

No. F5(259)ST/MNIT/CHEM/2016

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**NOTICE INVITING QUOTATIONS**

1. Registrar, MNIT, Jaipur invites sealed "QUOTATIONS" for the supply of **Tube Furnace and Oven** for **Chemical Engineering Department** of this Institute in **Single bid system**. As per schedule given below

Event	Date & Time
Download of Tender	28.09.2016
Bid submission	18.10.2016 by 2.00 PM
Quotation will be opened at	18.10.2016 at 3.00 PM
Earnest Money	2% of the quoted amount  <b>(Kindly attached the RTGS details with cancelled cheque along with the Earnest Money)</b>

Quotation must be enclosed in a properly sealed envelope addressed to the MNIT, Jaipur with kind attention to Assistant Registrar (S&P), MNIT, Jaipur by designation and not by name. The quotations must be super scribed "Quotations for the supply of **Tube Furnace and Oven** ----- as called for in Tender Notice No. ----- dated \_\_\_\_\_" DUE ON----- AT -----AM/PM. The Quotation must reach on or before -----AM/ PM on or before the due date and time mentioned in the tender notice/tender document. The documents must be dropped in the tender box available in Central Store during office hours (9.30am to 6.00pm) on all working days. Bids delivered to any other place or any individual shall not be considered as valid document. Quotations sent by e-mail will not be considered valid. **Details visit [www.mnit.ac.in](http://www.mnit.ac.in)**

2. **THE RATES QUOTED SHOULD BE F.O.R. JAIPUR** inclusive of all charges e.g. packing, forwarding local taxes, railway freight, transit insurance, for outside firms and free delivery at Institute stores in the case of local firms. The rates may also be quoted separately "ex-godown/F.O.R. dispatching station. In case of Ex-Godown rates, please mention your packing and forwarding charges. Where there is no mention regarding delivery period in the quotations or where the items are offered ex-stock, the firms will be required to supply goods within one-month time.
3. Quotations should preferably be given only for those articles, which are available ex-stock. Other items should be quoted separately giving the delivery period. Rates of imported goods be quoted excluding custom duty as this institution is exempted from payment of custom duty. The rates of indigenous equipments may be quoted without Excise Duty as this institute is exempted from payment of Excise Duty.
4. As far as possible, quotations should be given for goods of India manufacture and foreign goods, which are readily available. Foreign goods quoted and proposed to be supplied should be covered by normal import quota of the dealer. This institute is exempted from payment of custom duty.
5. Detailed specifications and "make" of each item should be clearly given supported by the illustrated pamphlets wherever possible. Quotations without specifying the make and other particulars may be rejected.

The payment will be made after the goods have been received, opened, checked and found to be in order up to our entire satisfaction. The accessories included in the equipment should also be clearly mentioned.

6. Losses or damage in transit will be in to the account of the supplier in case of rates **F.O.R. JAIPUR**. The supplier may, if he so desires, get the goods insured and include such charges in the tendered rate.
7. The payment for the ordered items would be made after the articles have been received and found in order. **Payment will be made by RTGS. Kindly send the RTGS details and cancelled cheque along with the Invoice.**
8. Your rates should be valid at least for three months from the last date of receipt of quotations.
9. All legal proceedings, if necessity arises to institute may be any of the parties (Institute or Contractor/Supplier) shall have to be lodged in the courts situated at Jaipur and not elsewhere.
10. The undersigned is not bound to accept the lowest tender and may reject any tender or any part of the tender giving justification for such an action.
11. The rates must be quoted item-wise by giving Serial No. of our enquiry letter.
12. The quotations should preferably be sent duly typed.
13. (a) The Penalty Clause is as under :-

Should the tenderer fail to deliver the goods within the period specified in the tender form the Institute may, at its discretion, allow an extension in time subject to recovery from the tenderer as agreed liquidated damages, and not by way of penalty, a sum equal to the percentage of the value of stores which the tenderer has failed to supply for period of delay as stated below: -

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|-------|---|--|
| (i)   | Delay up to one month                                   | 1%   |
| (ii)  | Delay exceeding one month but not exceeding two month   | 2%   |
| (iii) | Delay exceeding two month but not exceeding three month | 5%   |
| (iv)  | Delay exceeding three month                             | 5% for each month and part there of subject to maximum 10% |

(b) In case of failure to supply the goods within the prescribed time and in accordance with the specifications give in the Quotations, the institute shall be free to cancel the order and make purchases from the next higher tenderer or from the open market as the case may be. In that case the loss sustained by the institute shall be recovered from the defaulting supplier. The institute will be at liberty to recover the loss from the permanent earnest money/or any other pending claims of the supplier without prejudice to its general right to affect recovery from the supplier.

14. **EARNEST MONEY: A Demand Draft for 2 %- of the quoted cost only in the name of the Registrar, M.N.I.T. may please be sent along with your tender as Earnest Money without which no tender shall be considered. Cheques are not accepted as earnest money amount. No interest is paid by us on the amount of earnest money. **Kindly attached the RTGS details with cancelled cheque along with the Earnest Money. Cheques / FDR are not accepted as Earnest Money****
15. Successful Bidder has to Provide Performance security @ 10% of the equipment cost, valid for 02 Year + 2 months for in the form of Bank's Guarantee from a nationalized bank.
16. Specification Enclosed.

ASSISTANT REGISTRAR  
(Store & Purchase)

## I. TUBE FURNACE SPECIFICATION

S.No	Features Details	Parameters Required	Qty.
1	Maximum Working temperature	1200 °C	01 Nos
2	Heating zone	Heating length 200 mm, Constant temperature zone 60 mm	
3	Controlled heating and cooling	+/- 1 °C temperature accuracy	
	Furnace tube	Standard long life ceramic working tube should be capable to work with gas and vacuum options.	
4	Temperature controller	Computer controlled/Eurotherm/Libratherms microprocessor based PID controller with minimum 8 segments with precise control of heating and cooling rate and dwell time and must have auto tune features	
5	Communication interference option	RS232/USB	
6	Power Supply	230 V, Single phase AC, 50 Hz	
7	Process Environment	Atmospheric pressure (Continuous flow of inert gases), Vacuum	
8	Process tube	Quartz tube compatible with quoted furnace	
9	Process tube dia (minimum)	OD 50 mm, ID 40 mm, and length 450 mm or better size tube	
10	Insulation and Body	High quality insulation with vacuum-formed ceramic fiber plates, and body consist of non rust textured double walled stainless steel sheet casing.	
11	Seal and Vacuum for the process tube	Gas tight end seals at both ends stainless steel flanges with connecting port for vacuum arrangement , Gas inlet/outlet arrangement, One set of O-ring, Two SS needle valves and one dial vacuum gauge along with furnace, Insulating plug	
12	Vacuum Pump	Vacuum pump (10-3 torr or less), vacuum connection piping unit with process tube.	
13	Gas Flow	<ul style="list-style-type: none"> <li>• One unit gas control system for controlled atmosphere operation comprising of <ul style="list-style-type: none"> <li>○ 1 no. 3:1 manifold for mixing of 2 or 3 gases</li> <li>○ 2 nos flow meters 16 to 100 ml/min with needle valve</li> <li>○ one set pigtail clip for control the flow of mixing gas</li> <li>○ one no. Toggle valve</li> </ul> </li> <li>• All assembled on the furnace control panel for purging application of the furnace tube with argon gas, hydrogen gas, and oxygen/nitrogen selectively from our cylinders.</li> </ul>	
14	Safety Norms	The instrument should be complaint with international norms for safety and environment. Overheating & Broken thermocouple protection and over temperature protection	
15	Computer or	<b>Quote as optional accessories</b>	

	Laptop	<ul style="list-style-type: none"> <li>PC interface with data acquisition, program storage and processing analysis facility</li> <li>The unit should come with high performance laptop with latest version of windows operating system: Minimum configuration are i3 processor, 4 GB RAM, 500 GB hard disk, 14" display with other essential peripherals.</li> </ul>	
16	Spare parts	<p><b>Quote as optional accessories</b></p> <p>Please provide a list of price for spares (Heating elements, thermocouple, Alumina tube, Quartz tube, o-rings and gaskets, etc).</p>	
17	Installation, Commissioning, and Training	<ul style="list-style-type: none"> <li>The delivery should be consider complete only after successful commissioning of the instrument</li> <li>The pre-installation requirement should be communicated to MNIT jaipur well advance of the installation.</li> <li>The installation, Commissioning and training should be done only by well trained factory engineer.</li> </ul>	
18	After Sales Service	<ul style="list-style-type: none"> <li>The supplier should provide a prompt after sales service such as regular instrument maintenance, troubleshooting and fixing</li> <li>The list of service centers in India should be included.</li> </ul>	
19	Warranty	<ul style="list-style-type: none"> <li>Warranty of 1 years and <b>quote 2 years AMC as optional.</b></li> </ul>	
		<ul style="list-style-type: none"> <li>Additional optional accessories should be indicated separately along with their price. The above specs are desirable and the actual number achievable for your system should be indicated.</li> </ul>	

## II. Oven Specification

S.No	Features Details	Parameters Required	Qty
1	Temperature range	Ambient to 250 °C, temperature resolution of the oven should be $\pm 1$ °C or less at 100 °C	01 Nos
2	Structure	Double walled construction with inside stainless steel chamber, outside body should be made of heavy gauge steel	
3	Capacity	40 lit	
4	Trays	2-3 adjustable tray made of chrome or aluminum	
5	Vacuum display	At least one vacuum display placed outside	
6	Ports	Inert gas port, vacuum system connector and vent port should be on the rear or side panel	
7	Controller	Instrument should have digital PID microprocessor controller with display and over temperature protection setting.	
8	Desired	The vacuum leak rate should be less.  Oven door magnetic latch door and have high temperature silicon door gaskets to maintain positive seal at all operating levels.	
9	Application	The oven should be an ideal instrument for general drying, vacuum embedding, moisture testing, curing, conditioning and desiccating	