



Prof. Krishanu Biswas
प्रो० कृशानू बिस्वास
Professor
प्राध्यापक
Department of Materials Sc. & Engg.
पदार्थ विज्ञान एवं अभियांत्रिकी विभाग
I.I.T Kanpur-208016 (India)
भा० प्रो० सं० कानपुर-208016 (भारत)

फैक्स / Fax: +91-512-679/392/259 (7505 int.)
दूरभाष / Phone: +91-512-679/392/259 (6184 int. O)
वेब /web : <http://home.iitk.ac.in/~kbiswas>
क.न. 210 सी पो.- आई. आई. टी.
कानपुर- 208016 (उ. प्र.) भारत
Office: WL-210-C, PO. I.I.T
Kanpur-208016 (UP), India
E-mail: kbiswas@iitk.ac.in

Enquiry No. : IITK/MSE/KB/TMP/2017-2018/02
Enquiry Date : 03.04.2018

Last date has been extended till : 03.05.2018

Tender for Turbo Molecular Pump for Induction Furnace setup

(1) Turbo Molecular Pump : 1 No

- Pumping speed for $N_2 \geq 675$ l/s
- Compression ratio for $N_2 > 1 \times 10^{11}$
- Inlet mesh screen (for protection), with appropriate display control unit.
- Ultimate pressure better than 5×10^{-10} mbar
- Mains cable and the interconnecting connecting cable of ≥ 3 meter length
- Operating voltage: 220-240 VAC, 50 Hz.
- Inlet Flange = DN 160 CF-F
- High vacuum side Bearing : Maintenance free, permanent magnetic bearing

(2) Roughing/Backing pump: 1 No.

- Flange (In-let): DN 25 ISO-KF
- Flange (Out-let): DN 25 ISO-KF
- Pumping speed: $10 \text{ m}^3/\text{h}$
- Ultimate pressure without gas ballast: $\leq 3 \times 10^{-3}$ mbar
- Integrated with high speed hydraulically controlled high vacuum safety valve.
- Forced oil lubricated bearings.
- Motor to pump coupling: Magnetic coupling.
- Operating voltage: 200-240 VAC, 50 Hz

- Pump should be supplied with all accessories such as oil mist separator, and mains cable of 3 meter length.
- (3) Corrugated hose, DN 25 ISO-KF stainless steel, flexible, length ≥ 1000 mm.: 1 No.
- (4) Clamping rings / retainers (DN 25 ISO-KF Aluminum ADC12. : 6No.s
- (5) Centering rings DN 25 ISO-KF Stainless steel 304 with O-rings.: 6No.s
- (6) Air cooling kit for Turbo pump, Suitable Venting valve (auto operation, vent device for protection during power failure),
- (7) Splinter shield for DN 160 CF.
- (8) Full range vacuum gauge: 1 No.
- (9) Flange: DN 40 CF-F, Measurement Range: 1000 mbar to 5×10^{-9} mbar
- (10) Display and control unit for above full range vacuum gauge with USB interface: 1 No.
- (11) Sensor cable between vacuum gauge and controller, length ≥ 3 m: 1 No.
- (12) OFHC Copper gaskets DN 40 CF: 10 No.s
- (13) OFHC Copper gaskets DN 160 CF: 5 No.s

Terms & Conditions:

1. Cost of the items including relevant accessories with technical specification should be mentioned in detail.
2. Offer should be made on FOR IIT Kanpur basis.
3. Your quotation shall contain Authorization Letter from manufacturer.
4. Kindly enclose Catalogue and Photographs of quoted model with complete technical specifications.
5. Quotation Validity : 90 days
6. Warranty: Two Years
7. Delivery mode: IIT Kanpur
8. Delivery period: within 16 to 20 weeks from the date of purchase order.
9. Two separate bids, Technical and Financial bid to be submitted in separate sealed envelopes. Write on envelope enquiry number, item name and last date of tender

10. The vendor must have sufficient experience of supply and installation of induction power supply units in the reputed academic institutes and labs in India. At least 7 years of experience in required. The vendor is required to provide at least 10 installation details in India along with technical bid.
11. Availability of after sale service in India is mandatory.

Please send the quotations given are below address;

Prof. Krishanu Biswas
Professor
WL- 210
Solidification & Nanomaterials Lab
Department of Material Science & Engineering
Indian Institute of Technology Kanpur
Kanpur – 208016, India