

QuickLoader Load Lock

Load lock for SEM/DualBeam systems

Thermo Fisher Scientific has continually invested in efficient vacuum technology for SEM and DualBeam systems. This has provided customers with superior sample exchange times through accessing the main vacuum chamber with industry leading full chamber vacuum cycling.

The Thermo Scientific™ QuickLoader™ load lock was developed for applications where time to image is critical or when keeping the chamber under vacuum is necessary. QuickLoader load lock provides an integrated cost effective solution for easy and fast manual transfer of samples into the microscope chamber. This vacuum interlocked solution facilitates handling of various kinds of samples prepared for SEM/SDB using standard stub holders up to 32 mm diameter.

Mounting on the port to the right of the chamber door, the QuickLoader load lock is comprised of a loading chamber with a see-through closable lid, a gate valve unit, a guided transfer rod and vacuum control. The transfer rod supports a sample shuttle which is guided through the gate valve opening and onto the stage. Loading and unloading of the sample shuttle is at pre-programmed stage coordinates. Pumping and venting of the loading chamber is integrated into the vacuum system of the Small DualBeam and is software controlled.

The innovative and modular design of our SEM and DualBeam microscopes make a field-retrofit of the QuickLoader load lock possible for some systems.

Key benefits

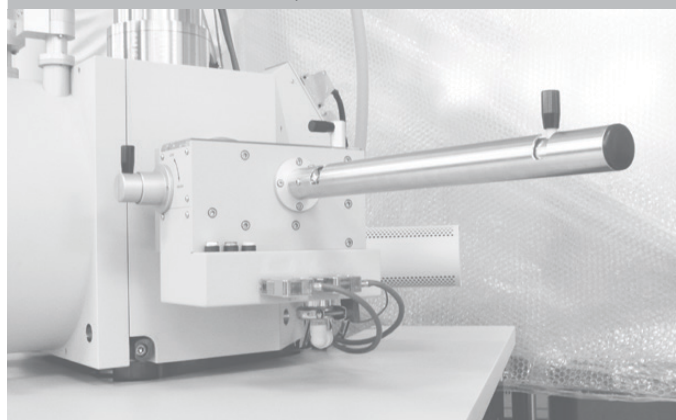
Load lock for fast and easy manual transfer of samples

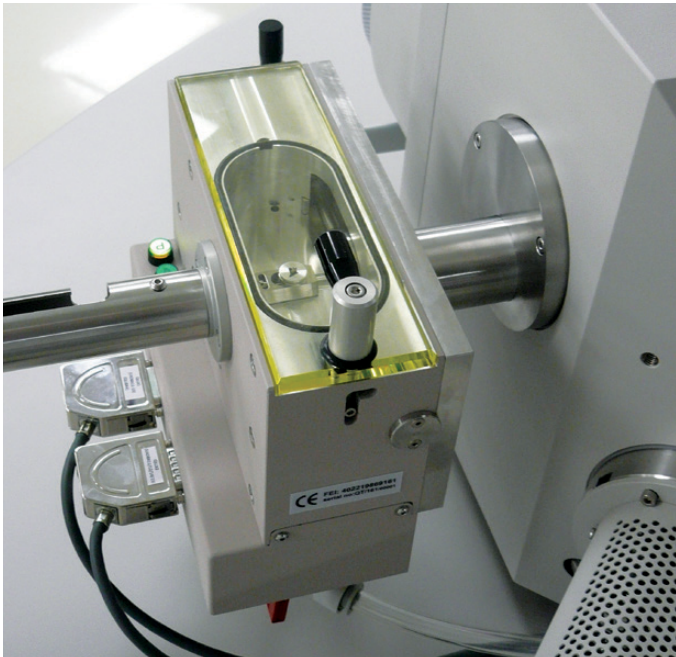
Sample cycle: loading sample, pump down till first image and unloading ≤ 2 minutes

Fully interlocked for safe and intuitive operation

Compact design requiring no changes in system footprint or microscope specifications

Field retrofit possible for most Thermo Scientific SEM/DualBeam microscopes





Essential specifications

Compatible with the following systems

The Thermo Scientific Quick Loader is compatible with all Thermo Scientific SEM and DualBeam systems.

System control – hardware interlocked

- Simple, two button control on the main unit
- Hardware Interlock prevents simultaneously opening the gate valve and venting the QuickLoader load lock

System control – software integrated

- Software integrated for systems with compatible software versions
- Software provides automatic switching off of the electron beam, stage movement to dock position and GIS retraction (where applicable)

Operation performances

- Sample cycle: loading sample, pump down till first image and unloading ≤ 2 minutes

Vacuum system

- Vacuum is integrated with the SEM or DualBeam, requiring no additional vacuum pump
- Integrated and interlocked with the system to ensure safe and simple operation
- Evacuation time: ~20 seconds

Documentation

- Operation instruction in the microscope control software “help” menu
- User manual

Warranty and training

- 1 year warranty
- Simple design makes training not necessary
- User manual with instructions included

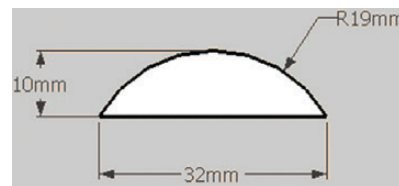
Installation requirements

- Installation port must be free (no other accessories can share this port)
- Environment: same requirements as standard microscope, as indicated in the pre-install manual
- For software control, the system needs to be using a compatible software version
- Clearance must be available on the right side of the instrument to accommodate use of the transfer rod

Sample sizes

- Maximum diameter ≤ 32 mm
- Maximum thickness ≤ 10 mm

Height gauge included to check specimen clearance before insertion into the unit



Consumables

- Standard commercial stubs (up to 32 mm, not included)
- Sample shuttle (including 2x)

Part Numbers

CryoMAT: FP 3610/09

QuickLoader: FP 3610/13, 1095705

Find out more at thermofisher.com/EM-Sales