

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
Department of Mechanical Engineering

Enquiry No: Enq/IITK/ME/JB/05

Enquiry Date: 09/09/2016

Closing Date: 19/09/2016

Sealed quotations are invited for the oil bath (heating circulator) as per the specifications given below;

Technical Specifications:

1. Maximum Working Temperature: +300 °C
2. Minimum working Temperature: +20 °C
2. Heating Capacity (kW): 3
3. Bath Capacity Range: 12 litres
4. Temperature stability: $\pm 0.01^{\circ}\text{C}$
5. Pump capacity flow pressure(bar): 0.4-0.7
6. Pump capacity flow suction (bar): 0.2-0.4
7. Pump capacity flow rate(l/min): 22-26
8. Temperature display resolution: 0.01°C
9. Barb fittings diameter(mm): 8 / 12
10. Bath tank: Stainless steel

Key features:

1. Integrated cooling coil for tap water connection must be provided.
2. External sensor connection for precise measurement and control directly for the external application.
3. Intelligent warning and safety functions like cut-off at high temperature and dry-running protection.
4. Automatic adjustment of PID controller for temperature stability in the bath.
5. The maximum temperature (300°C) should be attained in 40-50 minutes.
6. Digital interfaces (RS232) for online data communication and recording of values must be provided.
7. The pump can be adjusted to various stages electronically.
8. Must provide pump connections for fluid flow into external systems.

9. 3-point calibration required for measuring accuracy in temperature difference.
10. The connections for solenoid valve and digital interface should be given.

Terms and Conditions:

1. Quotation must be valid for 60 days.
2. All parts corresponding to the quotation should be from a single manufacturer for compatibility and maintenance.
3. Vendor should clearly mention type of services i.e. preventive/breakdown.
4. Any compliance claimed should be supported with the necessary data sheet.
5. Free warranty period and also extra cost if any required for attaining 3 years warranty from the time of installation should be mentioned.
6. The Unit Prices should be quoted for every component and the prices can be in INR or in valid foreign currencies (e.g. US Dollar, Euro) whichever is minimum. For INR quotations, delivery should preferably be up to IIT K. For foreign currency quotations rates must be for CIF New Delhi. Sales Tax, VAT and any other applicable charges should be mentioned.
7. Installation and maintenance charges should be mentioned. This should not be bundled in product pricing.
8. Delivery should be at IIT Kanpur and period should not be more than 6-8 weeks.
9. IIT Kanpur is exempted from excise duty.
10. IIT Kanpur is exempted for partial custom duty (CD applicable to IIT Kanpur is 5.15%).
11. Quote should be made in two parts: Technical bid and Financial bid separately in sealed envelopes. Financial bids for products whose technical bid is not acceptable will not be opened. Any quote where the financial bid is included in the technical bid will be summarily rejected. The sealed envelopes with the quotes should be superscribed with the Inquiry number and whether it is a technical or financial bid. Any technical bid wherein only the above specified points are copied and no details about the suppliers own system are given will be summarily rejected. The supplier should necessarily give all the specifications of their own system with pictures and technical literature about their system. If the product is proprietary, a proper certification to that effect must be made. Authorization certificate from the Principal manufacturer should accompany the technical bid.

Please send your quotations (Technical and Financial) to Mr Manoj Sharma, Technical Superintendent, Department of Mechanical Engineering, Indian Institute of Technology Kanpur, Kanpur, Uttar Pradesh 208016, India.

Dr. Jishnu Bhattacharya
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