

HST-HFT-BG High and Low Temperature Dynamic testing Systems



1. Application

This series computer Control Electro-hydraulic Servo Fatigue Testing Machine is mainly used to detect a variety of metals, non-metallic materials and small movable member, the static mechanical properties test. It can do tensile, compression, bending, low cycle and high cycle fatigue, crack growth, fracture mechanics test under sine, triangle, square wave, trapezoidal wave, random wave, combination waveform.

High and low temperature environmental chamber: The temperature range is $-70^{\circ}\text{C} \sim +350^{\circ}\text{C}$ with various specifications to choose from, and the refrigeration methods include liquid nitrogen refrigeration and compressor refrigeration. It can also be equipped with a fulltemperature hydraulic clamp, the chuck is directly

inserted into the box, and the sample clamping and installation does not require other transition links, which is very stable and reliable. Suitable for fatigue tests of composite materials, adhesives, rubber, etc.

High temperature furnace: The temperature range is $+100^{\circ}\text{C} \sim +1700^{\circ}\text{C}$, a small square high temperature furnace, plus a high temperature extensometer, suitable for low-cycle fatigue tests of metals. Salt spray chamber: The space size and salt spray precipitation can be customized according to user needs. Suitable for fatigue tests and fracture mechanics tests of corrosion-resistant materials.

2. Standards

ASTM D3039, ASTM D2344, ASTM D790, ASTM D3518, ASTM D5023, ASTM D5024, ASTM D5026, ASTM D5418, ASTM D5992, ASTM D6272, ASTM D7028, ASTM E21, ASTM E290, ASTM E517, ASTM E646, ASTM E8-E8M, ASTM E9, ISO 10113, ISO 10275, ISO 14125, ISO 6892-1, ISO 6892-2, ISO 7438, ISO 14129, ISO 527-4, ISO 527-5, ISO 6721-4, ISO 6721-12, EN 2561, EN 2562, EN 2597, EN 2746, EN 6031

3. Specifications

MODEL	HST HFT25B	HST-HFT50B	HST-HFT100B	HST-HFT250B	HST-HFT500B
Maximum dynamic force (kN)	± 25	± 50	± 100	± 250	± 500
Maximum static force (kN)	25	50	100	250	500
Load range	2%-100%FS				
Testing machine accuracy	Dynamic loading accuracy: $\pm 1\%$				
Actuator dynamic stroke (mm)	150				
Displacement measuring range (mm)	0~150(± 75)				
Displacement measurement resolution (mm)	0.001				
Deformation indication relative error	$\pm 0.5\%$				
Sine wave test Frequency (Hz)	Standard: 0.01~30; Optional: 0.01~50; 0.01~100(Static pressure support cylinder)				
Vertical test space (mm)	800	800	800	1000	1000
Working table height (mm)	825	825	825	825	825

Effective distance between columns(mm)	545	545	545	635	635
Column diameter(mm)	80			76.2	
Main frame stiffness	3×108				
Machine frame sizes(mm)	1010X720X2900			1148X795X3252	
Machine frame weight(KG)	1200			1200	
Coaxiality of hydraulic fixture	5%				
Power supply	AC 380V± 10%, 50Hz				
Temperature range	-60℃～+300℃;-70℃～+300℃;-100℃～+300℃;200℃～+1200℃				

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