



## Instron-Sacks Planar Biaxial Soft Tissue Testing System

Planar biaxial loading and control system: Four Instron electromechanical MicroTester actuators, two four-axis FastTrack 8800 digital controllers. Video-based strain control system: measures strain by tracking markers on specimen, controls based on this strain. Rapid imaging polarimeter: provides pixel-wise alignment maps of loaded tissue.

	Range	Accuracy	Resolution
Displacement	110 mm	0.1 $\mu\text{m}$	0.05 $\mu\text{m}$
Load Cell Set 1	5 N	0.05% of reading	0.05 N
Load Cell Set 2	500 N	0.05% of reading	5 N

### Accessories

- Temperature controlled saline bath to ensure sample hydration
- Vibration isolation table
- Video camera, VCR, monitor
- Clamps with adjustable grip pressure

### Specifications

Maximum ramp rate: 15.70 mm/sec

### Applications

- Planar mechanical testing
- Uniaxial, equibiaxial, non-uniform biaxial loading
- Determination of mechano-structural properties of soft tissues
- Dynamic characterization of viscoelastic properties
- Multiple simultaneous uniaxial testing (up to 4 independent actuators; 2 functional independent uniaxial test stations)
- Assessment of reorientation of fibers during mechanical loading