

MTS 3.0 Meter Biaxial Seismic Simulator

Reproduce earthquake events in the lab – accurately and affordably

The MTS Biaxial Seismic Simulator is comprised of:

- » Compact 3.0 m x 3.0 m simulator table
- » Reliable fatigue-rated MTS actuators, specifically designed for seismic applications
- » Biaxial 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

The MTS 3.0 m Biaxial Seismic Simulator is 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.

This affordable system is ideally suited for:

- » Labs performing basic research and component qualification tests
- » Labs that do not require the unique performance of a custom designed system
- » Labs that want quick installation and integration into their existing facility

MTS Reliability

Like larger, custom MTS seismic systems, this simulator employs 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

With a maximum specimen mass of ten tons, the 3.0 m Biaxial Seismic Simulator is ideal for performing fundamental seismic simulator research and component qualification tests. The simulator is shipped as an integrated unit with the structural base plate pre-assembled and aligned at the factory for easy installation onto your existing strong floor.

Dependable Seismic Controller

The simulator's 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 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.



3.0 m Biaxial Seismic Simulator
± 250 mm
30 meter tons
10 metric tons
1 g @ rated load
1 m/s @ rated load
0-50 Hz



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To Learn More

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

Specifications subject to change without notice.

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