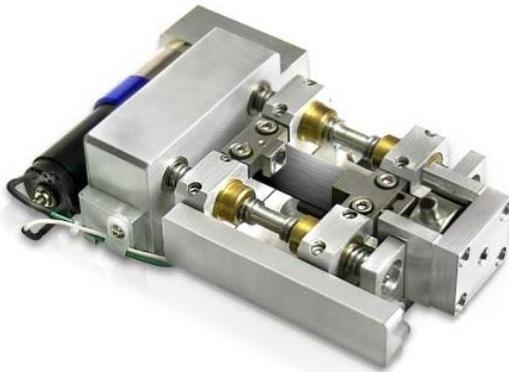




This workshop will demonstrate the MTII/Fullam SEMtesters and explore features and applications of these systems. Cutting edge features of the systems will be detailed, such as the advanced displacement encoder. MTII/Fullam SEMtesters utilize an advanced encoder system to measure stage movement directly on the axis of travel, eliminating lead screw and gear train tolerance error. This encoder requires no field calibration typically required by other measurement systems. The stage resolution is factory programmable down to 1.22nm per count, providing extremely high resolution strain measurement capability, and enabling very low strain rates. The advanced encoder packaging is very small, allowing fit into smaller microscope systems. Workshop attendees will be able to examine the high resolution motion control and strain measurement capabilities of the demo tensile tester.

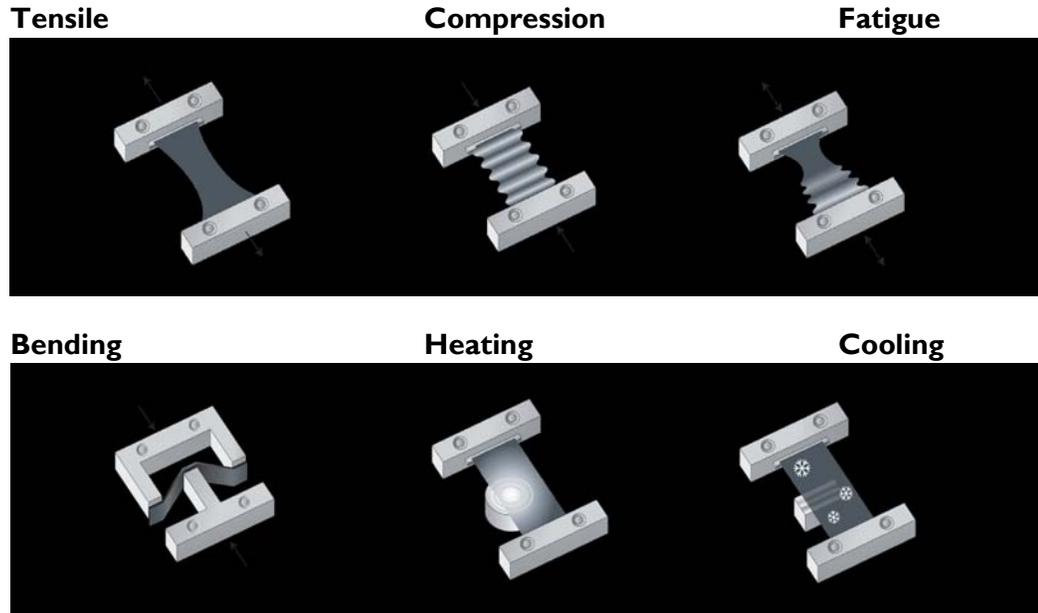


1000lb EBSD Tensile Tester



1000lb Standard Tensile Tester

MTII/Fullam tensile testers provide advanced mechanical testing capabilities for LMs, SPMs, SEMs, XRDs, AFMs and Bench top systems. The SEMtester line of products is capable of performing tensile, compression, bending, creep and fatigue tests on a variety of materials. Deformation and relaxation behavior can be observed under dynamic or static loading. Optional sample heaters or thermoelectric heater/coolers can be used during testing to simulate actual operating conditions. A variety of specimen clamps are available to accept virtually any sample configuration, and standard and EBSD testers are available. The workshop will detail, exhibit and demonstrate the different applications, testing capabilities, range of materials the systems can test, and the optional hardware available for use with the MTII/Fullam SEMtesters.



Sample Materials:

- | | | |
|--------------|----------------|---------------|
| • Composites | • Hairs | • Ceramics |
| • Metals | • Foods | • Wood |
| • Plastics | • Minerals | • Glass |
| • Polymers | • Concrete | • Paper |
| • Fibers | • Biomaterials | • Tire Rubber |

Options and Accessories:

- | | | |
|----------------------------------|---|---|
| • Interchangeable Load cells | • Vacuum Port Covers | • Gearboxes for Faster or Slower Speeds |
| • Specimen Heaters and Coolers | • Load and Strain Readout Systems | • Quick-connect Mounting Fixtures |
| • Compression Anvils | • Round, Threaded and Stud Type Specimen Clamps | |
| • 3 and 4 Point Bending Fixtures | • Water Cooling Systems | |

The workshop will examine the SEMtester intuitive operating package. To control experiments and collect data, the SEMtesters use a proprietary Windows-based control and material testing software system that complies with ASTM specifications. It is a powerful package that provides a user-friendly interface to set system test parameters and analyze data. Parameters are stored as “recipes” that can be called upon again for future tests. Results are provided real time, and stress-strain curves generated while testing is in progress. Key parameters such as peak load/stress, offset yield, modulus of elasticity and other measurements are reported. Raw test data and results can be exported in standard formats, making it easy to integrate with other data analysis and laboratory management systems. Many of the operating package functions and capabilities will be demonstrated and attendees will have the opportunity to ask questions about the operating package, as well as all of the applications and capabilities of the MTII/Fullam SEMtesters.

