Improved Focused Ion Beam (FIB) lamella preparation

DENSsolutions now introduces the 3rd generation of the FIB stub which enables you to prepare a lamella and place it directly on your chip, all inside the FIB.

In this version, many improvements were made to make your sample preparation easier, safer and quicker.

5 reasons to get the new FIB stub

1. Ease of use

The sample is located on an additional flat side of the stub. This ensures a conventional geometry and the very same and the well-known process used by any FIB operator.

2. Improved imaging

Reduced shadowing improves the imaging quality, especially at low accelerating voltages during final milling and polishing steps (1-5 kV). The charging is also minimized further improving the quality of the images and the samples.
3. Smart clamping

Due to a dedicated pocket for the Nano-Chips with an integrated end-stop and a smart clamp mechanism, loading and unloading of the chip becomes a simple and a fast process. There is no need to use sticky tapes to fix the chip and the possibility to damage the fragile window membranes when handling the chips is greatly reduced.

4. Safe procedure

The stub is engineered in such a way that the position of the sample and the Nano-Chip are on the same height (green dotted line). This minimizes the possibility of crashing into the pole piece, the gas Injection system or the manipulator.

5. High level of compatibility

The FIB stub is compatible with Thermo Fisher Scientific/FEI and JEOL focused ion beam microscopes. For compatibility with Zeiss, Tescan and Hitachi FIBs, please contact us. The FIB stub can be used with all double tilt (Wildfire/Lightning) heating and/or biasing TFS/FEI or JEOL Nano-Chips.

What our customer says

“The new DENS stub is very useful when making samples for in-situ TEM heating and biasing experiments. The refined copper clamping system makes it easy to mount the chip in a safe way, while it is grounded at the same time to prevent charging. By using the angle of 45 degrees it is possible to finish a complete sample in one go without the system having to be aerated. So I am also very satisfied with this stub that makes work easier for me.”

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