Indian Institute of Technology, Kanpur
Department of Physics

Enquiry no.: IITK/PHY/340-2
Enquiry date: 12.12.2012
Closing date: 5th January, 2013

Sealed quotations are invited **for a rotary vane pump**(with oil mist eliminator and Zeolite Trap) , a 80 L/s **turbo molecular pump** and a combined **Pirani pressure sensor**, *all to be compatible with each other*. The specifications are following:

1) **Rotary Vane Pump**

Emission sound pressure level without gas ballast	57 dB
Flange (in)	DN 16 ISO-KF
Flange (out)	DN 16 ISO-KF
Safety valve leak rate	10^{-4} mbar. l/s
Operating Fluid	P3
Pumping Fluid Filling	0.75 l
Pumping Speed at 60 Hz	6 m^3/hr
Rotation Speed at 60 Hz	1800 rpm
Ultimate Pressure with Gas Ballast	$2X10^{-2}$ mbar
Ultimate Pressure without gas ballast	$5X\ 10^{-3}$ mbar
Accessories:	Oil mist eliminator and Zeolite Trap

2) **Vacuum (Pirani) Gauge**

Measurement Range(max)	1000 mbar
Measurement Range(max)	5.10^{-10} mbar
Maximum Pressure	2 bar
Repeatability (in the range 10^{-8}-10^{-2} mbar)	5% reading
Accuracy(in the range 10^{-8}-10^{-2} mbar)	15 % reading
Flange(in)	DN 40 CF-R
Output Signal(for the entire pressure range)	0.774-10V

Filament Material	Tungsten, Iridium yttriated

3) **Turbo Molecular Pump**

Pumping Speed:	57 dB
Ar	>65 l/s
N2	>65 l/s
He	>55l/s
Rotation speed:	90000 rpm
Run-up time	< 2 min
Flange in	DN 63 CF-F
Flange out	DN 16 ISO-KF/ G ¼"
Weight	<4 kg
Interfaces	RS232 or other remote controls
Accessories:	Full pump controller with connecting cables(Please mention clearly in the pumping unit regarding the accessories present or not. Else, the bid will not be considered.)

Terms and conditions:

- All Quotations should include all three above mentioned components from one vendor for compatibility. Individual quotes for components will not be accepted. .
- Quote should be made in two parts: Technical bid and Financial bid separately in sealed envelopes.
- Financial bids for the product whose technical bid is not acceptable will not be opened. Any quote with the financial bid included in the technical bid will be summarily rejected.
- The sealed envelopes with the quotes should be superscribed with the Inquiry number and wheter it is a technical or financial bid.
- The delivery period should be specifically stated.
- Quotes should be made options for the either of the following delivery modes

• Ex-works for pickup by our world-wide transport provider
• FOB in country of origin
• CIF, New Delhi
• For delivery to IIT Kanpur

- Maximum educational discounts should be applied – this equipment will be used for research as well as teach and trainstudents.
- Quotes should have a minimum validity of 60 days

Address the quotations to:

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