

microPREP™ PRO

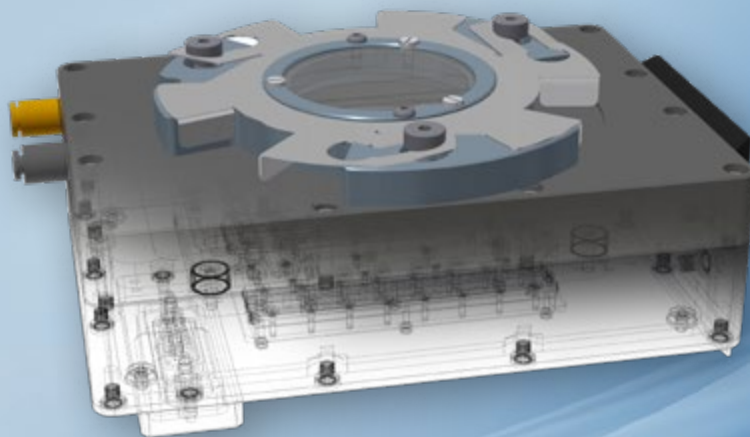
MOTORIZED STAGE WITH CONTAINMENT

The motorized stage with containment has been developed for users that need to handle samples under special environment conditions on a regular basis. It allows to handle samples under inert atmospheres. Furthermore, it helps to protect the system from hazardous debris. The quick release shutter can be handled easily - even with personal protective equipment.

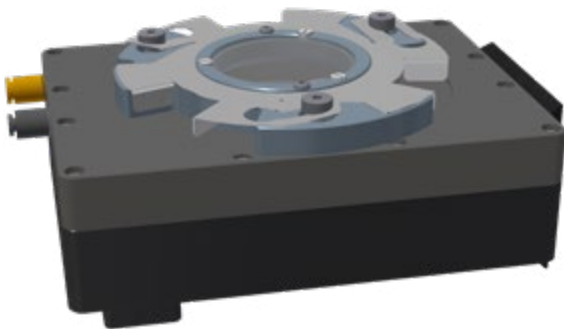
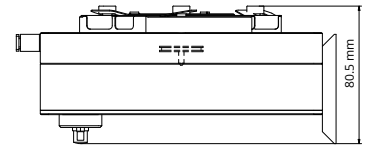
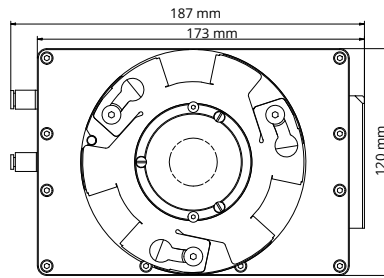
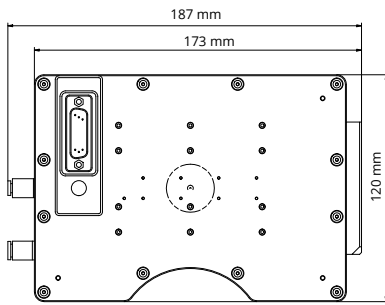
This stage is designed for samples that are preferably placed either on a SEM stub/mount or directly on the platform.

APPLICATION IDEAS

- XL-Chunks and related shapes
- Milling processes (box and cross-sections)
- Pillars/needles or even pillar arrays
- Laser polishing

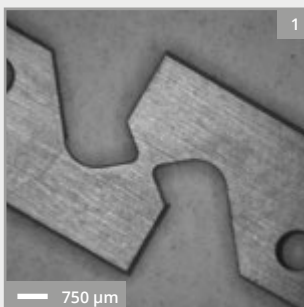


Technical Data

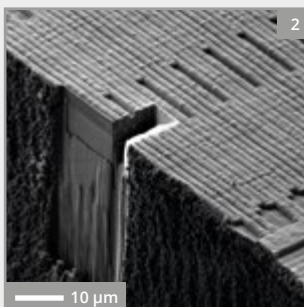


Actuator Type	Piezo electric
Travel Range	X-axis: up to 20 mm Y-axis: up to 20 mm Rotation (closed loop): infinite
Resolution (Piezo)	Linear axis: 4 nm Rotational axis: 1 μ rad (0.00006°)
Repeatability (Piezo)	Bidirectional: \pm 160 nm Rotational: \pm 15 μ rad (0.00086°)
Physical Dimensions	187 mm x 120 mm x 80.5 mm (7.36" x 4.72" x 3.17")
Weight	2.1 kg
Possible Sample Sizes	3.2 mm (1/8") SEM/FIB short pin stubs/mounts Diameter < 30 mm (1.18") Height < 10 mm (0.39")
Maximum Tilt Angle of Stage	\pm 10°
Max. Load Capacity	Up to 5 N

Application Ideas



The motorized stage with containment gets the most out of the microRPEP™ PRO. Almost all processes can be performed with this stage. Due to the pin fitting any 3.2 mm (1/8") pin stub or mount for SEM/FIB systems can be used. This opens up further possibilities in the field of sample preparation. The motorized stage was designed to prepare complex structures and can also manufacture geometries with undercuts. The stage is also best suited for cutting tensile test or cantilever specimen (*image 1*). Moreover, the motorized stage can be used to carry out cross-sections and box-millings. These tasks can also be easily performed on several positions on the same sample (*image 2*).



The containment makes this motorized stage suitable for applications in which additional protection for the sample or the environment is needed on a regular basis. Furthermore, it allows to treat samples under special conditions, e.g. in oxygen-free atmospheres. All this makes the stage suitable for applications with radioactive and otherwise hazardous materials. The bayonet mount ensures an easy handling - even with personal protective equipment.

The convenient size of the stage allows the transfer of the whole stage - with the sample still mounted in the containment - to a glovebox or other protected areas without risking contamination.

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