



The **MechanoCulture product group** allows researchers to culture cells in a mechanically active environment. Configurations of these culture systems support single or parallel tests using a variety of flexible substrates and scaffolds. On-board controllers enable PC-independent execution of user-defined motion protocols.

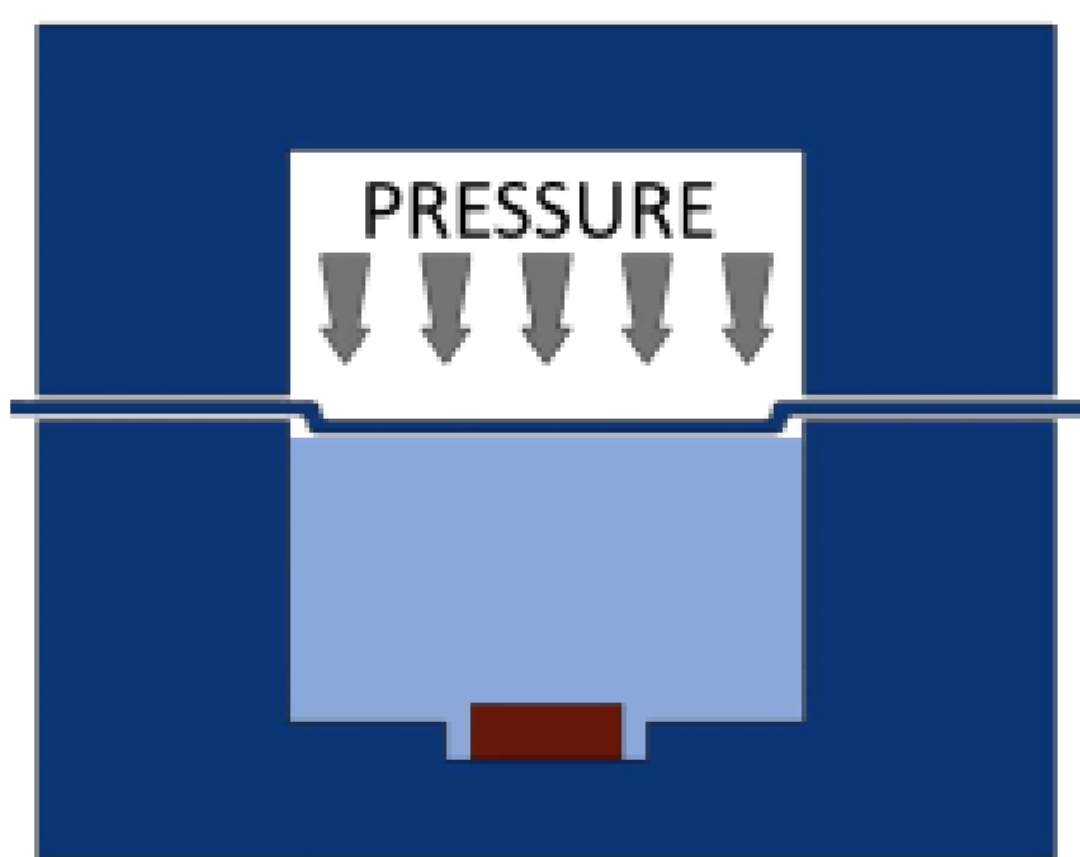
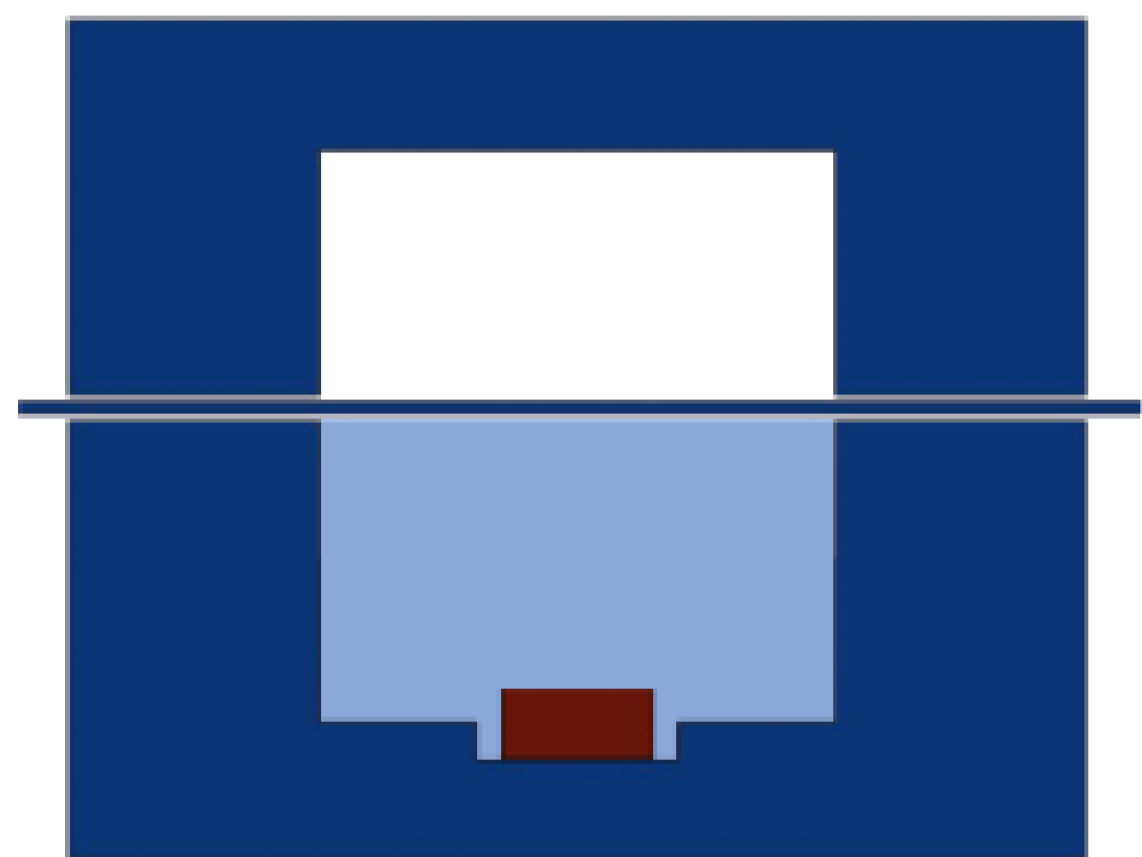
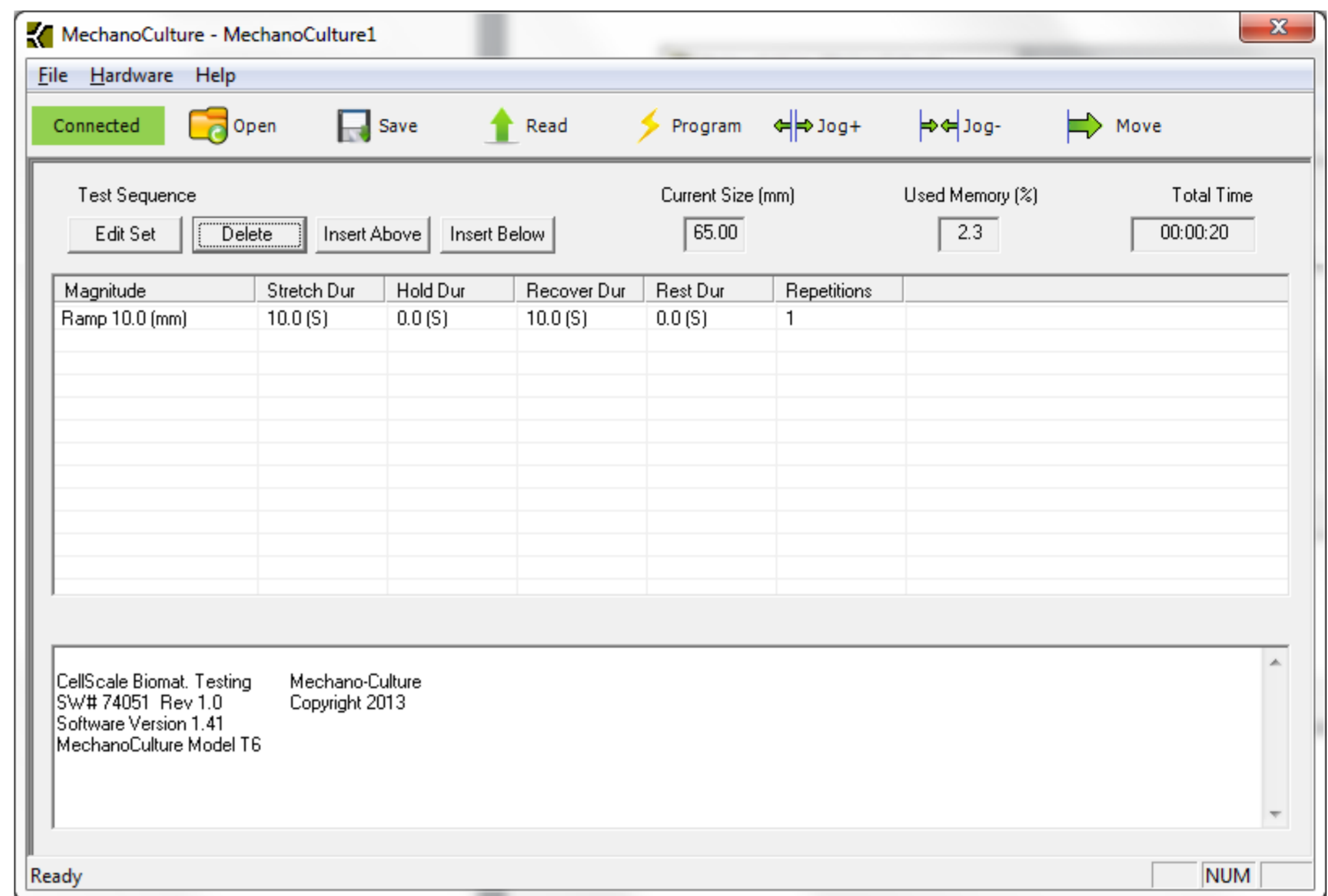
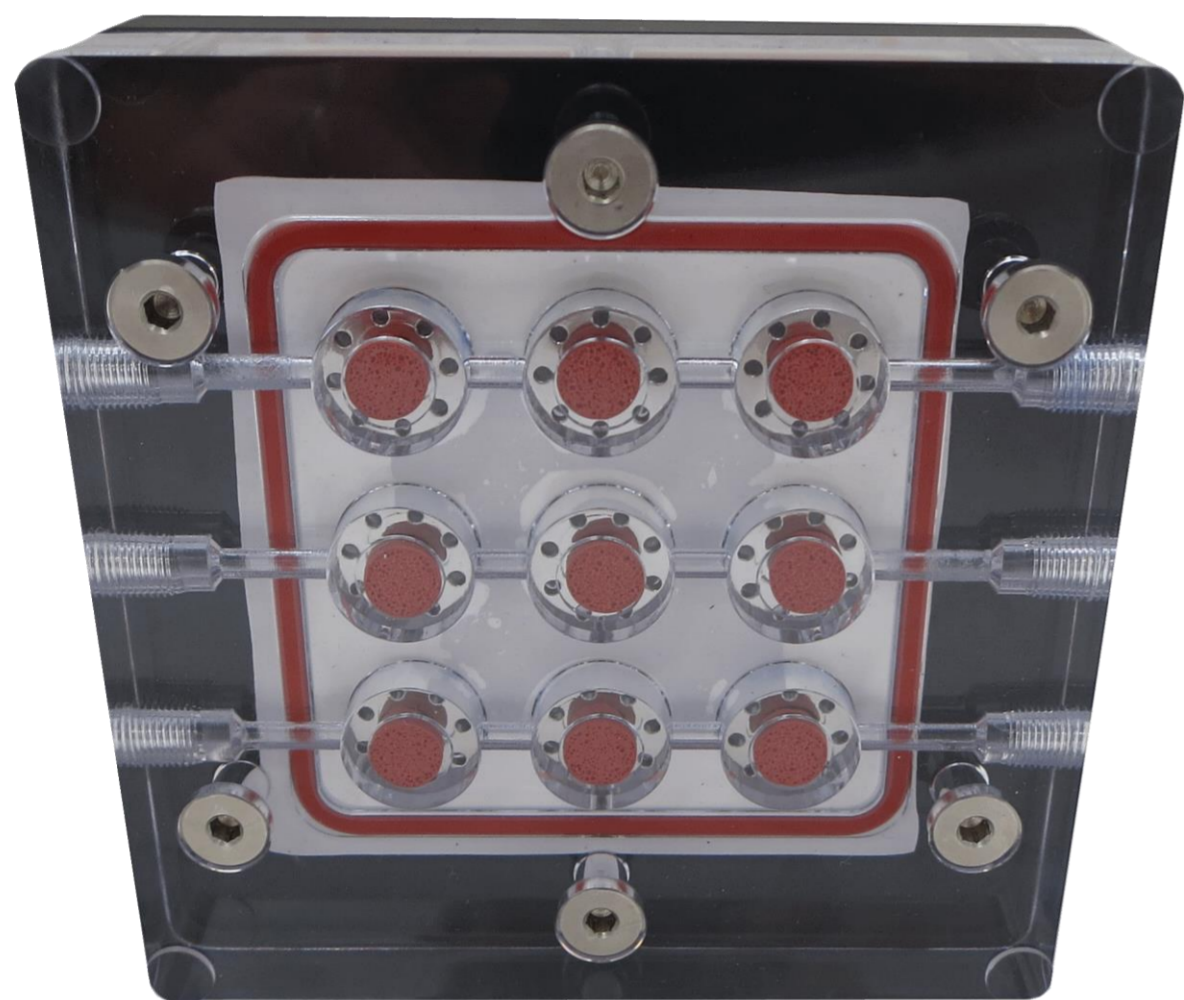
All MechanoCulture systems can be operated in an incubator environment. All cell-contacting components are made from autoclavable materials.

The **MechanoCulture TR** is capable of high throughput hydrostatic pressure stimulation in 9 independent wells. Pressure up to 700 kPa can be programmed onto the device at a frequency of 0.5 Hz. The well plate is highly polished to allow visual confirmation of specimen loading and imaging during the test.





The MechanoCulture TR can be programmed to run constant velocity or sinusoidal compression patterns. Magnitudes, frequencies, rest periods, and cycle counts can all be specified in the software application and programmed to the device.



Hydrostatic compression of the specimen (red) is achieved by filling the culture well to the top with media. Pressurizing the top chamber results in the flexible membrane (black line) deflecting downwards to press against the surface of the liquid.



CellScale Biomaterials Testing is the industry leader for precision biomaterial and mechanobiology test systems. Our products are being used at world-class academic and commercial organizations in over 30 countries around the globe.

Our mechanical test systems allow researchers to characterize the mechanical properties of biomaterials. Our mechanobiology technologies provide insights into the response of cells to mechanical stimulation.

CellScale's technologies are improving human health by helping researchers discover the causes of disease, improve medical treatments and devices, and advance regenerative medicine and other basic science research.

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