

Industrial Vacuum Systems

SAFETY GUIDELINES

Always heed these safety guidelines when working with the *Intelitek Vacuum Technology Training Kit*:

General Handling, PPE & Equipment Care

- Always wear full cleanroom PPE when working with the vacuum system. When working with isopropyl alcohol (IPA) or when the pumping station is in operation, safety glasses must be worn.
- Vacuum system components are delicate and expensive and must be handled with care.
- The motor/pumping station is heavy and expensive and should not be lifted or handled.
- Foreign objects and debris can destroy the turbopump, so always cover it with its protective cap when it is not in use.

Pumping Station & Pump Operation

- **Do not move, jostle, or bump into the pumping station or the table while the turbopump is operating. After you have activated the station, stand clear of the area to avoid bumping into the station and causing irreparable damage to the turbopump.**
- Do not deactivate the pumping station if any valves of the system are closed.

Valves and System Venting

- Only vent the system when the pump motor has come to a complete stop, which is indicated by 0 Hz or 0 RPM.
- Open and close manual valves slowly and carefully.

Seals & Connections

- Never open any seals when the pump is running or before the system is completely vented.
- When tightening the wingnuts on hinged clamps, firmly tighten them by hand and never use wrenches or pliers, as this will crush the O-ring.

Pressure Sensors (Gauges)

- Always verify that the sensors read atmospheric pressure (1000 hPa / 760 Torr) first before taking actions like venting.
- Do not unplug a sensor (gauge) from the power outlet unless the sensor shows atmospheric pressure. Unplugging a sensor at a different pressure can damage the sensor and/or cause the readings to be inconsistent and/or inaccurate.