

INSTITUTE FOR PLASMA RESEARCH

An Aided institute of department of Atomic Energy, Govt. of India)
Near Indira Bridge, Bhat. DIST.GANDHINAGAR - 382 428 (INDIA)
PHONE :(079-2396 2000),FAX :91-079-23962277
Web : www.ipr.res.in

MINOR FABRICATION WORKS ENQUIRY

Office Copy

ENQUIRY NO :IPR/MFW/19-20/65

Date : 11-03-2020

Due Date : 02-04-2020 13:00 IST

Extended Due Date : 18-06-2020

Please send your offer in sealed envelope specifying Inquiry No, Date & Due Date, ALONG WITH your credentials for the following items:

Important Note:

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

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

Kindly go through the following document properly before Quoting which are available on the IPR web portal i.e., <http://www.ipr.res.in/documents/tenders.html/> attached here with.

1. Technical specification as enclosed.
2. Instruction to the bidders & terms and Condition (refer Form NO:**IPR-MFW-01-V1**)
3. Bidding format(refer Biddingformat MFW-Bid.pdf)

GST fro Goods and Services (IGST/CGST/SGST TAX BENEFITS): PLEASE REFER clause no:8 of Form No:**IPR-MFW-01-V1**

QUOTATION SHOULD BE ADDRESSED TO **SUDHIR KUMAR NEMA** ONLY.

Sr.No.	Description	Quantity	Rate
1	Fabrication, Inspection and Supply of cylindrical furnace chamber along with support structure	1	No.

Free Issue Material

Sr.No.	Description	Quantity	Unit	Value
1	Not Applicable	0.00		0.00

Note : Please quote with complete technical details (Technical Compliance sheet and product data sheet)

Encl:As per attachment

SIC Nema
27.5.2020
Sd/-
SUDHIR KUMAR NEMA
Scientific Officer-H

(This need to be printed in Bidders letter head)

1. Please quote with complete technical details along with technical compliance sheet.
2. Quotation should be submitted in the format given below, else IPR shall not consider the offer by the vendor.

NAME OF PARTY : _____

ENQUIRY NO: _____

QUOTATION No. & DATE : _____

Currency of Quotation: **Indian Rupees**

Sr. No.	Item Description	HSN/SAC Code	Quantity	Unit Rate (Basic)	Packaging & forwarding (P&F)	Applicable GST	Rate (incl P&F and GST)	Total Value
			a	b	c	d	e = b + c + d	f = a * e
1								
2								
3								
4								
5								
6								

Sr. No.	Particular	Remarks
I.	Ex-works / FOR Destination	
II.	Freight	
III.	Insurance	
IV.	Delivery Period	
V.	Payment (IPR terms will apply)	
VI.	Guarantee / Warrantee	
VII.	Validity Period	
VIII.	Discount (if any)	
IX.	Remarks	

Place: Authority Signatory

Date: Company Seal

Note:

1. Bidder should submit the copy of GSTIN / ARN Certificate along with the offer
2. Bidder should specify the SUPPLY and SERVICE rates/ charges separately wherever applicable



Form No: IPR-MFW-01.V1

INSTRUCTIONS TO BIDDERS AND TERMS AND CONDITIONS

1. The Quotation and any order resulting from this enquiry shall be governed by our Conditions of Work Order and Contractor quoting this enquiry shall be deemed to have read and understood the same completely.
 2. Where counter terms and conditions have been offered by the Tenderer, the same shall not be deemed to have been accepted by IPR unless our specific written acceptance thereof is obtained.
 3. **Quotation:** Quotation should be submitted in the prescribed QUOTATION FORMAT attached with this Enquiry and the same should be submitted in a sealed envelope super-scribing the same with our enquiry No., date, due date and brief description of item on or before the due date. Late/delayed/incomplete/unsigned quotations will not be considered. Envelopes received without Enquiry number, date, due date and brief description of item may be rejected. The quoted prices should be firm for a period of 90 days from due date for placing order. IPR is not bound to accept lowest rate/s. IPR reserves the right to place on one or more parties. The scope of supply includes insurance by the Contractor.
 4. **Specifications:** Goods should be offered strictly conforming to our specifications/drawings. Deviation, if any, should be clearly indicated by the contractor in their quotation. The Tenderer should also indicate the Make/Type number of the goods offered and catalogues, technical literature and samples, wherever necessary should accompany the quotation. Clarification/s on drawings should be obtained before submitting quotation.
 5. **Terms of Prices:** Quotation should be submitted on door delivery basis without extra charge wherever possible. For quotations on Ex-Works, Ex-godown basis the approximate packing and forwarding charges should be indicated by the contractor. In the case of local contractors, the goods are to be delivered at our stores free of charge.
 - 5.1 In respect of tenders on Ex-works basis, in case the tenderer has not mentioned in the offer packing, forwarding and transportation charges for safe delivery up to Purchaser's site, 2% of the price quoted towards packing (in respect of both local and outstation firms), 1% of the basic price quoted towards safe delivery charges in respect of local tenderer and 3% of the basic price quoted towards safe delivery charges in respect of outstation firm will be added for comparison of offers on safe door delivery at Purchaser's site.
 - 5.2 Prices are required to be quoted according to the units indicated in the tender form/Enquiry. When Quotations are given in terms of units other than those specified in the tender form, relationship between the two sets of units must be furnished
 6. Tender should be free from Correction and Erasures. Corrections, if any, must be attested. All amounts shall be indicated both in words as well as in figures. Where there is difference between amounts quoted in words and figures, amount quoted in words shall prevail. Unsigned quotations will summarily be rejected. If there is a discrepancy between the unit price and total price, unit price shall prevail.
 7. IPR shall be under no obligation to accept the lowest or any tender and reserves the right of acceptance of the whole or any part of the tender or portion of the quantity offered and the tenderers shall supply the same at the rate quoted.
 8. **Goods & Services Tax (GST):** The details of Taxes/GST and other levies legally applicable and intended to be claimed should be clearly indicated in the tender. Where this is not done, no claim on these accounts would be admissible later.
 - a) **GST for Goods (IGST/CGST/SGST TAX BENEFITS):**
IPR is entitled to avail tax benefit as per the following notifications issued by Ministry of Finance, Department of Revenue, Government of India:
(1) No: 47/2017-INTEGRATED TAX (RATE) DATED 14/11/17 for IGST
(2) No: 45/2017-CENTRAL TAX (RATE) DATED 14/11/17 for CGST
And,
IPR is entitled to avail tax benefit as per the following notifications issued by Finance Department, Government of Gujarat:
(1) No. 45/2017-STATE TAX (RATE) DATED 15/11/17 for SGST
As per above notifications IPR will bear only 5% IGST for procurement of goods from outside Gujarat & 2.5% CGST and 2.5% SGST (total 5%) for procurement of goods within Gujarat. Vendors are required to charge tax as per these notifications while quoting/supplying the goods. Deviations, (if any) should be clearly mentioned in the quotation/offer.
- Please specify the HSN codes while quoting.**
- b) **GST for Services:**
As applicable. **Specify the SAC codes wherever services are involved.**
9. **Delivery Date:** Delivery period is essence of the Contract. Contractor must indicate the firm delivery date by which the goods will be dispatched or delivered by them from the date of our order. Delivery period shall be clearly indicated against each item separately.
10. **Price/ Purchase Preference:** Purchase/Price preference to industries will be given as per the policy of the Government of India in force at the time of evaluation provided their offer is in compliance with the conditions of the policy.



11. **Liquidated Damages:** The successful Vendor/Bidder should pay liquidated damages @ ½% (half percent) of the total work order value for the delay of each week in the scheduled date of completion of the work envisaged in the Work Order subject to a maximum of 5% (Five percent) of the total Work Order value.
12. **Inspection:** Goods on its arrival at IPR will be inspected by Stores, and his decision in the matter will be final. However, where the items are required to be inspected at the Contractors Premises, Contractor has to give advance notice regarding readiness of the Goods to enable us to depute our representative for inspection.
13. **Payment:** Payment will be arranged for accepted goods only within 30 days from the date of receipt of goods at IPR and bills in our accounts section, completed in all respects.
14. No correspondence will be entertained within 30 days from the date of receipt of good and bills, whichever is later.
15. **Guarantee:** The Stores offered should be guaranteed for a minimum period of twelve months, from that date of acceptance, against defective Goods, design, workmanship, operation or manufacture. For defects noticed and communicated during the Guarantee period, replacement/rectification should be arranged free of cost within a reasonable period of such notifications. In case where our specifications call for a guarantee period more than 12 months specifically, then such a period shall apply.
16. **Performance Bank Guarantee:** If demanded by IPR, the successful bidder will have to furnish Performance Bank Guarantee for 10% of the order value (basic price) from a Nationalized/Scheduled Bank/State Bank of India, valid throughout the Guarantee/Warranty period. The scheduled banks approved by IPR are Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank. Bank Guarantees submitted other than from banks approved by IPR will not be accepted.
17. **Security Deposit:** If demanded the successful Bidder will have to furnish to the Purchaser an interest free security deposit for 10% (Ten percent) of the order value in the form of Bank Guarantee of an equivalent amount from a nationalized/ scheduled Bank/State Bank of India within 15 days from the date of work order and the said Guarantee should be valid till the goods are accepted by IPR. The scheduled banks approved by IPR are Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank. Bank Guarantees submitted other than from banks approved by IPR will not be accepted. The Security deposit shall be forfeited in case the selected Bidder does not start the work within the time limit specified or fail to complete the work within the stipulated delivery period or fail to comply with any of the terms and conditions in the work order. On successful completion of scope of work and its acceptance by IPR, Contractor should send a letter requesting return of the original BG.
18. The Contractor shall at all times indemnify the purchase against all claims which may be made in respect of the stores for infringement of any right protected by Patent Registration of design or Trade Mark and shall take all risk of accidents or damage, which may cause failure of supply from whatever cause arising and the entire responsibility for sufficiency of all means used by him for the fulfilment of the contract.
19. **Free Issue Material (FIM):** Successful tenderer will have to arrange insurance showing beneficiary as "Institute for Plasma Research" at their risk and cost towards adequate security for the materials/property provided/issued by the Purchaser as Free Issue Material for the due execution of the contract.
20. The Director, IPR reserves the right to accept or reject any quotations fully or partly or to cancel the enquiry without assigning any reason.
21. **Jurisdiction:** The contract shall be governed by the Laws of India for the time being in force. The Courts of Gandhinagar only shall have jurisdiction to deal with and decide any legal or dispute arising out of this Contract.

Fabrication, Inspection and supply of cylindrical furnace chamber along with support structure

1. Introduction

A cylindrical furnace chamber is made from 10 mm thick IS 2062 Mild Steel (MS) plate. The open ends of the chamber are covered with 20 mm thickness flat head made from IS 2062 MS plates. The flat heads are connected with cylindrical chamber by means of suitable mechanical clamps and are also supported on roller structures for necessary linear movement required for maintenance and repair. The Schematic of cylindrical furnace chamber assembly is shown in figure 1.

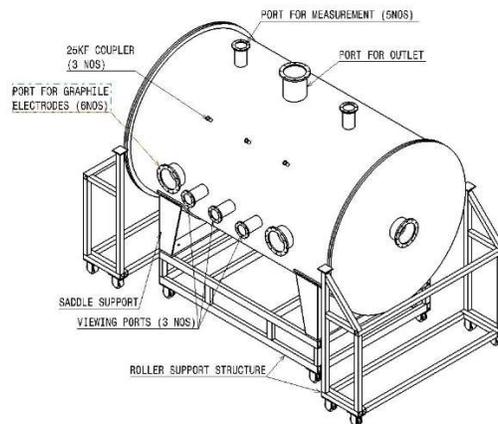


Figure 1: Schematic of cylindrical furnace chamber assembly

2. Scope of the work :

- a) The scope of work includes fabrication of cylindrical furnace chamber including suitable roller support structures as per detail provided in engineering drawings (Refer ANNEXURE-1).
- b) The vendor shall review the engineering drawings of cylindrical furnace chamber from fabrication feasibility.
- c) The vendor shall prepare fabrication drawings and submit the same to IPR for review and approval from IPR.
- d) The vendor shall provide suitable mechanical clamps to cover both ends of cylindrical furnace chamber with flat heads.
- e) The vendor shall provide high temperature compatible gasket packing at mating surfaces.
- f) The vendor shall provide high temperature compatible window glass in 3 nos. viewing ports. The window glass should withstand temperature range of 800°C-1000 °C.
- g) The vendor shall also supply 5 nos. blind flanges to close the other ports.
- h) The vendor shall follow the prescribed codes and standards for materials procurement, fabrication and testing of the chamber as per detail provided in Section 3.
- i) The vendor shall submit structural material composition test and mechanical test certificate to IPR for review and acceptance.

- j) The vendor shall carryout inspection of welded joints using either X-Ray radiography / Alternate NDT methods.
- k) The vendor shall provide lugs for lifting and safe transportation of chamber.
- l) The vendor shall arrange for Pre Dispatch Inspection (PDI) test as per the details provided in section 4 in the presence of IPR representatives.
- m) The vendor shall delivered the cylindrical furnace chamber only after issuance of dispatch clearance by IPR.
- n) The vendor shall carryout assembly and installation of cylindrical furnace chamber assembly at IPR/FCIPT site.

3. Applicable Codes & Standards :

The following codes and standards shall form the basis for fabrication, inspection, testing and acceptance of the system.

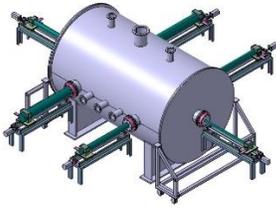
- a. All aspects of manufacturing, welding, heat treatment, inspection, testing etc. shall be performed in accordance to ASME Section VIII Div-1 & Div-2 of Boiler & Pressure Vessel Code.
- b. The material shall be procured in accordance with ASME section II of Boiler & Pressure Vessel Code for Materials and relevant ASTM standard.
- c. Welding qualification shall be performed in accordance with the guidance provided in ASME section IX.
- d. Non-destructive examinations shall be performed in accordance with procedures mentioned in ASME section V.

4. Pre-Dispatch Inspection at vendor's site:

- a. Dimensional Checks: The chamber will be subjected to dimensional checks as shown in approved fabrication drawings.
- b. The weld joint test report (X-ray radiography/alternative NDT methods) shall be provided to IPR representatives for review.

Fabrication, inspection and supply of cylindrical furnace chamber

Note: Vendor has to provide confirmation on each of point mentioned in this table for technical acceptance during technical specification evaluation.

IPR technical specification	Vendor confirmation or remark
<p>1. Introduction</p> <p>A cylindrical furnace chamber is made-up from 10 mm thick Mild Steel (MS). The open ends of furnace chamber is connected with circular flat cover plate of 20 mm thickness. The chamber is going to be insulated from inside using appropriate refractory and insulation layers. The elevated temperature inside the chamber will reach up to 1000 °C. The outer surface of cylindrical chamber would be 70°C. Circular flat cover plates are connected with cylindrical chamber with use of suitable mechanical clamping and are also supported on roller structure for linear movement necessary during maintenance and experimental purpose. The pressure inside the chamber during normal operation condition should be negative 15 mm Water Column. The Schematic of cylindrical chamber is shown in figure 1.</p> <div style="text-align: center;">  </div> <p style="text-align: center;"><i>Figure 1: Cylindrical chamber assembly</i></p>	
<p>2. Scope of the work :</p>	
<p>a) The scope of work includes fabrication of cylindrical furnace chamber including support structures as per prepared engineering drawings (Refer ANNEXURE-1).</p>	
<p>b) The vendor shall review the engineering drawings of cylindrical furnace chamber from fabrication feasibility.</p>	
<p>c) Any suggestion from the vendor's end for modification in engineering drawing from fabrication feasibility will be discussed with IPR and acceptance may be provided, if found suitable.</p>	
<p>d) The vendor shall make the final fabrication drawings, incorporating the mutually agreed changes and submit the same to IPR for review and acceptance.</p>	
<p>e) The vendor shall provide suitable mechanical clamping arrangement for connection of circular cover plates with cylindrical furnace chamber. Mechanical clamping</p>	

arrangement should be provided at 120 degree apart at each end.	
f) The vendor shall provide suitable high temperature compatible gasket packing at each flange to flange joint.	
g) The vendor shall provide window glasses in each view ports. The window glass should withstand temperature up to 1000 °C.	
h) The vendor shall also fabricate 2 nos. blind flanges to close the view ports for image process in case image process system will not be mounted. (Refer ANNEXURE-A).	
i) The vendor shall follow the prescribed codes and standards for materials procurement, fabrication and testing of the chamber as per detail provided in Section 3 .	
j) The vendor shall submit elemental composition test certificate and mechanical test certificate of procured fabrication material to IPR for review and acceptance.	
k) The vendor shall start fabrication work only after getting acceptance of fabrication drawings and material test certificates.	
l) The vendor shall carryout inspection of welding joints using either X-Ray radiography / Alternate NDT methods.	
m)The vendor shall provide appropriate lugs for loading/unloading and safe transportation of fabricated chamber at FCIPT/IPR site.	
n) The vendor shall be responsible for arranging and performing Pre Dispatch Inspection (PDI) as per the details provided in section 4 .	
o) The vendor shall dismantling and packing each components and supply the fabricated component safely to IPR/FCIPT based on issuance of dispatch clearance from IPR.	

<p>p) The vendor shall carryout assembly and installation of cylindrical furnace chamber at IPR/FCIPT site after delivery at IPR/FCIPT.</p>	
<p>q) The final acceptance will be provided by IPR based on acceptance test performed at IPR site as per details provided in section 5 and submission of documents listed in section 6.</p>	
<p>3. Applicable Codes & Standards :</p>	
<p>The following codes and standards shall form the basis for fabrication, inspection, testing and acceptance of the system.</p> <ol style="list-style-type: none"> a. All aspects of manufacturing, welding, heat treatment, inspection, testing etc. shall be performed in accordance to ASME Section VIII Div-1 & Div-2 of Boiler & Pressure Vessel Code. b. The material shall be procured in accordance with ASME section II of Boiler & Pressure Vessel Code for Materials and relevant ASTM standard. c. Welding qualification shall be performed in accordance with the guidance provided in ASME section IX. d. Non-destructive examinations shall be performed in accordance with procedures mentioned in ASME section V. 	
<p>4. Pre-Dispatch Inspection at vendor's site:</p>	
<ol style="list-style-type: none"> a. Dimensional Checks: The chamber will be subjected to dimensional checks as shown in approved fabrication drawings. b. The weld joint test certificates (X-ray radiography/alternative NDT methods) shall be provided to IPR for review. 	
<p>5. Final Acceptance Test at IPR:</p>	
<p>After delivery and installation of the fabricated chamber assembly at FCIPT/IPR by vendor, the visual inspection for any damage will be carried out by IPR.</p>	
<p>6. Deliverable:</p>	
<p>Following is the list of deliverables:</p> <ol style="list-style-type: none"> a. Final approved fabrication drawing. b. Material test certificates (elemental composition test and mechanical test certificate) c. X-Ray radiography/ alternative NDT test certificate for weld joints. 	

