

A Breakthrough in Biomaterials Testing

BioTester

Easy-to-use Biaxial Test System for Biomaterials.

- Fast and accurate specimen mounting
- Test specimens as small as 3mm x 3mm
- Image analysis software
- Real-time graphing of data
- Integrated camera system
- Portable integrated design
- Affordable solution



Who are we?

CellScale provides scientific, medical and materials researchers with turn-key systems for measuring the mechanical properties of biomaterials.

Our focus is soft tissue – including skin, ligaments, blood vessels, heart valves, sclera, membranes, scaffolds - any planar biological or replacement tissue. We provide user-friendly software, an easy-to-use patented attachment system and effective data analysis tools.

Our foundation was laid at one of the world's leading research institutions – The University of Waterloo. We understand research and aim to provide effective solutions at a reasonable price.

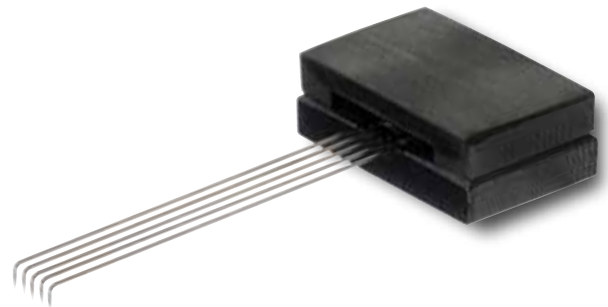
Explore our web site and contact us to learn more about our measurement systems.



Technical Specifications:

Specimen Size	3mm to 15mm
Force Capacity	500, 1000, 2500, 5000mN, 10N, 23N
Force Accuracy	0.2% of full scale
Maximum Elongation Rate	10mm/sec
Max. Strain Rate (5mm specimen)	200%/sec
Tracking and Analysis Software	Full motion and strain analysis
Report Generating Software	.avi WYSIWYG and Excel
Image Rate	15Hz – 1280 by 960

See a video demonstration: www.cellscale.com/video





BioTester

- A Synchronized video tracking and analysis

- B Illumination and adjustable lens for excellent video quality

- C BioRakes patented attachment method for quick and easy mounting

- D Integrated machine controls and data collection for fast and flexible testing

- E High resolution control delivers accurate measurement on small samples

- F Simple USB connection to host computer

- G Menu driven easy-to-use software

- H Live test status monitoring

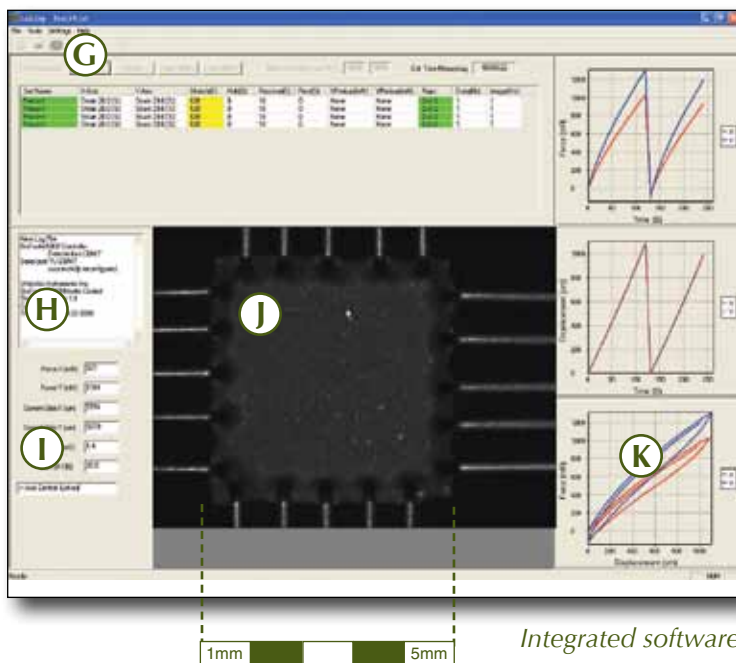
- I Live force and displacement monitoring

- J Live video with synchronized image capture and storage

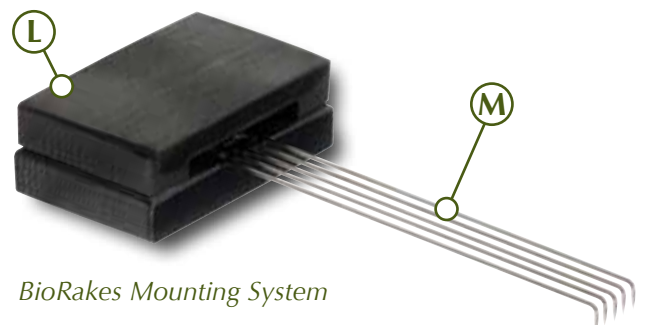
- K Live force / displacement graphing

- L Magnetically self-aligned mounting system

- M Precisely sharpened tines easily mount a wide range of materials



Integrated software



BioRakes Mounting System

Integrated Software Interface

Easy Test Setup and Image Analysis

Integrated software provides quick and easy menu-driven setup, with virtually an unlimited number of test stages and durations. Previously used tests or templates can be easily edited for quick test design. Live test status and data graphing provides real-time data monitoring. Analysis data can be easily exported to spreadsheets or other scientific modeling software.

Easy to Use

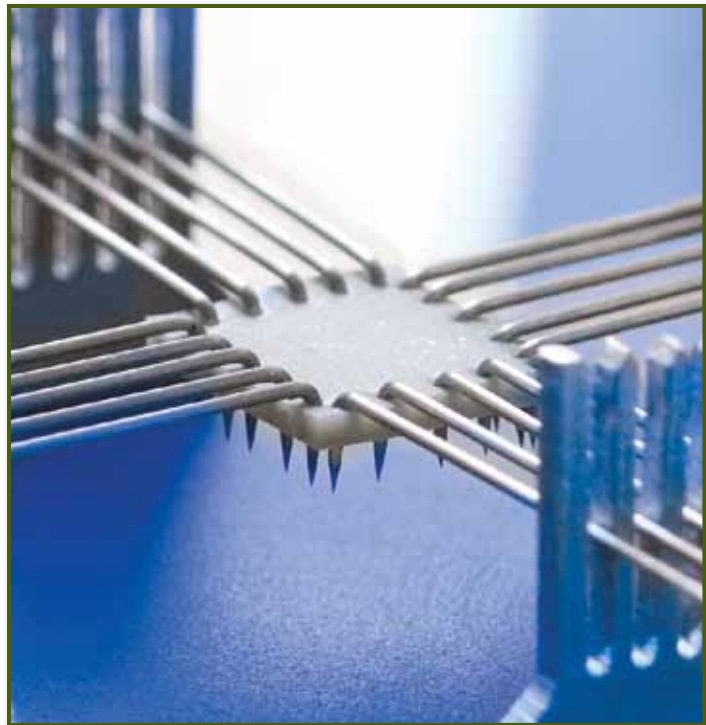
Our software features a user-friendly interface with live data graphing and imaging so the operator can immediately confirm that quality data are being collected.

To carry out a test, the user:

1. Chooses a template or user-defined test protocol
2. Uses BioRakes to attach the specimen to the automatically positioned tungsten rakes
3. Clicks on "Start Test"... it's that easy!

Quick and Accurate Sample Mounting

Tungsten rakes pierce the sample and provide uniform attachment and deformation across the edge of the sample. The sharpened BioRakes easily pierce tough tissues but do not damage fragile ones.



Sample mounted with BioRake System

Image Tracking and Analysis Software

BioTester allows for the collection of synchronized image, force and displacement data. BioTester includes image tracking software that can be used to review and analyze images collected during a uniaxial or biaxial test. This software allows previously captured test images to be analyzed quickly to

determine regional property variations and whether there are uniform strains in the specimen. This is critical to natural tissue measurement, where samples are typically not homogenous materials.

See a video demonstration at www.cellscale.com/video

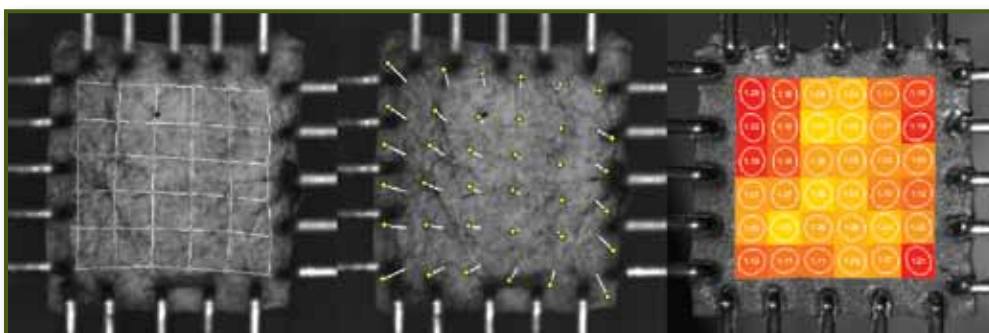


Image tracking and analysis software