

Turbo Molecular Vacuum Pumping Station

Quotations are invited from reputed vendors for supplying of Turbo Molecular Vacuum Pumping Station. The required specifications are listed below. Vendors offering somewhat different but equivalent (not less) specification will also be considered.

High Vacuum Pump

1) Turbo Molecular Pump

- The pumping capacity should be greater than 300 L/s
- Ultimate pressure of the pump should be less than 5×10^{-9} mbar.
- The inlet flange should be CF 40 or should be equipped with appropriate reducer.
- The outlet flange connection should be DN25NW
- The operation voltage of the pump should be between 200-240 volts
- Venting should be automatic

Backing Pump

2) Dry Scroll Pump

- Peak Pumping Speed should be ≥ 10 m³/hr
- Ultimate pressure of the pump should be $\leq 7 \times 10^{-3}$ mbar
- Rating of the motor should be 240 V, 1 phase, 50/60 Hz
- Operating voltage range should be 200-240 volts.
- Noise level should be < 55 dBA
- Minimum 3 years on-site warranty

3) Gauges

- Pirani gauge . Range 1000 mbar to 10^{-4} mbar
- Magnetron Gauge . Range 10^{-2} mbar to 10^{-9} mbar
- Wide range gauge. 1000 mbar to 10^{-9} mbar

4) Controller

- Remote control interface for reading motor and gauge parameters using standard communication protocol.

Items 1, 2, 3 and 4 should be integrated in a compact manner and mounted on a trolley with castor wheels. All the accessories and additional pieces of small spare parts, fuses that may be frequently required should be

provided with the system. Three additional SS (non-magnetic) bellows (each 2 m long) should be provided. The bellows should have KF40 flanges at both ends. 6 no. of CF40 blanks, center rings and O-rings should also be provided.

The vendors should also quote for the following:

1) Rotary Vane pump

- Displacement should be $\geq 28 \text{ m}^3/\text{hr}$
- Ultimate Pressure $\leq 3 \times 10^{-3} \text{ mBar}$
- Inlet and outlet ports should be KF 25 type
- Minimum 3 years warranty
- Pump oil for at least two filling should be provided
- Appropriate oil-mist filter should be provided at the exhaust port.
- Two bellows (each 2 m long) with KF 25 flanges at both ends should also be provided, 4 no. of KF25 blanks, center rings and O-rings should also be provided.