

## 820 Electrodynamic Fatigue Test System

### For Static, Fatigue, Dynamic Testing

Force Ratings to 50 kN (11,250 lbf)

Speed Range to 15 Hz

#### Overview

The 820 test systems characterize material properties including static tension, compression, fracture and fatigue properties of materials and components over a wide range of loads, strains and strokes.

820 Systems include:

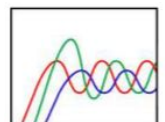
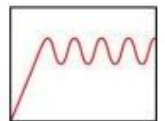
- 820 Series Stiff Floor Standing dual column load frame
- E6 Series Electrodynamic Actuator with Power Pack
- Load cell and position encoder
- Test Software
- PC
- Optional accessories such as chambers, extensometers, T-slotted baseplate
- On site training

#### Static, Dynamic or Fatigue Tests

**Monotonic Static and Dynamic Tests** Perform Tensile, Compressive, Flexural, Stress Relaxation, Indentation or Creep Tests Perform slow or quick ramps in load, strain or position control. Set up and collect force, strain, and displacement data for materials characterization, 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.

**Fatigue, Fracture & Cyclic Tests** Perform Tension / Tension, Compression / Compression, 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. Optional metals research application software includes full suite of LCF and fracture mechanics software programs.

**Multiaxial Tests** Upgrade to Combined Axial / Torsion Tests Add a torsion channel to enable combined Tension, Compression, Torsion, Pressure or whatever channels you wish with the expansive controller and characterize your new material by testing it in the final application. Use as many modes of control as you wish and perform in-phase or out-of-phase modeling.



## 820 Family

Model	E630	E516
Static Force Rating	± 50 kN (11,500 lbf)	± 30 kN (7,000 lbf)
Fatigue Rating (100 MM cycles)	± 50 kN (11,500 lbf)	± 30 kN (7,000 lbf)
Velocity Max	250 mm/s (10 in/s)	100 mm/s (4 in/s)
Stroke	± 125 mm (± 5 in)	± 150 mm (± 6 in)
Max Frequency	15 Hz	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. Performance curves and life predictions for fatigue testing applications are available. Discuss all critical specifications with an application engineer.

Load Frame Model	-48
Frame Type	Tabletop or Floorstanding
Column Clearance	500 mm (20 in)
Column Length	1,200 mm (48 in)
Vertical Test space	1,050 mm (42 in)
Weight	650 lb (tabletop)

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