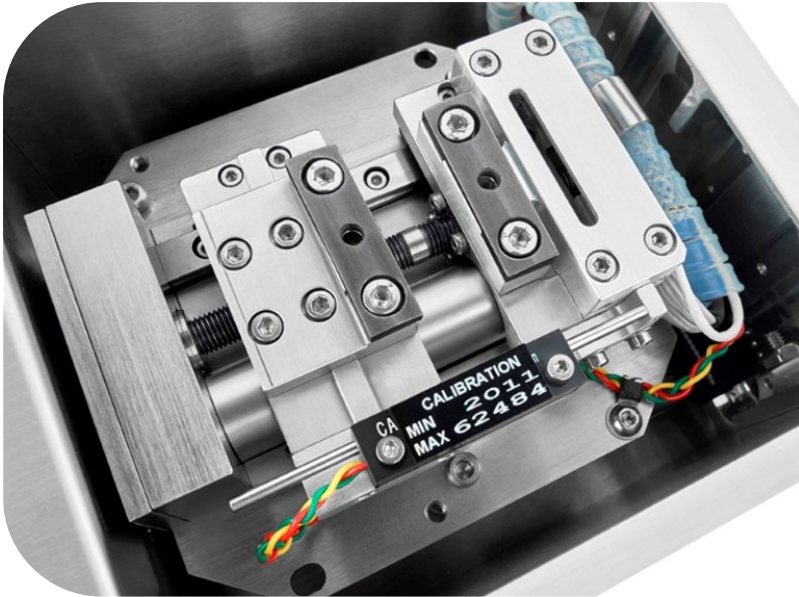


DATASHEET: MICROTTEST IN-SITU TENSILE AND COMPRESSION STAGES

SEM - EBSD - XRD - AFM - Raman - OM



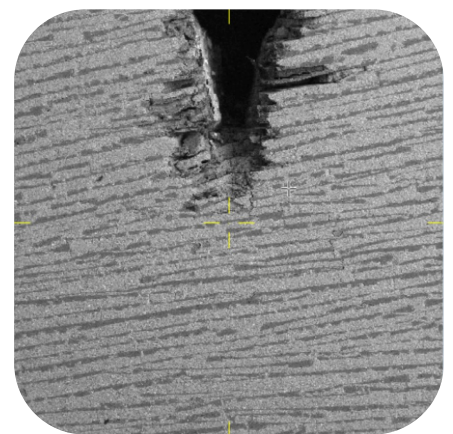
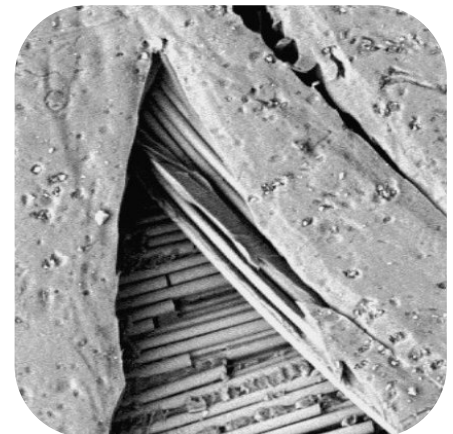
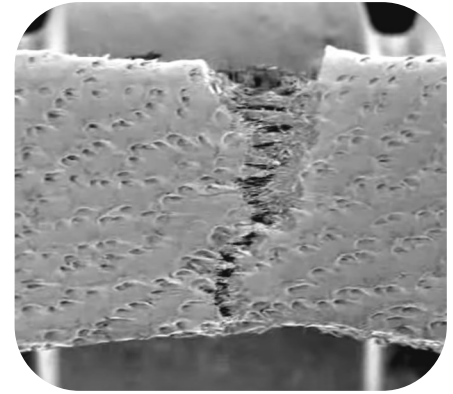
Features

- Tensile, compression & bending
- Loadcells from mN to 5kN
- Heating & Cooling
- Single or dual leadscrew

Deben tensile and compression stages are specifically designed to compliment a variety of in-situ imaging techniques such as **SEM, EBSD, XRD, AFM, Raman, and OM (Optical Microscopy)**. Most stages can also be used on the bench-top.

Not only do Deben stages provide information relating to tensile and compressive strength of a material, but unlike traditional tensile testing, they also provide insight into physical changes to a structure.

In addition, utilising in-situ tensile testing with **optional heating and cooling** allows simultaneous loading, variable temperature and imaging, which can provide new insights into material properties.



Compact Stages

MT200 Our most compact tensile and compression stage with up to 200N. Many versions are available including with Peltier heating/cooling (-25°C to +160°C) and petri-dish for in-liquid or biological testing. Compatible with most SEMs and optical microscopes.

MT1000 High force in a small package - ideal for benchtop SEMs or OM.

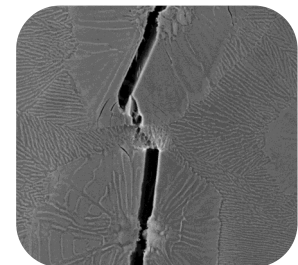
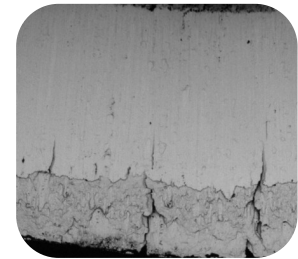
High Load Stages

MT2000/5000 Higher load stages suitable for SEMs with medium to large chambers and optical microscopes. Various options available including EBSD, heating and cooling, Quad-axial and Bi-Axial tensile testing.

Applications

- Composites, metals and polymers
- Fibres, thin films and biomaterials
- Ceramics and textiles

Stage Options



Stage	Max load	Exchange-able loadcells	Compatibility					System Options					
			SEM	Optical	XRD	AFM	Raman	Heating	Cooling	Vertical bending	Horizontal (3&4 point) bending	Loadcell options	Applications
MT200	200N	✓	✓	✓	✓	✓	✓	+160°C	-20°C		✓	2N, 5N, 10N, 20N, 50N, 100N, 200N	Polymers, thin films, bio-materials, textiles, fibres
MT1000	1kN	✓	✓	✓	✓	✓						150N, 1kN	Polymers, thin films, metal films, textiles, fibres
MT2000	2kN	✓	✓	✓	✓	✓	✓	+160°C	-20°C	✓	✓	150N, 660N, 2kN	Metals, metal films, polymers, composites
MT5000	5kN	✓	✓	✓	✓	✓	✓	+160°C	-20°C		✓	150N, 660N, 2kN, 5kN	Metals, metal films, polymers, ceramics
Dual Leadscrew stages													
MT2000 DL	2kN	✓		✓	✓			+525°C	-100°C		✓	1kN, 2kN	Metals, metal films, polymers, composites
MT5000 DL	5kN	✓		✓	✓			+525°C	-100°C		✓	1kN, 2kN, 5kN	Metals, metal films, polymers, ceramics
EBSD stages													
MT2000 ER	2kN	✓	✓								✓	200N, 1kN, 2kN	Metals, metal films, polymers, composites, room temperature
MT5000 ER	5kN	✓	✓								✓	200N, 1kN, 5kN	Metals, metal films, polymers, ceramics, room temperature
MT2000 EH	2kN	✓	✓					+600°C			✓	200N, 1kN, 2kN	Metals, metal films, polymers, composites
MT5000 EH	5kN	✓	✓					+1000°C			✓	200N, 1kN, 5kN	Metals, metal films, polymers, ceramics

