



CRYO-ELECTRON TOMOGRAPHY

Cryo-electron tomography is a technique used for the evaluation of biological specimens. Structural details are imaged in three dimensions in a transmission electron microscope at cryogenic temperatures to reveal information from specimens such as proteins and viruses.

MODEL **9030** Turbo Pumping Station

A powerful, configurable vacuum pumping station for cryo tomography holder evacuation and transmission electron microscope (TEM) specimen holder storage.

- Evacuates the Fischione Instruments' Model 2550 Cryo Transfer Tomography Holder during zeolite regeneration
- Pump down Thermo Fisher Scientific (TFS) and JEOL TEM specimen holders and store the holders under clean, vacuum conditions
- Configurable; stack single TFS or JEOL holder ports or use a quad holder dock (shown at left) to mix up to four TFS and/or JEOL ports
- Four configurations available
- Reaches an ultimate pressure of < 10⁻⁶ Torr
- Oil-free vacuum

The Model 9030 Turbo Pumping Station is a versatile, configurable device for evacuating the Fischione Instruments' Model 2550 Cryo Transfer Tomography Holder during zeolite regeneration and for storing transmission electron microscope (TEM) specimen holders under clean, vacuum conditions.

Zeolite regeneration

The Cryo Transfer Tomography Holder's dewar contains zeolite desiccant, which enhances the dewar's vacuum level. Zeolite must be regenerated regularly; this requires a high vacuum pumping station. The Turbo Pumping Station reaches an ultimate pressure of $< 10^{-6}$ Torr when pumping down the Cryo Transfer Tomography Holder.

The pumping station allows for vacuum pumping of the specimen holder tip while evacuating the dewar vacuum.

TEM specimen holder storage

Up to four TEM specimen holders can be pumped down and stored in vacuum conditions. The Turbo Pumping Station can simultaneously accommodate both TFS and JEOL specimen holders (if you configure your Turbo Pumping Station with both TFS and JEOL ports).

Oil-free vacuum

The Turbo Pumping Station has an oil-free vacuum.

Easily configurable

The Turbo Pumping Station is available in multiple configurations for both TFS and JEOL



The Model 2550 Cryo Transfer Tomography Holder

specimen holders. Up to four single TFS and/ or JEOL ports can be stacked on the Turbo Pumping Station. Alternatively, a quad dock accepts a mix of four TFS and JEOL ports.

Available configurations

- **Basic** (TFS): A single dock with a single TFS port; manual port venting
- Single (TFS): A single dock with a single TFS port; automatic port venting; display of vacuum level
- Single (JEOL): A single dock with a single JEOL port; automatic port venting; display of vacuum level
- Quad (TFS and/or JEOL): A quad holder dock; user specifies TFS and JEOL port mix; automatic port venting; display of vacuum level



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