

TECHNICAL BID PROFORMA**Item Name: Vacuum Chamber****Bidder Eligibility Criteria:**

1.0	Bidder Eligibility Criteria-I (Public Procurement – Preference to Make in India)	Class I/ Class II	Local Content value	Reference, Page No.
I	Only 'Class-I local suppliers' and 'Class-II local suppliers', as defined under DIPP, MoCI Order No. P-45021/2/2017-PP (BE II) dated 16 th September 2020 and other subsequent orders issued therein.			
2.0	Bidder Eligibility Criteria-II	Compliance (Yes/No)	Reference Page No.	Remarks, If any
1	The bidder/OEM should have supplied at least 5 similar items to IITS, NITS IISERS, CSIR Labs or other Govt. R&D organizations in the last 10 years. Purchase order copies or installation certificates with contact details of end user need to be submitted as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation			
2	Company should be registered in India for last 3 years. Proof of company registration should be enclosed.			
3	The bidder should have 30 lakhs turnover in any one of the last 3 Financial Year.			
4	The service center should be within Chennai, Tamilnadu. Proof of facility location & contact details to be provided along with technical bid..			

3.0 Technical Compliance:

We need a vacuum chamber with dimension 0.5mx0.5mx0.3m. The pressure (range: 1bar – 10⁻⁶ mbar) inside the chamber should be read using a gauge fitted onto the chamber. In addition, a control panel should provide an automatic cut-off mechanism (for a set pressure) based on feedback from a pressure sensor. The chamber should have a door for entry of personnel and also a window to view. In addition, there should be provision for taking cables (signal/electrical).

S.N O	SPECIFICATION	PARAMETER	Complied/Not Complied	Reference Page No
1	Shape and Dimension of working space inside the chamber (vacuum)	Square section: (350 mm x 350 mm) x height: 250 mm		
2	Chamber material	Suitable grade of stainless steel		
3	Type of pumps	<ul style="list-style-type: none"> • Rotary: of suitable capacity • Turbo-molecular pump (of suitable 		

		capacity).		
4	Required Vacuum level	10 ⁻⁶ mbar or less		
5	Temperature control	Optional		
6	Features on four vertical walls, floor face and roof face of the chamber	<p>Side Wall 1. attachment of turbo- molecular pump</p> <p>Side Wall 2. attachment of quartz window (wide enough for clear visualization</p> <p>Side Wall 3. door to open the chamber, door size should be as large as possible</p> <p>Side Wall 4: second quartz window</p> <p>Top roof: port for coupling laser unit and 2 small ports to bleed working gas (Ex: Ar, N2)</p> <p>Base/floor: provision of suitable ports to integrate X-Y and rotary stages inside and to allow two thermocouples (flexible, wire type) to go in.</p> <p>Note: all arrangements can be made as per design requirement of the manufacturer.</p>		
7	Sensors and controls	<ol style="list-style-type: none"> 1. Provision to control of pressure by position regulation of baffle valve. Acceptable level of fluctuation: 2% under no load condition. 2. Presence of normal roughing and backing valve 3. Suitable good quality gauges for high and low vacuum and digital display units 4. Temperature monitoring unit with digital display 5. Precise regulation of gas pressure inside the chamber when gas purging is necessary. Precision level to be mentioned: 6. Gas flow controller : precision level need to be mentioned 7. Acceptable level of pressure fluctuation (when gas purging is done): 5% of the set value 		
8	Expected Delivery	3 month from place of orders		

9	Optional (quote separately)	XY Stages and rotary stages with controls for positioning workpiece		
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S.NO	Other Requirements		
1	Quotations with the complete solution for the above requirement will only be accepted. Offers for single stage or only controller will not be acceptable. All motors should be of similar specification (make, model and capacity).		
2	I.I.T. Madras has the right to accept the whole or any part of the tender or portion of the quantity offered or reject it in full without assigning any reason.		
3	The offer/bids should be sent only for a machine that is available in the market and supplied to a number of customers. A list of customers in India and abroad with details must accompany the quotations. Quotations for a prototype machine will not be accepted.		
4	Test certificates for all the stages confirming the specifications from OEM are required with shipping/freight documents.		
5	Suppliers to provide training for programming, operation and maintenance at IIT Madras at free of cost.		
6	All necessary safety regulations such as CE compliance, low voltage directive, EMC regulations compliance details, Alarms and emergency switch off in case of any malfunctioning must be provided. The system must be equipped with all the necessary safety interlocks. Provisions for safety wear are essential.		
7	The complete system and its associated hardware/should have a standard warranty of 3 years from the date of installation, commissioning and acceptance of the system at IIT madras. Suppler modification (s)/software upgrades shall be intimated and the same will be made available free of cost during the warranty period.		
8	All technical literature/catalogues and drawings of various systems should accompany the quotation. All the documents should be in English.		
9	Installation and commissioning should be provided by the supplier or its Indian agent. The Indian agent should have well proven service capability on similar systems with factory trained service engineers available in India. Details of their engineers expertise should be enclosed along with the offer and will be a key factor in the decision making.		
10	The system should have compatibility with Indian environment conditions (for better power/energy stability)		

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the above points with document proof as required. Failing which bidders will be technically disqualified)

**SIGNATURE OF BIDDER ALONG WITH
SEAL OF THE COMPANY WITH DATE**