



# Indian Institute of Technology Kanpur, Kanpur

Inquiry no: ME/SDE/2017/DFBG/3

Date of Opening: November 4, 2017

Date and time of Closing: ~~5 pm, December 17, 2017~~ 5 pm, December 25, 2017

Sealed bids are invited for the purchase of **Water Boiler and Steam Superheater** (superheated steam generator consisting of a Water Boiler, an Automated Pressure Reducing Station and a Steam Superheater) with suitable accessories and mountings for uninterrupted supply of superheated steam. Specifications and other details for submitting bids are given below,

## Technical specifications:

<b>Item 1 :- Water boiler</b>	
<b>Mode of operation</b>	Continuous
<b>Capacity</b>	50 kg/hr
<b>Energy source</b>	Diesel/CNG/LPG
<b>operating pressure:</b>	Approx.. 10 bar
<b>Outlet steam condition</b>	Dry saturated
<b>Thermal Efficiency</b>	80% or better (should be maximum possible)
<b>Scope of supply</b>	Fully Automatic oil/gas fired steam generator with output capacity of 50 kg/hr dry saturated steam and working pressure around 10 bar, complete with all mountings, fittings and safety features.  Any other statutory requirement and safety norms which will be in force on the day of execution of the order. The equipment should be provided with all necessary accessories and spare. Optional accessories should also be quoted separately. Kindly quote break-up cost for each item.
<b>Item 2:- Automated pressure reducing station</b>	
<b>Inlet pressure</b>	Approx. 10 bar
<b>Outlet pressure</b>	Variable parameter with the set point varies from 10 – 1 bar pressure
<b>Pressure control</b>	Automated
<b>Item 3:- Steam Superheater</b>	
<b>Capacity</b>	Max. 50 kg/hr
<b>Energy source</b>	Electricity (preferable)/ Diesel/CNG/LPG
<b>Operating Pressure</b>	2 bar
<b>Outlet temperature</b>	400°C or better, outlet temperature must be controllable upto the maximum possible temperature. Desirable temperature 500°C.

<b>Temperature control</b>	PID
<b>Stem flow control</b>	Automated flow controller for superheated steam along with steam flow meter
<b>Steam terminal</b>	Steam stop valve
<p>Note:</p> <ol style="list-style-type: none"> <li>1) There should be provisions for the following basic and mandatory measurements; Fuel feed rate, water flow rate, steam flow rate, boiler operating pressure and temperature.</li> <li>2) The supply must compulsorily include a documentation manual of maintenance schedule, list of mandatory tools, water quality to be maintained for the boiler etc. Demonstration of safety relief valve and safety interlocks of the unit would be mandatory after installation and commissioning. The spares should be explicitly indicated and separately priced. At the time of technical bid decision will be taken as to which spares are necessary and prices of these selected spares will be included in the final comparison.</li> <li>3) Water storage tank and condensate storage tank of suitable capacity with all normal opening and water level view glass arrangement, duly painted. Critical piping needed for standard installation and operation should also be quoted with price as included.</li> </ol>	

Kindly also note the followings terms and conditions:

1. All quotations must reach the undersigned on or before the closing date.
2. Supplier/Vendor should submit technical and financial bid together in separately sealed envelopes.
3. The firm should supply authorization certificate by the original equipment Manufacturer, for dealership/distributorship along with the quotation. Parent company should be an established company with good number of installations and after sales support in India as well: Attach details.
4. The firm should submit complete technical leaflet of the boiler along with the quotation.
5. Evaluation will be done on the basis of technical specification format provided as per our tender notice. Technical details for various components should be attached along with the quote.
6. Financial bid will be open only for those, who meet T&C and tender technical specification.
7. Firm should quote for the consumables, for two years trouble free running.
8. The firm should give a declaration that they have not been blacklisted/debarred for dealing by Government of India in the past.
9. Please do mention tender number clearly on envelope.
10. Please send complete contact details of the person/ organization to whom your company had supplied similar systems.
11. The supplier must have supplied systems to institutions of national and/or international repute.

12. Normal payment terms for the institute will be applicable (90% on delivery of the items and remaining 10% after satisfactory installation/inspection).
13. Vendor must provide the guarantee / warranty for a period of three years starting from the date of satisfactory installation, commissioning and handing over of the equipment and the work conducted under the contract.
14. Validity of quotation should be at least for 60 days.
15. Installation charges should be included in the commercial bid.
16. Maximum educational discounts should be applied.
17. Delivery period should not be more than 4 weeks and delivery should be at IIT Kanpur.  
Earlier delivery may be preferred.
18. The intender reserves the right to withhold placement of final order. The right to reject all or any of the quotations and to split up the requirements or relax any or all of the above conditions without assigning any reason is reserved.
19. The price should be for IIT Kanpur and it should also be inclusive of packing and forwarding charges, commissioning and installation charges at

IIT Kanpur. After sales service:

1. The vendor should have quick service support for IIT Kanpur with adequate service persons, spares & all required accessories.
2. Single point of contact for support: Vendor has to provide details of single point of contact viz. designation, address, email address, and telephone/mobile no.
3. For further queries, please contact Mr. Saurabh Gupta (9903082909, email: [saugupta@iitk.ac.in](mailto:saugupta@iitk.ac.in), [sauguptasam@gmail.com](mailto:sauguptasam@gmail.com)).

Kindly send the quotation in sealed envelope to the following address.

Address for the quotation: Dr.  
Santanu De  
Assistant professor,  
Dept. of Mechanical  
Engineering Indian Institute of  
Technology Kanpur, Kanpur-  
208016 (U.P.) India.