

Mechanical (Fatigue) Test Instruments

Many materials work under repeated loads and vibrations during their usages. The loads shall not cause any damage when applied once, but only after a certain number of repetitions, in parts under repeated stresses, cracks and breakages can be occurred. This fatigue test instrument, is used to determine the cracking on the surface and the subsequent breakage. It has a prominent role in the determination of the mechanical properties of metal, composite, polymer and ceramic materials also research and R&D studies.



EHF-EV200k2-040-0A



EHF-LV020K2-020

Fatigue Test Instrument Applications:

- Machinery such as automotive parts, aircraft components, engines, compressors, turbines, pumps parts, orthopedic, dental implants etc.

Company Name: SHIMADZU / **Model:** EHF-EV200k2-040-0A

Tensile test, compression test, 3 points bending test, fatigue test, breaking tests can be done.

Dynamic capacity: ± 200 kN

Static capacity: 240 kN

Maximum frequency: 20 Hz

Cylindrical sample diameter: 8-30 mm

Prismatic sample size: 0-20 mm

Compression plate diameter: 160 mm

3 point bending test distance between supports: 120-240mm

Company Name: SHIMADZU / **Model:** EHF-LV020K2-020

Tensile test, compression test, 3 point and 4 point bending test, fatigue test, breaking tests
high temperature and low temperature tests can be performed.

Dynamic capacity: ± 20 kN

Static capacity: 26 kN

Maximum frequency: 50 Hz

Movement capacity: ± 25 mm

Cylindrical sample: 6-16 mm

Prismatic sample size: 0-12 mm

Compression plate diameter 60 mm and 3 point bending test distance between supports 30-100 mm.

4 point bend test is between 15-50 mm between upper supports.

Extensometer: Gauge Length 50 mm. Move distance +25 / -5 mm

Clip Gauge

High / Low Temperature: Gauge Length 5 mm. Movement distance 5 mm. Max 10 Hz

Room temperature: Gauge Length 3 mm. Movement distance 5 mm. Max 10 Hz

Thermostatic Chamber: -70 / +300 C

Other:

Clevis jaws for fracture toughness pin hole diameter: 12,5 mm

Clevis jaw width for fracture toughness: 25 mm