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प्लाज्मा अनसधान सस्थान INSTITUTE FOR PLASMA RESEARCH



परमाणु ऊर्जा विभाग, भारत सरकार का एक सहायता प्राप्त

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

इन्दिरा पुल के पास, भाट, गांधीनगर - 382 428 भारत

द्रभाष: (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 2020/2021/2028

Fax: 91-079-23962277 Web: www.ipr.res.in

ENQUIRY

ENQUIRY NO : IPR/EQL/18-19/381

: 25-01-2019 Date

: 28-02-2019 by 1:00 PM IST Due on

Please send your offer in sealed envelope specifying Enquiry 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 localpurchase@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-LP-01.V4)
- 2) Bidding format

GST for Goods and Services (IGST/CGST/SGST TAX BENEFITS): Please refer clause no: 8 of Form No: IPR-LP-01.V4

QUOTATION SHOULD BE ADDRESSED TO PURCHASE OFFICER ONLY

Sr No	Description	Quantity
1	Making small scale model of High Heat Flux Test Facility (HHFTF) of IPR as	1.0 Nos.
	per attached descriptions and drawings	
	(Annexure -1)	

Note: TDS as per CGST Act: As per provisions of section No. 51 of

the CGST Act 2017,

TDS @2% (IGST 2% or CGST 1% and SGST 1%) will be

deducted while making

payment to the suppliers where total value of

orders/contracts/work orders

exceeds Rs. 2.5 lakhs, in the event of order in Indian Rupees.

Necessary TDS

Certificate will be issued to the supplier after TDS deduction.

Encl: As per attachment.

Sd/-

Mr. D. Ramesh

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.

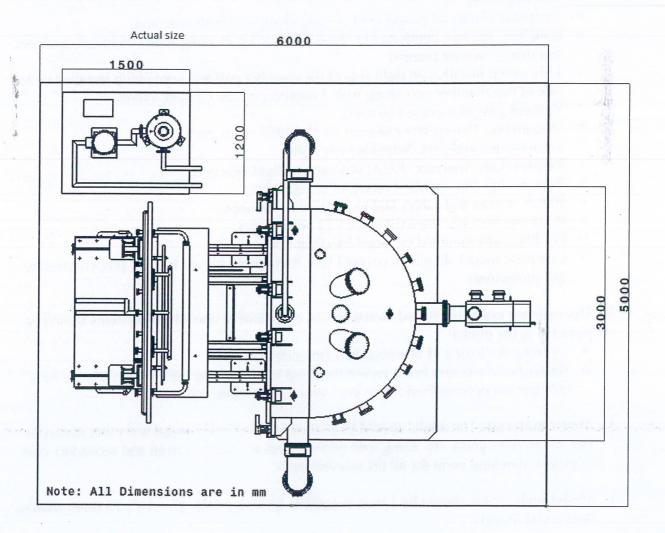
Small Scale model of High Heat Flux Test Facility (HHFTF)

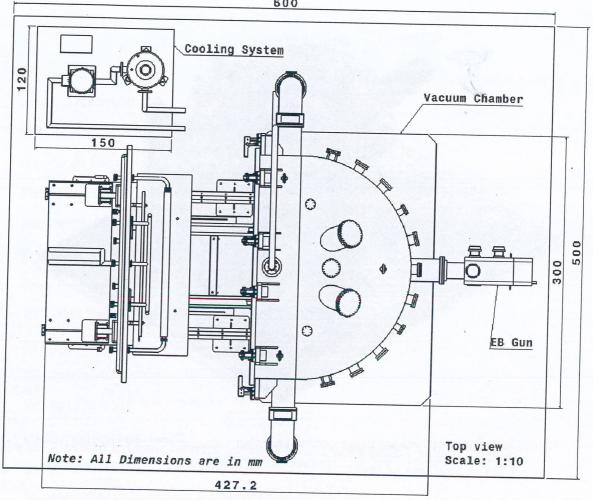
Small scale model of HHFTF is required for the purpose of demonstrating various features and capabilities to researchers, academicians, industries and general visitors to IPR.

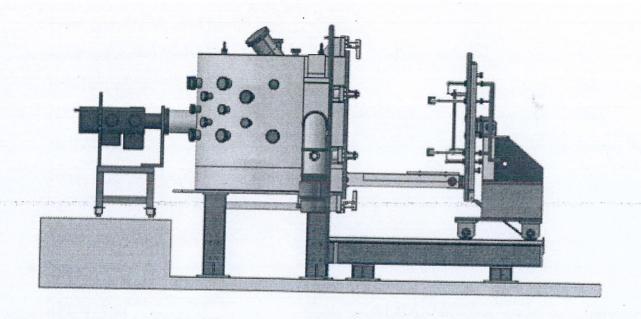
Scope of Work

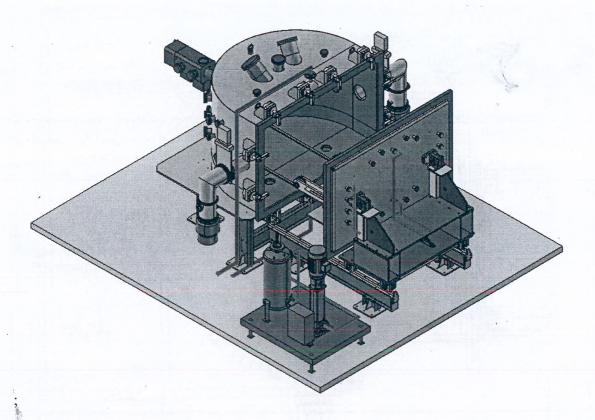
- 1. Model should include scaled-down replica of following items:
 - D-shape vacuum chamber with target handling chamber door;
 - Support stand for vacuum chamber and railing for target handling door;
 - Electron beam gun horizontally mounted on vacuum chamber;
 - > Test mock-up mounted on target handling door (rectangle shape target);
 - One copper plate and two cooper blocks mounted on target handling door (dummy load), base plate attached with door for target handling;
 - ➤ Portable water circulation system (PWCS) with pumps, water tank, base frame and control panel. Cooling pipes of PWCS is connected with target handling door;
 - > Pressure gauges for high pressure high temperature water line mounted on target handling door;
 - > Hydraulic clamp for proper door closing along with hydraulic unit;
 - ➤ Roughing vacuum pumping line installed on left port along with combination of root and rotary vacuum pumps;
 - > TMP pump installed on right side of the chamber port and cryo pump installed on left side of the chamber port along with 2 numbers of 250 CF gate valves;
 - > Vacuum gauges mounted on ports;
 - > IR cameras, Pyrometers mounted on diagnostic view ports;
 - > Stroboscopic and Zinc-Selenide view port;
 - Residual Gas Analyzer (RGA) mounted on right side port;
 - > Rupture disk line installed on top of the chamber;
 - > Bunch of wire and cables laid near gun and chamber;
 - Bolts on every big sized (like 250 CF) port/flanges;
 - Feedthroughs mounted on target handling door;
 - Complete model should be covered with transparent acrylic box for proper covering and protection;
- 2. Operational systems: Scaled—down replica of following operational systems should be installed in the model:
 - Opening & closing of chamber door (motorized);
 - Rastering of electron beam on test mock-up using moving laser (model should have transparent portion from top to get view of laser rastering);
- 3. Model material: The model should be made-up of preferably metal and other materials like wood, flexi-glass, etc. along with primary coat of fireproof paint and secondary coat of proper matching paint for all the relevant parts;
- **4. Model scale:** Scale should be 1 inch is equal to 10 inch (scale: 1" = 10", 10 times smaller than actual model)

- **5. Assembly/Disassembly:** Model should be easily assemble and dismantle type for transportation. Preferably, structure should be bolted type to the base plate.
- 6. Acceptance
 - > Demonstration of working model with the given operational requirements;
 - > Demonstration of dismantling and assembly of the model and safe handling;
- 7. Warranty: Vendor should provide 1 year standard warranty of the model.
- 8. General Information
 - > Vendor should visit the site at IPR and understand all requirements prior to submitting the quotation;
 - After placement of work order by IPR, CAD drawings and pictures will be provided by IPR subject to signing suitable non-disclosure agreement by the vendor;
- **9 A packing box:** A box with padding material so that model remains safe during transportation.









▶ D-shaped Double walled water cooled chamber vacuum chamber of size 3.2m x 2.7m x 1.7m and volume of 5m³