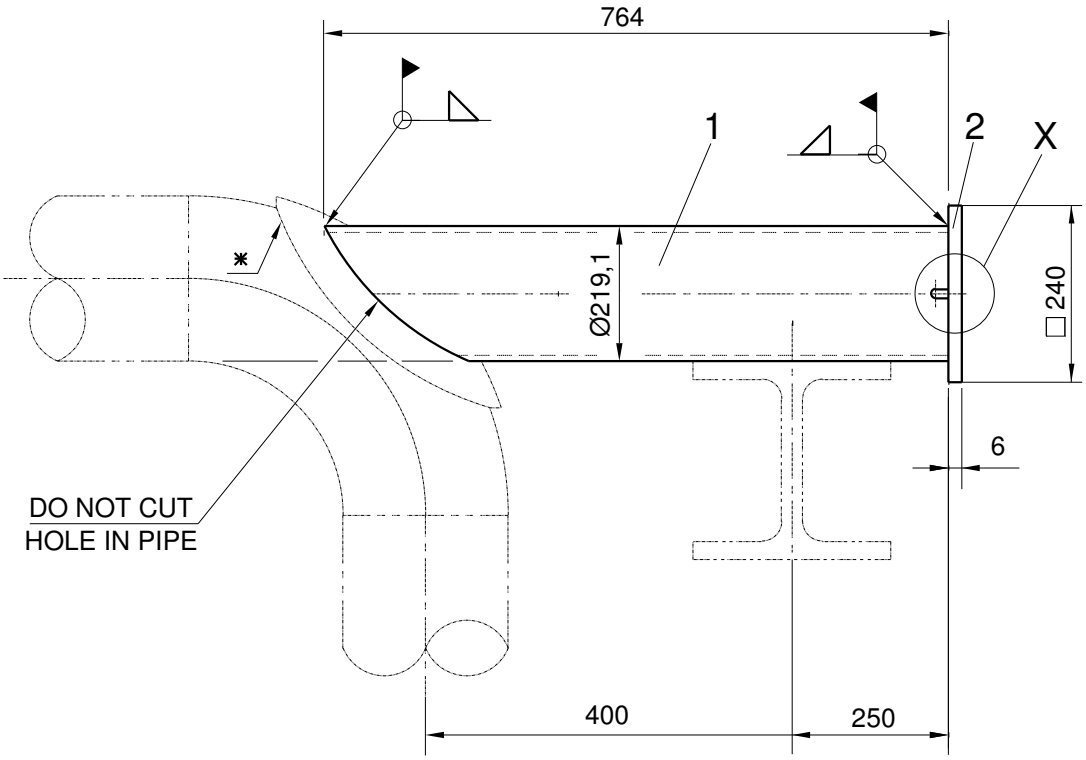
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tkIS		Code	Page	UAN	V	L S
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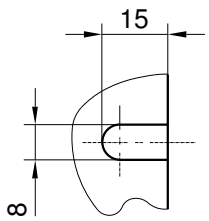
PIPE SUPPORT

Code No.: NUA001D Marking : 350/400

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 764	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 42,140 kg

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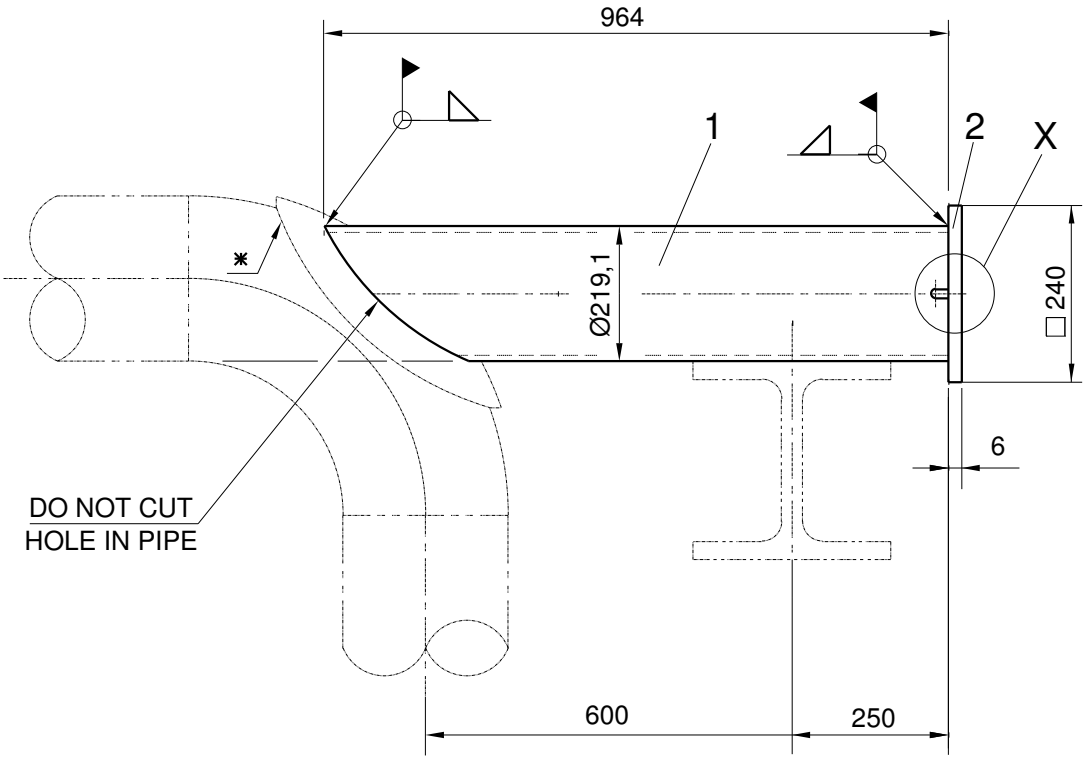
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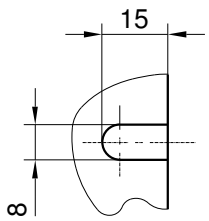
PIPE SUPPORT

Code No.: NUA001D Marking : 350/600

U Item



X



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 964	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 52,460 kg

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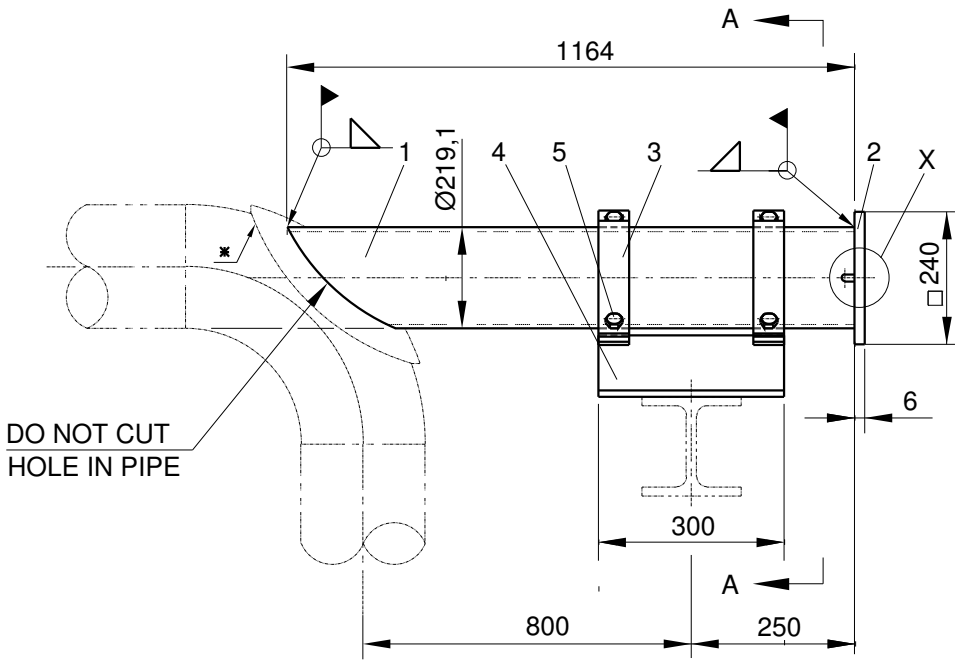
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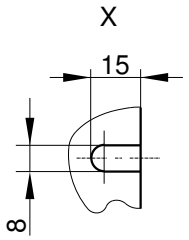
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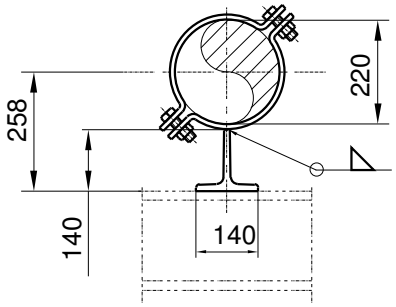
PIPE SUPPORT

Code No.: NUG002D Marking : 350/3/800

U Item







A-A

* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
3	2	CLAMP FORM A DS 220	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 240 x 240	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 1164	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 78,190 kg

1) A193GR.B7/A194GR.2H

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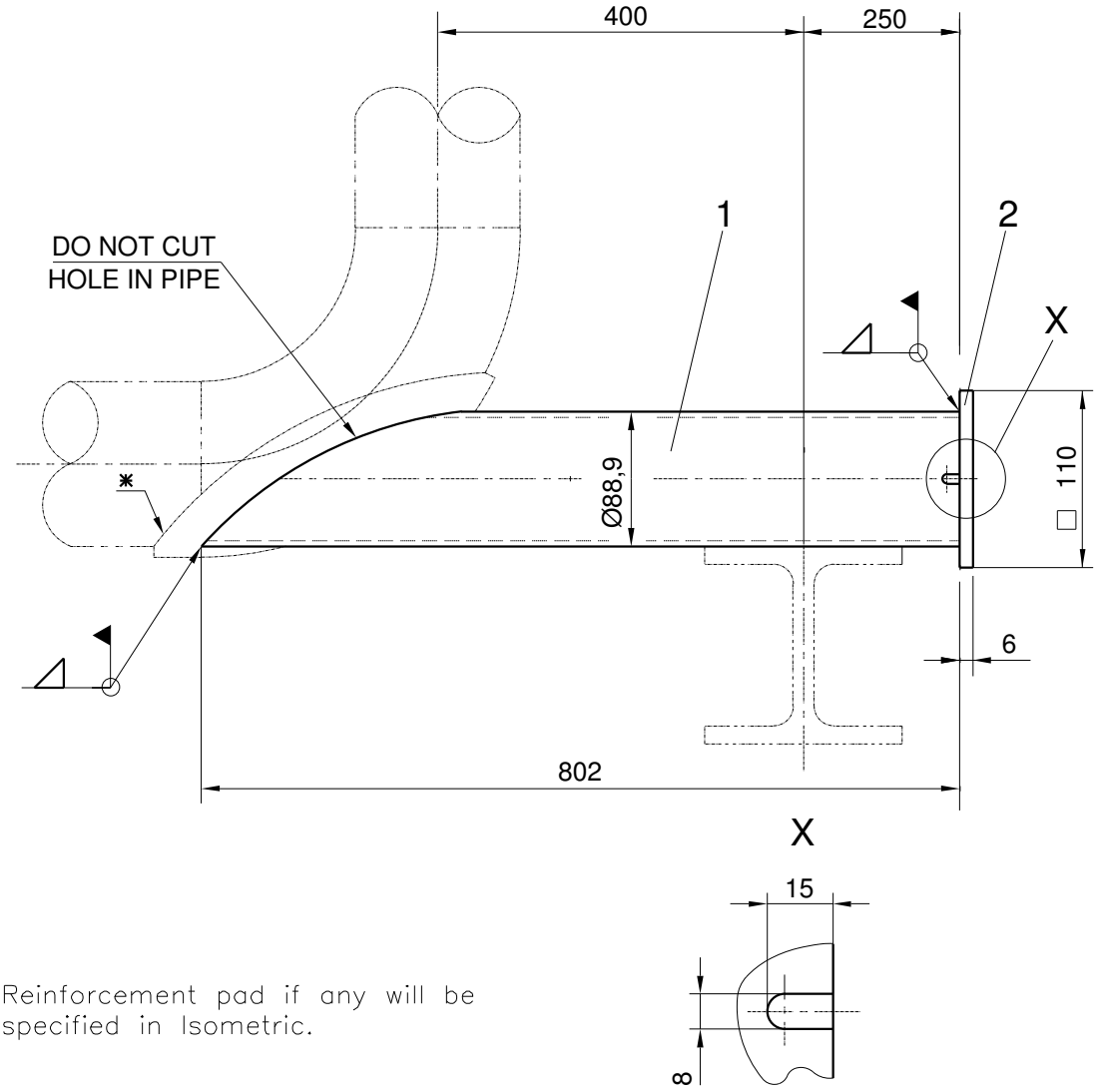
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NVA001D Marking : 100/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 802	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 8,830 kg

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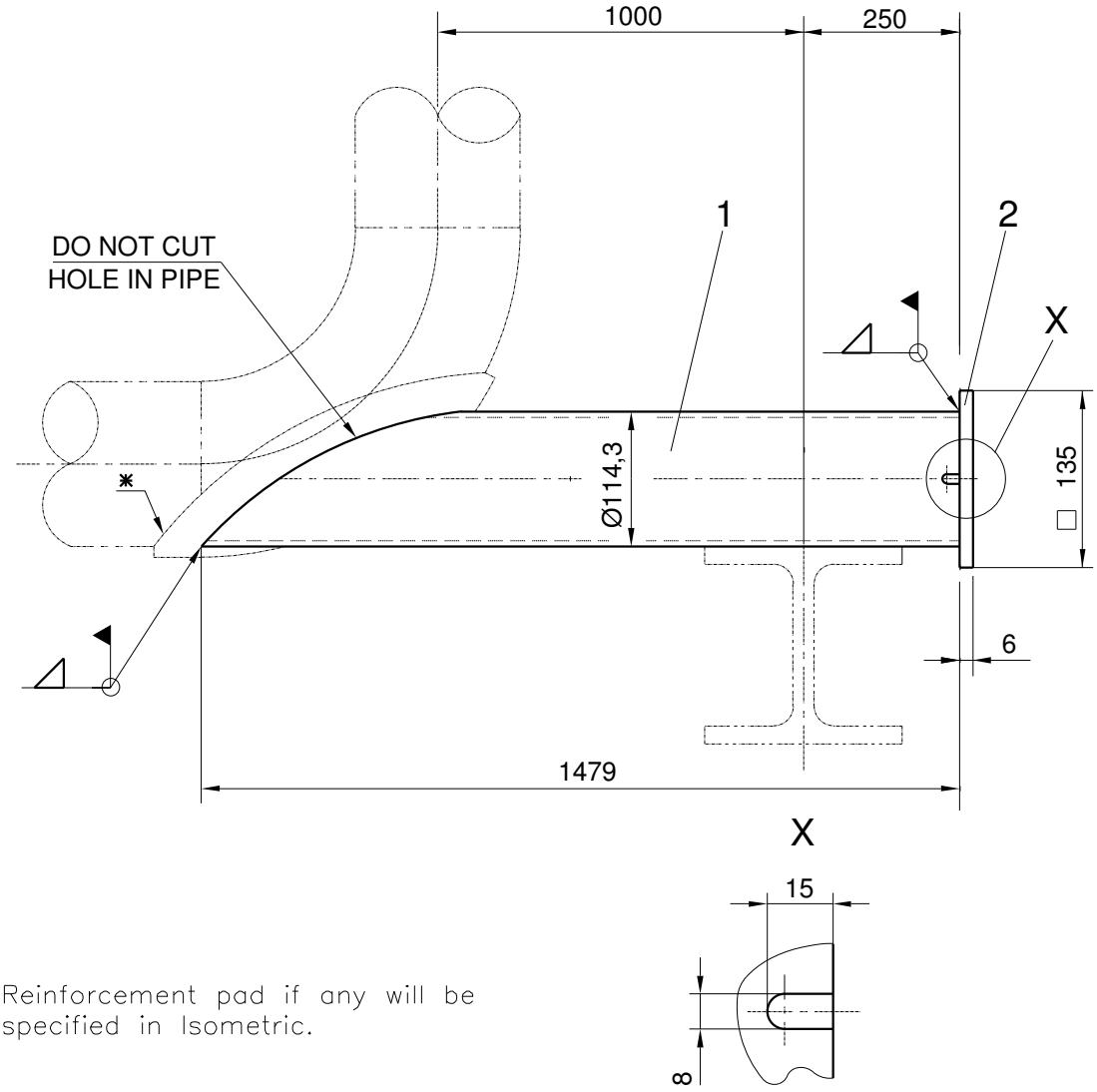
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NVA001D Marking : 150/1000

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1479	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 25,710 kg

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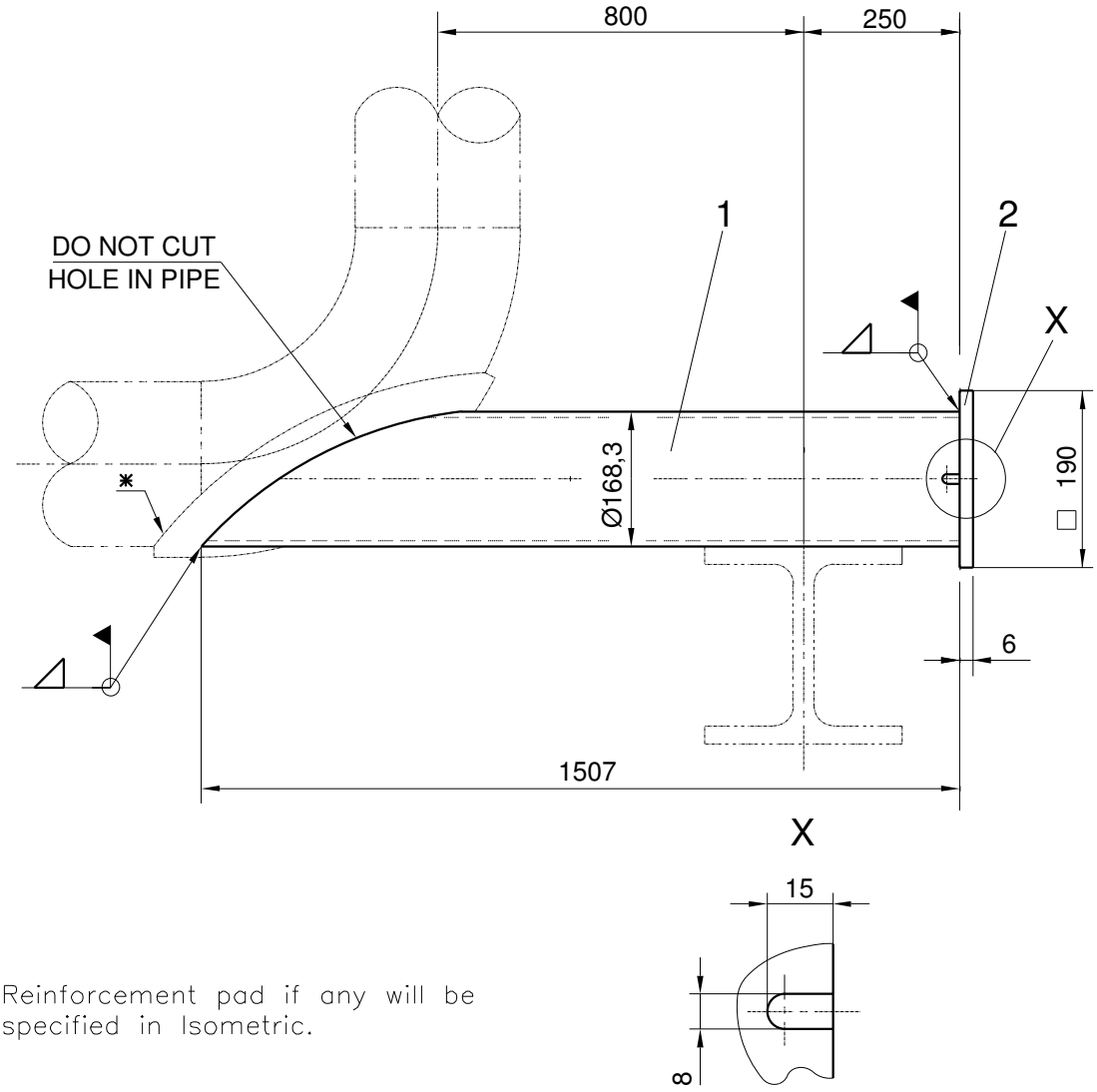
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NVA001D Marking : 300/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 190 x 190	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 1507	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 66,050 kg

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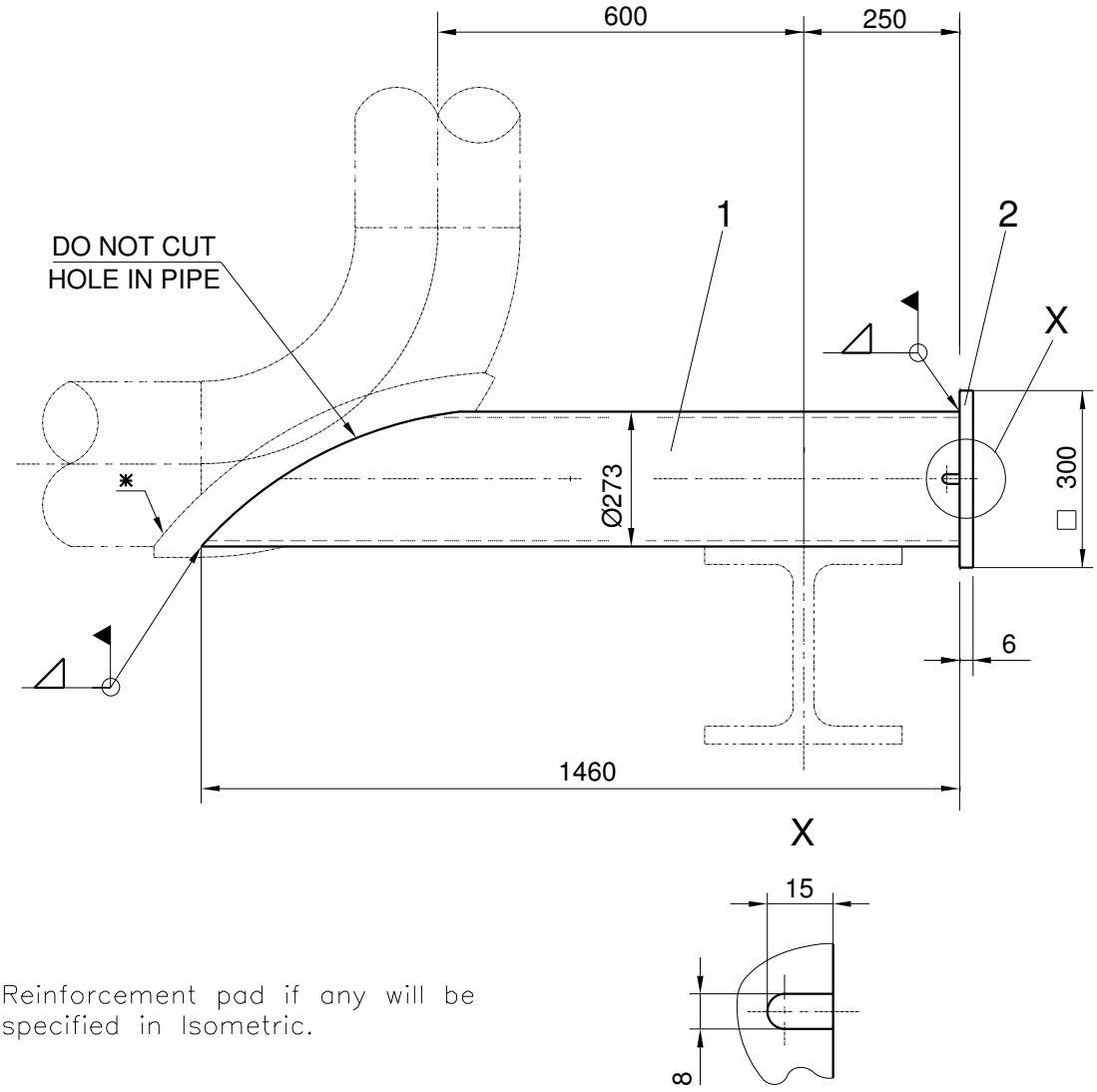
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NVA001D Marking : 400/600

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1460	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 98,990 kg

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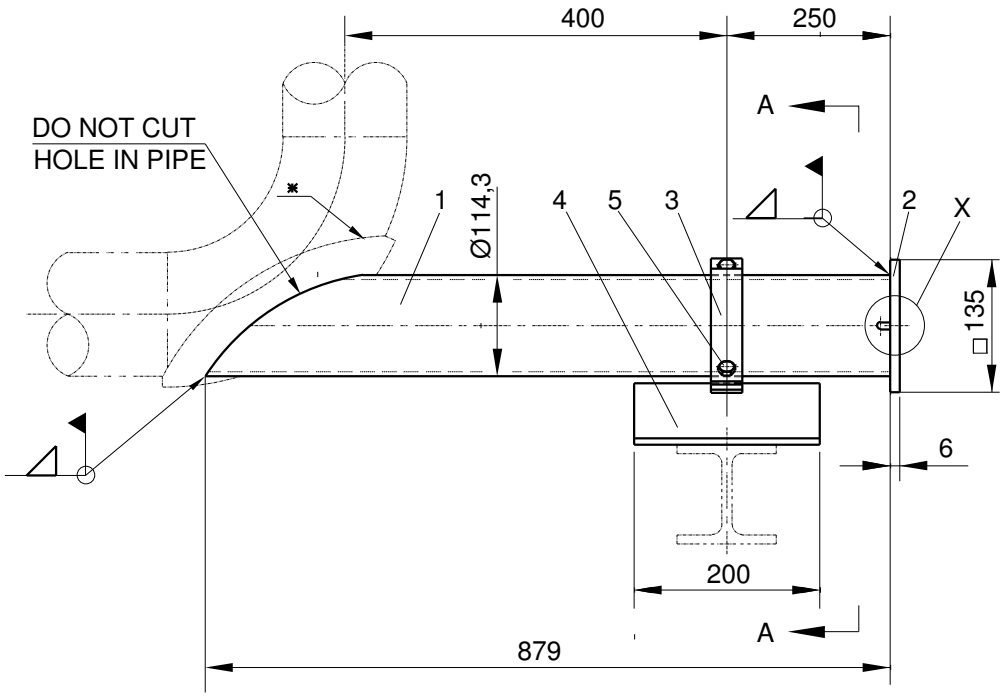
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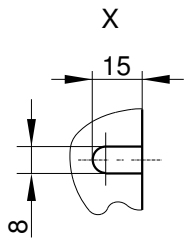
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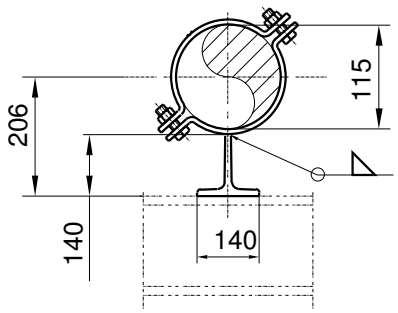
PIPE SUPPORT

Code No.: NVG001D Marking : 150/3/400

U Item







A-A

* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 879	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 23,860 kg

1) A193GR.B7/A194GR.2H

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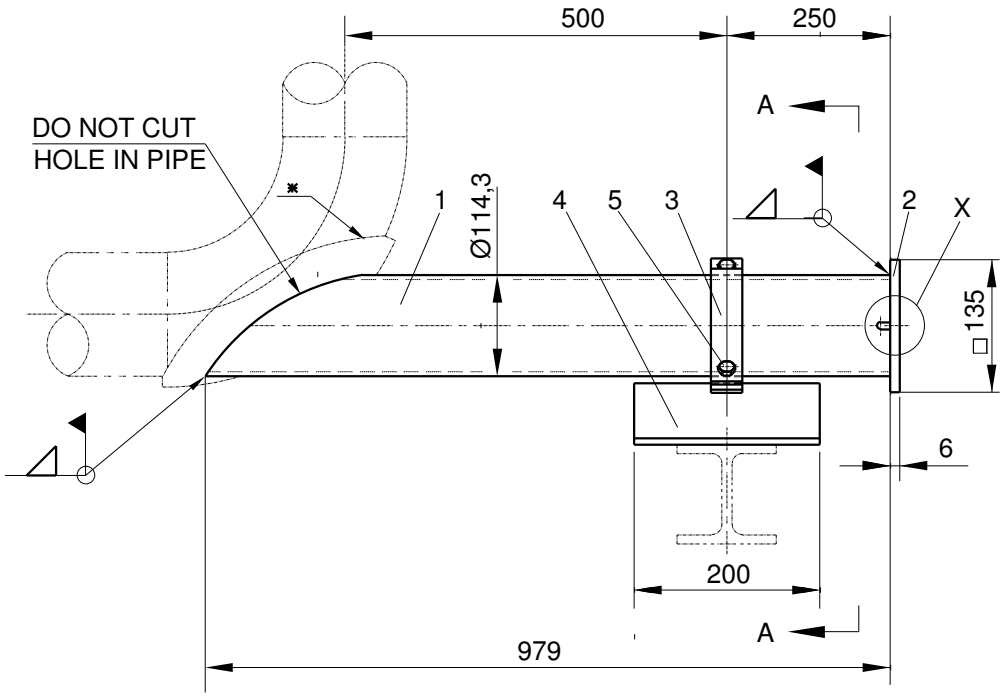
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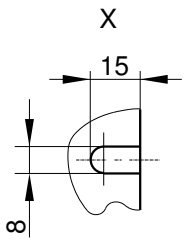
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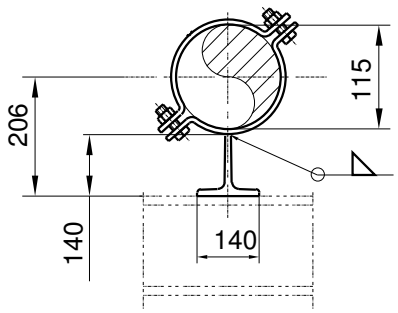
PIPE SUPPORT

Code No.: NVG001D Marking : 150/3/500

U Item







A-A

* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 979	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 25,540 kg

1) A193GR.B7/A194GR.2H

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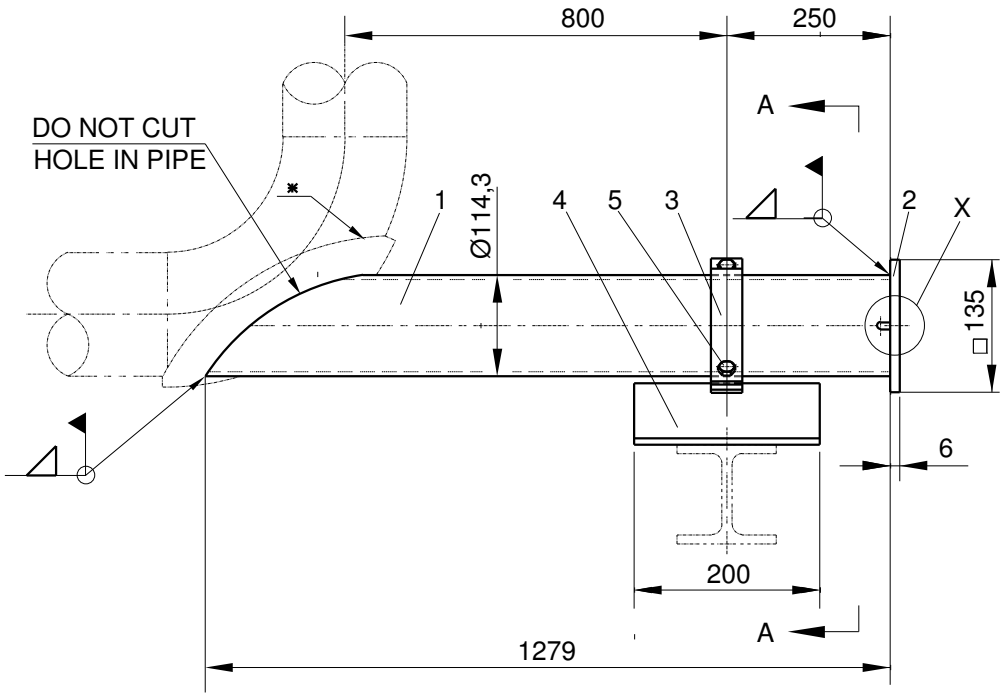
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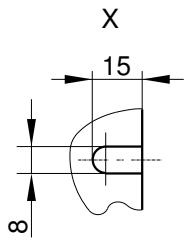
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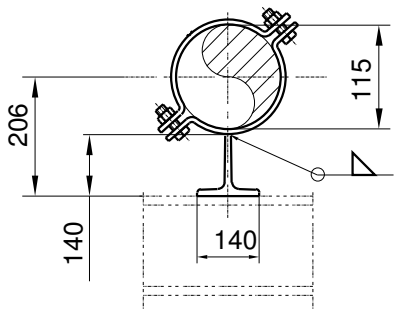
PIPE SUPPORT

Code No.: NVG001D Marking : 150/3/800

U Item







A-A

✱ Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1279	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 30,580 kg

1) A193GR.B7/A194GR.2H

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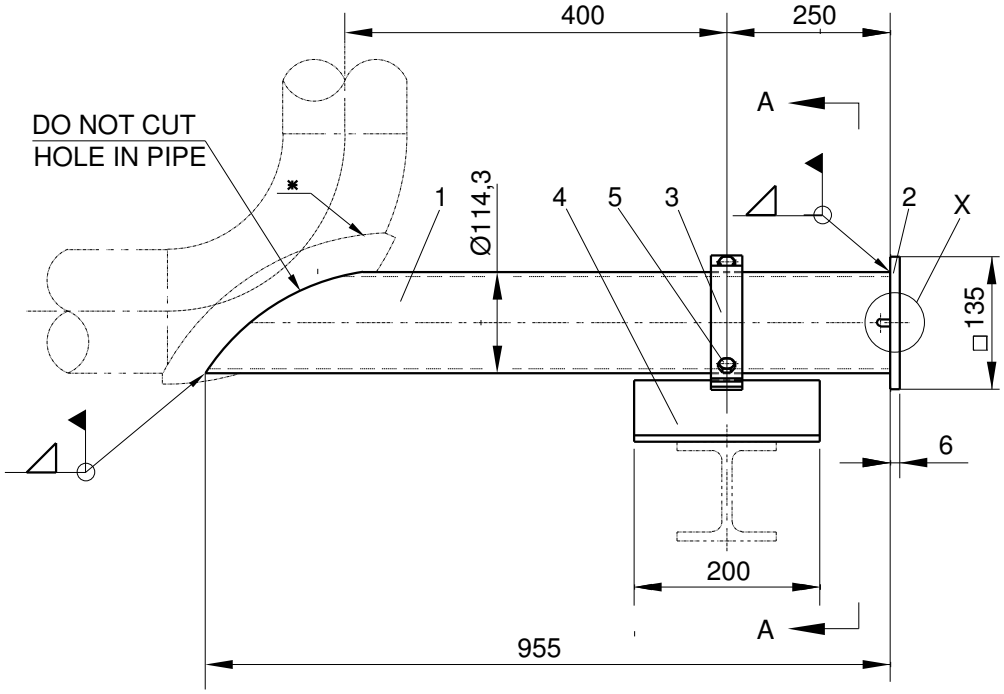
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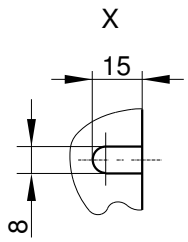
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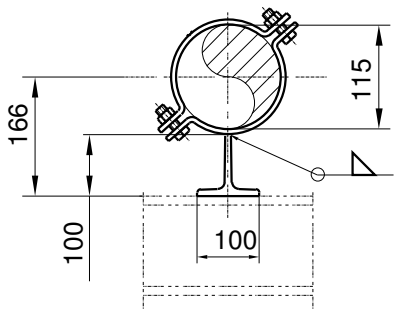
PIPE SUPPORT

Code No.: NVG001D Marking : 200/2/400

U Item







A-A

* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 955	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 22,150 kg

1) A193GR.B7/A194GR.2H

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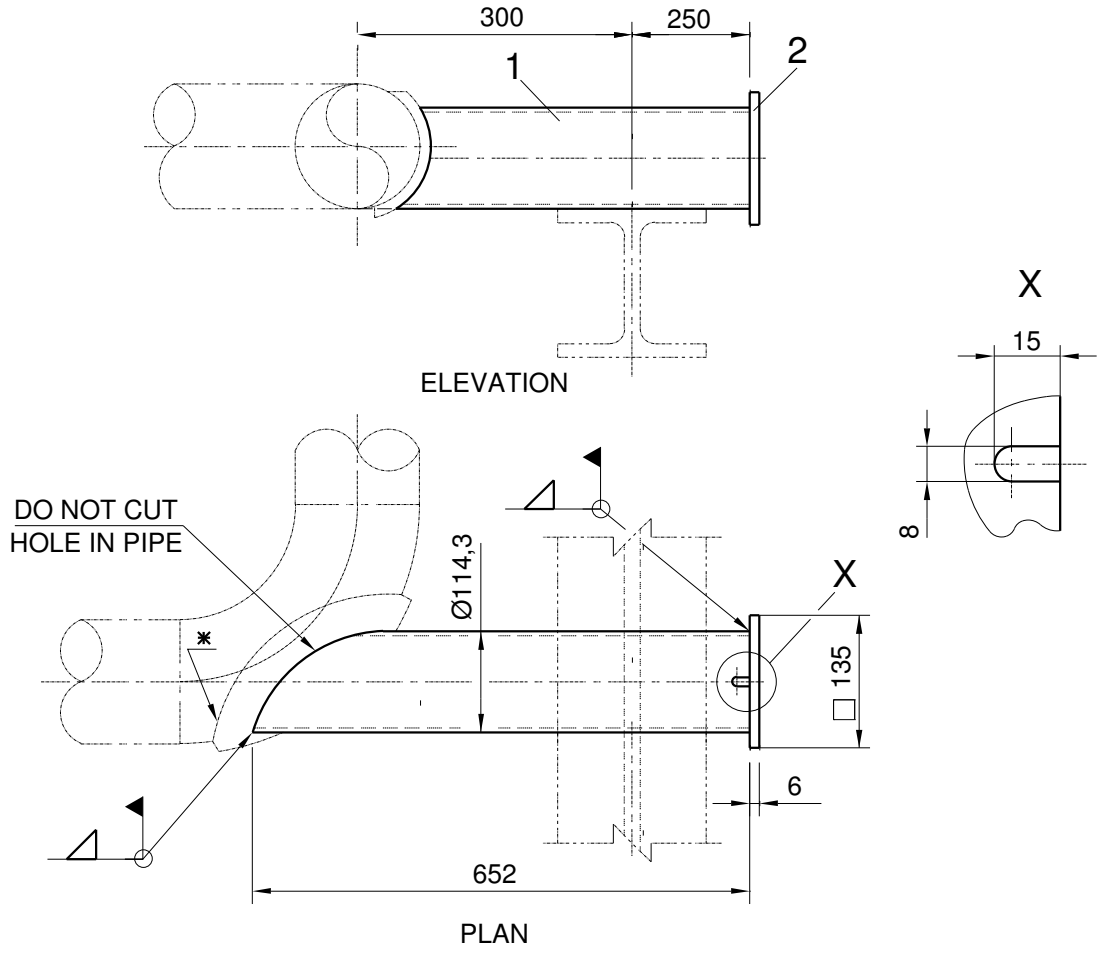
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 150/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 652	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 11,810 kg

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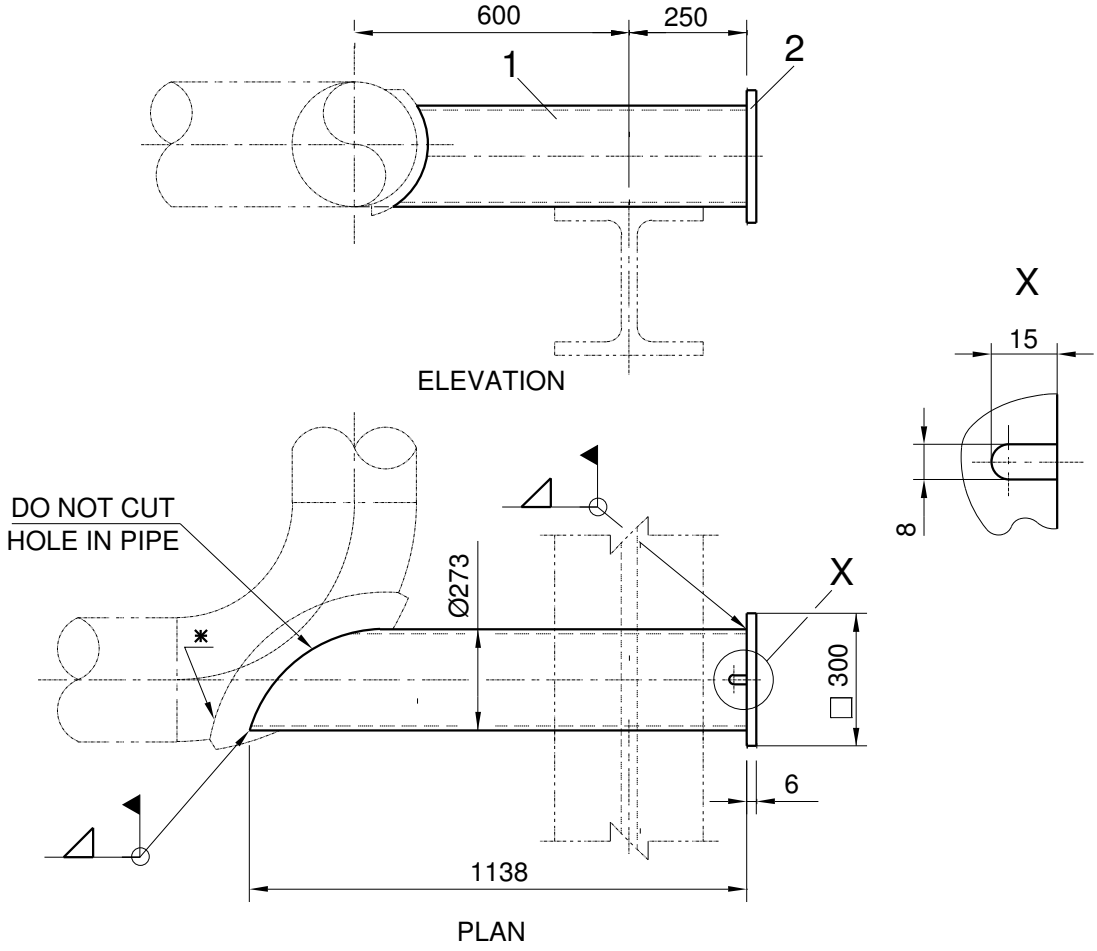
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 400/600

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1138	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 78,060 kg

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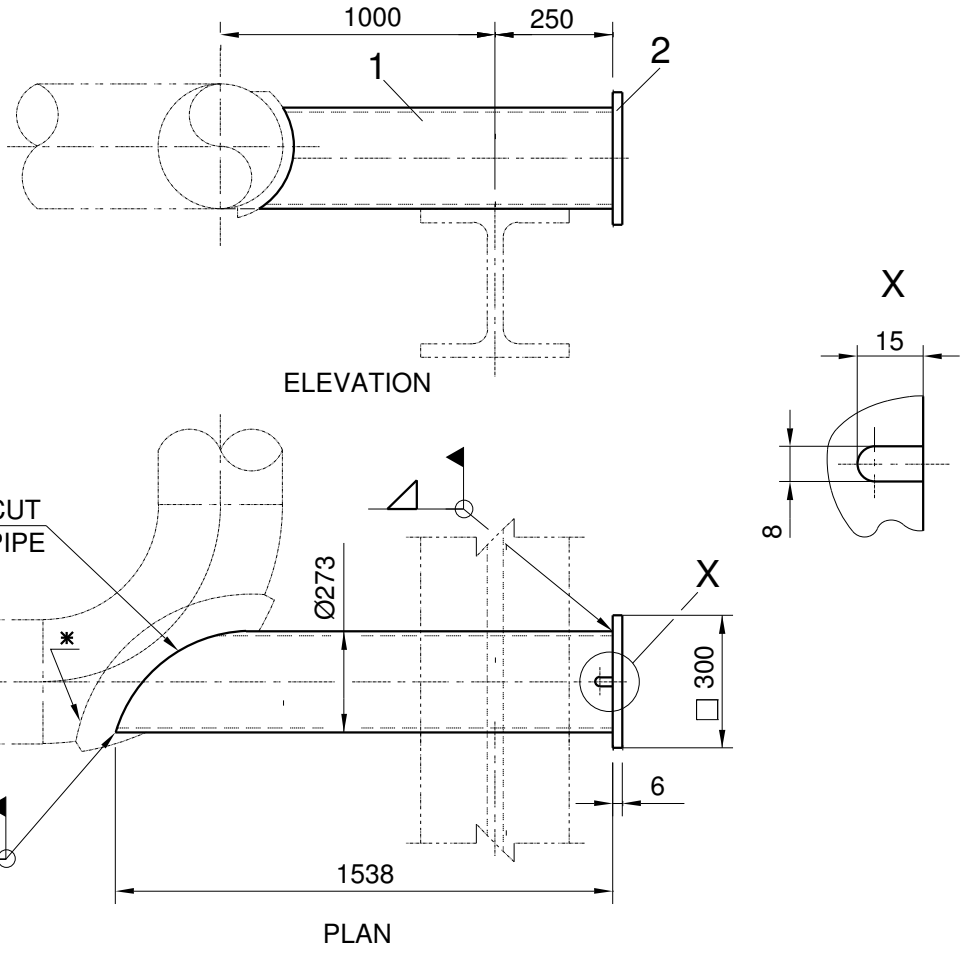
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWA001D Marking : 400/1000

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1538	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 104,020 kg

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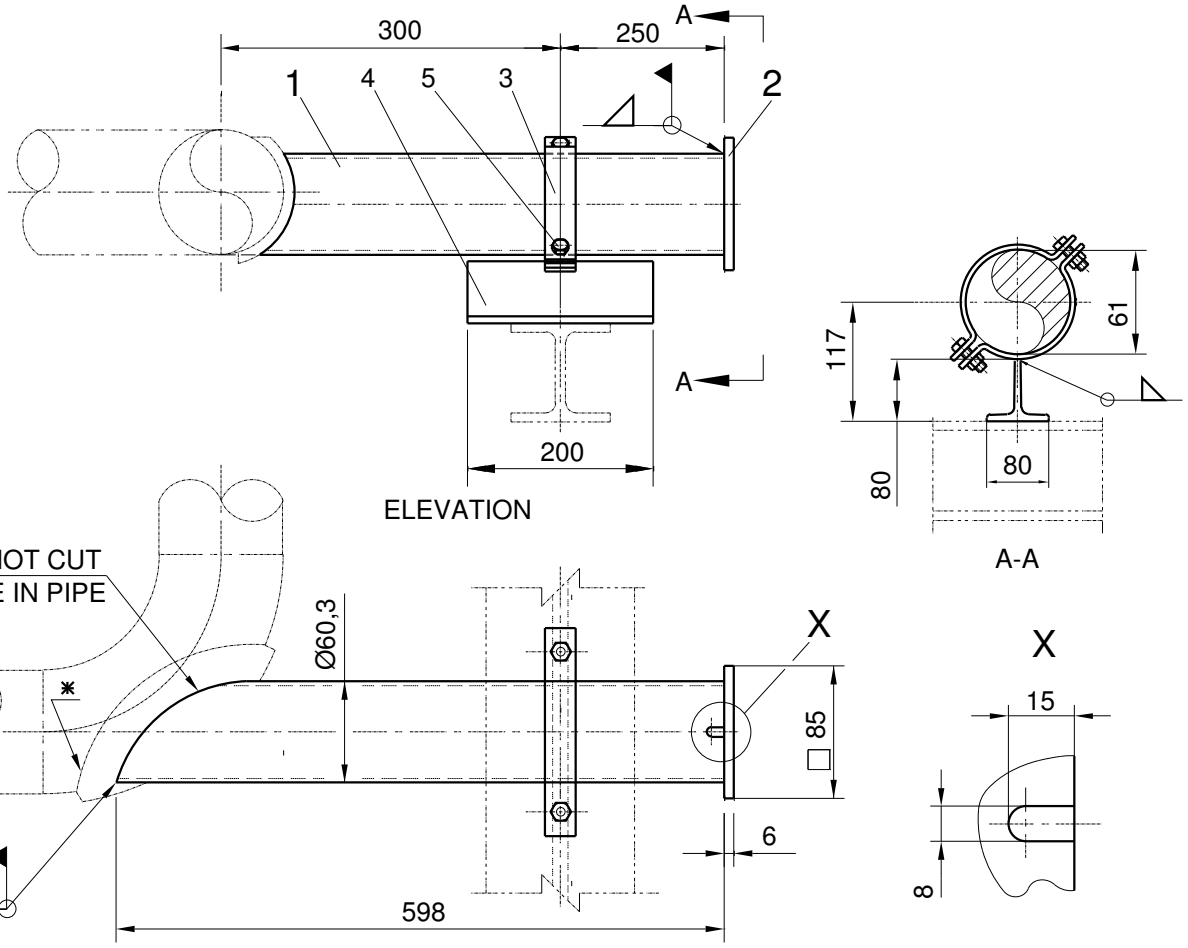
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 80/1/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 598	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 6,550 kg

1) A193GR.B7/A194GR.2H

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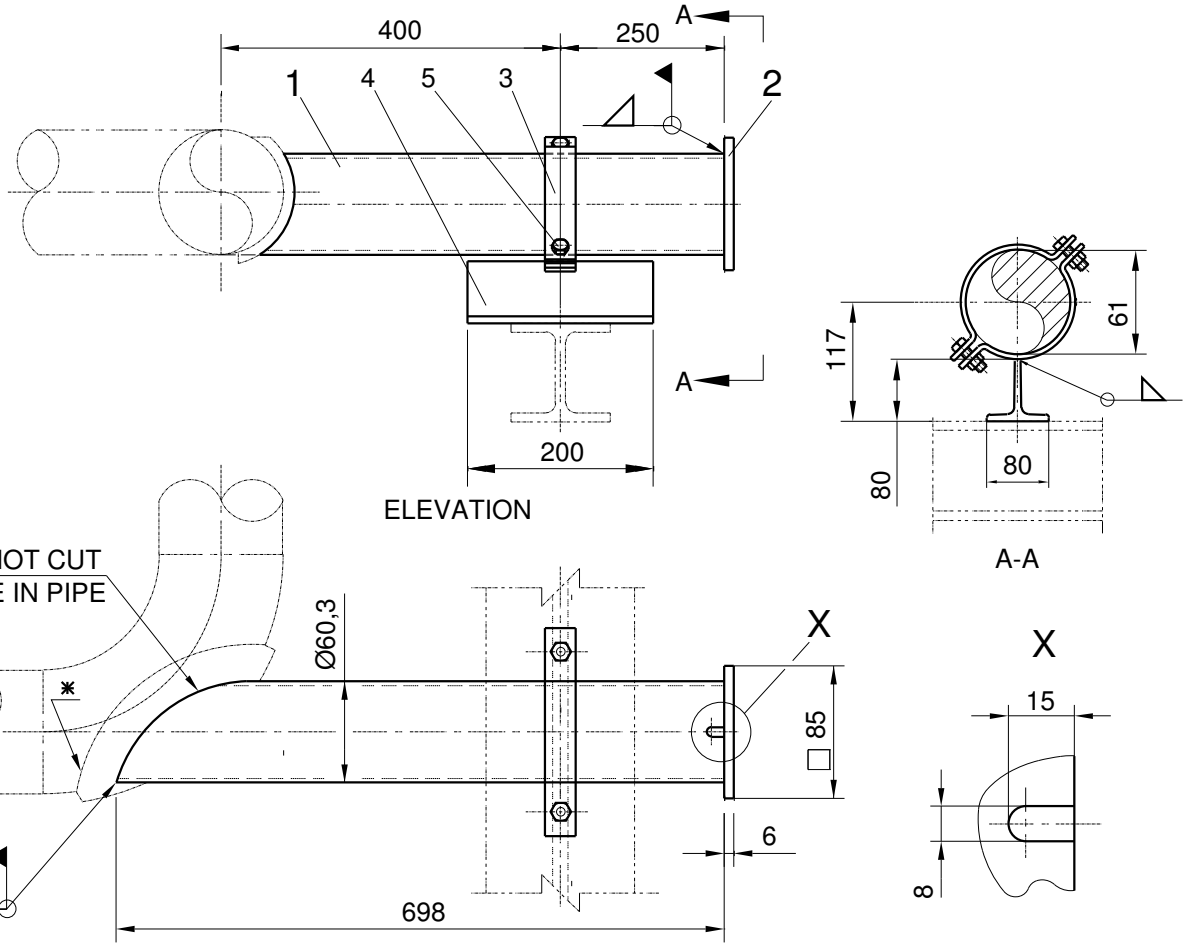
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 80/1/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 698	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 7,110 kg

1) A193GR.B7/A194GR.2H

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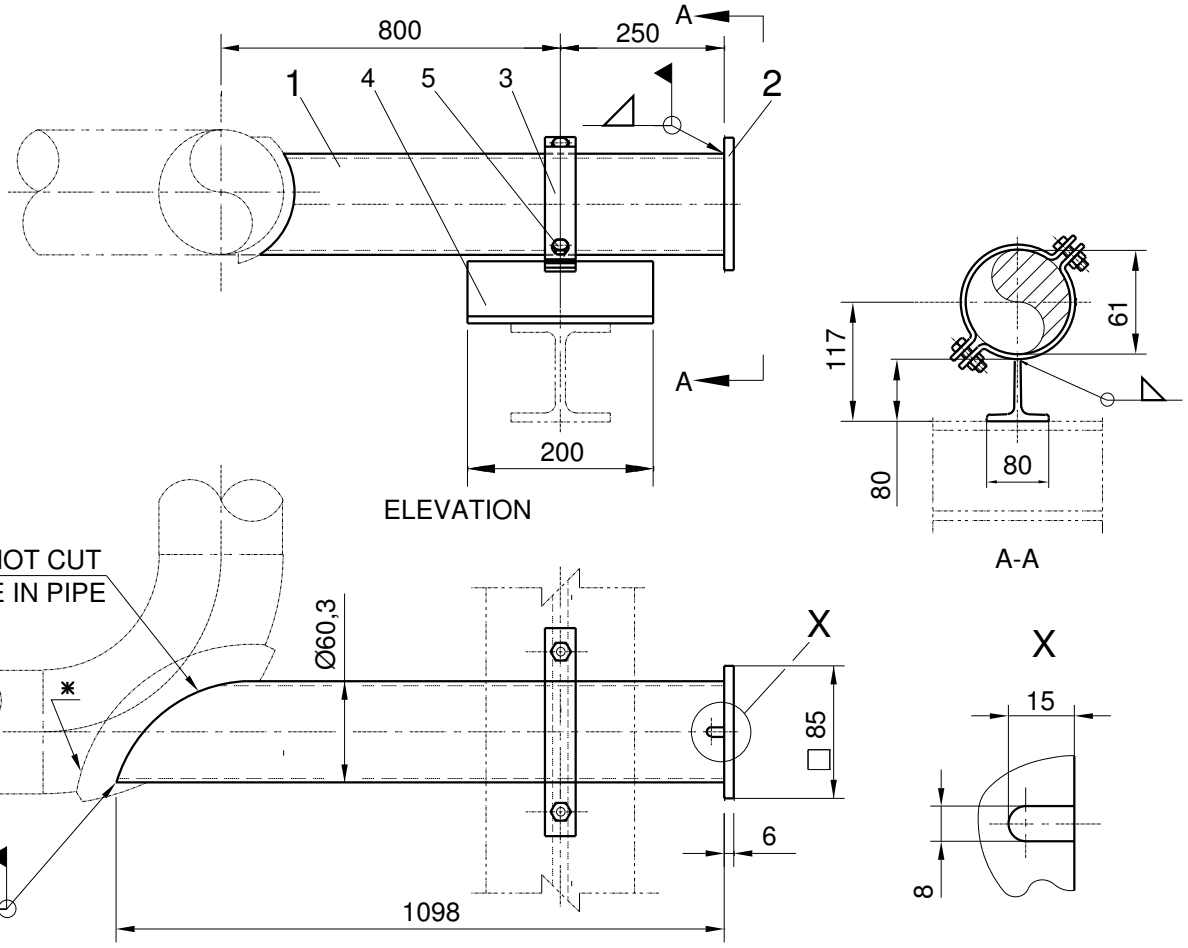
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 80/1/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 1098	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 9,330 kg

1) A193GR.B7/A194GR.2H

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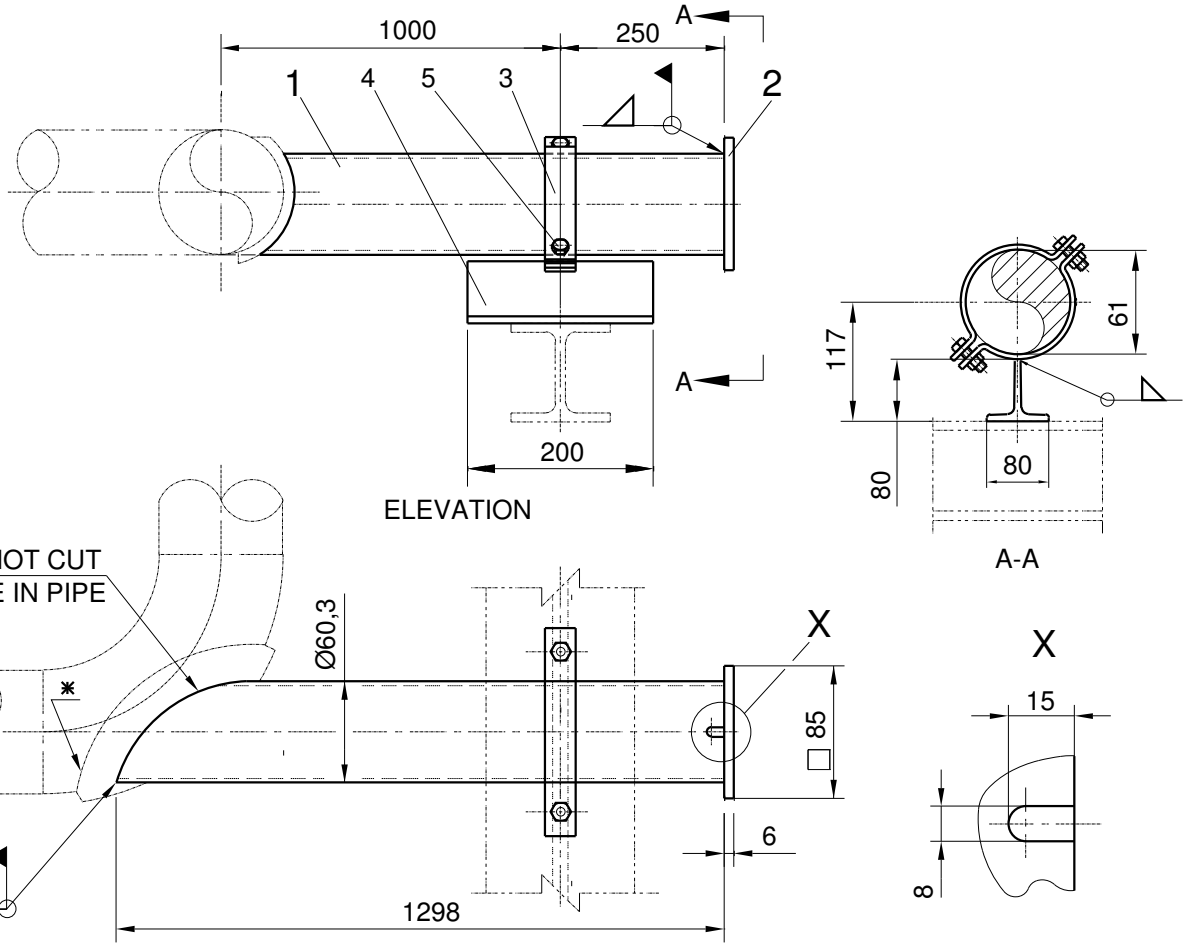
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 80/1/1000

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 1298	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 10,440 kg

1) A193GR.B7/A194GR.2H

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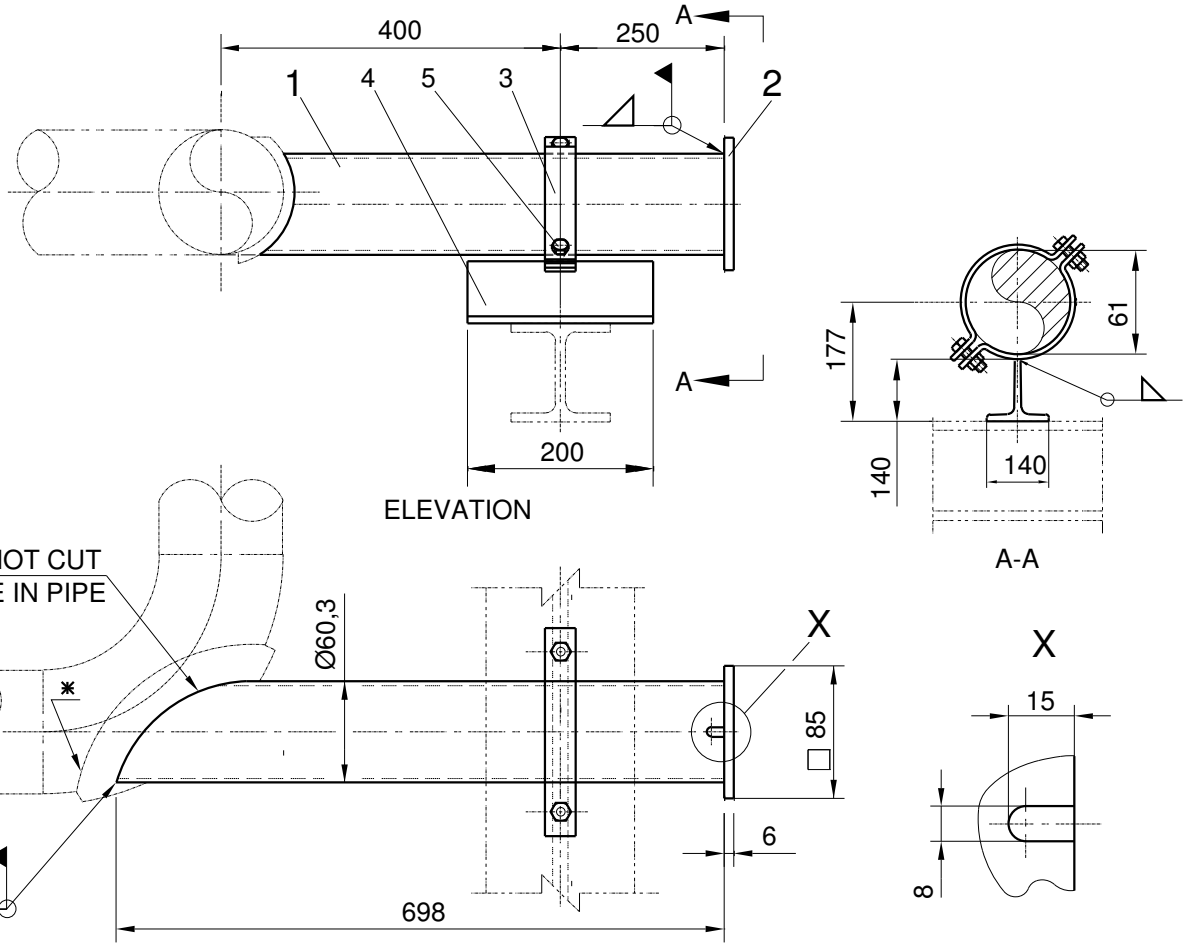
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 80/3/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 61	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 85 x 85	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 698	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 11,230 kg

1) A193GR.B7/A194GR.2H

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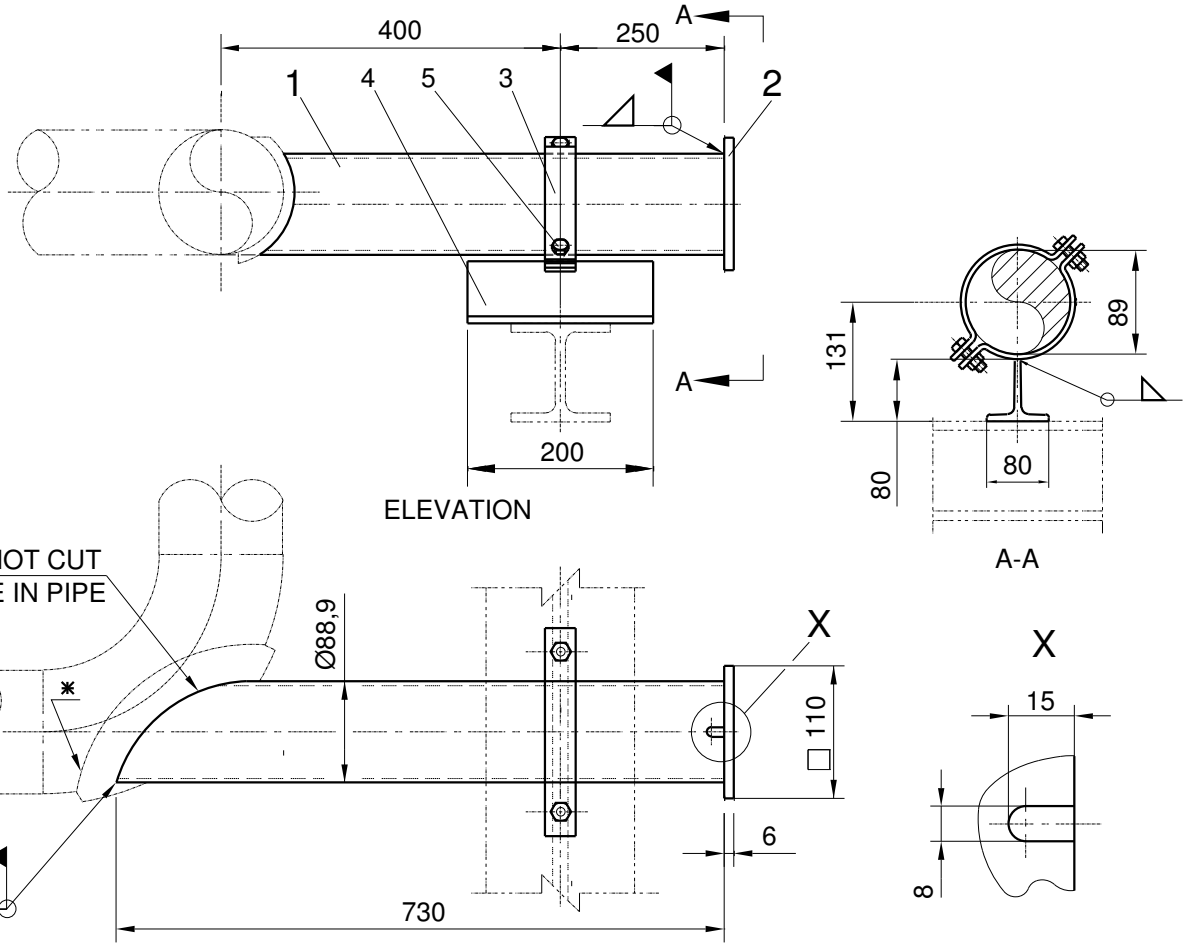
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 100/1/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 730	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 11,130 kg

1) A193GR.B7/A194GR.2H

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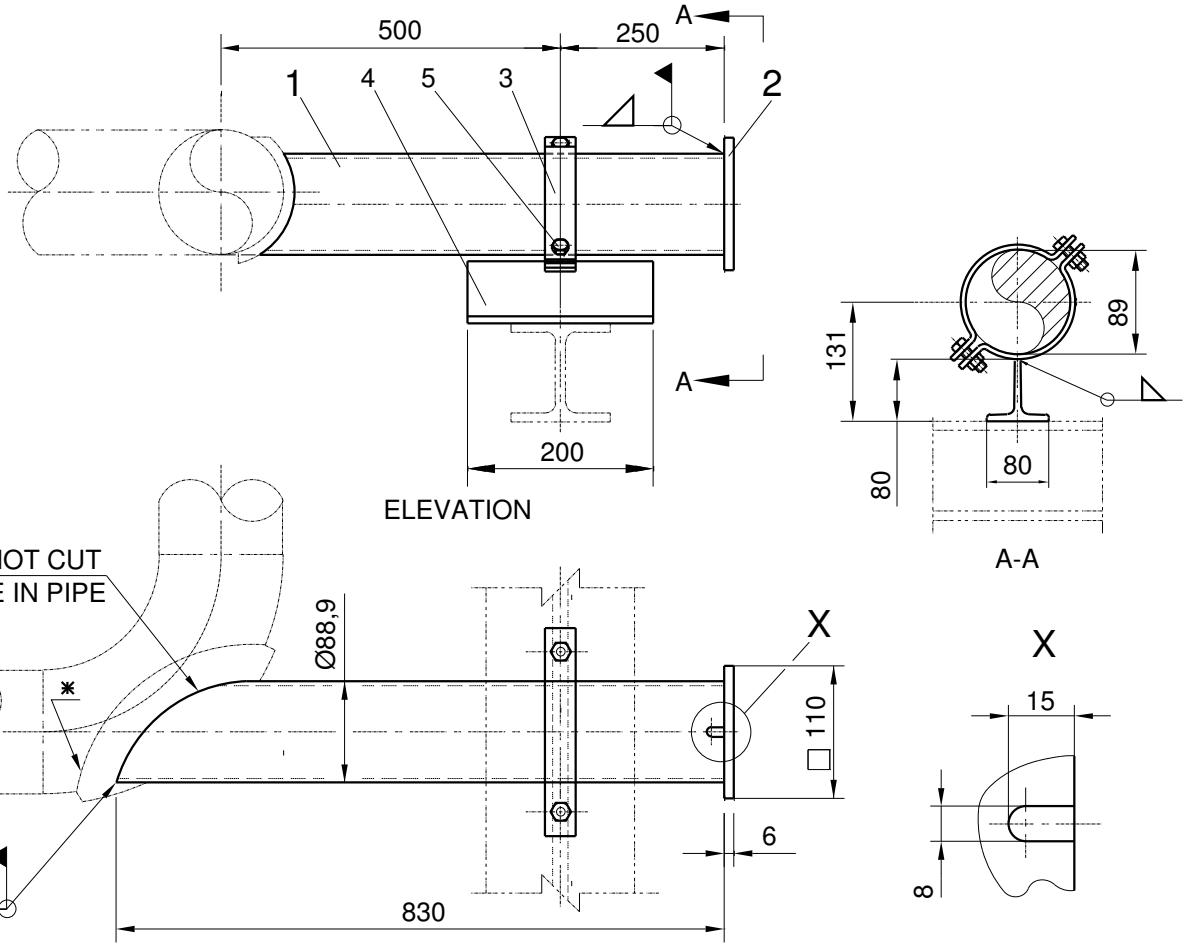
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 100/1/500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 830	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 12,160 kg

1) A193GR.B7/A194GR.2H

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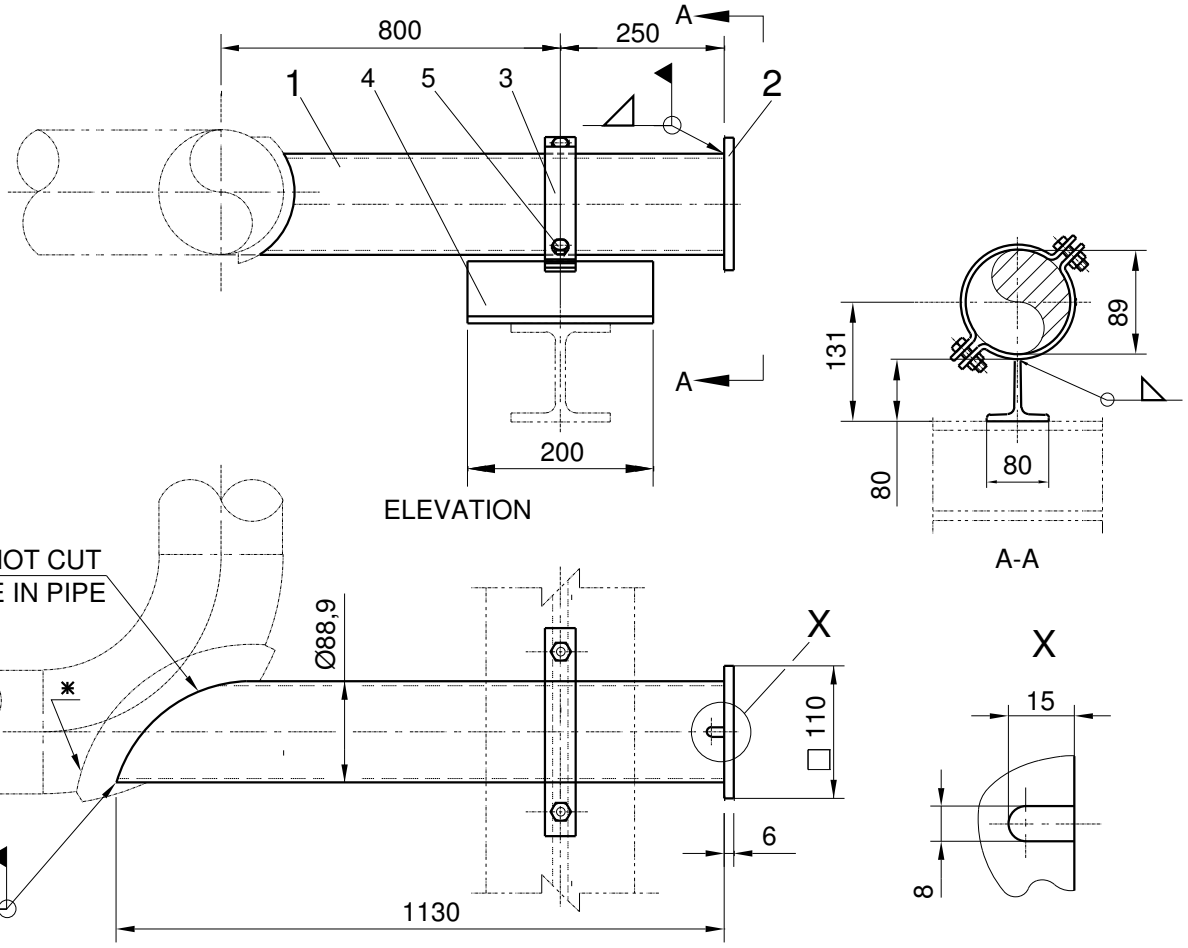
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 100/1/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 1130	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 15,250 kg

1) A193GR.B7/A194GR.2H

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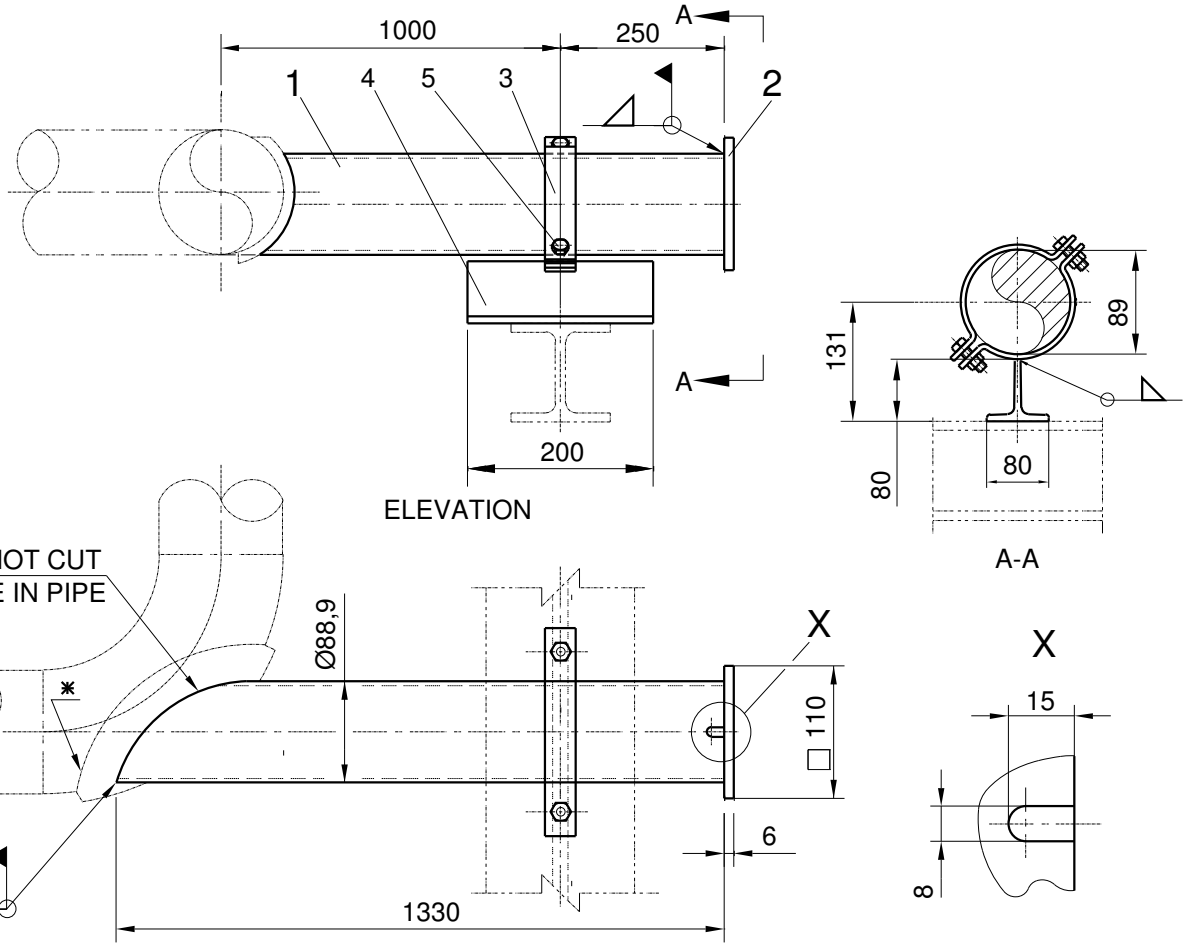
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 100/1/1000

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 1330	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 17,310 kg

1) A193GR.B7/A194GR.2H

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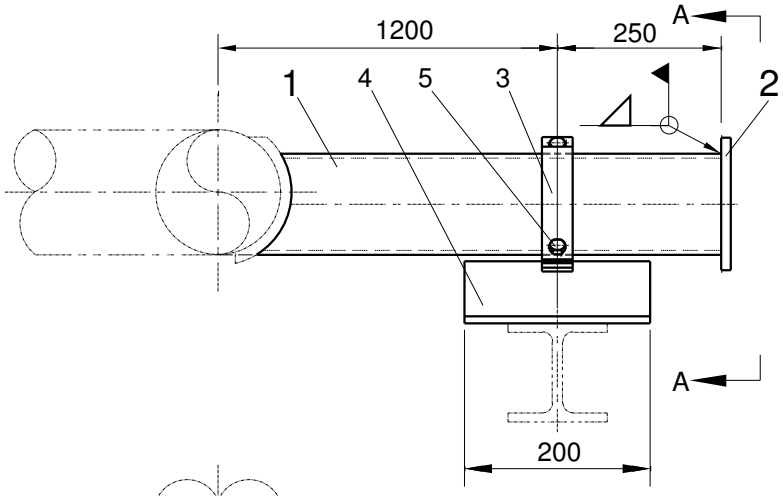
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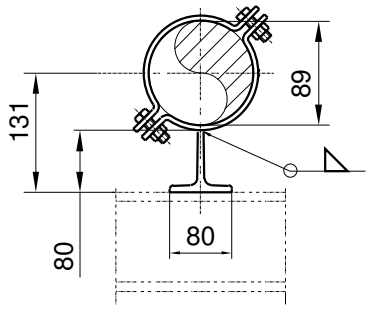
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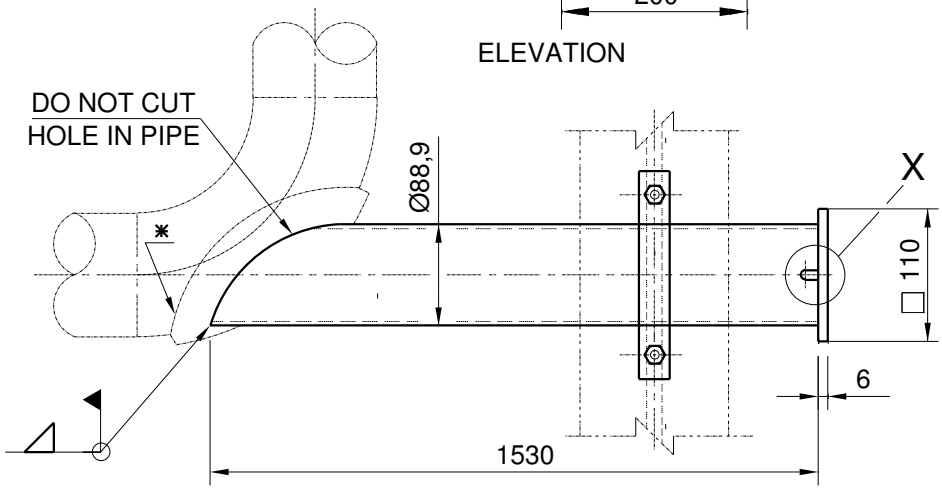
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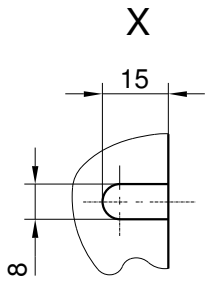
ELEVATION



A-A



PLAN



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 12 x 40 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 80 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 89	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 110 x 110	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 1530	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 19,370 kg

1) A193GR.B7/A194GR.2H

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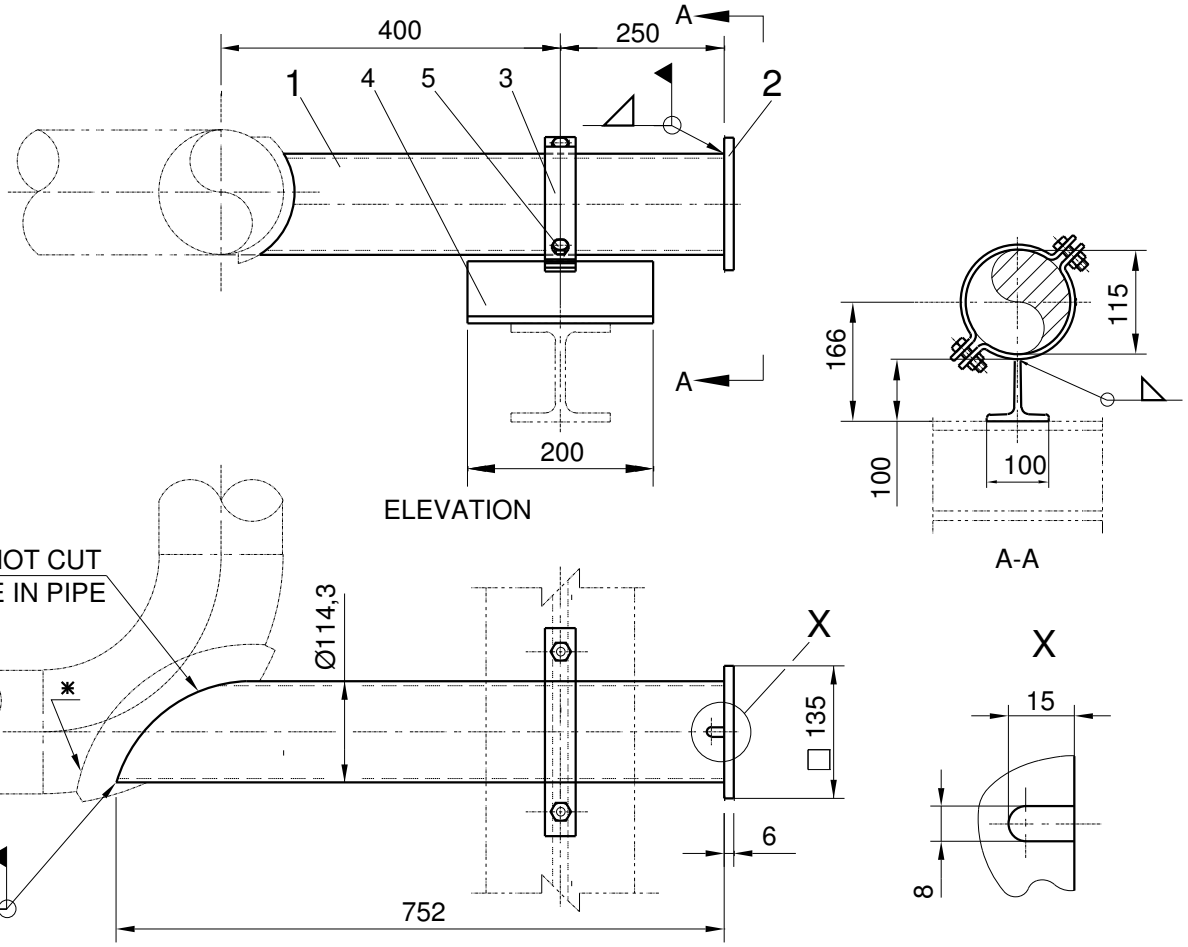
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 150/2/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 752	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 18,740 kg

1) A193GR.B7/A194GR.2H

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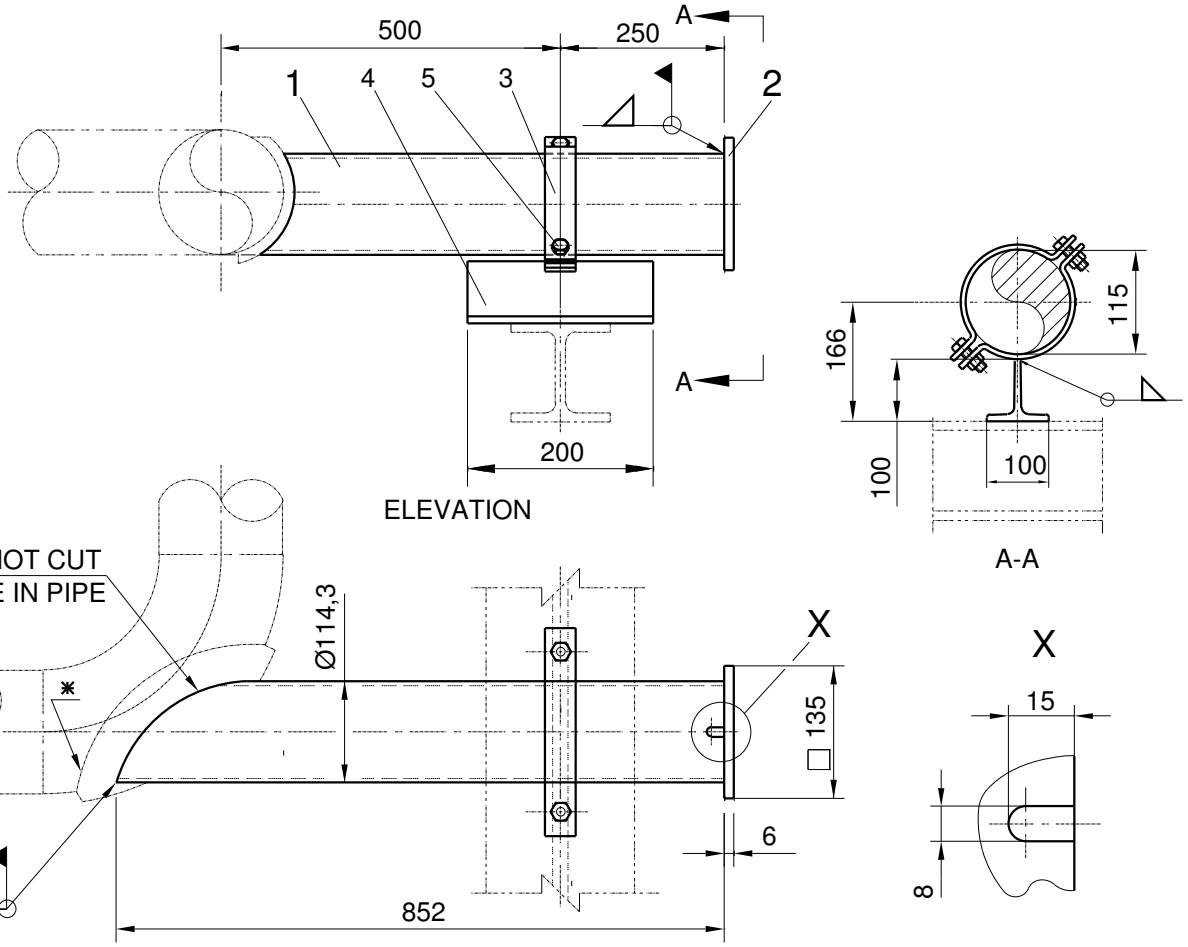
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 150/2/500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 852	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 20,420 kg

1) A193GR.B7/A194GR.2H

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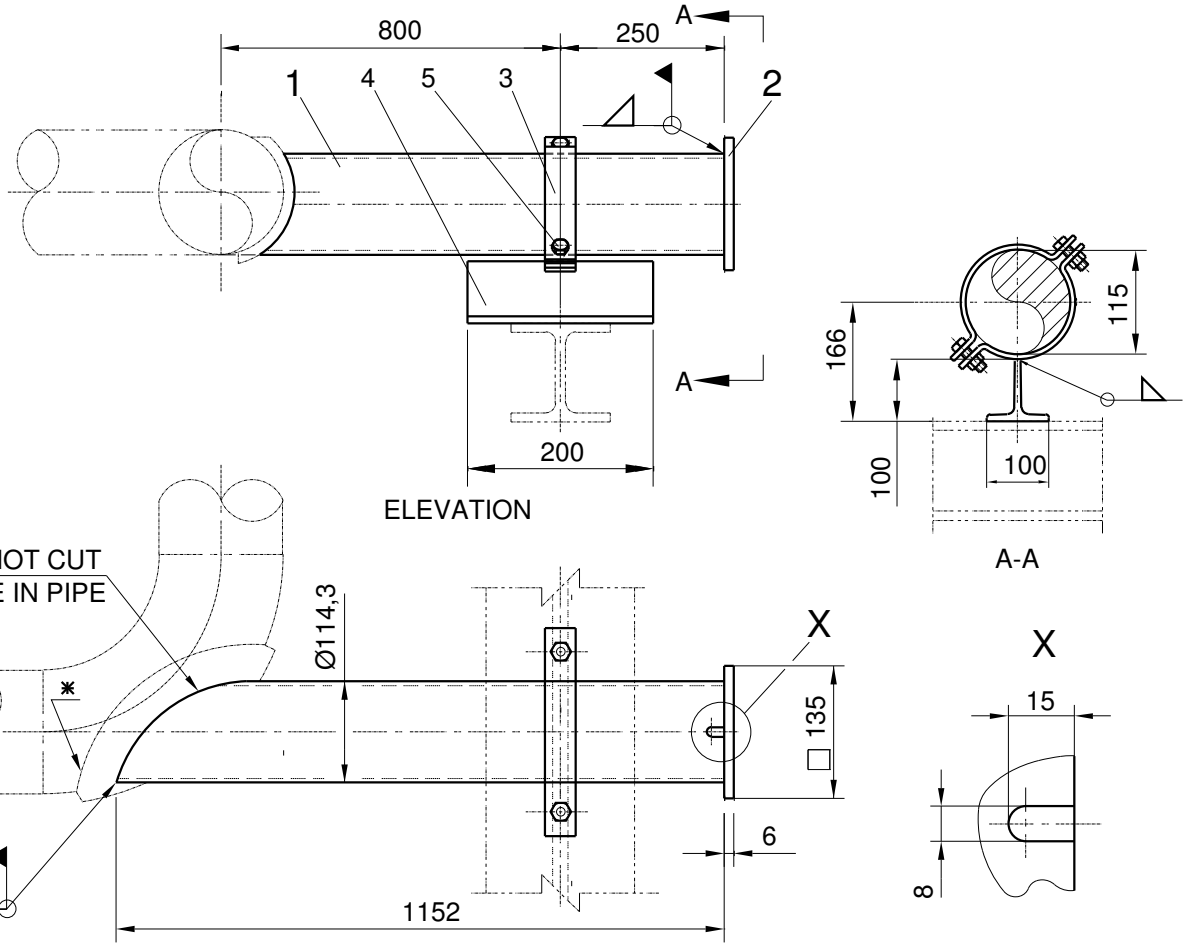
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 150/2/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1152	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 25,460 kg

1) A193GR.B7/A194GR.2H

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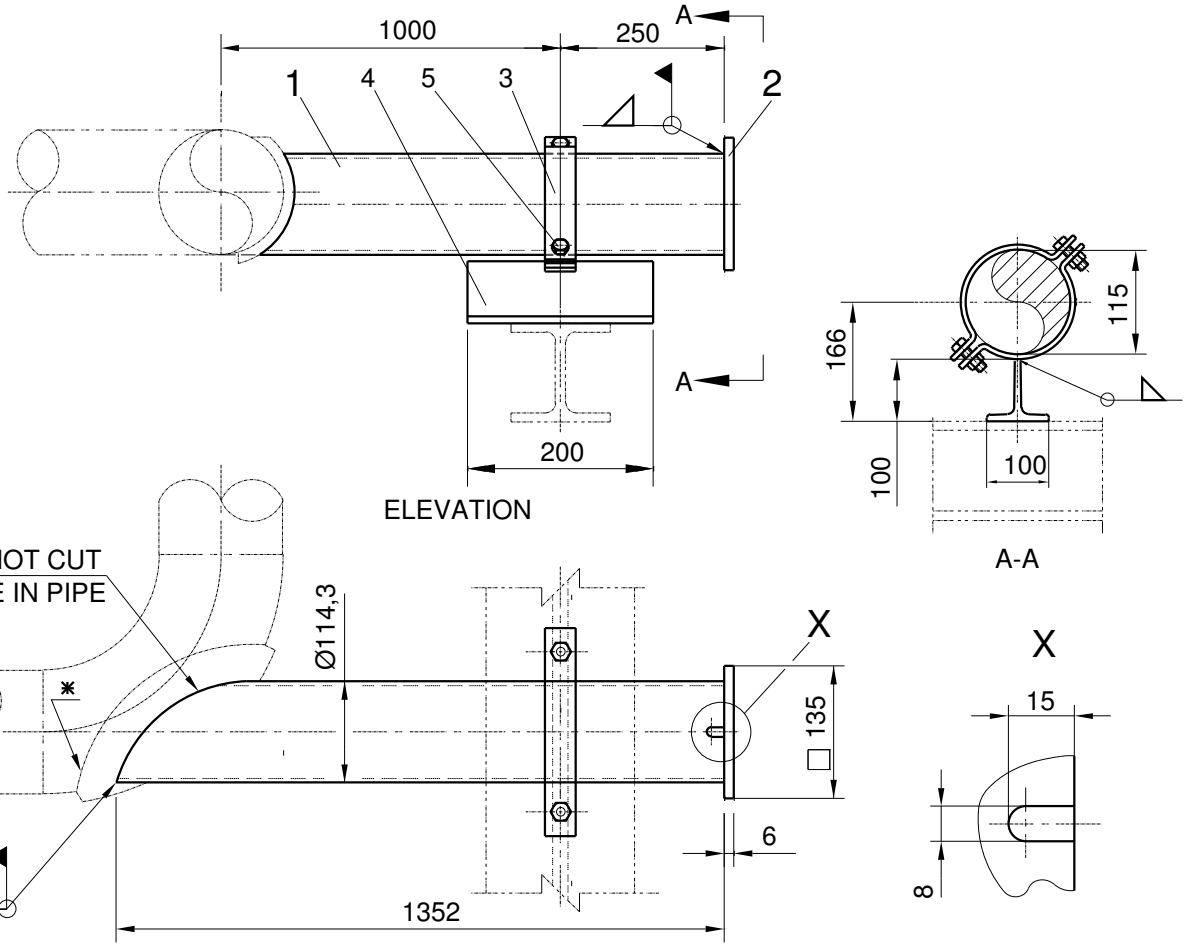
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 150/2/1000

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1352	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 28,820 kg

1) A193GR.B7/A194GR.2H

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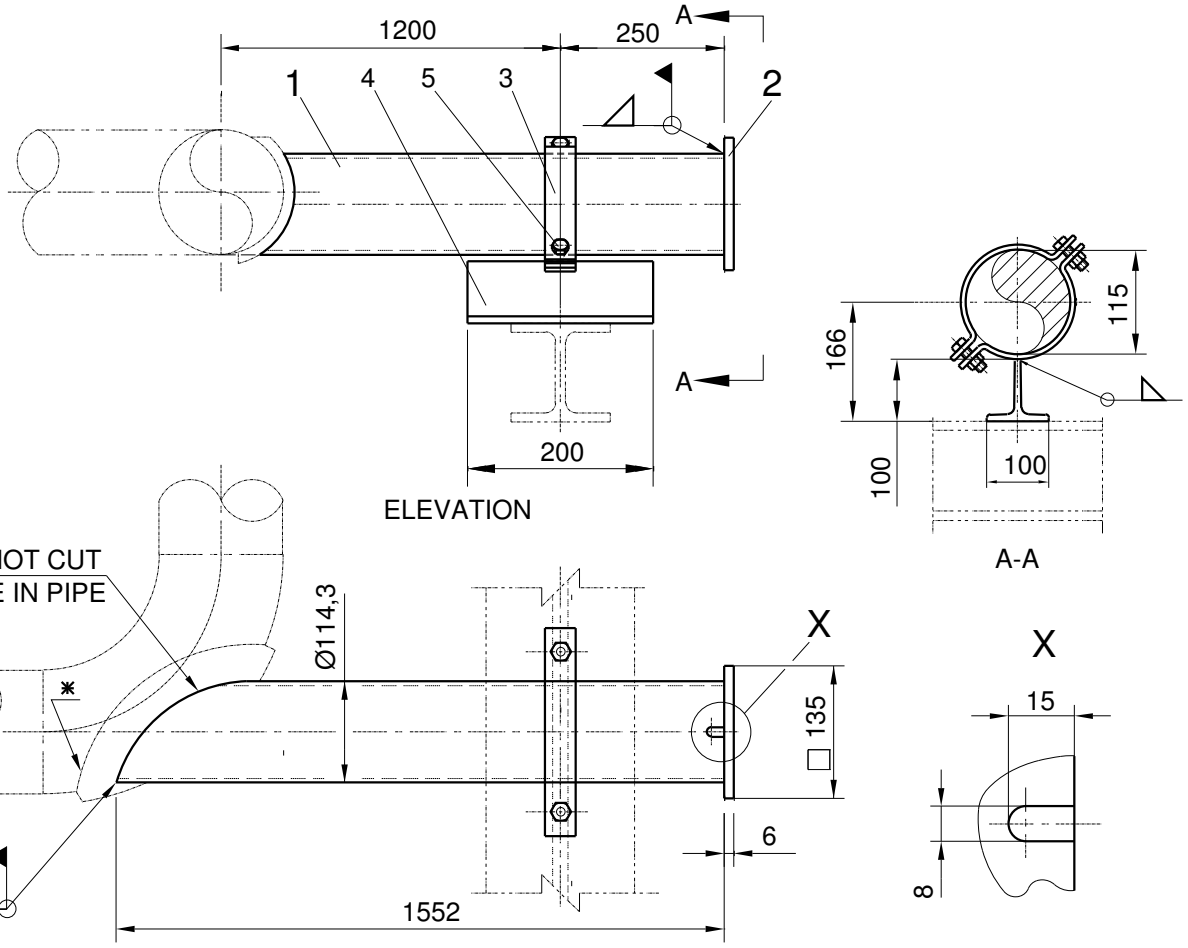
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 150/2/1200

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1552	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 32,180 kg

1) A193GR.B7/A194GR.2H

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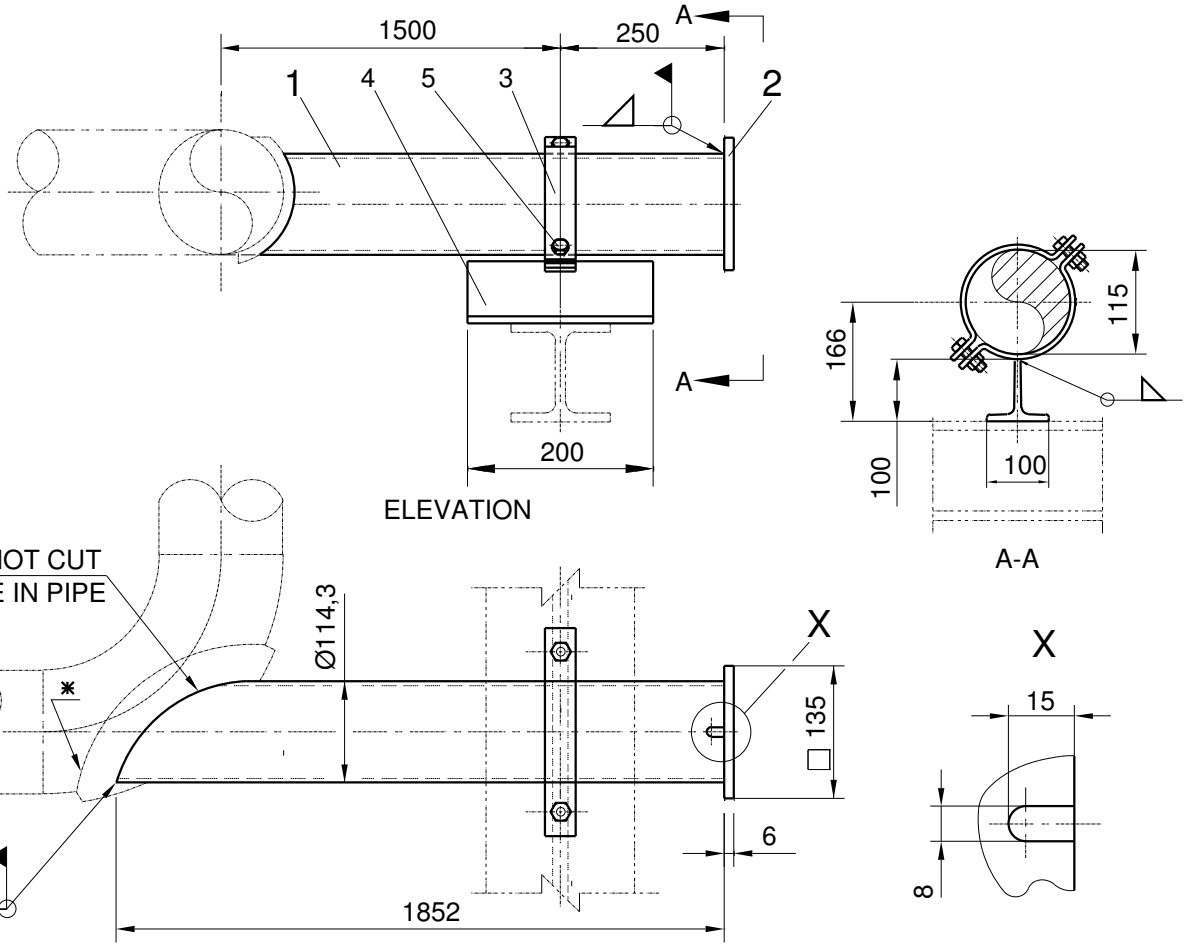
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 150/2/1500

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 1852	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 37,220 kg

1) A193GR.B7/A194GR.2H

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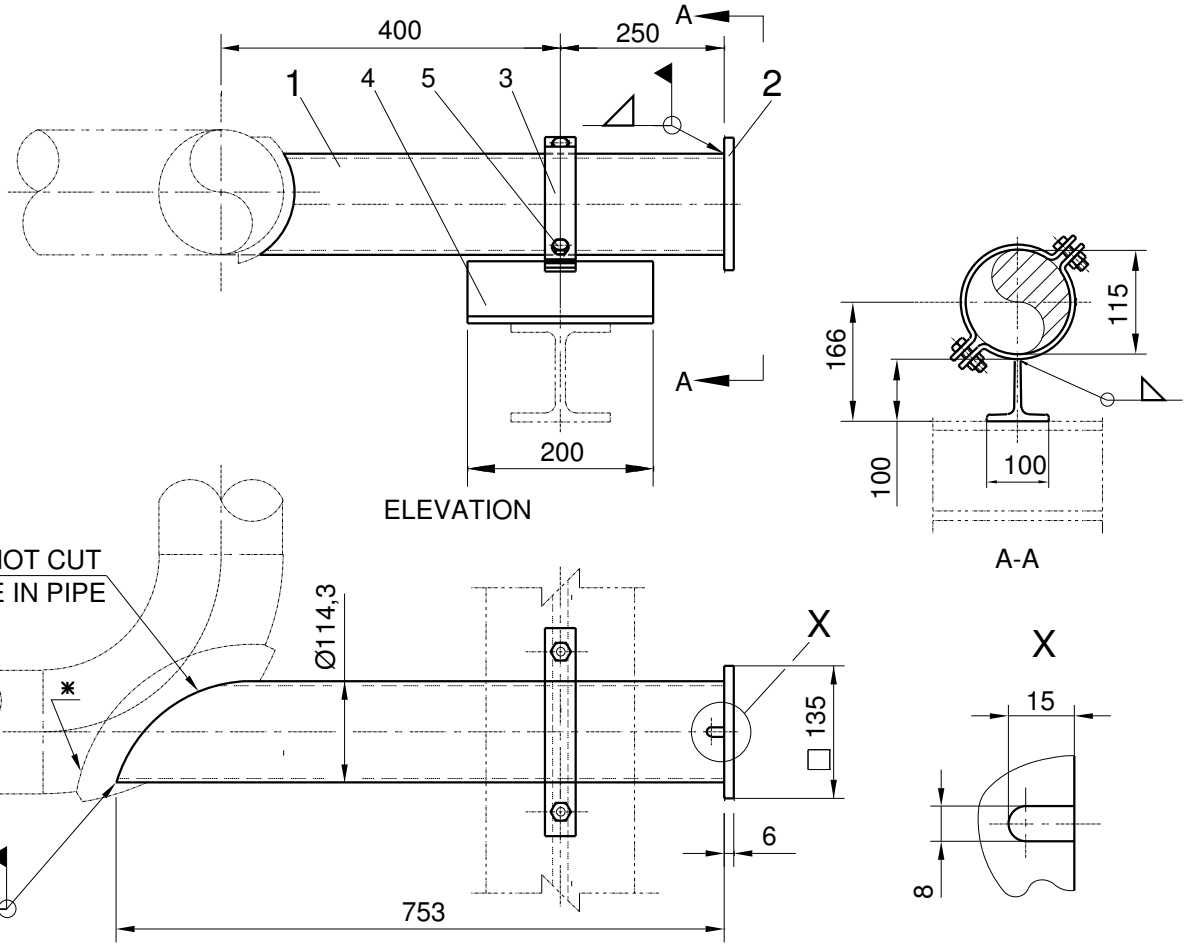
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG001D Marking : 200/2/400

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	2	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 100 x 200	EN 10055	A36	GT0001D
3	1	CLAMP FORM A DS 115	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 135 x 135	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 753	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 18,760 kg

1) A193GR.B7/A194GR.2H

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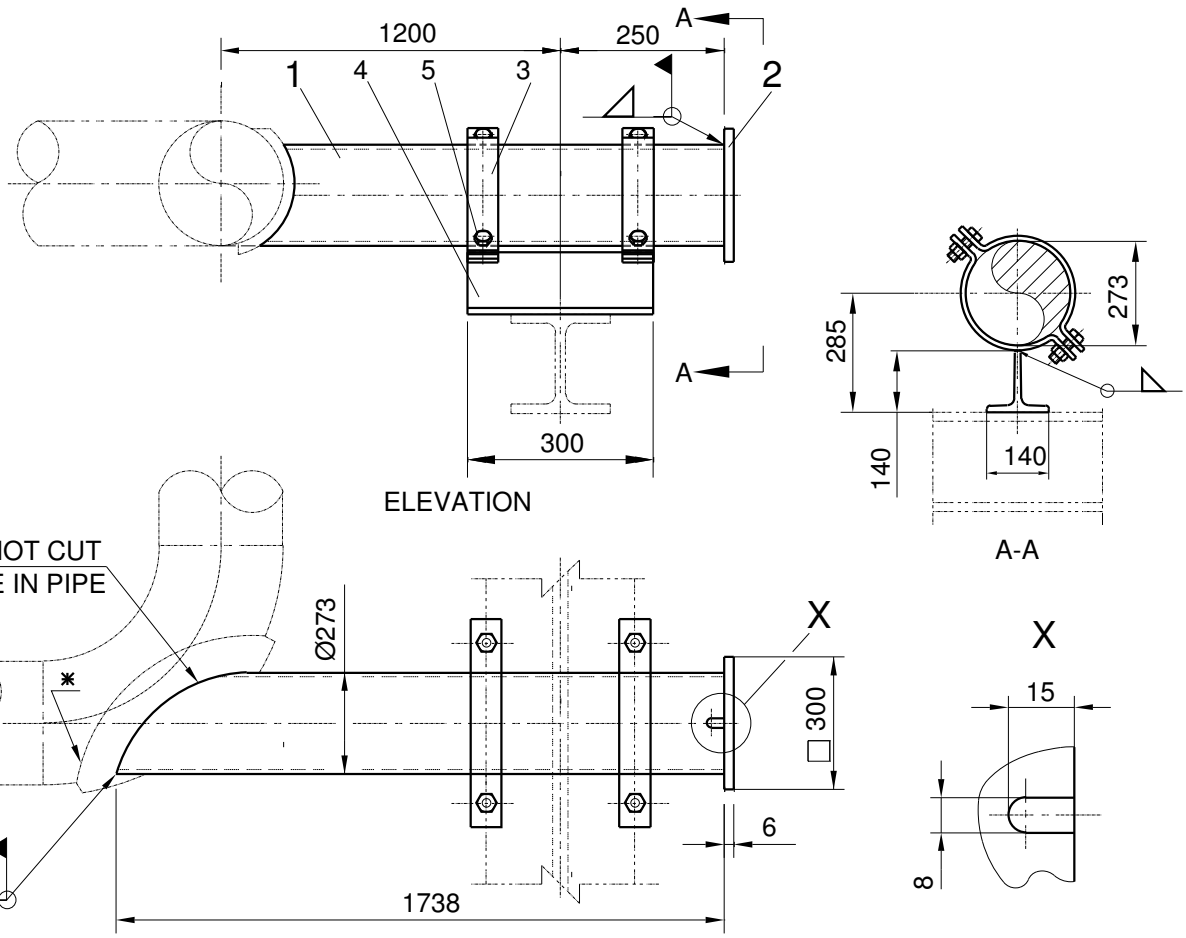
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NWG002D Marking : 400/4/1200

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 20 x 55 / MU	ENISO 4018/4034	1)	MB0001D
4	1	T-BAR T 140 x 300	EN 10055	A36	GT0001D
3	2	CLAMP FORM A DS 273	UN 3790-01	A283GR.B	MS0001D
2	1	PLATE 6 x 300 x 300	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 1738	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 135,470 kg

1) A193GR.B7/A194GR.2H

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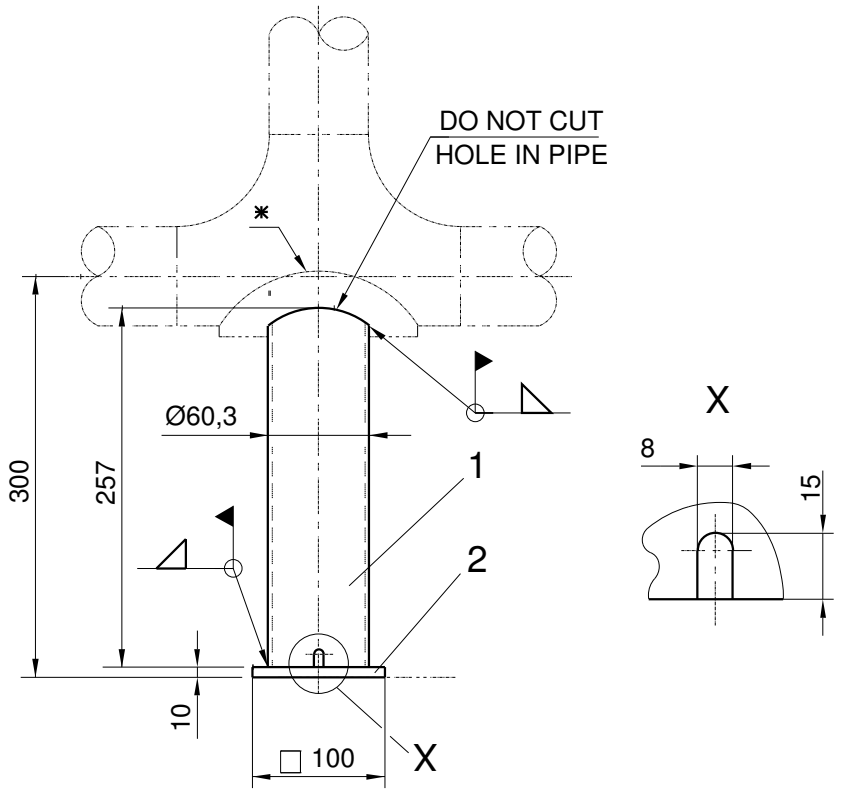
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NXA001D Marking : 80/300

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 60,3 x 4 x 257	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 2,210 kg

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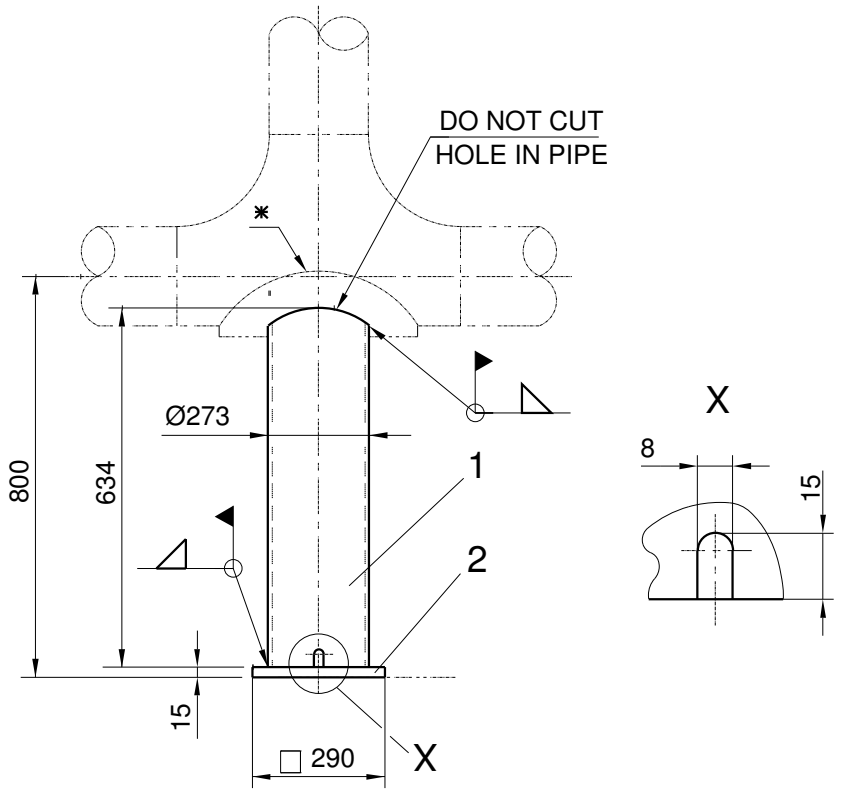
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NXA001D Marking : 400/800

U Item



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 634	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 51,080 kg

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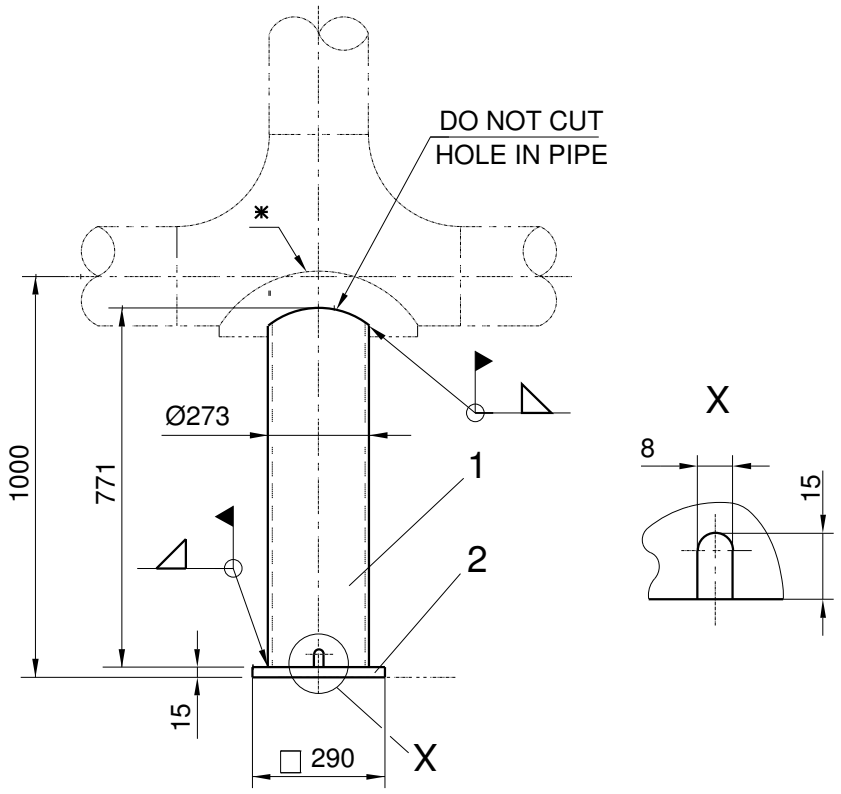
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S
				U Item		

PIPE SUPPORT

Code No.: NXA001D Marking : 500/1000



* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 771	DIN 2448	A53GR.B	GR0011D
Pos.	Quantity	Description	Standard	Material No. **	Code No.

Remarks: Total weight = 59,930 kg

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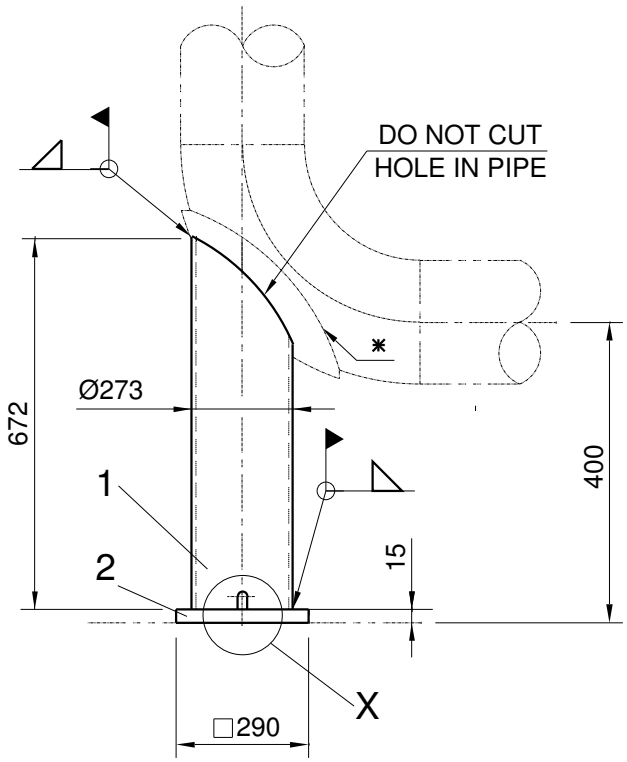
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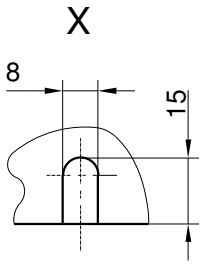
tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: NYA001D Marking : 450/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 672	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 0,100 kg

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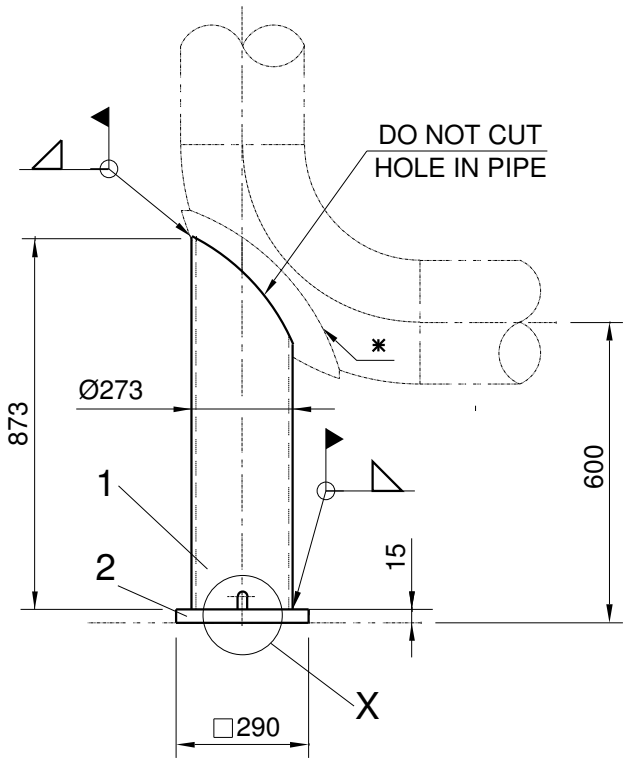
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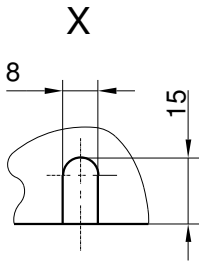
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 500/600

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 290 x 290	EN 10029	A283GR.B	GB0001D
1	1	PIPE 273 x 10 x 873	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 66,540 kg

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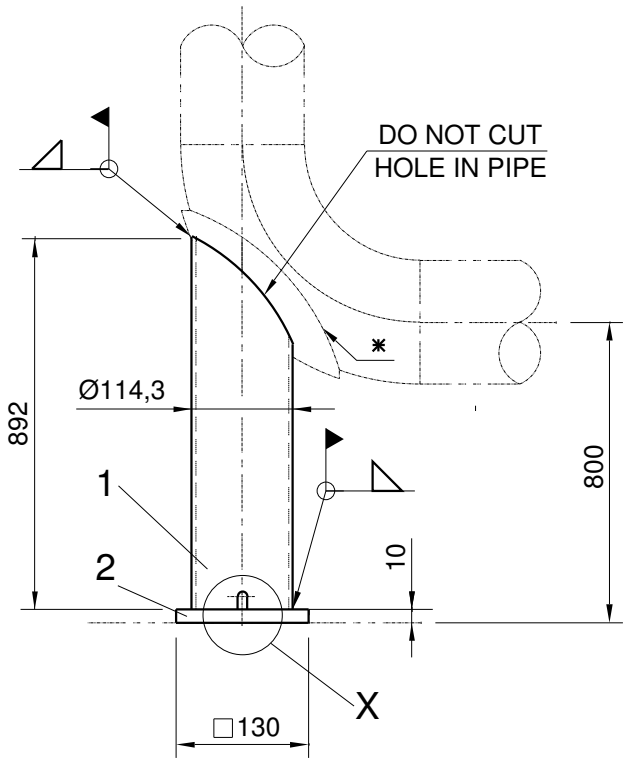
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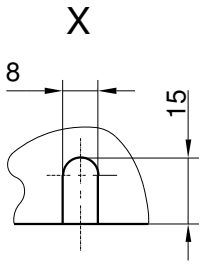
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYA001D Marking : 150/800

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 130 x 130	EN 10029	A283GR.B	GB0001D
1	1	PIPE 114,3 x 6,3 x 892	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 16,570 kg

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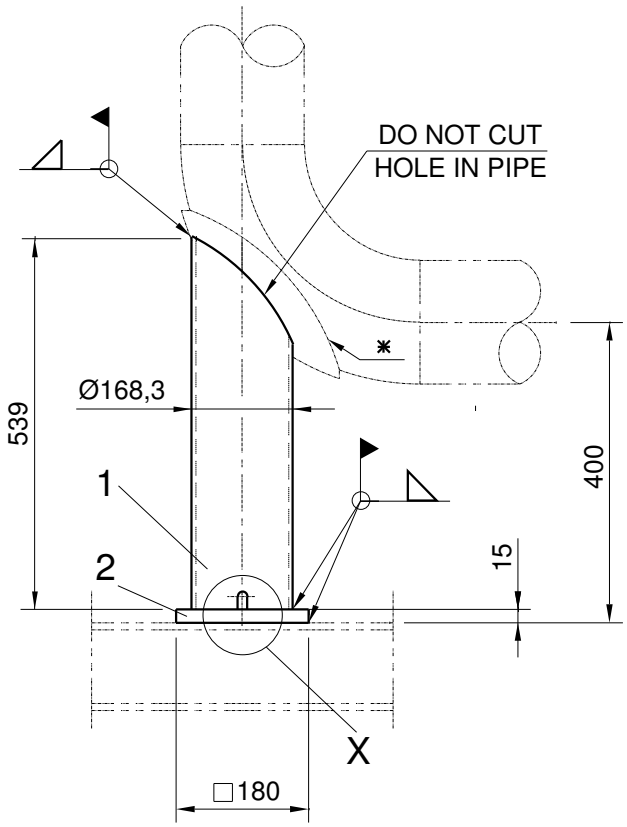
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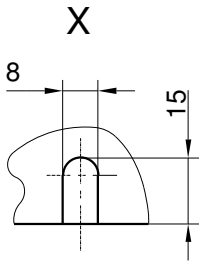
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: NYC001D Marking : 250/400

U Item





* Reinforcement pad if any will be specified in Isometric.

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 180 x 180	EN 10029	A283GR.B	GB0001D
1	1	PIPE 168,3 x 11 x 539	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = 26,840 kg

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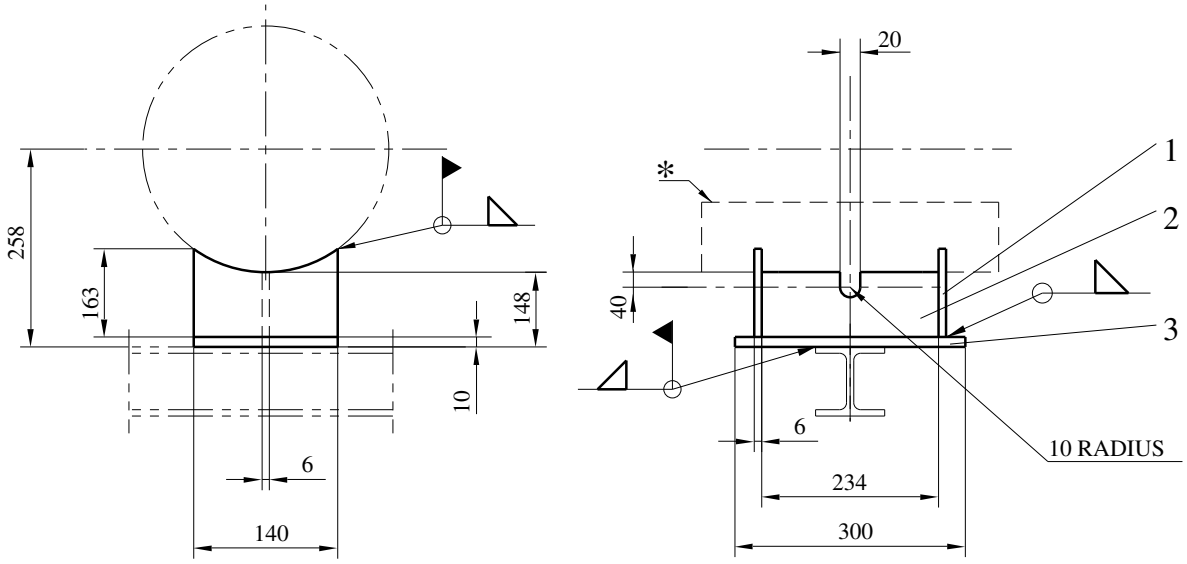
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WCC007D Marking : 200/3

U Item



* Reinforcement Pad if required will be specified on Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
3	1	PLATE 10 x 140 x 300	EN 10029	A283GR.B	GB0001D
2	1	PLATE 6 x 138 x 234	EN 10029	A283GR.B	GB0001D
1	2	PLATE 6 x 163 x 140	EN 10029	A283GR.B	GB0011D

Remarks: Total weight = kg

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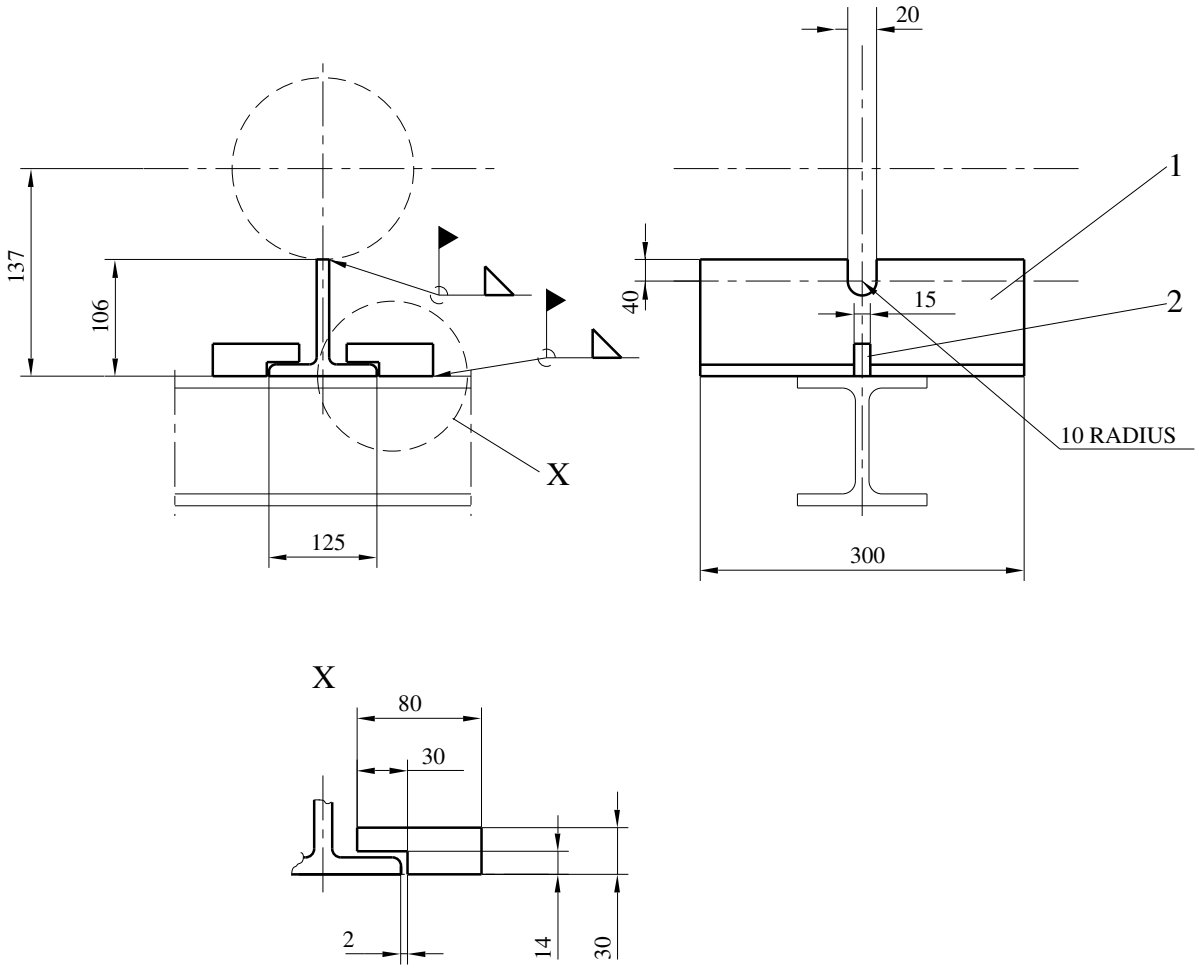
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDB001D Marking : 50/2

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	2	FLAT BAR 30 x 15 x 80	DIN 1017 P. 1	A283GR.B	GF0021D
1	1	T-BAR CUT FROM ISMB 250 , 106 x 125 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = kg

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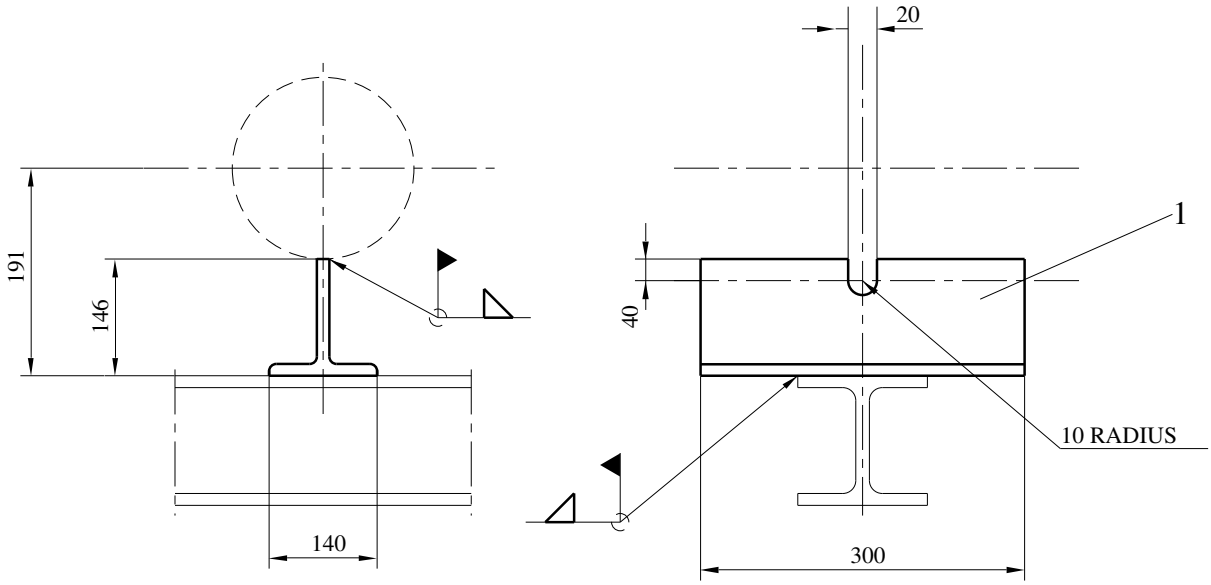
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC001D Marking : 80/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 146 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = kg

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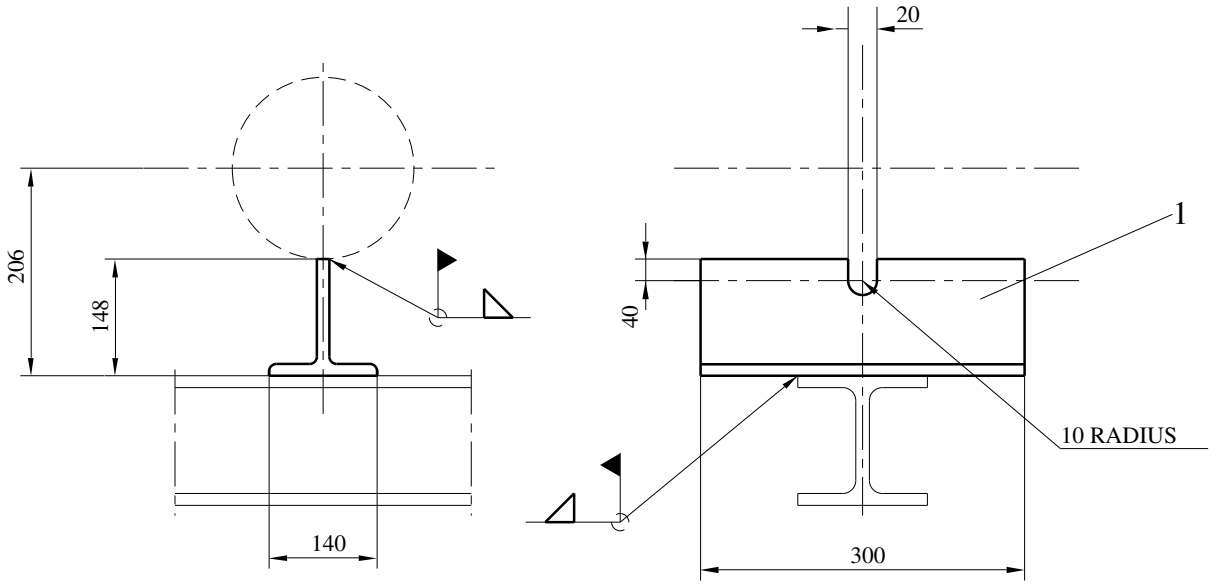
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tkIS		Code Manufacturer drawing	Page 1	UAN 66-6695-700	V	L S

PIPE SUPPORT

Code No.: WDC001D Marking : 100/3

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	T-BAR CUT FROM ISMB 350 , 148 x 140 x 300 Long	IS 808	IS 2062	GTI099D

Remarks: Total weight = kg

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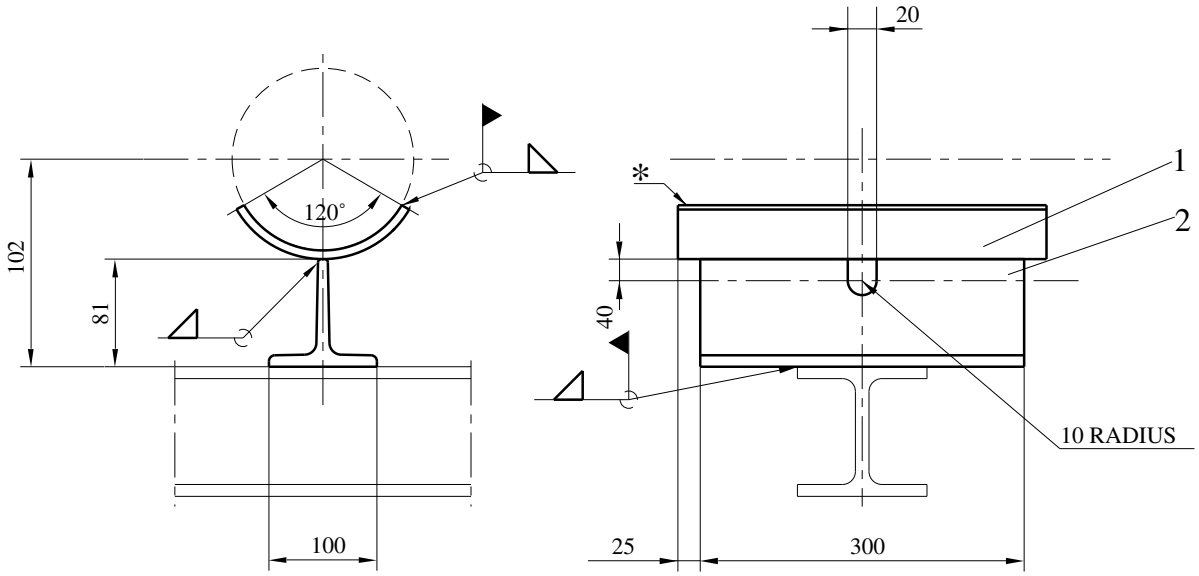
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tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WDC051D Marking : 25/1

U Item



* Reinforcement Pad shall have Material and Thickness same as parent pipe

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	T-BAR CUT FROM ISMB 200 , 81 x 100 x 300 Long	IS 808	IS 2062	GTI099D
1	1	RF PAD DSS DN 25 x 350 LONG			RF0001D

Remarks: Total weight = kg

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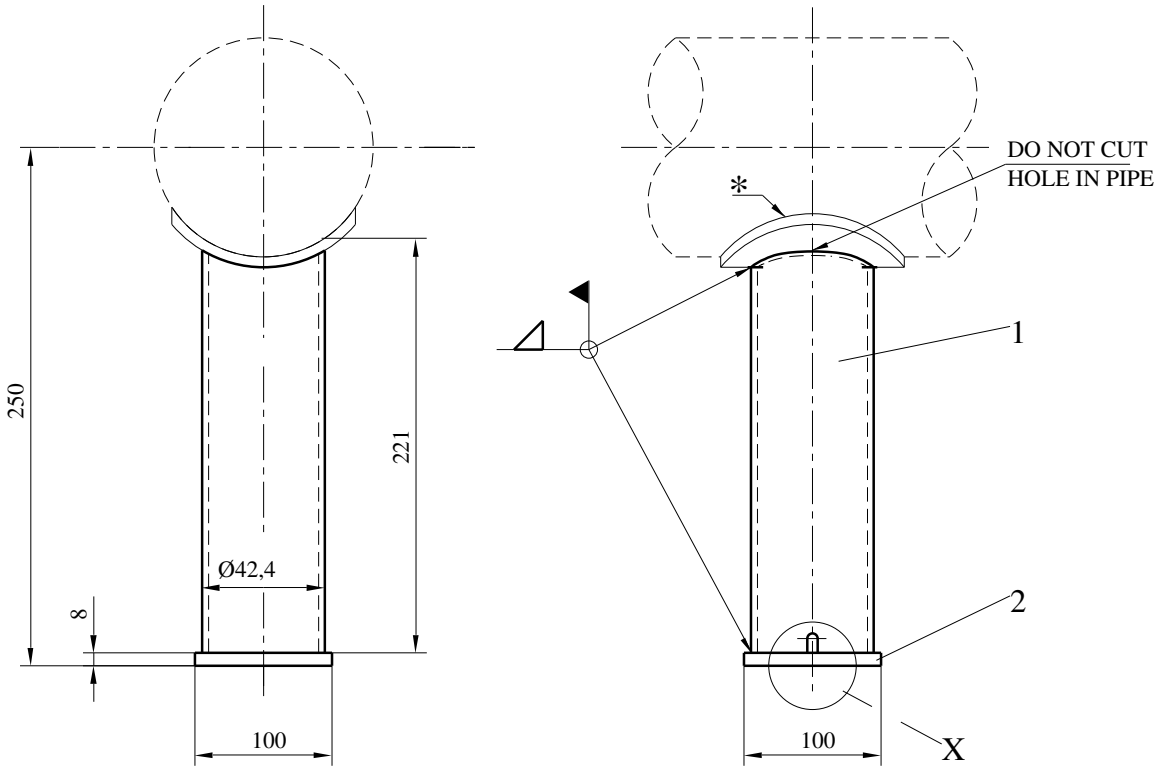
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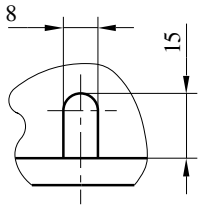
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 50/250

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 42,4 x 2,6 x 221	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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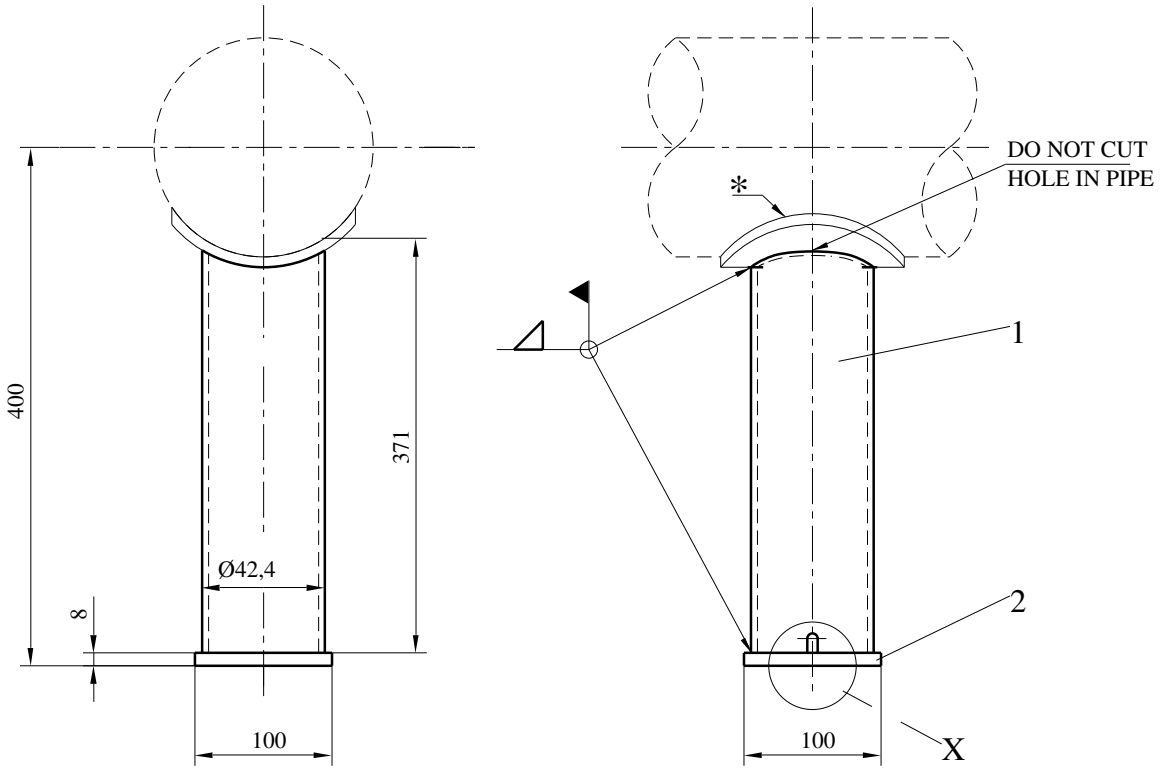
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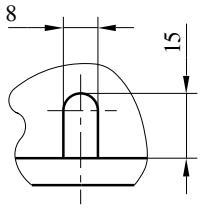
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 50/400

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 42,4 x 2,6 x 371	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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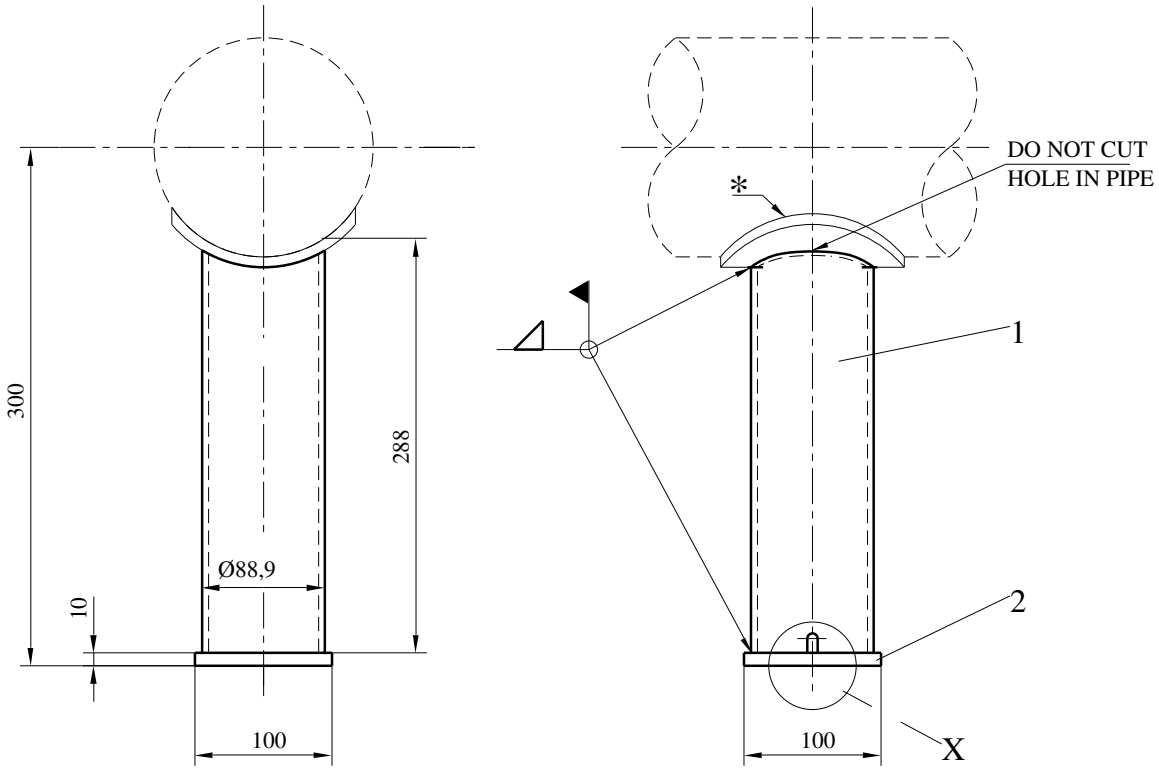
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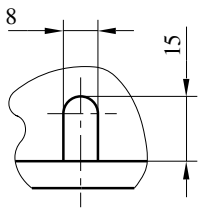
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 80/300

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 288	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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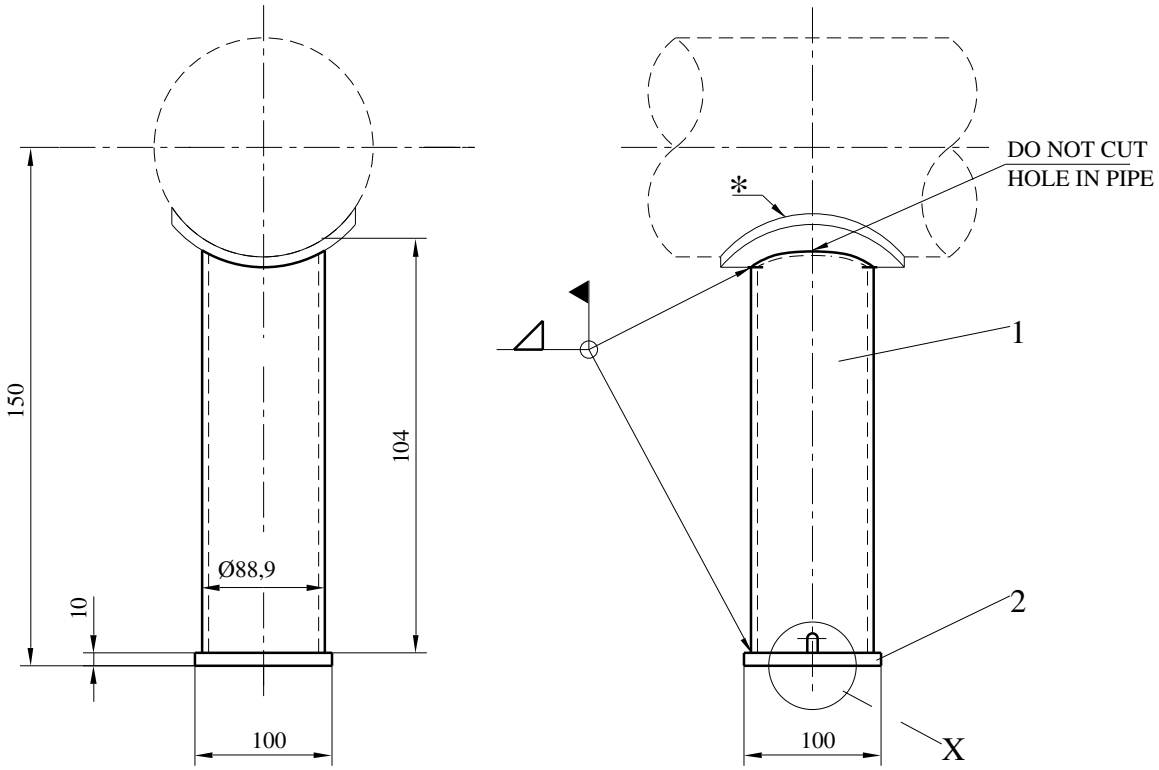
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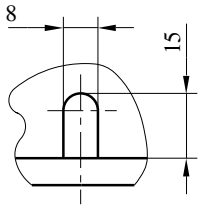
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 100/150

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 104	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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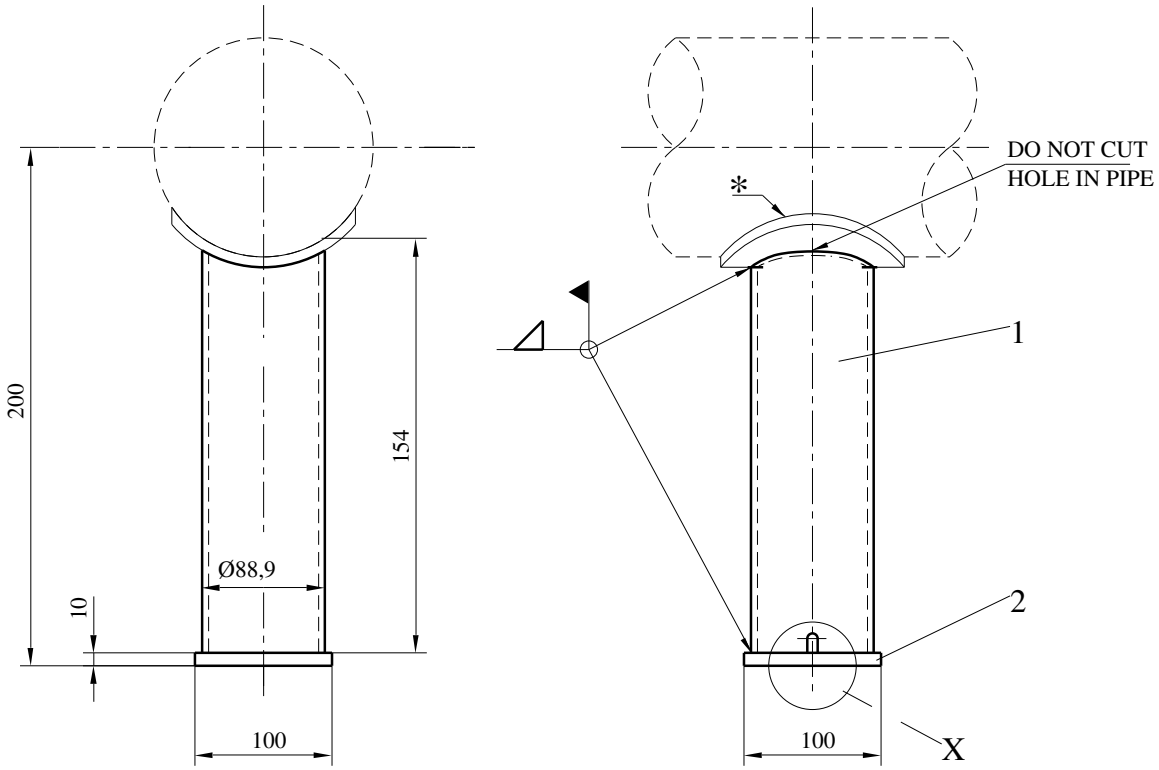
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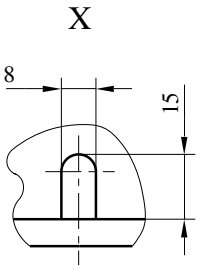
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 100/200

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 154	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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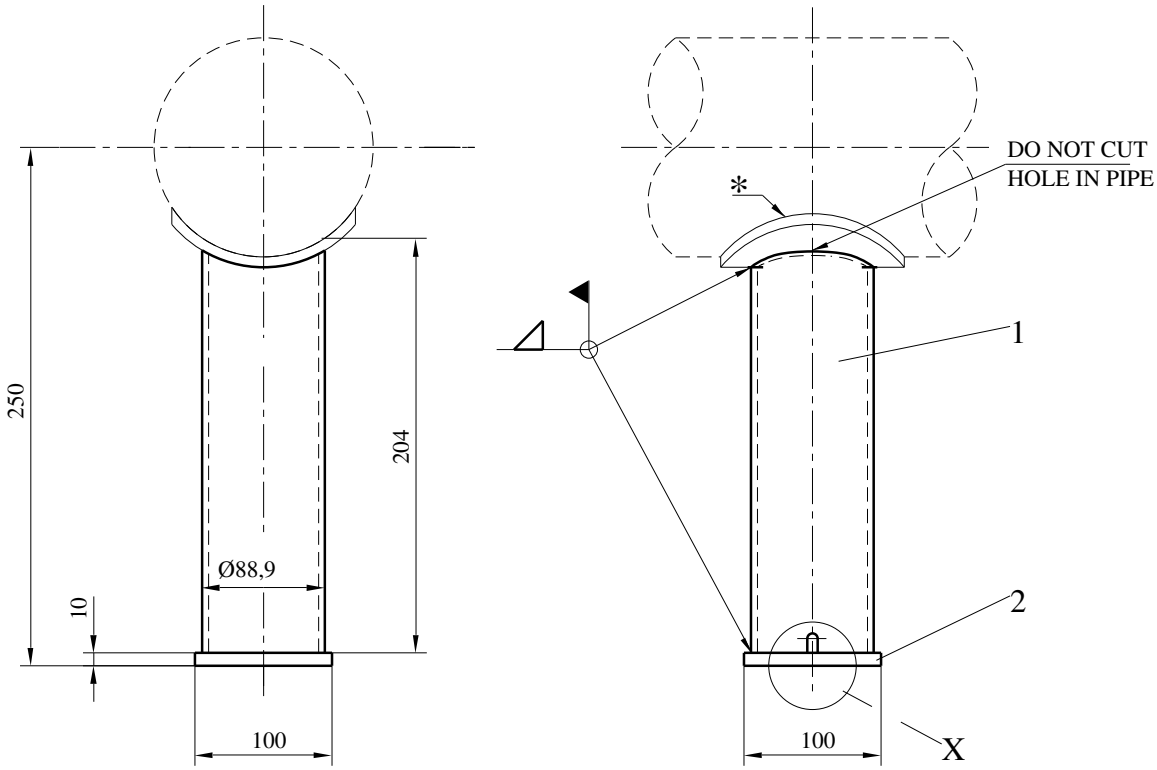
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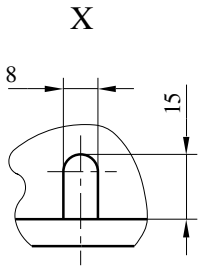
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 100/250

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 204	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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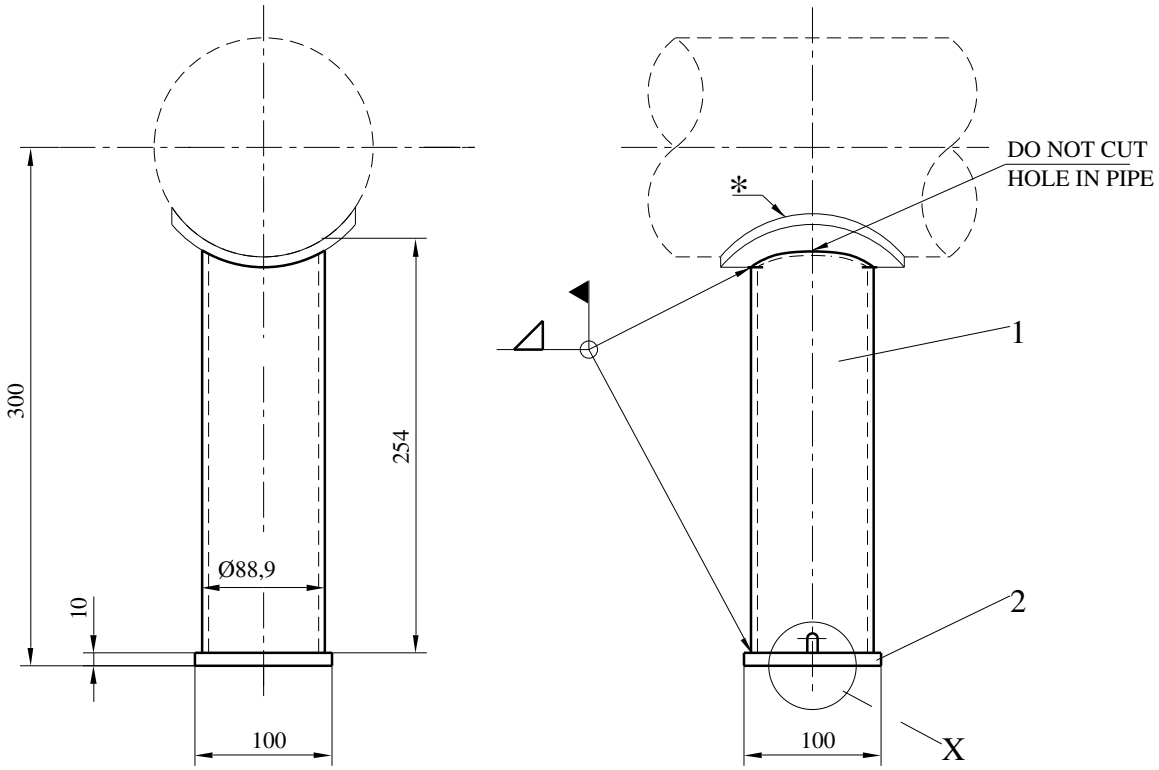
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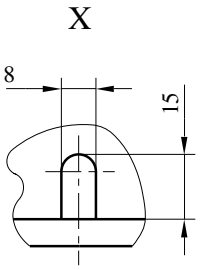
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 100/300

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 254	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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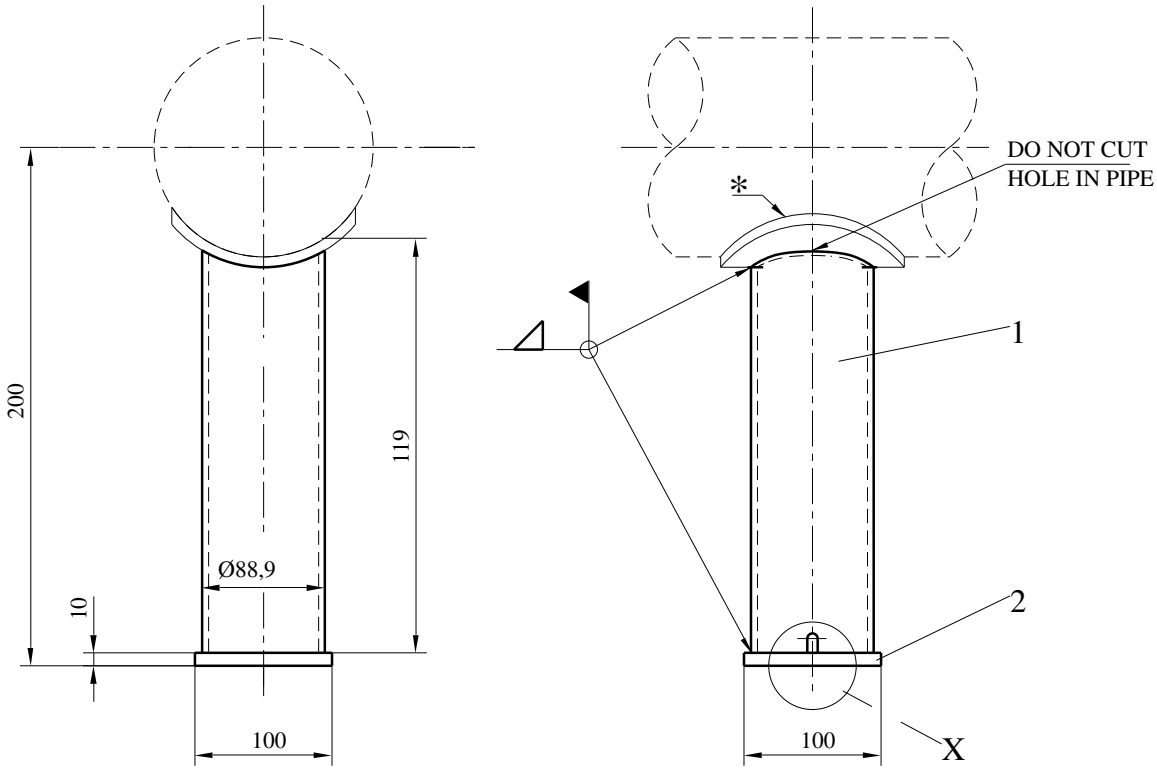
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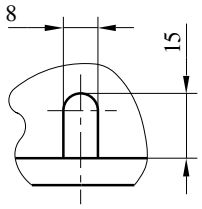
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 150/200

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 119	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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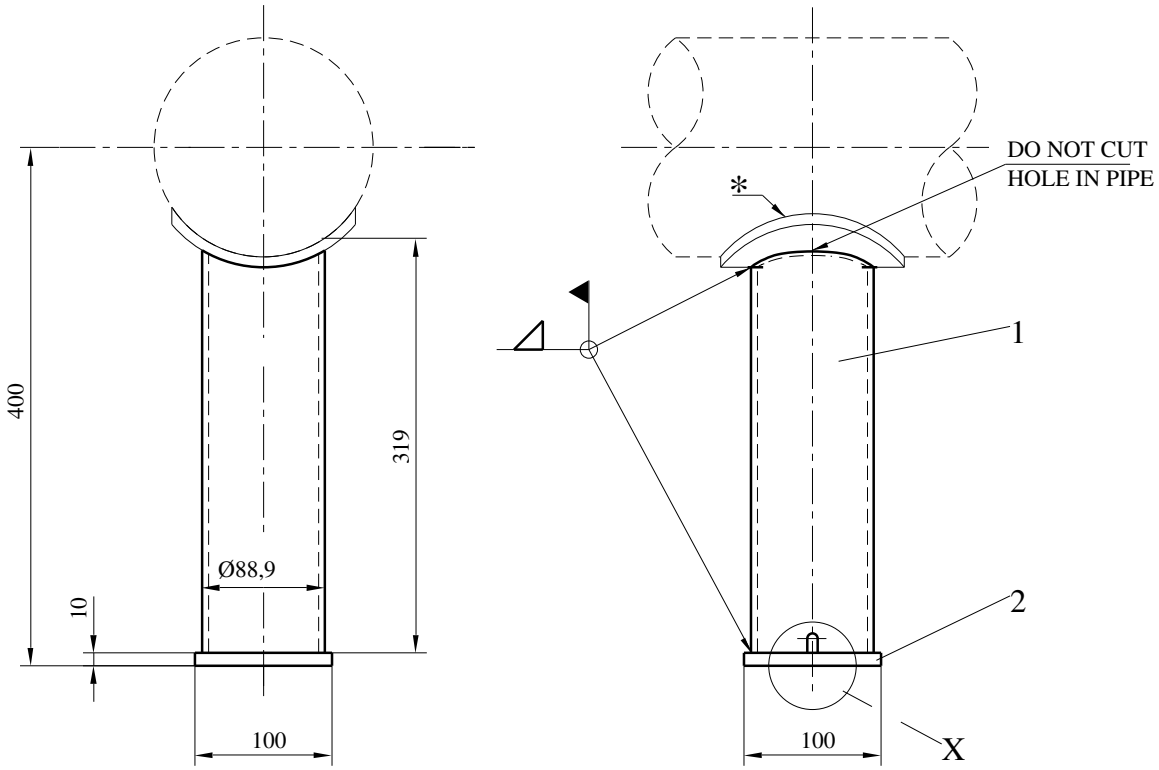
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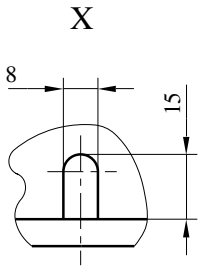
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 150/400

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 319	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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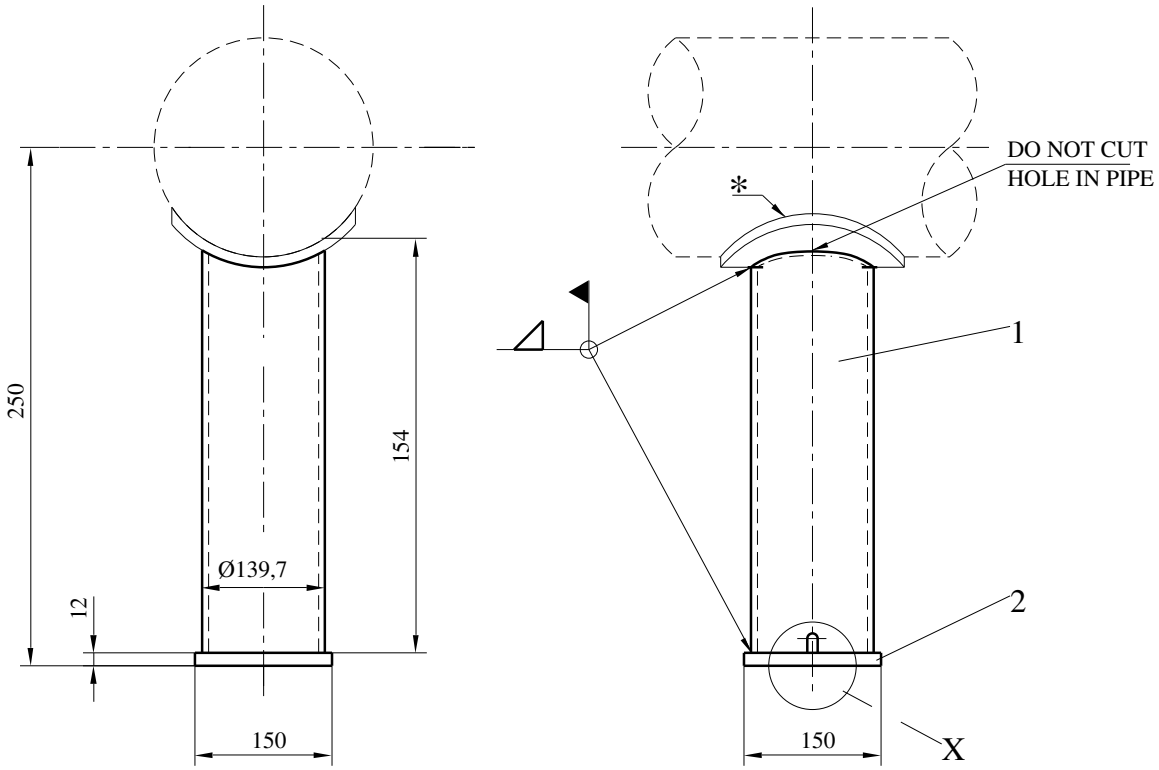
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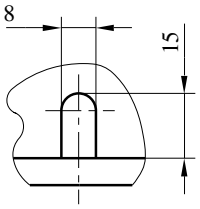
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 200/250

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
1	1	PIPE 139,7 x 10 x 154	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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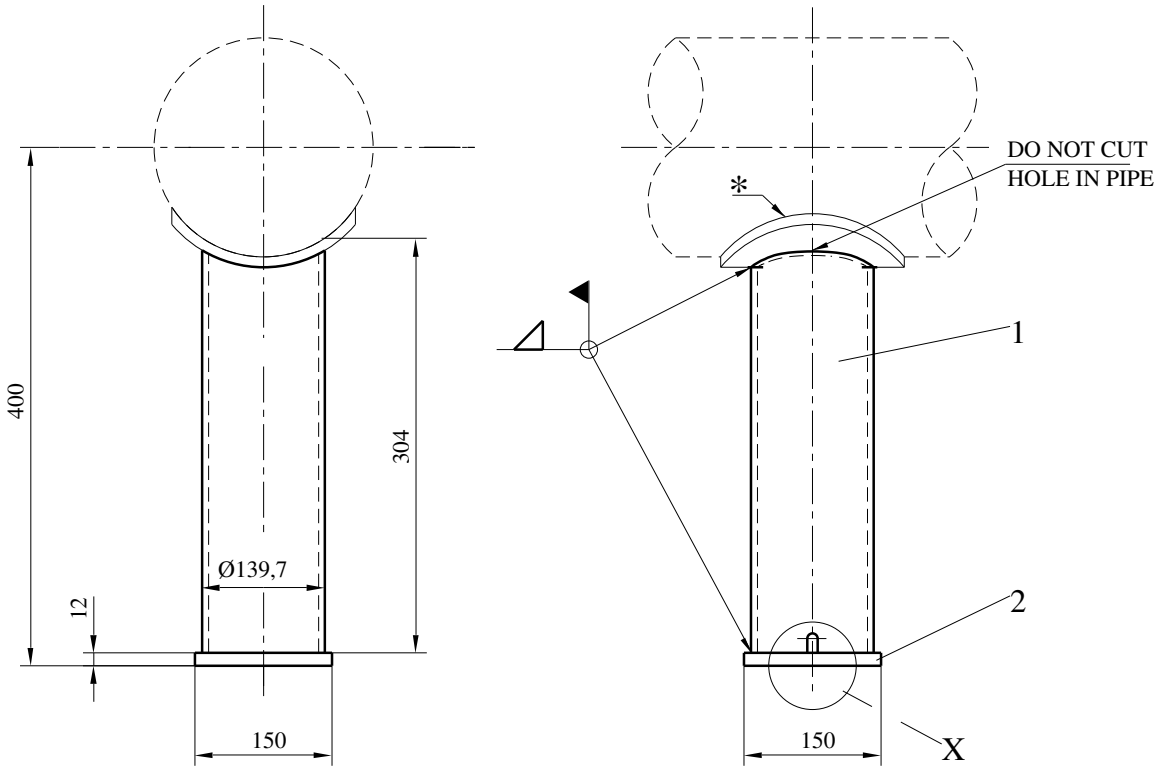
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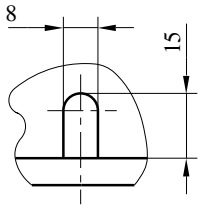
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		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 200/400

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 12 x 150 x 150	EN 10029	A283GR.B	GB0001D
1	1	PIPE 139,7 x 10 x 304	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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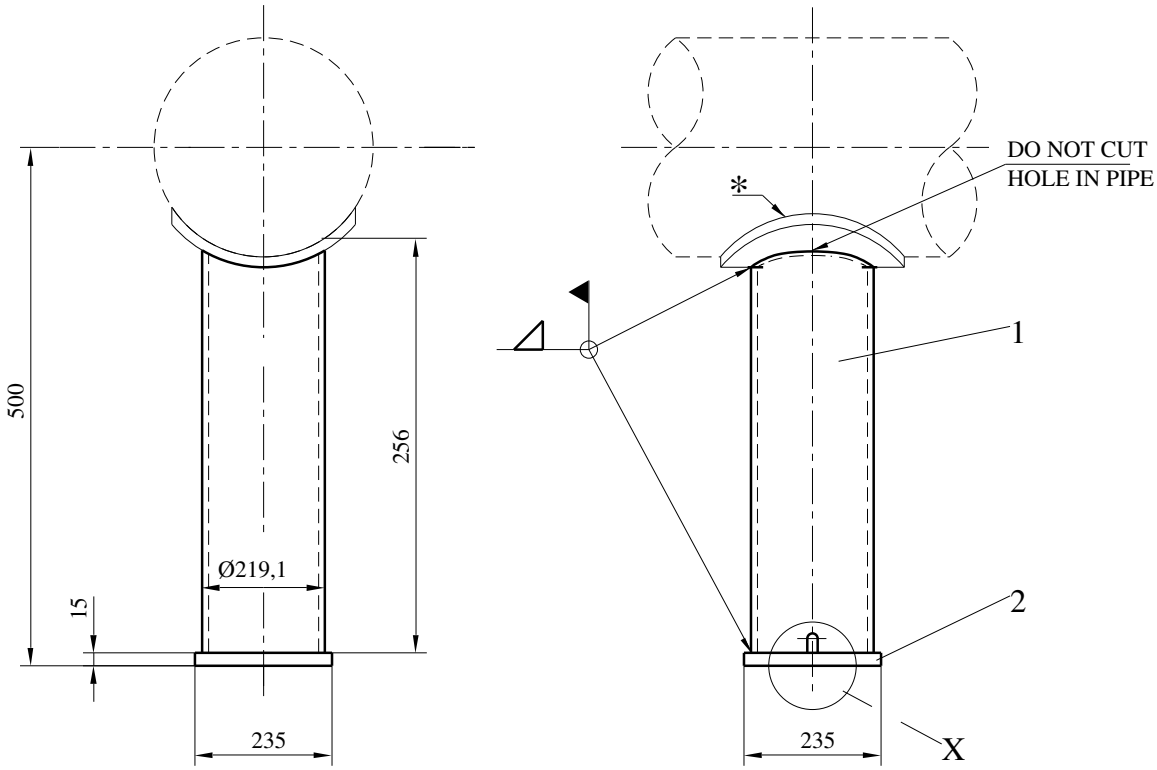
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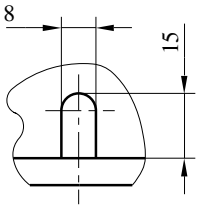
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 500/500

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 235 x 235	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 256	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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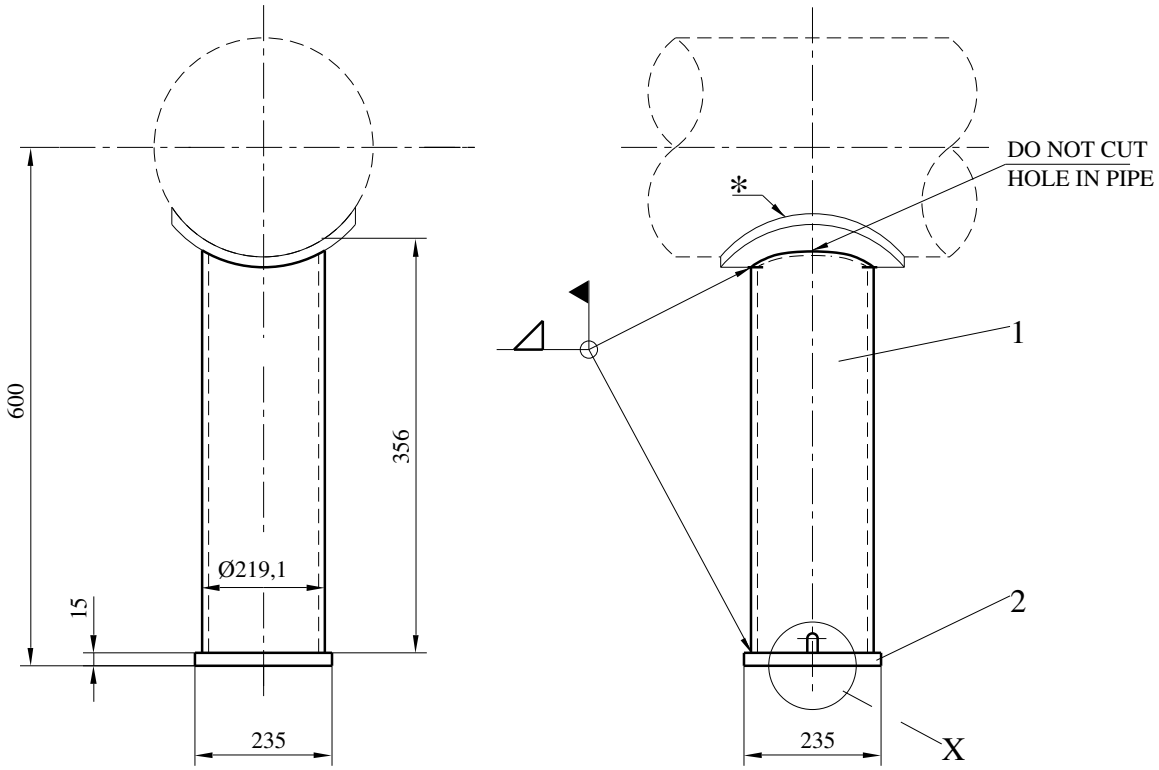
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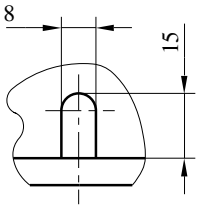
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNA102D Marking : 500/600

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 15 x 235 x 235	EN 10029	A283GR.B	GB0001D
1	1	PIPE 219,1 x 10 x 356	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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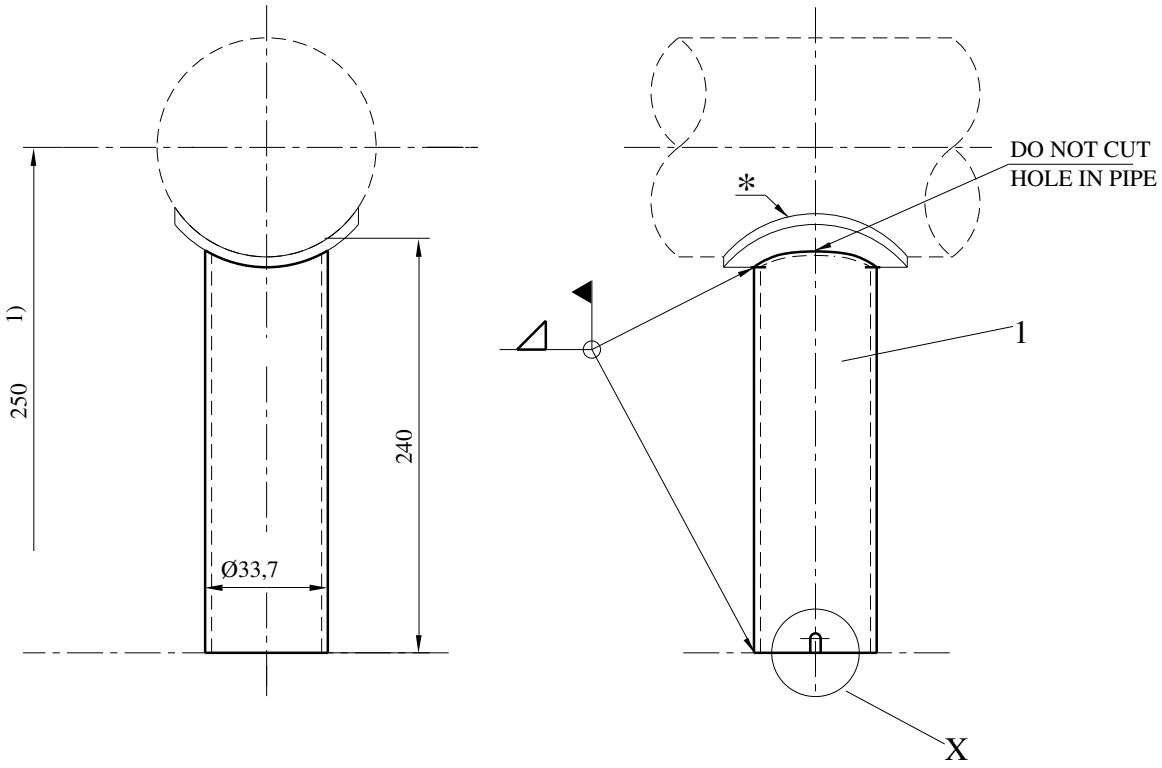
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PIPE SUPPORT

Code No.: WNC102D Marking : 25/250

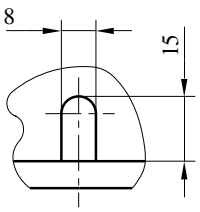
U Item



1) Overall height up to structural point of attachment

* Reinforcement pad if any will be specified in Isometric

X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	PIPE 33,7 x 2,6 x 238	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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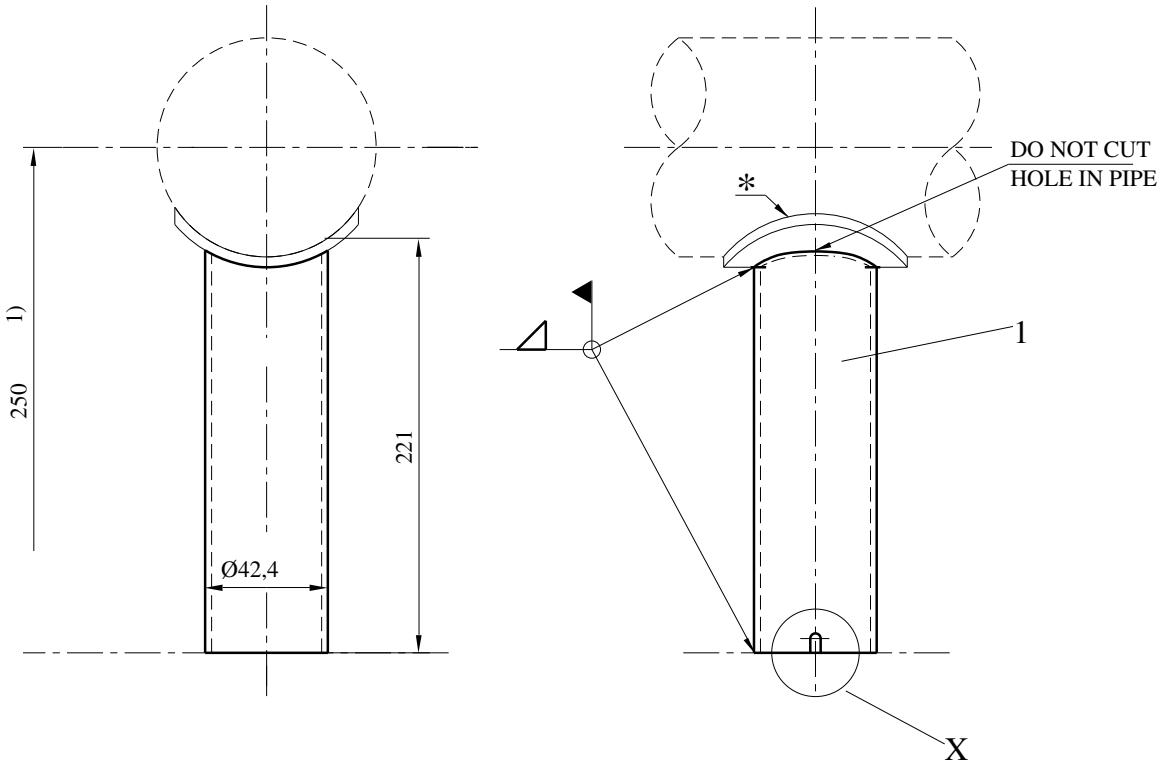
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PIPE SUPPORT

Code No.: WNC102D Marking : 50/250

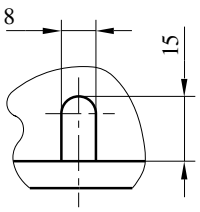
U Item



1) Overall height up to structural point of attachment

* Reinforcement pad if any will be specified in Isometric

X



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
1	1	PIPE 42,4 x 2,6 x 219	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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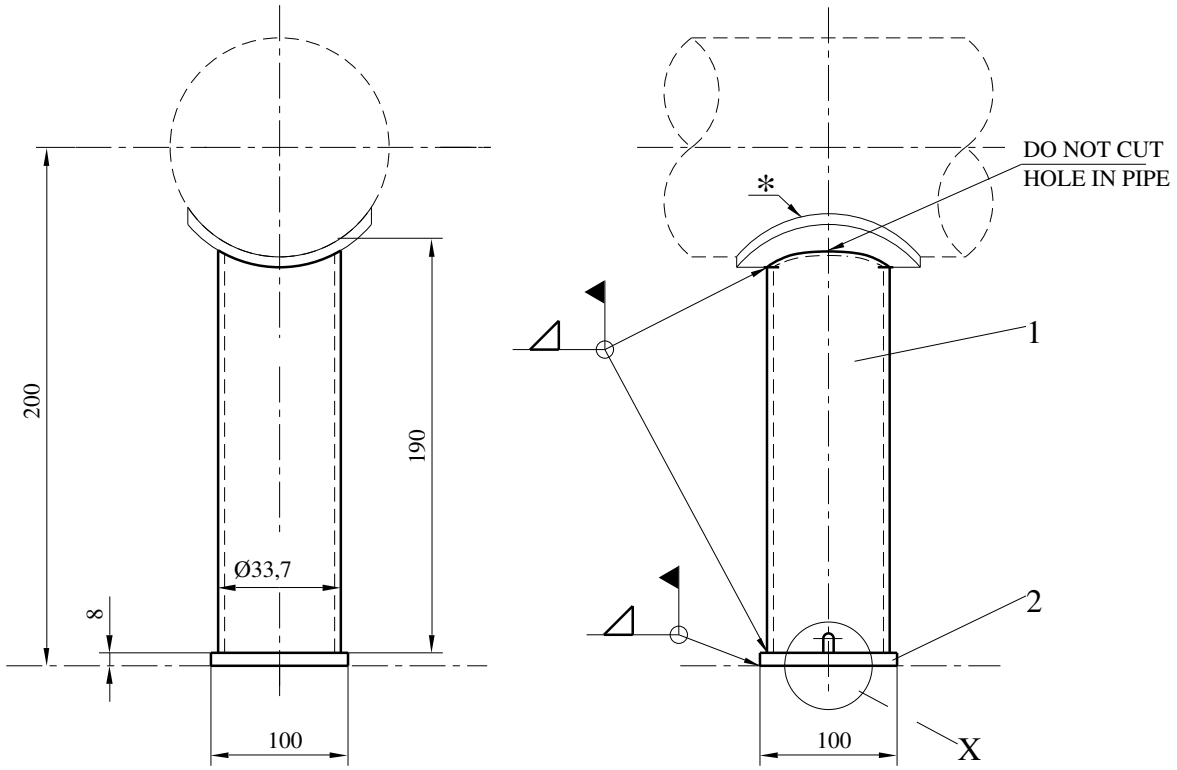
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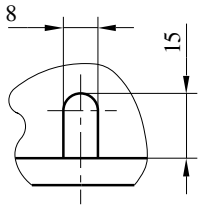
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/200

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 190	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

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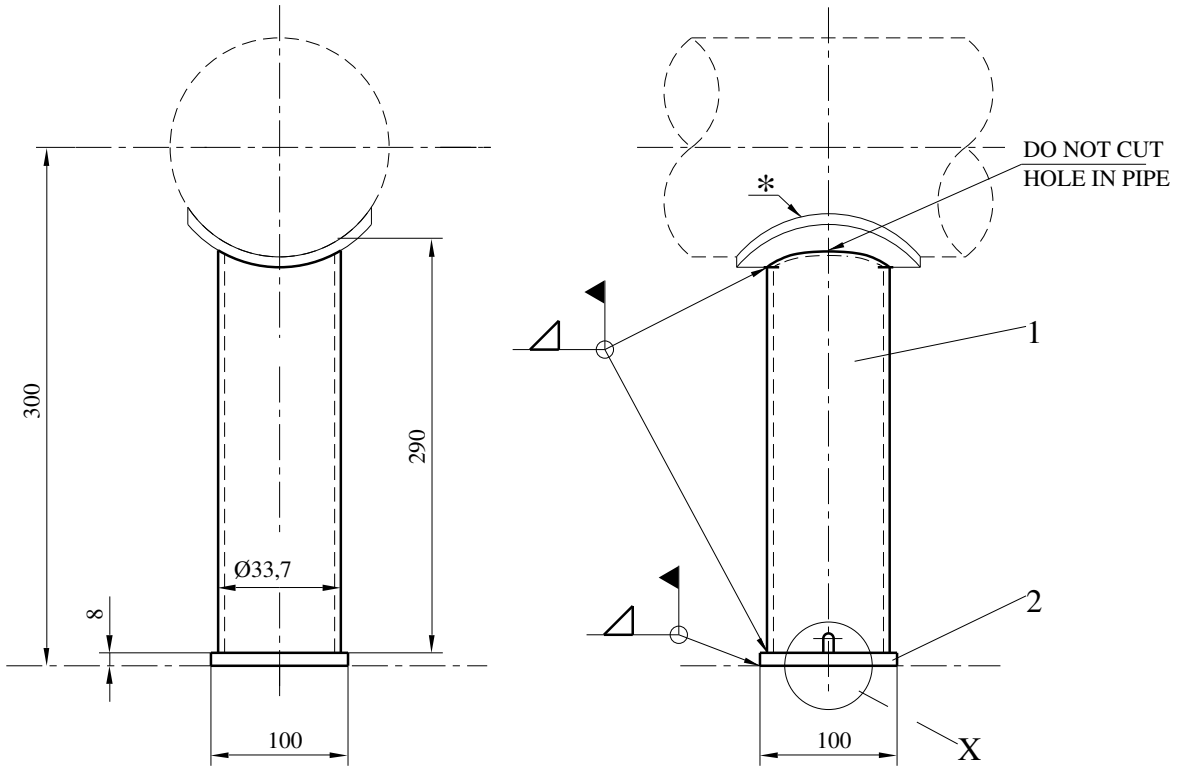
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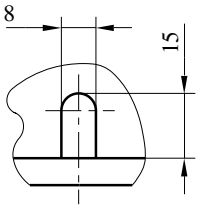
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/300

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 290	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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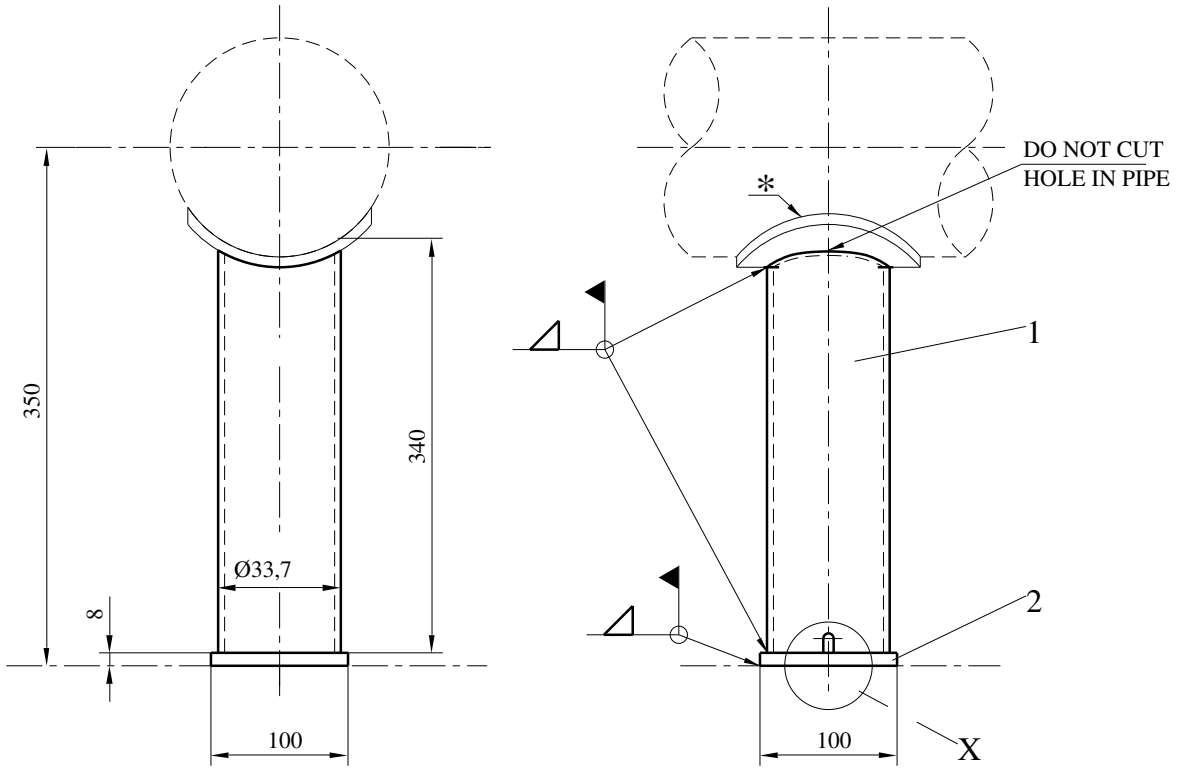
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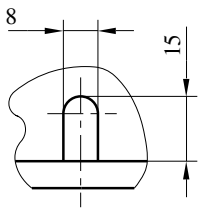
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/350

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 340	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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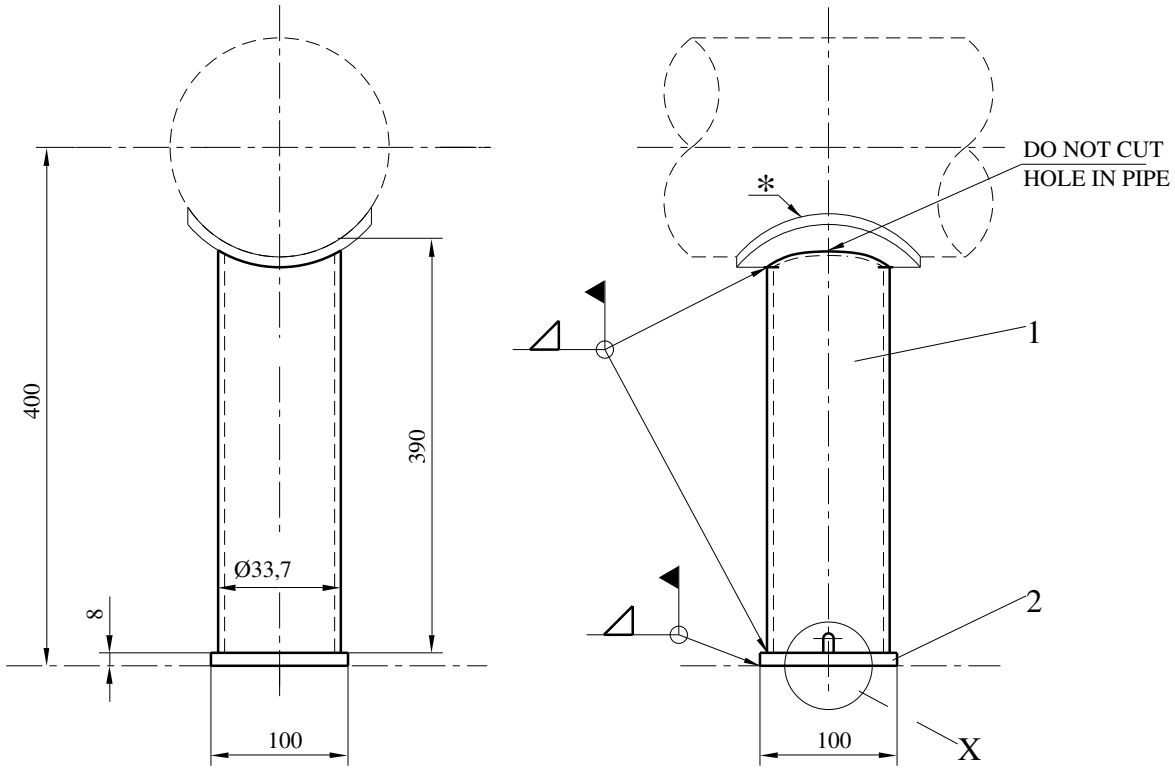
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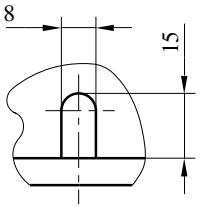
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 25/400

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 33,7 x 2,6 x 390	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

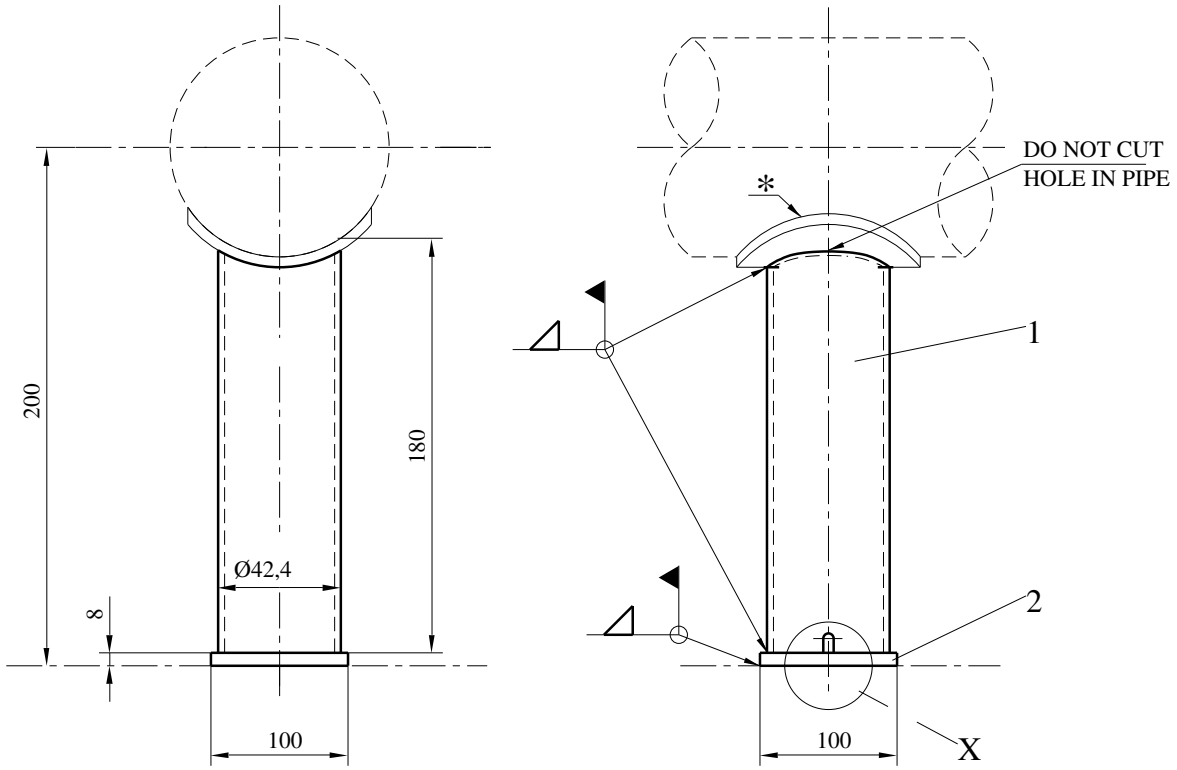
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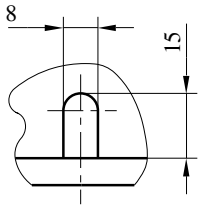
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 40/200

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 8 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 42,4 x 2,6 x 180	DIN 2448	A53GR.B	GR0011D

Remarks: Total weight = kg

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

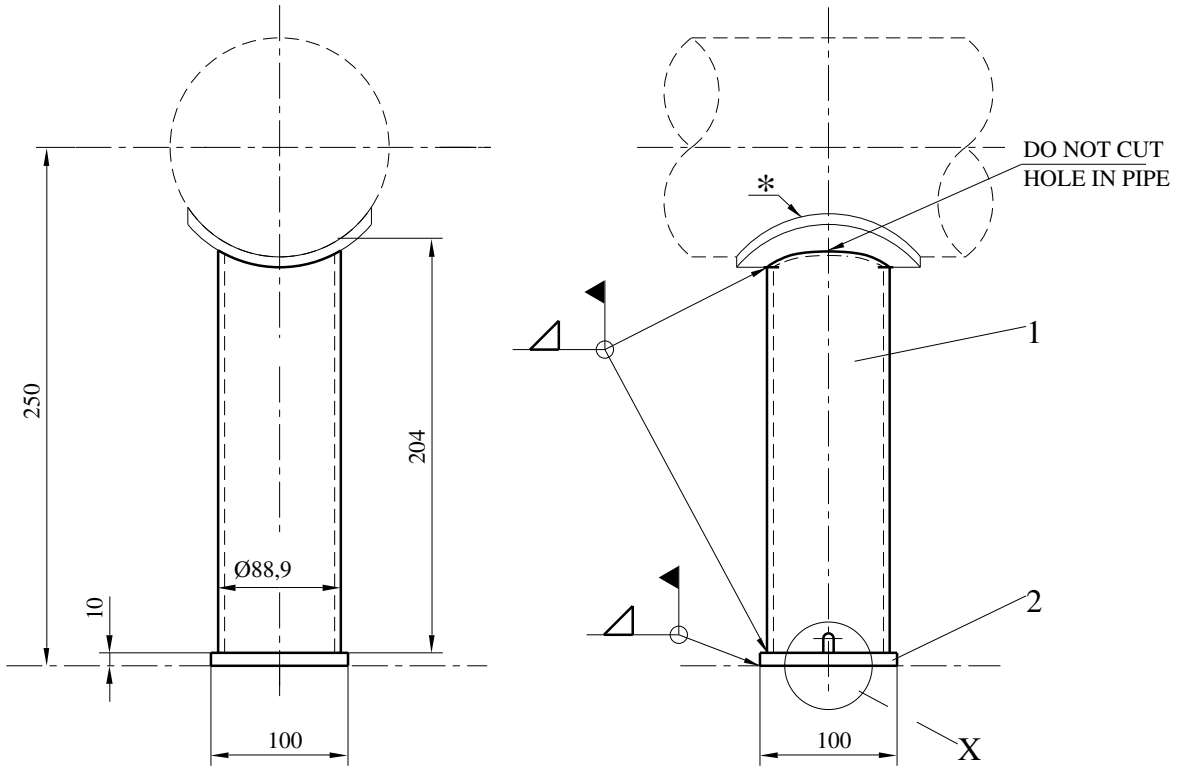
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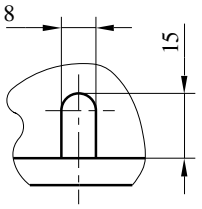
tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: WNC107D Marking : 100/250

U Item





* Reinforcement pad if any will be specified in Isometric

Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
2	1	PLATE 10 x 100 x 100	EN 10029	A283GR.B	GB0001D
1	1	PIPE 88,9 x 5 x 204	DIN 2448	A53GR.B	GR0011D

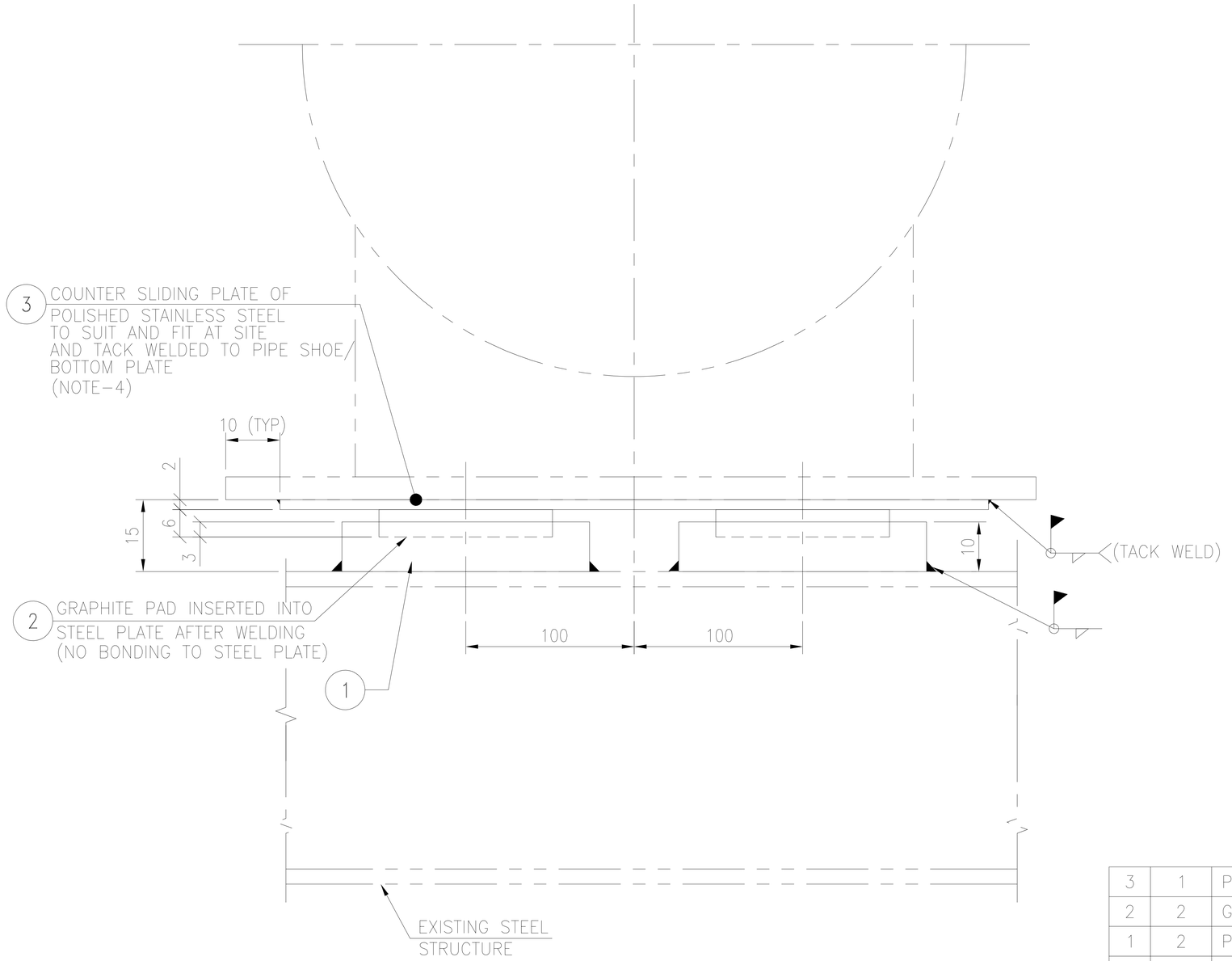
Remarks: Total weight = kg

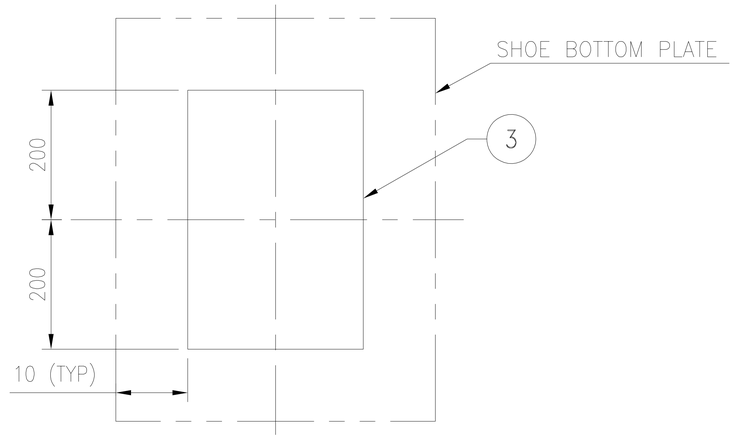
Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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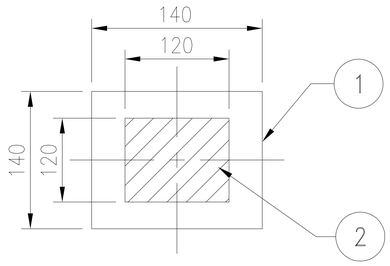
V = Process, TON (L = Line, S = Train, U = Unit, Item)

Source file name = WNC107D





POSITION OF SS SHEET ON SHOE BOTTOM PLATE



PLAN VIEW

ALLOWABLE VERTICAL LOAD = 397KN
BASED ON MAXIMUM BEARING PRESSURE OF 13.8N/mm
FRICTION COEFFICIENT = 0.15

Pos.	Qty.	Description	Standard	Material-No.	Weight(kg)
3	1	POLISHED SS SHEET 400 x 300 x2 THK.	ASTM A480M	A240 Gr.304	1.93
2	2	GRAPHITE PAD 120 x 120 x 6 THK.	MANUFACTURER	GRAPHITE	–
1	2	PLATE 140 x 140 x 10 THK.	ASTM A6M	A36	3.08
				Total approx weight = 5.01 kg	

NOTE:-
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Document-ID-BAR-Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	30/12/24	TGP TGP	30/12/24	SJP	30/12/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
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	Date	Name
Drawn	30/12/24	TGP
Prepared	30/12/24	TGP
Checked	30/12/24	SJP
Approved	30/12/24	MLN

UAN	Code Document ID	Part	Group	Rev.
66-6665	–			00

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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS03002-03
GRAPHITE SLIDE PLATE ASSEMBLY FOR TEMP. ABOVE 200°C(PIPE SIZE 24" TO 36")

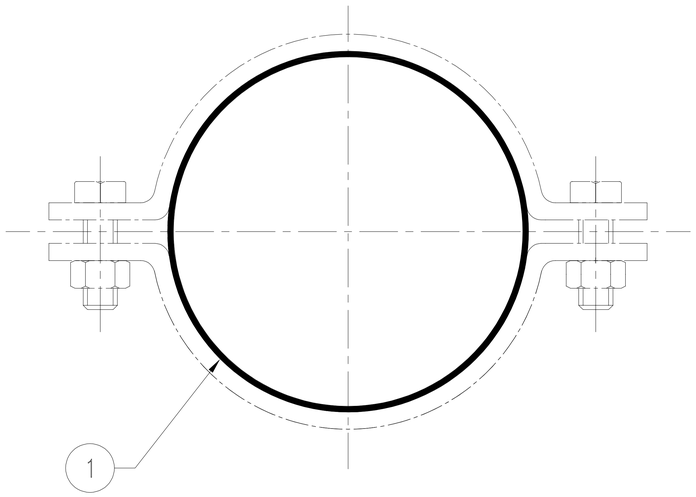
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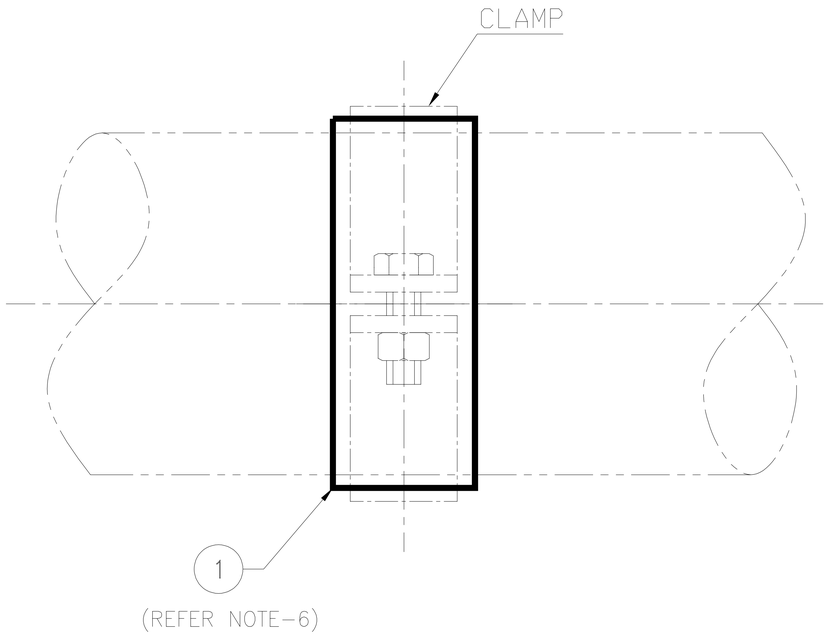
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Store Name
CS05020-3

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

TKIS - India ISO A3





(REFER NOTE–6)

Pos.	Qty.	Size	Description	Standard	Material–No.	Weight(kg)
14	1	36"	SHEET LINER 0.5 x 150 x 2940	UN 3790–14	A240 Gr.304	–
13	1	32"	SHEET LINER 0.5 x 150 x 2626	UN 3790–14	A240 Gr.304	–
12	1	30"	SHEET LINER 0.5 x 150 x 2453	UN 3790–14	A240 Gr.304	–
11	1	28"	SHEET LINER 0.5 x 150 x 2299	UN 3790–14	A240 Gr.304	–
10	1	24"	SHEET LINER 0.5 x 150 x 1982	UN 3790–14	A240 Gr.304	–
9	1	20"	SHEET LINER 0.5 x 90 x 1636	UN 3790–14	A240 Gr.304	–
8	1	18"	SHEET LINER 0.5 x 90 x 1476	UN 3790–14	A240 Gr.304	–
7	1	16"	SHEET LINER 0.5 x 90 x 1319	UN 3790–14	A240 Gr.304	–
6	1	14"	SHEET LINER 0.5 x 80 x 1148	UN 3790–14	A240 Gr.304	–
5	1	12"	SHEET LINER 0.5 x 80 x 1048	UN 3790–14	A240 Gr.304	–
4	1	10"	SHEET LINER 0.5 x 80 x 888	UN 3790–14	A240 Gr.304	–
3	1	8"	SHEET LINER 0.5 x 70 x 771	UN 3790–14	A240 Gr.304	–
2	1	6"	SHEET LINER 0.3 x 70 x 551	UN 3790–14	A240 Gr.304	–
1	1	4"	SHEET LINER 0.3 x 70 x 381	UN 3790–14	A240 Gr.304	–
					Total approx weight = -- kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) VENT HOLE TO BE DRILLED AFTER ADJUSTMENT.
3) VENT HOLE MUST BE CLOSED WELDING WITH MOLYCOATE PASTE OR COMPARABLE.
4) PRIOP TO INSTALLATION, EXACT LENGHT SHALL BE MEASURED AT SITE & CUT ACCORDINGLY.
5) ADDITIONAL TRIMMING LENGHT (FOR FIXING FIELDS) WELD SHALL BE CONSIDERED BY CONTRACTOR AS PART OF SUPPLY. THIS HAS TO BE CARRIED OUT BEFORE START OF PRE–FABRICATION.
6) WIDTH OF CLAMP SHALL BE CHECKED WITH VENDOR CATALOG. IF CLAMP WIDTH IS MORE THAN ABOVE SS LINER WIDTH, SELECT 2 QTY OF SS LINERS.

Document–ID–BAR–Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	30/12/24	TGP TGP	30/12/24	SJP	30/12/24	MLN	ISSUED FOR FABRICATION	

UAN	Code Document ID	Part	Group	Rev.
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Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
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	Date	Name
Drawn	30/12/24	TGP
Prepared	30/12/24	TGP
Checked	30/12/24	SJP
Approved	30/12/24	MLN

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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS03007
SS LINER

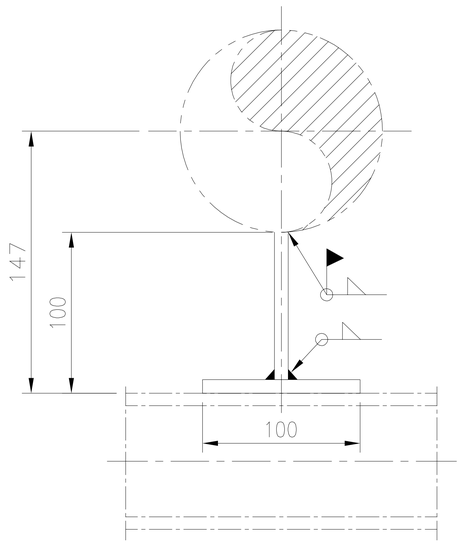
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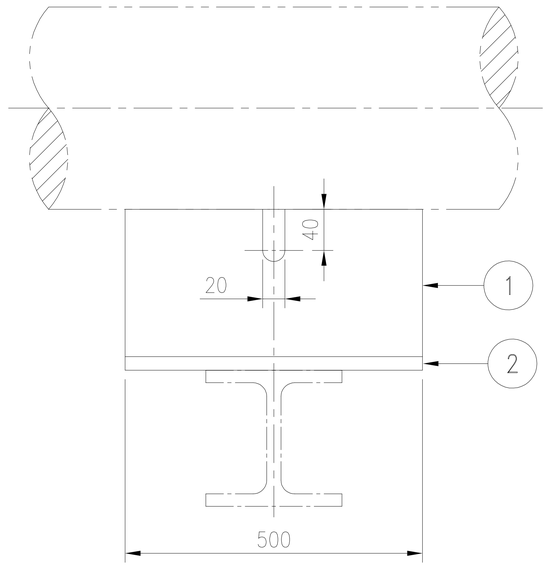
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Store Name
CS03007

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

TKIS - India ISO A3





LOAD BEARING CAPACITY	
VERTICAL LOAD(DOWN)	−15 kN
LATERAL LOAD	15 kN
AXIAL LOAD	15 kN

Pos.	Qty.	Description	Standard	Material−No.	Weight(kg)
2	1	PLATE 500 x 100 x 12THK	IS1730	IS 2062 Gr.B	4.71
1	1	PLATE 500 x 88 x 12 THK	IS1730	IS 2062 Gr.B	4.14
				Total approx weight =8.85kg	

NOTE:−

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE ALLOWABLE.

Rev.	Date	Drawn/Prepared	Name	Date	Checked	Name	Date	Approved	Name	Description	Acc. Code
00	27/11/24	TGP	TGP	27/11/24	SJP		27/11/24	MLN		ISSUED FOR FABRICATION	

BAR−Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	27/11/24	TGP
Prepared	27/11/24	TGP
Checked	27/11/24	SJP
Approved	27/11/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695−ADA	\RLSUPSP\DRG\CS	CS04003−12

Contract No.	Document ID	Part	Rev.
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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

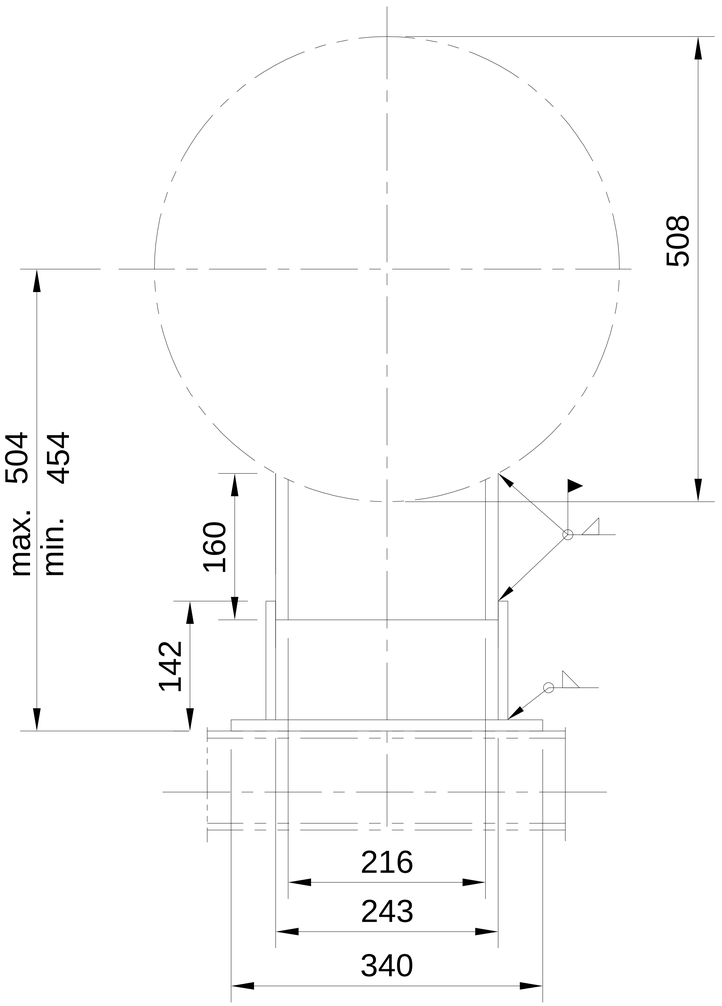
CS04003−12
WELDED LONG SHOE SUPPORT
HEAT INSULATED CS UP TO 300°C 3"
MAX.INSULATION 70mm

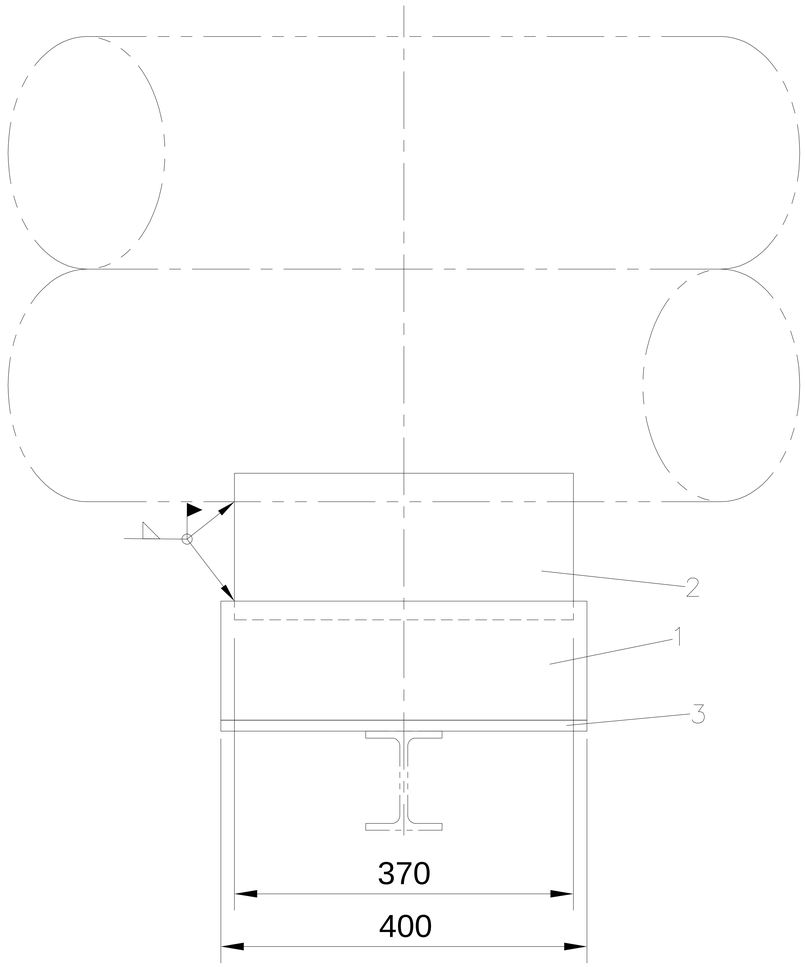
ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

50 mm

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
3	1	PLATE 12 X 340 X 400	IS 1730	IS2062 Gr.B	12.81
2	2	PLATE 12 X 160 X 370	IS 1730	IS2062 Gr.B	11.15
1	2	PLATE 12 X 130 X 400	IS 1730	IS2062 Gr.B	9.80
				Total approx weight = 33.76kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	27/11/24	TGP TGP	27/11/24	SJP	27/11/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
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	Date	Name
Drawn	27/11/24	TGP
Prepared	27/11/24	TGP
Checked	27/11/24	SJP
Approved	27/11/24	MLN

Contract No. 66–6695
Document ID –
Part
Rev. 00

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National Aluminium Company Ltd.

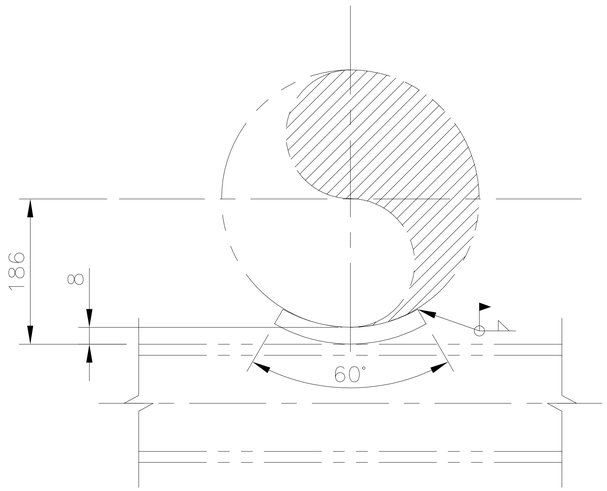
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

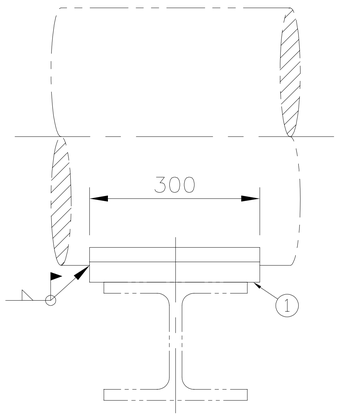
Description
CS04020–05S
WELDED SLOPE SHOE FOR
VERTICAL ADJUSTMENT.20''
HEAT INSULATED CS UP TO 300°C.
ISULATION THK 170mm.

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS04020–05S

ISO A3

UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
1	2	PLATE 8 X 270 X 300	IS 1730	IS 2062 Gr.B	10.17
				Total approx weight = 10.17 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Document–ID–BAR–Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	30/12/24	TGP TGP	30/12/24	SJP	30/12/24	MLN	ISSUED FOR FABRICATION	

UAN	Code Document ID	Part	Group	Rev.
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Pro. Unit	Item No.	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Tot. Sheets
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	Date	Name
Drawn	30/12/24	TGP
Prepared	30/12/24	TGP
Checked	30/12/24	SJP
Approved	30/12/24	MLN

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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

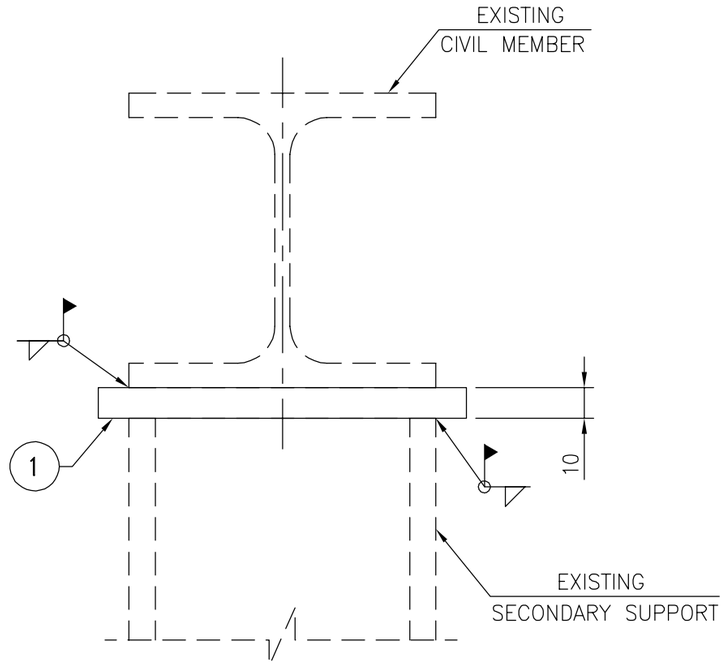
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

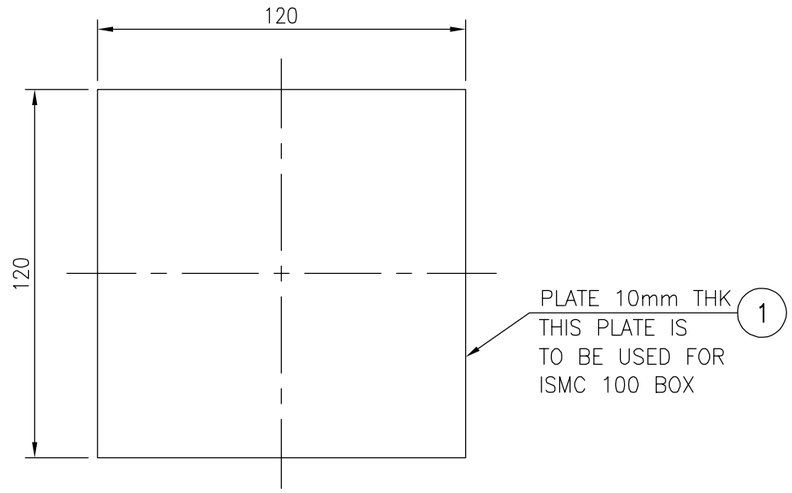
Description
CS05020–3
SUPPORT RF PAD FOR CS PIPE

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666665–ADA\ACAD	\RLSUPSP\DRG\CS	CS05020–3

UH_BO_ISO_A3_L_E_TKISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2014

TKIS - India ISO A3





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
1	1	PLATE 120 x 120 x 10 THK	IS 1730	IS 2062 Gr.B	1.13
				Total approx weight = 1.13 kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Con. Unit	Type of Document	Order No.	Scale	Sheet
--	TB		NTS	1 OF 1

	Date	Name
Drawn	15/01/24	IQRA
Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS02054

Contract No.	Document ID	Part	Rev.
66–6695	–		00

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

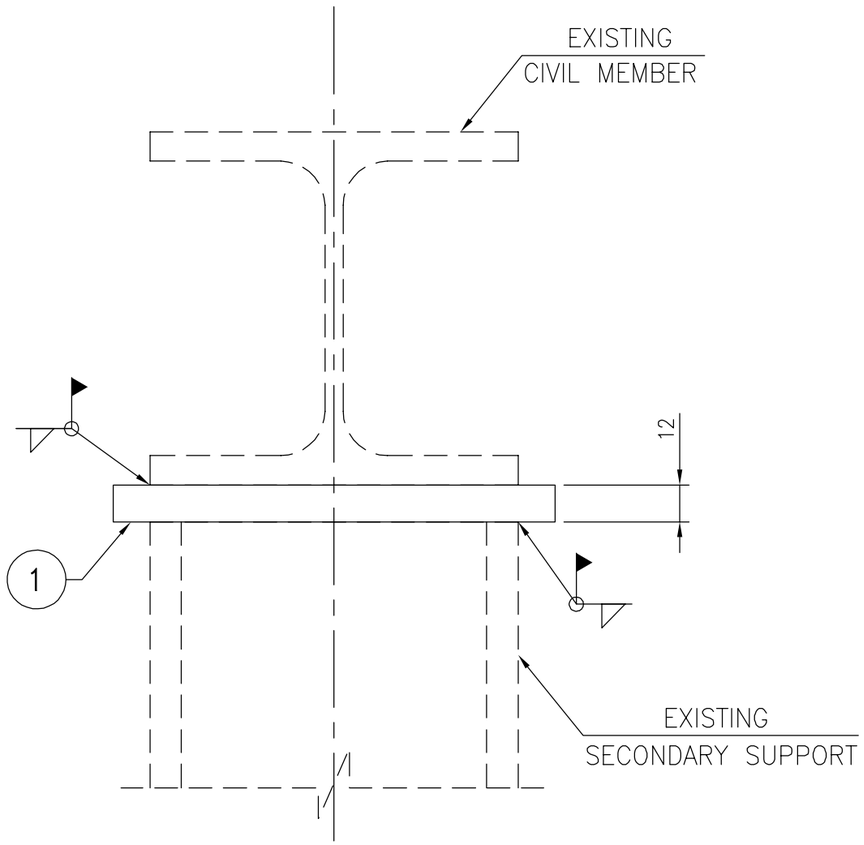
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FOR SECONDARY SUPPORT

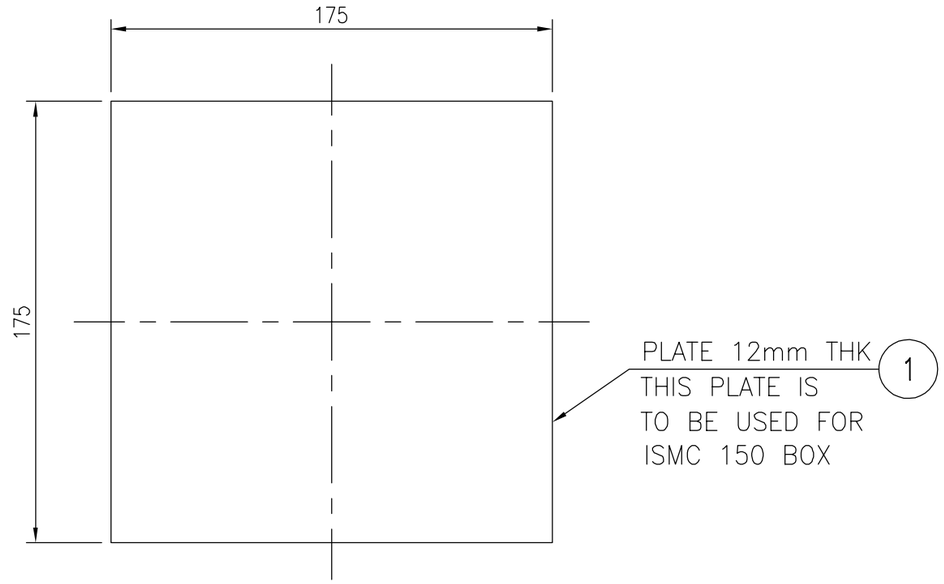
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ISO A3

50 mm

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
1	1	PLATE 175 x 175 x 12 THK	IS 1730	IS 2062 Gr.B	2.9
				Total approx weight = 2.9 kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.

BAR–Code

Rev.	Date	Name	Date	Name	Date	Name	Description	Acc. Code
00	15/01/24	IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	
	Drawn/Prepared		Checked		Approved			

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Drawn	15/01/24	IQRA
Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

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\\P666695–ADA	\RLSUPSP\DRG\CS	CS02055

Contract No.	Document ID	Part	Rev.
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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

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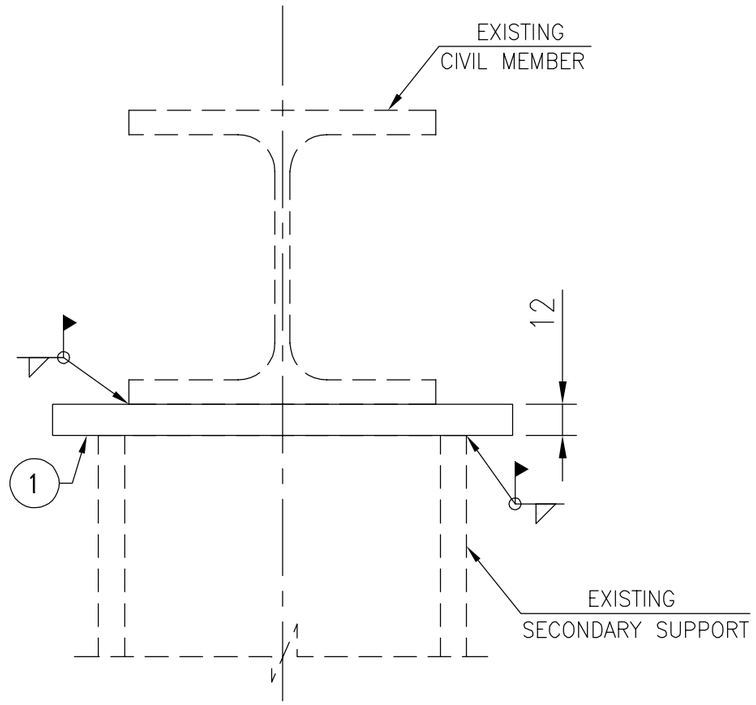
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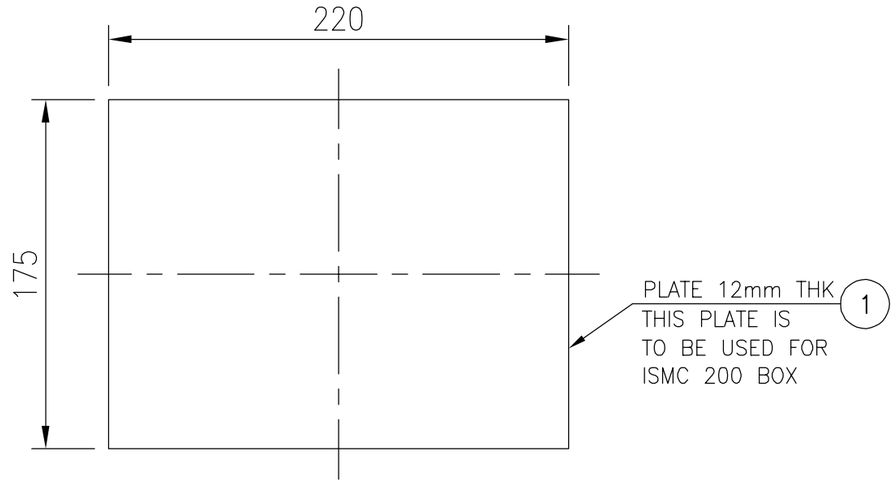
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ISO A3

50 mm

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
1	1	PLATE 220 x 175 x 12 THK	IS 1730	IS 2062 Gr.B	3.63
				Total approx weight = 3.63 kg	

NOTE:–
1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSIONS SHALL BE ADJUSTED AT SITE SUITABLELY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) IF NOT SPECIFIED IN ISOMETRIC.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	15/01/24	HHJ TGP	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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Prepared	15/01/24	TGP
Checked	15/01/24	SJP
Approved	15/01/24	MLN

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\\P666695–ADA	\RLSUPSP\DRG\CS	CS02056

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

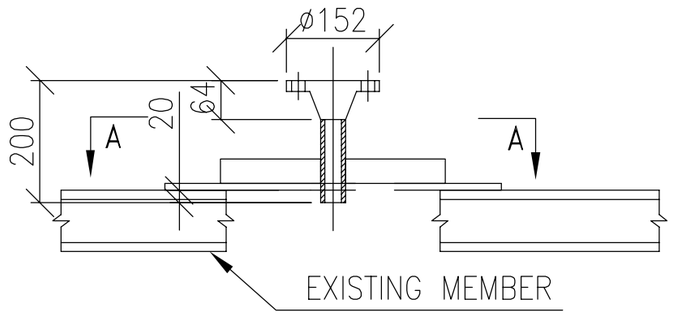
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FOR SECONDARY SUPPORT

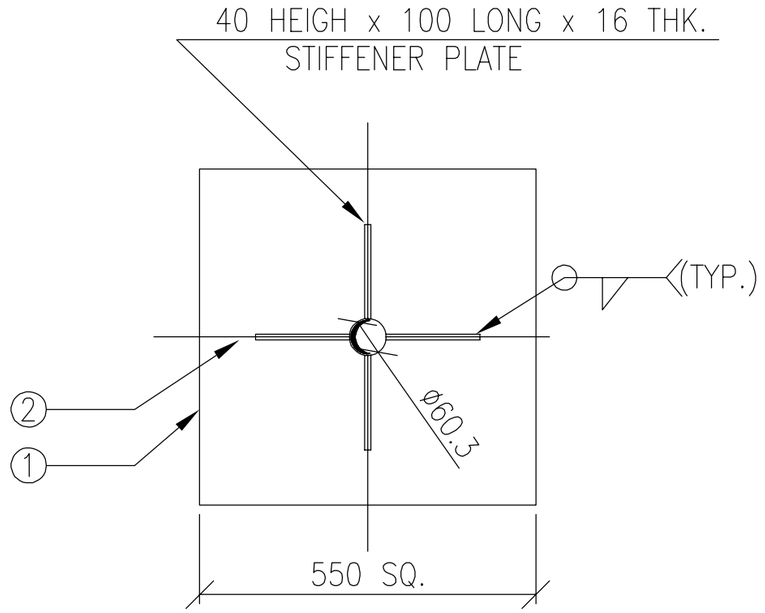
UH_BO_ISO_A3_L_E_tklSIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm

50 mm





Section A–A

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
2	4	STIFFENER PLATE 40 x 100 x 16THK	IS808	IS2062	3
1	1	PLATE 550 x 550 x 12THK	–	IS2062	29
				Total approx weight = 32kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL OR PLATE THICKNESS
3) INSTALLED NOZZLE ON ABOVE MENTION TANK PLATFORM ALONG WITH STIFFENER SHALL BE VERTICALLY ALIGNED WITH ZERO TOLERANCE.
4) PIPING CONTRACTOR SHALL OFFER INSPECTION OF NOZZLE AT SITE(TO INSTRUMENT INCHARGE).
5) PIPING CONTRACTOR TO ENSURE THAT STIFFENER SHALL NOT FOUL WITH PCD I.E.NUTS & BOLTS OF THE FLANGE.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	15/01/24	IQRA IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

BAR–Code

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Checked	15/01/24	SJP
Approved	15/01/24	MLN

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\\P666695–ADA	\RLSUPSP\DRG\CS	CS02058–02

Contract No.	Document ID	Part	Rev.
66–6695	–		00

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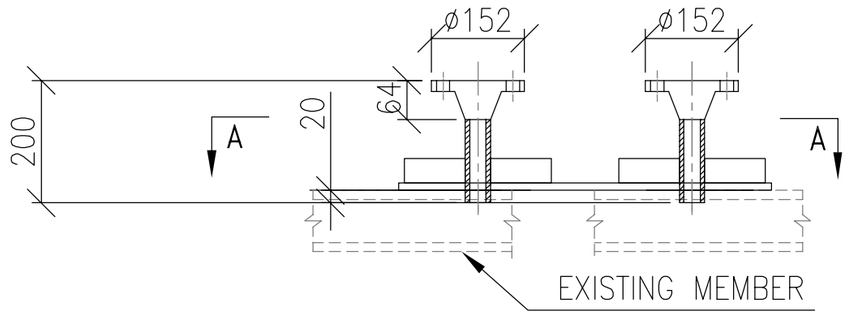
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नेशनल एल्यूमिनियम कम्पनी लिमिटेड
National Aluminium Company Ltd.

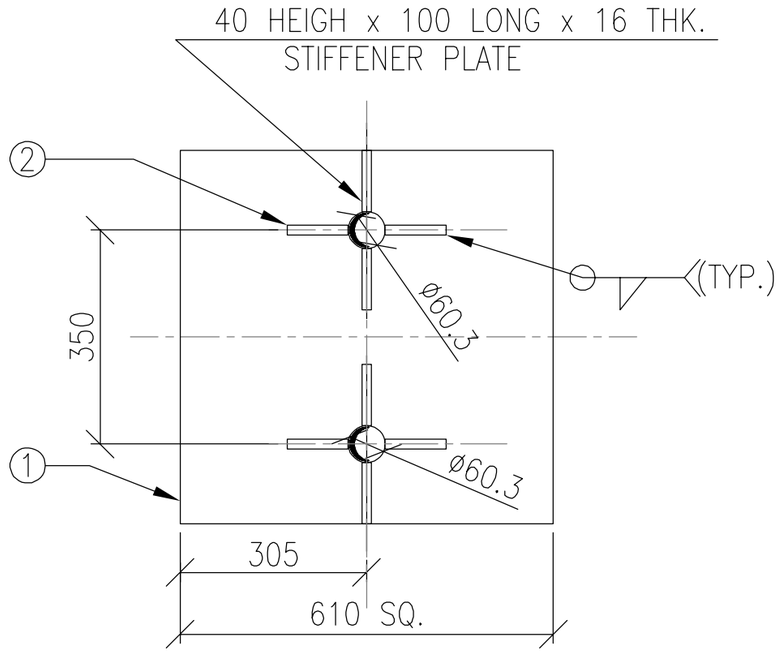
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS02058–02
TEMPERATURE TRASMETER
ARRANGEMENT FOR
OPEN TANKS
(50NB SIZE)

ISO A3

UH_BO_ISO_A3_L_E_tkiSindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018





Section A–A

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
2	8	STIFFENER PLATE 40 x 100 x 16THK	IS808	IS2062	4.5
1	1	PLATE 610 x 610 x 12THK	–	IS2062	35.5
				Total approx weight = 40kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL OR PLATE THICKNESS
3) INSTALLED NOZZLE ON ABOVE MENTION TANK PLATFORM ALONG WITH STIFFENER SHALL BE VERTICALLY ALIGNED WITH ZERO TOLERANCE.
4) PIPING CONTRACTOR SHALL OFFER INSPECTION OF NOZZLE AT SITE(TO INSTRUMENT INCHARGE).
5) PIPING CONTRACTOR TO ENSURE THAT STIFFENER SHALL NOT FOUL WITH PCD I.E.NUTS & BOLTS OF THE FLANGE.

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	28/04/25	IQRA	28/04/25	SJP	28/04/25	MLN	ISSUED FOR FABRICATION	

BAR–Code

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Approved	28/04/2025	MLN

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Store Location: Folder
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Store Name
CS02058–02S

Contract No. 66–6695

Document ID –

Part

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National Aluminium Company Ltd.

1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

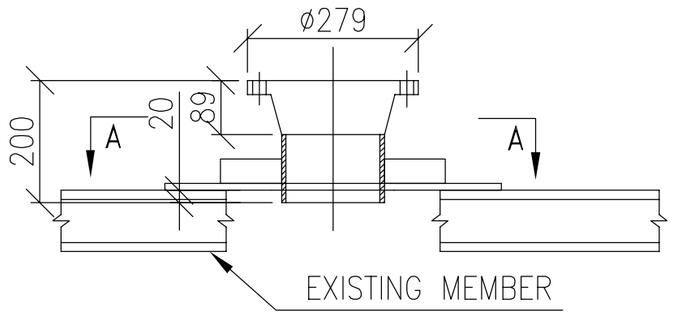
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CS02058–02S
TEMPERATURE TRANSMETER & AIR INLET NOZZLE ARRANGEMENT FOR OPEN TANKS
(50NB SIZE)

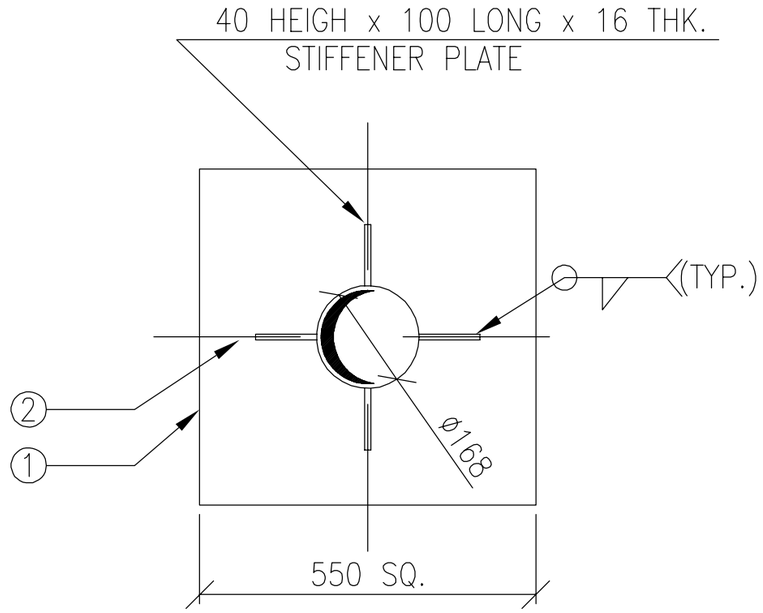
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ISO A3

50 mm

1 2 3 4 5 50 mm 6 7 8





Section A–A

Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
2	4	STIFFENER PLATE 40 x 100 x 16THK	IS808	IS2062	3
1	1	PLATE 550 x 550 x 12THK	–	IS2062	29
				Total approx weight = 32kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL OR PLATE THICKNESS
3) INSTALLED NOZZLE ON ABOVE MENTION TANK PLATFORM ALONG WITH STIFFENER SHALL BE VERTICALLY ALIGNED WITH ZERO TOLERANCE.
4) PIPING CONTRACTOR SHALL OFFER INSPECTION OF NOZZLE AT SITE(TO INSTRUMENT INCHARGE).
5) PIPING CONTRACTOR TO ENSURE THAT STIFFENER SHALL NOT FOUL WITH PCD I.E.NUTS & BOLTS OF THE FLANGE.

BAR–Code

Rev.	Date	Drawn/Prepared	Date	Checked	Date	Approved	Description	Acc. Code
00	15/01/24	IQRA IQRA	15/01/24	SJP	15/01/24	MLN	ISSUED FOR FABRICATION	

Pro. Unit	TON	Group	Cat. Code	Acc. Code	Status
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\\P666695–ADA	\RLSUPSP\DRG\CS	CS02058–06

	Date	Name
Drawn	15/01/24	IQRA
Prepared	15/01/24	IQRA
Checked	15/01/24	SJP
Approved	15/01/24	MLN

Contract No. 66–6695 | Document ID – | Part | Rev. 00

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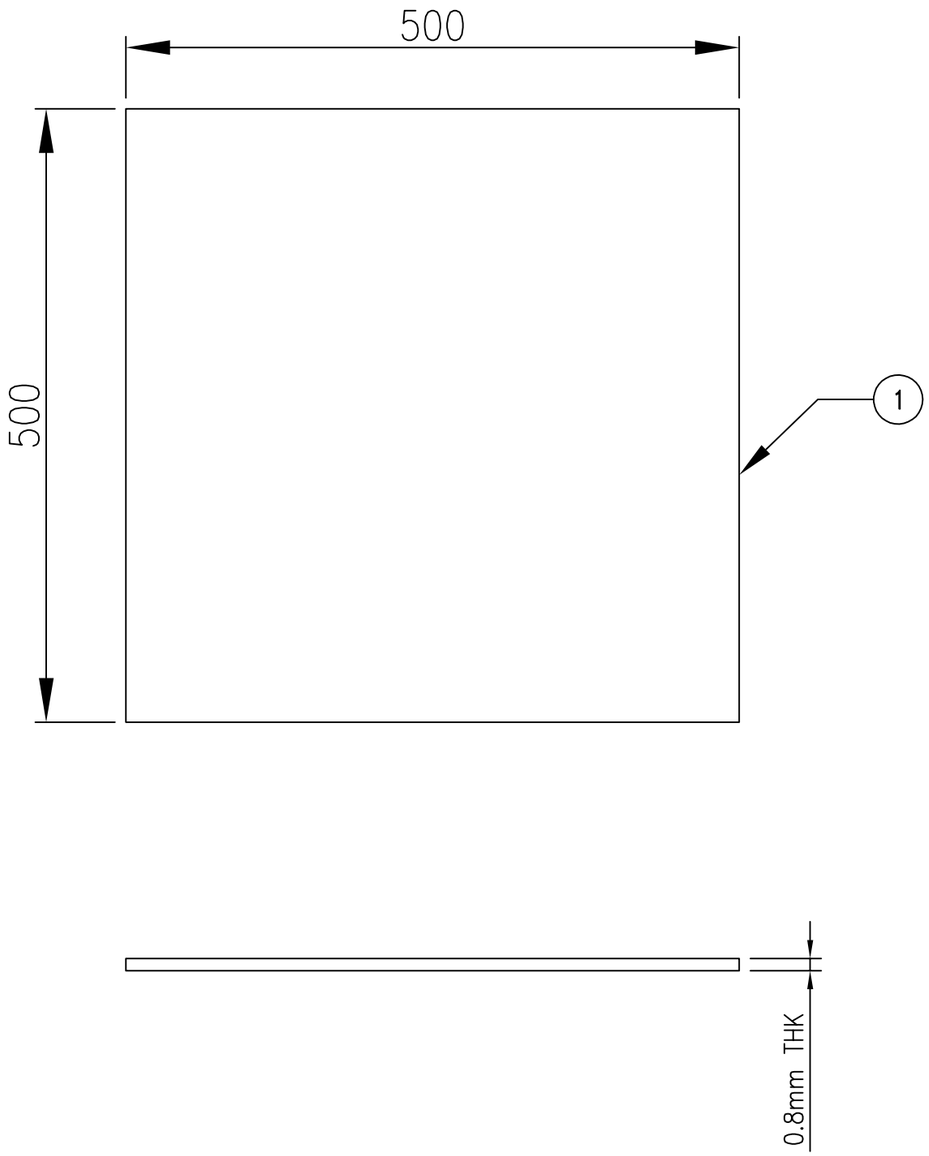
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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description
CS02058–06
ULTRASONIC NOZZLE
ARRANGEMENT FOR
SUMP TANKS
(150NB SIZE)

ISO A3

UH_BO_ISO_A3_L_E_tkISindia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018



Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
1	1	SS SHEET 500 x 500 x 0.8 THK	ASTM A480M	A240 Gr.316	1.61
				Total approx weight = 1.61 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) PRIOR TO INSTALLATION, EXACT LENGTH SHALL BE MEASURED AT SITE & CUT ACCORDINGLY.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) SS SHEET TO BE TACK WELDED TO PIPE SHOE/BOTTAM PLATE.
5) SS SHEET TO BE ORDERED IN SQ.MTR. AREA BASED AS BILL OF MATERIAL AND THESE TO BE SUITABLY CUT AT SITE.

BAR–Code

Rev.	Date	Drawn/Prepared		Date	Checked	Date	Approved	Description	Acc. Code
00	01/09/22	JANVI	JANVI	01/09/22	SJP	01/09/22	MLN	ISSUED FOR FABRICATION	

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Approved	01/09/22	MLN

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA	\RLSUPSP\DRG\CS	CS03005

Contract No.	Document ID	Part	Rev.
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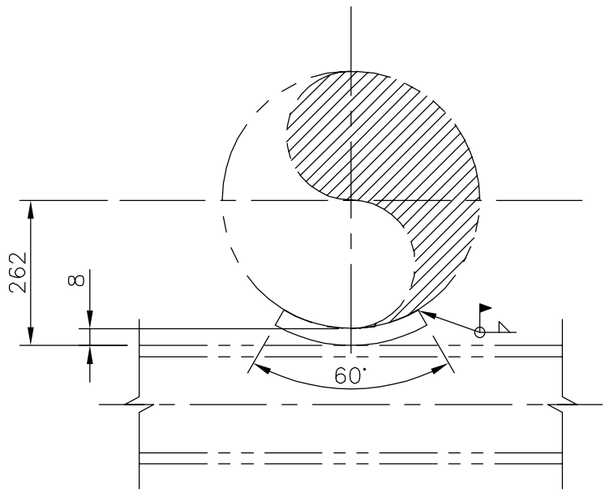
1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

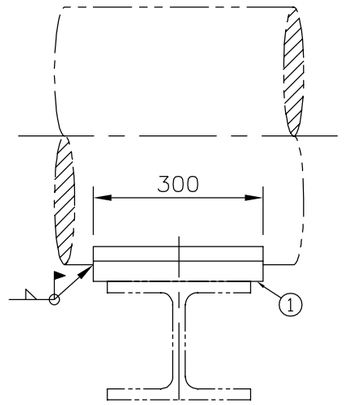
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CS03005
SS FOIL 0.8mm THK

UH_BO_ISO_A3_L_E_tkISIndia.dwg / AG03_UH_BO_ISO_A3_L.dwg / 10.10.2018

ISO A3

50 mm





Pos.	Qty.	Description	Standard	Material–No.	Weight(kg)
1	2	PLATE 8 X 270 X 300	IS 1730	IS 2062 Gr.B	10.17
				Total approx weight = 10.17 kg	

NOTE:–

1) ALL DIMENSION ARE IN MM.
2) SUPPORT DIMENSION SHALL BE ADJUSTED AT SITE SUITABLY BEFORE ERECTION.
3) WELD THICKNESS SHALL BE APPROX. 0.7 X MINIMUM WALL THICKNESS UNLESS OTHERWISE SPECIFIED.
4) ONLY TO BE USED WHEN LATERAL/AXIAL LOADS EXCEEDING STD CLAMP SHOE AVAILABLE.

Rev.	Date	Drawn/Prepared Name	Date	Checked Name	Date	Approved Name	Description	Acc. Code
00	12/02/24	SAW TGP	12/02/24	SJP	12/02/24	MLN	ISSUED FOR FABRICATION	

Document–ID–BAR–Code

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Prepared	12/02/24	TGP
Checked	12/02/24	SJP
Approved	12/02/24	MLN

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66–6695	–			00

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1.0 MTPA ALUMINA REFINERY STREAM-5
DAMANJODI, ODISHA

Description

CS05020-2
SUPPORT RF PAD FOR 20" CS PIPE

Store Location: Server/Share	Store Location: Folder	Store Name
\\P666695–ADA\ACAD	\RLSUPSP\DRG\CS	CS05020

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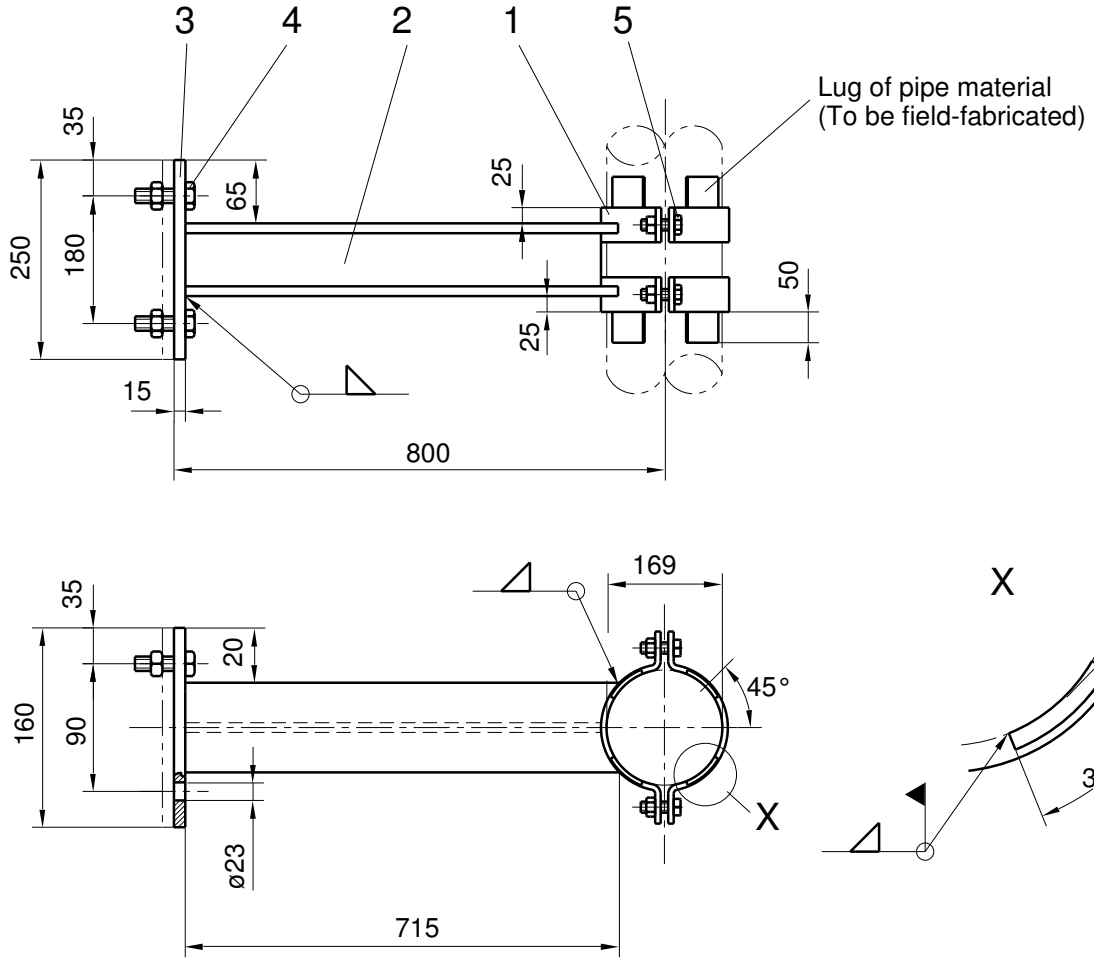
ISO A3

tkIS		Code	Page	UAN	V	L S
		Manufacturer drawing	1	66-6695-700		

PIPE SUPPORT

Code No.: KNC003D Marking : 150/800

U Item



Weld thickness shall be approx. 0.7 x minimum wall thickness.

** or equivalent DIN / EN - Material.

Pos.	Quantity	Description	Standard	Material No. **	Code No.
5	4	HEX. HEAD BOLT WITH -NUT M 16 x 50 / MU	ENISO 4018/4034	1)	MB0001D
4	4	HEX. HEAD BOLT WITH -NUT M 20 x 60 / MU	DIN 933/934	5.6/6	MB0021D
3	1	PLATE 15 x 160 x 250	DIN 1543	1.0038	GB0041D
2	1	HE-B BEAM HE-B 120 x 715	DIN 1025 P. 2	1.0038	GI0001D
1	2	CLAMP FORM A DS 169	UN 3790-01	A283GR.B	MS0001D

Remarks: Total weight = 29,850 kg

1) A193GR.B7/A194GR.2H

Rev	Date	Prepared by	Checked by	Co-checked by	Approved by	Description

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V = Process, TON (L = Line, S = Train, U = Unit, Item)

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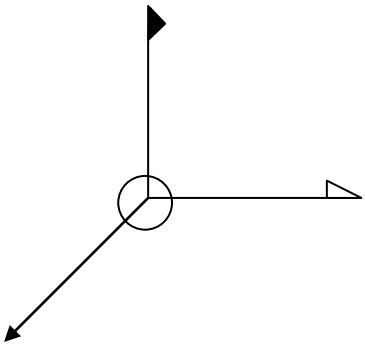
APPENDIX - 1

INSTRUCTION TO VENDORS

1. For dimensions height, length (Nom. size 2, size 3), wherever applicable, as given in Bill of Material, vendor to give price change for incremental change of these variables by 100 mm.

2. Painting shall consist of blast cleaning of the surface to Sa 2 ½ finish with primer coating of Zinc dust ethyl silicate with DFT of 75 microns.

3. Following typical symbol appearing on sketches represents "**TO BE WELDED AT SITE".**



4. Tagging – Prefabricated pipe supports shall be labeled. The labels shall be of weather-proof material and bear assembly code no. & marking indicated on the fabrication sketch.

5. **For brackets all weld joints shall be welded at site.**

6. Specification for PUR blocks

   Min. compressive strength - 5 Kg/cm^2 for 10% deformation

   Min. density- 80 Kg/m^3

Plant	Client	Contract Code	Document ID	Contract No.
---	---	---	PIN-LES-PIP-7013- Contract Specific Document ID if adopted document)	---

ThyssenKrupp Industrial Solutions (India)	IS / DIN STRUCTURE EQUIVALENT	Customer Logo (If applicable for Contract Specific Document)
		Rev 00 Page 1 of 7

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1.0 PURPOSE 2
2.0 TABLES FOR EQUIVALENT.....2

Attachments and Forms

A01 - Annexure – 1 : Cap plate details for connecting two equivalent members ..... 1 page

A02 - Annexure – 2 : Connection plate details on vessel clip for ISMB250..... 1 page

PIN-QMC-03-F101 03-2015

Rev.	Status	Description	Date	Prepared	Date	Checked	Date	Approved	AC
00		Previous Doc. No.PI-000-BD-00075, Rev.0 is revised and reissued as PIN-LES-PIP-7013 due to new document numbering philosophy.	06-07-2017		06-07-2017		06-07-2017		-

Based on : PIN-AAA-AAA-NNN
(to be indicated if adopted document)

Barcode

Category Code: -

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1 PURPOSE

This structural data is compiled as a ready referece to facilitate interchangeability between DIN and IS structural sections. While selecting structural sections preference shall be given to the sections commonly used for civil structure in that project. Dimensional differences between DIN and IS sections shall be considered while routing pipes to avoid clashes.

2 TABLES FOR EQUIVALENT

DIN / IS Structural Equivalents shall be referred in the following tables based on structural materials used in support standard. These tables are prepared for certain sizes of Angles, Channels and Beam type sections. The equivalent shall be selected according to available steel sections specific to the project.

~~**TABLE 2.1:** Equivalent for Secondary Support Class (HKL-9) with DIN sections.~~

TABLE 2.2: Equivalent for Primary Support Class (HKL1, HKL11, HKL2, HKL31, HKL4, HKL41) with DIN sections (Other than Vessel Clip Support Brackets).

TABLE 2.3: Equivalent for Support brackets on Vessel Clips in Primary Support Classes with DIN sections.

TABLE 2.4: Section Modulus Comparision of different forms.
This table shows section modulus comparision of various fabricated forms of IS sections against DIN sections to findout equivalent configurations.

TABLE-2.1 : DIN / IS STRUCTURAL EQUIVALENTS for Secondary Supports in HKL-9

DIN MEMBER	EQUIVALENT IS-SECTIONS	ALTERNATIVE	REMARKS
L 70 x 7	ISA 70 x 70 x 8		
L 90 x 9	ISA 90 x 90 x 10		
L 100 x 10	ISA 100 x 100 x 10		
HEA / IPBl 100	2 x ISMC 100 Welded Back to Back	100 X 100 Box Made of ISMC 100 (Note-2)	
HEA / IPBl 120	2 x ISMC 150 Welded Back to Back	150 X 150 Box Made of ISMC 150 (Note-2)	
HEA / IPBl 160	2 x ISMC 200 Welded Back to Back	150 X 200 Box Made of ISMC 200 (Note-2)	Refer Note-3 for CAP Plate
HEB / IPB 100	2 x ISMC 150 Welded Back to Back	150 X 150 Box Made of ISMC 150 (Note-2)	
HEB / IPB 120	2 x ISMC 150 Welded Back to Back	150 X 150 Box Made of ISMC 150 (Note-2)	
HEB / IPB 160	2 x ISMC 250 Welded Back to Back	160 X 250 Box Made of ISMC 250 (Note-2)	

Table 2.1 NOT TO BE USED IN VIEW OF HKL-9 AVAILABLE WITH INDIAN SECTIONS

NOTES:

NOTE-1 ALL THE EQUIVALENT SECTIONS SHALL BE MODELLED FOR THE CLASH.

NOTE-2 BOX SECTIONS ARE TO BE AVOIDED IN CORROSIVE ENVIRONMENTS LIKE CAUSTIC SODA. DO NOT USE FOR BOLTED / CLAMPED CONSTRUCTIONS.

AFTER FABRICATION OF SUPPORT, BOX SECTION SHALL BE CLOSED WITH 8MM THK. COVER PLATE. THE DIMENSIONS OF COVER PLATE ARE AS PER BELOW

BOX SECTION	COVER PLATE DIMENSION
ISMC 100 BOX	120 x 120 x 8
ISMC 150 BOX	170 x 170 x 8
ISMC 200 BOX	220 x 170 x 8
ISMC 250 BOX	270 x 180 x 8

NOTE-3 FOR SUPPORTS KFY002D, KGY002D, KHY002D, KKY002D, KLY002D & KMY002D, CAP PLATE SHALL BE CONSIDERED WHILE CONNECTING TWO MEMBERS FOR ACHIEVING FULL WELDING. REFER **ANNEXURE-1** FOR LOCATION OF CAP PLATE & MTO.

TABLE-2.2 : DIN / IS STRUCTURAL EQUIVALENTS for Primary Supports HKL1, HKL11, HKL2, HKL31, HKL4, HKL41 (Other than Support Brackets connected to Vessel clips)

DIN MEMBER	EQUIVALENT IS-SECTIONS	ALTERNATIVE	REMARKS
EQUAL ANGLES			
L 40 x 5	ISA 40 x 40 x 5	Not Applicable	
L 45 x 5	ISA 45 x 45 x 5		
L 50 x 6	ISA 50 x 50 x 6		
L 50 x 7	ISA 60 x 60 x 6		
L 60 x 8	ISA 60 x 60 x 8		
L 70 x 7	ISA 70 x 70 x 8		
L 75 x 7	ISA 75 x 75 x 8		
L 75 x 8	ISA 75 x 75 x 8		
L 80 x 10	ISA 80 x 80 x 10		
L 90 x 9	ISA 90 x 90 x 10		
L 100 x 8	ISA 100 x 100 x 8		
L 100 x 10	ISA 100 x 100 x 10		
L 100 x 12	ISA 100 x 100 x 12		
L 150 x 12	ISA 150 x 150 x 12		
UNEQUAL ANGLES			
L 50 x 40 x 5	ISA 60 x 40 x 5	Not Applicable	
L 60 x 40 x 6	ISA 60 x 40 x 6		
L 75 x 50 x 7	ISA 75 x 50 x 8		
L 80 x 65 x 8	ISA 100 x 65 x 8		
"I" SECTION			
HEA / IPBl 140	2 x ISMC 150 Welded Back to Back	150 X 150 Box Made of ISMC 150 (NOTE-2)	
HEA / IPBl 160	2 x ISMC 200 Welded Back to Back	150 X 200 Box Made of ISMC 200 (NOTE-2)	
HEB / IPB 120	2 x ISMC 150 Welded Back to Back	150 X 150 Box Made of ISMC 150 (NOTE-2)	
HEB / IPB 200	Not Applicable	180 X 300 Box Made of ISMC 300 (NOTE-2 & 3)	
"C" SECTION			
U 30 x 15	ISMC 75	Not Applicable	
U 50 x 25	ISMC 75		
U 65	ISMC 75	Not Applicable	Refer NOTE-4
U 80	ISMC 100	Not Applicable	
U 100	ISMC 100	Not Applicable	Refer NOTE-5
U 120	ISMC 125	Not Applicable	Refer NOTE-6
U 160	ISMC 200	Not Applicable	
U 180	ISMC 200		
U 200	ISMC 200		
U 220	ISMC 250		
U 240	ISMC 250		
U 280	ISMC 350		
TEE SECTION			
T 80 x 9	T 100 x 10 (Note-7)	Not Applicable	
T 100 x 10	T 100 x 10		
T 100 x 11	T 100 x 10	Not Applicable	Refer NOTE-8
T 140 x 15	T 150 x 10 (Note-9 & 10)	Not Applicable	

NOTES:

NOTE-1 ALL THE EQUIVALENT SECTIONS SHALL BE MODELLED FOR THE CLASH.

NOTE-2 BOX SECTIONS ARE TO BE AVOIDED IN CORROSIVE ENVIRONMENTS LIKE CAUSTIC SODA. DO NOT USE FOR BOLTED / CLAMPED CONSTRUCTIONS.

AFTER FABRICATION OF SUPPORT, BOX SECTION SHALL BE CLOSED WITH 8MM THK. COVER PLATE. THE DIMENSIONS OF COVER PLATE ARE AS PER BELOW.

BOX SECTION	COVER PLATE DIMENSION
ISMC 100 BOX	120 x 120 x 8
ISMC 150 BOX	170 x 170 x 8
ISMC 200 BOX	220 x 170 x 8
ISMC 250 BOX	270 x 180 x 8

NOTE-3 SECTION MODULUS OF ISMC300 BOX SLIGHTLY (8 TO 9%) LOWER THAN HEB 200 IN MAJOR AXIS, BUT ACCEPTABLE.

NOTE-4 SECTION MODULUS OF ISMC75 SLIGHTLY (4 TO 5%) LOWER THAN U65 IN MINOR AXIS, BUT ACCEPTABLE.

NOTE-5 SECTION MODULUS OF ISMC100 SLIGHTLY (8 TO 9%) LOWER THAN U100 IN BOTH AXIS, BUT ACCEPTABLE.

NOTE-6 WHENEVER ISMC125 ARE USING EQUIVALENT TO U120 FOR FABRICATION OF SHOE WITH CLAMP FORM “U”, THE FLAT BAR SHALL BE CONSIDERED 125MM WIDTH INSTEAD OF 120MM TO MATCH ISMC125 HEIGHT. REFER UN 3790-01 FOR FABRICATION DETAILS OF CLAMP FORM “U”.

NOTE-7 HEIGHT CUT TO 80MM TO MATCH SHOE HEIGHT.

NOTE-8 SECTION MODULUS OF T100x10 SLIGHTLY (10 TO 15%) LOWER THAN T100x11 IN BOTH AXIS, BUT ACCEPTABLE.

NOTE-9 T150x10 SHALL BE USED ONLY FOR AXIAL STOPPER ASSEMBLY. SECTION MODULUS OF T150x10 (37 TO 42%) LOWER T140x15 IN BOTH AXIS, BUT ACCEPTABLE AS IT IS SATISFY WELD AREA FOR AXIAL STOP PURPOSE.

NOTE-10 FOR CLAMP SHOE FABRICATION, T140x15 SHALL BE FABRICATED FROM 15MM THK. PLATES.

TABLE-2.3 : DIN / IS / BS STRUCTURAL EQUIVALENTS for Support brackets on Vessel Clips in Primary Supports

DIN MEMBER	EQUIVALENT IS-SECTIONS	ALTERNATIVE-1 (FABRICATED SECTIONS FROM PLATE)	ALTERNATIVE-2 (IS / BS SECTIONS)	REMARKS
L 100 x 10	ISA 100 x 100 x 10	Not Applicable	Not Applicable	
L150 x 100 x 10	ISA 150 x 115 x 10			
T 100 x 10	T 100 x 10			
HEB / IPB 120	-	Refer NOTE-2	ISMB 250 (Refer NOTE-3)	
HEB / IPB 200	-		UC203X203X60 (Refer NOTE-4)	

NOTES:

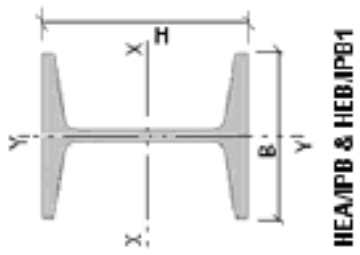
NOTE-1 ALL THE EQUIVALENT SECTIONS SHALL BE MODELLED FOR THE CLASH.

NOTE-2 SECTIONS SHALL BE FABRICATED FROM PLATES OF EQUIVALENT THICKNESS AND FABRICATED SECTIONS TO BE CAREFULLY USED TO CLEAR THE GAP BETWEEN THE BOLTS.

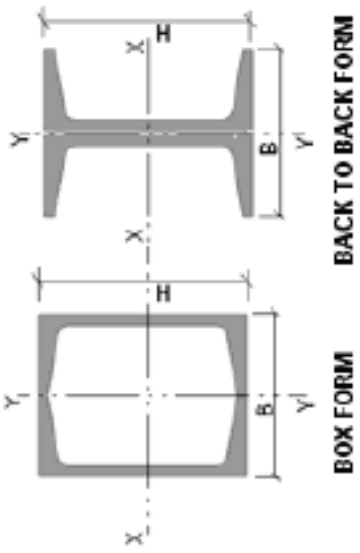
NOTE-3 FOR VESSEL CLIP SUPPORT BRACKETS KNB003D, KNC003D, KOX002D AND KPX001D, PLATE ATTACHED TO ISMB 250 SHALL BE MODIFIED AS PER **ANNEXURE-2**.

NOTE-4 THESE SECTIONS ARE AVAILABLE FROM M/S. JINDAL IN DOMESTIC MARKET.

TABLE-2.4 : SECTION MODULUS COMPARISION OF DIFFERENT FORMS



HEA/IPB & HEB.IPB1



BOX FORM BACK TO BACK FORM

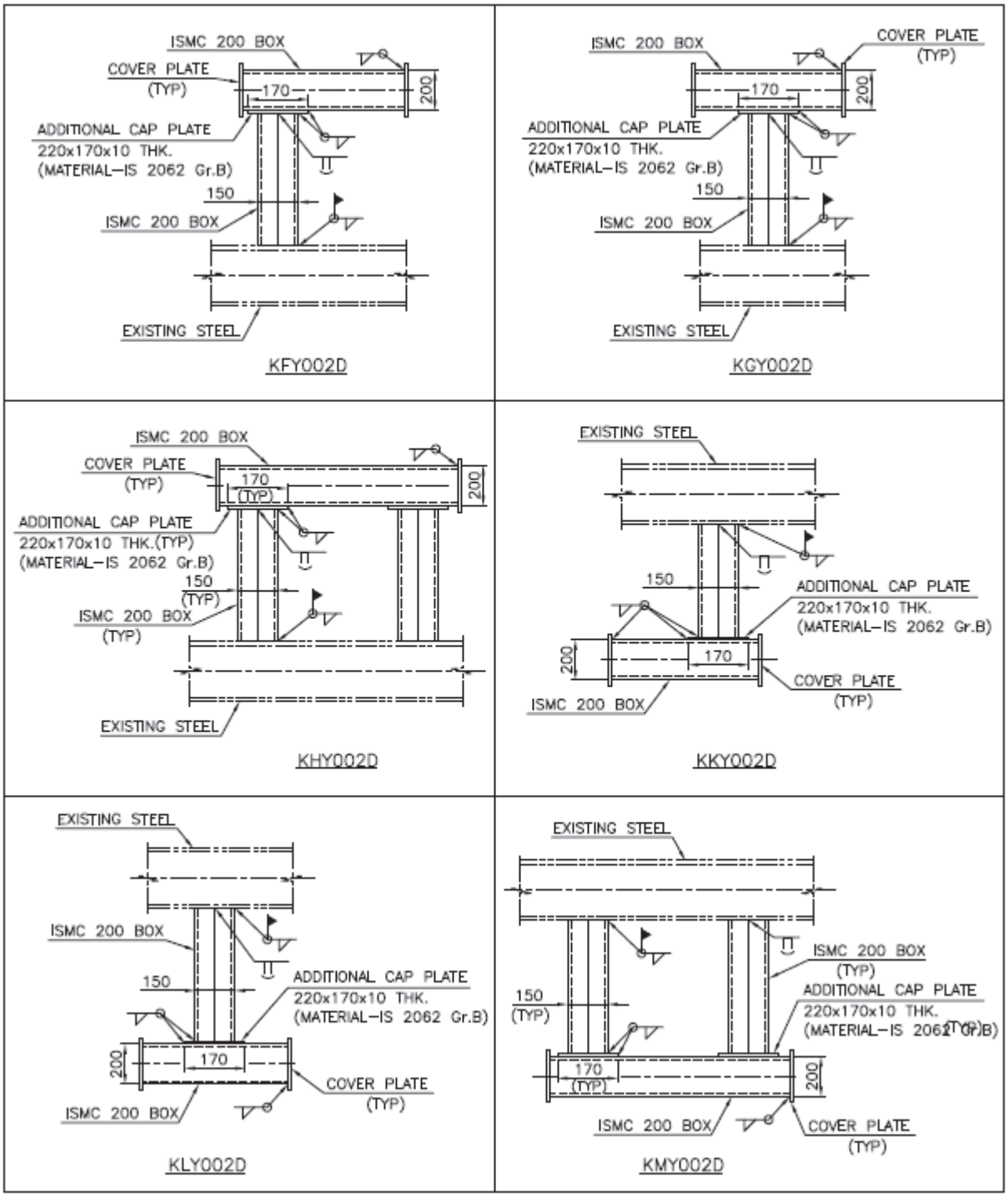
IS Profiles						Equivalent	DIN Profiles			
Sections used	Dimensions (mm X mm) H x B	Section Modulus (cm^3) Box Form		Back to Back Form			Section	Dimensions (mm X mm) H x B	Section Modulus (cm^3)	
		Zxx	Zyy	Zxx	Zyy				Zxx	Zyy
2 x ISMC 100	100 x 100	69.1	76.8	76.8	22.3	⟷	HEA / IPB1 100	96 x 100	72.7	26.8
							HEA / IPB1 120	114 x 120	106.3	38.5
2 x ISMC 150	150 x 150	187	210.1	210.1	55	⟷	HEA / IPB1 140	133 x 140	154.9	55.6
							HEB / IPB 100	100 x 100	89.9	33.5
							HEB / IPB 120	120 x 120	144	53
2 x ISMC 200	200 x 150	251.1	366	366	74.4	⟷	HEA / IPB1 160	152 x 160	219.7	77
							HEB / IPB 140	140 x 140	216	78.5
2 x ISMC 250	250 x 160	369.5	620.8	620.8	104.3	⟷	HEA / IPB1 180	171 x 180	293.6	102.8
							HEB / IPB 160	160 x 160	311	111
2 x ISMC 300	300 x 180	524.6	856	856	126.4	⟷	HEB / IPB 180	180 x 180	426	151
					Not Applicable		HEB / IPB 200	200 x 200	570	201

Note: Dimensions & Section modulus of different sections are referred from following standards
IS 808 : 1989 - Dimensions for Channels, Composite beams & Box beams.
DIN 1025 : 1994 - DIN Structural Data.

Annexure-1

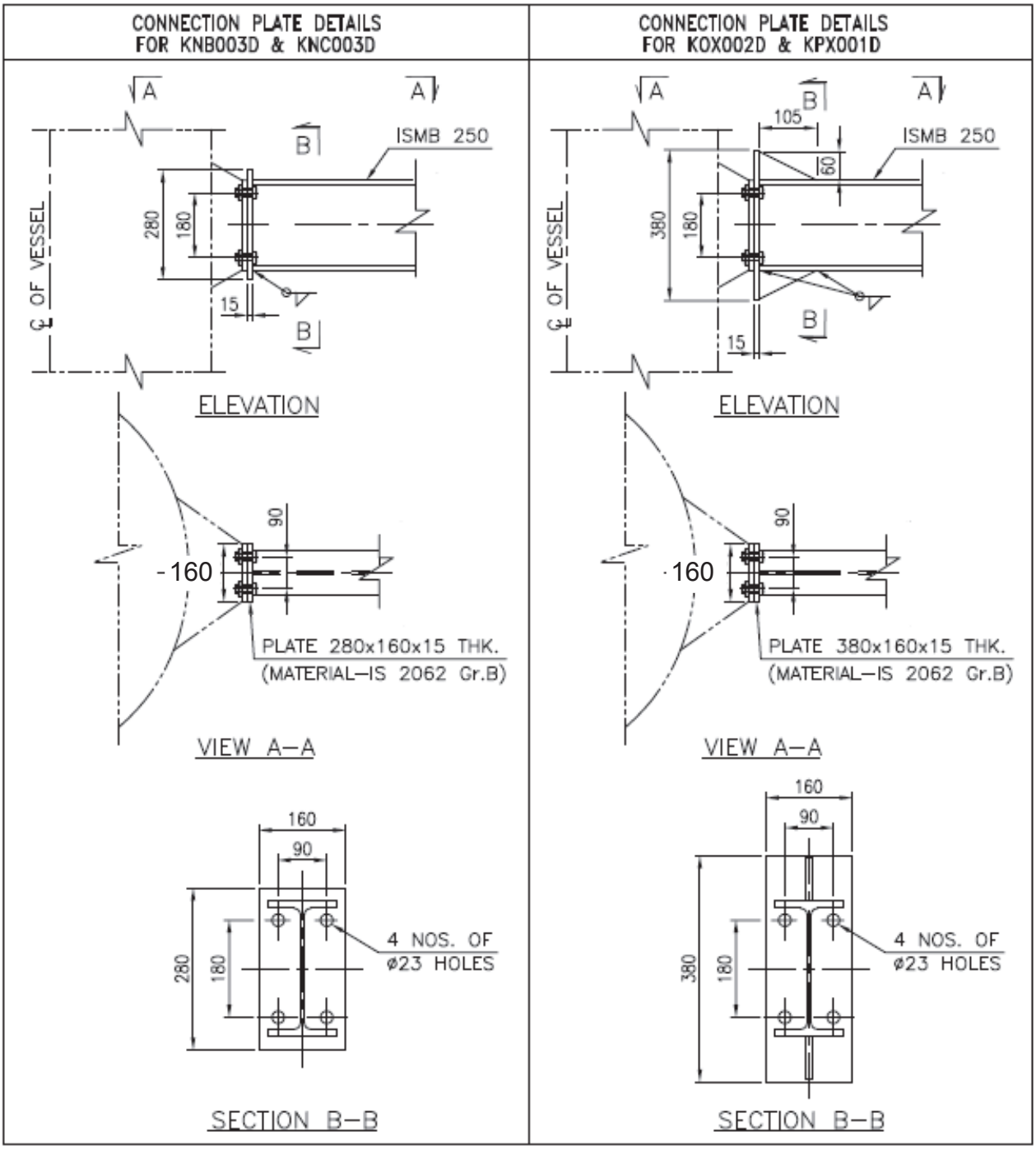
CAP PLATE DETAILS
FOR CONNECTING TWO EQUIVALENT MEMBERS

Note: Orientation is shown for ISMC200 BOX, same is applicable for ISMC 200 Welded Back to Back Section also.



Annexure-2

CONNECTION PLATE DETAILS ON VESSEL CLIP FOR ISMB250



thyssenkrupp

APPENDIX – 3

DIN / ASTM / IS MATERIAL EQUIVALENT

SL.NO.	DIN SPEC	ASTM SPEC	IS SPEC
1.	1.0038 (RSt 37.2)	A 283	IS-2062 (Tested)
2	1.0036 (USt 37.2)	A 283	IS-2062 (Tested)
3	1.0254 (St 37.2)	A 53 Gr A or B	IS-1239 / IS 385
4	DIN 59382	A 167 Gr. TP 321	
5	DIN HII 1.0425	A 515 Gr. 55	IS – 2002 Gr. 1
6	DIN 17155 DIN 17200	A 105	IS-2004 Cl.3
7	DIN-14 Mo3 (1.5415)	A 204 Gr. B – Plate A335 PI– Pipe	
8	DIN 13 Cr. M044 (1.7335)	A 387 Gr 11 – Plate A 335 P11/12 – Pipe	
9	DIN X6 Cr. Ni Ti 1810 (1.4541)	A240 TP 321	
10	1.0305 (St. 35.8)	A106 Gr. A or B	
11	Bolt/Nut DIN Class 3.6/4.6 DIN 5	⊗ A193 B7/ A194 2H	⊗ C.S. IS-1363/IS-1367 CI.4.6
12	Bolt/Nut 1.7709 (21 Cr.Mo5) 15680 (12 Ni. 19)	⊗ A193 Gr. B 16 / A194 Gr.7	
13	Bolt/Nut 1.7219 (26 Cr.Mo5) 15680 (12 Ni. 19)	⊗ A 320 Gr.L7 A 194 Gr.4 (Upto -100º)	

Note: Material E250 to be read as IS2062 E250.

Uhde	Pipe supports **Pipe saddles, U-bolts and U-straps for uninsulated steel piping** Design dimensions and weights	UN 3786-03 Page 1 of 14

Rohrhalterungen; Rohrsättel, Rund- und Flachstahlbügel
für ungedämmte Stahlrohrleitungen; Konstruktionsmaße und Gewichte

Supersedes 93-08

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1 Scope

This Uhde Standard (UN) applies to the design and construction of industrial and chemical plants. It contains requirements about the design dimensions and weights of the pipe saddles, U-bolts and U-straps for uninsulated steel piping, without related sub-assemblies "clamps".

2 Units, abbreviated terms

2.1 Units

Table 1. **Units**

General	SI units
Dimensions	mm

2.2 Abbreviated terms

PTFE = Polytetrafluorethylen
U 60 = Channel steel with 60 mm height
U 80 = Channel steel with 80 mm height

3 General information

The summary, dimensions and standard part numbers of the sub-assemblies are specified in UN 3786-01.

See UN 3786-01, Supplement 1, for the admissible forces at fixed points.

09.06.08	Hangebrauck	10.06.08	Maubach	11.06.08	Fellner	12.06.08	Dr. Lazaridis
Date	Prepared	Date	Checked	Date	Standardization	Date	Approved

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4 Pipe saddles, loose point, DN 600 to DN 900

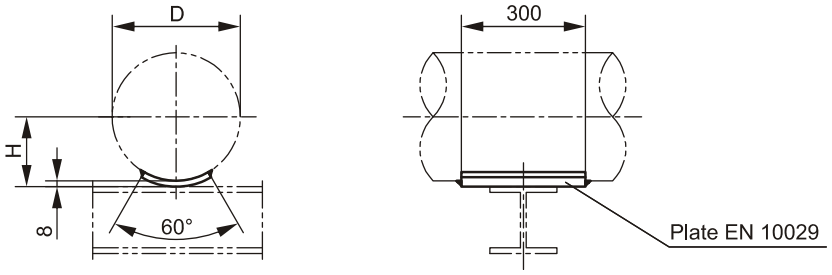


Figure 1. Pipe saddles

Table 2. **Pipe saddles, design dimensions and total weights**

Nominal diameter DN		Pipe outside diameter D		Overall height	Developed length	Total weight in kg
DIN	ANSI	DIN	ANSI	H		
600	24"	610	610	313	320	6.03
700	28"	711	711	364	370	6.90
800	32"	813	813	415	430	8.10
900	36"	914	914	465	480	9.05

5 U-bolts

5.1 General definitions

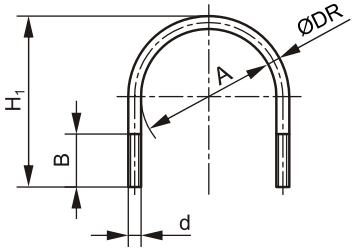


Figure 2. U-bolts

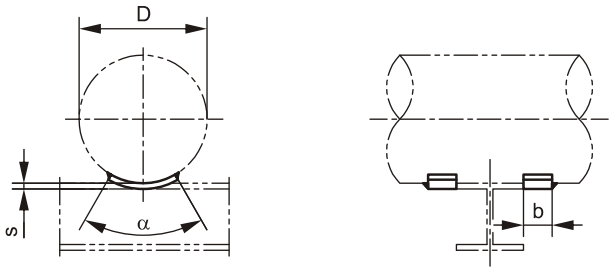


Figure 3. Lugs of pipe material for fixed points

5.2 Longitudinal guide, welded to steel structure, DN 15 to DN 500

DN 15	DN 20 to DN 32	DN 40 to DN 500

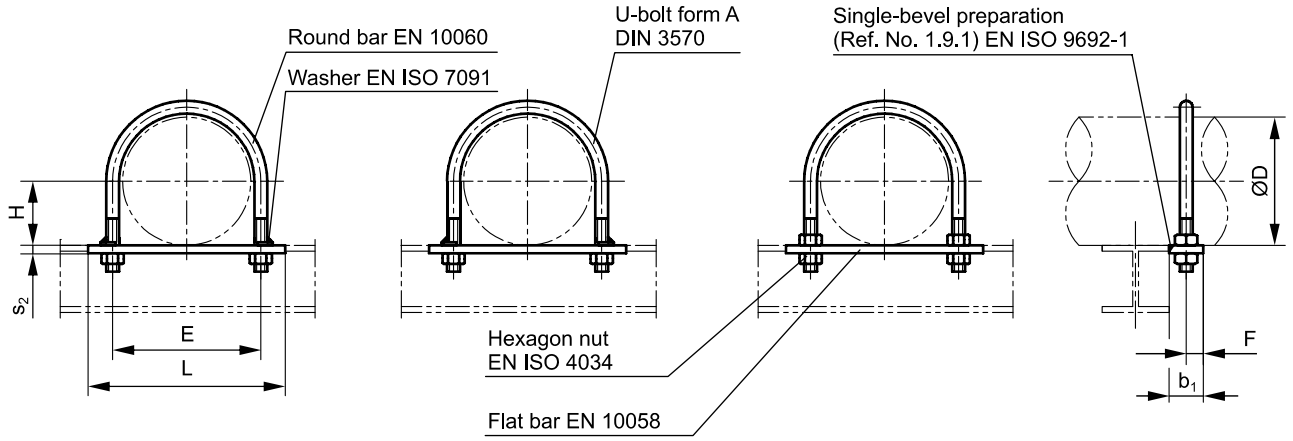
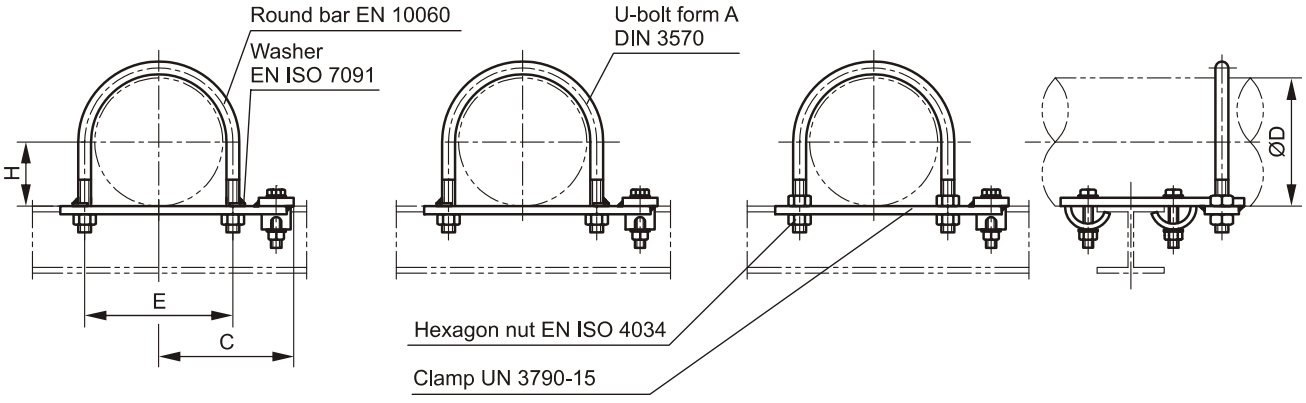


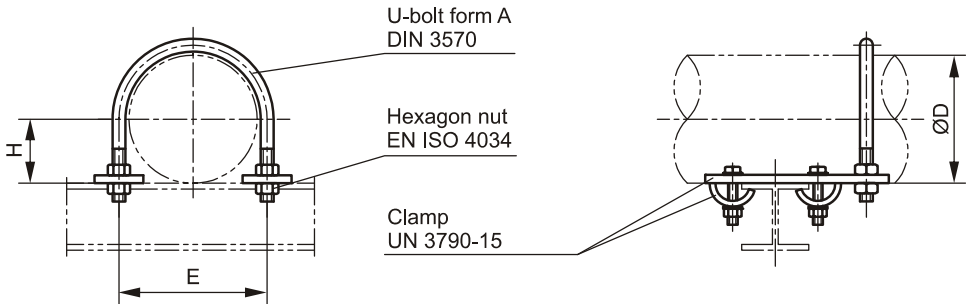
Figure 4. U-bolts

5.3 Longitudinal guide, clamped to steel structure, DN 15 to DN 500

DN 15	DN 20 to DN 32	DN 40 to DN 50



DN 65 to DN 80



DN 100 to DN 500

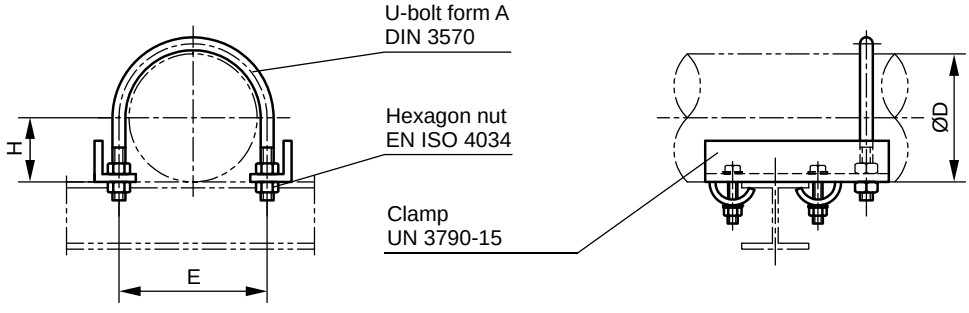


Figure 5. U-bolts

5.4 Longitudinal guide, bolted to steel structure, DN 15 to DN 500

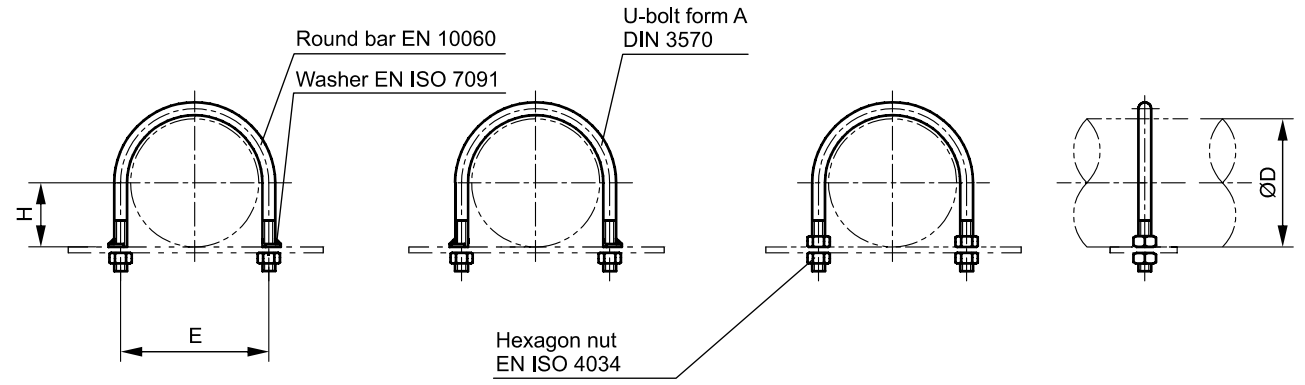


Figure 6. U-bolts

5.5 Fixed point, welded to steel structure, DN 15 to DN 40

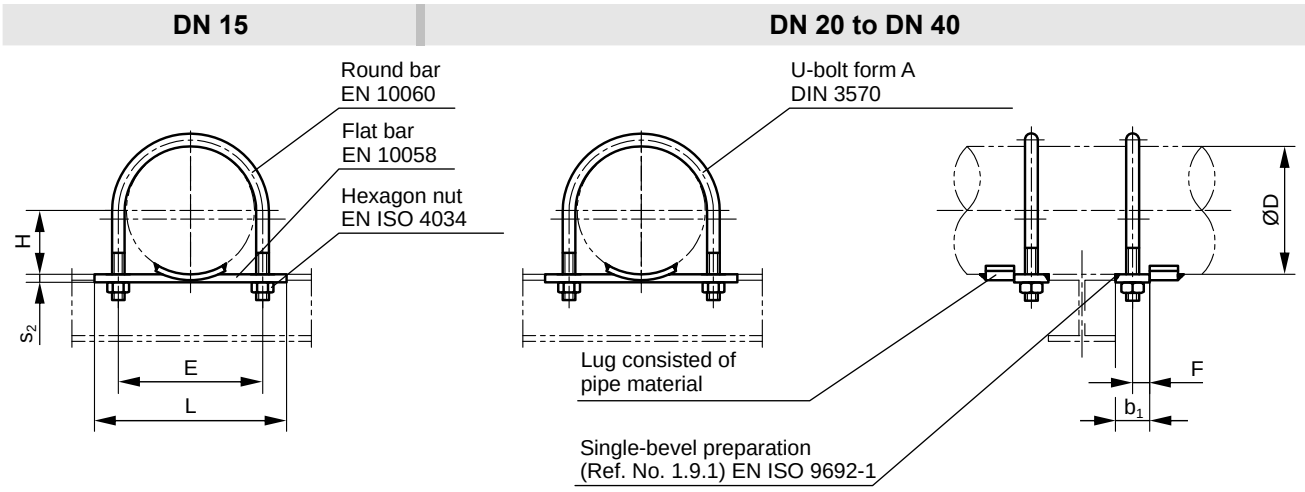


Figure 7. U-bolts

5.6 Fixed point, clamped to steel structure, DN 15 to DN 50

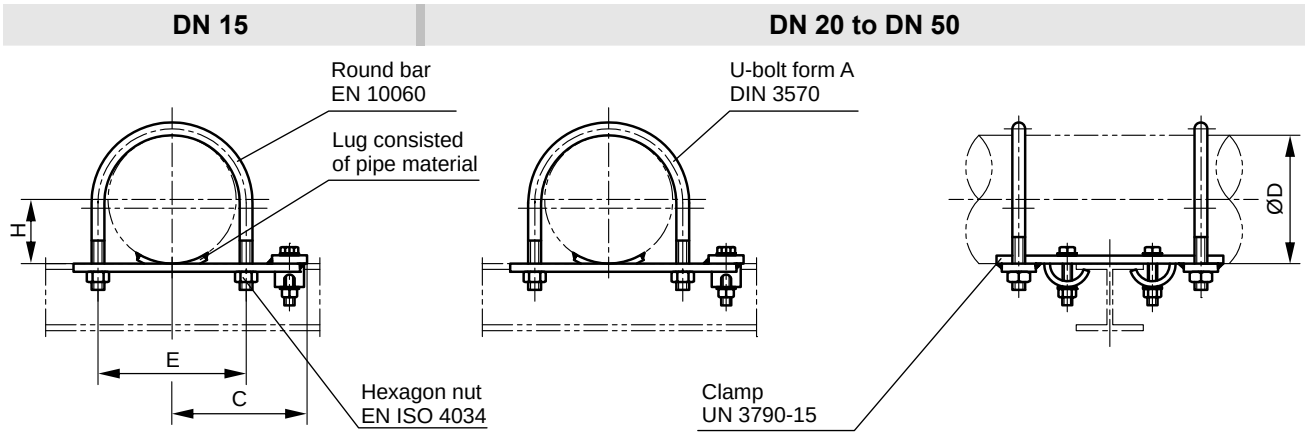


Figure 8. U-bolts

5.7 Fixed point, bolted to steel structure, DN 15 to DN 40

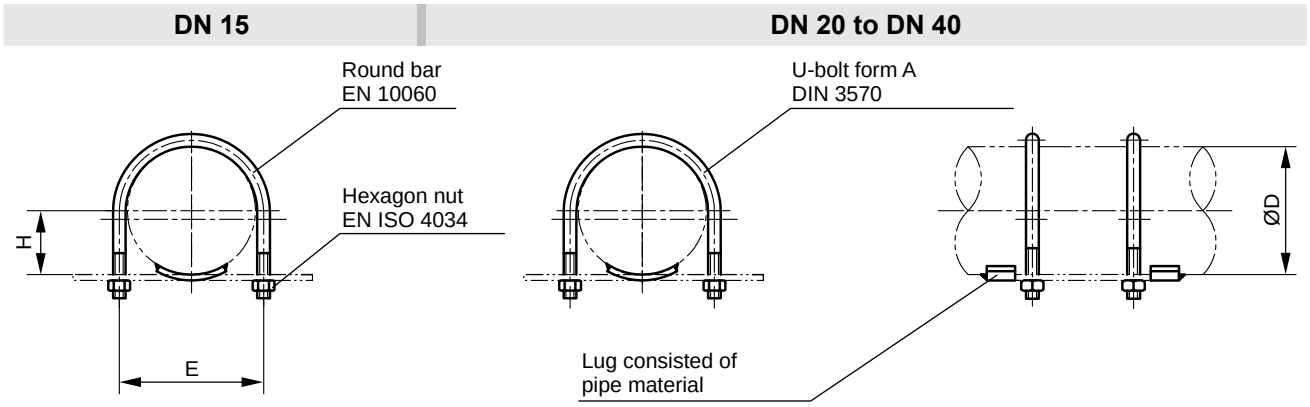


Figure 9. U-bolts

Table 3. **U-bolts, design dimensions and total weights**

Nominal diameter DN		Pipe outside diameter D		Overall height	Distance	Inside diameter	Round bar diameter	Hole diameter[2]	Distance	Height of U-bolt	Threat	Thread length	Developed length	Nominal size of washer	Flat bar				2 lugs				Total weight in kg			
																							Longitudinal guide		Fixed point[1]	
DIN	ANSI	DIN	ANSI	H	C	A	DR		E	H_1	d	B			b_1 Width	s_2 Thickness	L Length	F Distance	s Thickness	b Width	α	Weld thickness	welded	clamped[3] bolted	welded	clamped[3] bolted
15	**½"**	21.3	21.3	11	74	25	8	9	33	48	M 8	22	106	9	30	5	60	15	2	20	80°	2	0.12	0.05	0.24	0.10
20	**¾"**	26.9	26.7	14	79	30			40	70		40	153						2.3	20			0.54	0.13	1.04	0.22
25	**1"**	33.7	33.4	17	85	38	10	11	48	76	M 10		170	11			110						0.55	0.14	1.06	0.24
32	**1¼"**	42.4	42.2	22	96	46			56	86			194						2.6	30	60°	2	0.57	0.16	1.10	0.28
40	**1½"**	48.3	48.3	25	93	52			62	92		50	210		60	8		30					0.58	0.17	1.12	0.30
50	**2"**	60.3	60.3	31	102	64			76	109			250						2.9			2.5	0.86	0.26		0.48
65	**2½"**	76.1	73	39		82	12	13.5	94	125	M 12		292				160						0.90	0.30		
80	**3"**	88.9	88.9	45		94			106	138			325										0.93	0.33		
100	**4"**	114.3	114.3	58		120			136	171			404										1.97	0.76		
125	**5"**	139.7	141.3	70		148	16	17.5	164	191	M 16	60	460		70	10	220	35					2.06	0.85		
150	**6"**	168.3	168.3	85		176			192	217			528				245						2.29	0.95		
200	**8"**	219.1	219.1	110		228			248	283			688				315						3.67	1.94		
250	**10"**	273	273	137		282	20	22	302	334	M 20		820				370						4.30	2.27		
300	**12"**	323.9	323.8	162		332			352	385		70	950				420						5.75	2.59		
350	**14"**	355.6	355.6	178		378			402	435			1075		80	12	480	40					7.84	4.22		
400	**16"**	406.4	406.4	204		428	24	26	452	487	M 24		1208				530						8.69	4.69		
500	**20"**	508	508	254		530			554	589			1470			15	635						11.60	5.62		

1) As the 2 lugs of pipe material required for the fixed points will be provided by others, the weight of the lugs have not been considered.
2) Hole diameter according to EN 20273, mean value.
3) Total weight without related sub-assembly "clamp".

6 U-straps

6.1 General definition

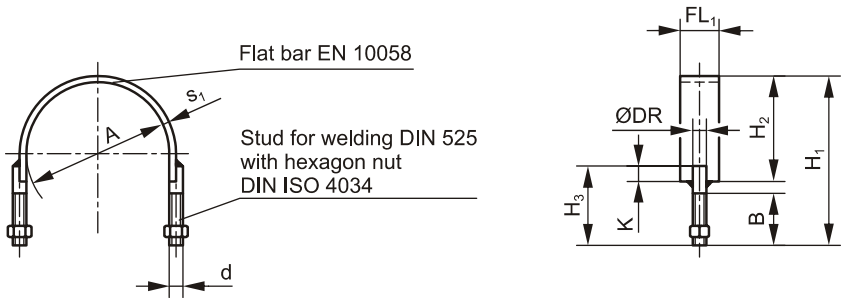


Figure 10. U-straps

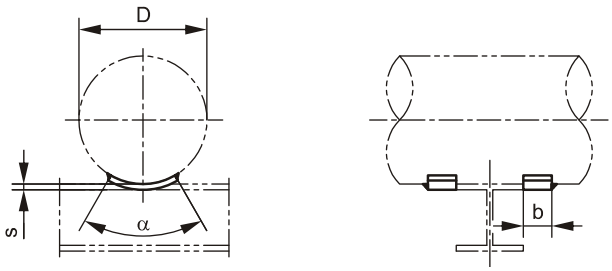
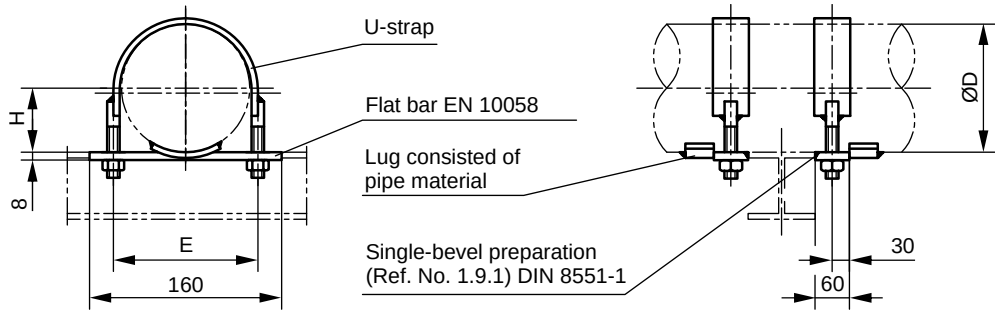


Figure 11. Lugs of pipe material for fixed points

6.2 Fixed point, welded to steel structure, DN 50 to DN 500

DN 50 to DN 80



DN 100 to DN 500

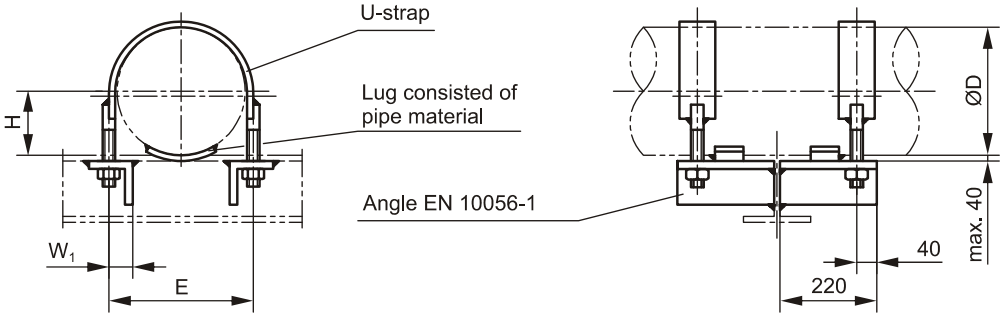
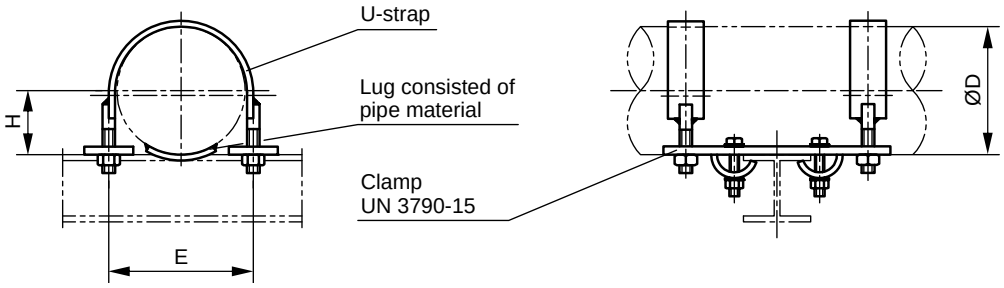


Figure 12. U-straps

6.3 Fixed point, clamped to steel structure, DN 65 to DN 500

DN 65 to DN 80



DN 100 to DN 500

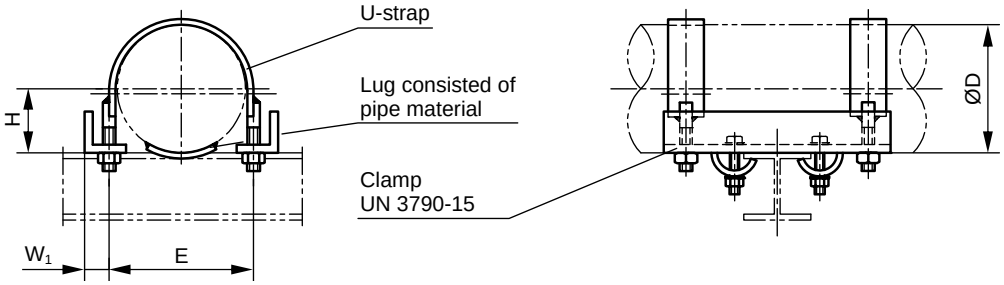


Figure 13. U-straps

6.4 Fixed point, bolted to steel structure, DN 50 to DN 500

DN 50 to DN 500

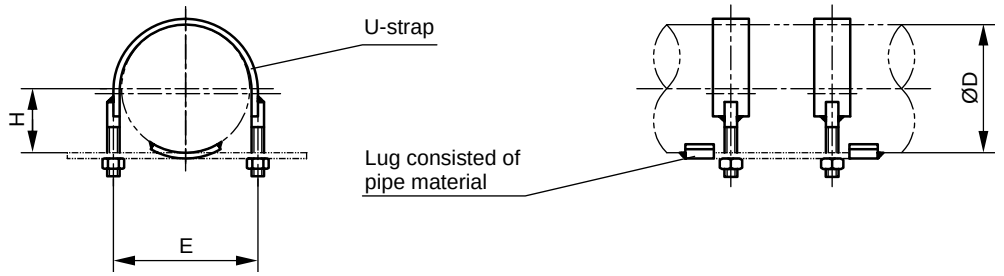


Figure 14. U-straps

Table 4. **U-straps, design dimensions and total weights**

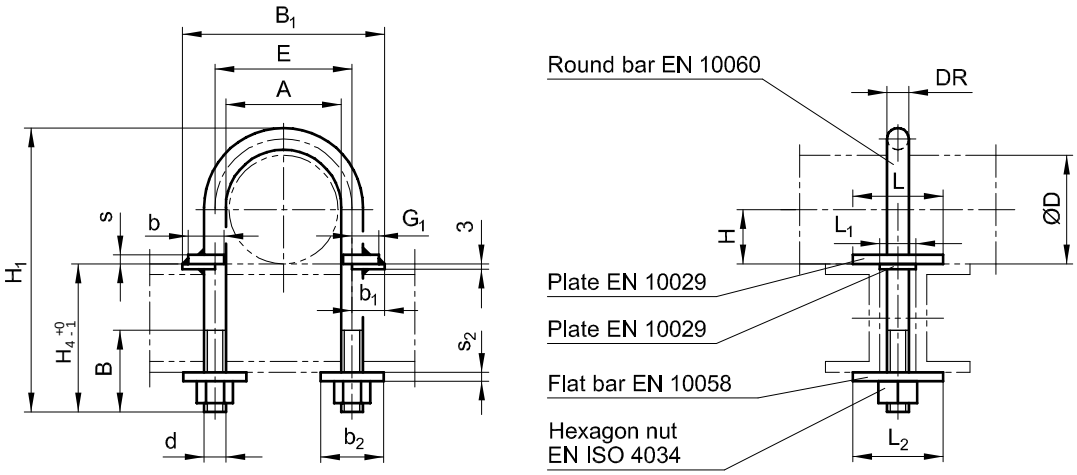
Nominal diameter DN DIN	Nominal diameter DN ANSI	Pipe outside diameter D DIN	Pipe outside diameter D ANSI	Overall height H	Inside diameter A	Diameter of welding end DR	Hole diameter[2]	Distance E	H eight of U-strap H_1[3]	Height H_2	Length of welding end H_3	Thread d	Threaded length B	Protruding end K	$FL_1 \times s_1$	Developed length	2 lugs: Thickness s	2 lugs: Width b	2 lugs: α	2 lugs: Weld thickness	Angle	Fixed point: welded W_1[4]	Fixed point: clamped	Total weight in kg[1] Fixed point: welded	Total weight in kg[1] Fixed point: clamped[5] bolted
50	**2"**	60.3	60.3	31	64	12	13.5	76	100	59	60	M 12	55	20	40 × 6	150	2.9	30	60°	2.5				2.00	0.80
65	**2½"**	76.1	73	39	82			94	112	67	65					180								2.16	0.96
80	**3"**	88.9	88.9	45	94			106	124	74	70					200	3.2	40	45°	3				2.22	1.02
100	**4"**	114.3	114.3	58	120	16	17.5	136	189	100	120	M 16	65	30	50 × 8	260	3.6				70 × 70 × 7	40	35	9.00	2.52
125	**5"**	139.7	141.3	70	148			164	217	117	130					305	4							9.32	2.84
150	**6"**	168.3	168.3	85	176			192	245	130	145					350	4.5							9.72	3.24
200	**8"**	219.1	219.1	110	228	20	22	248	305	165	180	M 20	75	40	60 × 8	450	6.3			4	90 × 90 × 9	50	50	16.12	5.40
250	**10"**	273	273	137	282			302	354	194	200					535								16.96	6.24
300	**12"**	323.9	323.8	162	332			352	409	239	210					630	7.1		40°	5				17.74	7.02
350	**14"**	355.6	355.6	178	378	24	26	402	461	276	225	M 24	85	50	70 × 10	725	8	70		5.5				22.24	11.52
400	**16"**	406.4	406.4	204	428			452	511	326						855	8.8			6				23.68	12.96
500	**20"**	508	508	254	530			554	613	428						1115	11			7.5				26.54	15.82

1) As the 2 lugs of pipe material required for the fixed points will be provided by others, the weight of the lugs have not been considered.
2) Hole diameter according to EN 20273, mean value.
3) Dimension "H_1" allows for a beam flange thickness up to 40 mm, if the U-strap is attachment to the steel structure by means of angles. In the case of smaller beam flange thickness and U-straps clamped to the steel structure, the protruding ends of the threaded lengths are according by larger.
4) W_1 according to DIN 997.
5) Total weight without related sub-assembly "clamp".

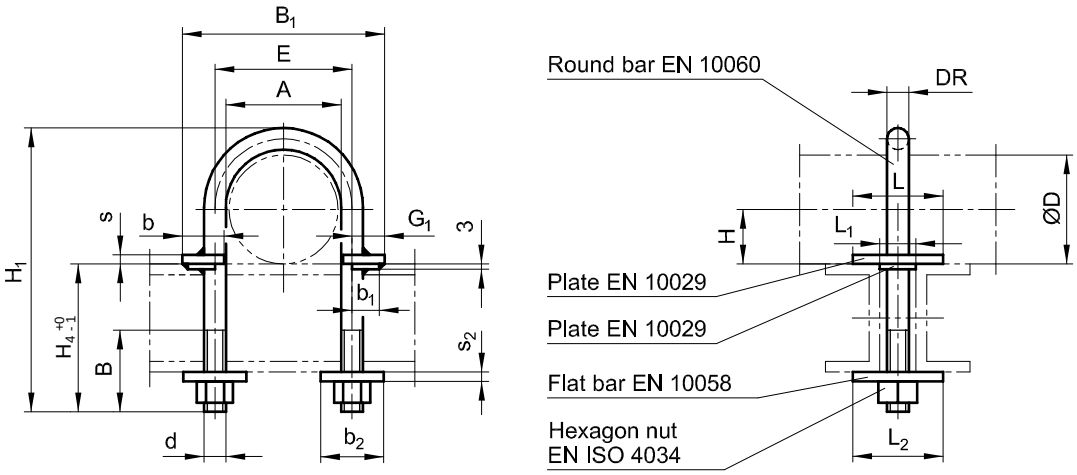
7 U-bolts and U-straps for steel piping mounted on channel section brackets

7.1 U-bolts for steel piping, longitudinal guide, DN 15 to DN 200

DN 15 to DN 40



DN 50 to DN 80 (U 60 Brackets)
DN 50 to DN 150 (U 80 Brackets)



DN 100 to DN 125 (U 60 Brackets)
DN 200 (U 80 Brackets)

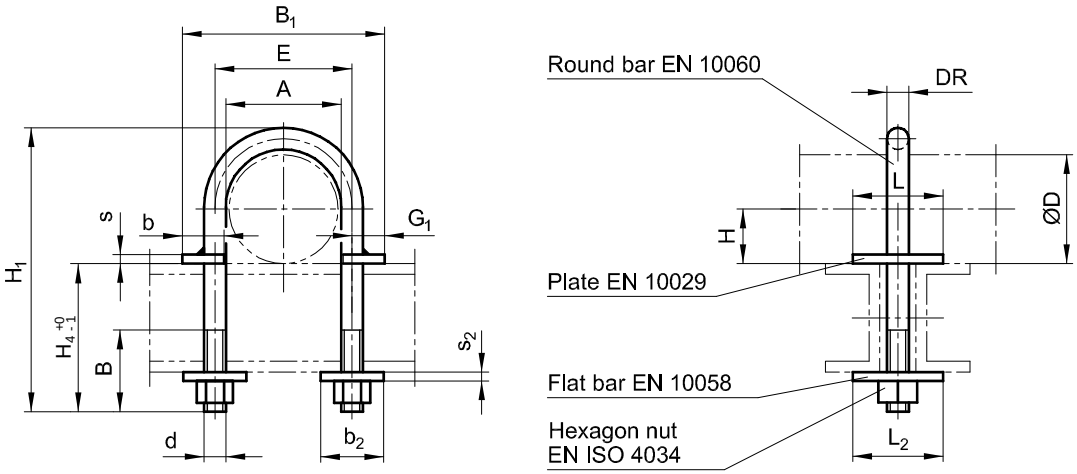


Figure 15. U-bolts

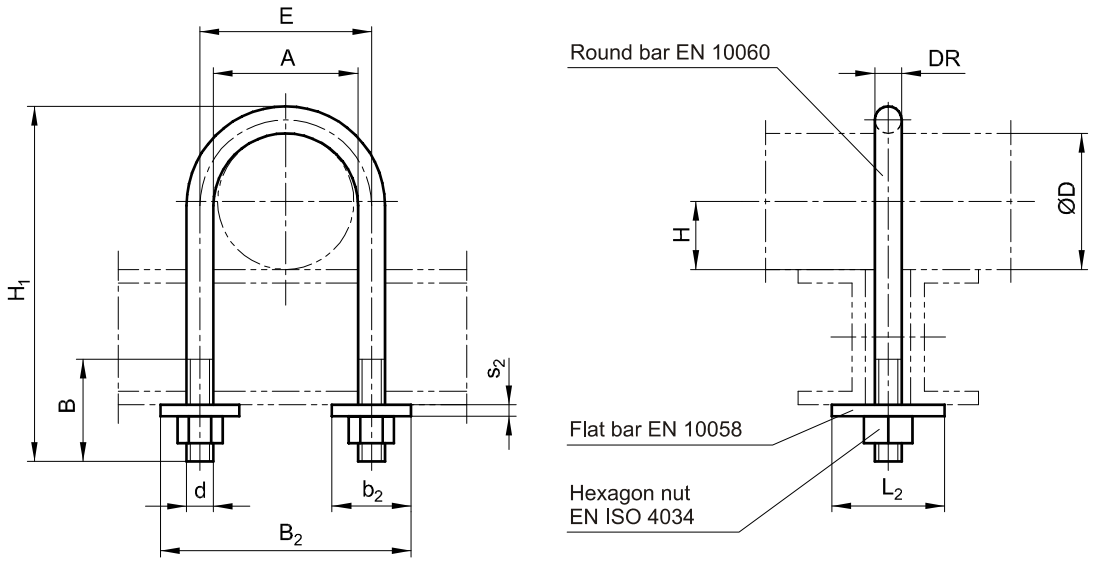
Table 5. **U-Bolts for uninsulated steel piping, mounted on channel section brackets, design dimensions and total weights**

Nominal diameter DN		Pipe outside diameter D		Inside diameter	Total height	Distance	Total width	Round bar diameter	Hole diameter[1]	Thread	Thread length	U-bolt for U 60 Brackets					U-bolt for U 80 Brackets					Edge distance	Thickness	Width	Length	Thickness	Width	Length	Total weight longitudinal guide	
DIN	ANSI	DIN	ANSI	A	H	E	B_1	DR		d	B	H_1	H_4		L_1	b_1	H_1	H_4		L_1	b_1	G_1	s	b	L	s_2	b_2	L_2	U-bolt for U 60 Brackets kg	U-bolt for U 80 Brackets kg
15	**½"**	21.3	21.3	25	11	33	62	8	9	M 8	30	107	76	226			127	96	266			12					25		0.26	0.28
20	**¾"**	26.9	26.7	30	14	40	70					117		247			137		287										0.36	0.39
25	**1"**	33.7	33.4	38	17	48	78	10	11	M 10	40	125	78	267			145	98	307			11	3	15			30		0.37	0.40
32	**1¼"**	42.4	42.2	46	22	56	86					133		288			153		328										0.39	0.42
40	**1½"**	48.3	48.3	52	25	62	92					139		303	19	15	159		343		15				50			50	0.40	0.43
50	**2"**	60.3	60.3	64	31	76	112					157		345			177		385	24									0.62	0.66
65	**2½"**	76.1	73	82	39	94	130	12	13.5	M 12	50	173	82	388			193	102	428			18		23		5	35		0.65	0.70
80	**3"**	88.9	88.9	94	45	106	142					186		421			206		461				5						0.68	0.73
100	**4"**	114.3	114.3	120	58	136	182					219	86	500			239		540			23		30	60		45	60	1.23	1.33
125	**5"**	139.7	141.3	148	70	164	210	16	17.5	M 16	60	247		572			267	106	612		20								1.34	1.44
150	**6"**	168.3	168.3	176	85	192	238										295		684											1.55
200	**8"**	219.1	219.1	228	110	248	302	20	22	M 20	70						359	114	840			27	8	35	70	8	55	70		3.03

1) Hole diameter according to EN 20273, mean value.

7.2 U-bolts and U-straps for steel piping, no defined function, DN 15 to DN 200

DN 15 to DN 40



DN 50 to DN 125 (U 60 Brackets)
DN 50 to DN 200 (U 80 Brackets)

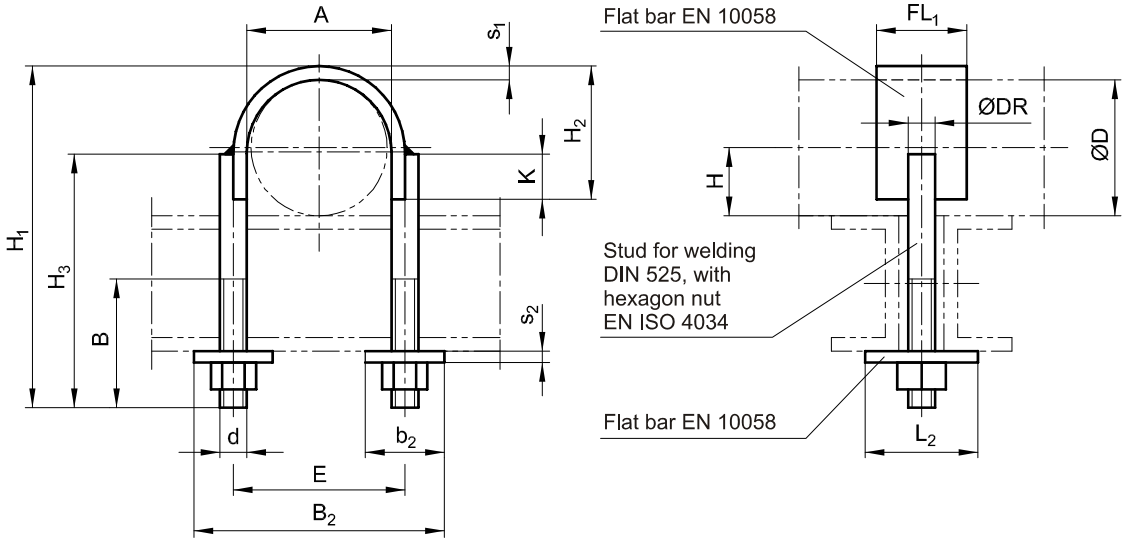


Figure 16. U-bolts and U-straps

Table 6. **U-bolts and U-straps for uninsulated steel piping, mounted on channel section brackets, design dimensions and total weights**

Nominal diameter DN		Pipe outside diameter D		Inside diameter	Total height	Distance	Total width	Round bar diameter	Hole diameter[1]	Thread	Thread length	U-bolt for U 60 Brackets			U-bolt for U 80 Brackets			Flat bar					Thickness	Width	Length	Total weight no defined function	
												Height of U-bolt and U-strap	Stud for welding length	Developed length for U-bolt	Height of U-bolt and U-strap	Stud for welding length	Developed length for U-bolt	Width	Thickness	Developed length	Height	Overhang				U-bolt for U 60 Brackets	U-bolt for U 80 Brackets
DIN	ANSI	DIN	ANSI	A	H	E	B_2	DR		d	B	H_1	H_3		H_1	H_3		FL_1	s_1		H_2	K	s_2	b_2	L_2	kg	kg
15	½"	21.3	21.3	25	11	33	58	8	9	M 8	30	107		226	127		266						5	25	50	0.20	0.21
20	¾"	26.9	26.7	30	14	40	70	10	11	M 10	40	117		247	137		287							30		0.29	0.32
25	1"	33.7	33.4	38	17	48	78					125		267	145		307									0.31	0.33
32	1¼"	42.4	42.2	46	22	56	86					133		288	153		328									0.32	0.34
40	1½"	48.3	48.3	52	25	62	92					139		303	159		343									0.33	0.35
50	2"	60.3	60.3	64	31	76	111	12	13.5	M 12	55	149	110		169	130		40	6	152	59	20		35		0.63	0.66
65	2½"	76.1	73	82	39	94	129					164	117		184	137				178	67					0.69	0.72
80	3"	88.9	88.9	94	45	106	141					177	123		197	143				201	74					0.74	0.78
100	4"	114.3	114.3	120	58	136	181	16	17.5	M 16	65	210	140		230	160		50	8	265	100	30		45	60	1.51	1.57
125	5"	139.7	141.3	148	70	164	209					237	150		257	170				315	117					1.69	1.75
150	6"	168.3	168.3	176	85	192	237								285	185				357	130						1.93
200	8"	219.1	219.1	228	110	248	303	20	22	M 20	75				344	210		60		475	174	40	8	55	70		3.34

1) Hole diameter according to EN 20273, mean value.

8 Materials and property classes

Clamp according to UN 3790-15	material: 1.0038 (S235JRG2)
U-bolt form A according to DIN 3570	material: 1.0036 (S235JRG1)
Plate according to EN 10029	material: 1.0038 (S235JRG2)
Angle according to EN 10056-1	material: 1.0038 (S235JRG2)
Flat bar according to EN 10058	material: 1.0038 (S235JRG2)
Round bar according to EN 10060	material: 1.0036 (S235JRG1)
Washer according to EN ISO 7091	shore class: 100 HV
Welding end according to DIN 525	property class: 3.6, for welding
Hexagon nut according to EN ISO 4034	property class: 5

Reference standards

Uhde standards:

UN 3786-01 : 2008-06	Pipe supports; Friction bearings for uninsulated and heat-insulated steel piping; Summary and dimensions
UN 3786-01 Supplement 1 : 1993-08	Pipe supports; U-bolts and U-straps for uninsulated steel piping; Admissible forces at fixed points
UN 3790-15 : 2008-06	Pipe supports; Clamps for U-bolts and U-straps for uninsulated and cold-insulated steel piping; Design dimensions and weights

DIN standards:

DIN 525 : 1986-09	Weld studs
DIN 997 : 1970-10	Tracing Dimensions for Bars and Rolled Steel Sections
DIN 3570 : 1968-10	Steel Strap for Tubes of NW 20 to 500

EN standards:

EN 10029 : 1991-04 + AC : 1991-08	Hot rolled steel plates 3 mm thick or above; tolerances on dimensions, shape and mass
EN 10056-1 : 1998-08	Structural steel equal and unequal leg angles; Dimensions
EN 10058 : 2003-10	Hot rolled flat steel bars for general purposes; Dimensions and tolerances on shape and dimensions
EN 10060 : 2003-10	Hot rolled round steel bars for general purposes; Dimensions and tolerances on shape and dimensions
EN 20273 : 1991-10	Fasteners; clearance holes for bolts and screws

EN ISO standards:

EN ISO 4034 : 2000-11	Hexagon nuts; Product grade C
EN ISO 7091 : 2000-06	Plain washers; Normal series; Product grade C
EN ISO 9692-1 : 2003-12	Welding and allied processes; Recommendations for joint preparation; Manual metal-arc welding, gas-shielded metal-arc welding, gas welding, TIG welding and beam welding of steels

Amendments

In comparison with UN 3786-03 : 1993-08 edition, the following amendments have been made:

a) U-bolt for DN 15 added

b) The section 7 "U-bolts and U-straps for steel piping mounted on channel section brackets" has been added

c) Materials and " Reference standards " updated.

Uhde	Pipe supports **Friction bearings and U-bolts for cold-insulated steel piping** **Design dimensions and weights**	**UN 3786-12** Page **1** of **12**

Rohrhalterungen; Rohrauflager und Rundstahlbügel für kältegedämmte Stahlrohrleitungen; Konstruktionsmaße und Gewichte

Supersedes 93-08

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1 Scope

This Uhde Standard (UN) applies to the design and construction of industrial and chemical plants. It contains requirements about the design dimensions and weights of the cold pipe supports as friction bearings and U-bolts for cold-insulated steel piping, without related sub-assemblies "clamps" and "cold pipe supports".

2 Units, abbreviated terms

2.1 Units

Table 1. **Units**

General	SI units
Dimensions	mm

2.2 Abbreviated terms

DU = Outside diameter of cold pipe support
PUR = Polyurethane

3 General information

The summary, dimensions and standard part numbers of the sub-assemblies are specified in UN 3786-10. See UN 3786-10, Supplement 1, for the admissible forces at fixed points.

4 Cold pipe supports as friction bearings, loose point, DN 15 to DN 500

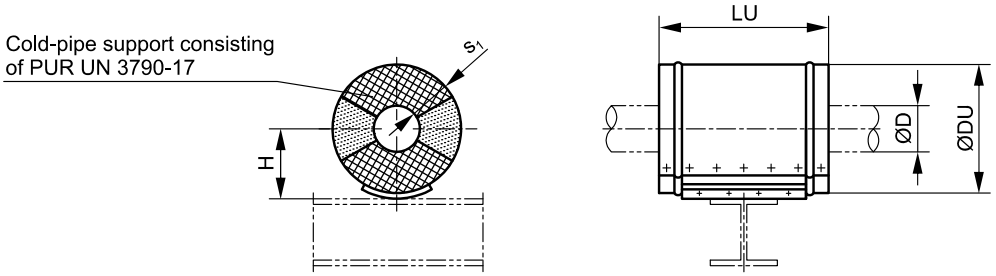


Figure 1. Cold pipe supports

28.08.09	Hangebrauck	31.08.09	Jourdan	31.08.09	Fellner	31.08.09	Dr. Gazaridis
Date	**Prepared**	**Date**	**Checked**	**Date**	**Standardization**	**Date**	**Approved**

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5 U-bolts, DN 15 to DN 500

5.1 General information's

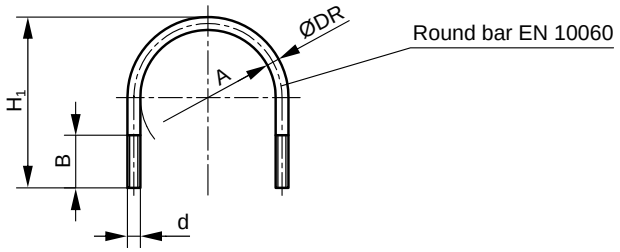


Figure 2. U-bolts

5.2 Longitudinal guide, welded to steel structure

DN 15 to DN 250 **DN 300 to DN 500**

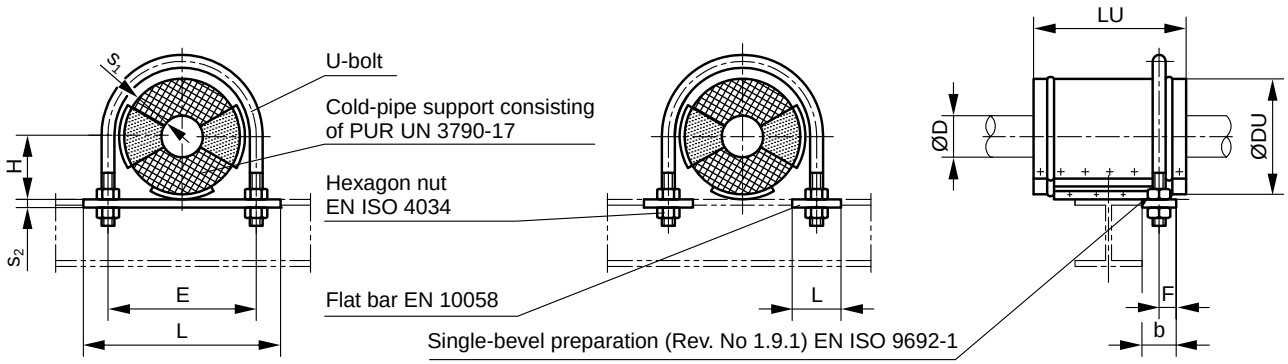


Figure 3. U-bolts

5.3 Longitudinal guide, clamped to steel structure

DN 15 to DN 80 and DU ≤ 318

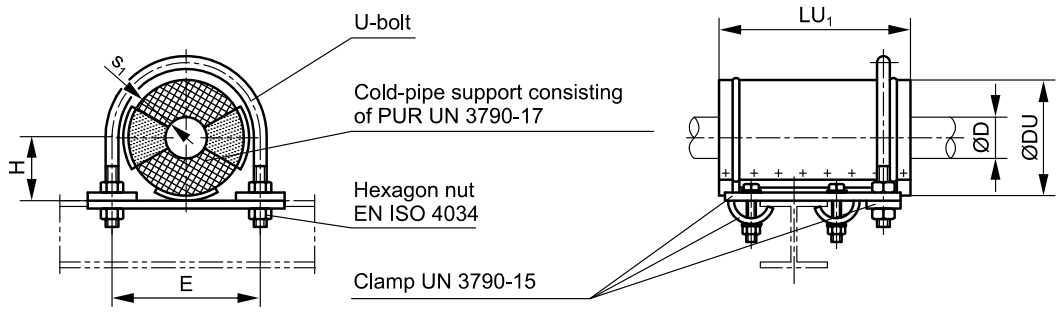


Figure 4. U-bolts

DN 65 to DN 80 and DU > 318
DN 100 to DN 500

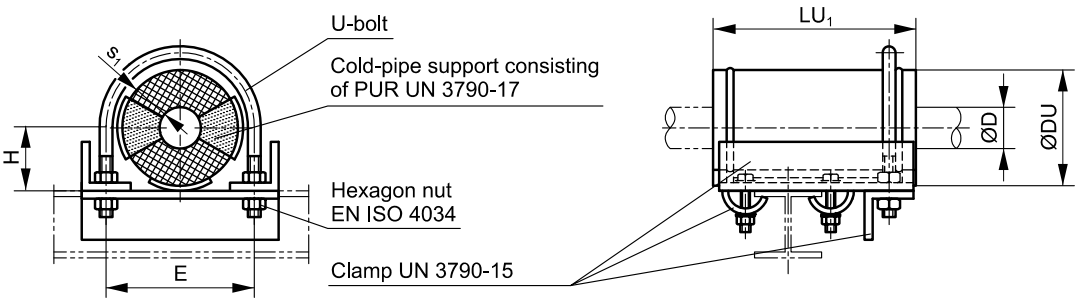


Figure 5. U-bolts

5.4 Fixed point, welded to steel structure

DN 15 to DN 250 **DN 300 to DN 500**

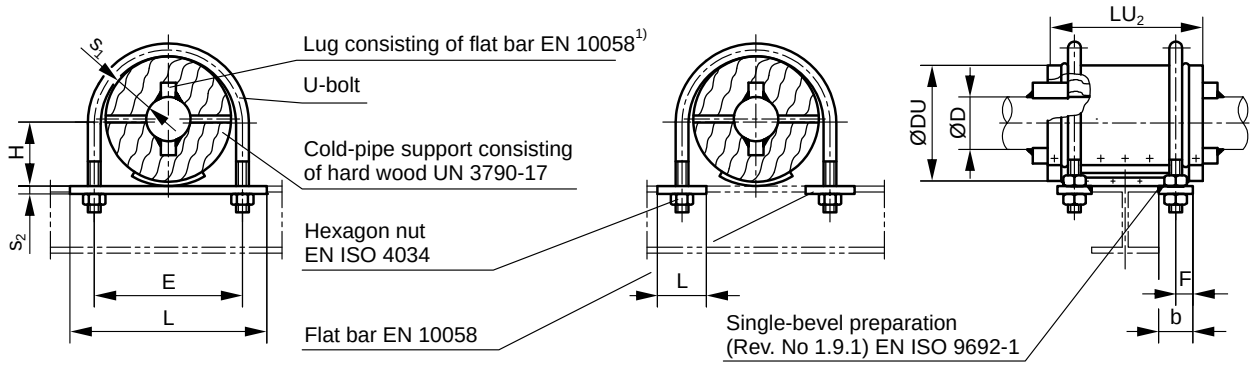


Figure 6. U-bolts

5.5 Fixed point, clamped to steel structure

DN 15 to DN 80 and DU ≤ 318

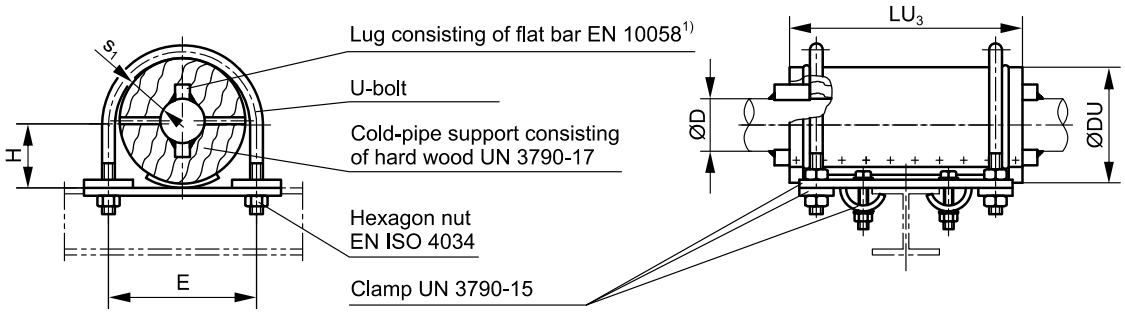


Figure 7. U-bolts

DN 65 to DN 80 and DU > 318
DN 100 to DN 500

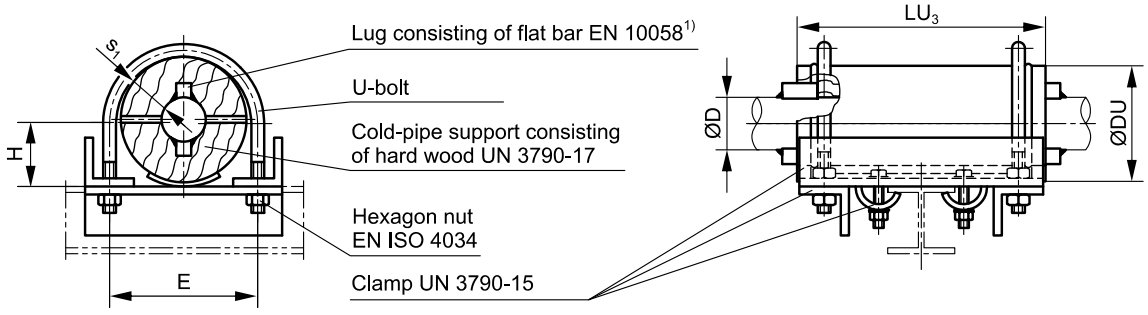


Figure 8. U-bolts

1) Number of lugs on each side of cold pipe support:
DN 15 to DN 250: 2 flat bars, spaced at 180° on the circumference,
DN 300 to DN 500: 4 flat bars, spaced at 90° on the circumference.

Table 2. **Friction bearings and U-bars, design dimensions and total weights**

Nominal diameter DN		Pipe outside diameter D		Insulation thickness	Overall height	Outside diameter of cold pipe support	Inside diameter	Round bar diameter	Hole diameter	Distance	Height of U-bar	Thread	Thread length	Developed length	Loose point and longitudinal guide, welded	Longitudinal guide, clamped	Fixed point		Flat bar				Lug		Total weight in kg				
																									Loose point	Longitudinal guide		Fixed point	
DIN	ANSI	DIN	ANSI	s_1	H	DU	A	DR	1)	E	H_1	d	B		LU	LU_1	welded LU_2	clamped LU_3	b	s_2	L	F	Flat bar	Weld thickness		welded 2)	clamped 3)	welded 2)	clamped 3)
15	½"	21.3	21.3	30	43	82	96	12	13.5	108	125	M 12	55	300	350	500	500	600	60	8	150	30	15 × 5 × 30	2	0.78	0.88	0.31	1.80	0.66
				40	53	102	116			128	145			350							170				0.95	0.99	0.35	2.02	0.74
				50	63	122	136			148	165			405							190				1.12	1.12	0.40	2.28	0.84
				60	73	142	156			168	185			455							205				1.48	1.21	0.44	2.46	0.92
				70	83	162	176			188	205			505							225				1.73	1.34	0.49	2.72	1.02
				80	93	182	196			208	225			555							245				2.00	1.45	0.53	2.94	1.10
				90	103	202	220	16	17.5	236	254	M 16	65	625					70		290	35			2.34	2.39	1.11	4.74	2.18
				100	113	222	240			256	274			680							310				2.62	2.55	1.19	5.06	2.34
20	¾"	26.9	26.7	30	47	89	105	12	13.5	117	138	M 12	55	330					60		160	30	15 × 6 × 30		0.78	0.93	0.33	1.90	0.70
				40	57	109	126			138	158			385							180				0.99	1.06	0.38	2.16	0.80
				50	67	129	144			156	177			435							200				1.33	1.18	0.43	2.40	0.90
				60	77	149	161			173	196			480							215				1.55	1.28	0.47	2.60	0.98
				70	87	169	180			192	215			540							235				1.80	1.41	0.52	2.86	1.08
				80	97	189	202			214	236			585							255				2.03	1.52	0.56	3.08	1.16
				90	107	209	230	16	17.5	246	268	M 16	65	660					70		300	35			2.42	2.48	1.16	4.92	2.28
				100	117	229	254			270	290			720							320				2.70	2.67	1.26	5.30	2.48
25	1"	33.7	33.4	30	50	95	110	12	13.5	122	143	M 12	55	345					60		165	30			0.87	0.97	0.35	1.98	0.74
				40	60	115	136			148	166			405							190				1.07	1.12	0.40	2.28	0.84
				50	70	135	151			163	184			450							205				1.39	1.21	0.44	2.46	0.92
				60	80	155	170			182	203			500							225				1.63	1.33	0.48	2.70	1.00
				70	90	175	191			203	224			555							245				1.87	1.45	0.53	2.94	1.10
				80	100	195	211			223	244			605							265				2.15	1.58	0.58	3.20	1.20
				90	110	215	234	16	17.5	250	273	M 16	65	670					70		290	35			2.50	2.46	1.18	4.88	2.32
				100	120	235	254			270	293			725							320				2.81	2.68	1.27	5.32	2.50

1) Hole diameter according to EN 20273, medium.
2) Total weight without related sub-assembly "cold pipe support".
3) Total weight without related sub-assemblies "cold pipe support" and "clamps".

Table 2. **Continued**

Nominal diameter DN DIN	Nominal diameter DN ANSI	Pipe outside diameter D DIN	Pipe outside diameter D ANSI	Insulation thickness s_1	Overall height H	Outside diameter of cold pipe support DU	Inside diameter A	Round bar diameter DR	Hole diameter 1)	Distance E	Height of U-bar H_1	Thread d	Thread length B	Developed length	Loose point and longitudinal guide, welded LU	Longitudinal guide, clamped LU_1	Fixed point welded LU_2	Fixed point clamped LU_3	Flat bar Width b	Flat bar Thickness s_2	Flat bar Length L	Flat bar Distance F	Lug Flat bar	Lug Weld thickness	Total weight in kg Loose point	Total weight in kg Longitudinal guide welded 2)	Total weight in kg Longitudinal guide clamped 3)	Total weight in kg Fixed point welded 2)	Total weight in kg Fixed point clamped 3)
32	1¼"	42.4	42.2	30	55	104	119	12	13.5	131	153	M 12	55	370	350	500	500	600	60	8	175	30	15 × 6 × 30	2	0.94	1.03	0.37	2.10	0.78
				40	65	124	144			156	175			430							200				1.13	1.17	0.42	2.38	0.88
				50	75	144	161			173	194			475							215				1.50	1.27	0.46	2.58	0.96
				60	85	164	180			192	213			525							235				1.73	1.40	0.51	2.84	1.06
				70	95	184	202			214	234			580							255				1.95	1.52	0.56	3.08	1.16
				80	105	204	224			240	263			645					70		290				2.32	2.42	1.14	4.80	2.24
				90	115	224	244	16	17.5	260	283	M 16	65	700							310	35			2.64	2.59	1.23	5.14	2.42
				100	125	244	264			280	303			750							330				2.92	2.76	1.31	5.48	2.58
40	1½"	48.3	48.3	30	57	110	126	12	13.5	138	159	M 12	55	385					60		180	30			0.97	1.06	0.38	2.16	0.80
				40	67	130	144			156	178			435							200				1.31	1.18	0.43	2.40	0.90
				50	77	150	170			182	201			495							225				1.55	1.33	0.48	2.70	1.00
				60	87	170	191			203	222			550							245				1.81	1.45	0.53	2.94	1.10
				70	97	190	205			217	239			590							260				2.06	1.54	0.56	3.12	1.16
				80	107	210	230	16	17.5	246	269	M 16	65	660					70		300	35			2.41	2.48	1.16	4.92	2.28
				90	117	230	254			270	291			720							320				2.69	2.67	1.26	5.30	2.48
				100	127	250	274			290	311			770							340				3.02	2.84	1.34	5.64	2.64
				110	137	270	287			303	328			810							355				3.62	2.96	1.40	5.88	2.76
50	2"	60.3	60.3	30	63	122	136	12	13.5	148	169	M 12	55	415					60		190	30	20× 8 × 40	2.5	1.09	1.13	0.41	2.42	0.98
				40	73	142	161			173	193			475							215				1.45	1.27	0.46	2.70	1.08
				50	83	162	180			192	212			525							235				1.69	1.40	0.51	2.96	1.18
				60	93	182	202			214	233			580							255				1.91	1.52	0.56	3.20	1.28
				70	103	202	224	16	17.5	240	262	M 16	65	645					70		290	35			2.27	2.42	1.14	4.92	2.36
				80	113	222	244			260	282			695							310				2.57	2.58	1.22	5.24	2.52
				90	123	242	264			280	302			745							330				2.87	2.75	1.30	5.58	2.68
				100	133	262	281			297	321			795							350				3.44	2.92	1.38	5.92	2.84
				110	143	282	304			320	342			850							370				3.78	3.09	1.46	6.26	3.00

1) to 3) see page 4.

Table 2. **Continued**

Nominal diameter DN DIN	ANSI	Pipe outside diameter D DIN	ANSI	Insulation thickness s_1	Overall height H	Outside diameter of cold pipe support DU	Inside diameter A	Round bar diameter DR	Hole diameter 1)	Distance E	Height of U-bar H_1	Thread d	Thread length B	Developed length	Loose point and longitudinal guide, welded LU	Longitudinal guide, clamped LU_1	Fixed point welded LU_2	Fixed point clamped LU_3	Flat bar Width b	Flat bar Thickness s_2	Flat bar Length L	Flat bar Distance F	Lug Flat bar	Lug Weld thickness	Total weight in kg Loose point	Total weight in kg Longitudinal guide welded 2)	Total weight in kg Longitudinal guide clamped 3)	Total weight in kg Fixed point welded 2)	Total weight in kg Fixed point clamped 3)
				30	71	138	151			163	186			455							205				1.55	1.21	0.44	2.58	1.04
				40	81	158	180	12	13.5	192	210	M 12	55	520					60		235	30			1.88	1.39	0.50	2.94	1.16
				50	91	178	191			203	226			555							245				2.13	1.45	0.53	3.06	1.22
				60	101	198	211			223	246			610							265				2.44	1.58	0.58	3.32	1.32
				70	111	218	234			250	275			675							290				2.89	2.47	1.19	5.02	2.46
65	**2½"**	76.1	73	80	121	238	254			270	295			730							320			2.5	3.20	2.68	1.27	5.44	2.62
				90	132	258	281	16	17.5	297	320	M 16	65	790							350				4.21	2.91	1.37	5.90	2.82
				100	142	278	294			310	336			830					70		360	35			4.63	3.01	1.43	6.10	2.94
				110	152	298	314			330	356			885							380				5.06	3.19	1.52	6.46	3.12
				120	162	318	340	20	22	360	387	M 20	75	960							430				5.51	4.50	2.61	8.96	5.18
				130	172	338	356			376	405			1005							450				5.95	4.70	2.72	9.36	5.40
				30	78	151	170			182	201			495							225				1.69	1.33	0.48	2.82	1.12
				40	88	171	191	12	13.5	203	222	M 12	55	550					60		245	30			1.98	1.45	0.53	3.06	1.22
				50	98	191	205			217	239			590							260				2.30	1.54	0.56	3.24	1.28
				60	108	211	230			246	269			660							300				2.72	2.48	1.16	5.04	2.40
				70	118	231	254			270	291			720							320				3.06	2.67	1.26	5.42	2.60
80	**3"**	88.9	88.9	80	128	251	274	16	17.5	290	311	M 16	65	770	400	500	500	650		8	340		20 × 8 × 40		3.41	2.84	1.34	5.76	2.76
				90	139	271	294			310	332			825					70		360	35			4.45	3.00	1.42	6.08	2.92
				100	149	291	314			330	352			875							380			3	4.86	3.17	1.50	6.42	3.08
				110	159	311	334			354	380			945							425				5.32	4.44	2.57	8.84	5.10
				120	169	331	356	20	22	376	401	M 20	75	1000							450				5.78	4.69	2.71	9.34	5.38
				130	179	351	372			392	419			1045							465				6.23	4.87	2.82	9.70	5.60
				30	90	176	191			203	224			550							245				1.95	1.68	0.53	3.52	1.22
				40	100	196	211	12	13.5	223	246	M 12	55	610			550	700	60	10	265	30			2.27	1.83	0.58	3.82	1.32
100	**4"**	114.3	114.3	50	110	216	234			250	275			675							300				2.71	2.84	1.19	5.76	2.46
				60	120	236	254	16	17.5	270	295	M 16	65	730			500	650	70	8	320	35			3.05	3.03	1.27	6.14	2.62

1) to 3) see page 4.

Table 2. **Continued**

Nominal diameter DN DIN	Nominal diameter DN ANSI	Pipe outside diameter D DIN	Pipe outside diameter D ANSI	Insulation thickness s_1	Overall height H	Outside diameter of cold pipe support DU	Inside diameter A	Round bar diameter DR	Hole diameter 1)	Distance E	Height of U-bar H_1	Thread d	Thread length B	Developed length	Loose point and longitudinal guide, welded LU	Longitudinal guide, clamped LU_1	Fixed point welded LU_2	Fixed point clamped LU_3	Flat bar Width b	Flat bar Thickness s_2	Flat bar Length L	Flat bar Distance F	Lug Flat bar	Lug Weld thickness	Total weight in kg Loose point	Total weight in kg Longitudinal guide welded 2)	Total weight in kg Longitudinal guide clamped 3)	Total weight in kg Fixed point welded 2)	Total weight in kg Fixed point clamped 3)
				70	130	256	274			290	315			780							340				3.73	3.22	1.35	6.52	2.78
				80	140	276	294	16	17.5	310	335	M 16	65	835			500	650		8	360				4.11	3.42	1.44	6.92	2.96
				90	151	296	314			330	355			880							380		20 × 8 × 40		4.89	3.60	1.51	7.28	3.10
100	**4"**	114.3	114.3	100	161	316	340			360	387			960							430				5.32	4.98	2.61	9.92	5.18
				110	171	336	356	20	22	376	405	M 20	75	1005							450				5.78	5.20	2.72	10.36	5.40
				120	181	356	378			398	426			1060							470				6.27	5.45	2.86	10.86	5.68
				130	191	376	396			416	445			1105							490				6.74	5.67	2.97	11.30	5.90
				30	103	202	224			240	261			640							290				2.31	2.73	1.13	5.90	2.70
				40	113	222	244			260	281			695							310				2.71	2.93	1.22	6.30	2.88
				50	123	242	264	16	17.5	280	301	M 16	65	745							330				3.04	3.12	1.30	6.68	3.04
				60	133	262	281			297	320			790							350				3.68	3.30	1.37	7.04	3.18
				70	143	282	304			320	341			850							370				4.09	3.50	1.46	7.44	3.36
				80	153	302	326			346	370			920							420				4.49	4.82	2.51	9.96	5.34
				90	164	322	340			360	388			965							430				5.31	4.99	2.62	10.30	5.56
				100	174	342	366			386	411			1025							460				5.75	5.30	2.77	10.92	5.86
				110	184	362	384			404	430			1070							475				6.25	5.49	2.88	11.30	6.08
				120	194	382	406			426	451			1125							500				6.75	5.77	3.02	11.86	6.36
				130	204	402	423			443	470			1175							515				8.52	5.97	3.14	12.26	6.60
				140	214	422	446			466	491			1230							540				9.19	6.25	3.28	12.82	6.88
				30	117	230	254			270	291			720							320				2.67	3.02	1.26	6.48	2.96
				40	127	250	274			290	311			770							340				3.03	3.21	1.34	6.86	3.12
				50	137	270	287	16	17.5	303	328	M 16	65	810							355				3.72	3.35	1.40	7.14	3.24
150	**6"**	168.3	168.3	60	147	290	314			330	351			875							380				4.13	3.59	1.50	7.62	3.44
				70	157	310	334			354	379			940							425				4.54	4.90	2.56	10.12	5.44
				80	167	330	356	20	22	376	400	M 20	75	995							450				4.97	5.18	2.70	10.68	5.72
				90	178	350	372			392	419			1045							465				5.85	5.38	2.82	11.08	5.96

															400	500	550	700	70	10		35	25 × 10 × 60	3					

1) to 3) see page 4.

Table 2. **Continued**

Nominal diameter DN DIN	Nominal diameter DN ANSI	Pipe outside diameter D DIN	Pipe outside diameter D ANSI	Insulation thickness s_1	Overall height H	Outside diameter of cold pipe support DU	Inside diameter A	Round bar diameter DR	Hole diameter 1)	Distance E	Height of U-bar H_1	Thread d	Thread length B	Developed length	Loose point and longitudinal guide, welded LU	Longitudinal guide, clamped LU_1	Fixed point welded LU_2	Fixed point clamped LU_3	Flat bar Width b	Flat bar Thickness s_2	Flat bar Length L	Flat bar Distance F	Lug Flat bar	Lug Weld thickness	Total weight in kg Loose point	Total weight in kg Longitudinal guide welded 2)	Total weight in kg Longitudinal guide clamped 3)	Total weight in kg Fixed point welded 2)	Total weight in kg Fixed point clamped 3)
				100	188	370	396			416	441			1100							490				6.32	5.66	2.96	11.64	6.24
				110	198	390	416	20	22	436	461	M 20	75	1150					70	10	510	35			6.84	5.89	3.08	12.10	6.48
150	**6"**	168.3	168.3	120	208	410	435			455	481			1200	400						525			3	8.67	6.09	3.20	12.50	6.72
				130	218	430	456			476	501			1255							550				9.26	6.37	3.34	13.06	7.00
				140	228	450	476	24	26	500	529	M 24	85	1320					80	12	580	40			9.86	9.46	5.09	19.08	10.34
				30	144	282	304	16	17.5	320	342	M 16	65	850							370				5.04	3.50	1.46	7.44	3.36
				40	154	302	326			346	371			920							420				5.53	4.82	2.51	9.96	5.34
				50	164	322	340			360	388			965							430				6.12	4.99	2.62	10.30	5.56
				60	174	342	366			386	411			1025							460				6.72	5.30	2.77	10.92	5.86
				70	184	362	384	20	22	404	430	M 20	75	1070					70	10	475	35			7.37	5.49	2.88	11.30	6.08
				80	194	382	406			426	451			1125							500				8.01	5.77	3.02	11.86	6.36
200	**8"**	219.1	219.1	90	204	402	423			443	470			1175							515		25 × 10 × 60		10.28	5.97	3.14	12.26	6.60
				100	214	422	446			466	491			1230		500	550	700			540				11.12	6.25	3.28	12.82	6.88
				110	224	442	466			486	511			1280							560				11.91	6.48	3.40	13.28	7.12
				120	234	462	486			510	539			1345							590				12.65	9.62	5.17	19.40	10.50
				130	244	482	506	24	26	530	559	M 24	85	1400	500				80	12	610	40		4	13.45	9.97	5.37	20.10	10.90
				140	254	502	536			560	584			1465							640				14.29	10.43	5.60	21.02	11.36
				150	264	522	558			582	605			1520							665				15.16	10.81	5.80	21.78	11.76
				30	171	335	356			376	403			1000							450				5.90	5.19	2.71	10.70	5.74
				40	181	355	378			398	424			1055							470				6.52	5.44	2.85	11.20	6.02
				50	191	375	396			416	443			1105							490				7.15	5.67	2.97	11.66	6.26
				60	201	395	416	20	22	436	463	M 20	75	1155					70	10	510	35			7.81	5.90	3.09	12.12	6.50
250	**10"**	273	273	70	211	415	435			455	483			1205							525				10.17	6.11	3.22	12.54	6.76
				80	221	435	456			476	503			1260							550				10.93	6.38	3.35	13.08	7.02
				90	231	455	476	24	26	500	531	M 24	85	1325					80	12	580	40			11.74	9.47	5.10	19.10	10.36
				100	241	475	496			520	551			1380							600				12.53	9.82	5.30	19.80	10.76

1) to 3) see page 4.

Table 2. **Continued**

Nominal diameter DN DIN	Nominal diameter DN ANSI	Pipe outside diameter D DIN	Pipe outside diameter D ANSI	Insulation thickness s_1	Overall height H	Outside diameter of cold pipe support DU	Inside diameter A	Round bar diameter DR	Hole diameter 1)	Distance E	Height of U-bar H_1	Thread d	Thread length B	Developed length	Loose point and longitudinal guide, welded LU	Longitudinal guide, clamped LU_1	Fixed point welded LU_2	Fixed point clamped LU_3	Flat bar Width b	Flat bar Thickness s_2	Flat bar Length L	Flat bar Distance F	Lug Flat bar	Lug Weld thickness	Total weight in kg Loose point	Total weight in kg Longitudinal guide welded 2)	Total weight in kg Longitudinal guide clamped 3)	Total weight in kg Fixed point welded 2)	Total weight in kg Fixed point clamped 3)
				110	251	495	516			540	571			1430							620				13.39	10.15	5.48	20.46	11.12
				120	261	515	549			573	598			1500							655				14.22	10.67	5.73	21.50	11.62
250	**10"**	273	273	130	271	535	568	24	26	592	617	M 24	85	1550							675			4	15.10	10.99	5.90	22.14	11.96
				140	281	555	588			612	637			1605							695				16.03	11.34	6.10	22.84	12.36
				150	291	575	608			632	657			1655							715				16.92	11.67	6.28	23.50	12.72
				160	301	595	628			652	677			1705							735				17.88	11.99	6.45	24.14	13.06
				30	196	386	406			426	453			1130											6.70	5.29	3.03	11.46	6.94
				40	206	406	431	20	22	451	476	M 20	75	1190											9.10	5.44	3.18	11.76	7.24
				50	216	426	446			466	493			1235					80			40			9.84	5.55	3.29	11.98	7.46
				60	226	446	466			486	513			1285							150				10.65	5.67	3.41	12.22	7.70
				70	236	466	486			510	541			1350		500							25 × 10 × 60		11.39	7.45	5.19	15.62	11.10
				80	246	486	506			530	561			1400											12.17	7.63	5.37	15.98	11.46
				90	256	506	536			560	586			1470	500		550	700		12					13.03	7.88	5.62	16.48	11.96
300	**12"**	323.9	323.8	100	266	526	558	24	26	582	607	M 24	85	1525										4.5	13.90	8.07	5.81	16.86	12.34
				110	276	546	578			602	627			1575							200				14.78	9.01	5.99	18.74	12.70
				120	286	566	598			622	647			1625											15.69	9.19	6.17	19.10	13.06
				130	296	586	618			642	667			1680											16.63	9.38	6.36	19.48	13.44
				140	306	606	638			668	699			1755											17.59	14.34	10.58	28.96	21.44
				150	316	626	658	30	33	688	719	M 30	105	1805					100			50			18.53	14.62	10.86	29.52	22.00
				160	326	646	678			708	739			1855											19.52	14.90	11.14	30.08	22.56
				170	336	666	698			728	759			1905											20.52	15.17	11.41	30.62	23.10
				30	212	418	435	20	22	455	484	M 20	75	1210											8.93	5.49	3.23	12.66	8.14
				40	222	438	456			476	504			1260											9.73	5.61	3.35	12.90	8.38
350	**14"**	355.6	355.6	50	232	458	476	24	26	500	532	M 24	85	1325		550			80		150	40	25 × 10 × 100	5.5	10.52	7.36	5.10	16.24	11.72
				60	242	478	496			520	552			1380											11.39	7.56	5.30	16.64	12.12
				70	252	498	536			560	582			1460											12.19	7.84	5.58	17.20	12.68

1) to 3) see page 4.

Table 2. **Continued**

Nominal diameter DN DIN	Nominal diameter DN ANSI	Pipe outside diameter D DIN	Pipe outside diameter D ANSI	Insulation thickness s_1	Overall height H	Outside diameter of cold pipe support DU	Inside diameter A	Round bar diameter DR	Hole diameter 1)	Distance E	Height of U-bar H_1	Thread d	Thread length B	Developed length	Loose point and longitudinal guide, welded LU	Longitudinal guide, clamped LU_1	Fixed point welded LU_2	Fixed point clamped LU_3	Flat bar Width b	Flat bar Thickness s_2	Flat bar Length L	Flat bar Distance F	Lug Flat bar	Lug Weld thickness	Total weight in kg Loose point	Total weight in kg Longitudinal guide welded 2)	Total weight in kg Longitudinal guide clamped 3)	Total weight in kg Fixed point welded 2)	Total weight in kg Fixed point clamped 3)
				80	262	518	549			573	599			1500							150				13.02	7.99	5.73	17.50	12.98
				90	272	538	568			592	618			1550											13.92	8.16	5.90	17.84	13.32
				100	282	558	588	24	26	612	638	M 24	85	1605					80			40			14.81	9.12	6.10	19.76	13.72
				110	292	578	608			632	658			1655							200				15.74	9.30	6.28	20.12	14.08
				120	302	598	628			652	678			1705											16.67	9.47	6.45	20.46	14.42
350	**14"**	355.6	355.6	130	312	618	648			678	710			1780										5.5	17.65	14.48	10.72	30.04	22.52
				140	322	638	668			698	730			1830											18.59	14.76	11.00	30.60	23.08
				150	332	658	688			718	750			1885											19.61	15.44	11.30	31.96	23.68
				160	342	678	708	30	33	738	770	M 30	105	1935					100		220	50			20.64	15.72	11.58	32.52	24.24
				170	352	698	728			758	790			1985											21.56	16.00	11.86	33.08	24.80
				180	362	718	748			778	810			2040											22.74	16.30	12.16	33.68	25.40
				30	238	469	496			520	548			1370											10.04	7.52	5.26	16.56	12.04
				40	248	489	516			540	568			1420											10.86	7.70	5.44	16.92	12.40
				50	258	509	549			573	595			1495							150				11.70	7.97	5.71	17.46	12.94
				60	268	529	568	24	26	592	614	M 24	85	1545					80			40			12.59	8.14	5.88	17.80	13.28
				70	278	549	588			612	634			1595											13.46	9.08	6.06	19.68	13.64
				80	288	569	608			632	654			1645											14.38	9.26	6.24	20.04	14.00
				90	298	589	628			652	674			1700							200				15.33	9.46	6.44	20.44	14.40
400	**16"**	406.4	406.4	100	308	609	648			678	706			1775										6	16.26	14.45	10.69	29.98	22.46
				110	318	629	668			698	726			1825											17.24	14.73	10.97	30.54	23.02
				120	328	649	688			718	746			1875											18.22	15.01	11.25	31.10	23.58
				130	338	669	708			738	766			1925											19.23	15.66	11.52	32.40	24.12
				140	348	689	728	30	33	758	786	M 30	105	1980	500	550	550	700	100	12	220	50	25 × 10 × 100		20.16	15.97	11.83	33.02	24.74
				150	358	709	748			778	806			2030											21.32	16.25	12.11	33.58	25.30
				160	368	729	768			798	826			2080											22.30	16.52	12.38	34.12	25.84
				170	378	749	788			818	846			2130							240				23.48	17.18	12.66	35.44	26.40

1) to 3) see page 4.

Table 2. **Continued**

Nominal diameter DN DIN	Nominal diameter DN ANSI	Pipe outside diameter D DIN	Pipe outside diameter D ANSI	Insulation thickness s_1	Overall height H	Outside diameter of cold pipe support DU	Inside diameter A	Round bar diameter DR	Hole diameter 1)	Distance E	Height of U-bar H_1	Thread d	Thread length B	Developed length	Loose point and longitudinal guide, welded LU	Longitudinal guide, clamped LU_1	Fixed point welded LU_2	Fixed point clamped LU_3	Flat bar Width b	Flat bar Thickness s_2	Flat bar Length L	Flat bar Distance F	Lug Flat bar	Lug Weld thickness	Total weight in kg Loose point	Total weight in kg Longitudinal guide welded 2)	Total weight in kg Longitudinal guide clamped 3)	Total weight in kg Fixed point welded 2)	Total weight in kg Fixed point clamped 3)
400	**16"**	406.4	406.4	180	388	769	808	30	33	838	866	M 30	105	2185					100	12	240	50		6	24.69	17.49	12.97	36.06	27.02
				30	288	570	608	24	26	632	657	M 24	85	1650					80			40			12.10	10.02	6.26	21.56	14.04
				40	298	590	628			652	677			1705											13.05	10.21	6.45	21.94	14.42
				50	308	610	648			678	709			1780											13.98	15.44	10.72	31.96	22.52
				60	318	630	663			693	727			1820											14.95	15.66	10.94	32.40	22.96
				70	328	650	688			718	749			1880											15.94	15.99	11.27	33.06	23.62
				80	338	670	708			738	769			1930											16.95	16.27	11.55	33.62	24.18
				90	348	690	728			758	789			1985											17.90	16.58	11.86	34.24	24.80
500	**20"**	508	508	100	358	710	748			778	809			2035	500	550	550	700		15	200		25 × 10 × 100	7.5	19.06	16.85	12.13	34.78	25.34
				110	368	730	768	30	33	798	829	M 30	105	2085					100			50			20.04	17.13	12.41	35.34	25.90
				120	378	750	788			818	849			2135											21.22	17.41	12.69	35.90	26.46
				130	388	770	808			838	869			2190											22.42	17.71	12.99	36.50	27.06
				140	398	790	828			858	889			2240											23.44	17.99	13.27	37.06	27.62
				150	408	810	848			878	909			2290											24.71	18.27	13.55	37.62	28.18
				160	418	830	868			898	929			2345											25.78	18.57	13.85	38.22	28.78
				170	428	850	888			918	949			2395											26.87	18.85	14.13	38.78	29.34
				180	438	870	908			938	969			2445											28.01	19.13	14.41	39.34	29.90

1) to 3) see page 4.

6 Materials and property classes

Clamp according to UN 3790-15	material: 1.0038 (S235JRG2)
Cold pipe support according to UN 3790-17	material: PUR hardwood (Beech wood)
Flat bar according to EN 10058	material: 1.0038 (S235JRG2)
Round bar according to EN 10060	material: 1.0036 (S235JRG1)
Hexagon nut according to EN ISO 4034	property class: 5

Reference standards

Uhde standards:

UN 3786-10 : 2009-08	Pipe supports; Friction bearings for cold-insulated steel piping; Summary and dimensions
UN 3786-10 Supplement 1 : 2009-08	Pipe supports; U-bolts for cold-insulated steel piping; Admissible forces at fixed points
UN 3790-15 : 2008-06	Pipe supports; Clamps for U-bolts and U-straps for uninsulated and cold-insulated steel piping; Design dimensions and weights
UN 3790-17 : 2009-08	Pipe supports; Cold pipe supports for cold-insulated steel piping; Design dimensions and weights

EN standards:

EN 10058 : 2003-10	Hot rolled flat steel bars for general purposes; Dimensions and tolerances on shape and dimensions
EN 10060 : 2003-10	Hot rolled round steel bars for general purposes; Dimensions and tolerances on shape and dimensions
EN 20273 : 1991-10	Fasteners; Clearance holes for bolts and screws

EN ISO standards:

EN ISO 4034 : 2000-11	Hexagon nuts; Product grade C
EN ISO 9692-1 : 2003-12	Welding and allied processes; Recommendations for joint preparation; Manual metal-arc welding, gas-shielded metal-arc welding, gas welding, TIG welding and beam welding of steels

Amendments

Remarks:

The standard was revised only editorially and not constructional.

In comparison with UN 3786-12 : 1993-08 edition, the following amendments have been made:

a) The materials have been updated.

b) All reference standards have been updated.

c) The sections 1 to 3, as well as the section "Amendments" have been revised or added.

d) The nominal diameter DN 15 has been incorporated.

Uhde	Pipe supports **Pipe clamps form AK, for GRP piping** Design dimensions, weights and allowable loads	UN 3790-04 Page 1 of 10

Rohrhalterungen; Schellen Form AK, für GFK-Rohrleitungen;
Konstruktionsmaße, Gewichte und zulässige Belastungen

Supersedes 93-08

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1 Scope

This Uhde standard (UN) applies to the design and construction of industrial and chemical plants. It contains requirements about design dimensions, weights and allowable loads of the clamps form AK for uninsulated and heat-insulated GRP piping of glass-fibre-reinforced polyester resins according to DIN 16965-1, -2, -4 and -5.

2 Units, abbreviated terms

2.1 Units

Table 1. **Units**

General	SI Units
Dimensions	mm
Temperature	°C

2.2 Abbreviated terms

DS = Clamp inside diameter
PE = Polyethylene
GRP = Textile glass-fibre-reinforced plastics

3 General information

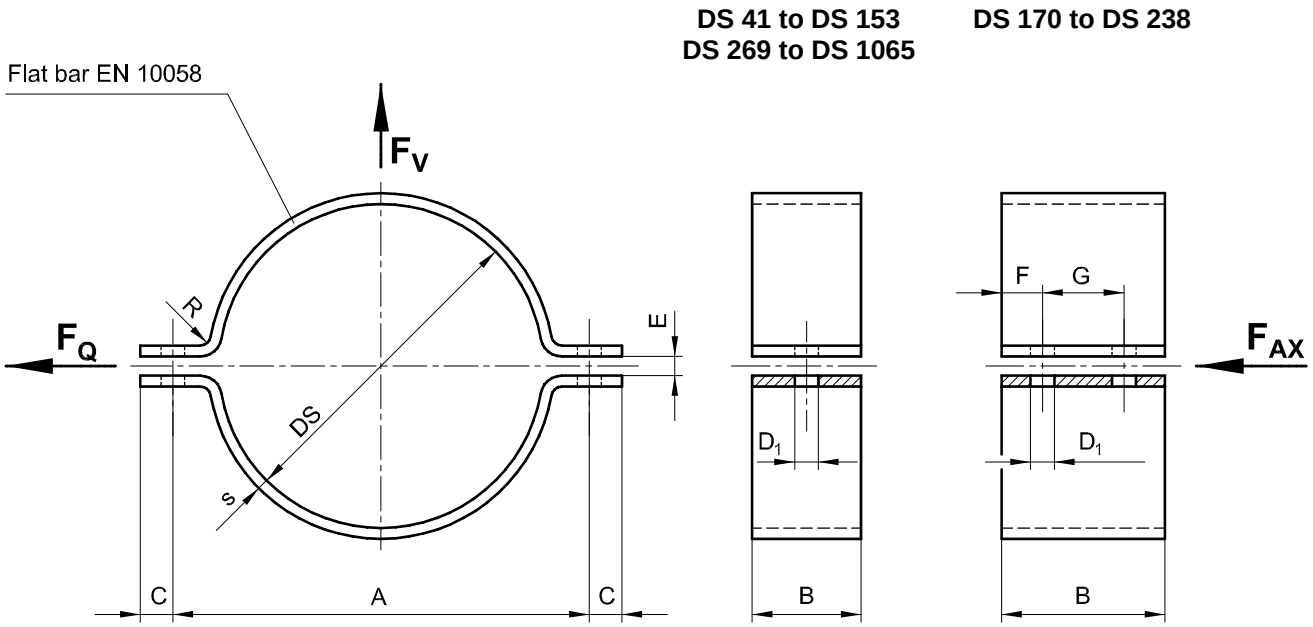
The standard part numbers refer to the materials specified in the section "Materials and property classes". Other part numbers are required when changing the material.

28.08.09	Hangebrauck	31.08.09	Jordan	31.08.09	Fellner	31.08.09	Dr. Gazaridis
Date	**Prepared**	**Date**	**Checked**	**Date**	**Standardization**	**Date**	**Approved**

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4 Clamps form AK, type 1, DS 41 to DS 1065

These clamps shall be used with a rubber liner as per UN 3790-25.



Part number
MS0031D

Figure 1. Clamps form AK, type 1

Table 2. **Clamps form AK, type 1, design dimensions and weights**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter (d_3)	Flat bar B	Flat bar s	Developed length for clamp segment	Allowable loads[3] for T_{max} = 300 °C in N F_{AX}	Allowable loads[3] for T_{max} = 300 °C in N F_Q	Allowable loads[3] for T_{max} = 300 °C in N F_V	A	C	D_1[2]	E	F	G	R	Weight in kg/piece[1]	Hexagon bolt EN ISO 4018 with hexagon nut EN ISO 4034 Thread	Length	Quantity	Weight in kg/piece
41	25	31	80	6	134	6750	19730	7430	85	18	13.5	7			6	1.01	M 12	40	2	0.06
45		34 to 35			140	6220	18490		90							1.06				
48		38			145	5880	17770		93							1.09				
52	32	41 to 42			151	5470	16890		97							1.14				
56		46			158	5120	15960		102							1.19				
60	40	49 to 50			162	4810	15470		105			9				1.22				
67		56			173	4350	14220		113							1.31				
		57																		
70	50	59 to 60			178	4170	13780		116							1.34				
81		69			195	3650	12300		128							1.47				
		71																		
86	65	73 to 76			203	3450	11850		133							1.53				
91		81			211	3270	11470		138							1.59				
97	80	86 to 87			219	3080	10950		144			11				1.65				
100		89 to 90			223	2990	10750		147							1.68				
106		93 to 96			233	2830	10370		153							1.76				
119	100	106 to 109			253	2540	9570		167							1.91				
121		110 to 111			256	2500	9460		169							1.93				
126		115 to 116			264	2400	9200		174							1.99				
145	125	131 to 135			294	2100	8320		193							2.22				
148		137 to 138			299	2060	8200		196							2.25				
153		143			307	1990	7970		202							2.31				
170	150	156 to 160	120	8	359	4750	18120	14200	237	24	17.5	14	30	60	8	5.41	M 16	50	4	0.13
175		164 to 165			367	4620	17760		242							5.53				
181		166 to 171			376	4480	17340		248							5.67				
219	200	206 to 209			436	3730	15030		287							6.58				
223		211 to 213			442	3660	14820		291							6.67				

1) Weight for two clamp segments, without hexagon bolts, hexagon nuts and rubber liners.
2) Holes according to EN 20273, medium.
3) The specified loads are not equivalent to the loads for complete pipe supports (e.g. pipe shoes, tubular supports).

Table 2. **Continued**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter (d_3)	Flat bar B	Flat bar s	Developed length for clamp segment	Allowable loads[3] for T_{max} = 300 °C in N F_{AX}	F_Q	F_V	A	C	D_1[2]	E	F	G	R	Weight in kg/piece[1]	Hexagon bolt EN ISO 4018 with hexagon nut EN ISO 4034 Thread	Length	Quantity	Weight in kg/piece
229	200	218 to 219	120	8	452	3570	14520	14200	297	24	17.5	14	30	60	8	6.81	M 16	50	4	0.13
238		228			466	3440	14090		306							7.03				
269	250	256 to 259	80		533	2030	8420	9000	343	30	22					5.35	M 20	55	2	0.24
275		260 to 265			542	1990	8260		350							5.44				
283		272 to 273			555	1940	8070		358							5.57				
294		284			572	1860	7830		369							5.74				
321	300	306 to 311			614	1710	7280		396							6.17				
328		312 to 318			625	1680	7150		403							6.28				
337		326 to 327			640	1630	6990		412							6.42				
350		340			660	1570	6770		425							6.63				
371	350	357 to 361			689	1490	6430		446			18				6.92				
375		363 to 365			695	1470	6380		450							6.98				
380		367 to 370			703	1450	6300		455							7.06				
392		379 to 382			722	1410	6140		467							7.25				
407		397			745	1360	5940		482							7.48				
420	400	407 to 410			766	1310	5780		495							7.69				
426		412 to 416			775	1300	5710		501							7.78				
433		421 to 423			786	1280	5630		508							7.89				
446		433 to 436			807	1240	5490		521							8.10				
464		454			835	1190	5300		539							8.38				
522	500	508 to 512			926	1060	4760		598							9.30				
529		513 to 519			937	1050	4710		605							9.41				
538		525 to 528			951	1030	4640		614							9.55				
554		541 to 544			976	1000	4520		630							9.80				
575		565			1009	960	4370		651							10.13				
625	600	609 to 615	100	10	1112	1730	7740	13790	720	36	26	22			10	17.47	M 24	70		0.43
632		616 to 622			1123	1710	7660		727							17.64				
643		630 to 633			1141	1680	7550		738							17.91				
727	700	711 to 717			1273	1490	6760		822							19.98				
734		720 to 724			1284	1480	6690		830							20.15				
748		732 to 738			1306	1450	6580		844							20.50				

1) to 3) see page 3.

Table 2. **Continued**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter (d_3)	Flat bar B	Flat bar s	Developed length for clamp segment	Allowable loads[3] for T_{max} = 300 °C in N F_{AX}	F_Q	F_V	A	C	D_1[2]	E	F	G	R	Weight in kg/piece[1]	Hexagon bolt EN ISO 4018 with hexagon nut EN ISO 4034 Thread	Length	Quantity	Weight in kg/piece
823	800	811 to 813	100	10	1424	1320	6030	13790	919	36	26	22			10	22.35	M 24	70	2	0.43
829		816 to 819			1433	1310	5990		925							22.50				
837		824 to 827			1446	1300	5930		933							22.69				
853		839 to 843			1471	1270	5830		949							23.09				
930	900	912 to 919			1592	1170	5380		1026							24.99				
937		921 to 927			1603	1160	5350		1033							25.16				
940		930			1607		5330		1036							25.24				
960		943 to 949			1639	1130	5230		1056							25.73				
1030	1000	1013 to 1019			1749	1060	4890		1126							27.45				
1040		1021 to 1029			1764	1050	4850		1136							27.70				
1045		1033			1772	1040	4830		1141							27.82				
1065		1048 to 1054			1804	1020	4740		1161							28.32				

1) to 3) see page 3.

4.1 Designation

For the designation of "clamp form AK, type 1" clamp inside diameter DS shall be specified in addition to the part number (refer to Example 1).

For the designation of "hexagon bolt with hexagon nut" the thread and the bolt length shall be specified in addition to the part number (refer to Example 2).

Example 1: Clamp form AK, type 1, part number MS0031D, clamp inside diameter DS = 375. is designated as follows:

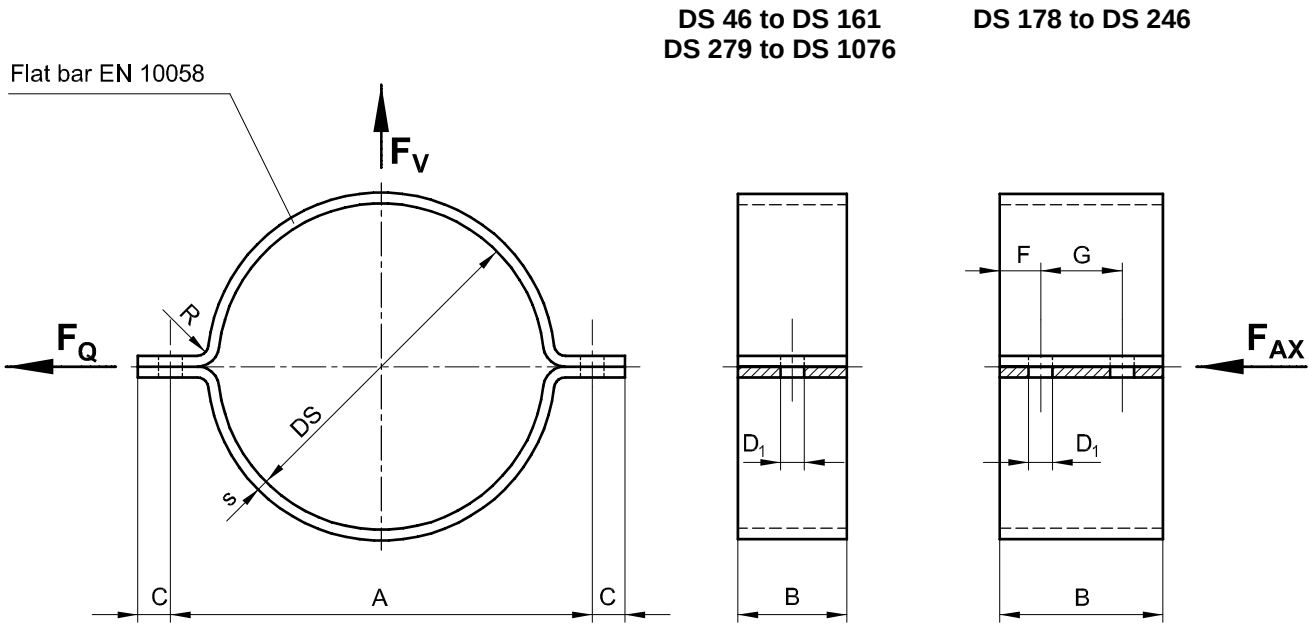
MS0031D 375

Example 2: Hexagon bolt (EN ISO 4018), part number MB0001D, thread diameter = M 20, bolts length = 55 with hexagon nut (EN ISO 4034), is designated as follows:

MB0001D M 20 × 55

5 Clamps form AK, type 2, DS 40 to DS 1076

These clamps shall be used with a PE liner as per UN 3790-26.



Part number
MS0041D

Figure 2. Clamps form AK, type 2

Table 3. **Clamps form AK, type 2, design dimensions and weights**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter (d_3)	Flat bar B	Flat bar s	Developed length for clamp segment	Allowable loads[3] for T_{max} = 300 °C in N F_{AX}	F_Q	F_V	A	C	D_1[2]	F	G	R	Weight in kg/piece[1]	Hexagon bolt EN ISO 4018 with hexagon nut EN ISO 4034 Thread	Length	Quantity	Weight in kg/piece
46	25	31	80	6	149	6100	17260	7430	94	18	13.5			6	1.13	M 12	30	2	0.05
50		34 to 35			156	5670	16420		98						1.17				
53		38			161	5380	15840		101						1.21				
57	32	41 to 42			167	5040	15290		105						1.26				
61		46			173	4740	14690		110						1.31				
65	40	49 to 50			180	4470	14230		114						1.35				
72		56			191	4070	13470		121						1.44				
	50	57																	
76		59 to 60			197	3870	13060		125						1.48				
87		69			214	3410	12040		136						1.61				
	65	71																	
92		73 to 76			222	3240	11620		141						1.67				
97		81			230	3080	11170		147						1.73				
103	80	86 to 87			239	2910	10730		153						1.80				
106		89 to 90			244	2830	10530		156						1.84				
112		93 to 96			254	2690	10130		162						1.91				
125	100	106 to 109			274	2420	9370		175						2.07				
127		110 to 111			277	2380	9260		177						2.09				
132		115 to 116			285	2300	9000		182						2.15				
153	125	131 to 135			318	1990	8050		203						2.40				
156		137 to 138			323	1960	7930		206						2.43				
161		143			331	1900	7730		211						2.49				
178	150	156 to 160	120	8	386	4550	17700	14200	248	24	17.5	30	60	8	5.82	M 16	35	4	0.11
183		164 to 165			394	4430	17340		253						5.94				
189		166 to 171			403	4300	16930		259						6.08				
227	200	206 to 209			463	3600	14700		297						6.98				
231		211 to 213			469	3540	14500		301						7.07				

1) Weight for two clamp segments, without hexagon bolts, hexagon nuts and rubber liners.
2) Holes according to EN 20273. medium.
3) The specified loads are not equivalent to the loads for complete pipe supports (e.g. pipe shoes, tubular supports).

Table 3. **Continued**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter (d_3)	Flat bar B	Flat bar s	Developed length for clamp segment	Allowable loads[3] for T_{max} = 300 °C in N F_{AX}	F_Q	F_V	A	C	D_1[2]	F	G	R	Weight in kg/piece[1]	Hexagon bolt EN ISO 4018 with hexagon nut EN ISO 4034 Thread	Length	Quantity	Weight in kg/piece
237	200	218 to 219	120		478	3450	14200	14200	307	24	17.5	30	60		7.22	M 16	35	4	0.11
246		228			493	3330	13780		316						7.43				
279	250	256 to 259	80	8	562	1960	8200	9000	355	30	22			8	5.65	M 20	40	2	0.22
285		260 to 265			572	1920	8060		361						5.74				
293		272 to 273			584	1870	7880		369						5.87				
304		284			602	1810	7640		380						6.04				
331	300	306 to 311			644	1660	7100		408						6.47				
338		312 to 318			655	1630	6980		415						6.58				
347		326 to 327			669	1590	6820		424						6.72				
360		340			690	1530	6610		437						6.92				
381	350	357 to 361			723	1450	6300		458						7.26				
385		363 to 365			729	1430	6240		462						7.32				
390		367 to 370			737	1410	6170		467						7.40				
402		379 to 382			756	1370	6010		479						7.59				
417		397			779	1320	5820		494						7.82				
430	400	407 to 410			800	1280	5670		507						8.03				
436		412 to 416			809	1270	5600		513						8.12				
443		421 to 423			820	1250	5520		520						8.23				
456		433 to 436			841	1210	5380		533						8.44				
474		454			869	1170	5200		551						8.72				
534	500	508 to 512			963	1040	4670		611						9.67				
541		513 to 519			974	1020	4610		618						9.78				
550		525 to 528			988	1010	4550		627						9.92				
566		541 to 544			1013	980	4430		643						10.17				
587		565			1046	940	4280		664						10.50				
637	600	609 to 615	100	10	1153	1700	7610	13790	734	36	26			10	18.11	M 24	45		0.36
644		616 to 622			1164	1680	7530		741						18.28				
655		630 to 633			1182	1650	7420		752						18.55				
739	700	711 to 717			1314	1470	6650		836						20.62				
746		720 to 724			1325	1450	6590		843						20.80				
760		732 to 738			1347	1430	6480		857						21.14				

1) to 3) see page 7.

Table 3. **Continued**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter (d_3)	Flat bar B	Flat bar s	Developed length for clamp segment	Allowable loads[3] for T_{max} = 300 °C in N F_{AX}	F_Q	F_V	A	C	D_1[2]	F	G	R	Weight in kg/piece[1]	Hexagon bolt EN ISO 4018 with hexagon nut EN ISO 4034 Thread	Length	Quantity	Weight in kg/piece
835	800	811 to 813	100	10	1464	1300	5940	13790	932	36	26			10	22.99	M 24	45	2	0.36
841		816 to 819			1474	1290	5910		938						23.14				
849		824 to 827			1486	1280	5850		946						23.34				
865		839 to 843			1512	1260	5750		962						23.73				
941	900	912 to 919			1631	1150	5320		1038						25.61				
949		921 to 927			1644		5280		1046						25.80				
952		930			1648	1140	5260		1049						25.88				
971		943 to 949			1678	1120	5170		1068						26.35				
1041	1000	1013 to 1019			1788	1040	4840		1138						28.07				
1051		1021 to 1029			1804	1030	4800		1148						28.32				
1055		1033			1810	1030	4780		1152						28.42				
1076		1048 to 1054			1843	1010	4690		1173						28.94				

1) to 3) see page 7.

Uhde

Pipe supports
Pipe clamps form AK, for GRP piping
Design dimensions, weights and allowable loads

UHDE STANDARD

UN 3790-04

August 2009

5.1 Designation

For the designation of "clamp form AK, type 2" clamp inside diameter DS shall be specified in addition to the part number (refer to Example 3).

For the designation of "hexagon bolt with hexagon nut" the thread and the bolt length shall be specified in addition to the part number (refer to Example 4).

Example 3: Clamp form AK, type 2, part number MS0041D, clamp inside diameter DS = 865, is designated as follows:

MS0041D 865

Example 4: Hexagon bolt (EN ISO 4018), part number MB0001D, thread diameter = M 24, bolts length = 45 with hexagon nut (EN ISO 4034), is designated as follows:

MB0001D M 24 × 45

6 Materials and property classes

Flat bar according to EN 10058	material: 1.0038 (S235JRG2)
Hexagon bolt according to EN ISO 4018	property class: 4.6
Hexagon nut according to EN ISO 4034	property class: 5

Reference standards

Uhde standards:

UN 3790-25 : 2009-08	Pipe supports; Rubber liners for pipe clamps form AK, form BK and form CK; Design dimensions and weights
UN 3790-26 : 2009-08	Pipe supports; PE liners for pipe clamps form AK; Design dimensions and weights

DIN standards:

DIN 16965-1 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type A pipes, dimensions
DIN 16965-2 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type B pipes, dimensions
DIN 16965-4 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type D pipes, dimensions
DIN 16965-5 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type E pipes, dimensions

EN standards:

EN 10058 : 2003-10	Hot rolled flat steel bars for general purposes; Dimensions and tolerances on shape and dimensions
EN 20273 : 1991-10	Fasteners; Clearance holes for bolts and screws

EN ISO standards:

EN ISO 4018 : 2000-11	Hexagon head screws; Product grade C
EN ISO 4034 : 2000-11	Hexagon nuts; Product grade C

Amendments

Remarks:

The standard was revised only editorially and not constructional.

In comparison with UN 3790-04 : 1993-08 edition, the following amendments have been made:

a) The materials have been updated.

b) All reference standards have been updated.

c) The sections 1 to 3, as well as the section "Amendments" have been revised or added.

Uhde	Pipe supports **Rubber liners for pipe clamps form AK, form BK and form CK** **Design dimensions and weights**	**UN 3790-25** Page **1** of **10**

Rohrhalterungen; Gummieinlagen für Schellen Form AK, Form BK und Form CK; Konstruktionsmaße und Gewichte

Supersedes 93-08

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1 Scope

This Uhde standard (UN) applies to the design and construction of industrial and chemical plants. It contains requirements about design dimensions and weights of the rubber liners for clamps form AK, form BK and form CK (according to UN 3790-04 and UN 3790-10) for uninsulated and heat-insulated GRP piping of glass-fibre-reinforced polyester resins according to DIN 16965-1, -2, -4 and -5.

2 Units

Table 1. **Units**

General	SI Units
Dimensions	mm
Density	kg/dm³

3 General information

The standard part numbers refer to the materials specified in the section "Materials". Other part numbers are required when changing the material.

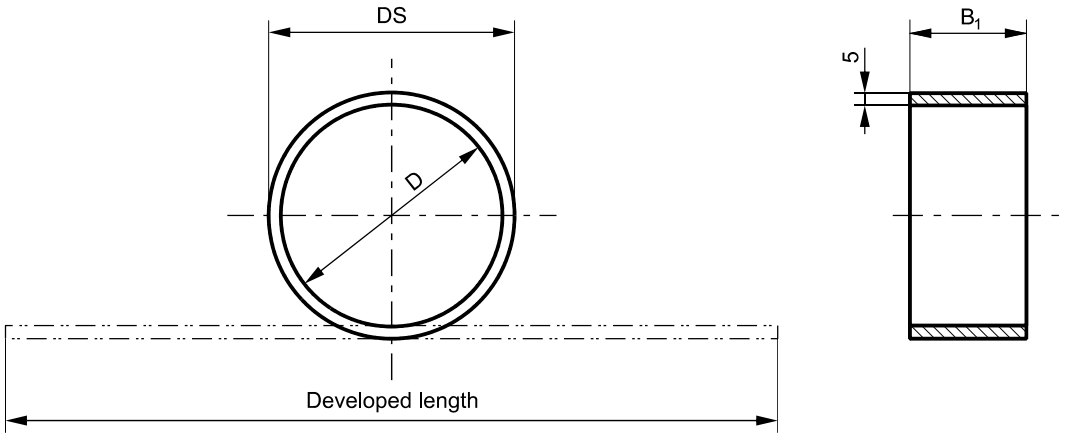
28.08.09	Hangebrauck	31.08.09	Jourdan	31.08.09	Fellner	31.08.09	Dr. Gazaridis
Date	**Prepared**	**Date**	**Checked**	**Date**	**Standardization**	**Date**	**Approved**

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4 Rubber liners

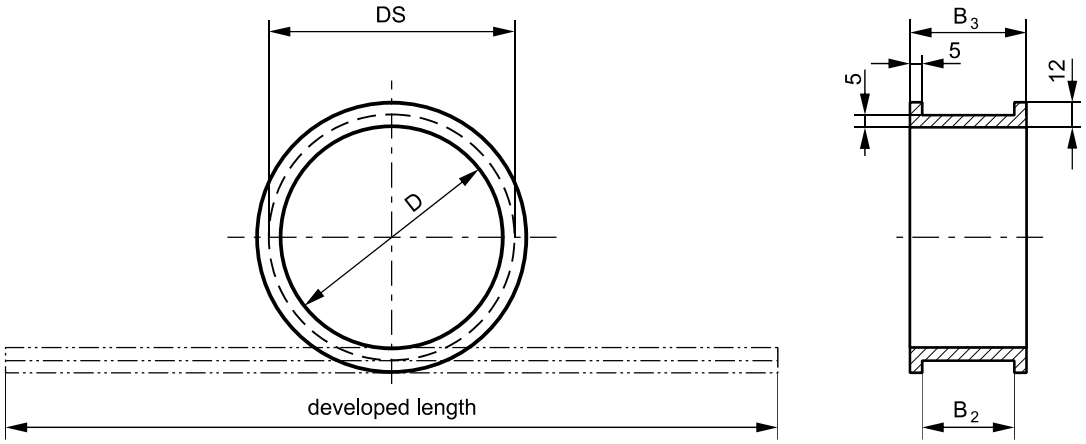
4.1 Rubber liners for clamps form AK, for pipe shoes

Rubber liners type 1 shall only to used for fixed points of piping.



Part number
OE0001D

Figure 1. Rubber liners type 1



Part number
OE0011D

Figure 2. Rubber liners type 2

Table 2. **Rubber liners for clamps form AK, design dimensions and weights**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of rubber liner D	B_1	B_2 [2]	B_3	Developed length Type 1	Developed length Type 2	Weight in kg/piece [1] Type 1	Weight in kg/piece [1] Type 2
41	25	31	31	78	82	92	113	135	0.06	0.09
45		34 to 35	35				126	148		0.10
48		38	38				135	157	0.07	0.11
52	32	41 to 42	42				148	170		0.12
56		46	46				160	182	0.08	0.13
60	40	49 to 50	50				173	195	0.09	
67		56	57				195	217	0.10	0.15
	50	57								
70		59 to 60	60				204	226		0.16
81		69	71				239	261	0.12	0.18
	65	71								
86		73 to 76	76				254	276	0.13	0.19
91		81	81				270	292	0.14	0.20
97	80	86 to 87	87				289	311	0.15	0.21
100		89 to 90	90				298	320		0.22
106		93 to 96	96				317	339	0.16	0.23
119	100	106 to 109	109				358	380	0.18	0.26
121		110 to 111	111				364	386		0.27
126		115 to 116	116				380	402	0.19	0.28
145	125	131 to 135	135				440	462	0.22	0.32
148		137 to 138	138				449	471	0.23	
153		143	143				465	487	0.24	0.34
170	150	156 to 160	160	118	122	132	518	540	0.40	0.51
175		164 to 165	165				534	556	0.41	0.53
181		166 to 171	171				553	575	0.42	0.55
219	200	206 to 209	209				672	694	0.52	0.66
223		211 to 213	213				685	707	0.53	0.67
229		218 to 219	219				704	726	0.54	0.69
238		228	228				732	754	0.56	0.72
269	250	256 to 259	259	78	82	92	829	851	0.42	0.59
275		260 to 265	265				848	870	0.43	0.60
283		272 to 273	273				873	895	0.44	0.62
294		284	284				908	930	0.46	0.64
321	300	306 to 311	311				993	1015	0.50	0.70
328		312 to 318	318				1015	1037	0.51	0.71
337		326 to 327	327				1043	1065	0.53	0.73
350		340	340				1084	1106	0.55	0.76
371	350	357 to 361	361				1150	1172	0.58	0.81
375		363 to 365	365				1162	1184	0.59	0.82
380		367 to 370	370				1178	1200	0.60	0.83
392		379 to 382	382				1216	1238	0.62	0.85
407		397	397				1263	1285	0.64	0.89
420	400	407 to 410	410				1304	1326	0.66	0.91
426		412 to 416	416				1323	1345	0.67	0.93
433		421 to 423	423				1345	1367	0.68	0.94
446		433 to 436	436				1385	1407	0.70	0.97
464		454	454				1442	1464	0.73	1.01

1) The weight was calculated on the basis of $\rho = 1.3$ kg/dm³.
2) Dimension B_2 includes the width tolerances of flat bars for the clamps.

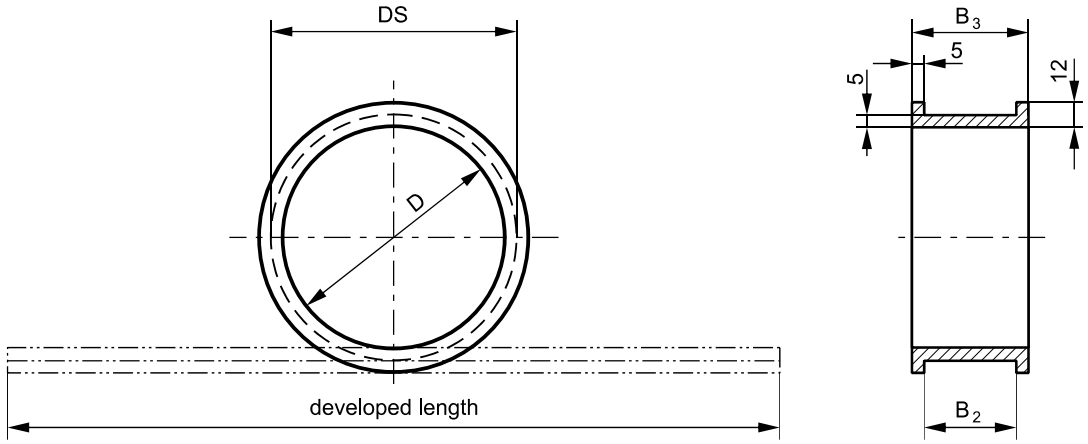
Table 2. **Continued**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of rubber liner D	B_1	B_2 [2)]	B_3	Developed length Type 1	Developed length Type 2	Weight in kg/piece [1)] Type 1	Weight in kg/piece [1)] Type 2
522	500	508 to 512	512	78	82	92	1624	1646	0.82	1.13
529		513 to 519	519				1646	1668	0.83	1.15
538		525 to 528	528				1674	1696	0.85	1.17
554		541 to 544	544				1725	1747	0.87	1.20
575		565	565				1791	1813	0.91	1.25
625	600	609 to 615	615	98	102	112	1948	1970	1.24	1.61
632		616 to 622	622				1970	1992	1.25	1.63
643		630 to 633	633				2004	2026	1.28	1.66
727	700	711 to 717	717				2268	2290	1.44	1.88
734		720 to 724	724				2290	2312	1.46	1.89
748		732 to 738	738				2334	2356	1.49	1.93
823	800	811 to 813	813				2570	2592	1.64	2.12
829		816 to 819	819				2589	2611	1.65	2.14
837		824 to 827	827				2614	2636	1.66	2.16
853		839 to 843	843				2664	2686	1.70	2.20
930	900	912 to 919	920				2906	2928	1.85	2.40
937		921 to 927	927				2928	2950	1.87	2.42
940		930	930				2937	2959		
960		943 to 949	950				3000	3022	1.91	2.48
1030	1000	1013 to 1019	1020				3220	3242	2.05	2.66
1040		1021 to 1029	1030				3252	3274	2.07	2.68
1045		1033	1035				3267	3289	2.08	2.69
1065		1048 to 1054	1055				3330	3352	2.12	2.75

1) and 2) see page 3.

4.2 Rubber liners for clamps form BK und form CK, for hangers

4.2.1 Rubber liners for clamps form BK



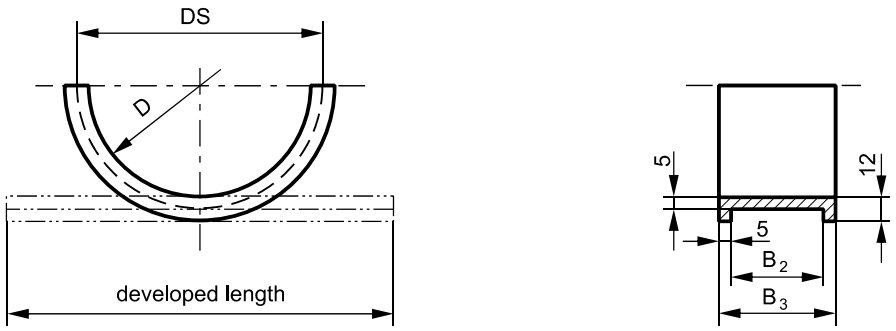
Part number
OE0011D

Figure 3. Rubber liners type 2

Table 3. **Rubber liners type 2 for clamps form AK, design dimensions and weights**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of rubber liner D	B_2 [2]	B_3	Developed length	Weight in kg/piece [1]
41	25	31	31	82	92	135	0.09
45		34 to 35	35			148	0.10
48		38	38			157	0.11
52	32	41 to 42	42			170	0.12
56		46	46			182	0.13
60	40	49 to 50	50			195	
67		56	57			217	0.15
	50	57					
70		59 to 60	60			226	0.16
81		69	71			261	0.18
	65	71					
86		73 to 76	76			276	0.19
91		81	81			292	0.20
97	80	86 to 87	87			311	0.21
100		89 to 90	90			320	0.22
106		93 to 96	96			339	0.23
119	100	106 to 109	109			380	0.26
121		110 to 111	111			386	0.27
126		115 to 116	116			402	0.28
145	125	131 to 135	135			462	0.32
148		137 to 138	138			471	
153		143	143			487	0.34
170	150	156 to 160	160	122	132	540	0.51
175		164 to 165	165			556	0.53
181		166 to 171	171			575	0.55
219	200	206 to 209	209			694	0.66
223		211 to 213	213			707	0.67
229		218 to 219	219			726	0.69
238		228	228			754	0.72
269	250	256 to 259	259	162	172	851	1.03
275		260 to 265	265			870	1.05
283		272 to 273	273			895	1.08
294		284	284			930	1.12
321	300	306 to 311	311			1015	1.23
328		312 to 318	318			1037	1.25
337		326 to 327	327			1065	1.29
350		340	340			1106	1.34

4.2.2 Rubber liners for clamps form CK



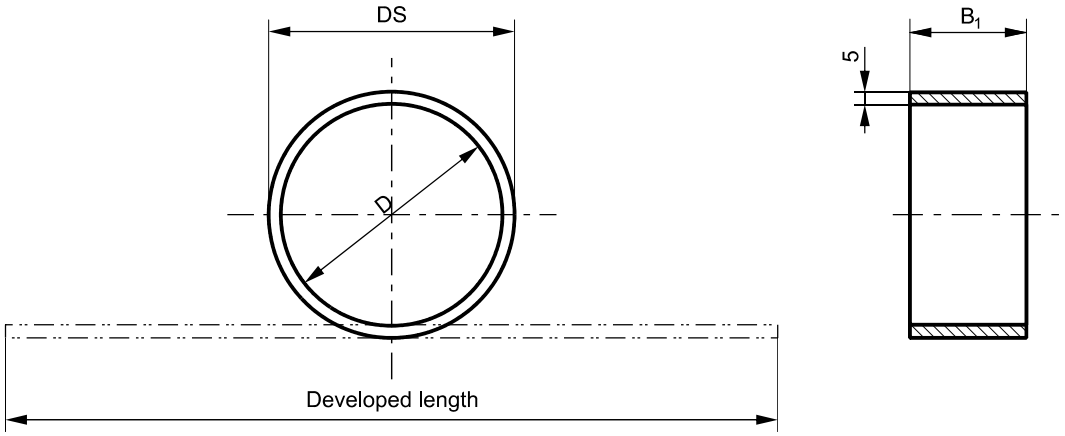
Part number
OE0011D

Figure 4. Rubber liners type 2

Table 4. **Rubber liners type 2 for clamps form CK, design dimensions and weights**

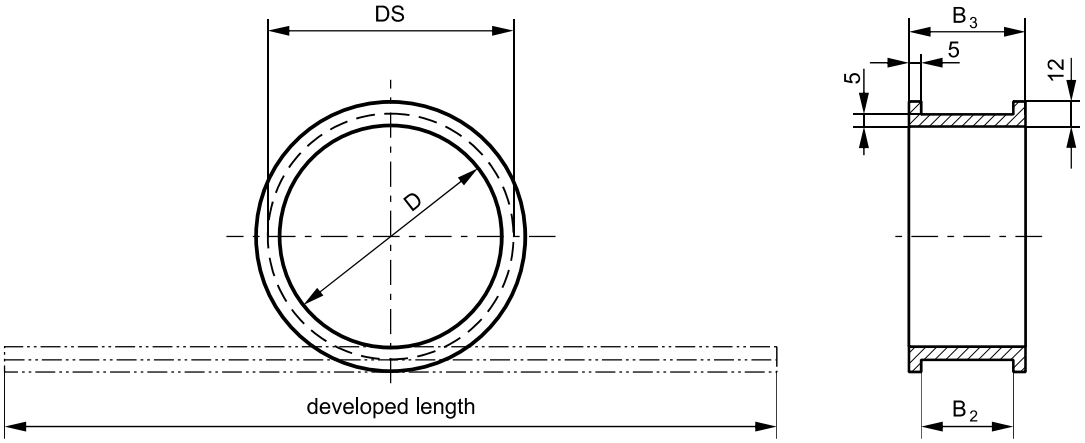
Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of rubber liner D	B_2 [2)]	B_3	Developed length	Weight in kg/piece [1)]
371	350	357 to 361	361	122	132	586	0.56
375		363 to 365	365			592	
380		367 to 370	370			600	0.57
392		379 to 382	382			619	0.59
407		397	397			642	0.61
420	400	407 to 410	410			663	0.63
426		412 to 416	416			672	0.64
433		421 to 423	423			683	0.65
446		433 to 436	436			704	0.67
464		454	454			732	0.69
522	500	508 to 512	512			823	0.78
529		513 to 519	519			834	0.79
538		525 to 528	528			848	0.80
554		541 to 544	544			873	0.83
575		565	565			906	0.86
625	600	609 to 615	615	162	172	985	1.19
632		616 to 622	622			996	1.20
643		630 to 633	633			1013	1.22
727	700	711 to 717	717			1145	1.38
734		720 to 724	724			1156	1.40
748		732 to 738	738			1178	1.42
823	800	811 to 813	813			1296	1.57
829		816 to 819	819			1305	1.58
837		824 to 827	827			1318	1.59
853		839 to 843	843			1343	1.62
930	900	912 to 919	920			1464	1.77
937		921 to 927	927			1475	1.78
940		930	930			1480	1.79
960		943 to 949	950			1511	1.83
1030	1000	1013 to 1019	1020			1621	1.96
1040		1021 to 1029	1030			1637	1.98
1045		1033	1035			1645	1.99
1065		1048 to 1054	1055			1676	2.03

4.3 Rubber liners for clamps form AK, for supports



Part number
OE0001D

Figure 5. Rubber liners type 1



Part number
OE0011D

Figure 6. Rubber liners type

Table 5. **Rubber liners for clamps form AK, design dimensions and weights**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of rubber liner D	B_1	B_2 [2]	B_3	Developed length Type 1	Developed length Type 2	Weight in kg/piece [1] Type 1	Weight in kg/piece [1] Type 2
41	25	31	31	78	82	92	113	135	0.06	0.09
45		34 to 35	35				126	148		0.10
48		38	38				135	157	0.07	0.11
52	32	41 to 42	42				148	170		0.12
56		46	46				160	182	0.08	0.13
60	40	49 to 50	50				173	195	0.09	
67		56	57				195	217	0.10	0.15
	50	57								
70		59 to 60	60				204	226		0.16
81		69	71				239	261	0.12	0.18
	65	71								
86		73 to 76	76				254	276	0.13	0.19
91		81	81				270	292	0.14	0.20
97	80	86 to 87	87				289	311	0.15	0.21
100		89 to 90	90				298	320		0.22
106		93 to 96	96				317	339	0.16	0.23
119	100	106 to 109	109				358	380	0.18	0.26
121		110 to 111	111				364	386		0.27
126		115 to 116	116				380	402	0.19	0.28
145	125	131 to 135	135				440	462	0.22	0.32
148		137 to 138	138				449	471	0.23	
153		143	143				465	487	0.24	0.34
170	150	156 to 160	160	118	122	132	518	540	0.40	0.51
175		164 to 165	165				534	556	0.41	0.53
181		166 to 171	171				553	575	0.42	0.55
219	200	206 to 209	209				672	694	0.52	0.66
223		211 to 213	213				685	707	0.53	0.67
229		218 to 219	219				704	726	0.54	0.69
238		228	228				732	754	0.56	0.72
269	250	256 to 259	259	158	162	172	829	851	0.85	1.03
275		260 to 265	265				848	870	0.87	1.05
283		272 to 273	273				873	895	0.90	1.08
294		284	284				908	930	0.93	1.12
321	300	306 to 311	311				993	1015	1.02	1.23
328		312 to 318	318				1015	1037	1.04	1.25
337		326 to 327	327				1043	1065	1.07	1.29
350		340	340				1084	1106	1.11	1.34
371	350	357 to 361	361				1150	1172	1.18	1.42
375		363 to 365	365				1162	1184	1.19	1.43
380		367 to 370	370				1178	1200	1.21	1.45
392		379 to 382	382				1216	1238	1.25	1.50
407		397	397				1263	1285	1.30	1.55
420	400	407 to 410	410				1304	1326	1.34	1.60
426		412 to 416	416				1323	1345	1.36	1.63
433		421 to 423	423				1345	1367	1.38	1.65
446		433 to 436	436				1385	1407	1.42	1.70
464		454	454				1442	1464	1.48	1.77

3) The weight was calculated on the basis of $\rho = 1.3$ kg/dm³.
1) Dimension B_2 includes the width tolerances of flat bars for the clamps.

Table 5. **Continued**

Clamp inside diameter DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of rubber liner D	B_1	B_2 [2]	B_3	Developed length Type 1	Developed length Type 2	Weight in kg/piece [1] 1	Weight in kg/piece [1] 2
522	500	508 to 512	512	158	162	172	1624	1646	1.67	1.99
529		513 to 519	519				1646	1668	1.69	2.02
538		525 to 528	528				1674	1696	1.72	2.05
554		541 to 544	544				1725	1747	1.77	2.11
575		565	565				1791	1813	1.84	2.19
625	600	609 to 615	615	198	202	212	1948	1970	2.51	2.89
632		616 to 622	622				1970	1992	2.54	2.93
643		630 to 633	633				2004	2026	2.58	2.98
727	700	711 to 717	717				2268	2290	2.92	3.36
734		720 to 724	724				2290	2312	2.95	3.40
748		732 to 738	738				2334	2356	3.00	3.46
823	800	811 to 813	813				2570	2592	3.31	3.81
829		816 to 819	819				2589	2611	3.33	3.84
837		824 to 827	827				2614	2636	3.36	3.87
853		839 to 843	843				2664	2686	3.43	3.95
930	900	912 to 919	920				2906	2928	3.74	4.30
937		921 to 927	927				2928	2950	3.77	4.33
940		930	930				2937	2959	3.78	4.35
960		943 to 949	950				3000	3022	3.86	4.44
1030	1000	1013 to 1019	1020				3220	3242	4.14	4.76
1040		1021 to 1029	1030				3252	3274	4.18	4.81
1045		1033	1035				3267	3289	4.20	4.83
1065		1048 to 1054	1055				3330	3352	4.29	4.92

1) and 2) see page 8.

4.4 Designation

For the designation of "rubber liner" type 1, width B_1, thickness d and the developed length shall be specified in addition to the part number (refer to Example 1).

For the designation of "rubber liner" type 2, width B_3, thickness and the developed length shall be specified in addition to the part number (refer to Example 2).

Example 1: Rubber liner, part number OE0001D, width B_1 = 78, thickness = 5, developed length = 160, is designated as follows:

OE0001D 78 / 5 / 160

Example 2: Rubber liner type 2, part number OE0011D, width B_3 = 92, thickness = 5, developed length = 182, is designated as follows:

OE0011D 92 / 5 / 182

5 Materials

Rubber liner material: soft rubber, hardness 50 to 60 Shore

Reference standards

Uhde standards:

UN 3790-04 : 2009-08	Pipe supports; Pipe clamps form AK, for GRP piping; Design dimensions, weights and allowable loads
UN 3790-10 : 2009-08	Pipe supports; Pipe clamps form BK and form CK for GRP piping; Design dimensions, weights and allowable loads

DIN standards:

DIN 16965-1 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type A pipes, dimensions
DIN 16965-2 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type B pipes, dimensions
DIN 16965-4 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type D pipes, dimensions
DIN 16965-5 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type E pipes, dimensions

Amendments

Remarks:

The standard was revised only editorially and not constructional.

In comparison with UN 3790-25 : 1993-08 edition, the following amendments have been made:

a) The materials have been updated.

b) All reference standards have been updated.

c) The sections 1 to 3, as well as the section "Amendments" have been revised or added.

Uhde	Pipe supports **PE liners for pipe clamps form AK** **Design dimensions and weights**	**UN 3790-26** Page **1** of **6**

Rohrhalterungen; PE-Einlagen für Schellen Form AK;
Konstruktionsmaße und Gewichte

Supersedes 93-08

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1 Scope

This Uhde standard (UN) applies to the design and construction of industrial and chemical plants. It contains requirements about design dimensions and weights of the PE liners for clamps form AK, type 2 (according to UN 3790-04) for uninsulated and heat-insulated GRP piping of glass-fibre-reinforced polyester resins according to DIN 16965-1, -2, -4 and -5.

2 Units, abbreviated terms

2.1 Units

Table 1. **Units**

General	SI Units
Dimensions	mm

2.2 Abbreviated terms

DS = Clamp inside diameter

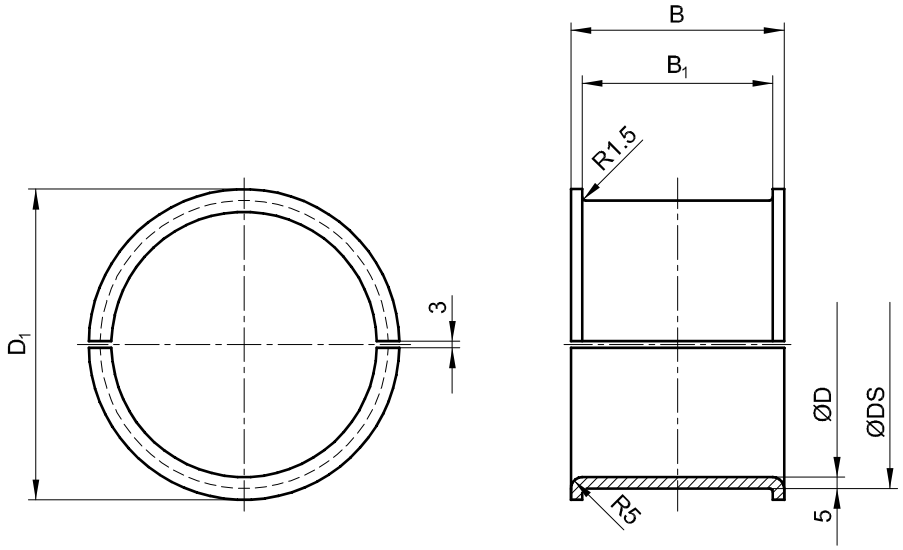
3 General information

The standard part numbers refer to the materials specified in the section "Materials". Other part numbers are required when changing the material.

28.08.09	Hangebrauck	31.08.09	Jourdan	31.08.09	Fellner	31.08.09	Dr. Gazaridis
Date	**Prepared**	**Date**	**Checked**	**Date**	**Standardization**	**Date**	**Approved**

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4 PE liners



Part number
OE0021D

Figure 1. PE liners

4.1 PE liners for clamps form AK, for pipe shoes

Table 2. **PE liners, design dimensions and weights**

Clamp inside diameter or diameter of PE liner DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of PE liner D	D_1	B	B_1 [2]	Weight in kg/piece [1]
46	25	31	36	56	94	84	0.07
50		34 to 35	40	60			
53		38	43	63			0.08
57	32	41 to 42	47	67			0.09
61		46	51	71			
65	40	49 to 50	55	75			0.10
72		56	62	82			0.11
	50	57					
76		59 to 60	66	86			
87		69	77	97			0.13
	65	71					
92		73 to 76	82	102			0.14
97		81	87	107			0.15
103	80	86 to 87	93	113			0.16
106		89 to 90	96	116			
112		93 to 96	102	122			0.17
125	100	106 to 109	115	135			0.19
127		110 to 111	117	137			
132		115 to 116	122	142			0.20
153	125	131 to 135	143	163			0.23
156		137 to 138	146	166			0.24
161		143	151	171			0.25

1) Weight of two PE liner segments. The weight was calculated on the basis of $\rho = 0.95$ kg/dm³.
2) Dimension B_1 includes the width tolerances of flat-bars for the clamps.

Table 2. **Continued**

Clamp inside diameter or diameter of PE liner DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of PE liner D	D_1	B	B_1 [2)]	Weight in kg/piece [1)]
178	150	156 to 160	168	188	134	124	0.38
183		164 to 165	173	193			0.39
189		166 to 171	179	199			0.40
227	200	206 to 209	217	237			0.48
231		211 to 213	221	241			0.49
237		218 to 219	227	247			0.51
246		228	236	256			0.52
279	250	256 to 259	269	289	94	84	0.43
285		260 to 265	275	295			0.44
293		272 to 273	283	303			0.45
304		284	294	314			0.47
331	300	306 to 311	321	341			0.51
338		312 to 318	328	348			0.52
347		326 to 327	337	357			0.54
360		340	350	370			0.56
381	350	357 to 361	371	391			0.59
385		363 to 365	375	395			
390		367 to 370	380	400			0.60
402		379 to 382	392	412			0.62
417		397	407	427			0.64
430	400	407 to 410	420	440			0.66
436		412 to 416	426	446			0.67
443		421 to 423	433	453			0.68
456		433 to 436	446	466			0.70
474		454	464	484			0.73
534	500	508 to 512	524	544			0.83
541		513 to 519	531	551			0.84
550		525 to 528	540	560			0.85
566		541 to 544	556	576			0.88
587		565	577	597			0.91
637	600	609 to 615	627	647	114	104	1.18
644		616 to 622	634	654			1.19
655		630 to 633	645	665			1.21
739	700	711 to 717	729	749			1.36
746		720 to 724	736	756			1.38
760		723 to 738	750	770			1.40
835	800	811 to 813	825	845			1.54
841		816 to 819	831	851			1.55
849		824 to 827	839	859			1.57
865		839 to 843	855	875			1.60
941	900	912 to 919	931	951			1.74
949		921 to 927	939	959			1.75
952		930	942	962			1.76
971		943 to 949	961	981			1.79
1041	1000	1013 to 1019	1031	1051			1.92
1051		1021 to 1029	1041	1061			1.94
1055		1033	1045	1065			1.95
1076		1048 to 1054	1066	1086			1.99

1) and 2) see page 2.

4.2 PE liners for clamps form AK, for supports

Table 3. **PE liners, design dimensions and weights**

Clamp inside diameter or diameter of PE liner DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of PE liner D	D_1	B	B_1 [2]	Weight in kg/piece [1]
46	25	31	36	56	94	84	0.07
50		34 to 35	40	60			
53		38	43	63			0.08
57	32	41 to 42	47	67			0.09
61		46	51	71			
65	40	49 to 50	55	75			0.10
72		56	62	82			0.11
		57					
76	50	59 to 60	66	86			
87		69	77	97			0.13
		71					
92	65	73 to 76	82	102			0.14
97		81	87	107			0.15
103	80	86 to 87	93	113			0.16
106		89 to 90	96	116			
112		93 to 96	102	122			0.17
125	100	106 to 109	115	135			0.19
127		110 to 111	117	137			
132		115 to 116	122	142			0.20
153	125	131 to 135	143	163			0.23
156		137 to 138	146	166			0.24
161		143	151	171			0.25
178	150	156 to 160	168	188	134	124	0.38
183		164 to 165	173	193			0.39
189		166 to 171	179	199			0.40
227	200	206 to 209	217	237			0.48
231		211 to 213	221	241			0.49
237		218 to 219	227	247			0.51
246		228	236	256			0.52
279	250	256 to 259	269	289	174	164	0.76
285		260 to 265	275	295			0.78
293		272 to 273	283	303			0.80
304		284	294	314			0.83
331	300	306 to 311	321	341			0.90
338		312 to 318	328	348			0.92
347		326 to 327	337	357			0.95
360		340	350	370			0.98
381	350	357 to 361	371	391			1.04
385		363 to 365	375	395			1.05
390		367 to 370	380	400			1.07
402		379 to 382	392	412			1.10
417		397	407	427			1.14
430	400	407 to 410	420	440			1.18
436		412 to 416	426	446			1.19
443		421 to 423	433	453			1.21

1) Weight of two PE liner segments. The weight was calculated on the basis of $\rho = 0.95$ kg/dm³.
2) Dimension B_1 includes the width tolerances of flat-bars for the clamps.

Table 3. **Continued**

Clamp inside diameter or diameter of PE liner DS	Nominal diameter DN	Pipe outside diameter d_3	Inside diameter of PE liner D	D_1	B	B_1 [2)]	Weight in kg/piece [1)]
456	400	433 to 436	446	466	174	164	1.25
474		454	464	484			1.30
534	500	508 to 512	524	544			1.46
541		513 to 519	531	551			1.48
550		525 to 528	540	560			1.50
566		541 to 544	556	576			1.55
587		565	577	597			1.61
637	600	609 to 615	627	647	214	204	2.12
644		616 to 622	634	654			2.15
655		630 to 633	645	665			2.18
739	700	711 to 717	729	749			2.46
746		720 to 724	736	756			2.49
760		723 to 738	750	770			2.53
835	800	811 to 813	825	845			2.78
841		816 to 819	831	851			2.80
849		824 to 827	839	859			2.83
865		839 to 843	855	875			2.89
941	900	912 to 919	931	951			3.14
949		921 to 927	939	959			3.17
952		930	942	962			3.18
971		943 to 949	961	981			3.24
1041	1000	1013 to 1019	1031	1051			3.47
1051		1021 to 1029	1041	1061			3.51
1055		1033	1045	1065			3.52
1076		1048 to 1054	1066	1086			3.59

1) and 2) see page 4.

4.3 Designation

For the designation of "PE liner", diameter DS shall be specified in addition to the part number (refer to Example 1).

Example 1: PE liner, part number OE0021D, diameter DS = 127, is designated as follows:

OE0021D – 127

5 Materials

PE liner material: Polyethylene

Reference standards

Uhde standards:

UN 3790-04 : 2009-08	Pipe supports; Pipe clamps form AK, for GRP piping; Design dimensions, weights and allowable loads

DIN standards:

DIN 16965-1 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type A pipes, dimensions
DIN 16965-2 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type B pipes, dimensions
DIN 16965-4 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type D pipes, dimensions
DIN 16965-5 : 1982-07	Wound glass fibre reinforced polyester resin (UP-GF); pipes, Type E pipes, dimensions

Amendments

Remarks:

The standard was revised only editorially and not constructional.

In comparison with UN 3790-26 : 1993-08 edition, the following amendments have been made:

a) The materials have been updated.

b) All reference standards have been updated.

c) The sections 1 to 3, as well as the section "Amendments" have been revised or added.

Checklist To be submitted along with offer

Project Name : NALCO Alumina Refinery Expansion Project
Project No : 66-6695 RFQ NO: _____
Vendor's Name: _____
Vendor's Offer No : _____Date _____

S. No.	Documents	Document No (s)	Accepted With Deviation/ W/o Deviation
1	Technical documents		
a	Vendor Documentation Procedure		
b	Support Fabrication Drawings		
2	Techno-Commercial document		
a	Annexure-I, Priced Bid Format and Bill of Material with Technical specifications (PriceBid)		

Note 1 : Bidder should stipulate their deviations, if any, to the tender documents, only in below reffered deviation sheets marked as " Technical Deviation" and " Commercial Deviations". If vendor stipulates deviation any where else in their bid, such deviations shall be ignored.

Sr No	Documents	Document No	Enclosed (Yes/No)
1	List of Technical Deviation		

Authorised Signatory
Name: _____
Contact No : _____
Vendor's Name : _____ Vendor Company Stamp

NATIONAL ALUMINIUM COMPANY LIMITED

5TH STREAM ALUMINA REFINERY EXPANSION PROJECT

GENERAL PURCHASE CONDITIONS (INDIGENOUS) (FOR SUPPLY)

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27. PACKING, CRATING, MARKING, FORWARDING CARTAGE/SHIPMENT
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30. NON-WAIVER
31. RECOVERY OF SUMS DUE
32. PART ORDER/REPEAT ORDER
33. TECHNICAL INFORMATION
34. HEADINGS
35. MATERIALS FURNISHED BY OWNER
36. ORDER OF PRECEDENCE
37. ARBITRATION
38. GOVERNING LAWS & JURISDICTION
39. TRANSFER OF PROPERTY
40. PUBLICITY AND ADVERTISING.
41. VENDOR DATA REQUIREMENT

NATIONAL ALUMINIUM COMPANY LIMITED (hereinafter referred to as Owner) intends to procure machinery, equipment, materials and other items for their Alumina Refinery Expansion Project under the terms and conditions set out hereunder:

1.0 DEFINITIONS:

Following expressions used in these terms and conditions and/or in the Purchase Order shall have the meaning as detailed hereunder against each of them.

ORDER - Supply, delivery & completion of obligations in accordance with the requirements defined in NALCO's Purchase Order (including all attachments and exhibits thereto) together with any subsequent modifications thereof.

SELLER - A firm or a company or persons to whom the order is issued and includes its successors and assignees.

OWNER - **NATIONAL ALUMINIUM COMPANY LIMITED (NALCO),** a Company incorporated in India having its Registered Office at NALCO Bhawan, P/1, Nayapalli, Bhubaneswar-751013, Odisha including its successors and assignees.

GOODS/MATERIALS - Goods and/or materials, shall mean any of the articles, materials, machinery, equipments supplies, drawings, data and other property and all services/work including but not limited to design, manufacture, delivery, installation, inspection, testing and commissioning specified or required to complete the Purchase Order.

Contractual Delivery Date - Contractual delivery date is the date by which goods shall be delivered F.O.R. dispatching point/destination in accordance with the terms of the Purchase Order. The contractual delivery date/period is inclusive of all the lead time for engineering, procurement of raw materials, manufacturing, inspection, testing, packing and any other activity whatsoever required to be accomplished for effecting the delivery at the agreed delivery point.

Procurement Coordinators-/Manager - Owner's authorized representative appointed as procurement coordinators/ Managers

INSPECTORS - Inspectors deputed by Owner or Procurement Coordinators/Managers.

PROJECT - NALCO's 5th Stream Alumina Refinery Expansion Project.

'Plant', 'Equipment', 'Works' shall mean and include plant stores and materials to be provided and work to be done by the Seller.

'Commercial Operation' shall mean the condition of operation in which the complete equipment covered under the Purchase Order is officially declared by the Owner to be available for continuous operation at different loads upto and including rated capacity.

2.0 REFERENCE FOR DOCUMENTATION:

Purchase Order number must appear on order confirmation correspondence, drawings, invoices, shipping notes, packing and/or any documents or paper connected with the order.

3.0 ACCEPTANCE OF ORDER:

This order is expressly conditioned on Seller's acceptance of all the terms and conditions hereof and constitute the entire agreement between parties hereto. With the acceptance of the Order, Seller waives and considers as void all his general sales conditions. The Seller shall sign, stamp and date two copies of the Purchase Order and return within ten days after receipt of Order to owner as token of having accepted the order without reservation. Notwithstanding such non-return as stated above, the order shall be deemed to have been accepted with these conditions unless there is an express, communication in writing by the Seller to that effect with specific reasons and details.

4.0 SALES CONDITIONS:

Seller's Standard Sales Conditions, if any, shall not be applicable to the offer and only the Purchaser's General Purchase Conditions shall apply with the exception of deviations specifically agreed between the Seller and the Purchaser and/or brought out in the Purchase Order.

5.0 COMPLETE AGREEMENT:

The Terms & Conditions of the Purchase Order constitute the entire Agreement between the parties hereto. Changes will be binding only if the amendments are made in writing and signed by an authorized representative of the Owner and the Seller.

6.0 MODIFICATIONS & AMENDMENT:

Notwithstanding the above, Owner shall have the right to modify or amend this order subject to an adjustment in the price and/or delivery date in accordance with the applicable provision of the order, if any, or pursuant to mutual agreement.

The Seller shall carry out such amendments to the Order and shall be bound by the same terms and conditions incorporated in the original order.

Claims, if any, for adjustment in Price /delivery date shall be made within fifteen (15) days from the date when revisions/changes are ordered, failing which it will amount to an absolute waiver of any such claim. Such claims shall not prejudice the rights of Owner to claim a refund of any amount advanced or paid to the Seller.

7.0 DELAYS OR NON-DELIVERY:

Time of delivery at every stage of activities is the essence of this Order till the completion date and no variation shall be permitted except with prior authorization in writing from the Owner.

Where no delivery period is expressly stated, it shall be constructed as Seven days from the date of placing the order. The Owner reserves the right to defer the period of delivery in writing.

Goods shall be delivered in accordance with the Order to such place(s) as is specified therein and at such time(s) as Owner or its authorized representative shall have notified to the Seller in response to the Seller's request for instructions.

If upon receipt of the order at any time thereafter it is found that the goods or materials called for can not be completed within the time specified in the order, notice thereof must be given immediately and at the earliest possible time well in advance of the due date of delivery together with reasons for delay by fax/e-mail and confirmed by Registered mail to Owner together with the best completion date that can be offered. Such notice should not be construed as acceptance of the revised date by the Owner, unless specifically so communicated by the Owner in writing. Failure to deliver the goods or material before the date specified in the Order shall entitle the Owner at its option to terminate the order under provisions stated in Article 8 without prejudice to any other rights, Owner may have as a result thereof. The mere acceptance of revised schedule as above will not absolve the Seller from any of its liabilities for such delivery.

8.0 TERMINATION/CANCELLATION

(I) Owner may at any time, terminate any part of the work or all works remaining to be done in connection with this order with effect from such date as Owner may specify upon such terms and conditions as may be indicated at time of such termination.

Owner shall have the right to buy at its option and at an agreed price from the Seller, the cancelled goods and components and also to recover all materials supplied by the Owner to the Seller for use on the Order.

In the event of a termination of the order or part thereof, the Seller shall forthwith carry out instructions of the Owner in connection of sub-orders the Seller may have placed with other suppliers.

Owner and/or their authorized representatives shall have free access to the Seller's works and those of their suppliers to examine the materials and fabrication status reached at time of the order cancellation and to agree to a

reasonable price with the Seller and to take over the goods on as is where is basis or on completion.

If cancellation/termination of the Order, whether in full or in part is caused by reasons attributable to the Seller, Seller agrees to reimburse Owner, the extra cost incurred by Owner in procuring the cancelled goods from other resources. Security deposit, if any, shall be liable for forfeiture.

Without prejudice to the generality of the terms, breach of contract, the following will also include such breach and/or will entail termination of the order:

(a) The Seller fails to comply with the terms of this Purchase Order.

(b) The Seller fails to deliver the goods on time and/or replace the rejected goods promptly.

(c) The Seller becomes bankrupt or goes into liquidation.

(d) The Seller makes a general assignment for the benefits of creditors.

(e) A receiver is appointed for any of the properties owned by the Seller.

(f) Any reason directly attributable to Seller different from Sl. No. (a) to (e).

The Seller is aware that the said goods are required by the Owner for the ultimate purpose of material production and that non delivery may cause loss of production and consequently loss or profit to the Owner. In the event of the Owner exercising the option to claim damages for non-delivery other than by way of difference between the market price and the contract price, the Seller shall pay to the Owner, the fair compensation to be agreed upon between the Owner and the Seller.

(II) Owner may, if considered necessary, cancel/terminate the order either in full or in part, without assigning any reasons whatsoever and take necessary action for Procurement repairing, rectification, etc. at the risk and cost of the Seller.

9.0 ASSIGNMENT AND SUBLETTING:

Except for raw materials or any part of this Order for which the makers are named in this Order, the Seller shall not assign the Order or any part thereof, or any monies due hereunder, or subject this order or any part thereof, without the prior written consent of Owner or its authorized representative.

All sub-orders shall bear Owner's Order Number and shall contain the following words, "The equipments/materials being supplied against this Order is subject to inspection/expediting by NALCO and/or their assigned representatives including the insurance authority of NALCO.

The Seller agrees to furnish to Owner or its authorized representative, three unpriced copies of all sub-orders issued for raw materials and components within seven days of placement of such sub-orders.

10.0 FORCE MAJEURE:

Shall subject to its being a direct impact on the execution of this order, mean and be limited to the following:

(a) Any war /hostilities.
(b) Any riot or civil commotion
(c) Any earthquake, flood, tempest, lightning or other natural physical disaster.
(d) Any strike or lock-out (only those exceeding ten (10) continuous days in duration) affecting the performance of the Seller's obligation.
(e) Major power-cuts for a consecutive minimum period of 30 days.
(f) Any restriction imposed by the Government (Central or State) or other Statutory bodies which prevents/delays the execution of the order by the Seller.
(g) Epidemics & pandemics whether known or unknown

The Seller shall advise Owner or its authorized representative by a registered letter duly certified by Local Chamber of Commerce or Statutory authorities, the beginning and end of the above causes of delay within seven (7) days of occurrence and cessation of such Force Majeure conditions. In the event of delay lasting over one month, if arising out of causes of Force Majeure, Owner reserves the right to cancel the order and provisions governing Termination/Cancellation stated under Article 8 shall apply.

For delays arising out of Force Majeure, the Seller shall not claim extension in completion date for a period exceeding the period of delay attributable to the causes of Force majeure, and neither Owner nor Seller shall be liable to pay extra costs provided it is mutually established that Force Majeure Conditions did actually exist.

The delivery date specified on the order takes into account the extent of Force Majeure conditions prevalent in Seller's Works (such as power restrictions, etc.) at the time of acceptance of order and no extension to delivery date shall be allowed on this account.

11.0 INSPECTION AND EXPEDITING:

All inspections and tests shall be made as required by the specifications attached to or made part of the order and/or amendments issued by Owner. All goods or materials shall be subject to inspection by Owner or Owner's authorized representatives. Such tests and/or inspections may be held in conjunction with the representatives of the Owner/Insurance Authority.

Inspector shall have the right to carry out the inspection and testing which will include the raw materials at manufacturer's shop/place at fabricator's shop and at time of actual dispatch before and after completion of packing.

Seller shall advise the Owner or its authorized representative in writing, as the circumstances warrant at least fifteen (15) days in advance of the date of the final tests and/or inspection.

Owner's representative shall be authorized inspection spokesman and all matters including the Owner's Insurance Authority requirements shall be handled with the Seller through such inspector. Such inspection, or failure to inspect shall in no way relieve the Seller of any responsibility or liability with respect to such materials nor prejudice the right of Owner/its authorized representative to reject unsuitable material after arrival at the destination.

All tests, mechanical and others and particularly those required by codes will be performed at Seller's expenses and in accordance with Inspector's instructions. The Seller will also bear the expenses concerning preparation and rendering of tests required by Boiler Inspectorate or such other statutory testing agencies or by Lloyds Register Industrial Services or any other agency as may be required. For non-IBR items, inspecting authority shall be Owner or its authorized representative.

Unless specifically stated to the contrary on the order, all expenses relevant to inspection and expediting, preparation of test report or certificate, etc. shall be borne by the Seller EXCEPT for the salaries, fees, travelling, lodging and boarding expenses of Owner's representatives.

The Seller shall:

- Inform Procurement Coordinators/Managers at least eight days in advance of the exact place, date and time of rendering the equipment of materials for required inspection.

- Provide free access to inspectors during normal working hours to vendors or his/its sub-vendor's works and place at their disposal all useful means of performing, marking, testing, inspection and final stamping.

The Seller shall submit to Owner within four weeks from the date of this Order a Bar-Chart showing start and finish dates for various activities forming part of the execution of this order and identifying the delivery dates to this activity schedule. Seller shall update this Bar-Chart every month showing the actual performance of the activities and how the delivery date has been affected thereby. Copies of the updated Bar charts will also be submitted to Owner or its authorized representative for review of the progress of the Order. Seller shall also furnish un-priced copies of suborders/sub contractors, phased Programme of item wise manufacturing, testing and delivery and any other information/documentation as may be called for by Procurement Coordinators/Managers.

When deemed advisable by Owner or its authorized representative, the Order and Seller's sub-orders shall be subject to personal expediting by Owner's representatives. Such expediting shall in no way relieve the Seller of the time or delivery obligations under the terms of the order. At all reasonable times and places, before, during and after manufacture, the Seller shall grant and provide access to Owner or its authorized

representative to all parts of the Seller's work and their Sub-supplier's works involved in the manufacture or processing of the goods or materials. All post order correspondence shall be addressed to the designated person of the Owner.

12.0 OFFICIAL INSTITUTIONAL TESTING:

In addition to testing and inspection by inspectors mentioned above, Lloyds Register Industrial Services or similar institutional agencies like Boiler – Inspectorate may be assigned for official testing of all coded equipment. The Seller shall ensure that all Procedures for preparation and Performance of test prescribed by such Institutions shall be completed scrupulously.

The Seller is required to send to such Institutions as may be designated by the Owner at least three sets of construction drawings for each equipment and calculations. All manufacturer's mill test certificates and analytical reports from material laboratories in respect of all raw material and components employed shall have to be presented to such institution's inspectors in the number of copies required. Seller shall be responsible for any delay in submission of necessary certificates. The Seller shall maintain close liaison with Procurement Coordinators and Institution's Inspectors to maintain Schedule and delay if any, in this process will not be taken into consideration as a cause of Force Majeure.

13.0 WEIGHTS AND MEASUREMENTS:

All weights and measurements recorded by Procurement Co-ordinators/managers on receipt of goods at the site will be treated as final and binding on the Seller.

Sellers shipping documents and invoices must contain the following data :

(i) Unit net weight
(ii) Unit gross weight (packing included)
(iii) Dimensions of packing.

14.0 OIL & LUBRICANTS:

The first filling oils and lubricants, if any, required for every equipment shall be included in the price. The Seller shall also recommend the quality and quantity of oils and lubricants required for one year continuous operation.

15.0 SPARE PARTS:

The Seller must furnish item wise and priced list of spare parts required for two year's operation of the main equipment and prime movers also.

The Seller shall provide the necessary cross sectional drawing to identify the spare parts numbers and their location as well as interchangeability chart.

16.0 GUARANTEE:

All goods or materials shall be supplied strictly in accordance with the specifications, drawings, data sheets, other attachments and conditions stated on the order. No deviation from such specifications or alternations of these conditions shall be made without Owner's agreement in writing which must be obtained before any work against the order is commenced. All materials furnished by the Seller pursuant to this order (irrespective of whether engineering, design data or other information has been furnished reviewed or approved by Owner) are guaranteed to be of the best quality of their respective kinds (unless otherwise specifically authorized in writing by Owner) and shall be free from faulty design to the extent such design is not furnished by Owner workmanship and materials, and to be of sufficient size and capacity and of proper materials so as to fulfill in all respects all operating conditions, if any, specified in this order.

Checking of Seller's drawings by procurement Coordinators/Managers and their approval and permission to ship or dispatch the equipment and materials granted by Inspectors shall not relieve the Seller of any part of his/its responsibilities of proper fulfillment of the requirements.

If any trouble or defect originating with the design, materials, workmanship or operating characteristics of any materials arise at any time prior to twelve (12) months from the date of the first commercial operation of the Plant of which the materials supplied under this order form a part thereof, or thirty (30) months from the date of last dispatch/shipment, whichever period shall first expire and the Seller is notified thereof. Seller, at its own expense and as promptly as possible make such alterations, repairs and replacements as may be necessary to permit the materials to function in accordance with the specifications and fulfill the foregoing guarantees.

Owner may, at its option, remove such defective materials, at Seller's expense, in which event Seller shall, without cost to Owner and as promptly as possible, furnish and install proper materials. Repaired or replaced materials shall be similarly guaranteed for a period of not less than twelve (12) months starting from the date on which the replacement are put in service or thirty (30) months from the date of despatch/shipment. In the event that the materials supplied do not meet the specifications and/or are not in accordance with the drawings, data sheets or the terms of this order and rectification is required at Site, Owner shall notify the Seller giving full details of deficiencies. The Seller shall attend the site within seven (7) days of receipt of such notice to meet and agree with the representatives of Owner the action required to correct the deficiencies. Should the Seller fail to attend meeting at site within time prescribed above, Owner shall immediately rectify the works/materials and Seller shall reimburse Owner all costs and expenses incurred in connection with such trouble or defect.

The Seller shall furnish a bank guarantee (as per proforma hereunder) to support Seller's performance. This bank guarantee shall not be deemed a waiver of any right of the Owner or Procurement Coordinators/Managers to insist upon the strict performance thereof or of any of his or their right or remedies as to any such goods regardless of when goods are shipped, received or accepted nor shall any purported oral modification

or revision, the order by Procurement Coordinators/Managers act as waiver of the terms hereof.

17.0 PATENT INDEMNITY:

The Seller shall fully indemnify Owner, vendors and users of the materials furnished hereunder, against any action, claim or demand, costs and expenses, arising from or incurred by reasons of, any infringement or alleged infringement of any letters Patent, registered design, Trade Mark or name, Royalties copy right or any other protected rights in respect of any materials supplied or any arrangements, system or methods of using, fixing or working used by the Seller.

The prices quoted by the Seller shall include all charges for Royalties payable in respect of the use of any letters patent, registered design, Trade Mark or name, drawing or technical information which may be involved in the performance of this order or in the construction or use of any plant, material or apparatus supplied by the Seller.

In the event of any claim or demand being made or action brought against Owner in respect of an of the aforesaid matters, the Seller shall be notified thereof immediately and the Seller shall, at its own expense with (if necessary) the assistance of Owner (whose all expenses shall be reimbursed by the Seller) conduct all negotiation for the settlement of the same and/or any litigation which may arise therefrom.

18.0 LIABILITY AGREEMENT:

Seller shall defend and hold Owner harmless from all claims and liability for injuries to and/or death of any and all persons and for loss of and/or damage of property caused in whole or in part by the negligence or willful acts of the Seller, arising under or by reasons of materials furnished hereunder including without limitation, the installation, erection, repair rectification, adjustment or operation of the materials covered by this order.

In addition, Seller, shall, if he elects to utilize materials, tools, equipment or facilities made available to Seller by Owner for use by the Seller and not to be incorporated in the work, as additional consideration thereof, defend and save Owner harmless from all claims and liability for injuries to, and/or death of any and all persons, and or loss of and/or damage to property resulting from or by reasons of the Seller's utilization thereof, whether or not caused partially or totally by the negligence of Owner employees, contractors, sub-contractor’s, agent or representative.

In any case where it is necessary for employees or representatives of Seller to go upon the premises of Owner, Seller agrees to assume full responsibility for the proper conduct of such employees/representatives while on the said premises and to comply with all applicable workmen’s Compensation Laws, other applicable government regulations and ordinances and all plant rules and regulations particularly in regard to safety precautions and fire hazards. If this order requires Seller to furnish labour at site, Seller shall furnish Owner with a certificate, or other evidence satisfactory of Owner indicating that such labour is adequately covered by Workmen’s compensation Insurance and Employer’s Liability Insurance with limits acceptable to Owner.

The Seller shall also procure and keep in force at his own cost comprehensive Automobile Liability Insurance for adequate coverage in respect of all his vehicle visiting or plying in project premises. The Seller shall also be responsible for compliance of existing laws in respect of their workmen and employees.

19.0 PRICES:

Unless otherwise specified in the order, the order price shall remain firm and will not be subject to any escalation of imposition, any description during the pendency of the order, notwithstanding the change in the cost of materials, labour and/or variations in taxes, duties and other levies on materials and components that may take place while the order is under execution, even if the execution of the order is delayed beyond the delivery period/completion date specified in the order for any reason whatsoever.

The price shall be:

a) Inclusive of adequate packing and forwarding charges for delivery terms on F.O.T. despatch point and freight whenever F.O.T. destination delivery terms are agreed to but exclusive of transit insurance.

b) Exclusive of applicable GST which is leviable by law on sales of finished goods to Owner. The nature and extent of such levies shall be shown separately.

Divisibility of Order

Unit prices and discounts, if any, shall be applicable for ordering without any stipulation of Minimum order value or on the basis of total order for items covered in the requisition.

20.0 TAXES, DUTIES, UNEMPLOYMENT BENEFITS, ETC.:

GST applicable at the destination on the finished goods alone will be payable by the Owner at actuals against documentary evidence to be furnished by the Seller. All other taxes, duties, levies and impost will be to the Seller's account.

The Seller accepts full and exclusive liability for the payment of any and all applicable taxes (CGST, SGST, IGST, UTGST), levies and statutory payments payable under all or any of the prevailing Central/ State statues.

The Seller shall comply with all the provisions of the GST Act/ Rules/ requirements like providing of tax invoices, payment of taxes to the authorities within the due dates, filing of returns within the due dates etc. to enable NALCO to take Input Tax Credit. The vendor shall also comply any modification in the prescribed rules by GST council/ appropriate authority from time to time during execution of the contract.

In case, NALCO is not able to take Input Tax Credit due to any noncompliance/ default/negligence of the seller, the same shall be recovered from the pending bills/dues (including security deposit, BG etc.).

Seller shall be responsible to indemnify NALCO for any loss, direct or implied, accrued to NALCO on account of supplier's failure to discharge his statutory liabilities like paying taxes on time, filing appropriate returns within the prescribed time etc

Seller shall adjust taxes, duties, cess or levies wherever required if the Owner furnishes exemption certificates even retrospectively.

Seller hereby accepts exclusively liability for and agrees to Indemnify Owner against liability for the payment of any and all contributions or taxes for unemployment insurance, old age pensions or annuities or other purposes prevalent under the present legislation or hereafter imposed by the Govt. of India/or by any unit or sub-division or authority thereof, which are in whole or in part measured by and/or based upon the wages, salaries or other remuneration paid to persons employed by Seller on work in connection with this order.

21.0 CONTROL REGULATIONS:

The supply, despatch and delivery of goods shall be arranged by the Seller in strict conformity with the statutory regulations including provisions of Industries (Development and Regulation) Act, 1951 and any amendment thereof as applicable from time to time. The Owner disowns any responsibility for any irregularity or contravention of any of the statutory regulations in manufacture or supply of his stores covered by this order.

22.0 TERMS OF PAYMENT:

The Owner will make payments, as they fall due, to the Seller directly for the goods and materials purchased or released under this order in accordance with the relevant terms of the order, on satisfaction that, the goods or materials furnished by the Seller and the invoices therefor, are in accordance with the payment terms and all other conditions of this Order. However, such payments will not be deemed to constitute acceptance of goods if the goods are later found to be defective.

Such delay in receiving invoices in the number of copies specified, (or errors and omissions) or failure or delay in providing the documents and/or certificates required in the order, or failure to comply with the provisions of owner Invoicing Instructions shall be considered just cause for withholding payment without loss of discount privilege, and any demurrage or wharfage resulting thereby shall be borne by Seller's invoices and documents shall be negotiated strictly in the manner specified in the order and all bank charges, if any, shall be to the Seller's account.

The time for payment of invoices or for accepting any discounts offered shall be only from the date of approval specified in the order or receipt of Seller's correct invoices whichever is later.

All costs, damages or expenses for which the Seller is liable under this order may be deducted from moneys, due or becoming due to the Seller or may be recovered by action at law or arbitration pursuant to Article 37.

Terms of payment shall be as follows, unless otherwise specified :

90% against despatch documents through Owner's bank. All bank charges will be to Seller's account.

10% balance within 30 days of receipt and acceptance of Equipment/Material at project site against a Performance Bank Guarantee as a security for the like amount from any Nationalized Bank valid till 30 months from the date of last receipt at site as per Owner's Standard Proforma on an appropriate value of Stamp Paper (in case of P.O. value upto Rs. Ten Lakhs) The Performance Bank Guarantee will be released after the expiry of the period of Performance Guarantee.

Necessary Contact cum Performance Bank Guarantee separately @ **10.00%** of P.O. value **along with applicable GST** as a security to be submitted within 30 days of TOI/Brief Order, in case P.O. value is more than Rupees Ten Lakhs. The Contract cum Performance Bank Guarantee will be released after the expiry of the period of Performance Guarantee.

Financial settlement of Seller's invoices is liable to be withheld/balance 10% payment shall not be released, unless the vendor furnishes prints/reproducibles of approved drawings as specified in vendor data requirement, data, full documentation, manual as called for in Purchase Order and a list of all the dispatches of material made against the Purchase Order.

A certificate to the effect that nothing is due to the Seller from Purchaser (No dues certificate/No claim Certificate) shall form part of the documents to be submitted while claiming last payment/final payment/or in case of full payment.

23.0 PRICE REDUCTION SCHEDULE FOR DELAYED DELIVERY:

The time and date of delivery of stores/materials/equipment as stipulated in the order shall be deemed to be the essence of the contract.

If any delay is anticipated by the Seller in the delivery of the material(s) beyond the stipulated date(s) of Delivery, the Seller shall forthwith inform NALCO in writing of such anticipated delay and of the steps being taken by the Seller to remove or reduce the anticipated delay, and shall promptly keep NALCO informed of all subsequent developments.

Unless and otherwise specified, in case of delays in completion of the order, the Owner will have the following rights:

(i) Should the Seller fail to complete the order on or before the completion data specified in order or any extension granted thereto in writing by Owner shall have the right to recover from the Seller 1/2% (half percent) of the order price of goods or materials not supplied and/or unfinished, per week or part week of delay thereof, subject to a maximum 5% (five percent) of the total order price, **along with applicable GST**. Such reduction of prices shall not relieve the Seller of his delivery obligations under the order, or any other rights of the Owner.

(ii) Cancel the order in part or full without any liability/cancellation charges and purchase such cancelled quantities from elsewhere on account and at the risk of

the Seller, without prejudice to its rights under (i) above in respect to goods delivered.

24.0 REJECTION, REMOVAL OF REJECTED GOODS & REPLACECMENT

In case the testing and inspection at any stage by Inspectors reveal that the equipment, materials and workmanship do not comply with specification and requirements, the same shall be removed by the Seller at his/its own expense and risk within the time allowed by the Owner. The Owner shall be at liberty to dispose of such rejected goods in such manner as he may think appropriate. In the event the Seller fails to remove the rejected goods within the period as aforesaid all expenses incurred by the Owner for such disposal shall be to the account of the Seller. The freight paid by the Owner, if any, on the inward journey of the rejected materials shall be reimbursed by the Seller to the Owner before the rejected materials are removed by the Seller.

25.0 STATUTORY REQUIREMENTS

Seller warrants that all goods and materials covered by this Order have been produced, supplied, sold, dispatched, delivered and furnished in strict compliance with all applicable laws, regulations, labour agreements, working conditions and technical codes and requirements as applicable from time to time. Seller shall execute and deliver such documents as may be required to affect or to evidence such compliance. All laws and regulations required to be incorporated in agreement of this character are hereby deemed to be incorporated by this reference. The Seller shall furnish the industrial license number or pertinent details to show whether he has a valid license to manufacture the subject machinery, equipment and materials ordered on them under Industries (Development & Regulations) Act or any other applicable statute or whether he is an authorized representative of a licenced manufacturer and has a valid license. Owner disowns any responsibility for any irregularity or contravention of any of the statutory regulations in the manufacture or supply of goods covered by this order.

The Seller shall ensure compliance with the above by all his sub-vendors/suppliers and shall indemnify Owner or its authorized representative against any actions, damages, costs and expenses of any failure to comply of aforesaid.

26.0 TRANSIT RISK INSURANCE:

Covers for finished goods from Seller's works upto the time of delivery at the storage yard/warehouse of Owner shall be furnished by the Owner. The Seller shall furnish immediately on booking each consignment all information required to arrange transit risk insurance. This shall in no way relieve the Seller of his responsibility to provide proper packing and protection as stated elsewhere in this order. The Seller shall also furnish the despatch particulars to underwriters and Owner immediately.

27.0 PACKING, CRATING, MARKING, FORWARDING, CARTAGE/SHIPMENT:

The cost of all special Packing, boxing, marking, crating or cartage is included in the price specified on the face of this order unless otherwise specifically agreed to in this order.

All packing, boxing, crating, marking, forwarding and cartage/shipment shall conform to the specifications or requirements detailed in the respective attachment to the Order. The Seller shall be held liable for damage or breakage of the goods due to defective or insufficient packing or protection. The Seller shall not charge anything extra for such packing or any dues or levies on packing or protection.

28.0 NON-CONFORMANCE:

Owner reserve the right to claim damages for use of defective or sub-standard goods supplies by the Seller irrespective of the fact whether goods were inspected by Owner or its authorized representative or not and without prejudice to rights of Owner for any other action.

29.0 NON ASSIGNMENT:

The Seller shall act as an independent agency and not as an agent or employee of Owner and the Seller shall not assign or sub-contract this order any part thereof or any money to become due hereunder, without the prior written consent of owner/authorized representative.

Any such permitted assignment or sub-contracting shall not relieve the Seller of any of his obligation against this order. The Seller shall be bound to execute the contract notwithstanding any change in Seller's constitution. In the event of any change in the constitution of the Seller, the contract will be liable to be terminated by the Owner.

30.0 NON-WAIVER:

Failure of the Owner or its authorized representatives to insist upon strict performance of any of the terms and conditions incorporated in the Order, failure or delayed to exercise of any rights detailed here failure to properly notify the Seller in the event of breach of any obligations contained herein, shall not constitute a waiver of any other obligation contained herein. Any waiver to be effective must be in writing.

31.0 RECOVERY OF SUMS DUE:

Whenever any claim against the Seller for payment of sum of money arises out of or under the contract the Owner shall be entitled to recover sums from any sum then due or which at any time thereafter may become due from the Seller under this or any other contract with the Owner and should this sum be not sufficient to cover the recoverable amount, the Seller shall pay to the Owner on demand the balance remaining due.

If any details shown on the drawings are omitted form the specifications or vice-versa, the Seller shall notwithstanding such omissions, supply in accordance with such details and shall be deemed to have included the cost for such work in the price.

The Seller shall treat as confidential all information (whether written or otherwise supplies by Owner hereunder and shall use his best endeavors to ensure that such information is not divulged to any third party except where necessary for the purpose of performance of this order by the Seller, of course, with the consent of Owner. In such cases, Seller shall ensure that third parties in question undertake a similar obligation of

confidence. This obligation does not apply to information, which at the time of disclosure is the public domain or is in the Seller's lawful possession without restriction on disclosure.

The Seller shall be required to sign a secrecy agreement for certain proprietary items of equipment which will be specified by Owner later.

32.0 PART ORDER, REPEAT ORDER:

Seller hereby agrees to accept part order at Owner's option without any limitation whatsoever and also agrees to accept repeat order(s) during a period of twelve months from the date of original Purchase Order on same unit prices, terms & conditions as that of the original purchase order.

33.0 TECHNICAL INFORMATION:

Drawing, specifications and details shall be the property of the Owner and shall be returned by the Seller on demand. The Seller shall not make use of drawings and specification for any purpose at any time save and except for the purpose of the Owner.

The Seller shall not disclose the technical information furnished to or gained by the Seller under or by virtue of or as a result of the implementation of the Purchase Order to any person, firm or body or corporate authority and shall make all endeavors to ensure that the technical information is kept CONFIDENTIAL. The technical information imparted and supplied to the Seller by Owner shall at all times remain the absolute property of the Owner.

34.0 HEADINGS:

The headings of the conditions hereof shall not effect construction thereof.

35.0 MATERIALS FURNISHED BY OWNER:

If specifically agreed to in the Order, Owner shall furnish to the Seller such materials/equipment (hereinafter called Owner's materials) as agreed for incorporation into the manufacture, fabrication, testing or processing of the goods or materials subject to availability.

Owner's materials shall be consigned on "freight paid basis" to the nearest Railway point to Seller's works to which railway will accept the consignment depending upon the nature of the consignment (whether wagon load/small). Seller shall arrange to promptly collect such materials from the Railways and transport to his works at Seller own cost. Any duty, ~~octroi~~ or local taxes levied by the local bodies at the Seller's end will be to the account of the Seller.

Seller shall arrange to properly store and provide adequate security and protection to Owner's materials. Seller shall be solely responsible for the safe keeping of such materials and shall indemnify Owner against any loss or damage due to misuse or misappropriation whatsoever of Owner's materials while in the possession of the Seller

or his sub-suppliers. The property in such goods shall always remain with the Owner and the title in such goods will not pass to the Seller's.

The Seller shall arrange to provide at his own cost and experience the necessary insurance cover against all risks for owner's materials.

Seller shall, if required by Owner, furnish a Bank Guarantee/Insurance Bond equal to the total value of free issue materials and such guarantees shall remain valid till the material accounting towards satisfactory utilization and the return surplus free issue materials are completed.

The Seller shall maintain systematic records of receipt and issue of Owner's materials and shall be accountable at all times to Owner regarding the utilization thereof.

Unused surplus materials or scrap from material supplied by the Owner to the Seller shall be returned by the Seller to the Owner or if the Owner so directs the Seller may dispose of the same by sale or otherwise on such terms and conditions as the Owner may stipulate and the Seller shall pay to the Owner the sale proceeds of the material so disposed off by the sale deducting therefrom expenses incurred by the Seller on such sale, the quantum of such deduction to be mutually agreed upon in advance between the Owner and the Seller.

For such of Owner's materials which the Seller can not return within a reasonable time (not exceeding 2 months from the date of last despatch of equipments ordered) nor account for as legitimately utilized, the Seller shall be liable to pay to the Owner the expenses incurred by Owner in procuring, expediting, inspection, testing, packing, shipping handling, incurring payment of duties and taxes and financing of purchases as notified by Owner regardless of the issue price to Seller, if any, agreed to on the Order.

36.0 ORDER OF PRECEDENCE:

In case of any difference between these conditions of order and special conditions, if any, referred to or incorporated in a particular order, the latter shall prevail.

37.0 ARBITRATION:

All the disputes and differences arising under the contract whether during or after completion of the contract or whether before or after determination, foreclosure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to appointing authority hereinafter mentioned be referred for adjudication to a sole arbitrator to be appointed as hereinafter provided.

For the purpose of appointing the sole Arbitrator referred to above, CMD NALCO who shall be appointing authority will send within thirty days of receipt of the notice, to the Seller a panel of three names of persons.

The Seller shall on receipt of the names as referred select any one of the person names to be appointed as a sole Arbitrator and communicate his name to the Appointing

Authority within thirty days of receipt of the names. The Appointing Authority shall thereupon appoint the said person as the Sole Arbitrator. If the Seller fails to communicate such selection as provided above within the period specified, the Appointing Authority shall make the selection and appoint the selected person as the sole Arbitrator.

If Arbitrator so appointed is unable to/unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever, arbitrator shall be appointed as aforesaid. The work under the contract shall not be stopped during the arbitration proceedings.

The Arbitrator shall normally be deemed to have entered on the reference on the date he issues notices to both the parties fixing the date of the first hearing.

The Arbitrator may, from time to time, with the consent of the parties, enlarge the time for making and publishing the award.

The Arbitrator shall give a separate award in respect of each dispute or difference and shall give a reasoned and speaking award/awards.

The venue of arbitration shall be at Bhubaneswar. However, if the situation so warrants, at marginally & when required be held at the place where the site of work is situated.

The fees, if any, of the Arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The costs of the reference and of the award including the fees, if any, of the Arbitrator shall be in the discretion of the arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid and may fix or settle the amount of costs to be so paid.

The award of the Arbitrator shall be final and binding on both the parties.

Subject as aforesaid the provisions of the Arbitrator and Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made thereunder and for the time being in force shall apply to the Arbitrator proceedings under this clause.

For Public Sector Enterprises guidelines as per circular of BPE No. 15.09.86 – BPE (fin) dtd. 30.03.89 as amended from time to time will be applicable for resolving any dispute.

38.0 GOVERNING LAW AND JURISDICTION:

All actions at law or suits arising out of or in connection with this order or the subject matter thereof and whether as to construction or otherwise shall be instituted in a court of competent jurisdiction in the State of Orissa.

39.0 TRANSFER OF PROPERTY:

In the absence of any provision to the contrary, transfer of property in the goods shall be deemed to have taken place as follows:

(i) F.O.R. or F.O.T. Despatch Point

On handling over the goods to the authorized carrier against a receipt and such receipt having been received by Owner.

(ii) F.O.R. destination station : On taking delivery from the Railway at the Destination Station.

(iii) Equipment sent freight paid : On arrival under lifting hook at the to the 5TH STREAM ALUMINA job site.
REFINERY EXPANSION
PROJECT SITE
On temporary acceptance by Owner at job site.

Transfer of property in the Goods shall be without prejudice to any guarantee or liability of the Seller as to the quality suitability or performance of the Goods.

40.0 PUBLICITY AND ADVERTISING:

Seller shall not without the written permission of Owner or any Company affiliated with Owner or to the destination or the description of the goods or services supplied to the Owner in any publication, publicity or advertising media.

41.0 VENDOR DATA REQUIREMENTS:

The submission by the Seller to Owner of drawings and data documentation is an integral part of the Order. The number of copies (reproducibles and Prints) and time limits for submitting these documents by the Seller are specified on the Order. These requirements must be respected failing which the order will not be deemed to have been duly executed for all purpose.

INSTRUCTIONS TO BIDDERS (ITB)

PROJECT: ALUMINA 5TH STREAM REFINERY

OWNER / PURCHASER: National Aluminium Company Ltd. (NALCO)

CONSULTANT: thyssenkrupp Uhde India Private Limited
(Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.)
(tkUIPL-India)

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RFQ (MR) Number: 6695-PPM-G00-EC-0183
Date: 05.05.2025
For: Primary Supports
Due Date for Submission of Bids: On or Before 27.05.2025 at 15.00 Hours IST
Date of Opening of Technical-Unpriced Bids: 28.05.2025 at 16.00 Hours IST
Address for submission of Bids: Please refer the details mentioned elsewhere in this document.
Mode of Submission of Bids – Please refer the details mentioned elsewhere in this document.
Required Delivery Period: Within 4 (Four) Months (progressively in lots) on FOT Despatch Point Basis from the date of issue of M/s. NALCO's Brief Order of Acceptance (BOA) or LOA or FOA (whichever is earlier).
Mode of Submission of Bids applicable for this RFQ: Bidder shall submit the Bids through the CPP Portal only as per Clause No. 3.4 of this document (ITB). The Bidder should adhere to the enclosed Annexure-Q –Instructions to this document (ITB), for submission of E-Tendering.
Payment Terms applicable for this RFQ: Please Refer Clause No. 2 of Special Purchase Conditions.
***Important Note: As soon as the Bidder uploads their Bids in the CPP Portal, they should send a snapshot of the CPP Acknowledgement by email to Consultant at the mail IDs mentioned elsewhere in this RFQ(MR) / Bidding Document.**

INSTRUCTIONS TO BIDDERS (ITB)

1. INTRODUCTION

1.1. M/s National Aluminium Company Limited (Nalco) having its Corporate Office at Bhubaneswar, Odisha is a premier Public Sector Undertaking and a Navaratna Company, under the administrative control of Ministry of Mines, Government of India owns and operates a large integrated Mines-Alumina-Aluminium complex in India.

As a part of its growth plan Nalco is planning to set up one more Stream (5th Stream) in its Alumina Refinery at Damanjodi. The stream capacity would be 1.0 MTPA.

At port facilities, Visakhapatnam one Alumina silo of capacity 25000 MT and one Caustic Soda tank of capacity 5000 MT shall be constructed for export of Alumina and import of caustic soda liquor respectively.

1.2. Nalco (i.e. the Owner) has appointed thyssenkrupp Uhde India Private Limited (Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.) (tkUIPL-India) as their EPCM Consultant & PMC for LSTK Packages (hereafter referred to as Consultant or tkUIPL India). The technology for the Alumina refinery expansion is being provided by M/s RTAIL (Rio-Tinto Alcan Limited).

1.3. thyssenkrupp Uhde India Private Limited (Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.) (i.e. the Consultant) on behalf of National Aluminium Company Ltd. (Nalco) invites bids against the above RFQ. These Instructions to Bidders (ITB) are being issued by thyssenkrupp Uhde India Private Limited (Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.), for and on behalf of M/s. National Aluminium Company Ltd (Nalco) i.e. the Owner. These ITB, the documents listed therein and the technical specifications enclosed are a part of the above referred RFQ, and may become a part of any Purchase Order that might result from submission of a Bid in response to this RFQ. All Purchase Orders will be issued by Nalco and all payments will be made only by Nalco.

1.4. The issue of the RFQ and these documents shall not automatically create any relationship, contractual or otherwise, between Nalco / tkUIPL India and the Bidder. Nalco / tkUIPL India shall not be liable for any costs and expenses incurred by the Bidder in the preparation and submission of a Bid.

1.5. ~~Bidders shall submit the bid directly and in their own name without involving any intermediaries~~.

1.6. The Bidder shall carefully study the provisions contained in the RFQ and specifications and quote his prices accordingly. The RFQ together with all its attachments thereto including these ITB shall be considered to be read, understood and accepted by the Bidder, unless deviations are specifically stated separately by the Bidder in the format provided in the bid document. Failure to furnish all information required by the RFQ or submission of a Bid not substantially responsive to the RFQs in every respect will be at Bidder's risk and may result in the rejection of the Bid. Bidder shall submit their bid as per technical-specifications and terms and conditions of this RFQ.

1.7. The Bidder shall bear all costs associated with the preparation and delivery of its bid including (but not limited to) costs and expenses related to visits to the site(s) and other locations, and the cost of any tests, investigations, evaluations and consultations. The Owner (Nalco) / Consultant (thyssenkrupp Uhde India Private Limited (Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.)) shall in no case be responsible or liable for any costs regardless of the outcome of the bidding process.

1.8. The following documents form a part of the RFQ:

1.8.1. These ITB (along with the enclosures listed therein)
1.8.2. The Special Purchase Conditions (SPC) (along with the enclosures listed therein)

1.8.3. General Purchase Conditions (GPC) of Nalco:
(i) General Purchase Conditions (Indigenous)

1.8.4. Technical Specifications (along with the enclosures listed therein)

1.8.5. Vendor Co-ordination Procedure

1.8.6. Price Schedule Formats

2. AMENDMENT TO RFQ:

2.1. At any time prior to the deadline for submission of bids as well as up to priced bid opening, the Owner / Consultant may, for any reason whether at its own initiative or in response to a clarification or modification requested by any prospective Bidder(s), modify the RFQ by way of an Addendum/Amendment.

2.2. Any Addendum / Amendment thus issued shall be part of the RFQ and shall be binding on all Bidders.

2.3. The Bidders will be required to acknowledge receipt of any such Amendment/Addendum to the RFQ. Bidders shall confirm the inclusion of Amendment/Addendum in their bid and shall follow the instructions issued along with the Amendment/ Addendum. Failure of the Bidder to submit Bid without taking cognizance of Amendment / Addendum issued by Owner / Consultant shall render the Bid liable for rejection.

2.4. Bidders shall examine all the RFQ documents thoroughly and inform the Owner / Consultant of any apparent conflict, discrepancy or error, so that the Owner / Consultant may issue appropriate clarification(s) or amendment(s), if required.

2.5. The Owner / Consultant may, at its discretion, extend the date of submission of Bids in order to allow the bidders a reasonable time to furnish their most competitive bid taking into account the amendments issued.

3. PREPARATION / SUBMISSION OF THE BIDS

3.1. The bidder is required to make a proposal in a format as outlined below in order to achieve the objective of maintaining a uniform proposal structure from all bidders. The bids shall be submitted strictly as per these instructions.

3.2. Under Conventional Mode of Bid Submission as per the RFQ instructions, the Bid shall be submitted in two parts as under**: (NOTE: CONVENTIONAL MODE OF BID SUBMISSION IS NOT APPLICABLE TO THIS RFQ)**. Bidder to refer Clause number 3.4 below for the mode of Bid Submission.

PART – 1 Techno-commercial and Unpriced Bid (in a separate sealed envelope)
PART – 2 Priced Bid in separate sealed envelope

3.2.1. Techno-commercial and Unpriced Bid (PART-1) will contain the following documents in 1 (one) original and 3 (Three) copies (4 sets in all). Bidder shall also submit one soft copy of

the Techno Commercial Unpriced Bid (in CD) along with the techno commercial unpriced bid.

(i) Format of "Agreed Terms & Conditions (ATC)", duly filled in, signed and stamped by the Bidder.

(ii) **Integrity Pact as per the enclosed format**, duly filled in, signed and stamped by the Bidder.

~~(iii) Earnest Money Deposit (EMD) is not Applicable to this RFQ.~~

(iv) Unpriced copy of the Price Schedule Format duly marked as "Quoted "in all the line items of the Price Schedule Format (PSF), and duly signed and stamped by the Bidder.

(v) Schedule of Unavoidable Deviations, if any, to this RFQ, as per the format enclosed with this document.

(vi) Any Annexures enclosed with these documents which are required to be filled in by the Bidder and enclosed with the techno-commercial and unpriced bid, as per the RFQ instructions.

(vii) The Guidelines for Bidder's sharing the land border with India are enclosed with this RFQ. Bidder should submit the Declaration (as per the enclosed format) along with their techno-commercial unpriced Bid.

(viii) Any other document which are required to be filled in by the Bidder or required to be submitted by the Bidder, and enclosed with the techno-commercial and unpriced bid, as per the technical specifications enclosed with this RFQ (e.g.: Technical Questionnaire etc.)

3.2.2. PART -2 Priced Bid shall consist of:

(i) All Price Schedule Formats enclosed with this RFQ, duly filled in, signed and stamped by the Bidder. Price bid shall be submitted in the "CPP PORTAL ONLY" as per the BOQ format enclosed with the RFQ

This part shall not contain any condition whatsoever failing which the Bids shall be liable to be rejected.

No stipulation, deviation, terms & conditions, presumption, basis etc. shall be stipulated in Price Part of the bid. Any condition if stipulated shall be treated as null and void and shall render the bid liable for rejection.

~~The priced Bid shall be submitted in original plus one copy in a separate sealed envelope, duly signed and stamped on each page, superscripting on the envelope "**PRICE BID – DO NOT OPEN**" In case of any correction, the Bidder shall neatly strike through the original figure and write the corrected figure and put its signature and stamp. Correction fluid/ Eraser fluid is not allowed for making any correction.~~

~~3.3. Both the sealed envelope containing the techno-commercial unpriced bid and the sealed envelope containing the priced bid shall be further put in another sealed envelope duly super scribed with RFQ No. reference and name of the Project, to be delivered in a sealed envelope with the cut-out slip duly pasted on it. (NOT APPLICABLE TO THIS RFQ)~~

~~The Bidder shall submit his Bid at the following address:~~

~~thyssenkrupp Uhde India Private Limited (Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.).,~~

~~Uhde House, LBS Marg, Vikhroli West, Mumbai – 400 083, India~~

~~Attn: Ms. Reema Godbole – Procurement Department~~

~~Tel: +91 22 4047 8064~~

~~The bidder shall mention the following in Bold on both the Priced Bid Envelope and the Unpriced Bid Envelope:~~

~~"NALCO 5TH STREAM REFINERY EXPANSION PROJECT~~

~~RFQ (MR) NUMBER:~~

~~FOR:~~

~~The Bidder shall also mention on the envelopes whether it is the Techno-Commercial Unpriced Bid or the Priced Bid.~~

~~In the case of the envelope containing the Priced Bid, the Bidder should mention in Bold "Sealed Priced Bid".~~

3.4. **However, in the case of E-Tendering, i.e. where the Bids have to be submitted through the CPP Portal as per the instructions of the RFQ, then the bids shall be submitted as under:**
The Bidder should submit the Bids in Part-1 & Part-2 as mentioned below, in the CPP Portal, within the stipulated Bid Submission due date & time. **E-Tendering is applicable to this RFQ.**

3.4.1. **The bidder is required to submit digitally signed bids. The Bidder shall submit his Bid along with all documents in the CPP Portal. The Bidder shall also separately submit certain documents** ~~including EMD Bank Guarantee in Original – wherever RFQ stipulates for submission of EMD, (or Proof of Payment of EMD if EMD amount is paid by way of RTGS/NEFT to Nalco's Bank Account),~~ **Integrity Pact (in original) – if Integrity Pact is stipulated in the RFQ, to NALCO within three days from the stipulated due date and time for submission of Bids. The documents shall be submitted at the following address**:

National Aluminium Company Limited (NALCO Corporate Office, Bhubaneswar),
Nalco Bhavan, P/1, Nayapalli, Bhubaneswar – 751013, Odisha, India
Attn: Mr. Awadhesh Gupta / Mr. Ranjeet Kumar, SM (Materials)
Contact No.: +91 0674-2300013 / 2300976 / 2301550.

The Bidder should also adhere to the enclosed Annexure-Q -Instructions to for submission of E-Tendering

The RFQ also includes the Price Schedule Formats. The priced Bid in the Excel BOQ corresponding to the price schedule formats shall be uploaded (submitted) only on the CPP Portal.

Bidder should also ensure to submit the various documents mentioned in Clause Number 3.2.1 (Sr No. i to viii) along with their techno-commercial unpriced Bid, in the CPP Portal.

3.4.2. ~~However, the guaranteed utility consumption figures to be quoted by the Bidder as per the RFQ instructions. Hence, the Price Schedule Format for the Guaranteed Utility Consumption Figures should be submitted ONLY in Hard Copy in a separate sealed envelope at the office of the NALCO HO (Bhubaneswar) above on or before the due date and time of bid submission. The Sealed Envelope containing the duly stamped and signed Price Schedule Format of the Guaranteed Utility Consumption Figures shall be superscripted with the RFQ~~

~~Number and the words "Priced Schedule Format for Guaranteed Utility Consumption Figures - DO NOT OPEN) ". Bidder should NOT upload or submit this particular PSF on the CPP Portal~~**. (Not Applicable to this RFQ)**

3.4.3. ~~Similarly, Bidder should submit the Price Schedule Format for One Year Operation and Maintenance Spares on or before the due date and time of bid submission ONLY in Hard Copy in a sealed envelope at the above address. Bidder should Not upload this PSF in the CPP Portal~~ **(Not Applicable to this RFQ)**

3.5. The bidder shall fill in their prices only in the Price Schedule Format attached to the RFQ. Price submitted in any other schedule or in any other form shall be liable for rejection.

3.6. The offer must be complete in all respects, leaving no scope for ambiguity. Bidder is fully responsible for the bid submitted and no relief or consideration can be given for errors and omissions.

3.7. Deviations to terms and conditions, presumptions etc. shall NOT be stipulated in the Price part of bid and the price bids shall also not contain any stapled slips. In case any conditions or deviations are stipulated in price bids or the price bid containing any stapled slips, the bids of such bidders shall be summarily rejected and shall not be considered for further evaluation.

3.8. Bidders must ensure submission of prices without any erasures or corrections. Use of correction fluid for correcting the rates is banned. Wherever rates are corrected with correction /erasing fluid and bids are invited on overall basis then those bids shall be rejected. However, if the bids are invited on line item basis and if the correction is done on a particular line item, then that line item will be rejected.

3.9. Cutting and corrections in the bid document should be avoided and if it is unavoidable, it should be kept at the bare minimum and it should be neatly cut and re-written without over- writing and use of erasing/correction fluid. All corrections should be duly signed by the bidder.

3.10. Nalco reserves the right to accept or reject the offer either in part or full wherever correction /erasing fluid is used.

4. PERIOD OF VALIDITY OF BIDS

4.1. **Bids shall remain valid for Four (04) months from the due date or extended due date (if any) for submission of Bid (BDD).**

~~4.2. However, in the case of Package Units involving supply, erection, testing & commissioning at site, the Bids shall remain for six (06) months from the due date or extended due date (if any) for submission of Bid.~~

4.3. In case any bidder offers shorter validity than required in RFQ and seeks to revise prices on being asked to meet validity requirement as per RFQ, the offer of such shall be rejected**.**

5. LATE BIDS/ UNSOLICITED BIDS / BID SUBMISSION AT OTHER PLACE

5.1. Any bid received by Nalco /tkUIPL India after the deadline for submission of the bids (including any extension(s) hereof) will be declared “Late” and rejected.

5.2. Unsolicited bids will not be considered for opening / evaluation / award. Bids being submitted to address other than one specifically stipulated in the RFQ will not be considered for opening / evaluation / award unless otherwise specifically permitted by in writing by Nalco or tkUIPL India.

5.3. Following Bids are called unsolicited Bids:

5.3.1. Bids received from parties to whom RFQ has not been sent or addressed to, except those to whom the RFQ has been forwarded by the addressee to quote on their behalf.

5.3.2. Suo motto revised bids submitted by bidders after opening of bids in case of single part tender. This applies to both techno-commercial and price bids in case of two-part bidding.

5.3.3. Suo motto revised bids submitted by bidders after opening of techno-commercial bids in case of two parts tender.

5.3.4. Un-called for tenders/offers submitted by bidders after negotiation.

6. LANGUAGE OF BID

6.1. The Bid prepared by the bidder, all correspondence/drawings and documents relating to the bid exchanged by the bidder with the Owner/Consultant shall be in English Language alone. Any printed literature furnished by the bidder may be written in another language provided that this literature is accompanied by an authenticated English translation, in which case, for purpose of interpreting the Bid, the English translation shall govern.

6.2. In the event of submission of any document/ certificate by the Bidder in a language other than English, the English translation of the same duly authenticated by Chamber of Commerce of Bidder's country shall be submitted by the Bidder.

~~7. EARNEST MONEY DEPOSIT (NOT APPLICABLE TO THIS RFQ)~~

~~7.1. Wherever submission of EMD is stipulated in any RFQ, then the following conditions shall apply for submission of EMD:~~

~~7.1.1. The Bidder shall submit the Earnest Money for the amount as stipulated in the RFQ. The EMD may be submitted in the form of a Bank Guarantee, and if the EMD is submitted by way of a Bank Guarantee, then the EMD Bank Guarantee shall be in the Format enclosed with the RFQ and from any NALCO's Approved Bank listed in the RFQ. The EMD Bank Guarantee shall be valid for a period of eight months from the due date of submission of Bid. The Bidder shall submit the EMD Bank Guarantee along with his Techno Commercial / Unpriced Bid. The offers received without EMD will be rejected.~~

~~7.1.2. Foreign bidder may submit EMD in form of Bank Guarantee in any one of the foreign currencies i.e. USD/ GBP/ EURO / JPY equivalent to the INR value of EMD. The value of Foreign Currency shall be calculated based on RBI reference exchange rate published by FBIL (Financial Bench Marks India Pvt Ltd) on the floating date of the Bidding Document~~

~~7.1.3. A letter from the bank issuing the EMD BG, that this is a confirmed BG and that it holds validity till the dates stipulated in the BG should also be submitted. The following Note must also be adhered to~~

~~Note:~~

Further, any domestic Guarantee issued by PSU Bank (or) Private Bank (or) Foreign Bank operatingin in India must be operational and invocable in Bhubaneswar only. For Guarantee to be operational in Bhubaneswar, the issuing Bank must designate a specified Bank Branch in Bhubaneswar. Accordingly, the following clause has to be inserted in the existing BG Format for EMD / SD / Contract / Advance Payment in the following style :

"We _____ Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch Name and address of the Branch), Bhubaneswar, Odisha 751xxx"

In the case of Foreign currency BGs, the BG issuing Bank must have correspondent relationship with State Bank of India.

7.2. However, payment in RTGS/NEFT mode directly to NALCO account shall also be acceptable. The bank details for payment of EMD in RTGS/NEFT mode is given below:

SBI ACCOUNT NO. - 10044880013
SBI BRANCH CODE - 09817
SBI IFSC CODE - SBIN0009817

If payment of the EMD amount is made by RTGS/NEFT, then proof of such payment shall be enclosed with the Techno-Commercial Unpriced Bid.

7.3. The Public Sectors, Government agencies and the Firms registered with DGS&D/NSIC /District Industries Centres (DICs) / Khadi & Village Industries Commission(KVIC)/ Khadi & Village Industries Board (KVIB)/Coir Board/ Directorate of Handicrafts and Handloom or any other body specified by Ministry of Micro, Small & Medium Enterprises (for the product for which they are registered), others for which specific exemption has been granted by NALCO such as Ancillary Industries etc. and all start-ups recognized by Department of Policy and Promotion (DIPP), Ministry of Commerce and Industry, Govt. of India are exempted from payment of EMD, subject to submission of documentary evidence for waiver of entitling them to such exemption. The Bidder shall submit such documentary evidence along with his Techno-Commercial / Unpriced Bid.

7.4. The EMD will be returned to all unsuccessful bidders within one week after finalization of the Contract. The EMD of the successful bidder will be returned after they accept the Contract and submit the Contract performance bank guarantee (in case the PBG is to be submitted as per the RFQ terms).

7.5. EMD of the successful bidder shall be retained if the bidder fails to deposit the requisite CPBG. In such a case, the differential amount towards SD/CPBG and EMD may be deducted from the bills of the Vendor, which amount may be released after receipt of the SD/CPBG. Moreover, in case of nonfulfillment of the Order, the EMD shall stand forfeited.

8. SPARES (Not Applicable for this RFQ(MR))

8.1. Prices of all Mandatory Spares, all Commissioning Spares and all Special tools and Tackles, as specified in the RFQ, shall be included by the Bidder in their quoted FOB/ FOT Despatch Point / FCA International Airport of Exit Prices.

8.2. The FOB / FOT Despatch point / FCA prices quoted by the Bidder shall be inclusive of the cost of Mandatory Spares. The list of Mandatory Spares required to be supplied by the Vendor for the above equipment are to be mentioned in the enclosed Price Schedule Format. The BOQ in the Price Schedule Format is a Price Break up of the Mandatory Spares included by the Bidder in the FOT Despatch point price of the above equipment. The Bidder shall mention the unit rate for these Mandatory spares in the enclosed BOQ on FOB / FOT Despatch Point Prices. Nalco may, at their

discretion, avail the EPCG benefit for Mandatory Spares. The Bidder should submit the above BOQ electronically as mentioned in Clause 3.4.3 above.

8.3. The FOB / FOT Despatch point / FCA prices quoted by the Bidder shall be inclusive of the cost of Commissioning Spares and all Special Tools & Tackles. However, in the Price Schedule Format, the Bidder shall also furnish the list of Commissioning Spares and all Special Tools & Tackles along with the quantity but without mentioning the unit rates of Commissioning Spares and all Special Tools & Tackles which they have included in their quoted FOB/FCA/ FOT Despatch Point Prices. However, the Bidder shall be fully responsible and no additional cost shall be paid by Nalco in case commissioning spares/ special tools & tackles over & above those quoted by Bidder are required. In RFQs where the bids have to submitted by the bidders in hard copy, the above mentioned list of Commissioning Spares with quantity shall be furnished by the Bidders along with their Priced Bid itself. However, in RFQs where the Bidders have to submit their Bids through the CPP Portal, the Bidders should submit the above mentioned list of Commissioning Spares and all Special Tools & Tackles with quantity electronically as mentioned in Clause 3.4.3 above.

8.4. Bidders are requested to also quote the item wise unit rates for their recommended one year operation and maintenance spares. These unit rates shall be all inclusive as delivered at Nalco Site / VizagPort (as applicable) excluding GST. These unit rates will not be considered for price bid evaluation. These unit rates shall remain valid for a period of year from the due date (or extended due date, as the case may be) of opening of the technical unpriced bid. However, in RFQs where the Bidders have to submit their Bids through the CPP Portal, the Bidders should submit the above mentioned list of one-year O&M Spares with unit rates, electronically as mentioned in Clause 3.4.3 above.

9. BID OPENING

9.1. In the case of Bidding by conventional mode as per the RFQ, (i.e. offer submission in physical mode), the OWNER/CONSULTANT will open the Techno-Commercial Unpriced Bids at the Consultant's office, in the presence of Bidder's representative(s) who choose to attend and are present, duly authorized to attend such opening by a person competent and having the Power of Attorney to bind the Bidder. The Bidder's representative(s) who choose to attend and are present shall sign an attendance sheet evidencing their attendance. **(NOT APPLICABLE TO THIS RFQ**)

9.2. **In the case of submission of bids through e-tendering mode as per the RFQ, the Bids have to be submitted on e-mode as per the respective RFQ instructions. The techno-commercial unpriced bids shall be opened as per Owner's e-tendering procedure in Owner's office in the CPP Portal. Bidders may witness the same on CPP portal at their respective places.**

9.3. Price part of only those bidders, whose bids are considered techno-commercially acceptable, shall be opened. Bidders selected for opening of their price bids shall be informed about the date of price bid opening. The Price Bid opening shall be done on e-tender portal or by conventional mode, as applicable, as per the procedure mentioned above. The date and time for opening of price bids will be separately intimated by the Owner or Consultant.

10. PART ORDER

10.1. Owner reserves the right to place Part Order where there is more than one-line item in a RFQ.

10.2. Any charges quoted extra as lump sum or in percentage terms (such as freight, etc.) shall be applicable pro-rata on value basis in the event of part order.

11. FIRM PRICES

Prices quoted in the Bid shall remain Firm and Fixed and valid until contractual delivery / contractual completion period. ~~except in the specific cases where Price Variation Clause with Price Variation Formula has been incorporated in the RFQ.~~

12. CHARGES FOR INSPECTION AND TESTING

12.1. The quoted prices shall be inclusive of charges for all inspection and all testing as the requirements of the RFQ. However, for inspection and testing to be done by Nalco / tkUIPL India (for indigenous items), the travel, lodging, boarding, insurance and local conveyance expenses of Nalco / tkUIPL India's personnel shall be borne by Nalco / tkUIPL India respectively.

12.2. Wherever inspection and /or testing is carried out by a Third Party Inspection Agency (TPIA) (For Imported items) approved by Nalco, as per the RFQ, the bidders' quoted price shall be inclusive of the charges of the Third Party Inspection Agency, in addition to all inspection and testing charges as per the RFQ. The list of Third Party Inspection Agencies approved by NALCO are as under:

Lloyds Register
Bureau Veritas
DNV
TUV India Private Limited / TUV Nord / TUV Sud / TUV Rheinland.

Vendor may select any of the above mentioned NALCO approved TPI Agencies to carry out the inspection and testing.

The TPIA charges shall be paid by Vendor directly to the TPI Agency. Bidder's quoted prices shall be inclusive of TPI charges and the charges for all inspection and all testing requirements specified in the RFQ.

12.3. In case of IBR requirements, the Bidders' quoted prices Must be inclusive of IBR inspection charges.

When IBR requirement is specified in the RFQ for Overseas (foreign vendors), the overseas (foreign) vendor shall use only IBR (Indian Boiler Regulation Authority) nominated agencies abroad for getting the IBR certification.

12.4. In case any bidder quotes extra for TPI charges or charges for all inspection and testing specified in the RFQ, his offer is liable to be rejected.

13. CURRENCIES OF BID

13.1. Indian Bidders shall quote only in Indian Rupees. Price variation due to variation in Foreign Exchange Rate / variation in Rate of Customs duty shall be to the Bidder's account only, and not to Nalco's account.

14. INTEGRITY PACT

Integrity Pact is as per the RFQ, Bidder is required to submit the Integrity Agreement in the format enclosed with the RFQ, duly signed and stamped along with the unpriced offer. Non-Submission of Integrity Pact may lead to rejection of the Bid.

15. OWNER'S RIGHT TO ACCEPT / REJECT ANY BID

The Owner/Consultant reserves the right to accept or reject any bid or to annul the bidding process or reject any/and or all bids at any time prior to award of the Order, without thereby incurring any liability to the affected bidder or bidders or any obligations to inform the affected bidder or bidders of the ground for Owner/Consultant's action.

16. EXECUTION OF NON-DISCLOSURE AGREEMENT (IF APPLICABLE)

In case NDA is applicable to any RFQ, the Bidder shall be required to submit the Non-Disclosure Agreement (NDA) as per the format enclosed with the RFQ. Non submission of NDA /Refusal to sign NDA shall make the offer as non-responsive and such offer shall not be further evaluated.

NDA is NOT APPLICABLE TO THIS RFQ.

17. ONE BID PER BIDDER

A Bidder shall submit only one bid in the same bidding process. A Bidder who submits or participates in more than one bid in a specific RFQ will cause all the proposals in which the bidder has participated to be disqualified. Alternative price bids are not acceptable.

18. HOLIDAY LISTING

If any vendor is on the holiday list of Consultant, then such vendor may not be considered for issue of RFQ. If any vendor has been put on such holiday list after issue of the RFQ, then their offer may not be considered for further evaluation or award.

19. COMPLIANCE TO RFQ DOCUMENT

Bidder shall submit the compliance to the RFQ document as per the format attached to this document. Non-compliant bids may be rejected, and clarifications may not be sought if sufficient compliant bids are received.

20. PACKING, MARKING & SHIPPING (PMS) GUIDELINES

All Equipment, Materials, Goods, Packages, Items etc. covered under the RFQ shall be packed as per the Technical Specifications and Guidelines attached with the RFQ.

21. TERMS & CONDITIONS OF POST WARRANTY COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (PWCAMC)

Not Applicable to this RFQ(MR)

Refer attached Annexure to this document.

22. INFORMATION REQUIRED FROM FOREIGN SUPPLIERS / CONTRACTORS

Not Applicable to this RFQ.

22.1. It is mandatory for the foreign supplier/contractor to furnish the following information in case his receipts are subject to tax deduction at source in India:

(a) PAN Number as per the Indian Income Tax requirements failing which the Supplier/Contractor shall be responsible for any additional tax deduction at source as per the provisions of the Indian Income Tax Act/Rules and the same shall be deducted from the payment made to supplier/contractor.

(b) Tax Residency Certificate (TRC) containing prescribed particulars as per the format enclosed with this document, from the Government of foreign country in order to claim the benefits of DTAA (Double Taxation Avoidance Agreement) as per the Indian Income Tax requirements failing which the relief under DTAA will not be available and consequently applicable rate as per Indian Income Tax Act will be deducted from the payment made to supplier/contractor/consultant (i.e., non-resident taxpayer). The TRC shall be duly verified by the Government of the country of which the assesse claims to be a resident for the purposes of tax.

(c) In additional to TRC, bidder in order to claim the benefits of DTAA shall also submit additional information in form number 10F (enclosed with this document). Form 10F has to be signed & verified by the assesse himself.

22.2. If some information is already contained in TRC, the bidder shall not be required to provide that information in Form No. 10F but even then Form No. 10F is required to be provided by the bidder.

22.3. However, the bidder may write Not Applicable in the relevant column in case that information is already contained in TRC.

22.4. The above shall be furnished before release of any payment or within one month of the release of Order, whichever is earlier.

23. REQUIREMENT OF EMPLOYMENT VISA FOR FOREIGN NATIONALS

(Not Applicable for this RFQ)

23.1. All Foreign nationals coming to India for execution of Projects/ Contracts will have to apply for Employment Visa only and that grant of Employment Visa would be subject to strict adherence of following norms:

(a) Employment Visa is granted only for the skilled and qualified professionals or to a person who is being engaged or appointed by a Company, Organization, Industry or Undertaking etc. in India on contract or employment basis at a senior level, skilled position such as technical expert, senior executive or in managerial position etc.

(b) Request for Employment Visa for jobs for which large number of qualified Indians are available, is not considered.

(c) Under no circumstances an Employment Visa is granted for routine, ordinary secretarial / clerical jobs.

(d) Any other norms as applicable / as may be intimated to the Vendor from time to time.

23.2. Bidders are advised in their own interest to check latest Visa rules from Indian Embassy / High Commission in their country in case foreign nationals are required to be deputed to India during execution of the Contract.

24. EXAMINATION OF BIDS AND DETERMINATION OF RESPONSIVENESS

24.1. Nalco / tkUIPL India will examine the bids to determine whether they are complete, and whether the bids are generally in order.

24.2. Prior to the detailed evaluation, Nalco / tkUIPL India will determine whether each bid is of acceptable quality, is generally complete and is responsive to the RFQ Documents. Bidders are requested to submit the offer in line with terms and conditions provided in RFQ document without taking any deviations. It is expected that bidders will submit bids based strictly on the terms and conditions and specifications contained in the RFQ, and will not stipulate any deviations. Should it, however, become unavoidable, deviations should be separately and specifically stipulated only in the prescribed Annexure enclosed. Owner / Consultant reserve the right to reject as non-responsive any bid containing unacceptable deviation(s). **Deviations mentioned anywhere other than in the enclosed prescribed format shall not be taken cognizance of.**

24.3. Bidder shall not be allowed to submit any Price Implication or Revised Price after submission of Bid, unless there is change in the stipulations of the RFQ Document and such changes are incorporated through an Addendum / Amendment. In case Exceptions and Deviations submitted by Bidder along with Bid are not considered as acceptable and no Addendum / Amendment is issued, then in such a case the Bidders would be required to withdraw such Exceptions/Deviations in favour of stipulations of the RFQ document, and Bidders would not be eligible for submission of Price Implication/Revised Price.

24.4. Bidders to note that Non-acceptance or deviation to price reduction clause (PRS clause) and **5%** Performance Bank Guarantee clause is rejection criteria.

24.5. The Bidders are required to adhere to the following provisions of the RFQ failing which their bid may be liable for rejection:

(i) Bid Validity Period
(ii) Scope of Supplies / Scope of Work as per the provisions of the RFQ
(iii) Proforma of Bank Guarantees
(iv) Submission of Price Bid in accordance with the price schedule format enclosed with the RFQ.
(v) Nalco's GPC and SPC-ITB.
(vi) Defect Liability Period (Guarantee Period) and associated clauses thereunder of the RFQ including clauses related to defective parts and materials.
(vii) Delivery schedule mentioned in the RFQ
(viii) Submission of Integrity Pact as per Nalco's Format (wherever submission of IP is specified in the RFQ)
(ix) Adherence to the Technical specifications enclosed with the RFQ.
(x) Submission of Price Bid based on the terms and conditions specified in the RFQ.
(xi) Part Order Clause

24.6. The bids may also be rejected on the grounds of any other rejection criteria as may be specified RFQ.

25. EVALUATION CRITERIA FOR COMPARISON OF PRICED BIDS:

The prices will be evaluated considering all of the following:

IMPORTED SUPPLIES (Foreign Currency) (Not Applicable to this RFQ)

1	FOB International Sea Port of Exit Price including all inspection and testing charges and all commissioning & all mandatory spares (Note : in case the materials are sent by Air	As quoted by Bidder

	then it will be FCA International Airport of Exit price)INCOTERMS 2010	
2	Firm Ocean Freight up to Indian Sea Port / Firm Air Freight up to Indian Airport (in case materials are sent by Air)	As quoted by Bidder
3	Total CFR Indian Sea Port Price (Note: if materials are sent by air, then it will be the total of FCA price plus the firm airfreight up to Indian Airport)	Total of Sl. No. 1+ 2
4	Marine Insurance	0.02% of above Sl. No. 3
5	Sub-total (CIF) / (CIP: if materials are sent by Air)	Sl. No. 3 + Sl. No. 4
6	Customs duty	0% under EPCG Scheme
7	Social Welfare Surcharge	@ 10% on Sl. No. 6
8	Total including Customs Duty & SWS	Sl. No. 5+6+7
9	IGST	As applicable on Sl. No. 8
10	GST Compensation Cess (If applicable)	Merit rate shall be considered on Sl. No. 8
11	Landed cost	Sl. No. 8+9+10
12	Customs Clearance, Port handling and Inland transportation up to Nalco Site/~~Vizag~~ Port	3% on Sl. No. 11
13	Total Price	Sl. No11 + 12
14	Technical loadings, if any(on FOB /FCA Price)	Refer the formula (if any) mentioned in the RFQ.
15	Commercial loadings, if any	On FOB /FCA Price (i.e. on Sl. No.1 above)
16	Total after loading	Sl. No. 13+ 14+ 15
17	Less, Input tax credit	(-9)
18	Total Comparable Price	Sl. No. 16+17

Note:

Bidders Must quote Firm Ocean Freight Charges **Upto Kolkata or Visakhapatnam Seaport / Firm Air Freight charges upto Kolkata Airport.** In case a Bidder does not quote Firm Ocean / Air Freight charges, then the offer of such Bidder shall be evaluated considering the maximum freight quoted by another bidder from that region. In case there is no other offer from that region, then the bidder's offer shall be evaluated considering the ocean / air freight estimated by Nalco/tkUIPL India based on the rates quoted by shipping agency (preferably Shipping Corporation of India) / airline (as applicable).

FOREIGN SERVICES (Foreign Currency) (Not Applicable to this RFQ)

1	Training Services or Site Supervision Services or Any other Services such as PWCAMC etc. quoted by the Bidder in Foreign Currency (as per the requirements of the RFQ)	As quoted by Bidder
2	IGST(which will be borne by Nalco on Reverse charge basis)	As applicable on Sl. No.1 above

3	GST Compensation Cess (If applicable) (which will be borne by Nalco on Reverse charge basis)	Merit rate shall be considered on Sl. No.1 above
4	Withholding tax which will be paid by NALCO	As Applicable on Sl. No.1 above
5	Commercial loading, if any	On Sl. No. 1 above
6	Total after loading	1+2+3+4+5
7	Less Input Tax Credit	(-2)
8	Total Comparable Price	6+7

INDIGENOUS SUPPLIES (INR)

1	FOT Despatch Point Price, including P&F charges, all Inspection and testing charges, and all commissioning & all mandatory Spares	As Quoted By Bidder
2	Firm Freight Charges up to Nalco's Damanjodi Site / Visakhapatnam Port	As Quoted by Bidder.
3	Total FOT Site / FOT Vizag Port Price	Sl. No. 1 + Sl. No.2
4	IGST / CGST & SGST	As per Merit Rate on Sl. No. 3 above
5	GST Compensation Cess (If applicable).	As per merit rate on Sl. No. 3 above
6	Total Landed Cost	Sl. No. 3 + 4 + 5
7	Insurance to be borne by NALCO	@ 0.02% on Sl. No. 6 above
8	Technical loadings, if any (on FOT Despatch Point Price)	Not Applicable for this RFQ
9	Commercial loading, if any	On FOT Despatch Point Price (i.e. on Sl. No. 1 above)
10	Total after loading	Sl. No. 6+7+8+9
11	Less, Input Tax Credit	(-4)
12	Total Comparable Price	Sl. No. 10 + 11

Note:

Freight Charges: Bidders Must Quote Firm Freight charges up to Nalco Damanjodi Site / Visakhapatnam Port. If a Bidder does not quote freight charges, then their offer will be loaded with maximum of the freight charges as quoted by the other bidders of the same region. In case there is no other offer from that region, then the bidder's offer shall be evaluated considering estimation by Nalco/tkUIPL India.

INDIGENOUS SERVICES (INR) (Not Applicable to this RFQ)

1	Training Services or Site Supervision Services or ~~Any other Services such as PWCAMC etc.~~ quoted by the Bidder in INR (as per the requirements of the RFQ)	As quoted by Bidder
2	IGST / CGST & SGST	As Applicable on Sl. No. 1 above

3	GST Compensation Cess (If applicable)	Merit rate shall be considered on Sl. No. 1 above
4	Commercial loading, if any	On Sl. No. 1 above
5	Total after loading	1+2+3+4
6	Less Input Tax Credit	(-2)
7	Total Comparable Price	5+6

Notes common to both Overseas (Foreign) and Indian Bidders:

A. DELETED

B. DELETED

C. Price loading on account of payment terms quoted by the Bidder which are at variance with the payment terms stipulated in the SITB will be loaded @ 10% per annum for the relevant period.

D. Any Suo moto revision in prices after opening of the techno-commercial unpriced bids is not acceptable.

E. Prices for Post Warranty Comprehensive Annual Maintenance Contract (PWCAMC), if any mentioned in RFQ, shall be considered for evaluation. However, Purchase order for PWCAMC shall be placed separately by Nalco. The vendor shall quote the prices for PWCAMC all-inclusive except for GST which will be paid extra by Nalco in case of INR offer for PWCAMC. (Not Applicable to this RFQ).

F. Purchase Preference clause is enclosed with the RFQ.

G. Any differential in Indian taxes and duties will be cost loaded on case to case basis. However, if a supplier states that taxes/duties are not applicable at present and will be charged as applicable at the time of delivery then his bid shall be loaded by the maximum rate of taxes/duties applicable as on the date of bid opening.

H. Cost loading in respect of utilities etc. will be done as per respective RFQ stipulation. **(NOT APPLICABLE TO THIS RFQ)**

I. **Line wise L1 philosophy will be followed for priced bid evaluation for this RFQ (MR)**

26. PRICE NEGOTIATION

Owner reserves the right to conduct price negotiations with the lowest bidder.

27. NOTIFICATION OF AWARD

27.1. In the event of Order placement, the Owner will notify the same to the successful bidder(s) by issuing the Brief Order of Acceptance (BOA). The issue of Brief Order of Acceptance will constitute the formation of the Order.

27.2. The contractual Delivery Schedule shall commence from the date of Brief Order of Acceptance.

27.3. The BOA will contain the price, delivery and other salient commercial terms and conditions. Bidder will be required to confirm receipt of the same by returning "Copy of the BOA" duly counter signed

and stamped by the bidder as a token of Acceptance within a maximum of 7 days to Owner and Consultant, failing which the same shall be deemed as accepted. On receipt of the acceptance without any deviation/condition, detail Purchase Order will be issued. The same be returned duly counter signed and stamped by the bidder as a token of Acceptance, to Owner and Consultant, without any condition/deviation.

28. PURCHASE PREFERENCE

Any guideline issued by Government regarding purchase preference to be followed. Presently MSME/ start-ups are eligible for purchase preference. Start-ups is not applicable for LTE. Guidelines for MSME / start-ups are given in the Annexure enclosed with this document.

Government of India's present guidelines on procurement policy for "Make in India" is as per the details mentioned in the Annexure enclosed with this document.

29. REPEAT ORDERS

Nalco reserves the right to place Repeat Order within 12 months of placement of original Purchase Order. The total item value under repeat order shall not exceed 100% of original Order item value.

30. INDEPENDENT EXTERNAL MONITORS (IEMS):

In respect of this Tender, the Independent External Monitor (IEM) would be monitoring the Bidding Process and execution of Project Agreement to oversee implementation and effectiveness of the Integrity Pact Program.

NALCO has a panel of Independent External Monitor (IEM), the details are as follows:

(i) Smt. Deepa Krishan IRS (Retd.)

C 2603, Sushant Lok-1

Gurgaon, Haryana,PIN-122002

E-mail: deepakrishnan@gmail.com

(ii)Dr. Meeran C Borwankar IPS (Retd.)

C 10/5, Vasant Vihar

New Delhi-110052

E-mail: mcborwankar@gmail.com

(iii)Mr. Hare Krushna Das, IAS (Retd.)

E-mail: hkdash184@hotmail.com

Bidder may write to the IEM through E-mail (provided in the tender) only for matters related to the Integrity Pact giving details of the Tender reference, name of the Tender issuing officer and Nalco's Unit for quick identification of the Tender by the IEM.

The Format of the Integrity Pact to be signed and submitted by the Bidders is enclosed with this ITB

31. DEFINITIONS

These definitions are in addition to the definitions mentioned in Nalco's General Purchase Conditions:

i. "NALCO" means M/s National Aluminium Company Limited having its registered office at NALCO BHAWAN, P-1 Nayapalli, Bhubaneshwar-751 013, Odisha, and includes its successors and assignees.

ii. “Consultant" means thyssenkrupp Uhde India Private Limited (Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.)., engaged by NALCO, having its registered office at Uhde House, L.B.S. Marg, Vikhroli (West), Mumbai-400 083

iii. "Supplier/Vendor/ Seller " means any person, company, firm or body who is engaged by NALCO, or to whom the Purchase Order or Brief Order of Acceptance is issued by NALCO, for supply of goods / equipment/materials and/or rendering of services, as applicable, and includes its successors and assignees.

iv. “Project” means Expansion of Alumina Refinery at Damanjodi for implementation of 5th Stream with an annual production capacity of 1 Million Tonnes with related expansion of Port Facility at Visakhapatnam.

v. "Bidder/Tenderer" means any person, company, firm or body who submits their Offer against a RFP/RFQ/ Bidding Document issued by Consultant/NALCO.

vi. “RFP”/ “RFQ” / "Bidding Document " means the document published by NALCO in the Central Public Procurement Portal (CPPP) and/or in NALCO’s web site and/or in Consultant’s web site and/or issued by NALCO/Consultant to Bidder, including all the documents listed therein, and any subsequent addenda / amendments issued by NALCO/ Consultant, based on which Offer is to be submitted by the Bidder.

vii. "Bid/Offer" means the proposal or Offer submitted by Bidder against a RFQ/RFP/ /Bidding Document to supply goods and/or materials, and/or render services, strictly in accordance with the provisions of the RFQ/RFP/Bidding Document.

viii. Engineer-in-Charge shall mean the Engineer-in-charge at Site nominated by Owner/Consultant.

ix. “Instructions to Bidders” (ITB) shall mean the documents describing the manner in which the Bidder shall prepare and submit his Bid / Offer.

The definitions shall apply to all the expressions defined above whether expressed wholly in capitals or partly in capital or with the first letter in capital or wholly in ordinary letters. Unless otherwise specifically stated, the masculine gender shall include the feminine and neuter genders and vice-versa, and the singular shall include the plural and vice-versa.

32. INTERPRETATION OF CONTRACT DOCUMENTS

32.1. The several Contract Documents forming the Contract (Purchase Order) are to be read together as a whole and are to be taken as mutually explanatory.

32.2. Should there be any doubt or ambiguity in the interpretation of the Contract documents or in any of them, the Supplier shall, prior to commencing the relative supply or work under the Contract, apply in writing to Owner for resolution of the doubt or ambiguity. Should the Supplier fail to apply to Owner within 7 days from the date of receipt of the Purchase Order for its clarification as aforesaid, the Supplier shall perform the relative work and/or make the relative supply at his own risk and cost and in full compliance with the Purchase Order.

32.3. Clause headings given in this or any other Contract Documents are intended only as a general guide for convenience in reading and segregating the general subject of the various clauses, but shall not govern the meaning or import of the clauses there under appearing or confine or otherwise affect the interpretation thereof.

32.4. Subject to the above provisions, if conflicts between the documents comprising the Contract (i.e. Purchase Order) arise, the following shall prevail in the order stipulated below:

i. Purchase Order
ii. Brief Order of Acceptance (BOA)
iii. Addenda / Corrigenda to the RFQ
iv. Technical Specifications
v. Applicable Codes and Standards
vi. Special Purchase Conditions
vii. Price Schedule Formats
viii. Instructions to Bidders
ix. General Purchase Indigenous
x. Other documents

……

ENCLOSED TO THESE ITB ARE THE VARIOUS DOCUMENTS AS DESCRIBED BELOW

ANNEXURE-A
PROFORMA OF DECLARATION OF HOLIDAY LISTING

RFQ No**: 6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

In the case of a Proprietary Concern:

I hereby declare that neither I in my personal name or in the name of my Proprietary concern M/s. …….. which is submitting the accompanying Bid / Tender nor any other concern in which I am proprietor nor any partnership firm in which I am involved as a Managing Partner are currently placed on holiday list declared by Consultant, except as indicated below:

(Give particulars of holiday listing and in absence thereof state "NIL").

I, hereby do further declare that the following notice(s) have hitherto been issued against proposed action for holiday listing and/or the following action for holiday listing has hitherto been taken, as the case may be, by Consultant in my personal name or in the name of any proprietary concern of mine or against any partnership firm of which I was or am the managing partner.

No. and Date of Show-cause Notice of Holiday Listing	**Period of Holiday Listing**	**Present Status**

(State 'NONE' if there is no such notice or action).

In the case of a Partnership Firm

We, hereby declare that neither we, M/s. …… submitting the accompanying Bid / Tender nor any partner involved in the management of the said firm either in his individual capacity or as proprietor of any concern or as partner of any firm in which he/she was a Managing Partner, are currently placed on Holiday List declared by Consultant, except as indicated below:

(Give particulars of holiday listing and in absence thereof state "NIL").

We _____ hereby further declare that the following notice(s) have hitherto been issued against proposed action for holiday listing and or the following action for holiday listing has hitherto been taken as the case may be, by Consultant against the above firm or any partner involved in the management of the firm in his individual capacity or as proprietor of any concern or as Managing Partner of any firm.

No. and Date of Show-cause Notice of Holiday Listing	**Period of Holiday Listing**	**Present Status**

(State 'NONE' if there is no such notice or action).

In the case of Company

We hereby declare that we are not currently placed on any holiday list declared by Consultant, except as indicated below:

(Give particulars of holiday listing and in absence thereof state “NIL”).

We, _____ hereby do further declare that the following notice(s) have hitherto been issued against proposed action for holiday listing and / or the following action for holiday listing has hitherto been taken, as the case may be, by Consultant against the Company.

No. and Date of Show-cause Notice of Holiday	**Period of Holiday Listing**	**Present Status**

(State ‘NONE’ if there is no such notice or action).

It is understood that if this declaration is found to be false in any particular, NALCO / Consultant, shall have the right to reject my / our bid, and, if the bid has resulted in a contract, the contract is liable to be terminated.

Place: …… **Signature of the Bidder……..**

Date: …… **Name of the Signatory ……..**

ANNEXURE-B
LIST OF APPROVED BANKS

1. LIST OF PSU BANKS

Sr. No	Name of the Bank
1	Allahabad Bank
2	Andhra Bank
3	Bank of Baroda
4	Bank of India
5	Bank of Maharashtra
6	Canara Bank
7	Central Bank of India
8	Corporation Bank
9	Dena Bank
10	lDBI Bank
11	Indian Bank
12	Oriental Bank of Commerce
13	Punjab & Sind Bank
14	Punjab National Bank
15	State Bank of India
16	Syndicate Bank
17	UCO Bank
18	Union Bank of India
19	Vijaya Bank

2. LIST OF PRIVATE BANKS

Sr. No	Name of the Bank
1	HDFC Bank Ltd.
2	ICICI Bank Ltd.
3	Axis Bank Ltd.
4	Kotak Mahindra Bank Ltd.
5	YES Bank
6	lnduslnd Bank Ltd.
7	The Federal Bank Ltd.
8	The Jammu & Kashmir Bank Ltd.
9	The South Indian Bank Ltd.
10	The Karur Vysya Bank Ltd.
11	The Karnataka Bank Ltd.
12	IDFC Bank
13	RBL Bank
14	The Lakshmi Vilas Bank Ltd.
15	Tamilnad Mercantile Bank Ltd.
16	City Union Bank Ltd.

3. LIST OF FOREIGN BANKS

Sr. No.	Name of the Bank	BIC
1	Abu Dhabi Commercial Bank Limited	ADCB AE AA
2	Australia & New Zealand Banking Group Limited	ANZB AU 3M
3	Bank of America NA	SOFA US 3N
4	Bank of Bahrain and Kuwait B.S.C.	BBKU BH BM
5	Bank of Ceylon	BCEY LK LX
6	Barclays Bank PLC	BARC GB 22
7	BNP Paribas	BNPA FR PP
8	Citibank N.A.	CITI US 33
9	Commonwealth Bank of Australia	CTBAAU 2S
10	Credit Agricole Corporate & Investment Bank	BSUI FR PP
11	Credit Suisse AG	CRES CH ZZ
12	DBS Bank Ltd.	DBSS SG SG
13	Deutsche Bank AG	DEUT DE FF
14	Doha Bank	DOHB QA QA
15	FirstRand Bank Ltd.	FIRN ZA JJ
16	Industrial Bank of Korea	IBKO KR SE
17	Industrial & Commercial Bank of China Limited	ICBK CN BJ
18	JP Morgan Chase Bank	CHAS US 33
19	KEB Hana Bank	KOEX KR SE
20	Krung Thai Bank Public Company Ltd.	KRTH TH BK
21	Mashreqbank PSC	BOMLAEAD
22	Mizuho Bank Ltd.	MHCBJPJT
23	National Australia Bank Ltd.	NATA AU 33
24	Sberbank	SABR RU MM
25	Shinhan Bank	SHBK KR SE
26	Societe Generale	SOGE FR PP
27	Sonali Bank Ltd.	BSON BD DH
28	Standard Chartered Bank	SCBL GB 2L
29	Sumitomo Mitsui Banking Corporation	SMBC JP JT
30	The Bank of Nova Scotia	NOSCCA IT
31	The Bank of Tokyo-Mitsubishi UFJ, Ltd.	BOTKJPJT
32	The Hongkong and Shanghai Banking Corp.Ltd.	HSBC HK HH
33	The Royal Bank of Scotland PLC	RBOS GB 2L
34	United Overseas Bank Ltd.	UOVB SG SG
35	Westpac Banking Corporation	WPACAU 2F
36	Woori Bank	HVBK KR SE

ANNHEXURE-C
TAX RESIDENCY CERTIFICATE (TRC)

(Not Applicable to this RFQ)

TRC obtained by the Non-Resident from Government of Foreign Country shall contain the following particulars:

a. Name of the assesse;
b. Status (individual, company, firm etc.) of the assesse;
c. Nationality (in case of individual);
d. Country or specified territory of incorporation or registration (in case of others);
e. Assesse's tax identification number in the country or specified territory of residence or in case no such number, then a unique number by which the person is identified by the Government of the country or the specified territory;
f. Residential status for the purposes of tax;
g. Period for which the certificate is applicable; and
h. Address of the applicant for the period for which the certificate is applicable;

ANNEXURE-D
FORM No. 10F

(Not Applicable to this RFQ)

[See sub-rule (1) of rule 21AB]

Information to be provided under sub-section (5) of section 90 or sub-section (5) of section 90A of the Income-tax Act,1961

I…… ……. son / daughter of Shri……. in the capacity of…… (designation) do provide the following information, relevant to the previous year……* in my case/in the case of……for the purposes of sub-section (5) of * section 90 /section 90A:-

Sl. No.	Nature of Information		Details
i	status (individual; company, firm etc.) of the assesse		
ii	Permanent Account Number (PAN) of the assesse if allotted		
iii	Nationality (in the case of an individual) or Country or specified territory of incorporation or registration (in the case of others)		
iv	Assesse's tax identification number in the country or specified territory of residence and if there Is no such number, then, a unique number on the basis of which the person is identified by the Government of the country or the specified territory of which the assesse claims to be a resident		
v	Period for which the residential status as mentioned in the certificate referred to in sub-section (4) of section 90 or sub- section (4) of section 90A is applicable		
vi	Address of the assesse in the country or territory outside India during the period for which the certificate, mentioned in (v) above, is applicable		

I have obtained a certificate to in sub-section (4) of section 90 of sub-section (4) of section 90A from the Government of……(name of country or specified territory outside India).

Signature:……

Name: ……

Address:……

Permanent Account Number: ……

Verification

I.....do hereby declare that to the best of my knowledge and belief what is stated above is correct complete and is truly stated. Verified today the..... day of.....

Signature of the person providing the information

Place: .....

Notes

1. *Delete whichever is not applicable.
2. #Write N.A. if the relevant information forms part of the certificate referred to in sub-section (4) of section 90 or sub-section (4) of section 90A.

ANNEXURE-E
DECLARATION BY THE BIDDER

RFQ No**:6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

We …… (Name of Bidder) hereby represent that we have gone through and understood the RFQ (including but not limited to) the Technical requirements & Technical Specifications and Commercial requirements, and that our Bid has been prepared accordingly in compliance with the requirements stipulated in the said documents.

SIGNATURE OF BIDDER: _____

NAME OF BIDDER: _____

COMPANY SEAL: _____

NOTE: This declaration should be signed by the Bidder's representative who is authorized to sign the Bid.

ANNEXURE-F

SPECIAL PACKAGING REQUIREMENTS (FOR FOREIGN SUPPLIES)

Not Applicable to this RFQ.

RFQ No:

ITEM:

All raw/solid wood packaging material used for packaging shall be appropriately treated and marked as per ISPM-15 (International Standards of Phyto-sanitary measures 15) OR shall be accompanied by a Phyto-sanitary Certificate with the treatment endorsed.

The treatment of raw/solid wood packaging material prior to export shall include either Methyl Bromide (MB) @ 48 g/mPP^{3}PP for 16 hours at 21° C and above or any equivalent thereof or heat treatment (HT) at 56 °C for 30 min (core temperature of wood) or Kiln Drying (KD) or Chemical Pressure Impregnation (CPI) or any other treatments provided that these meet the HT specifications of the ISPM-15.

However, the above conditions shall not be applicable to wood packaging material wholly made of processed wood products such as ply wood, particle board, oriental strand board of veneer that have been created using glue, heat and pressure or combination thereof. The above conditions shall also not be applicable to wood packaging material such as veneer peeler cores, wood wool & shavings and thin wood pieces (less than 6mm thickness) unless they are found to be harboring any pests.

ANNEXURE- F
PRE-CONTRACT INTEGRITY PACT

RFQ No:**6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

General

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on _____ day of the month of _____ 2025, between, on one hand, the National Aluminium Company Limited (NALCO), a company registered under the Companies Act 1956 and a Government of India Enterprise, having its Registered Office at NALCO Bhawan, P/1, Nayapalli, Bhubaneswar-751013,Odisha, India (referred to as NALCO) acting through Shri _____ (with designation of the Officer) (hereinafter called the "BUYER", which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s. _____ represented by Shri _____, Chief Executive Officer (hereinafter called the "BIDDER / Seller" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second Part.

WHEREAS the BUYER proposes to procure _____ and the BIDDER/Seller is willing to offer/has offered the stores and

WHEREAS the BIDDER is a private company / public company /Government undertaking/ partnership /registered export agency, constituted in accordance with the relevant law in the matter and the BUYER is a Company under the administrative control of the Ministry of Mines, Govt. of India.

NOW THEREFORE

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence / prejudiced dealings prior to during and subsequent to the currency of the contract to be entered into with a view to :-

Enabling the BUYER to obtain the desired said stores/equipment at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERs to abstain from bribing or indulging in any corrupt practice in order to secure the contract by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the BUYER will comment to prevent corruption, in any form, by its officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows:

Commitments of the BUYER

1.1 The BUYER undertakes that no official of the BUYER, connected directly or indirectly with the contract, will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the BIDDER, either for themselves or for any person or organisation or third party related to the contract in exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the contract.

1.2 The BUYER will, during the pre-contract stage, treat all BIDDERs alike and will provide to all BIDDERs the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular BIDDER in comparison to other BIDDERs.

1.3 All the officials of the BUYER will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.

2. In case any such preceding misconduct on the part of such official(s) is reported by the BIDDER to the BUYER with full and verifiable facts and the same is prima facie found to be correct by the BUYER, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings my be initiated by the BUYER and such a person shall be debarred from further dealings related to the contract process. In such a case while an enquiry is being conducted by the BUYER the proceedings under the contract would not be stalled.

Commitments of BIDDERs

3. The BIDDER commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post-contract stage in order to secure the contract or in furtherance to secure it and in particular commit itself to the following :-

3.1 The BIDDER will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the BUYER, connected directly or indirectly with the bidding process, or to any person, organisation or third party related to the contract in exchange for any advantage in the bidding, evaluation, contracting and implementation of the contract.

3.2 The BIDDER further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the

BUYER or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the contract or any other contract with the Government for showing or forbearing to show favour or disfavour to any person in relation to the contract or any other contract with the Government.

3.3 BIDDERs shall disclose the name and address of agents and representatives and Indian BIDDERs shall disclose their foreign principals or associates.

3.4 BIDDERs shall disclose the payment to be made by them to agents / brokers or any other Intermediary, in connection with this bid / contract.

3.5 The BIDDER, either while presenting the bid or during pre-contract negotiations or before signing the contract, shall disclose any payments he has made, is committed to or intends to make to officials of the BUYER or their family members, agents, brokers or any other intermediaries in connection with the contract and the details of services agreed upon for such payments.

3.6 The BIDDER will not collude with other parties interested in the contract to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the contract.

3.7 The BIDDER will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.

3.8 The BIDDER shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the BUYER as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The BIDDER also undertakes to exercise due and adequate care lest any such information is divulged.

3.9 The BIDDER commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable fact.

3.10 The BIDDER shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.

3.11. If the Bidder or any employee of the Bidder or any person acting on the behalf of the Bidder, either directly or indirectly, is a relative of any of the officers of the Buyer, or alternatively, if any relative of an officer of the Buyer has financial interest/stake in the Bidder's firm, the same shall be disclosed by the Bidder at the time of filing of tender.

The term "relative" for this purpose would be as defined in Section 6 of the Companies Act 1956.

3.12. The Bidder shall not lend to or borrow any money from or enter into monetary dealings or transactions, directly or indirectly, with any employee of the Buyer.

3.13 Bidder(s)/ Contractor(s) who have signed the integrity pact shall not approach the courts while representing the matter to IEMs and shall wait for their decision in the matter.

4. **Previous Transgression**

4.1. The Bidder declares that no previous transgression occurred in the last three years immediately before signing of this integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any Public Sector Enterprise in India or any Government Department in India that could Justify Bidder's exclusion from the tender process.

4.2. The Bidder agrees that if it makes incorrect statement on this subject, Bidder can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5.. **Sanctions for Violations :**

5.1. Any breach of the aforesaid provisions by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER) shall entitle of the BUYER to take all or any one of the following actions, wherever required: -

(i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the BIDDER. However, the proceedings with the other BIDDER(s) would continue.

(ii) The Earnest Money Deposit (in pre-contract stage) and/or Security Deposit / Performance Bond (after the contract is signed) shall stand forfeited either fully or partially, as decided by the BUYER and the BUYER shall not be required to assign any reason therefore.

(iii) To immediately cancel the contract, if already signed, without giving any compensation to the BIDDER.

(iv) To recover all sums already paid by the BUYER, and in case of an Indian BIDDER with interest thereon at 2% higher than the prevailing Prime Lending Rate of State Bank of India, while in case of a BIDDER from a country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to the BIDDER from the BUYER in connection with any other contract for any other stores, such outstanding payment could also be utilized to recover the aforesaid sum and interest.

(v) To en-cash the advance bank guarantee and performance bond / warranty bond, if furnished by the BIDDER, in order to recover the payments, already made by the BUYER, along with interest.

(vi) To cancel all or any other Contracts with the BIDDER. The BIDDER shall be liable to pay compensation for any loss or damage to the BUYER resulting from such cancellation / rescission and the BUYER shall be entitled to deduct the amount so payable from the money(s) due to the BIDDER.

(vii) To debar the BIDDER from participating in future bidding processes of NALCO for a minimum period of five years, which may be further extended at the discretion of the BUYER.

(viii) To recover all sums paid in violation of this Pact by BIDDER(s) to any middleman or agent or broker with a view to securing the contract.

(ix) In cases where irrevocable Letters of Credit have been received in respect of any contract signed by the BUYER with the BIDDER, the same shall not be opened.

(x) Forfeiture of Performance Bond in case of a decision by the BUYER to forfeit the same without assigning any reason for imposing sanction for violation of this Pact.

5.2 The BUYER will be entitled to take all or any of the actions mentioned at para 5.1(i) to (x) of this Pact also on the Commission by the BIDDER or any one employed by it or acting on its behalf (whether with or without the knowledge of the BIDDER), of an offence as defined in Chapter IX of the Indian Penal Code 1860 or Prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.

5.3 The decision of the BUYER to the effect that a breach of the provisions of this Pact has been committed by the BIDDER shall be final and conclusive on the BIDDER. However, the BIDDER can approach the independent Monitor(s) appointed for the purposes of this Pact.

6. **Independent External Monitors (IEMs):**

6.1. The BUYER has a panel of Independent External Monitors (hereinafter referred to as-IEMs) for this Pact in consultation with the Central Vigilance Commission as mentioned in NALCO's NIT/NALCO's website (www.nalcoindia.com).

6.2 The task of the IEMs shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this Pact.

6.3 The IEMs shall not be subject to instructions by representatives of the parties and perform their functions neutrally and independently.

6.4 Both the parties accept that the IEMs have the right to access all the documents relating to the project / procurement including minutes of meetings.

6.5 As soon as the IEM notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the BUYER.

6.6 The BIDDER(s) accepts that the IEM has the right to access without restriction to all Project documentation of the BUYER including that provided by the BIDDER. The BIDDER will

also grant the IEM, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The IEM shall be under contractual obligation to treat the information and documents of the BIDDER / Subcontractor(s) with confidentiality.

6.7 The BUYER will provide to the IEM sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the IEM the option to participate in such meetings.

6.8 The IEM will submit a written report to the designated Authority of BUYER / Secretary in the Department / within 8 to 10 weeks from the date of reference or intimation to his by the BUYER / BIDDER and should be occasion arise, submit proposals for correcting problematic situations.

7. **Facilitation of Investigation:**

In case of any allegation of violation of any provisions of this Pact or payment of commission, the IEMs shall be entitled to examine all the documents including the Books of Accounts of the BIDDER and the BIDDER shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

8. **Law and Place of Jurisdiction:**

This Pact is subject to Indian Law. The place of performance and jurisdiction is the seat of the BUYER.

9. **Other Legal Actions:**

The actions stipulated in this Integrity Pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

10. **Validity:**

10.1 This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. If any claim is made/lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged/ determined by CMD,NALCO.

10.2 Should one or several provisions of this Pact turn out to be invalid, the remainder of this Pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

11. If the bidder/ Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members

12. The parties hereby sign this Integrity Pact at _____ on _____.

For & on behalf of	For & on behalf of
BUYER	**BIDDER**
Name of the Officer:	
Designation:	
Company: NALCO	
Official Seal	
Witness	Witness
1. _____	1. _____
2. _____	2. _____

ANNEXURE- H
GUIDELINES FOR MICRO & SMALL ENTERPRISES (MSEs)

Guidelines for Purchase Preference to MSEs against Supply items/Services shall be followed wherever applicable.

1. In a tender, participating qualified MSEs, who have quoted within the price band of L-1 + 15% can be given a chance to match with L1 price in order of their bid position and take order for supply of upto 25% of the tender quantity and 100% for non-divisble items (Class-I MSE), if the L1 bidder is other than a MSE.

2. In case of participation of SC/ST category MSEs in a tender with splitable or divisible quantity, minimum 6.25 % of tender quantity shall be reserved for placement of order on them, out of the 25% tender quantity reserved for MSEs as above, subject to matching with L-1 Price in the tender.

3. Further in case of participation of women owned MSEs in a tender with splitable or divisible quantity, minimum 3% of tender quantity shall be reserved for placement of order on them, out of the 25% tender quantity reserved for MSEs, subject to matching with L-1 Price in the tender.

4. When there is no participation from SC/ST category / women owned MSEs or when SC / ST category / women owned MSEs do not match the L1 price, then the tender quantity reserved for them shall be available for other MSEs.

5. In case of more than one such MSEs in a tender, the supply shall be shared equally. However, it can be done depending upon splitability and reasonability of distributing the tendered quantity.

6. Up to 40% of the tender quantity less the quantity considered on MSEs as at Para- (i) above, shall be reserved for Ancillary Units, subject to matching with L-1 price.

   In case, no MSE is participating in the tender and / or are not matching L-1 price, Ancillary units can be allowed upto 40% quantity on matching L-1 price, subject to splitability & divisibility of the tendered quantity.

   When there is no participation from MSEs & Ancillary Units or when MSEs & Ancillary units do not match the L-1 price, then the reserved quantity for MSEs & Ancillary Units shall be available for other participants.

   For the tenders, which are invited electronically through CPPP, Participating MSE vendors are required to declare their Udyog Aadhar Memorandum (UAM) number in CPPP, failing which such bidders will not be allowed to avail Purchase Preference policy for MSEs as per Public Procurement policy for MSEs order, 2012 and shall not be exempted from payment of EMD & Tender fee.

ANNEXURE-I

REVISED PROCEDURE TO PROVIDE PREFERENCE TO "MAKE IN INDIA" IN PUBLIC PROCUREMENT

1. Definitions:

'*Local content'* means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier' under this order.

"Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for 'Class-I local supplier' under this order.

'Non-Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' under this order.

'*L1*' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'Margin of purchase preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'Nodal Ministry' means the Ministry or Department identified pursuant to this order in respect of a particular item of goods or services or works.

'Procuring entity' means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

'*Works*' means all works as per Rule 130 of GFR – 2017, and will also include 'turnkey works'.

2. Eligibility of 'Class-I local supplier'/'Class-II local supplier'/ 'Non-local suppliers' for different types of procurement:

a. In procurement of all goods, services or works in respect of which the Nodal Ministry/ Department has communicated that there is sufficient local capacity and local competition, only class-I local suppliers, as defined under the order, shall be eligible to bid irrespective of purchase value.

b. Only 'Class-I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement of all goods, services or works, not covered by sub para (a) above, and with estimated value of purchases less than Rs. 200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

c. For the purpose this Order, works includes Engineering, procurement and construction (EPC) contracts and services include System Integrator (SI) contracts.

3. Purchase Preference:

(a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.

(b) In the procurements of goods or works, which are covered by para 2(b) above and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier, the contract for full quantity will be awarded to L1.

ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to Class-I local supplier's quoted price failing within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

(c) In procurement of goods or works, which are covered by para 2(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier' as per following procedure:

i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is Class-I local supplier, the contract for full quantity will be awarded to L1.

ii. If L1 is not a 'Class-I local supplier' the lowest bidder among the Class-I local supplier' will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.

iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the class-1 local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

(d) 'Class-II local supplier' will not get purchase preference in any procurement, undertaken by procuring entities.

4. Applicability in tenders where contract is to be awarded to multiple bidders –

In tenders where contract is awarded to multiple bidders subject to matching of L 1 rates or otherwise, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

a) In case there is sufficient local capacity and competition for the item to be procured, as notified by the nodal Ministry, only Class I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only 'Class I Local suppliers'.

b) In other cases, 'Class II local suppliers' and 'Non local suppliers' may also participate in the bidding process along with 'Class I Local suppliers' as per provisions of this Order.

c) If 'Class I Local suppliers' qualify for award of contract for at least 50% of the tendered quantity in any tender, the contract may be awarded to all the qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class I Local suppliers' do not qualify for award of contract for at least 50% of the tendered quantity, purchase preference should be given to the 'Class I local supplier' over 'Class II local suppliers'/ 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class I Local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.

d) First purchase preference has to be given to the lowest quoting 'Class-I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class-I local supplier', does not qualify for purchase preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class-I local supplier', falling within 20% margin of purchase preference, and so on.

e) To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class-I local supplier' within the broad policy guidelines stipulated in sub-paras above.

5. Minimum local content: The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/ Department may prescribe only a higher percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier'! 'Class-II local supplier'. For the items, for which Nodal Ministry Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20% for 'Class-I local supplier'! 'Class-II local supplier' respectively.

6. Margin of Purchase Preference: The margin of purchase preference shall be 20%.

7. Verification of Local Content:

a. The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.

b. In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.

c. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules (GFR) for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

d. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed in below paragraph:

e. The Department of Expenditure shall issue suitable instructions for the effective and smooth operation of this process, so that:
   i. The fact and duration of debarment for violation of this Order by any procuring entity are promptly brought to the notice of the Member-Convener of the Standing Committee and the Department of Expenditure through the concerned Ministry !Department or in some other manner;
   ii. On a periodical basis such cases are consolidated and a centralized list or decentralized lists of such suppliers with the period of debarment is maintained and displayed on website(s);
   iii. In respect of procuring entities other than the one which has carried out the debarment, the debarment takes effect prospectively from the date of uploading on the website(s) in the a manner that ongoing procurements are not disrupted.

8. Specifications in Tenders and other procurement solicitations:

a. The eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.

b. The eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of 'Class-I local supplier'/ 'Class-II local supplier' who would otherwise be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.

9. Manufacture under license/ technology collaboration agreements with phased indigenization:

While notifying the minimum local content, special provisions may be made for exempting suppliers from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who holds intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase In local content.

10. Exemption of small purchases:

Procurements where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order

ANNEXURE- J

TERMS & CONDITIONS OF POST WARRANTY COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (PWCAM) (WHEREVER PWCAMC IS APPLICABLE IN ANY RFQ)

(Not Applicable to this RFQ)

The prices for PWCAMC are for complete scope of work and services as specified in the RFQ.

PWCAMC Charges are inclusive of all the charges for Transportation, Lodging, Boarding, all insurances including third party insurance, taxes & duties (except GST which shall be paid extra by Nalco) and all other incidental charges. The prices also include cost of spares and damaged parts (in case of comprehensive maintenance contract). Purchaser does not have any liability, whatsoever, over and above the prices of PWCAMC.

The PWCAMC charges also include arranging hand tools & tackles, special tools etc. required to carry out the work.

The payment terms for the PWCAMC shall be on quarterly basis on completion of each quarter against submission of Bills duly certified by the Engineer-in-charge.

The order for PWCAMC will be placed separately by NALCO before the expiry of contractual Warranty Period. However, the price of PWCAMC services will remain valid for specified Years (number of years for which PWCAMC is required) from the date of expiry of Warranty period.

Periodic and Preventive maintenance**:** Seller/Vendor shall depute their engineers to installation site as & when required for regular check-ups, as part of periodic maintenance. He shall also depute their service engineers periodically for preventive maintenance, major repairs/replacement and reporting. Price shall also include emergency visits as necessary.

Bidder to ensure compliance to guidelines on PPE (Personal Protective Equipment)

ANNEXURE- K

SITE SUPERVISION SERVICES (SUPERVISION OF ERECTION, TESTING & COMMISSIONING) (INDIAN BIDDERS)

Not Applicable to this RFQ

RFQ No:

ITEM:

PROJECT NAME: 5th Stream Alumina Refinery Expansion Project at NALCO, DAMANJODI, ODISHA, INDIA

NAME OF BIDDER :

(A) Terms & conditions for Site Supervision services for Indigenous bidders. Bidder shall quote per diem charges for site supervision services considering the following:

- The per diem rates shall include all travel costs, lodging, boarding, local transport, medical, all insurance including third party, income tax, all taxes & all other incidental charges.
- The per diem rates shall be all inclusive except for GST which shall be payable extra as applicable by Nalco.
- Per diem rates shall apply from the date the supervisory personnel reach site and up to the day they leave site. No payment shall be made for the transit period.
- Working hours as those prevailing at Site -Monday through Saturday, and holidays as applicable to site personnel shall apply.
- Vendor's supervisory personnel shall observe / abide by site working conditions prevailing in the existing refinery, safety codes and Indian laws.
- A notice period of 15 days will be given for site supervision services.
- The number of man days quoted by bidder for site supervision services will be considered for evaluation of priced bids.
- However, payment shall be made for the actual number of man-days of service rendered at site, as certified by EIC. However, if, due to reasons attributable to the Vendor, the number of man days of service rendered at site is more than the number of man days quoted by the bidder, then payment will be made only for the number of man days quoted by the Bidder irrespective of the increased number of man days at site. If, however, due to reasons attributable to Nalco, the number of man days of service rendered at site is more than the number of man days quoted by the bidder, then payment will be made by Nalco for the actual number of man-days of service rendered at site, as certified by EIC.
- Bidder to ensure compliance to guidelines on PPE (Personal Protective Equipment)
- The per diem rates for site supervision shall be firm & fixed till the expiry of contractual guarantee period (irrespective of the number of visits to be made by Vendor to NALCO site for rendering the above services).
- Co-ordination with sub-vendor(s) for timely availability of their service person at Nalco's Damanjodi Site is the responsibility of the Vendor.
- While rendering the above Site Supervision Services at NALCO's site, Vendor shall also train the Owners' personnel on the above equipment, at no extra cost to the Owner.

(B) Charges for Site Supervision of erection, testing & commissioning.

Number of Mandays & Charges to be quoted by Bidder in Priced Schedule Format

SIGNATURE & SEAL OF BIDDER

NAME OF THE BIDDER

ANNEXURE- L

DELETED

ANNEXURE-M
AGREED TERMS & CONDITIONS (ATC) (FOR INDIAN BIDDERS)

BIDDER's NAME: M/s. _____

RFQ No**:6695-PPM-G00-EC-0183**

ITEM: **Primary Support**

Bidder's Offer Ref. No._____ Dated _____

Tel No.: _____ Fax _____

Contact Person: _____

E-Mail: _____ Mobile No: _____

1) DULY SIGNED & STAMPED COPIES OF THIS PRE-FILLED "QUESTIONNAIRE" SHALL BE ENCLOSED WITH UNPRICED QUOTATION.
2) FAILURE ON THE PART OF BIDDER IN NOT RETURNING THIS DULY FILLED-UP "QUESTIONNAIRE WITH ALL THE SETS OF UNPRICED QUOTATION AND/OR SUBMITTING INCOMPLETE REPLIES MAY LEAD TO REJECTION OF BIDDER'S QUOTATION".
3) ALL THE COMMERCIAL TERMS AND CONDITIONS SHALL BE INDICATED BY VENDOR IN THIS FORMAT ONLY AND NOWWHEREELSE IN HIS QUOTATION. HOWEVER, IN CASE THE SPACE FOR VENDOR'S REPLY IS NOT SUFFICIENT AGAINST A PARTICULAR QUESTION, THE VENDOR SHALL FURNISH SAME BY WAY OF SEPARATE ANNEXURE ATTACHED TO THIS QUESTIONNAIRE, INDICATING CROSS-REFERENCE OF RESPECTIVE CLAUSES.]

SR. NO.	DESCRIPTION	BIDDER'S CONFIRMATION
1.a	Quoted prices are as per Price Schedule Format enclosed inclusive of Packing & Forwarding charges	Confirmed
1.b	Specify Despatch Point.	
1.c	(i) Quote firm freight charges extra up to Nalco Damanjodi site /VizagPort (as applicable) in % only	i. (a) Confirmed that Firm Freight charges up to Nalco **Damanjodi site / Vizag Port** have been quoted extra in % of FOT Despatch Point Value, in the Priced Bid.
	(ii) Vendor to dispatch the materials only through reputed and bank approved transporters having office / godown at Damanjodi in Odisha / Vizag. In case the material is dispatched through any other transporter, the same shall be "door delivery, consignee copy attached" basis and payment shall be released only after receipt of materials at Nalco Stores irrespective of payment terms mentioned in any other clause.	ii. Confirmed
	(iii) If a bidder does not quote freight charges, then the terms mentioned elsewhere in the ITB will apply.	iii. Confirmed
	(iv) In case of ODC/OWC bidders shall have to mandatorily quote for freight up to Project site. In case the bidder does not quote the freight charges, their offer shall be liable for rejection.	iv. Confirmed

SR. NO.	DESCRIPTION	BIDDER'S CONFIRMATION
1.d	**Transit risk insurance** shall be covered by the Owner against their MCE (Marine cum Erection) Policy and the same shall NOT be included in the quoted prices.	Confirmed
2.a	**GST applicable extra on finished Goods:** (i) HSN (Harmonized System Nomenclature) No. (ii) Present rate of GST	i. Quoted in Appendix – 1 to this ATC ii. Quoted in Appendix – 1
2.b	The GST Amount shall be released only on receipt of GST Invoice	Confirmed
2.c	Only statutory variations, if any, in the present rate of GST shall be reimbursed as under: (i) Any statutory increase in the GST or any new or additional taxes or duties imposed within the Contractual delivery date or extended contractual delivery date shall be to Nalco's account whereas if it is after Contractual delivery date it shall be to BIDDER'S account. Any corresponding decrease on account of above shall be passed on to Nalco. (ii) Any variation in GST at the time of supplies for any reasons other than statutory including variations due to turnover shall be borne by BIDDER. (iii) In case of GST or any taxes or duties is not applicable at present but becomes applicable at the time of contractual delivery period due to any reasons other than statutory, the same shall be borne by BIDDER.	Confirmed Confirmed Confirmed
3.a	**SUPERVISION CHARGES** For Supervision Charges, if in the scope of the Bidder as per RFQ, please confirm the following: (i) Confirm that per diem rate for site supervision services is all inclusive but excluding only GST, (ii) Percentage of GST as applicable extra on Supervision Charges. (iii) Per-diem rate for supervision has been quoted in accordance with the Terms and Conditions for Supervision mentioned in Annexure K above.	**(Not Applicable to this RFQ)** ~~i. Confirmed~~ ~~ii. .....%~~ iii. ~~Confirmed~~
3.b	**SITE WORK** For Site Work, if in the scope of the Bidder as per RFQ please confirm the following: (i) Confirm that quoted site work prices are exclusive of GST. (ii) Any statutory increase in the GST or any new or additional taxes or duties imposed within Contractual delivery date or extended Contractual delivery date shall be to Nalco's account whereas if it is after contractual delivery, it shall be to BIDDER's account. Any	**(Not Applicable to this RFQ).**

SR. NO.	DESCRIPTION	BIDDER'S CONFIRMATION
	corresponding decrease on account of above shall be passed on to Nalco	
4.	**Price Reduction Schedule**	
	(i) Confirm Acceptance to PRS clause as per Nalco's GPC and SPC	i. Confirmed
	(ii) However, please note that % of Price Reduction mentioned in Clause No. 23 (i) of GPC has been revised to **½ % of the Undelivered Order Value (UDOV) without GST per week of delay or part thereof, subject to a maximum of 5% of Total Order Value without GST. The date of last Lorry Receipt (LR) shall be considered as the date of delivery for the purpose of PRS.**	ii. Confirmed
	(iii) In case of package items (ordered as a complete system), the price adjustment shall be applicable on the entire order value of that package and not on the value of the undelivered portions (even though a billing breakup has been approved for the package).	iii. Not Applicable to this RFQ
	(iv)In case of purchase of bulk items where tolerance limit is specified (e.g. Pipes, cables, steel etc.); Price adjustment clause shall be applicable on the actual quantity supplied, within the tolerance limit, instead of Purchase Order quantity.	iv. Not Applicable to this RFQ
	(v) In case of different delivery period mentioned in RFQ, price adjustment clause shall be applicable on the respective delivery period.	v. Not Applicable to this RFQ
	(vi)Also confirm acceptance to the PRS clause mentioned in the SPC (for nonfulfillment of guarantee parameters).	vi. Not Applicable to this RFQ
5 5.a	**Delivery Period and Schedule:** Please confirm acceptance to delivery period as stipulated in the RFQ.	Confirmed
5.b	Delivery period will be reckoned from the date of Nalco's Brief Order of Acceptance (BOA) or LOA or FOA.	Confirmed
6	**Payment Terms:** (i) Please confirm acceptance to following: Acceptance of applicable Payment terms as mentioned in SPC	(i) Confirmed
	~~(ii) Refer SPC regarding Interest Bearing Advance Payment. Bidder to confirm whether they require Advance Payment as per SPC.~~	~~(ii) Yes / No (If Yes, then terms shall be as per SPC without any deviation).~~

SR. NO.	DESCRIPTION	BIDDER'S CONFIRMATION
7.a	**Part Order:** (i) Acceptance of Part Order as per ITB. (ii) Any charges quoted extra as lump sum (like IBR, Testing, freight, etc.) shall be applicable pro-rata on value basis in the event of part order/ part quantities/ split order.	i. Confirmed ii. Confirmed
7.b.	**MSE Bidder:** (i) Confirm whether the bidder is an MSE bidder or not (ii) Confirm that you have attached the copy of certificate of registration with any one of the agencies stated in the tender document and specified by Ministry of MSME indicating details of the particular tendered item along with your bid to avail the benefits/preference to MSEs (iii) If bidder is MSE bidder; Confirm whether bidder is SC/ST owned MSE bidder. (iv)If bidder is MSE bidder; Confirm whether bidder is Women owned MSE bidder (v) Confirm that you have attached the copy of the SC/ST certificate issued by District Authority. (vi)Confirm that you have furnished UAM (Udyog Adhar memorandum) number	i. YES / NO ii. _____ iii. _____ iv. _____ v. _____ vi. _____
8.	**Repeat Order**: Confirm acceptance of repeat order within 12 months from the date of Nalco's BOA, on the same unit price and terms & conditions.	Confirmed
9.	**Contract Performance Bank Guarantee:** Vendor shall submit Contract Performance Bank Guarantee for **5%** of total order value as per SPC and as per Nalco's format enclosed with the RFQ.	Confirmed
10.	**Firmness of prices:** Quoted prices shall remain Firm and Fixed till complete execution of the Order without any escalation for any reason whatsoever.	Confirmed
11 11.a	**Testing and Inspection charges:** Goods and services shall be subject to stage-wise and final inspection by Consultant / Owner and all testing & inspection charges are included in quoted prices. However, travel, lodging, boarding and insurance charges of Consultant's / Owner's personnel shall be borne by Consultant / Owner respectively.	Confirmed

SR. NO.	DESCRIPTION	BIDDER'S CONFIRMATION
11.b	**Quoted prices are:** (i) Inclusive of charges for all facilities required for testing, and charges for all inspection & all testing specified in the technical specifications and documents enclosed with the RFQ. (ii) Inclusive of all IBR/ IGC/ NACE/ Radiography charges as per technical specifications and the documents enclosed with the RFQ.	i. Confirmed ii. Confirmed
12	**Validity:** (i) Validity of the offer shall be as per ITB. (i.e. 4 months from the due date, or extended due date if any, for submission of bids). (ii) For Package Unit involving supply, erection, testing & commissioning, validity of the offer shall be 6 months from the due date, or extended due date if any, for submission of bids.	i. Confirmed ii. Not Applicable to this RFQ
13	**GUARANTEE PERIOD:** Guarantee period for supply items shall be 12 (twelve) months from the date of successful commissioning of the plant or 30 months from the date of last dispatch, whichever is earlier.	Confirmed
14	Confirm acceptance to SA 8000 questionnaire.	Confirmed
15	Confirm that the Proforma Of Declaration of Black Holiday Listing has been attached Annexure to SPC & ITB.	Confirmed
~~16~~ ~~a)~~ ~~b)~~ ~~c)~~ ~~d)~~	~~Spares Parts, Tools & Tackles:~~ ~~Confirm that your quoted prices are inclusive of all commissioning spares and all mandatory spares as stipulated in the RFQ documents.~~ ~~Confirm that mandatory spares shall be considered as per the philosophy mentioned in technical specifications.~~ ~~Confirm that item wise unit price of Recommended spare parts for one year operation & maintenance have been quoted separately, as required in the tender document.~~ ~~All Tools and Tackles as specified in the RFQ technical specifications are included in the quoted prices.~~	~~Not Applicable to this RFQ~~ ~~a) Not Applicable to this RFQ~~ ~~b) Not Applicable to this RFQ~~ ~~c) Not Applicable to this RFQ~~ ~~d) Not Applicable to this RFQ~~

SR. NO.	(i) DESCRIPTION	i. BIDDER'S CONFIRMATION
18	Any claim arising out of Order shall be sent to Nalco /Consultant in writing within 3 months from the date of last Dispatch. In case the claim is received after 3 months, the same shall not be entertained by Nalco /representative	Confirmed
19	i) Bidder to indicate the complete name and address of Bidding entity on which order to be placed by Nalco (in the event of an order) ii) Bidder to confirm that **PAN Card** & **GST Registration Certificate** as per the Name of Bidding entity mentioned above are enclosed with the **Part-1 Bid.**	i) ---------- ---------- ---------- ii) Confirmed
20.	Printed terms and conditions, if any, appearing in quotation, shall not be applicable. In case of contradiction between the confirmations given above and terms & conditions mentioned elsewhere in the offer, the confirmation given above in this ATC shall prevail.	Confirmed
21.	**Packing details confirmation** a) Dimensions (L x W x H) cm. b) Net Weight- in Kg. c) Gross Weight - in Kg.	---------- ---------- ----------
22.	(i) Bidder to confirm whether they will avail Purchase Preference linked with Local Content mentioned in ITB. (ii) If Yes, Bidder to confirm Declaration Form for availing purchase preference is submitted.	i. YES / NO ii. ……
23.	TOLERANCE - Confirm that the Pipe length shall be supplied in random lengths of minimum 4m as indicated in General Notes 1.1 of technical document 6695-PIP-G00-EC-0007_rev.02) without any limitation on maximum length.	Not Applicable to this RFQ
24.	Confirm Acceptance of all other terms & conditions as per attached: a) Request for Quotation (RFQ) b) General Purchase Conditions (Indigenous) c) Special Purchase Conditions(SPC) d) Instructions to Bidders (ITB) e) Terms & Conditions for supervision of Erection, Testing & Commissioning for Indigenous Bidders. (Ref Annexure-K) f) Terms & Conditions for Site Work / HSE. g) Integrity Pact. h) Packing, Marking, Shipping - As per SPC & ITB and Technical specifications enclosed with RFQ i) Terms & Conditions for Post Warranty Comprehensive Annual Maintenance Contract (PWCAMC) (Ref Annexure-J)	a) Confirmed b) Confirmed c) Confirmed d) Confirmed e) Not Applicable to this RFQ f) Not Applicable to this RFQ. g) Confirmed h) Confirmed i) Not Applicable to this RFQ

SR. NO.	a) DESCRIPTION	b) BIDDER'S CONFIRMATION
26	a) Bidder to also note & take cognizance of the GUIDELINES FOR ELIGIBILITY OF A "BIDDER FROM A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA", attached with this ITB (ANNEXURE-T). b) Bidder to confirm that they have submitted the duly signed and stamped certificates (CERTFICATE REGARDING COMPLIANCE), mentioned in the above referred document 26 a), with their techno-commercial unpriced bid, failing which the bid is liable for rejection. The certificates need to be signed by the duly authorized signatory of the bidder. Please mention RFQ(MR) number in this certificate.	a) Confirmed b) Confirmed
27	Bidder to submit the **Declaration / information for deduction of tax at source u/s 194Q of Income Tax Act, 1961** as per the draft enclosed with this ITB.	Submitted.

BIDDER'S SIGNATURE & DATE: ----------

SEAL & STAMP

APPENDIX-1 TO ATC
TAXES AND DUTIES FORMAT FOR INDIAN BIDDERS

NAME OF BIDDER: _____

VENDOR OFFER REF. _____ Dated _____

RFQ No: **6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

The salient features of the offer are as below:

1. SPECIFY DESPATCH POINT 2. GSTIN NO. OF DESPATCH POINT	---------- ----------
3. SPECIFY INVOICING PLACE 4. GSTIN NO. OF INVOICING PLACE	---------- ----------
5. PACKING & FORWARDING CHARGES	INCLUDED IN THE QUOTED BASIC PRICE
6. FREIGHT CHARGES EXTRA UPTO PROJECT SITE ON QUOTED BASIC PRICE	Quoted in Price Schedule (BOQ)
7. HSN CODE OF GOODS	……. …….
8. GST APPLICABLE ON QUOTED FOT DESPATCH POINT PRICES **CGST plus SGST ( ) / IGST ( )** **(√) WHICH IS APPLICABLE**	……. % Extra
9. SAC CODE FOR SITE SUPERVISION/SITE WORK/TRAINING CHARGES	Not Applicable to this RFQ
10. GST APPLICABLE EXTRA ON QUOTED SITE SUPERVISION/SITE WORK/TRAINING CHARGES	Not Applicable to this RFQ
11. CURRENCY OF QUOTE	INR
12. INDICATE ANY OTHER GOVERNMENT TAX/LEVY APPLICABLE AND ITS RATES.	

BIDDER'S SIGNATURE & DATE: _____

SEAL/STAMP:

ANNEXURE-N

DELETED

APPENDIX-2 TO ATC
DELETED

APPENDIX-3 TO ATC
CONTACT DETAILS OF VENDOR

RFQ No**:** **6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

Bidder's Offer Reference No.: Bidder's Name:

Bidder's Address: ----------
City------- -------- PIN---------- State----------
Phone---------- Fax----------

Please fill up the details below:

Designation	Name	Telephone Nos.	Mobile Nos.	E-mail IDs
CEO/CMD				
Country Manager				
Area Manager				
Marketing Manager				
Sales – Head				
Contact Person(s) for this Tender				
Contact Person at Bhubaneswar, if any				

Note:

1. Designations are indicative only. Actual designations may please be mentioned.
2. All the concerned persons in the hierarchy must appear in the above list.
3. In case of multiple phone nos., mobile nos., e-mail IDs, the same may also please be given.

Signature of the bidder

Name: ----------Designation: ---------- Mobile No.: ----------

APPENDIX-4 TO ATC
VENDOR BANK MANDATE

On the Letterhead of the Vendor/ Contractor / Supplier
N.B.: RTGS/ NEFT charges, if any, are to be borne by the party.

Bank MANDATE FORM for e-payment
(To be submitted in Duplicate)

To
National Aluminium Company Limited,
……..
(respective Unit address of NALCO)

Dear Sir,
Sub: Authorization for release of payment due from NALCO, ……. (respective unit address) through e-mode facilities of RTGS/NEFT/Internet Banking.

Refer Order No……. dt …… and/or Tender/Enquiry/Letter No……. dt ……
(Please fill in the information in CAPITAL LETTERS. Please TICK wherever it is applicable)

1. Name of the Party :
2. Address of the party : ……
   ……..
   ……
   City: ……. Pin Code: ……..
   E-mail id: ……
   Permanent Account Number: ……
3. Particulars of Bank:

Bank Name						Branch Name													
Branch Place						Branch City													
Pin Code						Branch Code													
MICR No.																			
Account Type ?		Savings ?				Current ?						Cash Credit ?							
Account Number (as appearing in the Cheque Book)																			
(9 Digits code number appearing on the MICR Band of the cheque supplied by the Bank. Please attach Xerox copy of a cheque of your bank for ensuring accuracy of the bank name, branch name and code number)																			
IFSC Code																			

4. Date from which the mandate should be effective:

I hereby declare that the particulars given above are correct and complete. If any transaction is delayed or not effected for reasons of incomplete or incorrect information, I shall not hold National Aluminium Company Limited responsible. I also undertake to advise any change in the particulars of my account to facilitate updation of records for purpose of credit of amount through Internet/RTGS/NEFT.

Place:
Date:

Signature of the party/Authorized Signatory

Certified that particulars furnished above are correct as per our records.

Bank's Stamp:
Date: (Signature of the Authorized Official from the Banks)

APPENDIX -5 TO ATC
STATEMENT OF UNAVOIDABLE DEVIATIONS (COMMERCIAL)

RFQ No: **6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

BIDDER's NAME: M/s. ----------

Bidder's Offer Ref. No. ----------

The bidder confirms that:

Following are the only deviations to the commercial terms and conditions. Bidder also confirms that any deviation taken anywhere else in the offer shall be considered as invalid.

Sl. No.	Clause No. of GPC or SPC or ITB document	Clause Condition	Bidder's Condition

BIDDER'S NAME:

AUTHORIZED PERSON:

TITLE:

SIGNATURE:

DATE:

COMPANY STAMP

Please note that bidders are normally not allowed to take deviations and any deviation listed above may make the Bid liable for rejection. Deviations stipulated elsewhere other than in this Appendix 5 to ATC shall NOT be taken cognizance of.

APPENDIX -6 TO ATC
STATEMENT OF UNAVOIDABLE DEVIATIONS STATEMENT (TECHNICAL)

RFQ No: **6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

BIDDER's NAME: M/s. ----------

Bidder's Offer Ref. No. ----------

The bidder confirms that:

Following are the only deviations to the technical terms and conditions. Bidder also confirms that any deviation taken anywhere else in the offer shall be considered as invalid.

Sl. No.	Clause No. of Tender document	Condition	Bidder's Condition

BIDDER'S NAME:

AUTHORIZED PERSON:

TITLE:

SIGNATURE:

DATE:

COMPANY STAMP

Please note that bidders are normally not allowed to take deviations and any deviation listed above may make the Bid liable for rejection. Deviations stipulated elsewhere other than in this Appendix 6 to ATC shall NOT be taken cognizance of.

APPENDIX -7 TO ATC

DECLARATION BY THE BIDDERS REGARDING NON-TAMPERING OF TENDER DOCUMENTS

RFQ No: **6695-PPM-G00-EC-0183**

ITEM: **Primary Support**

Bidder's Offer Reference No.:

The bidder declares that none of the RFQ documents have been tampered with. In case of tampering of tender documents, the bid shall be rejected outright and EMD (if applicable) forfeited without prejudice to any other rights or remedies available to Nalco

BIDDER'S NAME:

AUTHORIZED PERSON:

TITLE:

SIGNATURE:

DATE:

COMPANY STAMP

ANNEXURE-O
SOCIAL ACCOUNTABILITY 8000 COMPLIANCE FORMAT

RFQ No: **6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

A. Basic information

Name of the organization		
Address		
Telephone No		
Name of the Proprietor		
Nature of Business		
License Number and date of expiry		
Employees	Staff (Total Number)	Workmen (Total Number)
• Permanent		
• Casual		
• Badli		
• Temporary		
• Contracted		

B. Information regarding Social Accountability

- What is the minimum age required to join your organization? _____ Years
- What types of certificates (Like mark sheet, birth certificate) you keep with you? Original Copy/Xerox
- Do you require to keep any kind of deposit inform of cash at the time of employment? Yes/No
- Do you provide safe & healthy work environment as per statutory requirement? Yes/No
- If directly not provided by you, do you get health & safety benefits from NALCO? Yes/No
- Are you certified for SA 8000? Yes/No

If Yes, please submit a copy of SA8000 Certificate along with this filled up questionnaire

- Have you undergone Code of Conduct Audit (COC Audit) in last 2 years? Yes/No

  If yes, please submit a copy of Code of Conduct Audit Report along with this filled up questionnaire
- Have your sub-suppliers been certified for SA 8000? Yes/No
- Have your sub-suppliers undergone Code of Conduct Audit (COC Audit) in last 2 years? Yes/No
- Do you provide personal protective equipment(s) to your employees free of cost? Yes/No
- Do you provide safety training to your employees? Yes/No
- Do you ensure canteen facility for your employees? Yes/No
- If not, do you get the facilities from NALCO Yes/No
- What types of medical benefits you provide to your employees?

  _____
  _____
  _____
  _____
- Do you allow trade union and collective bargaining in your organization? Yes/No

  If no, how do you ensure freedom of expression?

  _____
  _____
  _____
- In case of non-performance of any employee, how do you deal with such situations?

  _____
  _____
  _____
  _____
- What are the procedures of hiring/promotion/ remuneration in your organization?

  _____
  _____
  _____
- Do you provide appointment letter to your employees? Yes/No

- Do you maintain a documented terms and conditions of employment? Yes/No
- Do you maintain a disciplinary procedure? Yes/No
- If no, how do you terminate your employee?

_____
_____
_____

- How do you ensure that your employees are not discrimination on the basis of cast creed, gender, religion, age and dieses?

_____
_____
_____
_____

- How many shift you have? _____ shifts
- What is the official working time? _____ hours
- Which day is off day in your organization? _____
- In case, a person works in off day or holiday, how is he/she compensated?

_____
_____
_____

- Do you pay overtime to your employees as per law? Yes/No
- What is the lowest amount (salary/wage) you pay to your employees? Rs. _____ /-
- Is there any case of deduction in wage? Yes/No
- In case, it is yes, what are the general reasons for such deduction?

_____
_____
_____

- Is there any apprentice period in your organization? Yes/No
- If yes, what is the apprentice period in your organization? _____
- Do you have any international certification Yes/No
- If yes, please specify

- Do you receive, handle or promote goods and/or services from supplier/subcontractors or sub-suppliers Yes/No

- Do you receive, handle or promote goods and/or services from supplier/subcontractors or sub-suppliers who are classified as home worker? Yes/No

- If yes, what steps you have taken to ensure that they get similar level of protection as afforded to directly employed employees?

- Have you taken care to look into issues related to child labor Yes/No

  Forced labor, health & safety, working hours and remuneration of your suppliers

We do hereby declare that our organization is committed to social accountability. We will promptly implement remedial/corrective actions identified against the requirement and promptly inform your organization. We also declare that the sub-contractors / sub supplier's performances are monitored by us. Moreover, we declare that if invited, we shall participate in awareness program as well as monitoring program organized by you.

We declare that the above-mentioned information is correct.

Signature:

Designation:

Date Seal of the organization

ANNEXURE-P
BANK GUARANTEE FORMATS

PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT
(To be executed on non-judicial stamped paper of appropriate value)

B. G. No. Date:

1. WHEREAS M/s National Aluminium Company Limited (A Government of India Enterprise), having its Unit/Office at .....(UNIT/OFFICE ADDRESS ISSUING THE TENDER) (hereinafter called "The Company" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has issued Tender paper vide its Tender No ..... dt..... for ..... (hereinafter called "the said tender") to M/s. .....(hereinafter called the said Tenderer(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns and as per terms and conditions of the said tender, the tenderer shall submit a Bank Guarantee for Rs. ..... (Rupees .....only) towards earnest money in lieu of cash.

2. WE Bank having its branch office at ..... do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Company stating that in the opinion of the company which is final and binding, the amount claimed is due because of any withdrawal of the tender or any material alteration to the tender after the opening of the tender by way of any loss or damage caused to or would be caused or suffered by the Company by reason of any breach by the said tenderers(s) of any of the terms and conditions contained in the said tender or failure to accept the Letter of Intent Agreement or that the amount covered under this Guarantee is forfeited. Any such demand made on the Bank by the Company shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs..... (Rupees ..... only).

3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the tenderer(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the Company proceeding against the tenderer.

4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said tenderer(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/ Order(s) are fulfilled.

5. WE .....Bank Ltd. further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the finalization of the said tender and that it shall continue to be enforceable till the said tender is finally decided and order placed on the successful tenderer(s) and or till all the dues of the company under or by virtue of the said tender have been fully paid and its claims satisfied or discharged or till a duly authorised officer of the company certifies that the terms and conditions of the said tender have been fully and properly carried out by the said tenderer(s) and accordingly discharges the guarantee.

6. That the Company will have full liberty without reference to us and without affecting this guarantee to postpone for any time or from time to time. The exercise of any of the power of the Company under the tender.

7. Notwithstanding anything contained herein before, our liability shall not exceed Rs..... (Rupees..... only) and shall remain in force till.....Unless a demand or claim under this Guarantee is made on us within three months from the date of expiry, we shall be discharged from all the liabilities under this guarantee.

8. We _____Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch name and address of the branch), Bhubaneshwar, Odisha-751XXX.

9. We ..... Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing. We further undertake to keep this Guarantee renewed from time to time on the request of Tenderer(s).

Date. . . . . Bank
Corporate Seal of the Bank By its constitutional Attorney

Signature of duly Authorised person
On behalf of the Bank With seal & signature code

Details of Persons Issuing the BG:

Name ----------
Address for Correspondence; .....
Telephone & Fax No.
E-mail:
IFSC code

Note: BGs to be furnished from any of the approved banks of NALCO. Also adhere to below Note.

Note:

Further, any domestic Guarantee issued by PSU Bank (or) Private Bank (or) Foreign Bank operatingin in India must be operational and invocable in Bhubaneswar only. For Guarantee to be operational in Bhubaneswar, the issuing Bank must designate a specified Bank Branch in Bhubaneswar. Accordingly, the following clause has to be inserted in the existing BG Format for EMD / SD / Contract / Advance Payment in the following style :

"We _____ Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch Name and address of the Branch), Bhubaneswar, Odisha 751xxx"

In the case of Foreign currency BGs, the BG issuing Bank must have correspondent relationship with State Bank of India.

BANK GUARANTEE FOR SECURITY DEPOSIT
(To be executed on non-judicial stamped paper of appropriate value)

B. G. No.

Date:

1. In consideration of National Aluminium Company Limited (A Government of India Enterprise), having its UNIT/Office at (UNIT/OFFICE ADDRESS WHERE THE WORK IS EXECUTED) (hereinafter called "The Company" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) having agreed to exempt M/s. ..... (Hereinafter called "the said Contractor(s)/ Seller(s)"), which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns) from the demand under the terms and conditions of Contract(s)/ Order(s) No. ..... dt. .....for (work/assignment description) of cash security deposit for the due fulfillment by the said contractor(s)/seller(s) of the terms and conditions contained in the said Contract(s)/Order(s), on production of Bank Guarantee for Rs. ..... (Rupees.....only).

2. We ..... Bank having its branch office at ..... do hereby agree and undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Company stating that in the opinion of the company which is final and binding, the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of any breach by the said Contractor(s)/seller(s) of any of the terms and conditions contained in the said contract(s)/orders(s) or by reasons of the said Contractor(s)/ Seller(s) failure to perform the said Contract(s)/ Order(s) including defect liability obligations or that the amount covered under this guarantee is forfeited. Any such demand made on the Bank by the Company shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs ..... (Rupees..... only).

3. We undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) / Se|ler(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the Company proceeding against the Contractor(s)/Seller(s).

4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said Contractor(s)/Seller(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s) / Order(s) are fulfilled.

5. We .....Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract(s)/ Order(s) and that it shall continue to be enforceable till all the dues of the company under or by virtue of the said Contract(s)/Order(s) have been fully paid and its claims satisfied or discharged or till a duly Authorised officer of the company certifies that the terms and conditions of the said Contract(s)/Order(s) have been fully and properly carried out by the said contractor(s) and accordingly discharges the guarantee.

6. We ..... Bank further agree with the Company that the company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract(s)/Order(s) or to extend the time of performance by the said Contractor(s)/Seller(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s)/Seller(s) and to forbear or enforce any of the terms and conditions relating to the said Contract(s)/Order(s) and we shall not be relieved from our liability by reason of any such variations, or extension being granted to the said Contractor

(s)/ Seller(s) or for any forbearance, act or omissions on the part of the Company or any indulgence by the Company to the said Contractor(s)/Se|ler(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.

7. Notwithstanding anything contained herein before, our liability shall not exceed Rs ..... (Rupees ..... only) and shall remain in force till.....Unless a demand or claim under this Guarantee is made on us within three months from the date of expiry, we shall be discharged from all the liabilities under this guarantee.

8. We _____Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch name and address of the branch), Bhubaneshwar, Odisha-751XXX.

9. We ..... Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing. We further undertake to keep this Guarantee renewed from time to time at the request of Contractor(s)/ Sellers(s).

Date. . . . . Bank
Corporate Seal of the Bank By its constitutional Attorney

Signature of duly Authorised person

On behalf of the Bank With seal & signature code

Detail of Persons Issuing the BG:
Name----------
Address for Correspondence: ----------
Telephone & Fax No. -------
E-mail: ----------
IFSC code

Note: BGs to be furnished from any of the approved banks of NALCO. Also adhere to below Note.

Note:

Further, any domestic Guarantee issued by PSU Bank (or) Private Bank (or) Foreign Bank operatingin in India must be operational and invocable in Bhubaneswar only. For Guarantee to be operational in Bhubaneswar, the issuing Bank must designate a specified Bank Branch in Bhubaneswar. Accordingly, the following clause has to be inserted in the existing BG Format for EMD / SD / Contract / Advance Payment in the following style :

"We _____ Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch Name and address of the Branch), Bhubaneswar, Odisha 751xxx"

In the case of Foreign currency BGs, the BG issuing Bank must have correspondent relationship with State Bank of India.

PROFORMA FOR CONTRACT CUM PERFORMANCE GUARANTEE BY SELLER/ CONTRACTOR.

(To be executed on non-judicial stamped paper of appropriate value)

B. G. No .....

Date .....

1. WHEREAS National Aluminium Company Limited (A Government of India Enterprise) having its Unit/Office at ..... (UNIT/OFFICE ADDRESS WHERE THE WORK IS EXECUTED) (hereinafter referred to as "The Company" which expressions shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has entered into a contract with M/s..... has placed a purchase order on M/s .....(hereinafter referred to as "Contractor(s) / Sel|er(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns) for ..... (work/assignment description) on the terms and conditions as set out inter alia, in the Company's contract No./ P.O. No. .....dated ..... and various documents forming part thereof hereinafter referred to as the "said contract" which expression include all amendments, modifications and/ or variations thereto and whereas the Contractor(s)/Seller(s) has agreed for due execution of the entire contract and guarantees its performance including any parts executed through any other agencies/subcontractors.

   AND WHEREAS one of the conditions of the "said contract" is that contractor(s)/se||er(s) shall furnish to the Company a Bank Guarantee from a bank for .... % (..... percent) of the total value of the "said contract" against due and faithful performance of the "said contract" including defect liability obligations and the performance guarantee obligations of the contractor(s)/seller(s) for execution/ supplies made under the "said contract."

2. We ..... Bank having its branch office at ..... do hereby agree and undertake to pay the amount due and payable under this guarantee without any demur merely on a demand from the Company stating that in the opinion of the Company, which is final & binding, the amount claimed is due by reason of default made by the Contractor(s)/Se||er(s) in performing any of the terms & conditions of the said Contract including defect liability obligations, in fulfilling the performance guarantee obligation or loss or damage caused to or would be caused to or suffered by the Company by reason of any breach by the said Contractor(s)/Seller(s) of any of the terms & conditions of the contract. Any such demand made on the Bank by the Company shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to Rs. (Rupees ..... only).

3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the contractor(s)/Se||er(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the Company proceeding against the Contractor(s)/Seller(s).

4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said Contractor(s)/Seller(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/Order(s) are fulfilled.

5. We .....Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract(s)/Order(s) and that it shall continue to be enforceable till all the dues of the company under or by virtue of the said

Contract(s)/Order(s) have been fully paid and its claims satisfied or discharged or till a duly authorised officer of the Company certifies that the terms and conditions of the said Contract(s)/Order(s) have been fully and properly carried out by the said contractor(s) and accordingly discharges the guarantee.

6. We ..... Bank further agree with the Company that the company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract(s)/Order(s) or to extend the time of performance by the said Contractor(s)/Seller(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s)/Seller(s) and to forbear or enforce any of the terms and conditions relating to the said Contract(s)/Order(s) and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s)/Seller(s) or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the said Contractor(s)/Seller(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.

7. Notwithstanding anything contained herein before, our liability shall not exceed Rs ..... (Rupees ..... only) and shall remain in force till.....Unless a demand or claim under this Guarantee is made on us within three months from the date of expiry, we shall be discharged from all the liabilities under this guarantee.

8. We _____Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch name and address of the branch), Bhubaneshwar, Odisha-751XXX.

9. We ..... Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing. We further undertake to keep this Guarantee renewed from time to time at the request of Contractor(s)/Sellers(s).

Date. . . . . Bank
Corporate Seal of the Bank By its constitutional Attorney

Signature of duly Authorised person

On behalf of the Bank With seal & signature code

Details of Persons Issuing the BG:
Name----------
Address for Correspondence: ----------
Telephone & Fax No. -------
E-mail: ----------
IFSC code

Note: BGs to be furnished from any of the approved banks of NALCO. Also adhere to below Note.

Note:

Further, any domestic Guarantee issued by PSU Bank (or) Private Bank (or) Foreign Bank operatingin in India must be operational and invocable in Bhubaneswar only. For Guarantee to be operational in Bhubaneswar, the issuing Bank must designate a specified Bank Branch in Bhubaneswar. Accordingly, the following clause has to be inserted in the existing BG Format for EMD / SD / Contract / Advance Payment in the following style :

"We _____ Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch Name and address of the Branch), Bhubaneswar, Odisha 751xxx"

In the case of Foreign currency BGs, the BG issuing Bank must have correspondent relationship with State Bank of India.

BANK GUARANTEE FOR ADVANCE PAYMENT
(To be executed on non-judicial stamped paper of appropriate value)

B. G. No.

Date:

1. In consideration of National Aluminium Company Limited (A Government of India Enterprise), having its Unit/Office at (UNIT/OFFICE ADDRESS WHERE THE WORK IS EXECUTED) (hereinafter called "The Company" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) having agreed to make an advance payment of Rs..... (Rupees .....only) to M/s. ..... (hereinafter called "the said Contractor(s)/Seller(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns) from the demand, terms and conditions of Contract/Order No..... dated for ..... (work/assignment description) on production of a bank guarantee equivalent to 110% of the advance payment indicated above.

2. We ..... Bank having its branch office at .....do hereby agree and undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Company stating that in the opinion of the Company which is final and binding, the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of non-payment/adjustment of any part of the said advance or any clues to the company or any breach by the said Contractor(s)/se|ler(s) of any of the terms and conditions contained in the said contract(s)/orders(s) or by reasons of the Contractor(s)/Seller(s) failure to perform the said Contract(s)/Order(s). Any such demand made on the Bank by the Company shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs (Rupees ..... only).

3. We undertake to pay to the Company any money so demanded not withstanding any claim dispute or disputes raised by the contractor(s)/Seller(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependable or conditional on the Company proceeding against the Contractor(s)/Seller(s).

4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said tenderer(s) but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/order(s) are fulfilled.

5. We .....Bank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Contract(s)/Order(s) and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Contract(s)/Order(s) have been fully paid and its claims satisfied or discharged or till a duly authorized officer of the Company certifies that the terms and conditions of the said Contract(s)/Order(s) have been fully and properly carried out by the said Contractor(s)/Seller(s) and accordingly discharges this guarantee.

6. That the Company/Company will have fully liberty without reference to us and without affecting this guarantee to postpone for any time or from time to time the exercise of any of the power of the Company under the Contract(s)/Order(s).

7. Notwithstanding anything contained herein before, our liability shall not exceed Rs ..... (Rupees ..... only) and shall remain in force till.....Unless a demand or claim

under this Guarantee is made on us within three months from the date of expiry, we shall be discharged from all the liabilities under this guarantee.

8. We _____Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch name and address of the branch), Bhubaneshwar, Odisha-751XXX.

9. We ..... Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing. We further undertake to keep this Guarantee renewed from time to time on the request of the Contractor(s)/Seller(s).

Date. . . . . Bank
Corporate Seal of the Bank By its constitutional Attorney

Signature of duly Authorised person
On behalf of the Bank With seal & signature code

Details of Persons issuing the BG:
Name----------
Address for Correspondence: ----------
Telephone & Fax No. -------
E-mail: ----------
IFSC code

Note: BGs to be furnished from any of the approved banks of NALCO. Also adhere to below Note.

Note:

Further, any domestic Guarantee issued by PSU Bank (or) Private Bank (or) Foreign Bank operatingin in India must be operational and invocable in Bhubaneswar only. For Guarantee to be operational in Bhubaneswar, the issuing Bank must designate a specified Bank Branch in Bhubaneswar. Accordingly, the following clause has to be inserted in the existing BG Format for EMD / SD / Contract / Advance Payment in the following style :

"We _____ Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch Name and address of the Branch), Bhubaneswar, Odisha 751xxx"

In the case of Foreign currency BGs, the BG issuing Bank must have correspondent relationship with State Bank of India.

BANK GUARANTEE AGAINST FREE ISSUE OF MATERIALS

GUARANTEE NO DATE

WHEREAS National Aluminium Company Limited (hereinafter referred to as "the Company") which expression shall unless repugnant to the context includes their legal representatives, successors and assigns having their registered office at NALCO BHAWAN, P/1, NAYAPALLI, BHUBANESWAR-751061, Odisha, and their Branch Unit/office at _____ (UNIT/OFFICE ADDRESS), has entered into a Contract with M/s _____ (hereinafter referred to as the Contractor which expression shall unless repugnant to the context include their legal representatives, successors and assigns for the work of _____ on the terms and conditions as set out, inter-alias, in the Company's Contract No._____ dated: _____ and various documents forming part thereof hereinafter collectively referred to as the "said contract" which expression shall include all amendments, modifications and/or variations thereto.

AND WHEREAS one of the conditions of the said contract is that the Company has agreed to supply to the contractor raw-materials (hereinafter referred to as the "said materials") for the purpose of execution by the contractor of the said contract and pending execution by the contractor of the said contract incorporating the said materials, the said materials shall be under the custody and charge of the contractor and shall be kept, stored, altered, worked upon and/or fabricated at the sole risk and expense of the Contractor.

AND WHEREAS the Company has asked the contractor for adequate security for the said materials to be supplied to the contractor under the contract.

AND WHEREAS at the request of the contractor the Company has agreed to accept a bank guarantee from _____ with Registered Office at _____ (hereinafter referred to as "the surety").

NOW THIS GUARANTEE WITNESSETH that in consideration of the Company having at the request of contractor agreed to accept a Bank Guarantee of the Surety amounting to Rs. _____ (Rupees _____ only) in respect of the said materials against any and all loss, damage, destruction (inclusive of but not limited to any and all loss or damage or destruction to or of the said materials or any item or part thereof by theft, pilferage, fire, explosion, storage, chemical or physical action or reaction, bending, wrapping exposure, rusting, faulty workmanship, faulty methods or technique of fabrication, or other act of omission or commission whatsoever within the control of the contractor, misuse or misappropriation by the contractor and the contractor's servant and/or agents whatsoever to or of in the said materials or any part of items thereof from the date the said materials was supplied to the contractor up to and until the date of return to the Company of the said materials or relative part of item thereof or completed fabricated work(s) incorporating the said materials, the surety shall indemnify and pay, without protest or demur and without recourse to the contractor, the Company up to and not exceeding altogether a sum of Rs._____ (Rupees _____ only) on demand by the Company. The decision of the Company as to any loss, damage, destruction, misuse and misappropriation under the terms and conditions of this guarantee shall be final and binding on the Surety.

THIS GUARANTEE is irrevocable and will remain in force and effect up to and until the said materials have been returned to the Company as per terms of the said contract and intimation thereof being given by the Company to the surety on the aggregate amount payable hereunder has been paid by the surety to the Company, whichever is earlier.

Notwithstanding anything stated above, the liability of the surety under the guarantee is restricted to Rs. _____ (Rupees _____ only) and this guarantee will remain in force up to _____ in the first instance. However, if the contractor's obligations under this guarantee is not completed or fully performed within this period, the surety hereby agrees to further extend the guarantee till such time as is required to fulfill such obligations.

We have the power to issue this guarantee in your favour under memorandum and Articles of Association and the undersigned has full power to do so under the power of Attorney dated _____ granted to him by the Bank.

Unless a claim made on us within three months from the date of expiry, i.e., _____, all our rights under the said guarantee shall be forfeited and we shall be relieved, and discharged from all liabilities there under.

Date. . . . . Bank
Corporate Seal of the Bank By its constitutional Attorney

Signature of duly Authorised person
On behalf of the Bank With seal & signature code

Details of Persons Issuing the BG:
Name----------
Address for Correspondence: ----------
Telephone & Fax No. -------

E-mail: ----------
IFSC code

Note: BGs to be furnished from any of the approved banks of NALCO. Also adhere to below Note.

Note:

Further, any domestic Guarantee issued by PSU Bank (or) Private Bank (or) Foreign Bank operatingin in India must be operational and invocable in Bhubaneswar only. For Guarantee to be operational in Bhubaneswar, the issuing Bank must designate a specified Bank Branch in Bhubaneswar. Accordingly, the following clause has to be inserted in the existing BG Format for EMD / SD / Contract / Advance Payment in the following style :

"We _____ Bank further agree that this Guarantee shall be invocable at our place of business at _____ (Bank Name), _____ (Branch Name and address of the Branch), Bhubaneswar, Odisha 751xxx"

In the case of Foreign currency BGs, the BG issuing Bank must have correspondent relationship with State Bank of India.

……

ANNEXURE – Q

INSTRUCTIONS TO THE BIDDERS FOR THE E-SUBMISSION OF THE BIDS

1. Bidder should do the registration in the tender site http://eprocure.gov.in using the option available. Then the Digital Signature registration has to be done with the e-token, after logging into the site.
2. Bidder then login to the site through giving user id / password chosen during registration. The e-token that is registered should be used by the bidder and should not be misused by others.

Please go to the CPP portal. Search for the e-procurement tender No.....

3. The Bidders can update well in advance, the documents such as certificates, work order details etc., under **My Documents** option and these can be selected as per tender requirements and then send along with bid documents during bid submission.

4. After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit the documents as asked, otherwise, the bid will be rejected.

5. If there are any clarifications, this may be obtained online through the tender site, or through the contact details. Bidder should take into account of the corrigendum/addendum published before submitting the bids online.

6. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender schedule and they should be in PDF/xls/rar/dwf formats. If there is more than one document, they can be clubbed together.

7. Bidder should get ready with the EMD as specified in the tender. Scan copy of the EMD instrument to be uploaded along with other documents as requested. The original instrument along with all other specified hard copy of documents (one set) should be posted/couriered/given in person so as to reach the Tender Inviting Authority, within due date as indicated at Pg-3. Non receipt of the documents along with original EMD instrument within the stipulated period may lead to rejection of the offer of the bidder.

8. The bidder reads the terms & conditions and accepts the same to proceed further to submit the bids

9. The bidder has to submit the tender document online well in advance before the prescribed time to avoid any delay or problem during the submission process.

10. After the bid submission, the acknowledgement number, given by the e-tendering system should be printed by the bidder and kept as a record of evidence for online submission of bid for the particular tender.

11. **The Tender Inviting Authority (TIA)** will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders.

12. The bidder should see that the bid documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected

13. The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.

14. All the data being entered by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered will not viewable by unauthorized persons during bid submission & not be viewable by any one until the time of bid opening. Overall, the submitted tender documents become readable only after the tender opening by the authorized individual.

15. The confidentiality of the bids is maintained since the secured Socket Layer 128 bit encryption technology is used. Data storage encryption of sensitive fields is done.

16. The bidders are requested to submit the bids through online e-tendering system to the TIA well before the bid submission end date & time **(as per Server System Clock).**

17. The bidder should logout of the tendering system using the normal logout option available at the top right hand corner and not by selecting the (X) option in the browser.

18. If the bidder submits the bid in manual form (if permitted categorically in the tender), he should have already registered in the tender site and he has to inform the registration ID in the bid submitted otherwise his tender will not be considered.

ANNEXURE – R
FORMAT OF LETTER OF WAIVER OF CONDITIONS / DEVIATIONS

(ON COMPANY'S LETTERHEAD)

(TO BE FURNISHED BY THE BIDDER)

RFQ No: **6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

We * hereby agree to fully comply with, abide by and accept without variation, deviation or reservation all technical, commercial and other conditions whatsoever of the RFQ and all Addenda / Corrigenda / Clarifications issued by NALCO / tkUIPL-INDIA.

We further hereby waive, withdraw and abandon any and all deviations, variations, objections or reservations whatsoever hereto set out, given or indicated in our offer, clarifications, correspondence, communications, or otherwise with a view that the priced bid (along with price implication, if any) or the revised priced bid (if any) submitted, shall be treated to conform in all respects, with the terms and conditions of the said RFQ including all Addenda / Corrigenda/Amendments.

**

For & on behalf of

Authorised signatory

* Here fill in the name of bidder.
** The Letter of Waiver must be signed by the person (s) authorised to sign.

ANNEXURE – S
ACKNOWLEDGEMENT CUM CONSENT LETTER

thyssenkrupp Uhde India Private Limited
(Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.)
Uhde House, LBS Marg,
Vikhroli (W), Mumbai 400 083,
India

KIND ATTN: Mr. T. S. Bharadwaj / Abhay Budgude

SUBJECT: 1.0 MTPA ALUMINA REFINERY at NATIONAL ALUMINIUM COMPANY LIMITED (NALCO) at Damanjodi, Orissa, India.

RFQ No: **6695-PPM-G00-EC-0183**
ITEM: **Primary Support**

Dear Sir,

We hereby acknowledge receipt of a complete set of the above RFQ(MR) along with enclosures.

We undertake that the RFQ shall not be transferred and that the said documents are to be used only for the purpose for which they are intended.

A) We intend to submit the Bid for the subject RFQ, and furnish following details with respect to our office:

i) POSTAL ADDRESS : _____

_____

_____

ii a) TELEPHONE NUMBER : _____

ii b) MOBILE NUMBER : _____

iii) CONTACT PERSON : _____

iv) E-MAIL ADDRESS : _____

B) Contact person in India, if any:

i) POSTAL ADDRESS : _____

_____

ii) TELEPHONE / MOBILE NUMBER : _____

iii) CONTACT PERSON : _____

iv) : _____

v) E- MAIL ADDRESS : _____

C) We are unable to submit Bid for the reasons given below.

Reasons for non-submission of Bid:

_____

_____

BIDDER'S NAME : _____

SIGNATURE : _____

NAME : _____

DESIGNATION : _____

DATE : _____

NOTE: Bidders are requested to furnish the details mentioned at (A) and (B) or (C) above immediately within 07 (Seven) days after receipt of Bidding Document.

(SIGNATURE OF BIDDER)

ANNEXURE – T

GUIDELINES FOR ELIGIBILITY OF A "BIDDER FROM A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA":

Bidders to take note of the following clauses that shall be applicable against the tender as per Order No. F.No. 6/18/2019-PPD dated 23.07.2020 i.e- (Order (Public Procurement No. 1) issued from Ministry of Finance, Department of expenditure, Public Procurement Division available at website https://doe.gov.in/procurement-policy-divisions)

1) Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

   [Competent Authority for the purpose of registration shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), as mentioned under Annex I of the Order (Public Procurement No.1) dated 23.07.2020]

2) "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.

3) "Bidder from a country which-shares a land border with India" means; -

   a. An entity incorporated, established or registered in such a country; or

   b. A subsidiary of an entity incorporated, established or registered in such a country; or

   c. An entity substantially controlled through entities incorporated, established or registered in such a country; or

   d. An entity *whose beneficial owner* is situated in such a country; or

   e. An Indian (or other) agent of such an entity; or

   f. A natural person who is a citizen of such a country; or

   g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.

4) The *beneficial* owner for the purpose of (3) above will be as under:

   (i) In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person (s), has a controlling ownership interest or who exercises control through other means.

   Explanation-

   a. "Controlling ownership interest" means ownership of or entitlement to, more than twenty-five per cent, of shares or capital or profits of the company;

   b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;

   (ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has

ownership of entitlement to more than fifteen percent of capital or profits of the partnership;

(iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;

(iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;

(v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

5) An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

6) The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

7) A bidder is permitted to procure raw material, components, sub-assemblies etc from the vendors from countries which shares a land border with India. Such vendors will not be required to be registered with the Competent Authority, as it is not regarded as "sub-contracting"

However, in case a bidder has proposed to supply finished goods procured directly/indirectly from the vendors from the countries sharing land border with India, such vendor will be required to be registered with the Competent Authority.

8) Validity of registration: In respect of tenders, registration should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance/placement of order, registration shall not be a relevant consideration during contract execution.

9) *CERTIFICATE* REGARDING COMPLIANCE:

Bidders shall submit following certificate:

a) Model certificate for tenders:

"I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. I certify that bidder M/s. _____ (name of the bidder) is not from such a country or if from such a country, has been registered with the Competent Authority. I hereby certify that bidder M/s. _____(Name of bidder) fulfills all the requirement in this regard and is eligible to be considered against the tender."

b) Model certificate for tenders for works involving possibility of sub-contracting:

I M/s _____ have read the clause regarding restrictions on procurement from a country which shares a land border with India and on subcontracting to contractors from such-countries, I certify that we are not from such a country/or if from such a country, has been registered with the Competent Authority and will not sub-contract any work to a contractor from such countries unless such

contractor is registered with the Competent Authority. We hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

[Wherever applicable bidder must submit evidence of valid registration by Competent Authority]

10) If such certificate (as mentioned as (a) & (b) above) given by a bidder whose bid is accepted, is found to be false, this would be a ground for immediate rejection of bid/termination of contract and further legal action in accordance with law.

ANNEXURE – U

DECLARATION FORM FOR AVAILING PURCHASE PREFERENCE

RFQ No: **6695-PPM-G00-EC-0183**

ITEM: **Primary Support**

Sr. no.	Parameter	Declaration
1	We confirm that our offer is achieving the minimum local content target as per clause 4 & 5 of Revised Procedure to Provide Preference to "Make in India" In Public Procurement (enclosed with the RFQ(MR) / Addendum). The requisite Undertaking along with supporting certificate (if required) is submitted is enclosed. Based on the above clause, we certify that we are classified as: a) Class I Supplier (Having minimum 50%local Content) b) Class II Supplier (Having minimum 20%but less than 50% local Content)	Yes / No Yes / No Yes / No

Note:

The bidder claiming the PP-LC benefit shall furnish following undertaking on bidder's letterhead.

The LC content shall be self-assessed and certified by the authorized signatory of the bidder, signing the bid.

In line with Clause 7.b of "Revised Procedure to Provide Preference to "Make in India" In Public Procurement" (enclosed with RFQ), the said certificate shall be also signed by statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant, wherever required.

Bidder's signature: _____ (With Seal/ Stamp)

ANNEXURE-V

UNDERTAKING TOWARDS DECLARATION FORM FOR AVAILING PURCHASE PREFERENCE

PROFORMA – I

(To be submitted on Company's Letterhead)

Certification by the bidder

I_____, Son/ Daughter of _____, do solemnly affirm and state as under:

1. I am the _____<<*Designation of the authorized signatory*>>of _____and I am duly authorized to furnish this undertaking declaration on behalf of_____.

2. That_____ has submitted its bid No _____ against RFQ (MR) No._____ for _____ (item) for 5th Stream Alumina Refinery expansion Project of NALCO.

3. That the Company is fully aware of the provisions of Purchase Preference (Linked with Local Content) (PPLC-2020) Policy, enclosed with the above RFQ/Addendum.

4. We hereby confirm that our offer is achieving the local content (LC) of

   a. minimum 50% local Content ☐

   b. minimum 20% but less than 50% local Content ☐

   c. Less than 20% local Content ☐

   (tick whichever is applicable.)

5. I confirm that I am aware of the implication of the above undertaking and our liability on account of wrong declaration.

(Authorized signatory of Supplier)

Note: This undertaking shall be certified by the authorized signatory of the bidder, signing the bid.

UNDERTAKING TOWARDS DECLARATION FORM FOR AVAILING PURCHASE PREFERENCE

PROFORMA – II (PART - A)

(To be submitted on Company's Letterhead)

(Where the total quoted value is INR 10 Crore or above)

Certification by the bidder

I_____, Son/ Daughter of _____, do solemnly affirm and state as under:

1. I am the _____<<*Designation of the authorized signatory*>>of _____and I am duly authorized to furnish this undertaking declaration on behalf of_____.

2. That_____ has submitted its bid No _____ against RFQ(MR) No._____ for _____ (item) for 5th Stream Alumina Refinery expansion Project of NALCO.

3. That the Company is fully aware of the provisions of Purchase Preference (Linked with Local Content) (PPLC-2020) Policy, enclosed with the above RFQ/Addendum.

4. We hereby confirm that our offer is achieving the local content (LC) of

   a. minimum 50% local Content ☐
   b. minimum 20% but less than 50% local Content ☐
   c. Less than 20% local Content ☐

   (tick whichever is applicable.)

5. I confirm that I am aware of the implication of the above undertaking and our liability on account of wrong declaration.

(Authorized signatory of Supplier)

Certification by the statutory auditor / Chartered Accountant of the bidder

We, _____, a CA firm having our registered office address _____ and certificate number _____ certify that we are statutory auditor of the Company M/s _____, having its registered office at _____.

OR

We, _____, a CA firm having our registered office address _____ and certificate number _____ certify that statutory auditor is not mandatory for the company M/s _____, having its registered office at _____ as per prevailing law and we are practicing Chartered Accountant, not being an employee / Director and not having any interest in the company.

We have understood the provisions of Purchase Preference (Linked with Local Content) (PPLC-2020) Policy, enclosed in the above bidding document.

We hereby confirm that our offer is achieving the local content (LC) of

   a. minimum 50% local Content ☐
   b. minimum 20% but less than 50% local Content ☐
   c. Less than 20% local Content ☐

~~(tick whichever is applicable.)~~

~~(Statutory auditor / Chartered Accountant of the bidder)~~

~~Note: The LC content shall be self-assessed and certified by the authorized signatory of the bidder, signing the bid.~~

~~In line with Clause 7.b of the above policy, the said certificate shall be also signed by statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant, wherever required.~~

ANNEXURE-W

Format for declaration

On the letter head of Vender / seller

To
National Aluminium Company Limited,
Unit Address :
<>
<>

Sub: **Declaration / information for deduction of tax at source u/s 194Q of Income Tax Act, 1961**

NALCO Vendor Code or Purchase/Service Order No : < >

Dear Sir,

This is with reference to NALCO's communication dated 19.06.2021, requiring our declaration / information in regard to deduction of tax at source u/s 194Q of the Act. The information is being provided hereunder:

1. Since your company is liable to deduct tax u/s 194Q of the Act, you may deduct the tax in terms of Section 194Q on the consideration paid /credited by your company to us on the amounts aggregate of which is exceeding Rs.50 lacs during the current financial year. We also confirm that we will not take any action to collect tax at source under section 206C(1H) of the Act w.e.f. 01.07.2021.

2. Permanent Account Number of our company is _____. Further, we have duly filed our returns of income for Assessment Years 2022-23 and 2023-24 is confirmed as under:

A.Y. [F.Y.]	Date of Filing return	Acknowledgement No.
2022-23 [FY 2021-22]		
2023-24 [FY 2022-23]		

3. The total amount/aggregate of tax deducted at source and tax collected at source (TDS/TCS) in previous years relevant to Assessment Years 2022-23 and 2023-24 is confirmed as under :

(Mention Yes or No)

A.Y. [F.Y.]	Total TDS/TCS Amount is Rs50,000 or more	Total TDS/TCS Amount is less than Rs50,000
2022-23 [FY 2021-22]		
2023-24 [FY 2022-23]		

Please take note of the above information and confirmation and collect tax at the appropriate rate taking cognizance of above information.

I hereby declare that I am duly authorised, on behalf of < Name of Company/Firm > to give this declaration and the information stated above is true to the best of my knowledge and records available with us. If there is any wrong declaration, I undertake to indemnify National Aluminium Company Limited, for any interest and/or any penal consequences.

Name :
Designation :
Date of declaration :

For < Name of Company/Firm >

SPECIAL PURCHASE CONDITIONS
(SPC)

PROJECT: ALUMINA 5TH STREAM REFINERY

OWNER / PURCHASER: National Aluminium Company Ltd. (NALCO)

CONSULTANT: thyssenkrupp Uhde India Private Limited
(Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.)
(tkUIPL-India)

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RFQ (MR) Number: 6695-PPM-G00-EC-0183
Date: 05-05-2025
For: Primary Support

SPECIAL PURCHASE CONDITIONS (SPC)

1. INTRODUCTION

1.1. M/s National Aluminium Company Limited (Nalco) having its Corporate Office at Bhubaneswar, Odisha is a premier Public Sector Undertaking and a Navaratna Company, under the administrative control of Ministry of Mines, Government of India owns and operates a large integrated Mines-Alumina-Aluminium complex in India.

As a part of its growth plan Nalco is planning to set up one more Stream (5th Stream) in its Alumina Refinery at Damanjodi. The stream capacity would be 1.0 MTPA.

At port facilities, Visakhapatnam one Alumina silo of capacity 25000 MT and one Caustic Soda tank of capacity 5000 MT shall be constructed for export of Alumina and import of caustic soda liquor respectively.

1.2. Nalco (i.e. the Owner) has appointed thyssenkrupp Uhde India Private Limited (Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.)(tkUIPL-India), as their EPCM Consultant & PMC for LSTK Packages (hereafter referred to as Consultant or tkUIPL India). The technology for the Alumina refinery expansion is being provided by M/s RTAIL (Rio-Tinto Alcan Limited).

1.3. thyssenkrupp Uhde India Private Limited (Formerly thyssenkrupp Industrial Solutions (India) Private Ltd.), (i.e. the Consultant) on behalf of National Aluminium Company Ltd. (Nalco) invites bids against the above RFQ. These Special Purchase Conditions (SPC) are being issued by thyssenkrupp Industrial Solutions (India) Pvt. Ltd., for and on behalf of M/s. National Aluminium Company Ltd (Nalco) i.e. the Owner. These SPC and the documents mentioned in the Annexures to these SPC (along with other documents listed in the RFQ such as Nalco's General Purchase Conditions, Price Schedule Formats, Vendor Co-ordination Procedure etc.) are a part of the above referred RFQ, and may become a part of any Purchase Order that might result from submission of a Bid in response to this RFQ. All Purchase Orders will be issued by Nalco and all payments will be made only by Nalco.

2. PAYMENT TERMS

In partial modification to the payment terms as mentioned in the General Purchase Conditions, the following payment terms shall be applicable.

Interest Bearing Advance

I. DELETED

Payment Terms:

100% payment along with GST shall be payable as per following break up:

(i) Supply

a. 90% payment on pro-rata basis against dispatch documents (along with Inspection Release Order issued by Consultant certifying the clearance of goods for shipment) received through bank, along with 100% GST on Order Value. The dispatch documents shall include the Vendor's invoice, Packing List, Delivery challan, Lorry Receipt and any other document stipulated in the Purchase Order

b. 10% within 30 days after receipt and acceptance of materials at site and receipt of final technical documentation / drawings as per the technical specifications enclosed with the RFQ(MR).

Goods & Services Tax (GST) as applicable shall be payable extra. The vendor will have to raise invoice for the applicable GST amount as per approved format for claiming the GST paid.

NALCO, being Buyer (under Section 194Q inserted in the Income Tax Act, 1961 vide Finance Act 2021) having total sales, gross receipts, or turnover from business above Rupees Ten Crores during the last Financial Year, will deduct TDS under Section 194Q, w.e.f. 01.07.2021, at the prescribed rate of 0.1% on the purchase value of any goods, aggregate of which is exceeding the threshold limit of Rs.50 Lakhs in a Financial year.

Accordingly, Vendors/Sellers are advised not to take any action to collect tax at source under section 206C(1H) of the Act w.e.f. 01.07.2021, in case provisions of section are applicable to you.
The above is as per the current status and is subject to modification(s) based on amendments/ notifications under Income Tax Act, 1961.

Vendors / Contractors categorised/ designated as "specified person" under Section 206AB of Income Tax Act, 1961 shall be liable for TDS at higher rate as provided under the said section, by NALCO. So, vendors/ contractors are advised to submit self-certified copies of Income Tax Return (ITR) for each of the two previous years for which due date for filing of ITR has expired, along with the invoice/ bill so as to facilitate NALCO verify the applicability of Section 206AB.

Contract Performance Bank Guarantee:

The Vendor shall furnish a Contract Performance Bank Guarantee, for **5%** of the total order value (excluding GST) as per NALCO's format, executed by any of the banks listed in the Appendix enclosed with the ITB. The Vendor shall submit the CPBG within 21 days of placement of BOA. This CPBG shall be valid for a period of three months beyond expiry of the contractual guarantee period of 12 months from the date of successful commissioning of the Plant or 30 months from the date of last dispatch, whichever is earlier.

Each page of the Bank Guarantee must be stamped & signed by the authorized signatory(ies) of the Bank. Corrections, if any, must also be initialed by the authorized signatory(ies) of the Bank. The Bank is required to send a copy of the Bank Guarantee(s) in confirmation directly to the OWNER and for BG confirmation, the issuing bank can adopt SFMS (Structured Financial Messaging System) facility in favour of OWNER's Payee bank

General Notes:

1. All dispatches shall be made only after receipt of Inspection Release Order from Consultant.

2. For all Indian Vendors, the CGST & SGST or IGST shall be released only on receipt of tax compliant GST Invoice / document, against which Nalco shall be able to take the Input Tax Credit (ITC) in terms of GST provisions.

3. All Bank guarantees will be issued directly to Nalco – Bhubaneswar by the Bank and Vendor shall enclose copy of the same along with invoice. Banks shall be informed to send a separate confirmation immediately on request Nalco to expedite processing at Nalco's end.

4. Billing schedule (wherever applicable as per PO) shall be submitted to Nalco and tkUIPL India by the vendor for approval within 45 days from the date of Brief Order of Acceptance / Purchase Order (whichever is issued earlier) wherever specified in the Purchase Order. No partial dispatch or pro-rata payment shall be made without the approval of billing schedule.
5. ~~Nalco shall establish the Letter of Credit only on receipt of Vendor's acceptance to Nalco's Brief Order of Acceptance (BOA) and on submission of 10% PBG by Vendor to Nalco within 21 days of BOA~~. (Not applicable for this RFQ)

6. All Bank Guarantees shall be sent to the following address:
   Sr. Manager (Matls)
   Kind Attn.: Mr. A.L.Gupta
   National Aluminium Company Limited
   Nalco Corporate Office,
   P/1, Nayapalli, Bhubaneswar – 751 013
   Odisha, India.
   Mobile- 9437467287

(i) "Order Value" or "Total Order Value" means total contract value exclusive of taxes and duties in India.

(ii) For all Purchase Orders placed on Indian vendors, the E-Way bill shall be the responsibility of the vendor. For all Purchase Orders placed on Indian vendors, the vendor shall quote the Firm freight charges up to Nalco's Site at Damanjodi / Visakhapatnam (as applicable). If any route survey is to be carried out for any consignment, then the vendor shall carry out the same at his own cost only.

7. Bidder to note wherever there is a requirement of equipment / item pertaining to the Vizag Port facilities of NALCO as mentioned in ITB, separate order will be placed on the successful Bidder and accordingly the successful Bidder needs to raise the separate invoice for enabling Purchaser to claim the ITC (Input Tax Credit)

8. All the materials to be supplied by the vendor to NALCO against the order which will be handed over to NALCO upon completion of the package will be covered under the MCE policy taken by NALCO. However, the vendor will take insurance for his materials and his personnel used for execution of the work.

   For materials to be supplied under NALCO's Insurance policy, the vendor has to give a prior intimation on the following to the insurance company in the e-mail ID amaresh.rout@orientalinsurance.co.in with a copy to storesref_osrd@nalcoindia.co.in:

   (i) Copy of Invoice
   (ii) Vehicle details
   (iii) LR number

3. DELETED

4. TAXES AND DUTIES IN INDIA

The taxes & duties shall as per the payment terms mentioned in this document / Purchase Order. The following provisions of GST shall be applicable:

4.1. **GOODS & SERVICES TAX**

4.1.1. Rate variation in Taxes and any new promulgated taxes after last date of the submission of price bid only on the goods and/or services applicable to invoices raised on NALCO within the contractual delivery date / contractual completion period (including extension approved if any) shall be on NALCO's Account against submission of documentary evidence.

4.1.2. Further, in case of delay in delivery of goods and/or services, any upward rate variation in Taxes and any new promulgated taxes imposed after the contractual delivery date / contractual completion period shall be to the Vendor's Account.

4.1.3. It would be the responsibility of the Vendor to get the registration with the respective Tax authorities under provision of GST. Any taxes being charged by the Vendors would be claimed by issuing proper TAX Invoice in a GSTN (Goods & Services Tax Network) acceptable format indicating details elements of all taxes charged and necessary requirements as prescribed under the respective tax laws and also to mention his correct and valid GSTN number (GSTIN) along with NALCO's GSTN number as applicable for particular supply on all invoices raised on NALCO under GST Regime.

4.1.4. The Vendor would be liable to reimburse or make good of any loss/claim by NALCO towards tax credit rejected / disallowed by any tax authorities due to non-deposit of taxes or non updation of the data in GSTIN network or non-filing of returns or non-compliance of tax laws by the Vendor by issuance of suitable credit note to NALCO. In case, contractor does not issue credit note to NALCO, NALCO would be constrained to recover the amount including interest payable along with Statutory levy/Tax, if any, payable on such recovery.

4.1.5. Tax element on any Debit Note / Supplementary invoice, raised by the Vendor will be reimbursed by NALCO as long as the same is within the permissible time limit as per the respective taxation laws and also permissible under the Purchase Order terms and conditions. Vendors to ensure that such debit Notes are uploaded while filing the Statutory returns as may be prescribed from time to time.

4.1.6. The Vendor will be under obligation for quoting/charging correct rate of tax as prescribed under the respective Tax Laws. Further the Vendor shall avail and pass on benefits of all exemptions/concessions/benefits/waiver or any other benefits of similar nature or kind available under the Tax Laws. In no case, differential Tax Claims due to wrong classification of goods and/or services or understanding of law or rules or regulations or any other reasons of similar nature shall be entertained by NALCO.

4.1.7. In case NALCO's Input Tax Credit (ITC) is rejected on account of wrong levy of tax i.e. payment of Integrated Tax in place of Central Tax+ State/Union Territory Tax or vice versa, the Vendor is liable to make good the loss suffered by NALCO by issuance of suitable credit note to NALCO. In case Vendor does not issue credit note to NALCO, NALCO would be constrained to recover the amount including interest payable along with Statutory levy, if any, payable on such recovery.

4.1.8. NALCO shall reimburse GST levied as per invoice issued by the Vendor as prescribed under section 46 of the CGST Rules 2017 and respective states Act and Rules.

4.1.9. To enable NALCO to avail ITC, the Vendor shall furnish/submit any and all certificates, documents and declarations as are required by NALCO to avail of the ITC with respect to GST reimbursed by NALCO on materials sold to NALCO.

4.1.10. The HSN / SAC Code under which the goods/service will fall should be clearly mentioned along with the Rate at the time of submission of invoice for releasing payment.

4.1.11. In case NALCO is not able to take Input Tax Credit due to any noncompliance/default/negligence of the Contractor, the same shall be recovered from the pending bills/dues (including any security available with NALCO).

4.1.12. Vendor shall be responsible to indemnify NALCO for any loss, direct or implied, accrued to NALCO on account of Vendor's failure to discharge his statutory liabilities like paying taxes on time, filling appropriate returns within the prescribed time etc.

4.1.13. Any benefit by way of reduction in rate of tax or increase in input tax credit arising due to introduction of GST shall be passed on to NALCO through reduction in supply value by way of commensurate reduction in Bill value.

4.1.14. The Vendor shall ensure that all the required documents as per the GST regulations are furnished to NALCO with their invoices failing which NALCO shall not make any reimbursement of such GST.

4.1.15. The applicable GST for site supervision training services by Foreign Service Provider shall be borne by NALCO on reverse charge basis.

4.1.16. Nalco's GST numbers are as follows:

Damanjodi Refinery: 21AAACN7449M1Z9

Vizag: 37AAACN7449M1ZW

4.2. **DEDUCTION OF INCOME TAX AND TAX DEDUCTION AT SOURCE (TDS) UNDER GST**

4.2.1. Income Tax as applicable at the prevailing rate on the gross amount billed shall be deducted from the Vendor's bills (wherever such deduction is applicable).

4.2.2. As per section 51 of CGST Act 2017, to read with Notification No. 33/2017-Central Tax, dated 15.09.2017, NALCO shall deduct at source @ 1% CGST & @ 1% SGST for intra state transactions and @2% IGST in the case of interstate transactions from the payment made and credited to the supplier of taxable goods and/or services, provided if the contract

value is more that Rs.2,50,000/-. This deduction is applicable from the date notified by the Government. The value of supply shall be taken as the amount excluding CGST, SGST, UGST and Cess indicated in the invoice.

4.3. **INCOME TAX**

4.3.1. The Vendor shall be exclusively responsible and liable to pay taxes on income comprised in all or any payments arising out of the Purchase Order, whether payable/paid in India or in any other jurisdiction and quoted prices shall be inclusive of Income Tax.

4.3.2. Income tax (if applicable) shall be deductible at source by NALCO on all payments to be made to the Vendor. However, for payments (for services) made to Foreign Bidders in Foreign Currency, the applicable Withholding Tax shall be borne by NALCO on grossing up basis. As per extant provisions of Income Tax Act and Rules made there under following documents are mandatory for this purpose (a) Tax Residency Certificate (TRC) issued by the competent authority of the country of residence of the Vendor (b) Form 10F as described in Income Tax Rules, 1962 and (c) Permanent Account Number (PAN) or a declaration in specified format in lieu of Permanent Account Number (PAN).

4.3.3. The Indian Income Tax Act and rules made there under contains provisions permitting deduction of tax at a lesser rate if the Vendor is able to justify to the Income Tax Authorities such lesser rate of deduction. However, a deduction once made has to be deposited by the OWNER with the Income Tax Authorities in India and will not be adjustable by the OWNER. It is therefore in the interest of the Vendor that prior to release of any payment due to the Vendor under the Purchase Order, the Vendor obtains, from the relevant Income Tax Authorities in India, a certificate specifying the rate of deduction/withholding of Income tax at source, failing which, payment to the Vendor shall be made by the Nalco after Withholding/deduction at the highest rate as may be applicable to the non-resident contractors as per Provisions of Income Tax Act, 1961.

4.4. **NEW TAX AND STATUTORY VARIATION IN TAXES AND DUTIES**

4.4.1. If any new taxes or duties (including any increase in rate of any existing taxes or duties) are levied in India after the date of submission of bids/ revised price bids (whichever is later) and within the Contractual delivery / completion period or any extension thereof by NALCO, on any payments due to the Vendor under the Purchase Order , other than tax on income, wealth or profits of the Vendor , the OWNER shall reimburse the Vendor the amount of such taxes or duties lawfully paid and borne by the Vendor against proof of payment.

4.4.2. If there is any increase in taxes or duties or if any new taxes or duties are levied in India after the contractual delivery / completion period, such increase in taxes or duties or such new taxes or duties shall be to the Vendor's account only.

5. DELAYED DELIVERIES

5.1 The clauses related to delayed deliveries shall be as mentioned in Nalco's General Purchase Conditions. **The % of Price reduction schedule for delayed delivery shall be ½ % of the Undelivered Order Value (UDOV) without GST, per week of delay or part thereof; subject to a maximum of 5% of Total Order Value (TOV) without GST. The date of Last LR shall be considered as the date of delivery for the purpose of PRS.**

5.2 Non-acceptance or deviation to Price Reduction Schedule (PRS) clause is a rejection criteria.

5.3 To calculating the PRS for delayed delivery, the contractual delivery date shall be the date of last Lorry Receipt (for Indian Vendors), and the date of last Bill of Lading or Air Waybill (as applicable) - for foreign vendors.

6. SHIPPING WEIGHT

Actual weight/ volume shall not exceed the estimated weight/ volume by bidder. In case actual weight/ volume exceeds, additional cost of shipping on this account shall be borne by the bidder. Freight quoted by Bidder shall be firm. Bidder shall intimate in advance to the Owner, Consultant & Owner's authorised Freight Forwarder / Logistic Contractor, prior despatch of equipment/item from their works.

7. VENDOR'S/SUPPLIER'S DEFAULT

Any forfeiture / recovery made by the NALCO due to any of "vendor's/supplier's default" shall be with applicable GST at the time of settlement.

8. ANTI PROFITEERING PROVISIONS

In compliance to GST Act, anti-profiteering provisions mandates that any reduction in tax rates or benefits of input tax credits shall be passed on to the consumer by way of commensurate reduction in prices. Indigenous bidders to take note of the same and pass on such benefits to NALCO while quoting their price as well as during execution of the contract.

Supplier / Contractor needs to submit a certificate under Section 171 of CGST Act, 2017, before or at the time of submitting final bill against the Contract/Work Order/Purchase Order/BOA to the effect that anti profiteering measure has been complied with. The certificate needs to contain the following:
"Commensurate benefit of reduction in rate of tax or benefit of input tax credit in the BOA/Purchase Order/Work Order/Contract No……. dated……has been passed on to NALCO".

9. ARBITRATION & DISPUTES

Arbitration & Disputes, if any, will be dealt as per the procedures laid down in the enclosed ANNEXURE 2 to this document.

10. INDIRECT OR CONSEQUENTIAL LOSS

Neither party shall be liable to the other for any and all consequential, special, speculative, indirect and incidental damages including but not limited to loss of use, loss of profits or product, for extra cost of producing product, for extra cost of capital, or for failure to achieve or delay in achieving anticipated profits or products.

11. LIMITATION OF LIABILITY

The maximum liability of the "Supplier/Vendor/ Seller" shall be up to 100% of the Total Order Value. The maximum liability shall be exclusive of patent infringement & indemnity.

ANNEXURE 1 TO SPC

PRICE REDUCTION CLAUSE FOR NOT MEETING GUARANTEED PERFORMANCE PARAMETERS

[Price Reduction Clause for not meeting Guaranteed Performance Parameters is Not Applicable for this RFQ (MR).]

****

ANNEXURE 2 TO SPC

ARBITRATION

SETTLEMENT OF DISPUTES & ARBITRATION

1. In the event of any question, dispute and/or difference whatsoever arising under this assignment in connection therewith including any question relating to existence, meaning and interpretation of this assignment or any alleged breach thereof, the same will be settled as far as possible by mutual discussions of the parties.

2. Notwithstanding any such claim under arbitration, the CONTRACTOR shall continue to perform the services unless it is the subject matter of the dispute of referred to arbitration.

3. All disputes or differences whatsoever which shall at any time arise between the parties hereto touching or concerning this contract or the execution or maintenance thereof of the contract or the rights touching or concerning the works or the execution or maintenance thereof of this contract or the construction meaning operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after completion of the contract or whether before or after determination, before closure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to the Appointing Authority hereinafter mentioned be referred for adjudication to a sole Arbitrator to be appointed as hereinafter provided.

   For the purpose of appointing the sole Arbitrator referred to above, the Appointing Authority i.e. Chairman cum Managing Director, NALCO, will send within thirty days of receipt of the notice, to the seller a panel of three names of persons.

   The seller shall on receipt of the names as referred select any one of the person names to be appointed as a sole Arbitrator and communicate his name to the Appointing Authority within thirty days of receipt of the names. The appointing Authority shall there upon without any delay appoint the said person as the sole Arbitrator. If the seller fails to communicate such selection as provided above within the period specified, the Appointing Authority shall make the selection and appoint the selected person as the sole Arbitrator.

   If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacate his office due to any reason whatsoever sole Arbitrators shall be appointed as aforesaid. The work under the contract shall, however continue during the arbitration proceedings.

   The Arbitrator shall be deemed to have entered on the reference on the date he issues notices to both the parties fixing the date of the first hearing.

   The Arbitrator shall give a separate award in respect of each dispute or difference and shall give a reasoned and speaking award/ awards.

The seat of arbitration shall be at Bhubaneswar. However, if the situation so warrants venue of arbitration may be at as and where required basis, and may be held at the place where the site of work is situated.

The fees, if any, of the Arbitrator shall, if required to be paid before the award is made and published be paid half and half by each of the parties. The costs of the reference and of the award including the fees, if any of the Arbitrator shall be in the discretion of the Arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid may fix or settle the amount of costs to be so paid.

The award of the arbitrator shall be final and binding on both the parties.

Subject to aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 as amended by the Arbitration and Conciliation (Amendment) Act, 2015 or any statutory modification or re-enactment thereof and the rules made there under, and for the time being in force shall apply to the arbitration proceeding under this clause.

In the event of disputes or differences arising between one public sector enterprise and a Govt. Department or between two public sector enterprises the above stipulations shall not apply, the provisions DPE office memorandum No.4(1)/2013-DPE(PMA)/FTS-1835 dated 11th April, 2017 or its amendments for arbitration shall be applicable.

……

tkIS India / Vendor

Category Codes (Submission Purpose)

- ☐ 1 For Approval
- ☐ 2 For Review / Comments
- ☐ 3 For Information
- ☐ 4 For Engineering
- ☐ 5 For Enquiry
- ☐ 6 For Order Placement
- ☐ 7 Final & Approved
- ☐ 8 Released for Construction

Acceptance Codes (Approval Codes)

- ☐ 1 Approved
- ☐ 2 Approved for Manufacturing / Fabrication with Comments as marked
- ☐ 3 Not Approved / Resubmit
- ☐ 4 Retained for Information / Records
- ☐ 5 Reviewed
- ☐ 6 Reviewed as Noted / Resubmit

Remarks for AC2 : This marked-up drawings is hereby approved for fabrication / manufacturing and shall be re-sbumitted after revision. This drawing should be revised only to the extent of tkIS India / Owner / Client comments. Any other changes made by you will not be considered unless clearly highlighted in covering letter asking for approval.

This approval / review does not absolve the supplier from the full responsibility for design and fabrication.

Date : ___/___/_____ Name : _____

tkIS India / Owner / Client

Category Codes (Submission Purpose)

- ☐ 1 For Approval
- ☐ 2 For Review / Comments
- ☐ 3 For Information
- ☐ 4 For Engineering
- ☐ 5 For Enquiry
- ☐ 6 For Order Placement
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- ☐ 3 Not Approved / Resubmit
- ☐ 4 Retained for Information / Records
- ☐ 5 Reviewed
- ☐ 6 Reviewed as Noted / Resubmit

Date : ___/___/_____ Name : _____

Rev.	Status	Description	Date	Prepared	Date	Checked	Date	Approved	AC
1		For Implementation (Incorporating NALCO Comments)	10/10/23	SUB	10/10/23	GGM / RMG	10/10/23	GGM	
0		For Implementation	20/01/22	SAGAR	20/01/22	GGM / BJ	20/01/22	GGM	

Barcode

Category Code: -8

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Disclaimer: Wherever LOI / PO is mentioned, the same shall be read as NALCO's BOA.

This Document is updated version of document ID 6695-PDM-G00-BD-0002 R01

1 INTRODUCTION:

1.1 Purpose

This document outlines the Project Co-ordination Procedure to be adopted for the execution of order under the terms and conditions of NALCO BOA.

The main purpose of this document is to describe the Project Co-ordination and Communication Procedure (PCP), which will be followed during execution of this Project. This document is intended to provide consolidated guidelines for co-ordination and communication procedures to be adopted for the execution of the project under the terms and conditions of the Contract Agreement between **National Aluminium Company Limited** (hereinafter defined as **NALCO**) and **Vendor**.

In the event of any omission or any contradiction between this document and the contract agreement, provisions of contract agreement shall prevail. The definitions used in the contract agreement are also applicable to this document.

1.2 Brief on Project

National Aluminium Company Limited (NALCO), hereafter referred to as OWNER, a Government of India undertaking and Navaratna Company, owns and operates a large integrated Mines-Alumina-Aluminium Complex in India.

As a part of its growth plan NALCO is planning to set up one more Stream (5th Stream) in its Alumina Refinery under 3rd phase expansion at Damanjodi based on Pottangi Bauxite Deposits. Mining of bauxite will be sourced from South Block of the Panchpatmali mine till the commissioning of Pottangi Bauxite Mine to meet the present requirement. The stream capacity would be 1.0 MTPA Alumina and processing technology will be based on medium pressure digestion keeping in view of higher liquor productivity and its associated advantages.

At port facilities, Visakhapatnam one Alumina silo of capacity 25000 MT and one Caustic Soda tank of capacity 5000 MT shall be constructed for export of Alumina and import of caustic soda liquor respectively.

NALCO has appointed thyssenkrupp Industrial Solutions (India) Private Limited (tkIS-India) (Formerly Uhde India Private Limited), as their EPCM Consultant & PMC for LSTK Packages (hereafter referred as CONSULTANT).

NALCO, tkIS-India and Supplier, hereinafter referred as “Vendor” will generally be guided by the procedure given in the following chapters, for the smooth execution of the work under the above BOA. Any changes shall be made only with mutual agreement and confirmation by all parties in writing.

2 PROJECT DETAILS

Project Name	:	1.0 MTPA Alumina Refinery Stream-5
OWNER	:	National Aluminium Company Limited (NALCO)
CONSULTANT	:	thyssenkrupp Industrial Solutions (India) Pvt Ltd. (tkIS-India)
Project No. (tkIS-India)	:	66-6695
Site Location	:	Damanjodi, Odisha, India / Vizag Port
Name of Unit Licensors	:	Rio-Tinto Alcan Limited (RTAIL)
tkIS India's Project Management & Contact Particulars	:	1) Mr. Girish G. Masurkar, Project Manager Tel : +91 22 6723 3908 Mobile : +91 9167251412 Email : girish.masurkar@thyssenkrupp.com 2) Mr. Sulesh Pradhan. Engineering Manager Tel : +91 22 6723 3919 Mobile : +91 98702 24133 Email : sulesh.pradhan@thyssenkrupp.com Mailing Address : thyssenkrupp Industrial Solutions (India) Pvt Ltd Uhde House, L.B.S. Marg , Vikhroli (W), Mumbai 400 083, India
NALCO, Project Owner & his Contact Particulars	:	Mr. Niranjan Samal, GGM(Project) Project & Technical Department, Nalco Corporate Office, Bhubaneswar Mobile : +91 94370 55419 Email : niranjan.samal@nalcoindia.co.in Mailing Address: Nalco Bhavan, P/1, Nayapalli, Bhubaneswar - 751013
NALCO, Site office	:	**1) Damanjodi site**: Mr. R. S. Raju, GGM (Project)I/C Mobile : +91 943709 5638 Email : rudraraju.raju@nalcoindia.co.in Mailing address: Mines & Refinery Complex, Damanjodi-763 008, Dist. – Korakut, Odisha **2) NALCO Vizag Port**: Mr. A.V. Subba Rao, GM (Mech) Mobile : +91 891 2878204 Email : vsubbarao.amperayani@nalcoindia.co.in Mailing address: Port Area, Opp. Ore Handling Complex, Visakhapatnam – 530 035, India

3 EDC & CDD

Vendor shall refer to BOA issued by NALCO for Effective date of contract (EDC) and contractual delivery date (CDD)

4 COMMUNICATION:

Communication Title: Vendor to mention "Unit name / Tag No. against NALCO BOA No. in all correspondence. All email subject headline should identify the subject matter clearly and Package name.

Communication between NALCO, tkIS-India and Vendor.

All communication between the companies will be addressed for the attention of the following, who will arrange further internal distribution

4.1 Communication to tkIS-India / NALCO:

Please address all communication to tkIS India as mentioned below: -

Note: Vendor to Communicate with tkIS-India HO:

a) Technical Team - For any drawing approval / submission / technical query

b) Inspection & Expediting - For any inspection

c) Commercial team - For any Commercial matters

All correspondence shall state NALCO BOA Number and Tag No. In the subject of communication.

Communication related to tkIS Home office: Details of Package owner from NALCO and tkIS will be provided separately

Technical email To	Technical: CC	Company
tkISIndia.nalcotf@thyssenkrupp.com	girish.masurkar@thyssenkrupp.com, sulesh.pradhan@thyssenkrupp.com ka.mulchandani.external@thyssenkrupp.com Package owner of tkIS 1	tkIS-HO
	niranjan.samal@nalcoindia.co.in soumendu.pattnaik@nalcoindia.co.in debashis.mohanty@nalcoindia.co.in suman.rout@nalcoindia.co.in Package owner of NALCO-HO 1	NALCO-HO
	rudraraju.raju@nalcoindia.co.in debashisha.chhotaray@nalcoindia.co.in (For Electrical) bisen.deepak@nalcoindia.co.in himansu.pradhan@nalcoindia.co.in (For Mechanical) reddi.vardhan@nalcoindia.co.in (For Instrumentation) Package owner of NALCO-Site 1	NALCO-Site

Inspection related To	Inspection CC	
tkISIndia.nalcotf@thyssenkrupp.com For Foreign Vendors & for components ordered on foreign suppliers by Indian vendors; Owner approved Third Party Inspection Agencies	Package owner of tkIS vijay.gujar@thyssenkrupp.com girish.masurkar@thyssenkrupp.com sulesh.pradhan@thyssenkrupp.com ka.mulchandani.external@thyssenkrupp.com tkisindia.ex@thyssenkrupp.com tkIS Inspection Engineer - Details will be provided separately. M/s. Lloyd's Register, M/s. Bureau Veritas, M/s. DNV & M/s. TUV India Private limited / TUV Nord / TUV SUD / TUV Rhineland.	tkIS-HO

Commercial email To (Excluding invoices)	Commercial :CC	
tkISIndia.nalcotf@thyssenkrupp.com	reema.godbole@thyssenkrupp.com girish.masurkar@thyssenkrupp.com, Package owner of tkIS sulesh.pradhan@thyssenkrupp.com ka.mulchandani.external@thyssenkrupp.com	tkIS-HO
	niranjan.samal@nalcoindia.co.in soumendu.pattnaik@nalcoindia.co.in debashis.mohanty@nalcoindia.co.in suman.rout@nalcondia.co.in siddhartha.das@nalcoindia.co.in awadhesh.gupta@nalcoindia.co.in harkesh.saroj@nalcoindia.co.in Package owner of NALCO-HO	NALCO-HO
	rudraraju.raju@nalcoindia.co.in debashisha.chhotaray@nalcoindia.co.in (For Electrical) bisen.deepak@nalcoindia.co.in himansu.pradhan@nalcoindia.co.in (For Mechanical) reddi.vardhan@nalcoindia.co.in (For Instrumentation) Package owner of NALCO-Site Commercial person of NALCO-Site	NALCO-Site

4.2 Communication to Site:

Technical email To (Including invoices related communication)	Technical: CC	Company
tkisindia.nalcosite@thyssenkrupp.com	tkISIndia.nalcotf@thyssenkrupp.com jaykrushna.pradhan@thyssenkrupp.com kalla.viswanadham@thyssenkrupp.com rajib.karan@thyssenkrupp.com girish.masurkar@thyssenkrupp.com, sulesh.pradhan@thyssenkrupp.com ka.mulchandani.external@thyssenkrupp.com Package owner of tkIS tkisindia.ex@thyssenkrupp.com reema.godbole@thyssenkrupp.com 1	tkIS-Site & tkIS-HO
	niranjan.samal@nalcoindia.co.in soumendu.pattnaik@nalcoindia.co.in Package Owner of NALCO HO debashis.mohanty@nalcoindia.co.in siddhartha.das@nalcoindia.co.in suman-rout@nalcoindia.co.in sudesh.pattnaik@nalcoindia.co.in	NALCO-HO
	rudraraju.raju@nalcoindia.co.in bisen.deepak@nalcoindia.co.in Package Owner of NALCO SITE Commercial person of NALCO-Site	NALCO-Site

All site related email /communications / correspondences (e.g. readiness of dispatch/delivery, receipt of material site / milestone approval related to receipt of material / final documentation at site) should be addressed to RCM of tkIS India (Mr. Jaykrushna Pradhan). Email should be marked “TO” tkIS Site id at tkisindia.nalcosite@thyssenkrupp.com with “CC” to following as a minimum. Changes in above matrix will be communicated to Vendor during course of execution.

4.3 Communication to Vendor:

Vendor to specify unique email id to which email should be marked who in turn will distribute email internally.

4.4 Address:

NALCO HO (Bhubaneshwar): National Aluminium Company Limited
Nalco Bhavan, P/1, Nayapalli,
Bhubaneswar – 751013
Odisha, India

NALCO Site (Damanjodi): National Aluminium Company Limited
M & R Complex,
Damanjodi 763008
Koraput Dt | Odisha | India

.

tkIS-India, Mumbai: thyssenkrupp Industrial Solutions (India) Private Limited
(Head Office) Uhde House
L.B.S. Marg, Vikhroli (West),
Mumbai – 400 083.

tkIS-India, Site: tkIS-India Private Limited
(Site Office) C/O NALCO site – M & R Complex
Damanjodi 763008
Koraput Dt | Odisha | India
(Further details to be notified later)

4.5 Correspondence:

All correspondence shall be in English language.
All correspondence shall be numbered as enumerated hereunder:

Each correspondence shall contain a relevant subject and project title as **"66-6695/NALCO"**
Each document shall preferably deal with one subject only.

Minutes of Meeting (MOM) shall be prepared and will be signed by at least one representative of tkIS-India / NALCO and **Vendor** on the conclusive day of discussion itself. The MOM shall be factual statements and agreements, and not verbatim reproduction of the proceedings.

The MOM prepared will be serially numbered as follows:
M-6695-PIN-VEN-0001, 0002….

4.6 Correspondence between Vendor and tkIS-India HO:

For all correspondence between **Vendor** and tkIS-India, the following numbering system will be adopted. These shall be serially numbered as indicated below:

tkIS-India to **Vendor:**
E-6695-PIN-**VEN**-0001, 0002.....(For E-Mail)
L-6695-PIN-**VEN**-0001, 0002.....(For Letter)
T-6695-PIN-**VEN**-0001, 0002..... (For Transmittal)

E-6695-PINS-**VEN**-0001, 0002.....(For E-Mail issued from tkIS Site)
L-6695-PINS-**VEN**-0001, 0002.....(For Letter issued from tkIS Site)
T-6695-PINS-**VEN**-0001, 0002..... (For Transmittal issued from tkIS Site)

Vendor to tkIS-India:
E-6695-VEN-PIN-0001, 0002.....(For E-Mail)
L-6695-VEN-PIN-0001, 0002.....(For Letter)
T-6695-VEN-PIN-0001, 0002…….(For Transmittal)

E-6695-VEN-PINS-0001, 0002.....(For E-Mail issued to tkIS Site)
L-6695-VEN-PINS-0001, 0002.....(For Letter issued to tkIS Site)
T-6695-VEN-PINS-0001, 0002…….(For Transmittal issued to tkIS Site)

4.7 Transmittals:

tkIS-India will use its standard Document Transmittal system for the issue of all documents (excluding letters and e-mails) to **Vendor.** Wherever large volume of drawing / documents to be exchanged, tkIS India will provide link for the FTP server for transmission of documents / drawings or "Cryptshare" platform will be used. Changes, if any, for document transfer shall be communicated during the execution, as applicable.

4.8 Telephone Notes:

All important and critical discussions and decisions conveyed over phone between Vendor and tkIS-India shall be confirmed in writing by Letter / E-mail by originating party.

5 PROJECT CO-ORDINATION:

5.1 Project schedule:

The Project Schedule agreed between Vendor and tkIS-India / NALCO shall be the basis for implementation of the project and the same shall be considered as an integral part of work order or contract document / agreement. The project schedule bar-chart will be prepared by Vendor within **2 weeks of BOA** and will be submitted to tkIS-India. The schedule shall be updated on monthly basis unless requested for shorter cut-off period. The Project Schedule shall contain detailed activities at each stage for all the individual components.

5.2 Review meetings:

Vendor shall present the project progress details to tkIS-India. The review meeting will be generally held at tkIS-India's Mumbai office and Time / Date shall be communicated at least 2 days in advance. Additional meetings at tkIS-India, Mumbai Office or Vendor Works or at NALCO may be requested depending on the progress of work.

5.3 Progress reporting (if requested by tkIS):

Monthly Progress Report will be produced with cut-off date of 22nd of each month and progress report to be forwarded to tkIS-India on or before 25th of that month. In case, site activities are involved, Progress Report shall include Photographs of ongoing construction / site activities, showing the factual position of the construction activities at site. Photographs from shop / site progress also shall be submitted in the progress report.

The project will be monitored on Overall Schedule Basis.

Also vendor will provide relevant copies of certificates manufacturing progress data, third party inspection report, un-priced P.O. copies, etc. wherever necessary / required, as applicable/

6 ENGINEERING PROCEDURE:

6.1 Basis of Engineering:

Vendor shall follow the Order Specification given by tkIS-India/NALCO.

6.2.2 Detailed Engineering:.1DRAWINGS / DOCUMENTS SUBMISSION

Detailed engineering documents prepared by Vendor will be forwarded by Vendor to tkIS-India for their information / comments / approval as per the Order Specification.

Vendor documentation procedure attached with Material Requisition (MR) shall be followed by Vendor.

Copies of the vendor drawings and documents for Final Documentation shall be also as per MR / Order Specification.

6.2.2 Vendor shall indicate following information block on all drawings / documents:

Client: National Aluminium Company Limited (NALCO)
Consultant: thyssenkrupp Industrial Solutions (India) Private Limited
Project No.: 66-6695-700/NALCO
LOI / P.O. No.: XXXXXXXXXX Dated XX-XX-20XX
Equipment: Package Name (Tag No. XXXXX)

7 DETAIL DRAWING TEMPLATE

Drawing template and document template to be followed (various size of documents) will be provided subsequent to award of Contract.

8 INSTRUCTION TO VENDOR FOR SENDING SOFT COPIES (PDF FILES)

For sending soft copies for tkIS-India approval kindly follow instructions given Vendor documentation procedure 6695-PDM-G00-BD-0002

9 DISPATCH INSTRUCTIONS

Before dispatching consignment, kindly ensure that the following Technical & Commercial obligations are fulfilled with respect to completeness of order.

1. All the requirements of Purchase Order Specification have been implemented.
2. All drawings including QAP are approved by tkIS-India (Code 1)
3. Reference of approved QAP number, along with revision number / approved Drawing number and revision number, are appearing in Inspection Release Note (IRN).
4. After completion of Inspection and prior to dispatch, please ensure QAP & supporting documents are duly signed & stamped by tkIS-India / TPIA Inspector (as applicable).
5. Ensure IRN is duly certified by tkIS-India / TPIA Inspector (as applicable by inspection agency).
6. Ensure that the vendor inspector shall review the packing list and submit the final packing list to tkIS-India inspector for review & verification. All spares, tools and tackles are dispatched with final goods.
7. E-Waybill shall be valid enough to allow delivery up to destination.
8. E-Waybill should contain Consignor name, Consignor address, Consignor TIN No. Consignor and consignee GST registration number and any other details as may be mentioned in the BOA. Consignor state, Place of dispatch of goods, State of dispatch of goods, Expected/actual date of dispatch of goods, Name of entry gate in Odisha & NALCO PO No, etc. in Word or Excel format to following person.

9. Upon readiness for dispatch / final inspection release by tkIS-India / TPI, vendor shall inform NALCO and tkIS-India immediately about their intent to dispatch the goods. Vendor should submit IRN duly stamped & signed to tkIS-India-HO & tkIS India site (email id – tkISIndia.nalcotf@thyssenkrupp.com and tkisindia.ex@thyssenkrupp.com)

10. Site Address for NALCO-Damanjodi

    Kind Attention: AGM (Materials), Central Stores,

    National Aluminium Company Limited
    M & R Complex | Damanjodi | 763008
    Koraput Dt | Odisha | India

    Site Address for NALCO-Vizag Port

    Kind Attention: Mr. A. V. Subba Rao, GM (Mech)

    National Aluminium Company Limited
    PORT area, Opp. Ore Handling Complex,
    Visakhapatnam - 530 035, India

11. Kindly fill the Dispatch Intimation (Annexure 1 & 2) and Packing list format (Annexure 3) which is attached with this procedure and submit the same, along with photographs of equipment / material after loading into transportation vehicle, vide email. The email of this Dispatch Intimation along with vendor's declaration through Form A2 should be marked to following (refer table)

Email should be marked TO	
Mr. Jaykrushna Pradhan (tkIS RCM at Site)	jaykrushna.pradhan@thyssenkrupp.com tkisindia.nalcosite@thyssenkrupp.com
Email should be copied in CC	
tkIS expediting team &	tkisindia.ex@thyssenkrupp.com
tkIS taskforce email id	tkISIndia.nalcotf@thyssenkrupp.com
Mr. Girish G. Masurkar	girish.masurkar@thyssenkrupp.com
Mr. Sulesh Pradhan	sulesh.pradhan@thyssenkrupp
Mr. Kishore Mulchandani	ka.mulchandani.external@thyssenkrupp.com
Mr. Reema Godbole	reema.godbole@thyssenkrupp.com
Mr. Vijay Gujar	vijay.gujar@thyssenkrupp.com
tkIS Package owner	tkIS Package owner - Email Id
Mr Rajib Karan (Store Manager)	rajib.karan@thyssenkrupp.com
Mr. Kalla Viswanandham	kalla.viswanadham@thyssenkrupp
Mr. R. S. Raju	rudraraju.raju@nalcoindia.co.in
Mr. Siddhartha Das	siddhartha.das@nalcoindia.co.in

For Electrical & Instrumentation items	Additional names at CO & Site
Mr. Debashis Mohanty	debashis.mohanty@nalcoindia.co.in
Mr. Saqib Khan	saqib.khan@nalcoindia.co.in
Mr. Debashisha Chhotaray	debashisha.chhotaray@nalcoindia.co.in
Mr. K. V. Reddi	reddi.vardhan@nalcoindia.co.in
For Mechanical, Piping/ Process items	**Additional names at CO & Site**
Mr. Soumendu K Pattnaik	soumendu.pattnaik@nalcoindia.co.in
Mr. Suman Kumar Rout	suman.rout@nalcoindia.co.in
Mr. H S Pradhan	himansu.pradhan@nalcoindia.co.in
For Civil	**Additional names at CO & Site**
Sanjaya Panda	sanjaya.panda@nalcoindia.co.in 1
Other members as per communication procedure.	
Mr. M. V. Surya (Material – NALCO Site)	malayanur.surya@nalcoindia.co.in
Mr. Awadhesh Gupta (Material – NALCO-HO)	awadhesh.gupta@nalcoindia.co.in
Mr. Harkesh Saroj (Material / Insurance / EPCG - NALCO-HO)	harkesh.saroj@nalcoindia.co.in 1

1. Before dispatch, Vendor ensure that requirements of Transit Insurance as stated in NALCO BOA are complied with Transit insurance from dispatch point to NALCO Project Site shall be arranged and paid by the Owner. For the purpose of arranging transit insurance, the vendor shall, immediately on booking each consignment, inform the following details by way of e-mail directly the insurance company as per the details mentioned in NALCO's BOA with copy to NALCO Corporate Office / HO material team / and such other persons as mentioned in NALCO's BOA.
   - Brief Order of Acceptance number and date
   - Name of Transporter
   - Lorry Receipt Number and date
   - Invoice Number and date
   - Invoice value
   - Number of packages
   - Number and type of containers
   - Gross weight & net weight in Kg
   - Any other details as mentioned in NALCO's BOA
2. Marine cover and erection risk cover policy for indigenous items of NALCO project

   Please refer to NALCO's BOA for the details of the Insurance cover obtained by NALCO and adhere to the requirements mentioned in the BOA.

3. Marine cover and erection risk cover policy for imported items of NALCO project

   Please refer to NALCO's BOA for the details of the Insurance cover obtained by NALCO and adhere to the requirements mentioned in the BOA.

4. Nodal Office & Officers for Claim:

   Contact Persons:

   a) malayanur.surya@nalcoindia.co.in
   b) siddhartha.das@nalcoindia.co.in
   c) amaresh.rout@orientalinsurance.co.in
   d) storesref_osrd@nalcoindia.co.in
   e) harkesh.saroj@nalcoindia.co.in

5. Local Service Branch of Insurance Company: Please refer to NALCO's BOA for the details of the Insurance cover obtained by NALCO and adhere to the requirements mentioned in the BOA.

6. It is advised that goods need to be dispatched after completing IRN certified by tkIS / TPI as may be the case, in line BOA terms and conditions.

7. Before dispatch of all ODC and OWC cargo, please send declaration to Insurance Company as well as to Insurance Agency Ltd. and tkIS India & NALCO as mentioned below.

8. As soon as goods are dispatched, kindly forward scanned copy of following documents to following:

   Insurance Company: amaresh.rout@orientalinsurance.co.in; storesref_osrd@nalcoindia.co.in

   Please refer to NALCO's BOA for the details of the Insurance cover obtained by NALCO.

NALCO

Ms. Tripti Roy : tripti.roy@nalcoindia.co.in
Mr. M. V. Surya : malayanur.surya@nalcoindia.co.in :
Mr. Siddhartha Das : siddhartha.das@nalcoindia.co.in
Mr. Awadhesh Gupta : awadhesh.gupta@nalcoindia.co.in
Mr. Sudesh Pattnaik : sudesh.pattnaik@nalcoindia.co.in

tkIS-India (as an advance intimation)

tkIS HO : tkISIndia.nalcotf@thyssenkrupp.com
tkIS-India Site Stores : tkisindia.nalcosite@thyssenkrupp.com

(All originals shall be submitted along with payment invoice sent to NALCO**-site office** for dispatched items).

For Indian Supplies

- Copy of Invoices & Challans
- Copy of Packing List
- Copy of IRN & MTCs
- Copy of IBR certificate (if IBR items are in order)
- Copy of Guarantee Certificate
- Copy of LR
- Copy of Dispatch Intimation issued to tkIS and NALCO.
- any other document as may be mentioned in the PO or subsequently by NALCO / tkIS India

For Foreign Supplies & for all components ordered on foreign suppliers by Indian vendors

- Shipment Invoice
- Bill of lading
- Port of Loading
- Certificate of origin
- Third Party Inspection Release Note
- Test Certificates
- Packing List
- LR / RR / Bill of Coastal Goods
- Warranty Certificate
- Any other document as may be mentioned in the PO or subsequently by NALCO / tkIS India

Please refer NALCO's BOA for all details related to name of insurance company and related information. In addition to the e-mail ids mentioned in this document, please also send the insurance/dispatch related intimation to the e-mail ids mentioned in Sl. NO. 15 above.

9. For IBR materials please ensure that all original IBR documents applicable are sent to tkIS-India, Mumbai office.

10. It is mandatory to attach our Dispatch Intimation & Inspection Release Note (IRN) with all Invoices against supply of material. This is mandatory for clearing payments by NALCO.

11. Kindly mention tkIS-India Material / Item code, NALCO LOI Sr. No. & BOA Material Code clearly in the Invoice and IRN and the Packing list for better identification of material at site. GST compliant Invoices against engineering milestones, if applicable as per BOA conditions, then the same should be sent to tkIS for approval prior to issue of Invoice. Only upon receipt of approval from tkIS on such engineering milestones Invoice should be sent to NALCO.

12. Attachments, spare parts of the equipment and small items shall be packaged separately in wooden cases. Each item shall be appropriately tagged with identification of main equipment, item denomination and reference number of the respective assembly drawing. Separate box & packing to be used for Capital, Commissioning, Mandatory and 1 year' operating spares, wherever is applicable, from Main Equipment box. Prior to packing / dispatch the Supplier is to take adequate precautions regarding treatment and protection of Work / Equipment / Items against corrosion / any damage during transits

13. Supplier to ensure that all the material is TAGGED and packed appropriately. The material will be loaded on the truck such that the items can be easily transported and unloaded at site safely. If any specific instructions or sequence is to be followed while unloading, then the supplier will indicate the same. It will be ensured that the truck drivers follow the rules and requirements of safety as per good industrial practices since the unloading may be done inside the operating plant. Vendor should follow SOP for Material Loading at his Factory which should take care safety aspect towards loading and unloading.

14. All packaging should be done in such a manner so as to reduce the volume. The equipment shall be dismantled into major components suitable for shipment (as per route survey) and shall be properly packed to provide adequate protection during shipment. All assemblies shall be properly match marked for site erection.

If COVID pandemic situation continues and material require to be transported during such time period, then Vendor should take care of following points

- Origin of material manufactured & to be dispatched (Category of Zone: Red / Orange / Green).
- SOP for Transportation from your factory to NALCO project site.
- Transportation route (avoid all hotspot/Red Zone) & Driver Travel History of last 15 Days

Please Note:

1. Vendor should declare in their request for dispatch intimation whether the dispatch is for partial or final 100%.
2. Once the ordered work is completed, Vendor to submit applicable sets of final technical document as stated in vendor documentation procedure doc no. 6695-PDM-G00-BD-0002 within 7 days, to tkIS-India, Mumbai office

10 INVOICING INSTRUCTION TO VENDOR

Following procedure shall be followed for handing of vendor invoices:

1. For engineering milestones, Vendor shall submit payment requests along with necessary documentation evidences like drawings approval transmittal, submission transmittal, back up email etc…through email. Email should be marked to tkIS HO with copy to NALCO HO and NALCO Site team, as described above under Sr no.4.1.
2. tkIS project execution team will certify the engineering billing milestones and inform vendor through email as Recommendation / clearance to issue invoice for certified billing milestones.
3. Vendor shall submit original invoice, upon certification of payment requests from tkIS, directly to the concerned Commercial In-Charge at NALCO Project. HO. Invoice shall be transmitted with a letter by Vendor clearly stating the List of Documents attached.
4. For certification of payment requests against delivery of equipment / items at site, vendor should provide all dispatch documents and other necessary evidences like E-Waybill, lorry challan, gate entry etc. through email. All such correspondences shall be marked to tkIS Site with copy to tkIS HO, NALCO HO and NALCO site team.
5. tkIS Site team will certify payment requests as per BOA terms and conditions and will provide recommendation to raise the Invoice as per BOA terms and conditions.
6. Vendor shall submit original invoice upon payment requests certification from tkIS directly to the concerned Commercial In-Charge at NALCO Project. Site. Invoice shall be transmitted with a letter by Vendor clearly stating the List of Documents attached.
7. Vendor shall submit their invoice in accordance with the provisions of BOA. Necessary documentation evidence like drawings approval transmittal, submission transmittal, vendor purchase order (unpriced copies), bank guarantees (wherever applicable) shall be attached with the invoice to demonstrate achievement of payment milestone.
8. A copy (soft) of the invoice also shall be marked to tkIS-India / NALCO
9. Based on above certification, payment will be released by NALCO to the Vendor as per the provisions of BOA.
10. All the bank guarantees in original (along with other relevant documents) shall be directly sent to NALCO Site, along with the Invoice. Copies of Bank Guarantees may be enclosed (wherever any BG copies are required to be submitted to tkIS)
11. Payment shall be directly made by NALCO to Vendor.

Annexure-1: Form A1: Dispatch Intimation Format

नालको NALCO नेशनल एल्यूमिनियम कम्पनी लिमिटेड National Aluminium Company Ltd.	Form A1 : Dispatch Intimation	Vendor Logo

To,

Date: XX / XX/ XXXX

For Damanjodi Refinery Complex

Kind Attention: RCM (tkIS) / AGM (Materials), Central Stores,
National Aluminium Company Limited
M & R Complex | Damanjodi | 763008
Koraput Dt | Odisha | India

For NALCO Vizag Port

Kind Attention: Site in charge (tkIS) / Mr. A.V.Subba rao, (GM (Mech)
National Aluminium Company Limited
PORT area, Opp. Ore Handling Complex,
Visakhapatanam -530 035, India

Name of material supplier			
Place of material origin			
BOA No.			
Invoice No. & Date		Value:	
LR No. & Date		Name of Transporter	
Nature of packing		No. of packages	
Approx. weight of material		Expected date of material delivery @ Site	
Part Quantity/Full Quantity :		Order Completed : Yes / No	
Inspection Release Note (IRN) No. & Date	…… (refer attached)		

Disclaimer: Wherever LOI / PO is mentioned, the same shall be read as NALCO's BOA.

Following documents are being dispatched along with consignment:

Sr.	Name of Document	Y / N	If No, please specify the reason
1	LR (Consignee copy and Driver's copy)		
2	Invoice (Duplicate for Transporter)		
3	Detailed Packing List		
4	Inspection Release Note (IRN)		
5	Material Test Certificates		
6	State Entry Permit, as applicable		
7	Dispatch Intimation Form 2		
8	Any other documents (Please specify):		

for (Name of material supplier)

Authorized Signatory

Name & Contact No. of authorised person at supplier's side:

The email of this Dispatch Intimation along with vendor's declaration through **Form A2** should be marked to identified persons under sr.no. 11 & 19 of clause no. 9 (Dispatch Instructions) of this document

In addition to the e-mail ids mentioned above, the dispatch / insurance related information should also be sent any other additional personnel as may be informed by NALCO / tkIS India from time to time.

Annexure-2: Form A2: DISPATCH INTIMATION TO NALCO SITE (to be issued by Vendor on their company letter head)

DC No.: 6695-DC-ABCD-NALCO-00NN **Date: XX/XX/XXXX**

To:
For Damanjodi Refinery Complex

Kind Attention: RCM (tkIS) / AGM (Materials), Central Stores,
National Aluminium Company Limited
M & R Complex | Damanjodi | 763008
Koraput Dt | Odisha | India

For NALCO Vizag Port

Kind Attention: Site in charge (tkIS) / Mr. A.V.Subba rao, (GM (Mech)
National Aluminium Company Limited
PORT area, Opp. Ore Handling Complex,
Visakhapatnam -530 035, India

Sub: Dispatch Intimation for **XX No. XXXXXX Unit (Tag No. ZZZZZZZ)** against NALCO BOA

Ref: BOA No. _____ Dated _____

IRN No.: _____

Dear Sir,
With reference to above mentioned order and material details, we hereby confirm following:

1) This Dispatch Intimation is issued for the material as per attached Inspection Release Note (IRN).
2) All packaging is done in such a manner so as to reduce the volume and properly packed to provide adequate protection during shipment.
3) All assemblies are properly match marked for site erection
4) The material is being dispatched strictly as per specification, IRN and Clearance of the Inspection.
5) This dispatch intimation is applicable to only goods duly certified and where IRN is received.
6) Dispatch of material is in compliance with agreed terms & conditions of BOA (Copy of IRN attached for reference).
7) Packing list has been checked for completeness of Supplies.
8) Special Instructions if any is provided to our logistic partner / service provider.
9) E-Waybill is valid enough to allow delivery up to destination.

10) Vendor shall submit GST compliant invoice(s) containing all the particulars as per GST legislation and Rules, along with the Challan One complete set of Dispatch Documents sent to tkIS-India-HO and tkIS Site Address for Payment Certification, as applicable.

11) Final technical Documentation will be submitted as per order specification.

Thanking you,
for (Name of material supplier)

Authorized Signatory
Name & Contact No. of contact person at supplier's side:

Disclaimer: Wherever LOI / PO is mentioned, the same shall be read as NALCO's BOA.

Annexure-3: PACKING LIST FORMAT (SAMPLE)

PACKING LIST

Name & address of Consignor:	Name & address of Buyer:	Name & address of Consignee:
	PO / LOI No. :	Invoice No.:

Box No.	PO Line Item No.	Mark No. / Heat No. / Part No.	UoM	Qty.	Material Description	Box Size (cm)	Nett Weight (Kgs)	Gross Weight (Kgs)
	Material dispatched by				Contact No.		Company Seal	

: