

Model 831.50 x 1000Hz Elastomer Test System Features High Frequency Test Capability



Benefits

- ▶ Speed, accuracy, and reliability
- ▶ Stand-alone system does not require a reaction mass
- ▶ Accuracy and repeatability to 1000 Hz
- ▶ Tests both materials and components
- ▶ Complete suite of software applications lets you perform a wide range of tests

The MTS Model 831.50 high frequency elastomer test system was engineered to meet the high frequency, high precision testing requirements of the automotive and materials industries. Its standard configuration features a frequency range of 0.01 to 1000 Hz, with +/-10 kN force and displacements of +/-20 mm.

The 831.50 was developed for tests of material properties as well as components such as engine mounts, bushings, transmission mounts, and other vibration damping and control elements. It is designed for measuring dynamic properties such as K^* , phase, E^* , tan delta, energy, and damping coefficients over its wide frequency range.

Its unique load unit was engineered with hollow columns and a stiff, but light, cross-head that both minimizes column lengths and avoids introduced resonances. The load cell is recessed in the base to minimize the

height of the exposed columns. Other load frame features include a large seismic base isolated from floor vibrations and a special hydraulic system capable of sustained operation at frequencies up to 1000 Hz.

In addition to its standard elastomer application software, the Model 831.50 can employ MTS RPC® simulation software. Adding it increases the capability of the system to perform fatigue and durability testing, coupled with dynamic property measurements. By being able to sequence between fatigue/durability and measurement/characterization processes, you can monitor dynamic changes in the component or material due to the cumulative effects of load fatigue cycles.

An optional temperature chamber package allows you to observe the effects of temperature on fatigue, characterization, and degradation.



Specifications

Force	+/-10 kN
Displacement	+/- 20 mm
Frequency	0.01 to 1000 Hz
Temperature	-100 to 200 C
Oil flow requirements	23.5 Lpm
Electrical requirements	
Console	2 kW
HPS	11.2 kW
Furnace	5 kW

FlexTest GT

The FlexTest GT is a proven control solution for performing complex materials and component testing.

The FlexTest GT runs with MTS 793 software and a multitasking Windows™ operating system, allowing you to take advantage of the full array of proven MTS test application software.

Facility Requirements

The footprint of the Model 831.50 is approximately 1 x 1.2 meters. Weight is 3000 kg. The frame rests upon rubber isolation pads. No special foundation is required for vibration isolation.

For More Information

Contact your local MTS sales engineer, or call, write, fax, or e-mail the company for more information, or to initiate a technical discussion.