

Dr. Babasaheb Ambedkar Technological University,
P.O. LONERE - 402 103 , Tal. Mangaon, Dist. Raigad

Chemical Engineering Department

Our Ref No.: DBATU/STORES/Chem. Engg/ Heat Transfers Lab -I Equipments 2022-23/1939 Date:28/09/ 2022

Quotation For Heat Transfer Lab Equipments

Due On :17/10/2022

Date of Opening:18/10/2022

Time :11:30 p.m.

To,

Sub: QUOTATION FOR HEAT TRANSFER LAB EQUIPMENTS

Dear Sir ,

Your quotation for the items listed overleaf, may please be submitted to the under signed, so as to reach this Office not later than **17/10/2022**

While submitting your quotation, the following procedure may please be observed and other points borne in mind.

01. The maker's name must be specified.
02. The "Terms and Conditions" for supply and delivery of stores, should be clearly indicated in the quotation, stating whether rates are, inclusive of all taxes, Packing and forwarding charges Freight charges etc. or not, However rates offered as including all taxes will be more welcome.
03. If packing and forwarding charges are to be charged separately, it should be so clearly stated in your quotation.
04. Please mention clearly whether consignment would be Ex-Godown, Ex-Shop, of F.O.R. dispatching stations. Preferably terms offered as "Delivery of consignment of stores, on F.O.R.
05. Envelope should be clearly marked with our reference No and date of this quotation. It should also be superscripted as per the format given above.
06. The quotation would be opened as per date and timing given above, if desired by you, you may depute an authorized representative with a letter of authority to be present at the time of opening of the quotation at this Office on the aforesaid day, date & time.
07. Your quotation must be valid for a minimum 30 (Thirty) working days from the date of it's opening.
08. Quotation received after the date of opening may not be taken into consideration.
09. Items tendered should confirm to the specification shown in the attached list when and where, full or no specifications are indicated against items in the list. Kindly furnish your full specification in accordance with accepted standards against each item tendered. Where reference to catalogue is made, the relevant catalogues/ Pamphlets/ Literature should accompany the quotation.
10. Your quotation should be for all new items and not for second hand.
11. Please state whether items will be available Ex-Stock. If not the minimum period for delivery, or for supplying the items or stores,

12. It should be clearly stated whether **GST** Insurance Freight or packing and forwarding charges, or any other taxes and duties etc. leviable.
13. It would be appreciated if illustrated catalogues/Literature etc are furnished with the quotation.
14. Expression to as "Complete with standard Equipment" complete with standard accessories "Equipment to" As good as should be avoided. If at all their use is unavoidable then it should be very specifically indicated as to what exactly they mean and what exactly would be supplied under them. Any ambiguity or vagueness should be avoided.
15. For convenience, kindly adopt while quoting the same serial Nos. as given in the list detailed below.

Thanking You.

Yours faithfully,

21/09.09.22
Registrar

Dr. Babasaheb Ambedkar Technological University,

Sr. No.	Description / Specification	Make	Approx. Qty. Req.	Rate per Unit	Remark
1	<p>Heat transfer through composite wall Slab assembly arranged symmetrically on both sides of heater. Slab Material: Slab Size Cast Iron: 250 mm dia. & 20mm thick. Bakelite: 250 mm dia. & 15 mm thick. Press Wood: 250 mm dia. & 12 mm thick. • Heater: Nichrome wire. • Control panel comprising of: PID Controller: 0-199.9° C make :L Selec/Multispan Digital Temp. Indicator: 0-199.9° C, with multi-channel switch Temperature Sensors: RTD PT-100 type- 8Nos. make : CRZ/radix/dwyer/ /Dwyer/ Energy meter: Digital type for power measurement make : selec/multispan With standard make On/off switch, Mains Indicator etc. • Cabinet to accommodate the slab assembly with front window of glass/acrylic. • An ENGLISH instruction manual will be provided along with the Apparatus • The whole set-up is well designed and arranged on a rigid structure painted with industrial PU Paint. EXPERIMENTATION: • To determine total thermal resistance and thermal conductivity of composite wall. • To plot temperature gradient along composite wall</p>				

2	<p>Stefan Boltzman Apparatus Hemisphere: Dia. 200mm(aprox.) made of copper Jacket: Dia. 250mm(aprox.) made of stainless steel Test disc size: Dia. 20mm, Thickness 1.5mm made of copper Water tank: Stainless Steel, 12 Ltr capacity Heater: Nichrome wire immersion type Control panel comprising of: ▪ Digital temperature controller: 0-199.90C(for water tank) make : selec/mutispan ▪ Digital temperature indicator: 0-199.90 C, with multi-channel switch make : selec/mutispan ▪ Temperature sensors: RTD PT-100 type(2No.) make : CRZ/Radix/Dwyer ▪ With standard make on/off switch, mains indicator etc.</p>				
3	<p>Shell and Tube Exchanger 1. cross parallel flow and cross counterflow operation possible 2. transparent shell, visible tube bundle 3. tube bundle consisting of 7 tubes and 4 baffle plates Technical data Heat transfer surface: 200cm² Tube bundle, stainless steel ▪ outer diameter: 6mm ▪ wall thickness: 1mm ▪ tubes, 7 Shell, transparent (PMMA) ▪ outer diameter: 50mm wall thickness: 3mm</p>				
4	<p>Concentric Tube Heat Exchanger eat transfer surfaces ▪ mean transfer surface: 250cm² Inner tube, stainless steel ▪ outer diameter: 12mm ▪ wall thickness: 1mm Outer tube, transparent (PMMA) ▪ outer diameter: 20mm ▪ wall thickness: 2mm Pump ▪ power consumption: 120W ▪ max. flow rate: 600L/hmax. head: 30m Heater ▪ power output: 3kW ▪ thermostat: 0...70°C Hot water tank: approx. 10L Measuring ranges ▪ temperature: 8x 0...100°C</p>				