

800 Series Electrodynamic Fatigue Test System

Force Range: Subgram to 9 kN (2000 lbf)

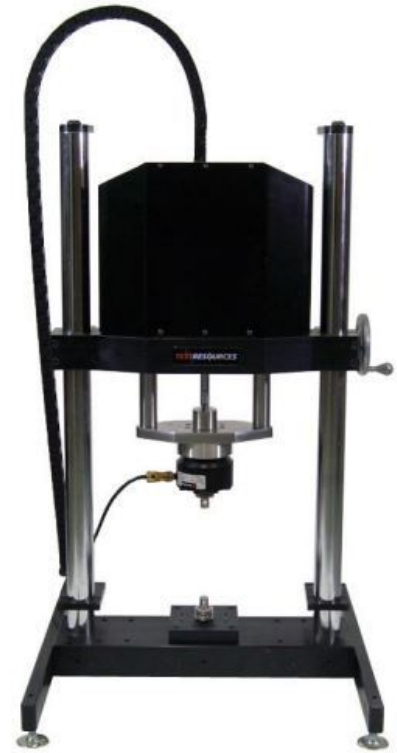
Speed Range: Static to 15 Hz

Overview

800 tabletop test systems perform mechanical tests of materials, devices and components with load capacities up to 9 kN (2000 lbf). Systems are configured from a selection of actuators, controllers and transducers to serve specific application needs.

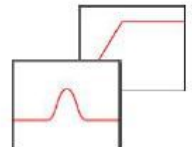
800 Systems include:

- Dual Column load frame
- E2, E3 and E4 Series Electrodynamic Actuators with Power Pack
- Load cell and encoder with optional extensometer or LVDT
- TestResources Servocontroller
- General Purpose Test Software
- Computer
- Optional Accessories

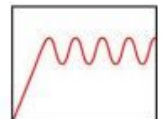


Perform Static, Dynamic and Fatigue Tests

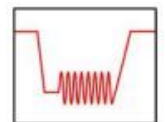
Monotonic Static and Dynamic Tests including Tensile, Compressive, Flexural, Stress Relaxation, Indentation or Creep Tests. Slow or quick ramps in load, strain or position control. Set up and collect force, strain, and displacement data for materials characterization, perform stress – strain plotting, and calculate strength properties. Special applications software products available to automate multi-step creep and stress relaxations tests to get more data out of each test run. Generate impact loads and capture high speed force, strain, and displacement data for materials characterization or product performance.



Constant Amplitude Fatigue, Fracture & Cyclic Tests including Tension / Tension, Compression / Compression, and Tensile / Compression (thru zero) Fatigue Tests. Run load or strain controlled cyclic fatigue tests to determine cycles to failure or to prove your device meets endurance requirements. Adaptive peak valley control feature adjusts amplitude as test sample responds.



Dynamic Characterization Tests including Tension, Compression, and Shear. Sweep time and temperature, change strain and load rates and gather accurate stress and strain data to measure time-dependent characteristics of viscoelastic materials using special test software. Analyze and report the full dynamic properties of gels, elastomers, polymers, tissues and biomaterials.



Random Fatigue including spectrum and point loading - Create your own test, Mix n' match - Import your loading profile from a spreadsheet and produce customized point by point waveforms. You can mix ramps and sinusoids, switch control modes during a test condition, or customize your data collection process.



Electrodynamic Test System Configurations

Actuator Models	E216	E326	E316	E426
Static Force Rating	± 2.5 kN (575 lbf)	± 3 kN (675 lbf)	± 5.7 kN (1,275 lbf)	± 8.7 kN (1,975 lbf)
Dynamic Force Rating	± 2.5 kN (575 lbf)	± 3 kN (675 lbf)	± 5.7 kN (1,275 lbf)	± 8.7 kN (1,975 lbf)
Velocity Max	200 mm/s (8 in/s)	250 mm/s (10 in/s)	125 mm/s (5 in/s)	250 mm/s (10 in/s)
Stroke	150 mm (6 in)			
Cyclic Range	Static to 15 Hz			

* Actuators are matched to specific test requirements and specifications shown are general in nature. Multiple options are available to satisfy specific customer needs and may impact final dimensional specifications. Performance curves and life predictions for fatigue testing applications are available. Discuss all critical specifications with an application engineer.

Frame Options

Load Frame Models	800-36	800-48	800-XX
Column Clearance	405 mm (16 in)	405 mm (16 in)	Made to Order
Column Length	900 mm (36 in)	1,200 mm (48 in)	
Vertical Test space	0 to 810 mm (32 in)	0 to 1,110 mm (44 in)	
Footprint without outriggers	165 mm (6.5 in) x 560 mm (22 in) W	165 mm (6.5 in) x 660 mm (26 in) W	
Weight estimate	44 kg (100 lb)	55 kg (125 lb)	

Contact an application engineer to configure a solution to your application requirements.