

TECHNICAL SPECIFICATION FOR ROTARY EVAPORATOR WITH VACUUM PUMP AND CONTROLLER

General:

- Rotary evaporator should be come with vacuum pump and vacuum controller
- Compact bench top model.
- Ease of operation

Instrument:

Rotary Evaporator:

- Large top-hole V-condenser & Cooling capacity 1500cm/h or better
- Normal GLASS Condenser assembly with Drive Unit
- Manual lift with 20-280 RPM or better
- Immersion angle 10-50° with stage adjustable
- Multifunctional Combi-clip for evaporating flask fixing and removal as well as vapor duct release
- 1 L evaporating flask (NS 24/40) and 1L receiving flask
- Heating bath temperature range: 20-220 °C or better with heating power 1300 W or better
- Heating bath size 5.5 L or above and usable flask size 50 mL to 5000 mL
- Display for rotation speed, lift position and heating bath temperature (set and actual) should be available in heating bath to monitor all parameter at a glance.
- Protection class: IP21

Vacuum Pump:

- Regulated brushless DC motor Chemical resistant PTFE diaphragm vacuum pump
- Final vacuum: 10 mbar or less
- Flow rate: 1.5 m³/h or higher
- Eco mode should be available to save energy
- The pump is turned on and off as well as speed controlled via the interface
- Silencer and 2 m of vacuum tubing

Vacuum Controller:

- Vacuum digital controller controls the vacuum pump
- Should be able to control the chiller, if required.
- Operating modes: Manual and timer (Two modes)
- Measuring range: 1400 – 0 mbar or better
- Control range: 1100 – 0 mbar or better
- Hysteresis automatic or 1 – 500 mbar
- Measuring accuracy: 2 mbar
- Overpressure prevention automatic aeration when pressure above 1400 mbar

- Woulff bottle for trap
- Protection Class IP20

Others:

- The system should be provided with 24 months warranty.
- All other standard accessories for complete operation and maintenance of the equipment shall be supplied.
- Service engineer shall be available in Chennai or nearby cities to attend the call in 24 h. Contact details should be provided.
- The supplier should have supplied similar instruments to IITs, IISc, IISERs or Government (State/Central) Organizations. At least five must have been supplied to IITs, IISc and IISERs in the last three years. List of organizations with contact details, copy of purchase order and installation certificate should be provided.

Optional:

- Essential spare parts