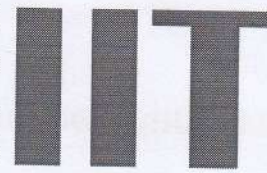




भारतीय  
प्रौद्योगिकी  
संस्थान  
काशी हिन्दू विश्वविद्यालय



INDIAN  
INSTITUTE OF  
TECHNOLOGY  
BANARAS HINDU UNIVERSITY

**SCHOOL OF MATERIALS SCIENCE AND TECHNOLOGY  
INDIAN INSTITUTE OF TECHNOLOGY (BHU) VARANASI**

**Annexure I**

**ENQUIRY**

**Ref: SMST/2019-20/SS/ECRA/Furnace/4**

**Due Date: 25.03.2020**

**Date: 04.03.2020**

Dear Sir,

Please submit your lowest quotation for supplying the under mentioned items. Quotation in duplicate must reach us before the date marked above and should contain the following information:

1. Full specification and make of the item offered and its rate F.O.R. Varanasi/CIF New Delhi.
2. Sales tax at concessional rate as applicable to educational institution.
3. Your sales tax registration number and TAN number.
4. Conditions of supply and terms of payment.
5. If you are a manufacture of the item or if you have proprietary right over it, please mention it in the quotation and provide a certificate.
6. Please mention your agency commission in Indian Rs., if applicable (in case of imported items).
7. Please give undertaking as per annexure-I-B

Quotation must be sent in a **sealed envelope** with word "QUOTATION", our reference number, and due date as given above, clearly marked over it.

**Item Name: Furnace**

<b>Sl. No.</b>	<b>Specification</b>	<b>Approx. Qty.</b>
----------------	----------------------	---------------------

**General Specifications of 3 Zoned Tube Furnace for T-Max 1300 °C Heating 01**

- It should be Non-rust Textured Stainless steel casing table top 3 Zoned tube furnace of T-Max.1300 °C or more & with Continuous Operation temperature: 1250 °C
- PID based Microprocessor temperature controller with 3 control Zones vide Single LCD display with data input by numeric pad. Should have facility for at-least 50 Programs with 40 Steps each; Temperature & time value entry in steps of 1°C & 1minute respectively; Status messages not as codes but as clear texts. With start time configurable; Operating hour counter; auto tune function; Temperature variable as °C & °F; kWh meter; Real time clock; Skip-button for segment jump.
- Temperature control Accuracy of  $\pm 1$  °C or better & Temperature input of Per Deg C or per Minute or better.
- The PID Programmer Controller should have the facility to auto start & resume the ongoing programme after a power outage / power failure.
- The controller should have option for retrieving recorded data on an external drive & recording of process data with USB Flash Drive.
- The system should have the facility of writing Programs & Generating the reports on PC through external flash drive/pen drive.
- High Quality Kanthal heating elements installed with High-quality fibre insulation material which are not classified as Carcinogenic according to TRGS 905, class 1 or 2 for furnace for the high working temperature
- Type S thermocouple; Silent Solid State power control Relays. Control system & switchgear built into furnace base
- Active cooling case for low surface temperature.

*Singh*



- Should meet applied harmonized standards or better EN 61010-1, EN 60519-1, EN 60519-2, EN 61000-6-2, EN 61000-6-4 or equivalents or equivalent or better.
- Tube Dimensions L 680 or more with Inner  $\phi$  100 mm or more & Heated Length 480 or above & Length Constant Temp.  $\Delta T$  10K:  $\geq$  240 mm or above
- Outer dimensions of furnace should not more than mm 1000 x 550 x 750 (wxdxh)
- Heating capacity less than 7.5kW with Voltage supply of : 400 V AC / 50 Hz / 3-Phase
- Weight should not be more than 75 kg.
- Machine should come with 2 year warranty.
- The following Accessories should be quoted as Optional :

Gas Tight Operation / Gas System for protective gas applications with Non-flammable gases / Gas Tight / Vacuum operation ( upto 10<sup>-2</sup> mbar ).

The standard long vacuum tight working tube of ceramic in a gas/vacuum-tight version with stainless steel flanges design. It should have the following:

1. 2 vacuum-tight, Air-cooled stainless steel flanges with O rings & seals with fittings on the outlet side.
2. Mounting support system with Brackets on furnace for the tube/ flanges.
3. Gas system for One non-flammable protective gas (Ar/N<sub>2</sub>/O<sub>2</sub>/forming gas (N<sub>2</sub>+H<sub>2</sub>) etc.): Each system supplied with shutoff valve and flow meter with control valve for fine dosing (volume 50-500 l/hr), gas outlet valve, piped and ready to connect.

**NOTE / Pre-Qualification criteria:**

A) Equipment offered must be a model from the current serial production range of the manufacturer. Customized or One off Manufactured Model will not be accepted. Offer should be supported with printed catalogue and depiction on company website.

B) The local vendor of OEM must have similar supplied at least 3-5 similar Furnaces to IITs, IISERs and other Govt. of India organizations. Please attach a reference list of similar Supplies in last 1 year with contact details (Name, Phone, email address).

C) The company should be an Original equipment manufacturer of the furnace with experience over 25 years or more, please attach exclusive authorization certificate specific for this tender with quote without which bid will be rejected. This criteria is proof of accountable service support by vendor & OEM.

D) The complete furnace along with all the accessories must be supplied from single OEM; No configurations will be acceptable instead of Single OEM.

E) The manufacturer must be an ISO9001 company & equipment Model must be with CE compliance. Please attach certificates.

F) Machine should come with 2 year warranty from date of supply.

  
(Sanjay Singh)

**Assistant Professor**

Assistant Professor/सहायक-आचार्य

School of Materials Sc. & Tech./पदार्थ विज्ञान एवं प्रौद्योगिकी स्कूल  
Indian Institute of Technology/भारतीय प्रौद्योगिकी संस्थान  
(Banaras Hindu University), Varanasi/(का.हि.वि.वि.), वाराणसी



## INDIAN INSTITUTE OF TECHNOLOGY (BHU) VARANASI

TO BE RETURNED

Following proforma should be filled in and duly signed by the firm and sent alongwith the quotation. (Please refer to the detailed instructions/notes before filling this proforma).

1. Validity of the offer : .....
2. Approximate Delivery Period : .....
3. (a) Whether rates have been quoted F.O.R. site and covers packing forwarding and insurance charges. : YES / NO  
(b) If not, please mention the same : .....
4. (a) Whether the prices are inclusive of Sales Tax and other taxes. : YES / NO  
(b) If not, kindly specify the amount / rate : .....
5. If the Sales Tax is charged extra, declaration for charging Sales Tax correctly attached. : YES / NO
6. (a) Whether supply will be made directly or through any Local / Regional / Authorized Dealer / Stockist : Directly/Stockist/Authorized Dealer  
(b) If through a Stockist / Dealer: -  
(i) Name and full address of the Party : .....  
.....  
(ii) Whether the order to be placed with the : Principal / Stockist / Dealer  
(iii) Who will raise the bill : Principal / Stockist / Dealer  
(iv) Cheques will be drawn in favour of : Principal / Stockist / Dealer  
(v) Whether any Delivery, Packing and Forwarding : YES / NO

Charges will be payable to local Stockist/Dealer : (Please specify the amount/percentage etc, if any)

7. Our terms of payment (Please indicate your preference by a (✓) mark). Please note that no other payment terms are likely to be accepted.

(a) **For Local Firms or if the bills are raised by the Local Dealers**

- (i) 100% Payment on bill basis : .....

OR

- (ii) 100% payment against Proforma Invoice after receipt of materials in good condition, installation and satisfactory report.  
(Only under exceptional cases)

(b) **If the bills are raised by outstation Firms**

- (i) 100% Payment on bill basis : .....

OR

- (ii) 100% payment against Proforma Invoice after

receipt of materials in good condition, installation and satisfactory report : .....

**OR**

(iii) D.G.S. & D. Terms of Payment for D.G.S. & D Rate Contract items : .....

**OR**

(iv) 75% against Proforma Invoice (at site) or documents through Bank and 25% after receipt of materials in good condition, installation and satisfactory report. : .....

**OR**

(v) 90% payment against Proforma Invoice (at site) or documents through bank and 10% after receipt of materials in good condition, installation and satisfactory report (Only under special Circumstances). : .....

8. Whether any Excise Duty is payable on the items. : YES / NO  
If yes, indicate the amount / percentage. : ... ..%
9. Whether any installation charges are payable extra. : YES / NO  
If yes, amount to be specified. : .....
10. Whether any discount for educational institution :  
offered on the printed price list of the manufacturer. : YES / NO  
Please mention the amount / percentage. : .....
11. Whether the product is on DGS &D/D.I. Rate contract.  
If yes, please enclose a photocopy of the same. : YES / NO
12. Whether the product bears I.S.I. Mark. : YES / NO  
If yes, please mention the I.S.I. License no. : .....
13. (a) Whether the firm is Sales Tax payer. : YES / NO  
If yes, please mention the Sales Tax Numbers. : .....
- (b) Whether the Local Dealer(s) is / are Sales Tax  
payer(s) : YES / NO  
If yes, please mention the Sales Tax numbers of each : .....
14. Whether printed / authenticated price list of the Firm's  
Products and Catalogue etc. enclosed. : YES / NO

Signature of the Authorised Official with Seal



TO BE RETURNED WITH QUOTATION

**UNDERTAKING**

***WE HEREBY UNDERTAKE THE FOLLOWING:***

1. We will not sell the product (s) to other institutions, bodies and also in the market on the rates less than those quoted by us to the Institute.
2. The goods on which Sales Tax has been charged are not exempted for payment of Sales Tax under C.S.T. Act or U.P.S.T. Act or the rules made there under and the amount mentioned on account of Sales Tax on goods is not more than what is payable under the provisions of the relevant Act or Rules made there under.
3. The rate of Excise Duty mentioned in the quotation is in accordance with the provisions of the rules and the same is payable to the Excise Authorities in respect of the stores.
4. The goods / Stores / articles offered shall be of the best quality and workmanship and their supply will be strictly in accordance with the technical specifications and particulars as detailed in the quotation.
5. The information furnished by us in the quotation is true and correct to the best of our knowledge and belief.
6. We have read and understood the rules, regulations, terms and conditions and agree to abide by them.

***Authorised Signatory  
(Seal)***