



**National Aluminium Company Limited**  
(A Government of India Enterprise)  
Smelter Plant, Angul – 759145, Odisha

**TECHNO-COMMERCIAL CHECKLIST – ANNEXURE - I**

Tender Reference No: SMLT/MMP/408/1000065983

Bidder internal offer no. & date:

S.No.	Material Code	Qty	UOM	Material Long text	Point wise Bidder's acceptance (yes/no)	If “no” deviation to be provided below
1	22150051800	200	EA	<p>GUIDE ROLLER ASSEMBLY FOR WINCH TROLLEY OF ANODE BAKING FURNACE -1 :</p> <p>AS PER DRAWING NO: BF/SP/MECH/A2/4298. AND QAP ISSUE NO.: 001</p> <p>NOTE: (IN THE OFFER THE VENDORS ARE REQUIRED TO CONFIRM THE FOLLOWING NOTINGS SERIAL NUMBER WISE, OTHERWISE THE OFFER WILL NOT BE ACCEPTABLE)</p> <p>1) ALL THE PARAMETERS IN THE QAP SHALL BE FOLLOWED.</p> <p>2) THE COMPONENTS BRAND/MAKE PREFERENCE SPECIFIED IN THE QAP SHALL ONLY ACCEPTABLE. NO OTHER CHOICES SHALL BE ENTERTAINED.</p> <p>3) THE ITEM SHOULD BE SUPPLIED IN ASSEMBLED CONDITION.</p>		
2	22700002040	54	EA	<p>STRAIGHT SHELL WITH WELDED RING OF TOP - BOTTOM BOOT CONNECTOR ASSEMBLY OF EXHAUST RAMP IN ABF-II:</p> <p>ITEM NO. 02 OF DRW NO.: ABF-II/MECH/SPR/A3/11685. REV.01</p> <p>NOTE : (FOR BOTH THE ITEMS)</p> <p>1.) AFTER RECEIVING THE PO, PARTY HAS TO SUPPLY 01 NO OF EACH OF THE ITEM FOR SAMPLE APPROVAL. AFTER RECEIVING THE SAMPLE APPROVAL FOR BOTH THE ITEMS FROM NALCO, PARTY WILL GO FOR BULK PRODUCTION OF THE ITEMS.</p> <p>2.) PARTY HAS TO PROVIDE THE MTC ALONG WITH THE DISPATCH DOCUMENT.</p> <p>3.) PARTY WILL SUBMIT GUARANTEE CERTIFICATE FOR TROUBLE FREE OPERATION FOR A PERIOD OF 12 MONTHS FROM INSTALLATION OR 18 MONTHS FROM INSPECTION / ACCEPTANCE OF THE MATERIAL WHICHEVER IS EARLIER.</p> <p>4.) VENDORS HAVE TO ACCEPT/ SUBMIT THE TECHNICAL DETAILS AVAILABLE IN TECHNO-COMMERCIAL CHECK LIST OF THE NIT. OFFERS SUBMITTED IN OTHER FORMAT WILL NOT BE ACCEPTABLE.</p> <p>5.) TO CONFIRM THE DELIVERY OF BOTH THE ITEMS, PO WILL BE PLACED ON OVERALL L1 BIDDER.</p> <p>6.) AS THE PO WILL BE PLACED ON OVERALL L1 BIDDER, THE VENDORS HAVE TO ACCEPT/ QUOTE BOTH THE ITEMS AS PER NALCO'S TECHNO-COMMERCIAL CHECK LIST. OTHERWISE THE OFFER WILL NOT BE ACCEPTED.</p>		
<p><b>Non-Negotiable mandatory commercial terms as per GEM portal is as follows:</b></p> <p><i>(Commercial terms and conditions will be strictly as per GEM portal without any deviations. Bids deviating below mentioned commercial terms and conditions of GEM portal are liable for rejection)</i></p> <p>a) Prices are to be quoted for 'FOR NALCO SMELTER STORES' basis (i.e. including P&amp;F, freight and insurance charges in supplier's account).</p> <p>b) The quoted prices in GEM portal must be inclusive of GST rate (as applicable). Please indicate applicable GST rate inclusive in your quote. ( )%</p> <p>c) Offer shall be valid for 90 days from the date of opening of tender i.e. final tender opening date with extension time, if any.</p> <p>d) Payment terms: 100% payment shall be released within 10 days after receipt and acceptance of material at site (CRAC), subject to reflection of the party's invoice/credit or debit note in GSTR 2A/Anx-2 (GST new return) of NALCO.</p> <p>e) Delivery period: Within 90 days.</p>						

**Note:**

1. The above techno-commercial checklist to be submitted mandatorily in bidder's letter head with authorized signature along with online offer. Non-submission of the same is liable for techno-commercial rejection of the offer. For any query please contact bid inviting authority: Siddharth Kar/[siddharth.kar@nalcoindia.co.in](mailto:siddharth.kar@nalcoindia.co.in)/9437479569.
2. Defaulter/active banned suppliers of NALCO are not eligible to participate.

NALCO

**SOCIAL ACCOUNTABILITY POLICY**

We at NALCO are committed to provide a socially accountable work environment to all employees and uphold ethical business practices by respecting employees' rights. We shall achieve these by adopting a companywide culture, which will help to promote:

- Involvement of all employees in sustenance of SA 8000:2008 standard;
- Continual improvement initiatives in all social issues;
- Learning and training opportunities to all employees;
- Fulfillment of relevant statutory rules & regulations, ILO requirements, applicable international instruments and their interpretation.

**ENVIRONMENT POLICY ISO-14001**

In recognition of the interests of the society in securing sustainable industrial growth, compatible with a wholesome environment, NALCO affirms that it assigns high importance to promotion and maintenance of a pollution-free environment in all its activities.

**OBJECTIVES:**

- To use non-polluting and environment-friendly technology.
- To monitor regularly air, water, land, noise and other environmental parameters.
- To constantly improve upon the standards of pollution control and provide a leadership in environment management.
- To develop employees' awareness on environmental responsibilities and encourage adherence to sound environmental practices.
- To work closely with the Government & local authorities to prevent or minimize adverse consequences of the industrial activities on the environment.
- To comply with all applicable laws governing environment protection through appropriate mechanisms.
- To actively participate in social welfare and environmental development activities of the locality around its Units.

**OCCUPATIONAL HEALTH & SAFETY POLICY**

NALCO is committed to maintain a Safe, Healthy and Sustainable work environment in all its operations. This shall be achieved by:

- Focusing on prevention of Accidents and Occupational Health issues.
- Complying with all legal requirements & other requirements related to Safety and Occupational Health of persons and establishing clearly defined goals & procedures to achieve the same.
- Ensuring Safety & Health of all employees and contract workers in its premises, including those involved in transportation, cleaning and other such activities.
- Conducting Periodic Safety Audits, Environment Audits, Health Check-ups and Risk Assessment by both internal and external qualified persons.
- Considering aspects related to Safety and Health of personnel as well as environmental issues at the time of procurement of equipment and selection of technologies.
- Ensuring health of persons in the peripheral locations, likely to be affected by our operations.
- Periodically monitoring and reviewing safety & occupational health issues at relevant levels, including the highest levels.
- Communicating Safety Hazards and health related issues to all concerned through suitable means, including training.
- Involving the workmen in Policy implementation as well as identification of potential issues.
- Considering Health & Safety performance of individuals at different levels during their career advancement as per NALCO's policy.
- Establishing and maintaining suitable set-up with competent persons to monitor and bring to the notice of the management any issues related to unsafe conditions & practices.
- Striving for continual improvements, exceeding statutory compliance levels, wherever feasible.
- Consulting & ensuring participation of workmen or their representatives in policy implementation, identification of potential issues & formulation of measures to address the same.

**ENERGY POLICY ISO-50001:2018**

Enhancing Energy Performance, comprehensively optimizing energy use, Energy consumption and energy efficiency, is a major imperative for an energy intensive industry like ours. In recognition of this, we focus on improvement of Energy Performance in all areas of operations with thrust on planning Energy Objectives based on the enshrined Guiding Principles.

**Guiding Principles**

- To Endeavour for reduction in specific consumption of energy in all forms and in all areas of operations.
- To ensure availability of information and necessary resources for achieving objectives and targets.
- To comply with all applicable legal, regulatory and other requirements related to energy use, consumption and efficiency.
- To espouse energy efficient technology encompassing procurement of energy efficient products & services and design for Energy Performance improvement.
- To carry out energy audits and energy reviews, at planned intervals, to improve energy performance.

**Anti-Profitteering Clause (Sec 171 of CGST Act) (Applicable for Indian Bidders)**

If any new Tax/Taxes is introduced on sale of goods/services, either in lieu of existing tax/taxes or as separate tax/taxes, then the overall incidence of tax/taxes on the Vendor on account of its inputs and outputs wherever less than the incidence of existing taxes, then the Vendor shall pass on to Owner, the benefits thereof by way of commensurate reduction in the basic price w.r.t. Input Tax benefits and reduction in Tax chargeable to 'Nalco' w.r.t. Output Tax benefits in connection with goods and/or services provided.

If on the other hand, the incidence of tax/taxes is in excess of the incidence of existing tax/taxes, the Owner on submission of satisfactory proof, shall reimburse the Vendor the additional incidence of tax provided they are within the contractual completion date.

The Vendor has to provide a declaration along with the Tender that they will abide by the requirements under CI 171 of CGST Act, 2017.

**Format:- (To be submitted with NIT- To be signed by the authorized person under the firm's seal)**

**ANTI-PROFITEERING**

To whomsoever it may concern.

**DECLARATION****FORMAT**

I, Mr. \_\_\_\_\_ proprietor / (other authorized signatories) of M/s. \_\_\_\_\_, hereby solemnly and sincerely declare that, while giving this quotation to 'Nalco' against Tender No. Dt \_\_\_\_\_, me/my firm/my company has abided by all Tax Laws and Rules including but not limited to Section 171 of the Central Goods and Services Tax Act, 2017. I, hereby solemnly and sincerely further declare that me/my firm/my company will continue to abide by the said laws, including but not limited to Section 171 of the Central Goods and Services Tax Act, 2017, as applicable from time to time during the life of the tender and during execution of any order placed with reference to the said tender.

I further declare that, me/my firm/my company, in furtherance and in compliance to the said section, will make commensurate reduction in the basic prices w.r.t. Input Tax benefits and reduction in Tax charged to 'Nalco' w.r.t. Output Tax benefits in connection with goods and/or services provided.

I further declare that the foregoing is true and correct and the same is a legal obligation and failure to fulfil it could result in penalties under the law.

Date: \_\_\_\_\_

Place: \_\_\_\_\_

**INCOME TAX CLAUSE**

1. Nalco (Buyer) w.e.f. 01.07.21, will deduct TDS u/s 194Q at the prescribed rate on Purchase value exceeding Rs.50 Lac. For the purpose of computing threshold limit of Rs.50 Lac in a Financial Year, all Invoices accounted for by Nalco from 1st April will be considered. However this is as per current status and is subject to modification based on further notification on the subject by Govt. of India under Income Tax Act."
2. Providing a Copy of Income Tax Return for each of the Two previous Financial Years for which due date for filling of Income Tax Return has expired with self-certification is a mandatory requirement else suitable provisions of Act will be applicable.
3. Providing copy of the Income Tax Return for each of the two previous Financial Years for which due date of filling of Income Tax Return has expired with self-certification is mandatory along with each GST Tax Invoice else suitable provisions of Act will be applicable.

**GUIDELINES FOR ELIGIBILITY OF A "BIDDER HAVING BENEFICIARY RELATIONSHIP FROM A COUNTRY WHICH SHARES A LAND BORDER WITH INDIA":**

All the clauses of Order No. F.No. 6/18/2019-PPD DATED 23.07.2020 & OM Dtd.08.02.2021 issued by Ministry of finance (dept of Expenditure) shall be applicable against the tender. The same is available at website <https://doe.gov.in/procurement-policy-divisions>. All the bidders are required to submit compliance certificate as asked in the above order No. F.No. 6/18/2019-PPD DATED 23.07.2020 & OM Dtd. 08.02.2021. The model certificate is given below:

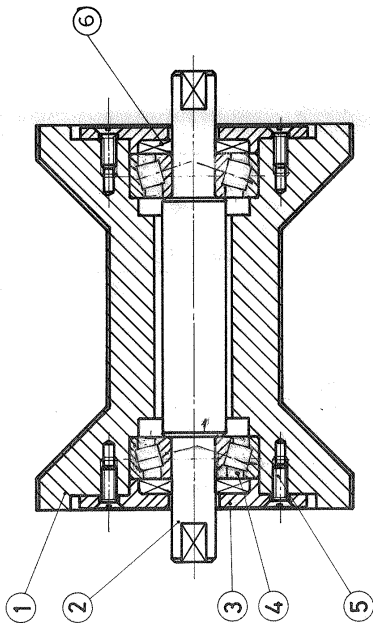
**Model certificate for tenders:**

"We have read & understood the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India. We certify that bidder M/s. \_\_\_\_\_ (name of the bidder) does not have beneficiary relationship from such a country or have beneficiary relationship from such a country, & has been registered with the Competent Authority. We 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."

If the above certificate 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.

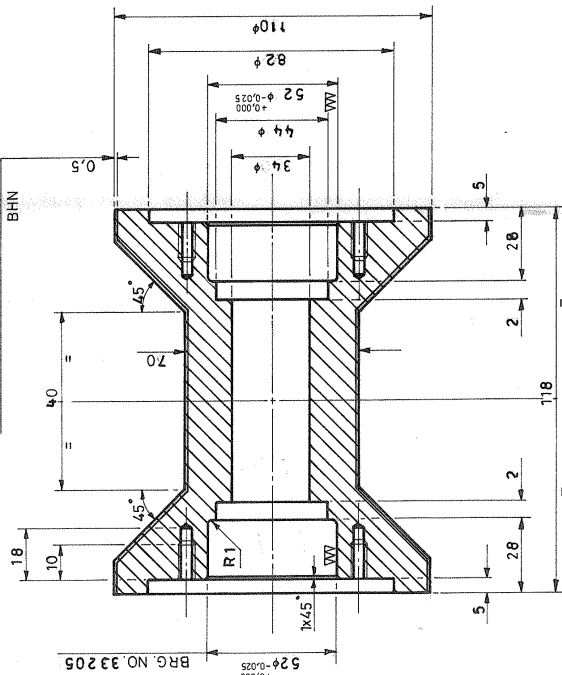
**ADDITIONAL TECHNICAL TENDER  
SPECIFIC DOCUMENTS/DRAWINGS**

NAVALCO



ASSY.

SURFACE TREATMENT 300/350 BHN

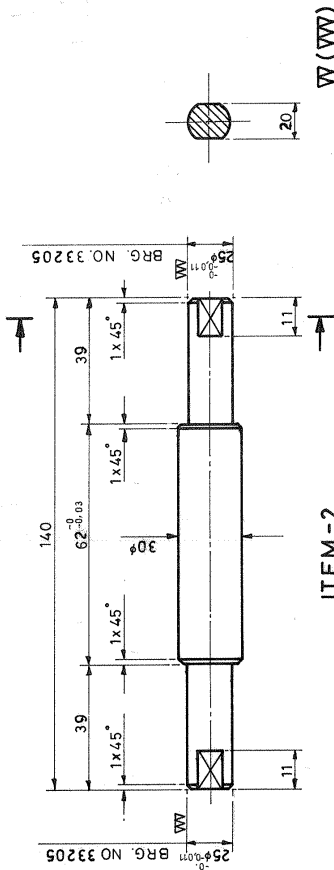


ITEM - 1

W (WW)

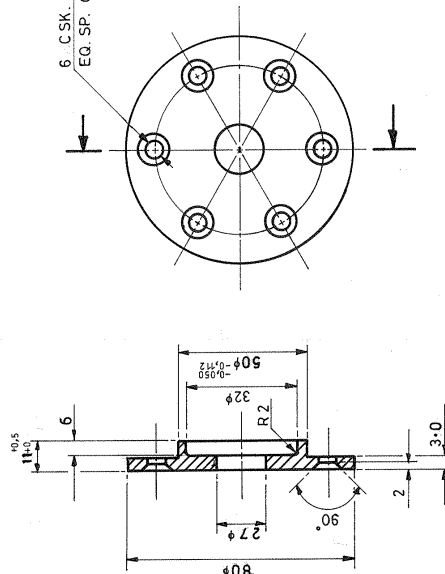
NOTES

1. ALL DIMENSIONS ARE IN mm. UNLESS OTHERWISE STATED.
2. REMOVE ALL SHARP EDGES
3. HARDNESS SHALL BE UNIFORM THROUGH OUT.
4. BOTH THE BEARING ARE TO BE PACKED WITH BEARING GREASE DURING ASSEMBLY, VENDOR SHALL ENSURE FREE ROTATION OF THE ROLLERS AFTER ASSEMBLY.
- 5.



ITEM - 2


W (WW)



ITEM - 3

W

Doc Code 20133018012

6	OIL SEAL	25 X 32 X 6	2	JAMES WALKER / SHIRAZ FENNER	BUNA-N
5	SLOTTED COUNTERSUNK HEAD SCREW	M6 X 10 LG.	12	GRADE 8-8	TVS/GCW
4	TAPERED ROLLER BEARING	33 205	2	SKF / FAG	
3	CAP		2	ST42-0, IS:1977	
2	SPINDLE		1	EN 24	
1	GUIDE ROLLER		1	BS 970. EN 9	
ITEM	DESCRIPTION		Q.T.Y.	MATERIAL	REMARKS
DRN	P. J. SAVIO.				
	13-12-1997				
CHK.	<i>Wahid Ali</i>				
	<i>Wahid Ali</i>				
PRO.	<i>Ad</i>				
	A-K. Saha.				
APP	<i>A.K. Saha</i>				
SCALE	PROJ.		TITLE		DRG. NO.
1:1			GUIDE ROLLER ASSY.		BF/SP/MECH/A2/4298
			(ANODE HANDLING SYSTEM)		

## A: QAP

Page 01 of 04

Sl. No	Components/Items/Assembly/Subassembly	Characteristics	Method of check	Extent of Check	Reference Documents	Acceptance Criteria	Record Format	Agency	Remarks
1.0	<b>Idlers/Rollers:</b> Raw Materials, Bought out components, tube, shaft, Housing, structural members, steel items etc.	Surface conditions, Physical & Chemical	Visual, Lab test either in-house/ external	100% for the Lot	As per Drawing Specifications of the customer	As per composition/No defects/As per relevant IS specifications	MTC/GC/Lab Report	In-house/Manufacturer/Lab Report-External	TC/Ins. Report/MTC to be enclosed
2.0	Bearings (Seize Resistance)	Make/Dimensions	Visual/Measurement	Random	-Do-	No defects	MTC/Ins. Report	Manufacturer/In-house	Seize Resistance Bearing to be provided
3.0	<b>In process Inspection:</b> Fabrication of Shell/Mountings/ end connections etc.	Welds, dimensions, surface conditions	Visual/D.P/ Visual/ Measurement	100% for all	As per drawing Specifications	As per drawing	Inspection Report	In-house/ test Laboratory	Ins. Report to be enclosed.
4.0	Machined Component	Dimensional Conformity	Visual/ Measurement	100 % all components	-Do-	Tolerances as per drawing	-Do-	In-house inspection report	-Do-
5.0	Rubber Disc	Surface Conditions/ Hardness	Visual/ Measurement	100 %	-Do-	As per Customer Specifications	-Do-	-Do-	-Do-
6.0	Outer/Inner/ Labyrinth/Seal/Dust Cap	Dimensions	Measurement	100%	-Do-	-Do-	-Do-	-Do-	-Do-
7.0	<b>Final Inspection:</b> Free Movement of Roller Assembly	Visual	Manual Rotation	100%	IS specifications (IS 8598)	free movement	Report	-Do-	-Do-

8.0	Overall Dimensions	Measurement	Measurement	100%	As per customer Specifications	As per approved drawing	In-house Report	In-house	-Do-
9.0	Water proof Test Dust proof Test Concentricity Test	Ingression -Do- On test Jig	Observation -Do- -Do-	1 in 25 1 in 25 1 in 25	As per procedure below	As per procedure	In-house Report	In-house	-Do-
10.0	Painting	Uniformity in shape & colour	Visual/measurement	100%	Standard practices	Std. Engg. Practices	In-house Report	-Do-	Regency Grey synthetic Enamel Two Coats & two coats of red-oxide primer
11.	Rubber Lagging	Visual Dimensional Mechanical	Visual Measurement a) Hardness b) Tensile c) Elongation d) Adhesion	100% 100% Sample from the Lot	As per Drawing	As per Drawing	MTC/ Inspection Report	In-house	MTC/ Inspection to be submitted
12.	Idler Assembly	Leakage Static Balancing	Visual	Random	As per Standard Practices	As per Std. Practices	-Do-	-Do-	-Do-

Note: i) Friction factor test to be carried out except rubber lagging & impact roll

ii) All the vendors are requested to enclose list of infrastructure/ test facilities available with them to execute the QAP

iii) Bearings shall be of only SKF/FAG /ABL seize resistance Bearing, inspected by Manufacturer's representative

iv) Tube shall be made of MS seamless pipe, IS: 9295 of reputed make only.



**A) Procedure for Water Penetration Test:** This test is conducted in a specially designed □Water Penetration testing Machine□ to check the effectiveness of Idler Seal against concentration of water.

Test procedure:

1. 1 in 25 Rolls from the lot is taken for this test
2. Idler should be made to run for a total period of 04 Hours in the Machine
3. Water jet is sprayed from Shower with a pressure of 1-2 Kg/Cm<sup>2</sup> from top of the roll faces. Water is sprayed by shower at an angle of 30 to 90 degree as suitable.
4. RPM of the Roller Shall is: 320 Appxly.

Acceptance Requirement:

1. After the required period of running in the machine, the idler rolls is to be removed from the machine.
2. After dismantling the tested rolls, Bearings are examined visually for any sign of moisture. For acceptance there should be no visible drops of water on bearing races & grease cap.
3. In case of any failure then two more rolls are taken at random and tested. If the rolls pass the test, the lot is accepted except the failed roll. In case of failure in the second test, the lot is rejected.
4. No major decolourisation of grease attributed to ingress of water is allowed in the bearing area.

**B) Procedure for Dust penetration Test:** This test is conducted in the specially designed dust chamber to check the effectiveness of Roller Seals against concentration of dust.

Test procedure:

1. 1 in 25 Rolls is taken from the lot for this test
2. Idler is made to run for a period of 04 hours inside the dust chamber in dusty atmosphere. During running of a roll, a dusty atmosphere shall be created inside dust chamber by using a suitable capacity fan. Blower.
3. Check the grease on the bearing races by hand feeling or test as written below
4. RPM of the Idler: 320 Appxly.

1) After the roll has undergone the dust chamber running the outside of the roll is to be cleaned thoroughly and seals are removed carefully one by one. While wiping off the dust sticking to seals. grease in contact with bearing races is taken out and checked with hand feelings. There should be no ingress of dust particles on the bearing races. This will be judged by feeling of grease on fingers by experience. If no feelings are observed by hand, then the lot is accepted. In case of any dispute about ingress of dust, the grease is taken out from the bearings and tested in Laboratory by dissolving method or any standard practices. Difference between the residues contain in the fresh grease and the grease after a dust ingress test shall be compared. Difference shall not exceed 15% of grease from the bearing.

2) In case of any failure of Roll, further 2 rolls are taken from the lot for testing. If the rolls pass the above test then, lot is accepted excepting the roll, which failed earlier. In case of failure of the above retest, the whole lot is rejected.

Size of the Coal Dust Particles:

- 3.00 mm to 1.60 mm: 10 %
- 1.60 mm to 0.50 mm: 60 %
- Less Than 0.50 mm: 30 %

C) Trade Mark: The manufacturer should emboss their trademark name on both end covers.

D) Guarantee: The idlers should be guaranteed for trouble free operation of minimum 12 months from the date of installation or 18 months from the date of receipt at store. 10 % of the order value shall be retained as PBG for the defect liability period as mentioned above.

E) The final acceptance of the Idlers/Rollers shall be made at site after inspection of Nalco's representative. The decision of our inspector shall be final and binding. However, if required Nalco can depute its representative for stage inspection and Vendor shall provide all infrastructure for carrying out the inspection at vendor's site.

F) All the rollers shall be painted with one coat of red oxide primer and two coats of synthetic enamel paint of "Regency Grey"/ Light Grey- Colour code RAL 7035 of Asian Paints or equivalent. The paint shall be of reputed make such as Asian paints/BERGER/ J & N etc.

Issued and Approved By

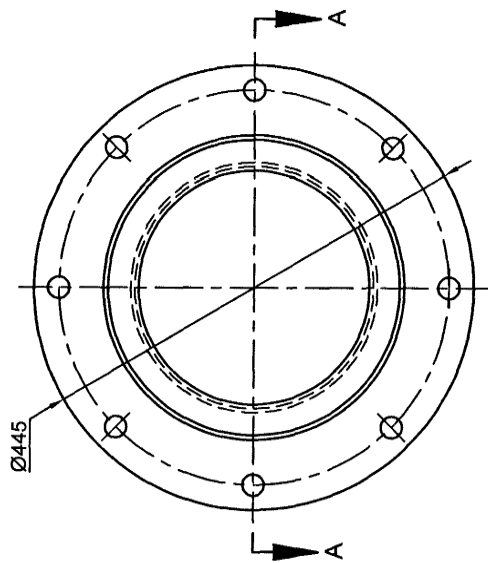
Deputy General Manager (Mech.)  
Carbon Plant, Smelter

## ASSEMBLY

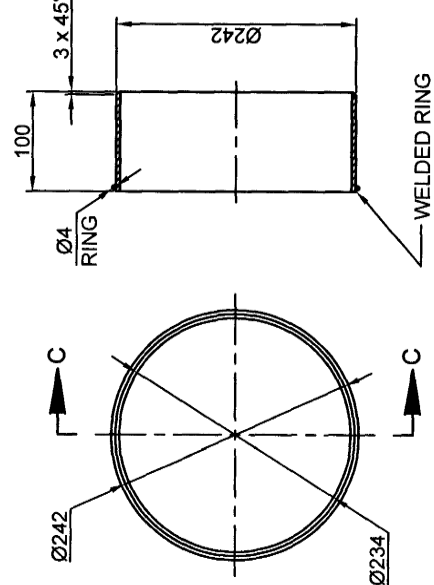
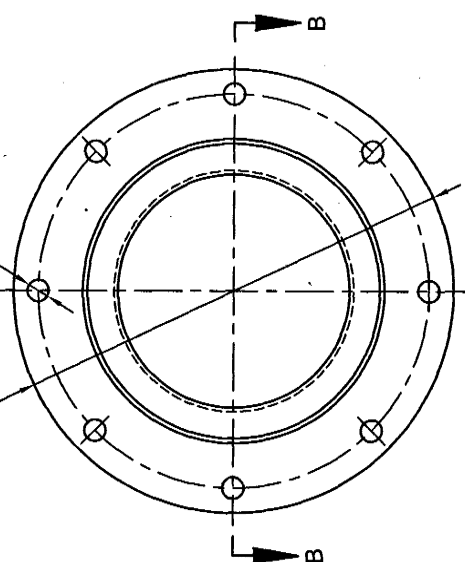
ITEM NO:-1

ITEM NO.-2

**IF IN DOUBT, PLEASE ASK**



8 NOS. OF THRU. HOLE Ø22  
EQUI SPACED ON PCD=395

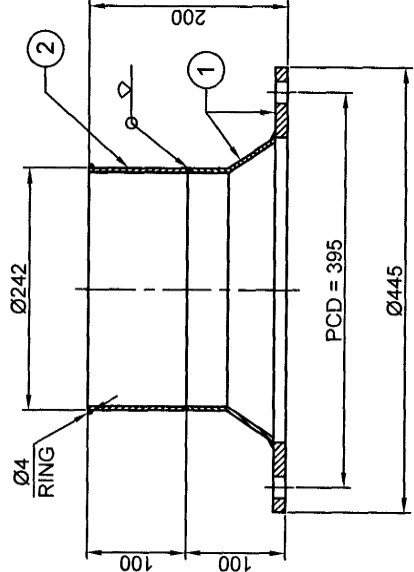


**SECTION - CC**  
**(SCALE - 1 : 5)**

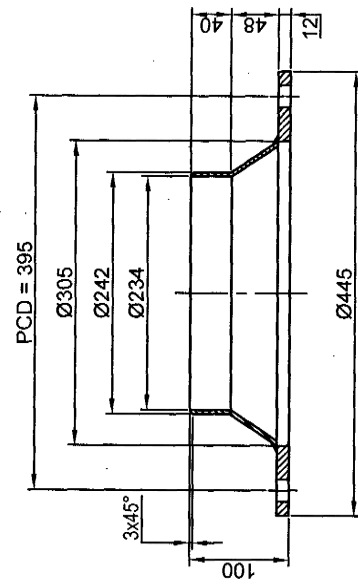
SCALE - 1 : 5)

**NOTE:-**

- ALL DIMENSIONS ARE IN mm ONLY.
- REMOVE ALL SHARP EDGES & BURRS.
- ALLOWABLE DEVIATIONS FOR DIMENSIONS WITHOUT SPECIFIED TOLERANCE SHOULD BE AS PER IS : 2102/1993(PART-1),MEDIUM.
- WELDING PROCEDURE TO BE AS PER IS : 816/1969 AND IS : 9595/1996.
- WELDING ELECTRODE TO BE USED AS PER IS:814/2004.



**SECTION - AA**  
(SCALE - 1 : 5)



**SECTION - BB**  
(SCALE - 1 : 5)

SECTION - AA (SCALE - 1 : 5)		SECTION - BB (SCALE - 1 : 5)	
ITEM NO. 1 & 2 SHOWN SEPARATELY AND ITEM NO.-4 REMOVED AS MARKED		ITEM NO. 1 & 2 SHOWN SEPARATELY AND ITEM NO.-4 REMOVED AS MARKED	
REV. NO. 1		REV. NO. 1	
DATE		DATE	
PREPARED BY :- FCI ROAD, MALCO NAGAR, ANGUL (ORISSA)		PREPARED BY :- FCI ROAD, MALCO NAGAR, ANGUL (ORISSA)	
DRN.		DRN.	
CKD.		CKD.	
SCALE - AS SHOWN		SCALE - AS SHOWN	
Drg Code:		Drg Code:	
BY		BY	
CHD.		CHD.	
VFD.		VFD.	
APPD.		APPD.	
2		2	
1		1	
4		4	
0		0	
4		4	
7		7	
0		0	
1		1	
3		3	
NATIONAL ALUMINIUM CO LTD.		NATIONAL ALUMINIUM CO LTD.	
SMELTER PLANT, ANGUL-759145		SMELTER PLANT, ANGUL-759145	
TITLE:- TOP - BOTTOM BOOT CONNECTOR ASSEMBLY OF EXHAUST RAMP IN ABF - II		TITLE:- TOP - BOTTOM BOOT CONNECTOR ASSEMBLY OF EXHAUST RAMP IN ABF - II	
DRG. No.		DRG. No.	
ABF-II/MECH/SPR/A3/11685		ABF-II/MECH/SPR/A3/11685	
REVISION		REVISION	
1		1	
A3		A3	