

**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**  
**Central Glass Blowing Section**

Enquiry No.: CGBS/01/2013-2014

Opening Date:03/07/2013

Closing Date: 13/07/2013

\* The Closing date for this tender is extended until 20 July 2013.

Sub.: Purchase of ROTARY BASE VACUUM SYSTEM.

We are interested in purchase Rotary Base Vacuum System for Glass Blowing Section.

Our organization is an educational institute of the repute and liable to get education discount from manufacturer, please specify it, separately. Please send sealed

quotation, to undersigned, for the same.

**ROTARY BASE VACUUM SYSTEM**

- **SYSTEM SPECIFICATIONS:**

Direct drive Rotary vacuum pump having a displacement capacity of 250 lit/min (15 m<sup>3</sup>/hr) giving ultimate vacuum of  $1 \times 10^{-3}$  m.bar under no load condition on Mcled gauge with gas ballast in fully closed condition. Rotary pump of good quality standard brand make (Oerlikon Leybold/Pfeiffer/Alcatel/Hindhivac)

- **VACUUM VALVE:**

A vacuum valve of 1” of butterfly valve type size to provide maximum pumping capacity should be provided above the rotary pump. This facilitates isolation of the rotary pump, even when the manifold/load is exposed to atmosphere.

- **VACCUM MEASURING GAUGES:**

PRANI GAUGE

The unit should be provided with ANALOG Pirani gauge. With two Pirani gauge head should be provided in that one mounted with system other one spare.

- **CROSS ADAPTOR:**

1” Size stainless steel cross adaptor having one side to connect vacuum pump, second side to mount vacuum gauge sensor and third and fourth side 1/2” nozzle to connect user provided vacuum tube (two number valve will be mounted between adaptor and tube)

- **Note : at a time one or two vacuum sealing should be done**

- **ELECTRICAL CONTROLS:**

Unit operates on 220V A.C 50 Hz Single phase power supply.

- **MOUNTING FRAME:**

All the above components should be housed in aesthetic MS frame with a front panel for mounting gauges and controls .The valve control knobs are towards the front of the frame. The unit should be mounted on 4 castor wheels for mobility and easy maneuverability.

- **ULTIMATE VACUUM:**

The unit should be specified to achieve an ultimate vacuum of  $5 \times 10^{-2}$  m.bar in the inlet of the pump. The T joint valve should be in close condition before to check ultimate vacuum.

- **FACILITY TO BACKFILL WITH GAS:**

The unit should be provided with needle valve (which can be connected to gas cylinder) which can be used to backfill with gas after evacuation.

All components and materials (vacuum line related) should be vacuum compatible.

- **Warranty: 3 year onsite warranty required (from date of installation, against all manufacturing defects and faulty workmanship)**
- **Installation:** the price should be inclusive of installation on site with full functionality.

A hard copy of the operating manual should be provided.

- **Delivery time: 8 weeks**
- **Payment: 100% on installation**
- **Quote: Two bit quote (separate technical and commercial bid in sealed separate covers required)**

**Dr Anandh Subramaniam**

**WL-210B, Department of Materials Science And Engineering (MSE)**

**IIT, Kanpur-208016**

**Email : [anandh@iitk.ac.in](mailto:anandh@iitk.ac.in)**

**Fax : (+91) (512) 2597505**

**Phone : (+91) (512) 2597215**

**Mobile : 9919699410**