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प्लाज्मा अनुसंधान संस्थान

INSTITUTE FOR PLASMA RESEARCH

परमाणु ऊर्जा विभाग, भारत सरकार का एक सहायता प्राप्त संस्थान



An Aided Institute of Department of Atomic Energy, Government of India

इन्दिरा पुल के पास, भाट, गांधीनगर – 382 428 भारत दूरभाष: (079) 2396 2020/2021/2028 फैक्स: 91-079-23962277

वेब: www.ipr.res.in

NEAR INDIRA BRIDGE, BHAT DIST. GANDHINAGAR - 382 428 (INDIA) Phone: (079) 2396 2000/2026/2332

Fax : 91-079-23962277 Web : <u>www.ipr.res.in</u>

ENQUIRY

ENQUIRY NO : IPR/EQF/18-19/097

Date : 30-07-2018

Due on : 30-08-2018 by 1:00 PM IST

Please send your offer in sealed envelope specifying Enquiry No, Date & Due Date, ALONG WITH your credentials for the following items which we are interested to import directly against Foreign Trade Policy 2015-2020.

Important Note:

Please note that e-mail quotations are not acceptable however you may send your queries (if any) to importpurchase@ipr.res.in

Please ensure your sealed quotation reaches this office not later than above mentioned due date and time.

Kindly go through the following documents properly before quoting which are available on the IPR web portal i.e., http://www.ipr.res.in/documents/tender terms.html / attached herewith.

- 1) Instructions to the bidders & Terms and conditions (refer Form No: IPR-FP-01.V3)
- 2) Bidding format

GST for Goods and Services (IGST/CGST/SGST TAX BENEFITS): Please refer clause no: 14 of Form No: IPR-FP-01.V3

QUOTATION SHOULD BE ADDRESSED TO PURCHASE OFFICER ONLY

Sr No	Description	Quantity
1	1 Inch Aluminium to SS pipe joint for pipes(Detailed specs has been attached)	29.0 Nos.
2	2 Inch Aluminium to SS pipe joint for pipes(Detailed specs has been attached)	24.0 Nos.
3	3 Inch Aluminium to SS pipe joint for pipes(Detailed specs has been attached)	10.0 Nos.
4	4 Inch Aluminium to SS pipe joint for pipes(Detailed specs has been attached) 6.	
5	5 Inch Aluminium to SS pipe joint for pipes(Detailed specs has been attached)	
6	6 Inch Aluminium to SS pipe joint for pipes(Detailed specs has been attached)	6.0 Nos.

Note: Please quote with complete technical details (Technical

compliance sheet and product data sheet).

Payment will be made as follows :-

- Through Letter of Credit :- The L/C will be established for 90% value of purchase order will be paid against presentation

of shipping documents.

- Through Wire Transfer : 10% payment will be paid through wire transfer after receipt and final acceptance of the item/s $\,$

at IPR site.

Encl: Refer attached sheet for detailed technical specification.

Sd/-

Mr. D. Ramesh Purchase Officer-II

Information to Vendors: We are working towards a single platform for our future requirement. Hence, please refer IPR website i.e, http://www.ipr.res.in/documents/tenderseng.html for our future requirement.

Technical Specification for supply of Al to SS pipe joints for pipes

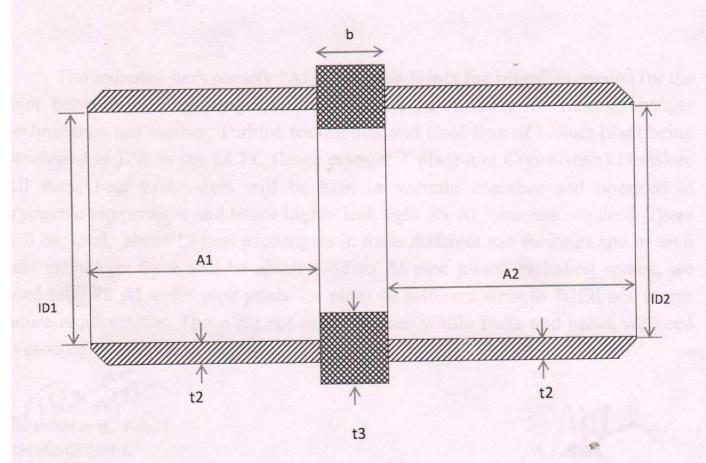
Supply of Al to SS dissimilar metal pipe joint for cryogenics application down to 4.5 K as per specification and quantity mentioned below.

Parameters	IPR Specification	Vendor Specification
		with values and descriptions
No. of joints required	As per table-1, mentioned below.	•
Type of Joint	It should be by process in which continuous metallurgically	
	leak tight joint is made. It should not be bolted type and friction welded joint.	
Parent Material of	Aluminium alloy-6061/5052/5083 and SS304L/SS316L	
pipes to make joint	(or equivalent and suitable for cryogenic helium process pipe)	
Helium Leak rate	< 2×10 ⁻⁶ mbarlit/sec (after thermal cycling down to LN2 temperature for 5 times) while pressure difference between inside and outside of joint is 1 bar.	
Pressure test	Joint should withstand internal pressure of 21 bar (g)	
Type of End of joint	Bevel end for welding of joint to adjacent pipes.	
Joint Strength	At least same as of parent Aluminium alloy Material strength.	
Length of pipe joint	Total length of joint, including parent pipe should not be less than 4 Inch and should not be bigger than 8". (Length of both parent materials must be same and All material of pipe will be provided by vendor. Sample drawing attached)	
Required test and	Supplier must provide Helium leak test and pressure test	
quality control	reports and Material test reports (mechanical strength test	
reports	and chemical composition tests) to IPR. If these reports	
	satisfy IPR requirements, IPR will give dispatch clearance.	
	Required cleaning, edge preparations and machining before and after welding should be done by vendor.	
Delivery time	After acceptance of purchase order, materials should be delivered to IPR within 6 weeks.	
Final acceptance test	Randomly few samples will be tested for helium leak	
at IPR	tightness, based on these results final acceptance of material will be given. This test is in the scope of IPR.	
	material will be given. This test is in the scope of IFK.	

Table-1: List of required joints. All joints parent pipe should have schedule 10S

Sl. No.	Parent Pipe size	Total No. of joints
	(inch of NB)	
1	1"	29
2	2"	24
3	3"	10
4	4"	6
5	5"	3
6	6"	6
Total		78

Sample Drawing for Al to SS dissimilar metal joint



Note:

- ID1, ID2, t1, t2, are as per ASME standard pipe of Schedule 10S for different pipe NB sizes mentioned in table-1.
- Length A1=A2 and thickness of both parent pipe should be same(t1=t2)
- Width of joint, b and thickness of joint t3 are as per pipe joint procedure followed by the supplier.
- Thickness t3 may be bigger than t1 & t2 but it should not be less than t1 or t2.
- 4inch ≤ A1+b+A2 ≤ 8 inch