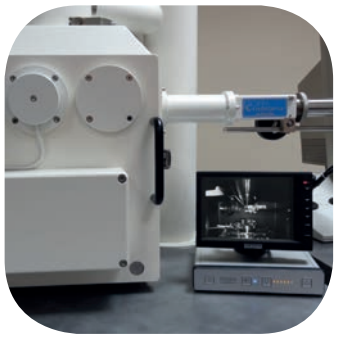
DEBEN

Tensile Testing | E-Beam Instrumentation | Detectors



E-Beam Instrumentation

SEM
TV Chamberscope system

Applications:

- Safely observe large samples
- Prevent samples from hitting detectors
- Safely insert multiple detectors
- Confirm working distance

Features:

- Available for most SEMs
- Monitor or PC versions
- Adjustable infra-red (IR) LED illumination
- Exchangeable lenses
- Single or dual camera options
- NTSC or CCIR video format
- Compatible with existing 3rd party cameras
- High vacuum compatible
- Auto power saving
- X-ray shielded
- CE, RoHS, CSA & UL compliant

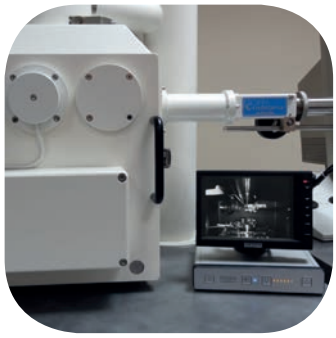
A video chamberscope is an essential accessory for any SEM. Hitting a detector with a large sample can be an expensive mistake. By fitting a Deben chamberscope to your SEM you can get an instant view inside the chamber to see the position of detectors and samples.

Different cameras are available depending on the SEM model and chamber port availability. The FEG camera has an innovative design allowing the camera to be removed for adjustment of focus or to change the lens while still maintaining vacuum in the chamber. The camera and IR illumination components are outside vacuum behind a leaded glass window. The camera is mounted to a removable flange which acts as an effective x-ray shield and heatsink for the camera components.

For small ports or where no free port is available facing the final lens a Miniscope50 can be mounted on a bracket from the flange or another point inside the chamber.

Chamberscopes are supplied with wide and narrow angle lenses to allow field of view to be chosen at installation or changed by the user at a later date.

Systems are available with either a 7.0" TFT monitor or USB interface. Two seperate chamberscopes can be connected to provide different chamber views and an additional video input can be connected to a third party video source such as another chamberscope, or the SEM TV output to allow video recording.



The monitor system allows for easy positioning of the control box on the SEM console and manual adjustment of chamber illumination using push buttons on the front panel. The USB system allows for integrated installation on the SEM PC. Compatible with Windows XP/7.0/8.0, 32/64bit the chamberscope is easily installed and the control box can be hidden away behind the console.

USB is used for control of the illumination and video is acquired using either USB, or a PCI or PCIe card depending on PC specification. The video window can be sized to fit in a free area of your screen and you can select "always on top" to keep the window visible even when working with the SEM control software.

Outline Specifications

- Available in monitor or PC versions
- Versions to fit all common SEM chamber ports
- 2x Deben chamberscope inputs & one composite video input
- NTSC/CCIR video compatible
- Video source: Sony 1/3" CCD, analogue 420 lines
- Illumination: by Infra-red diodes @ 890nm
- Power requirement: 90-250V supplied with worldwide socket adaptors
- Monitor: 7.0" TFT
- High vacuum compatible
- X-Ray protection tested and approved to OEM installation standards
- Lens: 6mm fitted as standard, additional 3.6mm and 12mm supplied (user interchangeable)
- Auto power saving
- CE, RoHS, CSA & UL compliant
- USB version features:
  - USB2 control of camera illumination
  - USB, PCI or PCIe interface for video acquisition
  - Select single or multiple video inputs
  - Images can be saved in .BMP, videos in .AVI formats
  - PCI and PCIe cards are full height as standard but we can supply low profile versions by special request
  - USB version allows 2x chamberscopes to be connected & brightness is independently controlled
  - 3rd input can be used for AVI video recording
  - Auto sleep/power down
  - Tilt angle measurement (on Tabletop SEMs only)
  - Convenient button for switching off illumination when imaging with solid state BSE

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