



GOVERNMENT OF INDIA  
DEPARTMENT OF ATOMIC ENERGY  
BHABHA ATOMIC RESEARCH CENTRE  
VISAKHAPATNAM



Computational Analysis Division

Ref: CAD/HEDM/WO/IND/22-23/26

Date: 07/02/2023

**SUBJECT: Notice inviting tender for "Fabrication of Vacuum Vessel and accessories"**  
(See Annexure-I).

1. **Scope of work:** See details in Annexure-I.

2. **General guidelines for submitting tender**

- You shall send your offer in a **sealed envelope** indicating delivery period, price inclusive of taxes and other relevant information by speed post to:

Head,  
Computational Analysis Division  
Bhabha Atomic Research Centre  
Village: Madturu (Sub: P.O.)  
Anu Vihar Campus, Mekarasi Hill,  
Near Nagavaram Junction,  
Gajuwaka-Yellamanchilli Highway,  
Atchutapuram, Visakhapatnam  
Andhra Pradesh- 531011

(Kind Attention: Aditya Nandan Savita, SO/E,CAD, 0891-283-2147/ 9949878865)

- Quotation shall reach us on/or before 21/02/2023 by Speed Post/Courier/ Only.
- On top left corner of the envelope please indicate Quotation for- "**Fabrication of Vacuum Vessel and accessories**" and **due date** 21/02/2023
- Overwriting, scratching etc. must be avoided in the quotation. Rewriting the whole figure shall carry out any alteration in the figure. The authorized person from the firm shall countersign such figure.
- The delivery period mentioned in the quotation shall be strictly adhered to. If the contractor fails to supply and secure extension of delivery date before effecting delivery of the supply against the contract, acceptance of such item by the purchaser will in no way prejudice the right of the purchaser to levy liquidated damage nor will it be entitled to the contractor for payment of statutory levies that comes into force after the expiry of the delivery date.
- Minimum Guarantee/**Warranty period** of the material and workmanship shall be **One Year.**
- Supplier shall mention clearly the PAN /TAN no. on quotation.**
- GST number shall be clearly mentioned on Quotation.**
- All the charges and taxes shall be mentioned clearly.
- You may contact us for any clarification before 17/02/2023 (Shri. Aditya Nandan Savita, 0891-2832147, [adityans@barc.gov.in](mailto:adityans@barc.gov.in) or Shri K. Naidu, 0891-2832145, 9492922035 )

3. **Rates:**

As per Scope of Work.

4. **Place of Delivery/Work:**

PEB-04, CAD  
Bhabha Atomic Research Centre

Near Nagavaram Junction,  
Gajuwaka-Yellamanchilli Highway  
Atchutapuram, Visakhapatnam  
Andhra Pradesh- 531011



**5. PAYMENT TERMS:**

1. Part payment/Advance or against delivery cannot be made.
2. Payment will be made only after satisfactory completion of work and on production of (along with Delivery Challan):
  - i. Bill/Invoice containing Location of supply, separate tax components along with PAN and GSTN numbers.
  - ii. Advance Stamped Receipt.
  - iii. Bank Account No, Bank and Branch name with IFSC code.
  - iv. Undertaking stating that GST has been promptly deposited with the authorities
3. It may be noted that:
  - i. Income tax @2% will be deducted from your bill.
  - ii. TDS (under GST) will be deducted as applicable from your bill of taxable goods and/or services, where the total value of such supply exceeds 2.50lakh.

**5. CONFIDENTIALITY CLAUSE:**

No, party shall disclose any information to any third party, concerning the matters under this contract generally. In particular, any information identified as "Proprietary" in nature by the disclosing party shall be kept strictly confidential by the receiving party and shall not be disclosed to any third party without the prior written consent of the original disclosing party.

This clause shall apply to the sub-contractors, consultants, advisers or the employees engaged by a party with equal force.

"Restricted information "categories under section 18 of the Atomic Energy Act,1962 and "Official Secrets" under section 5 of the official secrets act, 1923.

Any contravention of the above-mentioned provisions by any contractor, sub-contractor, consultant, adviser or the employees of a contractor will invite penal consequences under the aforesaid legislation.

Prohibition against use of BARC's name without permission for publicity purposes. The contractor or sub-contractor, consultant, adviser or the employees engaged by the contractor shall not use BARC's name for any publicity purpose through any public medial like press; radio, T.V. or Internet without the prior written approval of BARC.

(Aditya Nandan Savita)

SO/E, CAD

Phone: 0891-2832147,

Email: [adityans@barc.gov.in](mailto:adityans@barc.gov.in)

Scope of workSubject: Fabrication of Vacuum Vessel and accessories**A. Note:**

1. Vacuum port and flange dimensions are **indicative**.
2. All ports and flanges are to be manufactured as per **ISO standards**.
3. **TIG welding** has to be used joining ports to vessel.
4. Fabrication and supply of blank flanges for each port are in the supplier's scope (Drawings not attached).
5. The vendor has to **provide complete drawing** after discussion with the indenter upon release of work order.
6. **Leak testing** has to be done at the vendor's site. Pressure of  $10^{-5}$  mbar has to be obtained at a leak rate of at least  $10^{-8}$  mbar-litre/second.
7. The vendor should facilitate leak testing and should be aware of such tests under vacuum conditions.

**B. The scope of work order includes;**

1. Fabrication of vacuum vessel components as per drawings.
2. Leak testing: As specified above
3. Supply of Blank flanges, O-rings/Retainer rings/Gaskets, Bolts, Nuts and Washers required for every ports.

**C. Fabrication work details****1. The details of fabrication are described below:**

Drg. No	Title	Main features	Quantity(No.)
01	Vessel	<ol style="list-style-type: none"> <li>1. Material: SS304L</li> <li>2. Size: As per drawing</li> <li>3. 4 Nos of 25KF ports as in drawing.</li> <li>4. 4 Nos of 40KF ports as in Drawing.</li> <li>5. 1No. of 150CF port as in Drawing</li> <li>6. 1No. of 63CF port as in Drawing</li> <li>7. 1No. of ISO150F (Bolted) port as in Drawing</li> <li>8. 1No. of ISO63F (Bolted) port as in Drawing</li> <li>9. All the ports are to be welded to the Vessel using Inert gas welding process.</li> <li>10. The vessel may be made of multiple parts (Top flaps, bottom plate and grooves).</li> <li>11. Port and Flange dimensions are to be as per ISO standards for vacuum flanges.</li> <li>12. Top end of the vessel must be compatible with the top lid of the vessel and should have appropriate Groove for O-ring(Details in Drawing2).</li> </ol> <p><b>Note:</b></p> <ul style="list-style-type: none"> <li>➤ Port Drawings are only for indicative purpose. The port should be fabricated as per ISO Standard.</li> </ul>	01
02	Top Lid	<ol style="list-style-type: none"> <li>1. Material SS 304</li> <li>2. Size: As per the drawing</li> <li>3. 250F(Bolted Port) port as per the drawing with O-ring Groove.</li> </ol>	



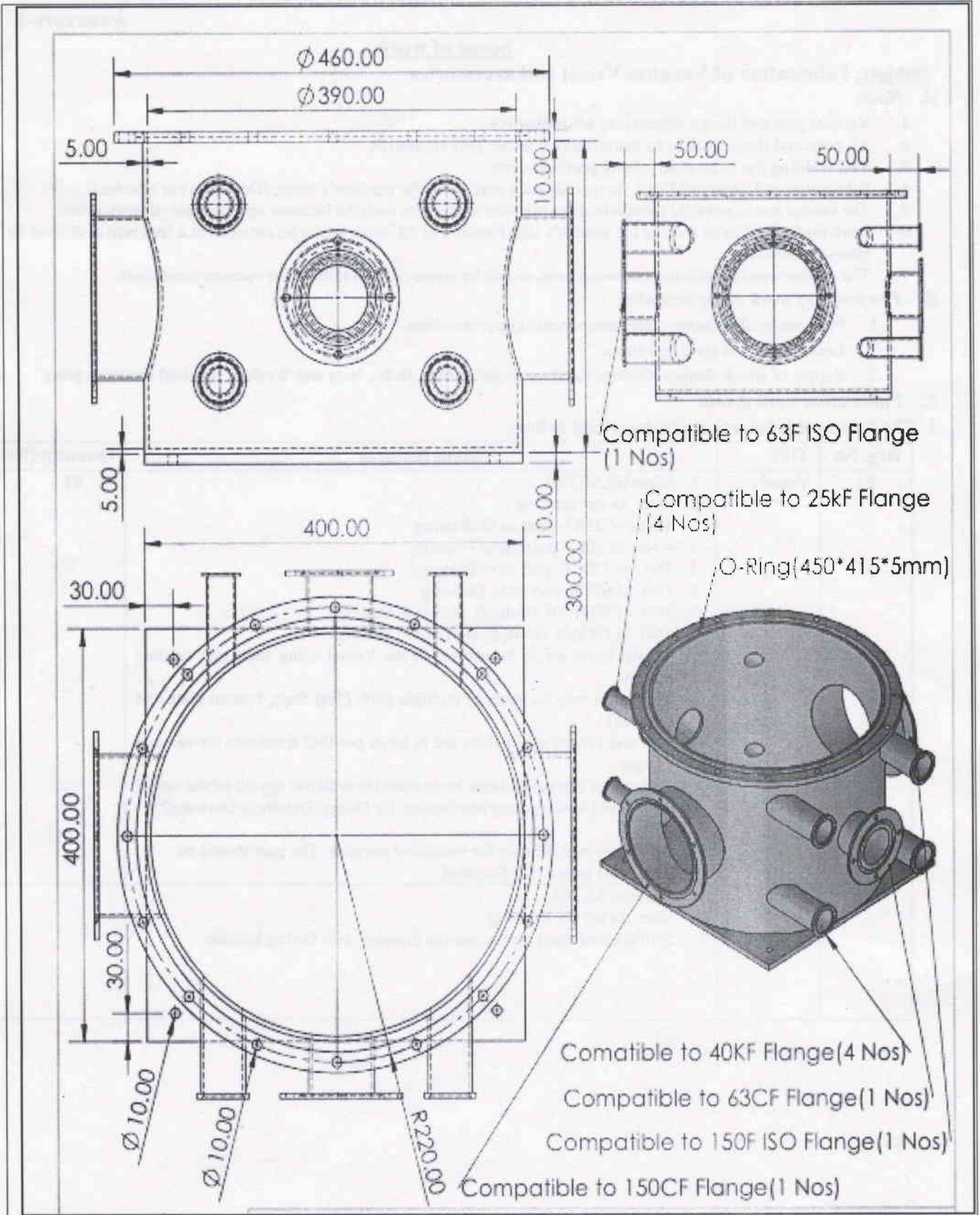


Figure 1. Vacuum Chamber

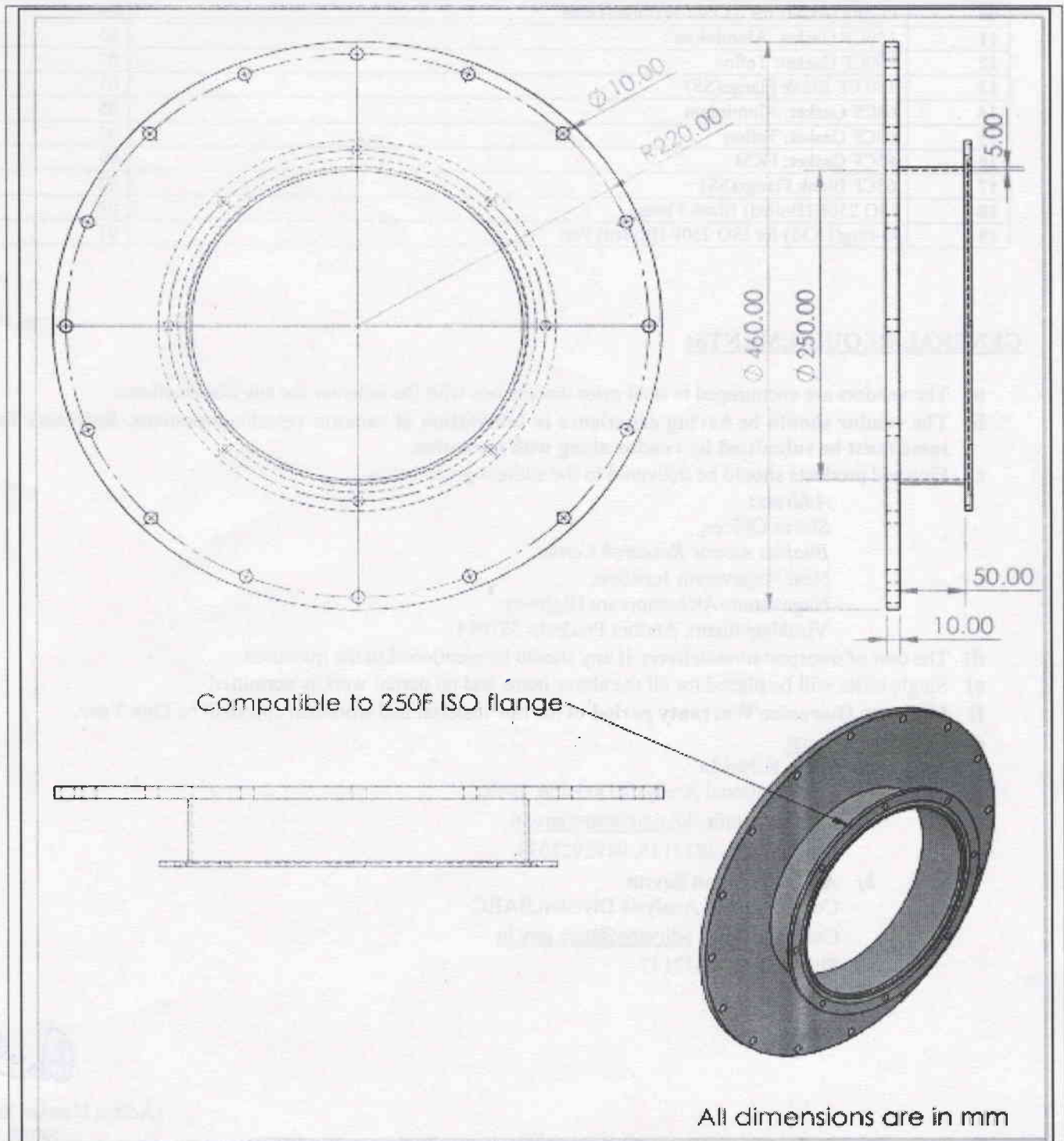


Figure 2. Top Lid

**D. Accessories :**

Sl. No.	Component	Quantity(No.s)
01	25 KF O-ring (FKM) with Centering Ring(SS)	10
02	25 KF Blank Flange(SS)	10
03	40 KF O-ring(FKM) with Centering Ring(SS)	10
04	40 KF Blank Flange(SS)	10
05	150 ISO-F(Bolted) Blank Flange(SS)	02
06	O-ring (FKM) for 150 ISO-F(Bolted) Port	04
07	63 ISO-F(Bolted) Blank Flange(SS)	02

08	O-ring (FKM) for 63 ISO-F(Bolted) Port	04
11	150CF Gasket: Aluminium	05
12	150CF Gasket: Teflon	05
13	150 CF Blank Flange(SS)	01
14	63CF Gasket: Aluminium	05
15	63CF Gasket: Teflon	05
16	63CF Gasket: FKM	05
17	63CF Blank Flange(SS)	02
18	ISO 250F (Bolted) Blank Flange	02
19	O-ring(FKM) for ISO 250F (Bolted) Port	04

**GENERAL REQUIREMENTS:**

- a) The vendors are encouraged to hold prior discussions with the indentor for any clarifications.
- b) **The vendor should be having experience in fabrication of vacuum vessel/components. Reference for the same must be submitted by vendor along with quotation.**
- c) Finished products should be delivered to the address given below.

***Address:***

*Stores Officer,  
Bhabha Atomic Research Center,  
Near Nagavaram Junction,  
Nagavaram-Atchutapuram Highway  
Visakhapatnam, Andhra Pradesh- 531011*

- d) The cost of transportation/delivery if any should be mentioned in the quotation.
- e) Single order will be placed for all the above items and no partial work is permitted.
- f) Minimum Guarantee/**Warranty period** of the raw material and workmanship shall be **One Year**.
- g) **Contact Persons:**

a) **Shri. K.Naidu**  
Computational Analysis Division, BARC  
Contact details: [knaidu@barc.gov.in](mailto:knaidu@barc.gov.in)  
Phone: 0891-2832145, 9492922035

b) **Aditya Nandan Savita**  
Computational Analysis Division, BARC  
Contact details: [adityans@barc.gov.in](mailto:adityans@barc.gov.in)  
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