

ITEMS
IDENTIFIED
FOR DEVELOPMENT
BY MSE

SMELTER PLANT
NALCO, ANGUL

1. STUFFING BOX

MATERIAL CODE	20180000520
DRAWING NO	NAL/PND/S/POT/A2/166
MATERIAL OF CONSTRUCTION	MS SHEET FE410WA, 2mm Thick AS PER IS: 2062-2006
	a) ITEM SHALL BE FORMED BY COLD DRAWING PROCESS
	b) PAINTED WITH TWO COATS OF RED-OXIDE PRIMER
APPLICATION	TO SEAL END PORTIONS OF CATHODE BARS PROTRUDING FROM POTS
ANNUAL REQUIREMENT	7000 Nos



2. CHIESEL FOR CRUST BREAKER(PTM)

MATERIAL CODE	20120019050
DRAWING NO	POT/SP/M/A2/371
MATERIAL OF CONSTRUCTION	: Jc20Cr25Ni20 AS PERIS:1570(V)-1985 (EQUIVALENT OF SS310)
APPLICATION	IT IS AN ATTACHMENT FOR PTM CRUST BREAKER, USED TO BREAK THE SOLID CRUST DURING ANODE CHANGING.
ANNUAL REQUIREMENT	600 Nos



3. SLIDE PLATE

MATERIAL CODE	21304014360
DRAWING NO	NAL/PND/S/POT/A3/096
MATERIAL OF CONSTRUCTION	ALUMINIUM STRIP , 8 mm Thk
APPLICATION	IT IS USED IN POT SUPERSTRUCTURE IN ANODE SLOT. IT WORKS AS SEAL TO PROTECT THE POT GAS TO GO OUT.
ANNUAL REQUIREMENT	800 Nos



4. STUD FOR CRUST BREAKER CHIESEL

MATERIAL CODE	20120019120
DRAWING NO	POT/SP/M/A4/1027
MATERIAL OF CONSTRUCTION	ASTM 1038 (BLACKENED)
APPLICATION	SPARE FOR CRUST BREAKER USED IN POT TWIN HOPPER IN POT LINE.
ANNUAL REQUIREMENT	300 Nos



5. MS FLAT WASHER

MATERIAL CODE	90905052000
SIZE	50x50x10 WITH HOLE DIA 21mm AT CENTER FOR M20 BOLT SIZE
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	FOR FASTENING PURPOSE.
ANNUAL REQUIREMENT	600 Nos



6. ANODE LOCKING CLAMP

MATERIAL CODE	24650976180
DRAWING NO	POT/SP/MECH/A1/2030
MATERIAL OF CONSTRUCTION	PL. REFER DRAWING
APPLICATION	CLAMPING OF THE ANODE STEM IN THE POTS IN POT LINE.
ANNUAL REQUIREMENT	6000 Nos



7. POT HOOD HANDLE

MATERIAL CODE	20124030110
DRAWING NO	POT/SP/MECH/A3/1839
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	IT IS AN ATTACHMENT TO POT HOOD.
ANNUAL REQUIREMENT	25000 Nos



8. U-HOOK

MATERIAL CODE	24650982590
DRAWING NO	ME-02-00-005 (ITEM-5)
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	EXTRACTION OF SOLIDIFIED POURING MATERIAL FROM MOULD & CHARGING OF THE SAME INTO THE INDUCTION FURNACE.
ANNUAL REQUIREMENT	1500 Nos



9. COTTON HAND GLOVES

MATERIAL CODE	94605005500
SIZE	16"
MATERIAL OF CONSTRUCTION :	COTTON CANVAS CLOTHES WIGHT 330 Gm/SQ.mt WITH FLANNEL CLOTH MATERIAL INSIDE PORTION OF THE HAND GLOVES INCLUDING FINGERS. A SUITABLE SOFT PADDING OF SIZE 90x90 MUST BE PROVIDED ON PALM REGION COVERING MINIMUM 95% OF PALM REGION TO GIVE MAXIMUM PROTECTION AGAINST HEAT.
APPLICATION	SAFETY PURPOSE
ANNUAL REQUIREMENT	50,000 Nos



10. SCRAPER FOR RODDING SHOP

MATERIAL CODE	24650981090
DRAWING NO	C/SP/M/A3/1304
MATERIAL OF CONSTRUCTION	40C8, AS PER IS:1570(II)/1979
APPLICATION	HELPS IN REMOVAL OF SOLIDIFIED SPILLED OFF POURING MATERIAL USED FOR SEALING OF STEM BRACKET WITH ANODE.
ANNUAL REQUIREMENT	5000 Nos



11. METAL MEASUREMENT ROD

MATERIAL CODE	24650977200
DRAWING NO	NAL/PND/S/POT/A4/667
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	FOR MEASURING METAL /BATH LEVEL IN POTS IN POT LINE 1 & 2.
ANNUAL REQUIREMENT	1500 Nos



12. SLEEVE FOR ANODE STEM

MATERIAL CODE	24650979440
SIZE	OD 73 mm, ID 63 mm, LENGTH 160 mm WITH 5x5 CHAMFER INSIDE
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	SPARE FOR ANODE STEM
ANNUAL REQUIREMENT	2000 Nos



13. CIRCULAR DISC

MATERIAL CODE	22970908380
DRAWING NO	NAL/PND/S/RS/A4/239
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	DISC FOR SKIMMER AT RODDING SHOP
ANNUAL REQUIREMENT	6000 Nos



14. C.I. SAMPLE LADLE

MATERIAL CODE	24650985090
DRAWING NO	ME-02-00-005 (ITEM-6)
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	FOR SAMPLING CAST IRON IN RODDING SHOP.
ANNUAL REQUIREMENT	500 Nos



15. SKIMMER

MATERIAL CODE	24650980110
DRAWING NO	NAL-02-RS-M4-4-81
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	SKIMMING MOLTEN CAST IRON IN RODDING SHOP
ANNUAL REQUIREMENT	4000 Nos



16. POLYMER BATTENS

MATERIAL CODE	26345018520
SIZE	LENGTH 9", MAXIMUM WIDTH 25 mm SUITABLE FOR 16 MM STRAP
MATERIAL OF CONSTRUCTION :	POLYMER
APPLICATION	PACKAGING OF WIRE ROD COILS FOR PROTECTION IN CH-A
ANNUAL REQUIREMENT	2,30,000 FT



17. TENEX POLYESTER STRAP

MATERIAL CODE	88020008800
SIZE	19 mm X 1.27 mm, JOINT TYPE : Z-WELD (HEAT SEALING), COIL SIZE: 72KG(2225 MT), BREAKING STRENGTH : 1002 KGF (AVG)
TENSILE STRENGTH	394 N/SQ.MM, ELONGATION : 10-15%
MATERIAL OF CONSTRUCTION :	POLYMER
APPLICATION	USED IN BINDING OF INGOT STACKS IN CH-B
ANNUAL REQUIREMENT	70,000 KG



18. GREY COLOR MARKIN CLOTH

MATERIAL CODE	88106014190
SIZE	1 METER LENGTH X 1 METER WIDTH IN CUT PIECE
MATERIAL OF CONSTRUCTION	FABRIC
APPLICATION	SUPPLIED TO EACH WORKER FOR HIS USE IN COVERING HIS FACE, NECK ETC.
ANNUAL REQUIREMENT	30,000 NOS



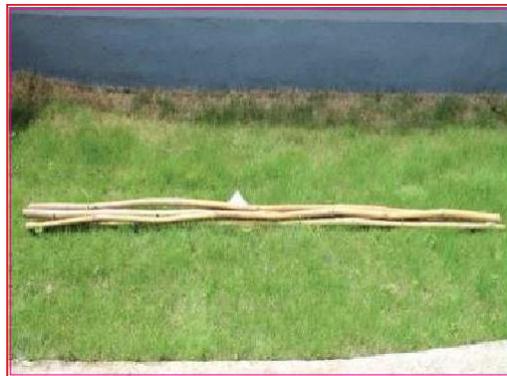
19. PINE WOOD RUNNER

MATERIAL CODE	26315050100
DRAWING NO	CH/SP/M/A3/1287
MATERIAL OF CONSTRUCTION	WOOD
APPLICATION	PACKAGING OF BILLETS IN BCF, CH-A
ANNUAL REQUIREMENT	40000 Nos



20. LONG SALIA BAMBOO

MATERIAL CODE	95302006180
SIZE	DIA 30-40 mm AT BOTTOM & 20-25 mm AT TOP, LENGTH : 4-5 METERS
MATERIAL OF CONSTRUCTION	BAMBOO
APPLICATION	AN IMPORTANT TOOL TO BE USED FOR KILLING ANODE EFFECT IN POTLINE
ANNUAL REQUIREMENT	1,60,000 NOS



21. PLASTIC FOIL (LDPE SHEET)

MATERIAL CODE	88020006350
SIZE	7000 mm X 8500 mm X 0.10 mm
MATERIAL OF CONSTRUCTION	: LOW DENSITY POLYTHYLENE FILM, IS :2508-1984
APPLICATION	FOR SEALING PURPOSE IN HEAT REGULATING SYSTEM OF BAKING FURNACE.
ANNUAL REQUIREMENT	15,000 KG



22. PNEUMATIC HOSE

MATERIAL CODE	87602414640
SIZE	: 1" (ID 25 mm) TO WITHSTAND PRESSURE 10.2 KGF/SQ.CM
MATERIAL OF CONSTRUCTION	: GR-II, AS PER IS : 446-1987
APPLICATION	USED IN DIFFERENT PNEUMATIC EQUIPMENTS FOR AIR SUPPLY, AIR BLOWING IN DIFFERENT LOCATIONS.
ANNUAL REQUIREMENT	5000 METER



23. PNEUMATIC TOOL HOSE

MATERIAL CODE	87602414710
SIZE	: 3/4" (ID 20 mm) TO WITHSTAND PRESSURE 7-14 KGF/sQ.CM
MATERIAL OF CONSTRUCTION	: GR-II, AS PER IS : 446-1987
APPLICATION	USED IN DIFFERENT PNEUMATIC EQUIPMENTS FOR AIR SUPPLY, AIR BLOWING IN DIFFERENT LOCATIONS
ANNUAL REQUIREMENT	: 4000 METER



24. WOODEN TRISQUARE

MATERIAL CODE	95390051020
DRAWING NO	SAN/PLS/B9/AP/0s1
MATERIAL OF CONSTRUCTION	HARD WOOD
APPLICATION	TO DRAW LEVEL MARK ON ANODE STEM DURING ANODE CHANGING PROCESS IN POT LINE.
ANNUAL REQUIREMENT	1500 Nos



25. CAST BAR HOLDING TONG

MATERIAL CODE	21799016070
DRAWING NO	CH/SP/M/A3/1397
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	TO HOLD THE CAST BAR WHILE FEEDING THE CAST BAR INTO WIRE ROD ROLLING MILL, CH-A
ANNUAL REQUIREMENT	200 Nos



26. INGOT HANDLING TONG

MATERIAL CODE	21711050100
DRAWING NO	CH/SP/M/A3/1471
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	TO HANDLE HOT INGOTS NEAR CROSS & LAYER CONVEYORS, CH-A & CH- B
ANNUAL REQUIREMENT	200 Nos



27. FLAT POINTED CRUST BREAKER CHIESEL

MATERIAL CODE	85311050140
DRAWING NO	POT/SP/M/A3/835
MATERIAL OF CONSTRUCTION	
%C . 0.30-0.36	%Mn . 0.50-0.80
%P . 0.35 MAX	% Si . 0.10-0.35
%S . 0.36 MAX	
HARDNESS	350 BHN (THROUGH OUT)
APPLICATION	IT IS AN ATTACHMENT IN PTM CRUST BREAKER & USED DURING ANODE CHANGING, FALLEN ANODE BREAKING AND REMOVAL.
ANNUAL REQUIREMENT	1000 Nos



28. METAL MEASUREMENT ROD

MATERIAL CODE	24650901980
DRAWING NO	PL3/OPR/SPR/A3/9432
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	FOR MEASURING METAL /BATH LEVEL IN POTS IN POT LINE 3 & 4.
ANNUAL REQUIREMENT	1000 Nos



29. SMALL SPOON

MATERIAL CODE	24650650020
DRAWING NO	PU/OPR/SPR/A4/9923
MATERIAL OF CONSTRUCTION	: FE 410WA, AS PER IS 2062-2006
APPLICATION	USED FOR COLLECTING LIQUID METAL FROM POT FOR SAMPLING PURPOSE.
ANNUAL REQUIREMENT	300 Nos



30. SKIMMER

MATERIAL CODE	24650140040
DRAWING NO	POT/SP/OPER/A3/7310
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	USED IN POT ROOM TO SKIM OUT CARBON DUST FROM RUNNING POT LIQUID BATH.
ANNUAL REQUIREMENT	500 Nos



31. POURING TROUGH

MATERIAL CODE	21799010380
DRAWING NO	CHA/OPR/SPR/A2/7383
MATERIAL OF CONSTRUCTION	X04Cr19Ni9 AS PER IS:6911/1992 (EQUIVALENT OF SS304)
APPLICATION	TO GUIDE METAL INTO RING MOULD GROOVE IN WIRE ROD MILLS
ANNUAL REQUIREMENT	500 Nos



32. SMALL LADLE

MATERIAL CODE 21711050650
DRAWING NO SC/SP/M/A4/1660
MATERIAL OF CONSTRUCTION FE 410WA, AS PER IS 2062-2006

APPLICATION USED FOR METAL SAMPLING IN CH-A & B
ANNUAL REQUIREMENT 400 Nos



33. U- CLAMPS

MATERIAL CODE 20525000970
DRAWING NO NAL/S/POT/MECH/A4/461
MATERIAL OF CONSTRUCTION FE 410WA, AS PER IS 2062-2006
APPLICATION USED IN LPC SHOP TO CLAMP FOR THE CLAMPING PURPOSE OF SILENCERS ETC IN METAL TAPPING LADLE.
ANNUAL REQUIREMENT 500 Nos



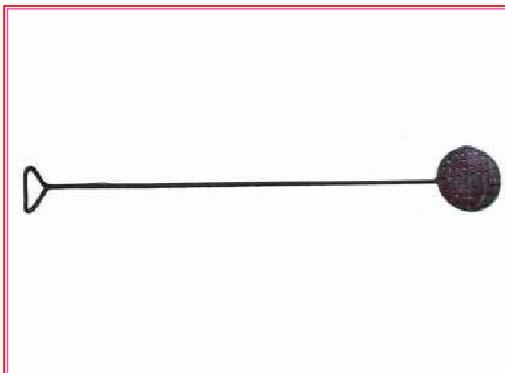
34. PEEP HOLE RING

MATERIAL CODE	22705902490
DRAWING NO	BFII/OPR/SPR/A4/9061
MATERIAL OF CONSTRUCTION	CAST IRON
% C : 2-2.5	%Mn : 0.7-1.2
% Ni: 1-2	% Si : 0.4-0.6
% Cr : 26-30	% Cu : 0.7-1.3
APPLICATION	SUPPORTING RING PLATE FOR BURNER BASE & LID COVER FOR FLUE WALLIN BAKE OVEN
ANNUAL REQUIREMENT	1000 Nos



35. SNIF CIRCULAR SKIMMING TOOL

MATERIAL CODE	26502736810
DRAWING NO	sC/S/M/A4/1479
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	TO SKIM DROSS FROM SNIFF DEGASSER, CH-A
ANNUAL REQUIREMENT	250 Nos



36. CROW BAR (SMALL)

MATERIAL CODE	26502735170
DRAWING NO	SC/S/M/A4/1399
MATERIAL OF CONSTRUCTION	FE 410WA, ASPERIS 2062-2006
APPLICATION	FOR CHIESELING & BREAKING OF JAMMED METAL LADLE, DROSS, FEEDER HOLE IN POTS ETC IN VARIOUS IN DIFFERENT AREAS OF SMELTER PLANT
ANNUAL REQUIREMENT	500 Nos



37. PEEP HOLE COVER

MATERIAL CODE	22705902320
DRAWING NO	BFII/OPR/SPR/A3/9060
MATERIAL OF CONSTRUCTION	: PL. REFER DRAWING
APPLICATION	: COVER PLATE FOR PEEP HOLE FOR FLUE WALLIN BAKING FURNACE
ANNUAL REQUIREMENT	150 Nos



38. MACHINE TEASED WHITE COTTON WASTE

MATERIAL CODE	88100012550
MATERIAL OF CONSTRUCTION	GR-I, AS PER IS:5485-1980
APPLICATION	FOR CLEANING PURPOSE.
ANNUAL REQUIREMENT	30,000 KG



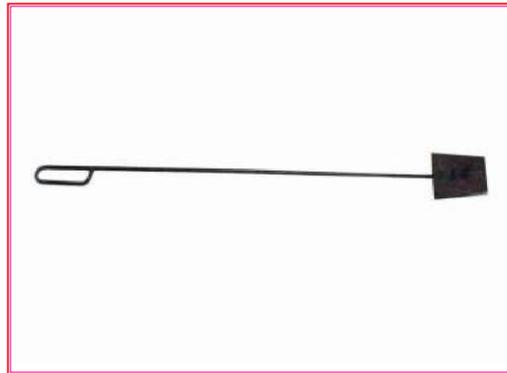
39. WOODEN WEDGE

MATERIAL CODE	95305010120
DRAWING NO	CS/SP/M/A4/11s3
MATERIAL OF CONSTRUCTION	WOOD- GAMBHARI, ASANA, CHAKUNDA, KURUMA ETC
APPLICATION	SUPPORTING WEDGE FOR GREEN ANODE IN THE PIT OF BAKING FURNACE
ANNUAL REQUIREMENT	7000 Nos



40. SKIMMING TOOL

MATERIAL CODE	26502730360
DRAWING NO	sC/SP/M/A4/1405
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	TO SKIM DROSS FROM METAL SURFACE IN CH-B
ANNUAL REQUIREMENT	1500 Nos



41. PEEP HOLE COVER (BOTTOM)

MATERIAL CODE	22705902700
DRAWING NO	BF2/OPR/SPR/A4/9175
MATERIAL OF CONSTRUCTION	X20Cr25Ni20 AS PER IS:1570(V)-1985 (EQUIVALENT OF SS 310)
APPLICATION	PART OF PEEP HOLE COVER FOR FLUE WALL IN BAKING FURNACE
ANNUAL REQUIREMENT	500 Nos



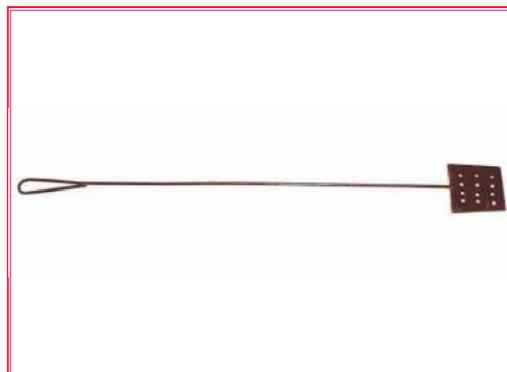
42. SOW MOULD INGOT SKIMMING TOOL

MATERIAL CODE	21705006560
DRAWING NO	CNA/SP/0/A3/1954
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	TO SKIM DROSS FROM METAL SURFACE IN CH-A
ANNUAL REQUIREMENT	200 Nos



43. INGOT SKIMMING TOOL

MATERIAL CODE	21711050270
DRAWING NO	CH/SP/A4/1800
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	TO SKIM DROSS FROM METAL SURFACE IN CH-A & B
ANNUAL REQUIREMENT	5000 Nos



44. ALUMINIUM SCRAPER

MATERIAL CODE	24650982040
DRAWING NO	POT/SP/M/A3/1813 MATERIAL OF
CONSTRUCTION	REFER DRAWING
APPLICATION	FOR ANODE DRESSING IN POT LINE
ANNUAL REQUIREMENT	1200 Nos

45. SCRAPER FOR CRUST BREAKER

MATERIAL CODE	20120021080
DRAWING NO	NAL/PND/S/POT/MECH/A2/948
MATERIAL OF CONSTRUCTION	CAST STEEL, GR-9 AS PER IS:4522-1986
APPLICATION	USED IN TWIN HOPPER AS BREAKER CHISEL ATTACHMENT IN POT LINE
ANNUAL REQUIREMENT	200 Nos



46. TAPPING SPOUT END TUBE

MATERIAL CODE	20525002590
DRAWING NO	PU/OPR/SPR/A3/9381
MATERIAL OF CONSTRUCTION	: HEAT RESISTANT GREY CAST IRON GR-II, TYPE-C AS PER IS:3355-1974
APPLICATION	USED IN TAPPING LADLE SPOUT AS LOWER PORTION IN POT LINE
ANNUAL REQUIREMENT	500 Nos



47. TAPPING SPOUT INTERMEDIATE TUBE

MATERIAL CODE	20525001090
DRAWING NO	NAL/PND/S/POT/A2/180
MATERIAL OF CONSTRUCTION	: GREY CAST IRON
% C : 3.6-3.8	% Si : 1.8-2.1
% P : 0.025 (MAX)	% Cr : 0.5-0.7
% S : 0.025-0.03	% Mn : 0.7-1.0
HARDNESS	120-170 BHN
APPLICATION	USED IN TAPPING LADLE SPOUT AS INTERMEDIATE PORTION IN POT LINE
ANNUAL REQUIREMENT	500 Nos



48. BLEACHING POWDER

MATERIAL CODE	81190017340
MATERIAL OF CONSTRUCTION	% CHLORINE BY MASS — 32, AS PER IS:1065-1989
APPLICATION	SANITARY
ANNUAL REQUIREMENT	100 MT



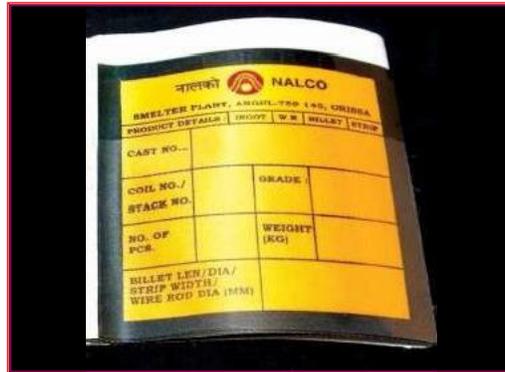
49. ALUM (NON FERRIC)

MATERIAL CODE	94102004040
MATERIAL OF CONSTRUCTION	GRADE :TECH AS PER IS:260-2001
INSOLUABLE MATTER % BY MASS	0.3
PH (OF 5% SOLUTION) MINIMUM	2.8
IRON (AS Fe) % BY MASS MAXIMUM	0.01
ALUMINIUM (AL ₂ O ₃) %BY MASS MINIMUM	1.7
APPLICATION	SEWAGE WATER TREATMENT FOR COAGULATION OF DIRT PARTICLES.
ANNUAL REQUIREMENT	1275 MT



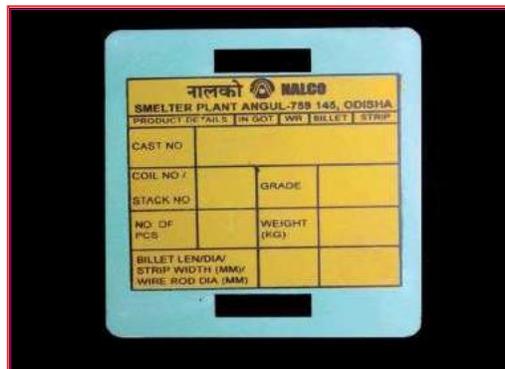
50. LABEL STICKER

MATERIAL CODE	26315016020
SPECIFICATION	SIZE : 4"X4", COLOUR : SHAMPAGNE GOLD BACKGROUND, MAROON AND BLUE LETTERS (LABEL SHOULD MATCH WITH THE SAMPLE)
APPLICATION	FOR IDENTIFICATION OF INGOT, WIRE RODS & BILLETS.
ANNUAL REQUIREMENT	70,000 NOS



51. POWDER COATED METALIC TAG

MATERIAL CODE	95115151711
SPECIFICATION :	0.7MM PRIME C.R.SHEETAS PER IS 513, SIZE-130MM X 110MM WITH TWO SLOTS OF 35MM X 10MM COLOUR TAG GREEN(POWDER COATED), AS PER IS 489/1994, THICKNESS OF POWDER COATING 50 MICRONES PRINTED MATTER : BLACK ON GOLDEN YELLOW BACKGROUND. PRINTED MATTER/DESIGN/ QUALITY: AS PER SAMPLE PROVIDED
APPLICATION	TABLE TAG FOR IDENTIFICATION OF END PRODUCTS & DETAILS.
ANNUAL REQUIREMENT	50,000 NOS



52. EAR MUFF

MATERIAL CODE 94650005050
SPECIFICATION

- a) SUITABLE FOR PERSONAL HEARING PROTECTION AND TO PREVENT OR REDUCE MOST CASES OF HEARING IMPAIRMENT.
- b) ATTACHMENT SHALL BE AUTOMATIC HEAD EIZE.
- c) EAR CUSHIONS SHALL BE WIDE, SOFT, COMFORTABLE & EASILY REPLACABLE
- d) FLEXIBLE HEAD BAND WITH ADDED CUSHION PAD FOR COMFORT.
- e) THE ITEM SHOULD CONFIRM TO IS/CE/EN/ANSI STANDARD.
- f) QUICK-CLICK ADJUSTMENT FACILITY PERMITS RAPID & EASY ADJUSTMENT.
- g) NOISE REDUCTION RATING SHALL BE MINIMUM 21 DB.

APPLICATION SAFETY APPLIANCE USED AS PPE ANNUAL
REQUIREMENT 60 NOS



53. FACE MASK

MATERIAL CODE
SPECIFICATION

94608006630
DISPOSABLE FACE MASK FOR PROTECTION AGAINST HYDROGEN FLUORIDE WITH FILTERING EFFICIENCY OF ATLEAST 95% AGAISNT 0.3 MICRON PARTICULATE, VALVE/NON-VALVE TYPE MOLDED CUP SHAPE DESIGN RESPIRATOR SUITABLE FOR ROOM WORK ENVIRONMENT WITH SPECIAL STIFFENED INNER SHELL AND TWIN STAPLED/WELDED/STITCHED HEAD BAND TO ALLOW RETENTION OF SHAPE AFTER REPEATED USE.

APPLICATION
ANNUAL REQUIREMENT

SAFETY APPLIANCE USED AS PPE
10,000 NOS



54. SAFETY GOGGLES

MATERIAL CODE
SPECIFICATION

94606001190
PROTECTIVE EYE WEAR WITH '0" POWER NON REMOVABLE ANTI SCRATCH, SINGLE MOULDED OPTICAL LENSE HAVING THICKNESS 2.5MM 100% POLYCARBONATE WRAP AROUND DESIGN WITH ONLY SIDE SHIELDS COLOURLESS FOR INDUSTRIAL USE. THE SPECTACLE MUST BE WORN EASILY OVER NORMAL GLASSES WITH GOOD FINISH. THE OFFER MUST ACCOMPANY WITH A SAMPLE AND DURING BULK SUPPLY NALCO LOGO WILL BE IMPRINTED ON THE FRAME. A THICK BLACK COTTON GOOD QUALITY THREAD TO BE ATTACHED WITH THE FRAME BY MAKING HOLE ON FREE END OF THE FRAME SO THAT THIS CAN BE HANGED ON THE NECK WHILE NOT IN USE.

APPLICATION
ANNUAL REQUIREMENT

SAFETY APPLIANCE USED AS PPE
3500 NOS



55. ANTI DUST MASK RESPIRATOR

MATERIAL CODE
SPECIFICATION

94608025190

- (1) VALVE/ NON VALVE TYPE MOULDED CUP SHAPE DESIGN RESPIRATOR SUITABLE FOR NALCO, SMELTER PLANT IN CARBON AREA, CAST HOUSE, ROLLING PLANT WORK ENVIRONMENT WITH SPECIAL STIFFENED INNER SHELL AND WELDED (METAL FREE) / STITCHED HEAD BAND TO ALLOW RETENTION OF SHAPE AFTER REPEATED USE. HIGH FILTERING EFFICIENCY OF AT LEAST 95% AGAINST 0.3 MICRON PARTICULATE SOLID AND LIQUID AEROSOLS FREE OF OIL WITH FLOW RATE OF 85 LTRS. PER MINUTE (LPM). THE RESPIRATOR SHALL BE DESIGNED FOR MORE THAN A SINGLE SHIFT AND NO ALTERNATION OF SHAPE AFTER REPEATED USE.
- (2) THE RESPIRATOR SHALL BE FFP2 CLASS AS CLASSIFIED IN CLAUSE 4 OF IS:9473-2002 AND CONFIRMING TO IS:9473-2002 OR ITS EQUIVALENT INTERNATIONAL STANDARD AND SHALL BE MARKED WITH RELEVANT BIS / NIOSH / CE/ AS / NZS.
- (3) RESPIRATOR SHALL BE MADE UP OF ELECTROSTATICALLY CHARGED MICRO FIBRES CAPABLE OF FILTERING 0.3 MICRON PARTICLE SIZE AND TO MAKE BREATHING EASIER AND COOLER.
- (4) THE RESPIRATOR SHALL BE SUITABLE FOR USE AGAINST CARBON DUST, AND PARTICLES AGAINST GRINDING, SANDING, SWEEPING, SAWING, BAGGING, METAL, WOOD ETC.
- (5) THE NOSE CLIP SHALL BE MADE OF SPECIAL ALUMINIUM / PLASTIC ATTACHED WITH A HIGH QUALITY ACRYLIC ADHESIVE TO ENSURE UNIFORM ADHESION AND RUST FREE LIFE. THE CLIP SHOULD ADJUST EASILY AND SECURE RIGHT FIT ACROSS A VARIETY OF FACE SIZES.
- (6) THE HEAD BAND SHALL BE NON ALLERGIC POLYPROPYLENE MATERIAL AND SHALL PROVIDE GOOD ELASTIC STRENGTH THROUGH OUT THE LIFE OF THE MASK.
- (7) THE NOSE FOAM SHALL BE MADE OF NON ALLERGIC POLYURETHANE MATERIAL OR EQUIVALENT SHOULD SUPPORT THE NOSE CLIP FOR SECURE AND COMFORT FACE FIT.

APPLICATION : SAFETY APPLIANCE USED AS PPE
ANNUAL REQUIREMENT : 35000 NOS



56. INDUSTRIAL LEATHER SAFETY SHOE

MATERIAL CODE	94602015460
SPECIFICATION	SAFETIX KARTIX LOW- INDUSTRIAL LEATHER SAFETY SHOE KARTIX-LOW BLACK FULL GRAIN LEATHER DERBY SHOE WITH PADDED COLLAR AND TONGUE, IMPORTED STEEL TOE CAP AND ANTI-SKID, ANTI-STATIC IN L03 MOULD HAVING RESISTANT TO ACID, ALKALI, OIL AND WATER. HIGH QUALITY CAMBRELLE LINING, AS PER EN 345:1993 AND NEW IS:15298-2002.
APPLICATION	SAFETY APPLIANCE USED AS PPE
ANNUAL REQUIREMENT	: 60 NOS



57. INDUSTRIAL LEATHER SAFETY SHOE

MATERIAL CODE	946020195 [0
SPECIFICATION	

BATA SAFEMASTER DERBY LOW CUT PU DUAL,DENSITY ISI MARKED SAFETY SHOES CONFORMING TO IS 15298 PART-2 BIS MARK NO.CM/L-5428669 WITH FOLLOWING SPECIFICATIONS:-
SAFETY FOOTWEAR OF DESIGN-A(DERBY),OIL RESISTANT,ANTISTATIC,
POLYURETHANE(PU) DOUBLE DENSITY,OUTSOLE WITH SHOE UPPER MADE OF CORRECTED GRAIN(CG) LEATHER IN BLACK COLOUR(200+/-4)JOULE STEEL TOE CAP FOR TOE PROTECTION,RUST RESISTANT FOUR METAL EYELETS ON THE FACING AND BLACK COLOUR NYLON FLAT LACES,SOFT PADDED COLLAR,CUSHIONED TONGUE AND SOCKS,ENTIRE CAMBRELLE (BREATHABLE) LINING IN BLACK COLOUR.EACH PAIR SHALL BE PACKED IN A CARDBOARD BOX WEIGHT OF SHOE PAIR SHOULD BE IN THE RANGE OF 1000+/-50 GRAM. THE SHOES SHALL BE CLEARLY AND PERMANENTLY MARKED AS PRESCRIBED IN THE STANDARD.ARTICLE NO. 825-6281 AS PER SAMPLE SUBMITTED BY YOU. THE PARTY SHOULD SUBMITT THE BIS APPROVAL CERTIFICATE,SOLE PERFORMANCE i.e FOR TONGUE, INSOLE OUT SOLE SHALL BE STRICTLY AS PER TABLE 2 OF IS 15298 PART-2.A) STEEL A TOE CAP PROTECTION, B) OIL RESISTANT, C) ANTISTATIC,D) ELECTRICAL RESISTANT, DIRECT INJECTION PROCESS CERTIFICATE TO BE SUBMITTED FROM (FDDI) FOOTWEAR DESIGN & DEVELOPMENT INSTITUTE, GOVT.OF INDIA, THE MARKING & PACKING SHALL BE STRICTLY AS PER CLAUSE OF IS 15298 PART-2.

APPLICATION	APPLIANCE USED AS PPE
ANNUAL REQUIREMENT	3000 NOS



58. INDUSTRIAL SAFETY HELMET

MATERIAL CODE
SPECIFICATION

94607000040

SAFETY HELMET WITH NALCO LOGO IN MAROON COLOUR, DGMS APPROVED AND ISI MARKED. LOGO SIZE- 4.5 CM DIA AT THE FRONT OF THE HELMET AND FLUROSCENT RED COLOUR MARK ON ALL SIDES OF THE HELMET.

SHREEARC BRAND HIGH DENSITY POLY PROPELENE SAFETY HELMET WITH 5 CORRUGATED SHELL AND CHINSTRAP APPROVED, FOAM SWEAT BAND, SIZE: 51 TO 62 CM.

APPLICATION
ANNUAL REQUIREMENT

SAFETY APPLIANCE USED AS PPE

3250 NOS



59. COTTON SOCKS

MATERIAL CODE
SPECIFICATION

88101028000

FREE SIZE COTTON SOCKS MODEL NO.-SX-1410 OF M/S. NIKE MAKE/ MODEL NO.- PGSC-ASM5211E OF M/S. REEBOK MAKE/ ART. NO.- 931-0072 OF M/S. BATA MAKE/EQUIVALENT, COLOUR - GREY/BLUE

APPLICATION
ANNUAL REQUIREMENT

FOOT WEAR

4800 NOS



60. COTTON SOCKS (LADIES)

MATERIAL CODE	88101029500
SPECIFICATION	FREE SIZE COTTON SOCKS MODEL NO.-SX-1410 OF M/S. NIKE MAKE/ MODEL NO.- PGSC-ASM5211E OF M/S. REEBOK MAKE/ A RT. N O.- 931-0072 OF M/S. BATA MAKE/ EQUIVALENT, COLOUR -GREY/BLUE
APPLICATION	FOOTWEAR
ANNUAL REQUIREMENT	100 NOS



61. HDPE(OVEN FABRIC)

MATERIAL CODE	26502710231
SPECIFICATION	<p>25 Meter wide VCI coated paper laminated HDPE fabric with NALCO monogram printed on it uniformly all over. Manufacturer's name to be printed all along the sheet on the back side of HDPE Fabric i.e on VCI paper for identification of manufacturer Break up of GSM of different layers is as follows.</p> <p>1st layer LDPE 23 GSM LDPE approx 2nd layer 73 HDPE 73 GSM approx 3rd layer LDPE 23 GSM approx 4th layer craft paper SOGSM approx 5th layer VCI chemical 10 GSM approx Total GSM =179+/-5%</p> <p>HDPE should be preferably single width. However HDPE with one heat sealed Joint is acceptable.</p> <p>Acceptance criteria :</p> <p>VCI coated paper laminated HDPE is accepted on confirmation to the following</p> <ol style="list-style-type: none"> 1) Total GSM :Total GSM should be 179+/-5% 2) Breaking load: HDPE part of the composite fabric should confirming to variety No:2 of IS:6899-1997 having 73GSM Will have breaking load of 552 N/cm² (Min) along machine direction and 475 N/cm² (Min) along transverse direction. Hence the HDPE composite fabric to be supplied must have breaking load of 552 N/cm² (Min) along machine direction and 475N/cm²(Min) along transverse direction. 3) The VCI coated paper laminated HDPE fabric should pass water penetration test as per the procedure given in IS.1398-1982. Party has to submit test certificate for total GSM, breaking load (MD and TD) continuous condensation test as per IS:6263 and water penetration test from CIPET or any NABL accredited test house.
APPLICATION	FOR COVERING WIRE ROD COIL DURING PACKAGING.
ANNUAL REQUIREMENT	50,000 MTR



62. CLING FILM

MATERIAL CODE
SPECIFICATION

26502710301

CLING (STRETCH FILM) FILM THICKNESS-50+/-5 MICRONE
STRETCH CLING FILM WIDTH-300MM IN ROLL FORM CONFIRMING
TO IS 14995-2001.

APPLICATION
ANNUAL REQUIREMENT

FOR COVERING WIRE ROD COIL DURING PACKAGING.
30,000 KG



63. NON WOVEN FILTER PAPER FABRIC

MATERIAL CODE
SPECIFICATION

21799017400

NON-WOVEN VISCOUS EMULSION FILTER FABRIC IN ROLL
FORM. WIDTH : 1450MM, LENGTH : 100MTS PER ROLL.
OD : 180MM, ID (ROLL CORE) : 75MM, MICRON RATING
50, GSM RANGE : 36-42, OPERATING TEMP. : 70 DEG C.,
COLOUR : WHITE

APPLICATION
ANNUAL REQUIREMENT

FOR FILTERING EMULSION IN WIRE ROD MILLS.
90,000 KG



64. EAR PLUG

MATERIAL CODE	94690005290
SPECIFICATION	<p>DISPOSABLE TYPE EAR PLUG.UVEX x-fi1 DISPOSABLE FOAM EAR PLUGS LIGHT WEIGHT CORDED EAR PLUG CAPABLE OF ATTENUATING NOISE LEVEL BY 35-40dB APRX AT 4000Hz MADE OF NON-TOXIC, NON-ALLERGENIC and SOFT SYNTHETIC MATERIAL ON INSERTION SAFE DISTANCE BETWEEN EAR PLUG AND EAR DRUM TO BE MAINTAINED INDIVIDUAL AND REUSABLE PACKING FOR PRESERVATION, SIZE : UNIVERSAL TO FIT ALL EMPLOYEES.</p> <p>NOTE : (1) PARTY HAS TO PROVIDE GUARANTEE AND MANUFACTURER TEST CERTIFICATE.</p>
APPLICATION	SAFETY APPLIANCE SAFETY APPLIANCE USED AS PPE
ANNUAL REQUIREMENT	1200 NOS



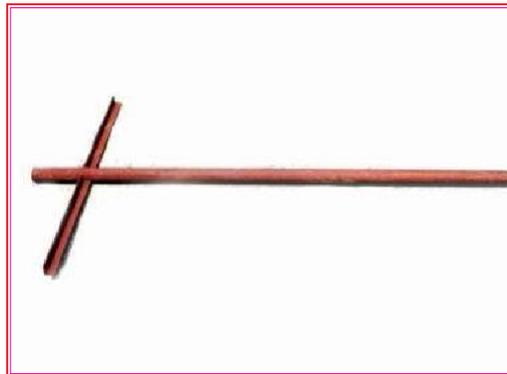
65. CABLE DRUM

MATERIAL CODE	82099996330
DRAWING NO	: STR/MISC/SPR/A1/7489 SH 1/2 & 2/2
MATERIAL OF CONSTRUCTION	: REFER DRAWING
APPLICATION	USED FOR STORAGE OF ELECTRICAL CABLE
ANNUAL REQUIREMENT	: 50 Nos



66. THERMOCOUPLE OUTER SEATH

MATERIAL CODE	86006994550
DRAWING NO	BF/SP/MECH/A3/1838
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	PROTECTIVE TUBE FOR THERMOCOUPLE IN BAKING FURNACE
ANNUAL REQUIREMENT	4000 Nos



67. M.S. SOW MOULD

MATERIAL CODE	21705853780
DRAWING NO	CH/SP/M/A2/1478
MATERIAL OF CONSTRUCTION	FE 410WA, AS PER IS 2062-2006
APPLICATION	FOR CASTING OF SOW INGOTS 600 Kg IN CAST HOUSE-A
ANNUAL REQUIREMENT	6 Nos



68. ROLLER ASSEMBLY FOR ANODE CONVEYOR

MATERIAL CODE	22650102510
DRAWING NO	GAP2/M/A2/10034
MATERIAL OF CONSTRUCTION	REFER DRAWING
APPLICATION	ROLLER ASSEMBLY USED IN LOAD ZONE OF GAP-II
ANNUAL REQUIREMENT	30 Nos



69. SINTERING CYLINDER

MATERIAL CODE	94031003110
DRAWING NO	NAL/PND/S/C/ELECT/A4/687
MATERIAL OF CONSTRUCTION	FE 410WA, AS PERIS 2062-2006
APPLICATION	USED AS MAIN FRAME FOR INDUCTION FURNACES
ANNUAL REQUIREMENT	60 Nos



70. ANODE STEM BRACKET

MATERIAL CODE	24650977130
DRAWING NO	RS2/MECH/SPR/A1/9539
MATERIAL OF CONSTRUCTION	ASTM A-283, GR-B, SILICON KILLED, YEILD STRENGTH > 245 KGf/SQ. MM
%C: 0.18 MAX	%Mn: 0.60-0.90
%P : 0.05 MAX	%Si: 0.50 MAX
%S :0.05 MAX	
APPLICATION	USED FOR PREPARATION OF ANODE IN RODDING SHOP
ANNUAL REQUIREMENT	500 Nos



71. ALUMINIUM HOOK

MATERIAL CODE	81418103990
SPECIFICATION	SIZE: 330X85MM, ROD DIA: 8MM. NUT:15X15X12MM (1 NO.). WASHER: 25MM DIA x 1.5 MM THICK(1 NO).
MATERIAL OF CONSTRUCTION	ALUMINIUM ALLOY (IS: 64430)
APPLICATION	CONSTRUCTION OF ROOF
ANNUAL REQUIREMENT	10000 Nos

