

Government of India
Bhabha Atomic Research Centre
Laser & Plasma Technology Division

Trombay, Mumbai-85.
Date: 13/12/2021

REF: LPTD/Works/YC/21/ 24413

To

Sub: Inviting quotation for fabrication

Dear Sirs,

1. Quotations are invited for **Fabrication of Modular type Acoustic Chamber with Exhaust Fan as per specifications attached**
2. Bidder shall quote for fabrication along with material cost involved and its accessories.
3. Basic cost and GST shall be quoted separately.
4. The quotations must reach, **Head, Laser & Plasma Technology Division** by **28-12-2021** and must be sent in a sealed envelope *super scribed* with the above reference number and due date given above.
5. The address on the envelope should read:
Head, Laser & Plasma Technology Division
Bhabha Atomic Research Centre, Trombay, Mumbai-400 085.
(Attn.: **Y.Chakravarthy**)
6. The bidder shall have to take insurance policy against any material issued to him by the purchaser.
7. The fabrication work shall be subject to inspection by our engineer. The material shall not be dispatched prior to approval by our engineer at bidder's works. Necessary inspection facilities should be provided to our engineers during fabrication at bidder's premises.
8. The bidder shall complete the installation after approval by our engineer, within **months** from the date the firm purchase order is issued to the bidder. The finished components and the scrap from the free issue material shall be delivered by the bidder at **PRIP Shed, BARC, Trombay.**
9. Head, Laser & Plasma Technology Division, BARC, reserves the right to accept/reject any or all quotations without assigning any reason.
10. PAN number and GSTIN number must be given



(Dr. Srikumar Ghorui)
Head, TPTS, L&PT Division

Encl.: As above.

Copy to: Accounts Officer, GSS
Head, SIRD, BARC
In charge, Notice Board, V.S.Bhavan, Anushakti Nagar
BARC site notice board

The quotations will be opened at 16.00 Hrs on 29-12-2021

Fabrication of Modular type Acoustic Chamber with Exhaust Fan

Scope of Work:

Modular acoustic chambers are used for conducting thermal plasma experiments in an enclosed atmosphere. The purpose of acoustic chamber is to reduce the noise levels produced and ventilate the fumes generated during thermal plasma experiments. A complete acoustic chamber should include forced ventilation chamber with suitable exhaust fan along with ducts, suction chamber, access doors and vision panels. The noise levels outside acoustic chamber should be below 80 dBA or lower at a distance of 1 mtr from outside walls. The detailed specifications of each component are given below.

Specifications:

1. Acoustic Chamber:

Type:	Modular
Dimensions:	5000 x 3500 x 2500 mm (LxWxH) approx.
Vision window:	01 No, 500mmx 700 mm on one side wall
Illumination:	50 W, 4 No's LED lamps

1.1 Modular Panels:

Thickness:	100-150 mm
Outer Skin:	16-gauge MS sheet
Inner wall:	18 gauge galvanized perforated steel sheet
Stiffeners:	14-gauge steel channels
Panel filling:	Inert, fire retardant, sound absorbent and vermin proof wool
Panel gap:	Non-Hardening Silicone sealant

1.2 Door for Job loading:

Dimensions:	2000mmx2000mm (WxH) approx.
Quantity	01 pair hinged type
Thickness:	100mm-150mm filled with mineral wool
Vision window:	500mmx700mm (01 No) vacuum glass with weld tint shield

1.3 Door for Operator Entry/Exit:

Dimensions:	800mmx2000mm (WxH) approx.
Quantity:	01 No hinged type filled with mineral wool
Wall Thickness:	100-150 mm filled with mineral wool
Vision window:	01 No, 500mm x 700mm tinted shade

2. Air Inlet Box

Gauge Thickness:	16-gauge steel sheet
Wall thickness:	75 mm filled with mineral wool

3. Suction Hood

Size:	1200 mm (W) x 900mm (H) with suitable grills
Quantity:	2 No's

4. Exhaust fan

Motor fan:	7 HP or better, 415V/3P/50Hz
Fan Capacity:	7000 CFM or better
Quantity:	2 No's

5. Electric control panel:

Electric control panel should be centralized control panel with switch gear items. Individual MCB and thermal over load relay for motor. Phase preventer for incoming power supply, single unit digital display of ampere, voltage and frequency should be mounted on panel.

6. Other Terms & Conditions:

1. A suitable emergency stop (push button) should be provided inside acoustic chamber and on control panel in case of emergency.
2. The acoustic chamber should have suitable safety interlocks to avoid any damage to its parts due to malfunction.
3. Suitable duct has to be provided from suction hood to exhaust fan. A suitable exit duct (max 5mtr) has to be provided from exhaust fan to open atmosphere (scope of supplier)

4. The doors of acoustic chamber should be interlocked to ensure proper isolation during experiments to avoid any accidental hazards

5. Acoustic chamber should comply with all the safety norms specified by OSHA, ASM-TSS standards

6. The color and shade of outer wall should be decided in consultation with the user

7. Acceptance Criteria:

1. The supplier should be a OEM or an authorized certificate/letter from OEM should be provided along with the tender. OEM should have proven expertise in manufacture and supply of acoustic chambers.

2. The supplier should have supplied similar type of acoustic chamber at least once in last 3 years in India or abroad.

8. Installation and Commissioning:

1. The supplier should carry out installation and commissioning at user site. All the utilities and manpower required for installation and commissioning should be arranged by supplier only.

2. If any charges extra payable for installation and commissioning should be mentioned clearly in the quotation. It is in scope of supplier to arrange boarding and lodging for personnel coming for installation and commissioning.

3. Any items required for Installation which are not specified in the quotation will be under the scope of supplier.

9. Pre-dispatch inspection:

If required, PDI will be carried out at supplier site for inspection of goods. All the utilities required for inspection should be provided by the supplier. The supplier should provide general agreement drawing mutually agreeable to both before starting manufacturing the components.

10. Guarantee & Warranty:

The complete unit should be under a warranty for a period of at least 2 years from the date of commissioning. Any malfunction or pre-mature failure of parts during warranty period shall be provided by the supplier free of cost. Items, if any, excluded from warranty should be explicitly mentioned by the supplier.