

## Cryo Liftout Package

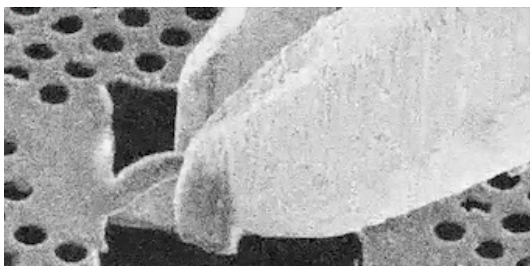
The Cryo Liftout Package comprises the cryoMGS-EM microgripper plug-in, an MM3A-EM micromanipulator, and iLO control software. The cryoMGS-EM is equipped with an insulator as well as a thermal coupling that connects to your



microscope's cryo shield or cryo stage. Thus, the gripper can be cooled to LN<sub>2</sub> temperature while the MM3A-EM remains at room temperature. This greatly reduces the thermal load for your microscope's cooling system.

The gripper arms are manufactured from tungsten probe tips and are piezo-controlled, allowing a step size of 10 nm. Custom-shaped gripper tips are available on request.

The included iLO control software provides intuitive control over the micromanipulator's motion.



By 'talking' to the microscope, the software is able to adjust the micro-manipulator's speed of motion to match the given magnification. The software also provides true Cartesian motion using the microscope PC's mouse (for X and Y motion) as well as an additional USB jog shuttle device (for Z motion). In addition, the software is equipped with park&restore functionality and can be used to control the microgripper.

### Package contents

- MM3A-EM micromanipulator
- cryoMGS-EM microgripper
- Mounting kit
- iLO control software

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