

SHEET -1

TURBO PUMP MOLECULAR VACUUM PUMPING STATION CONSISTS OF :

TURBO PUMP

CONTROL UNIT

BACK UP PUMP

VACUUM MEASURING GAUGES

ACCESSORIES

1. Turbo molecular pump :
 - a) *pumping speed for Helium* *Minimum 650L/Sec*
 - b) *Cooling Method* *Air cooled*
 - c) *Ultimate vacuum level* *better than 5×10^{-7} mbar*
 - d) *Inlet flange* *DN 160 ISO-K / DN 125 ISO -K*
 - e) *Out let flanges* *KF 25 AND KF 40 flanges (One each)*

2. *Control unit for turbo pump :*
 - Single switch for ON/OFF with the following parameters indicated on the control unit
 - a) *Speed of the turbo pump (RPM)*
 - b) *Current drawn by the pump*
 - c) *Pumping speed control in terms of percentage of rotor speed*
 - d) *Operating hours indicator*

3. *Back up pump : Dry type back up vacuum pump suitable capacity to back up the turbo pump :*
 - a) *Multi stage with pumping speed minimum capacity 30 M3 /H*
 - b) *Inlet flange connection DN 40 KF*
 - c) *Out let flange connection DN 25 KF*
 - d) *Continues inlet pressure max 1000mbr*
 - e) *Air cooled dry vacuum pump*

4. *Vacuum measuring gauges*
 - a) *Combined gauge (pirani & cold cathode gauge) head with digital display unit with single gauge control with sensor cable .*
 - b) *Flange connection 25 KF*
 - c) *Measurement range 1000mbr to 5×10^{-8} mbr*

5. *The following Accessories / spares should be in the scope of supply :*

Equipment must be assembled on the mobile trolley
Necessary accessories/spares like hoses, centre rings , clamps and power cables etc
Electromagnetically operated Angle valve size DN 40/ DN 25 minimum one
Installation of equipment and performance testing at BHEL site