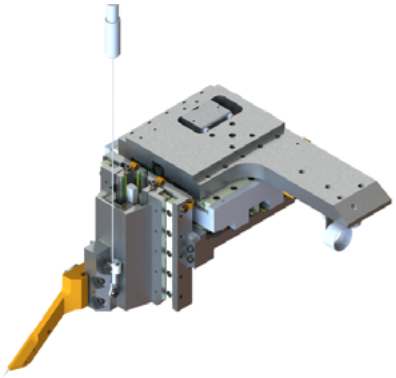
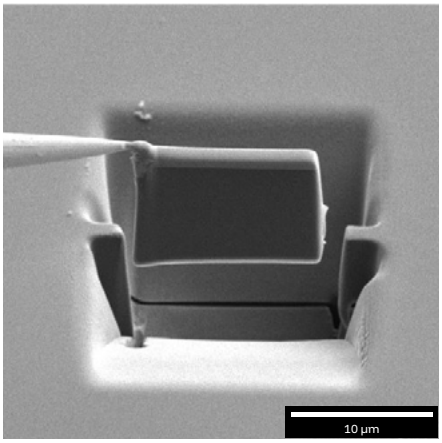
Tescan Nanomanipulator

Tescan Nanomanipulator is designed for full compatibility with Tescan SEM and FIB-SEM instruments to make lift-out and manipulation of TEM samples faster and easier. Tescan Nanomanipulator delivers predictable and smooth movements along all axes, and unlike third party probe solutions, which require a separate software interface, Tescan Nanomanipulator is controlled directly from a module within the Essence™ GUI. Without the need to leave the microscope control software, users will have maximum operational continuity, whether the application is sample lift-out or manipulation. This software module also offers several productivity enhancements, like navigation by mouse gesture and pre-defined manipulator positions. Furthermore, Tescan Nanomanipulator is designed to allow users to easily replace probe tips without special tools.



Tescan Nanomanipulator for X, Y and Z axis manipulation.



Tescan Nanomanipulator delivers smooth and predictable movement essential for *in-situ* TEM lamella lift-out.

Tescan Nanomanipulator arm can be unmounted quickly and easily for probe exchange outside the chamber.

Key benefits

Perform lift-out and TEM sample transfer without experiencing excessive vibration during probe movement

Improve sample preparation throughput by utilizing predefined nanomanipulator positions such as parking, standby, and working

Guide movement and positioning of the probe tip at the desired point on your sample with mouse gesture support

Control the Tescan Nanomanipulator from within the Tescan Essence GUI for the speed and convenience of operation from a single user interface

Exchange probe tips easily outside the chamber thanks to Tescan Nanomanipulator's removable arm

Applications

TEM lamella lift-outs and manipulation
to support in-situ sample preparation workflows

- *In-situ* X, Y and Z nanomanipulation for FIB-SEM prototyping applications, chunk preparation and precise Si mask placement within the Tescan TRUE-X sectioning method for curtaining suppression at very high Plasma-FIB milling rates
- Local charge dissipation for SEM observation of non-conductive samples like glass, polymers, and wood