K25X Peltier Cooled Stage for ESEM, VP, EP and SEM

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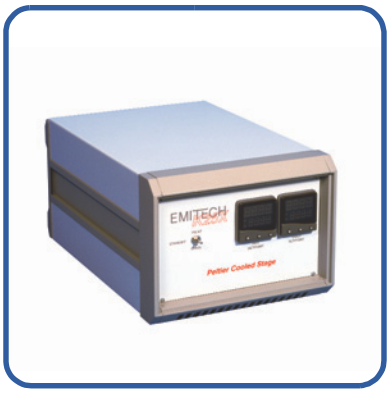
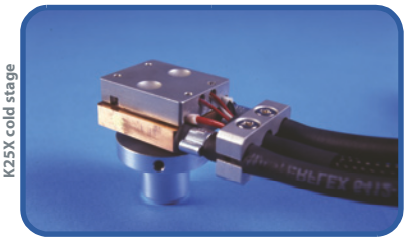
PELTIER COOLED STAGE

compact, efficient peltier cooling



K25X controller



K25X cold stage

K25X Peltier Cooling Stage
The K25X is a Peltier driven SEM cooling stage for VP/EP & ESEM. The stage can be cooled to sub-zero temperatures for samples which may be sensitive at ambient temperature, subject to beam damage, or may otherwise sublime at ambient temperatures.

The K25X cooling stage is mounted onto the existing SEM stage and is designed to accept the standard range of stubs used with the SEM. The K25X stage has secondary cooling via a liquid cooling circuit, with access via a spare access port on the SEM to the external heat exchanger unit, which is fully vacuum isolated from the SEM chamber. This arrangement allows the majority of the x,y,z and tilt features to be maintained to an effective operating level.

The K25X is self-contained and uses a small power supply and temperature control system, the unit being supplied from a standard supply socket. The major parts of the system can be left in situ and the cooling stage is very easily removed when reverting to 'normal' use.

See: www.quorumtech.com for full technical specification and additional details.

System Components
- Peltier cooled stage and secondary liquid cooling
- Vacuum interface port with integral electrical lead through for Peltier supply, cooling and temperature monitoring
- Optional chiller for cooling circuit (SEM cooling water or ambient water flow may be used)
- Control unit with digital P.I.D. (Proportional, Integral, Derivative) control with set point input temperature and measured temperature display
- Low voltage, ultra smooth DC power supply for Peltier drive
- Keypad and dual display for temperature control
- Simultaneous display of actual and target temperatures
- Dual microprocessor control

Key Features & Benefits
- Temperature range -35˚C to 75˚C - versatile system for use with VP/EP & ESEM
- Ambient to -25˚C in 3 minutes - rapid cooling of samples
- Can be used with all leading SEMs - specific interface plates supplied
- Display of actual and target temperatures - easy to see when system is ready
- Small footprint of control unit

Option
E4860 Recirculating heater/chiller

PRODUCT SPECIFICATIONS

Supplied with	Set of 1m interconnecting cables and mains supply lead
Sample sizes	Can accommodate all standard specimen stubs, up to 25mm diameter.
Weight & dimensions	Case: 137mm H x 235mm W x 260mm D. Weight: 18Kg
Stage typical operating temperature	-25˚C within 3 minutes from ambient
Temperature display resolution	0.1˚C
Temperature stability	0.2˚C
Stage temperature control range	+70˚C to -30˚C, resolution +/- 1˚C
Stage movement	Normal X,Y movements maintained. Tilt maintained for x-ray analysis (typically to 45˚)
Working distance	Variable +/- 25mm
Rotate	>180˚
Electrical	230V or 115V 50/60Hz, single phase, 5A maximium