



MTS 1.5 and 3.0 Meter Uniaxial Seismic Simulators

Reproduce earthquake events in the lab – accurately and affordably

These systems are comprised of:

- » Compact-base simulator tables, 1.5 m x 1.5 m or 3.0 m x 3.0 m
- » Reliable fatigue-rated MTS actuators, specifically designed for seismic applications
- » Uniaxial Seismic Controller and Software provide accurate seismic simulation and credible testing results
- » Quiet and clean SilentFlo™ hydraulic power units, which can easily be incorporated into your existing lab
- » Leveling screws and efficient bolting features for easy integration into lab

MTS 1.5 m and 3.0 m Uniaxial Seismic Simulators are designed to evaluate the performance of structures during earthquake conditions with the superior quality and reliability you've come to expect from MTS – all at a cost lower than a comparable custom-designed system.

These affordable systems are ideally suited for labs that:

- » Perform basic research and component qualification tests
- » Do not require the unique performance of a custom designed system
- » Want quick installation and integration into their existing facility

MTS Reliability

Like larger, custom MTS seismic systems, these simulators employ state-of-the-art MTS seismic controller technology to reproduce the exact displacement, velocity and acceleration of an earthquake event and gain reliable and credible testing results.

Leveraging more than 35 years of Seismic Simulation experience, MTS has created a compact, safe and integrated solution for your lab's growing seismic testing needs.

System Performance Capabilities

The 1.5 m and 3.0 m Uniaxial Seismic Simulators are ideal for performing fundamental seismic simulator research and component qualification tests. The 1.5 m simulator has a maximum specimen mass of two tons, and the 3.0 m simulator has a maximum specimen mass of ten tons. Both of these models are shipped as integrated units with the structural base plate pre-assembled and aligned at the factory for easy installation onto your existing strong floors.

Dependable Seismic Controller

The MTS Uniaxial Seismic Controller is based upon industry proven MTS seismic controller technology developed specifically for accurately reproducing earthquake conditions. The controller provides three-variable-closed loop control along with adaptive control and differential pressure stabilization.

The control hardware architecture is based on digital signal processing technology, which optimizes the performance of the embedded control system to allow for the implementation of advanced control and data filtering operations. The control panel software runs on a PC and has a graphical user interface consisting of interactive, modeless dialogs that are used to enter system parameters and execute tests.

High-Performance MTS Hydraulic Power Units

MTS seismic simulators are designed to work with the top-of-the-line MTS models 505.30 and 505.120 SilentFlo™ Hydraulic Power Units. These amazingly quiet HPUs operate at only 58-72 dB(A), below normal ambient levels commonly found in laboratory environments. Highly efficient and easy to operate, these HPUs are TÜV and ETL certified and designed to meet U.S. OSHA and European CE requirements.

MTS Service, Training and Support

MTS' commitment to its customers continues long after system delivery and installation. We provide a broad range of services to ensure optimum seismic simulation system reliability and longevity. Through our training programs, we also help users acquire the technical know-how and skill to get maximum benefits from our equipment.

To Learn More

Consult an MTS engineer regarding your facility's need for reliable, accurate and affordable earthquake simulation.



Specifications	1.5 m Simulator	3.0 m Simulator
Maximum Actuator Stroke	± 200 mm	± 250 mm
Maximum Specimen Overturning Moment	10 meter tons	30 meter tons
Maximum Specimen Weight	2 metric tons	10 metric tons
Maximum Table Acceleration	1 g @ rated load	
Maximum Table Velocity	1 m/s @ rated load	
Test Frequency	0-50 Hz	



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ISO 9001 Certified QMS

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