

HST-EFT
Electronic servo dynamic fatigue testing machine

— Actuator is upper



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• FUNCTIONAL OVERVIEW

It is mainly used to detect the static and dynamic mechanical properties of tiny material samples, parts and components, and elastomers. It can realize fatigue tests such as tension, compression, and bending, as well as high-cycle fatigue, low-cycle fatigue, crack extension, fracture toughness and other tests, and realize various waveform outputs such as sine wave, triangle wave, and square wave. Equipped with high-temperature furnace, high and low temperature box and corrosion box, it can realize mechanical testing in different environments.

• FEATURES

- The main machine is a closed T-type frame structure with high frame rigidity, no backlash, and good stability.
- The T-type table has high strength and strong expansibility
- It can be installed with test fixtures to realize static and dynamic fatigue mechanical tests of various standard samples; it can also directly install various parts and structural parts to realize dynamic and static mechanical tests
- The electronic actuator is placed on the top, with compact structure, small size, no need for lubricating oil and hydraulic oil, clean environment, no noise, and maintenance-free
- The up and down movement of the beam is electrically adjusted to meet the mechanical testing of different types of samples

• SPECIFICATIONS

MODEL	EFT1A	EFT2A	EFT3A	EFT5A	EFT10A	EFT20A	EFT30A	EFT50A
Max. Test Force	±1000N	±2000N	±3000N	±5000N	±10000N	±20000N	±30000N	±50000N
Test Force Measuring Range	Dynamic 1%~100%FS, Static 0.5%~100%FS							
Accuracy of Test Force Measurement	Dynamic ±1%, Static ±0.5%							
Test Force Resolution	1/500000 yards							
Displacement Measuring Range	150mm (±75mm)							
Displacement Resolution	0.001mm							
Displacement Indication Accuracy	Indication accuracy from 1% within ±0.5%FS							
Deformation	Indication accuracy from 2% within ±0.5%							
Test Frequency Range	0.01–10Hz							
Load Frame	Two-column platform type, manual locking							
Effective Distance Between Columns	475mm		500mm					
Column Diameter	70mm							
Frame Stiffness	3 ×10 ⁸ N/m							
Installation Type of Electric Control System	Top-mounted							
Crosshead Lifting	Electric lifting							
Main Waveforms	Sine wave, pulse wave, square wave, sawtooth wave, random wave							
Fixtures and Accessories	Standard compression fixture expandable, for stretching, bending, shearing, etc. (optional)							