

Technical Specifications of High “Temperature Automated Loading and Controlled Cooling Furnace”

1.0 Bidder Eligibility Criteria:

I	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	Complied/Not Complied	Reference Page No.	Remarks, If any
1	The supplier/vendor must be an original equipment manufacturer or an authorized agent/dealer/seller of the item. The vendor should have supplied at least 5 similar units at other IITs or NITs, or national laboratories and research centres (DRDO/CSIR/BARC/IGCAR), or R&D centres of reputed multinational companies, or globally recognized universities, in the last 5 years. PO copy, or performance certificate, along with contact details (for these organizations) needs to be submitted			

3.0 Technical Compliance:

Equipment feature:

Sl.No	Specifications	Complied/Not Complied	Reference Page No.
A Equipment Features::			
1	The automated loading furnace shall have an electrically operated elevator hearth, which lifts the load into a heating zone when it is raised into the furnace chamber. The furnace must be able to provide rapid and uniform heating-cooling cycles		
B Standard Technical Specifications			
1.	The furnace must be able to reach a maximum operating temperature of 1500 °C ± 20°C.		
2.	The furnace should allow the heating in the range of 10 – 20 °C / min.		
3.	The internal dimensions of the hot zone must be around 200 mm (height) × 200 mm (width) or the chamber volume shall be 3 litres.		
4.	Maximum permissible error in temperature measurement shall be within ± 5 °C.		
5.	The furnace should allow controlled cooling.		
6.	The instrument should be able to run in 220-240V, 50 Hz AC with a single/three-phase power supply.		

7.	The furnace must have Type-R thermocouple with ceramic sheath protection.		
8.	The furnace operation shall be fully automatic. It should have a control panel with program settings, graphic display of temperature profile, calibration function, etc.		
9.	The hearth should preferably have a safety cage with interlocking door.		

10.	Warranty:	3 years		
11.		Optional Quote-1: Additional 2 years warranty may be quoted separately.		
12.		Optional Quote-2: AMC beyond 3 Years Warranty period		
13.		(Optional quotes will not be taken up for price bid comparison)		

Other Terms and Conditions

1.	The system should be delivered within 14-16 weeks from the opening of the letter of credit or issue of the purchase order, whichever is later.		
2.	Costs and related information should be given only in the financial bid.		
3.	The cost should include all delivery costs up to IIT Madras.		
4.	The warranty shall commence only from the date of equipment installation at IITM.		
5.	IIT Madras reserves the right to exclude some items from the purchase. As part of tender technical evaluation, IIT Madras will approach the past end users for feedback and in case of any adverse feedback the bidder will be technically disqualified.		
6.	The system should be installed and commissioned with no additional cost.		
7.	Training at IIT Madras should be provided with no additional cost.		
8.	System manual should be provided in CD or pen drive form.		
9.	Services and spares should be necessarily available within India		

S.No	Technical Bid should comprise of the following	Complied/N ot Complied	Reference Page No.
1.	Detailed Technical brochure		
2.	Detailed technical write up explaining how each of the Technical Specifications are complied with, indicating the location in the brochure		
3.	The vendor should guarantee round the clock technical support not only during the warranty period but even beyond through an annual maintenance contract. Demonstration of having provided such satisfactory technical support to customers shall be enclosed with the technical bid.		
4.	The manufacturer must have a well-qualified technical support team		

(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)