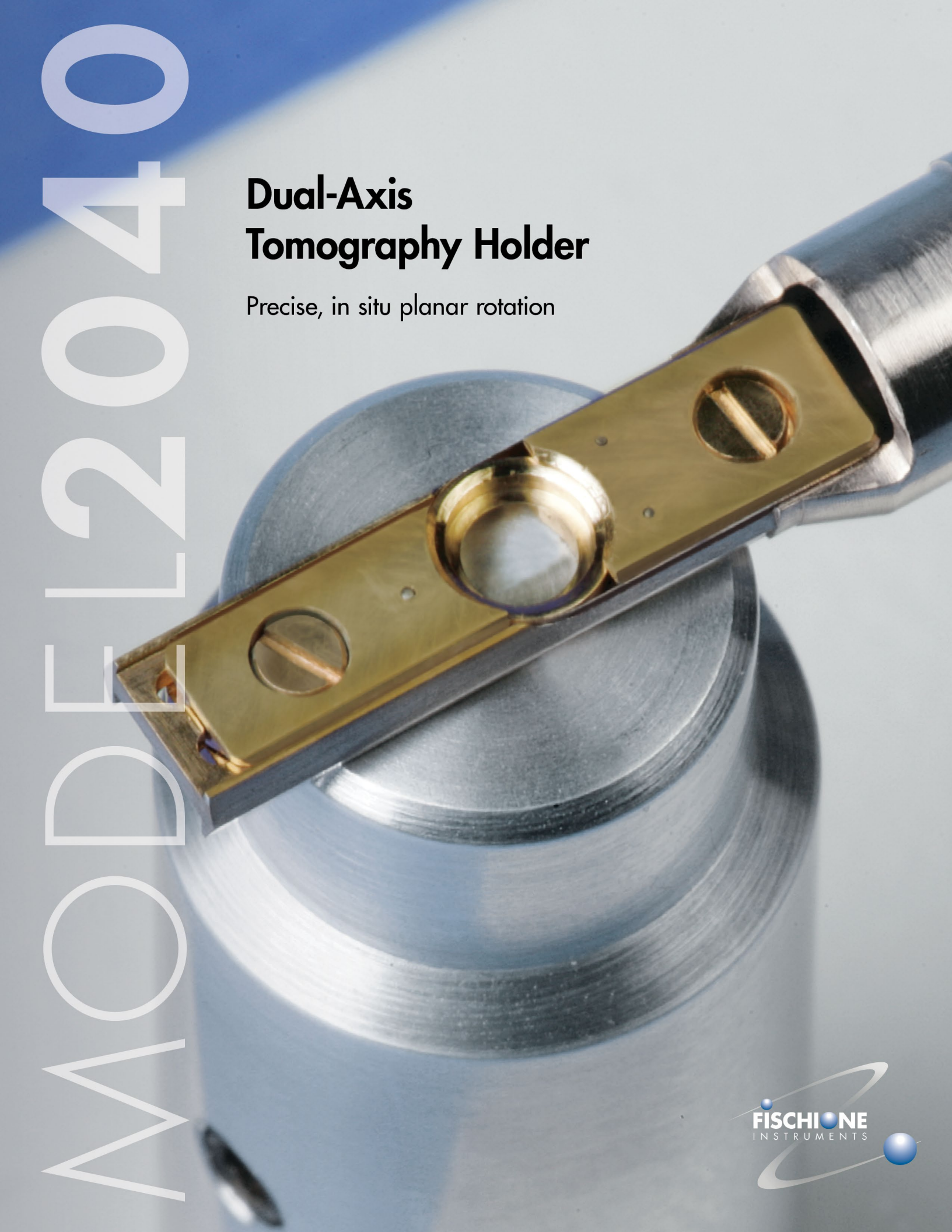
MODEL 2040

Dual-Axis Tomography Holder

Precise, in situ planar rotation



FISCHIONE INSTRUMENTS

MODEL **2040**

Dual-Axis Tomography Holder

A holder that features an optimal tilt angle range in narrow gap (~ 5 mm) pole-piece geometries, while maintaining microscope resolution.

- **Fully jeweled mechanism for ultra-precise planar specimen rotation**
- **Optimized tilt in pole-piece gaps as small as 5 mm**
- **Ideal for room temperature electron tomography**
- **Maximizes tomographic data obtained from the specimen**
- **Extended field of view**
- **FlexiClamp provides an easy, secure means of specimen retention**

PLASMA CLEANING

Fischione recommends that you clean the specimen and specimen holder with its Model 1020 Plasma Cleaner or Model 1070 NanoClean before insertion into the TEM.

During collection of tomographic data, the electron beam will be on the same area of the specimen for an extended time. As a result, organic contamination may build up on the specimen. A plasma cleaning time of 10 seconds to 2 minutes removes the contamination. Longer cleaning times can remove contamination spots caused by previous TEM viewing of non-plasma cleaned specimens.

When not in use, the holders should be stored under vacuum in Fischione Model 9010 Vacuum Storage Containers or the Model 9020 Vacuum Pumping Station.

Precise, *in situ* planar rotation

The Model 2040 Dual-Axis Tomography Holder is for TEM imaging or analysis that requires *in situ* specimen rotation. Acquiring a dual-axis tilt series enhances the information contained in the tomogram.

An optimal tilt angle range in narrow gap (~ 5 mm) pole-piece geometries

The Dual-Axis Tomography Holder features an optimal tilt angle range in narrow gap (~ 5 mm) pole-piece geometries, while maintaining microscope resolution. A fully jeweled mechanism provides ultra-precise, in-plane specimen rotation, while maintaining eucentricity.

The FlexiClamp is a spring-type, annular ring which securely clamps the specimen into the specimen cup. It maximizes specimen visibility, even at high-tilt angles. A dedicated tool facilitates the use of the FlexiClamp.

Initially, the specimen can be fully rotated through 360° to orient either the grid bars or a specimen feature to the alpha tilt axis. Once the specimen is properly oriented, the first tilt series is acquired. A two-position precision indexing mechanism provides 90° in-plane rotation. These features greatly facilitate the acquisition of a dual-axis tilt series.

Touch protection

Fischione's Advanced Tomography Holders are compatible with the TEM's touch-alarm that stops goniometer movement in the event that a pole touch occurs. Always be aware of the TEM's pole piece configuration and follow the microscope manufacturer's recommendation for operating the goniometer at high-tilt angles.

Ordering information

All Fischione Advanced Tomography Holders come with a dedicated loading station for secure specimen handling, tools to assist in specimen clamping, and a Fischione Model 9010 Vacuum Storage Container for storing the holder in a clean, vacuum environment.

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