

High-Temperature, Low-Strain Extensometer

Precision strain-gaged extensometer

OVERVIEW

The Model 632.57 High-Temperature, Low-Strain Axial Extensometer is a water-cooled strain-gaged precision instrument for measuring strain and displacement at temperatures up to 1600°C (2900°F). With a maximum travel of ± 1.25 mm (± 0.050 in), these extensometers accurately and precisely measure strain in high-temperature tension, compression, and through zero fatigue testing applications.

The Model 632.57 contains the strain gage cross flexure design that was invented and patented by MTS nearly 50 years ago. The cross flexure allows for true center point bending for high sensitivity, excellent durability for through failure testing, and low activation forces enabling extremely low contact forces.



Strain-gaged extensometer

BENEFITS

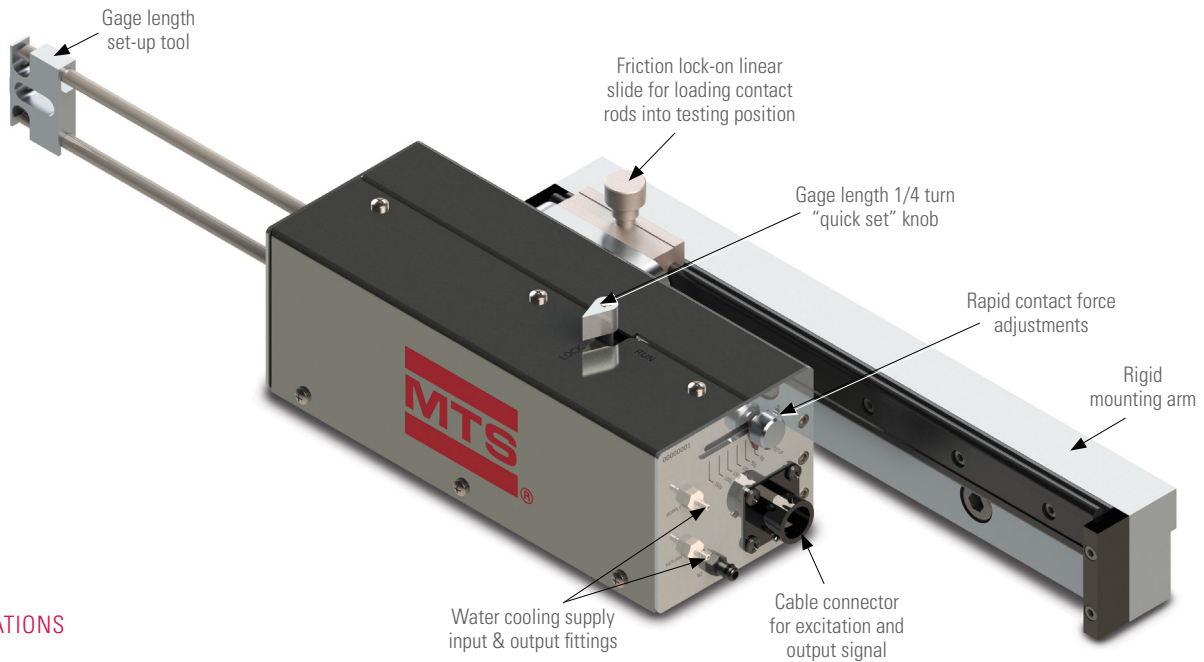
- » Automatically set the gage length with the patent-pending quick-set knob
- » Mount extensometer while the specimen is hot
- » Test up to 1200°C (2200°F) with high purity alumina rods or 1600°C (2900°F) with silicon carbide rods
- » Easily adjust specimen contact force from 100 g to 500 g
- » Use 152 mm (6.00 in) or 83 mm (3.25 in) extension rods for testing in MTS high-temperature furnaces
- » Rugged design allows for specimen testing through failure
- » Achieve excellent dynamic accuracy and stability for testing at frequencies up to 10 Hz as first bending mode natural frequency is greater than 150 Hz
- » Quick disconnect water-cooling hoses and signal cables
- » Meet or exceed requirements for calibration according to ASTM E83 Class B1 or ISO 9513 Class 0.5 standards.

HIGH-TEMPERATURE APPLICATIONS

- » Tension
- » Compression
- » Through Zero Fatigue
- » Strain-controlled Testing

SUPPLIED PARTS

- » Includes one set of extension rods. Specify v-chisel rods for round specimens or convex flat chisel rods for flat or round specimens.
- » Mounting bracket or column mounting bracket and controlled temperature water cooling supply sold separately.



SPECIFICATIONS

- » **Output Sensitivity:** ± 2 mV/V nominal
 ± 1.25 mm (0.050 in) travel
- » **Cyclic Testing:** up to 10 Hz
- » **Linearity:** 0.15% of full scale
- » **Hysteresis:** 0.1%

Model	Gage Length	Measuring Range	Maximum Temperature	Total Contact Force	Length of Extension Rods
632.57F-01	25 mm	+5% / -5%	1600°C	100-500 g	152 mm
632.57F-01	25 mm	+3% / -3%	1200°C	100-500 g	83 mm
632.57F-04	12 mm	+5% / -5%	1600°C	100-500 g	152 mm
632.57F-04	12 mm	+3% / -3%	1200°C	100-500 g	83 mm
632.57E-01	1.00 in	+5% / -5%	2900°F	100-500 g	6.00 in
632.57E-01	1.00 in	+3% / -3%	2200°F	100-500 g	3.25 in
632.57E-04	0.50 in	+5% / -5%	2900°F	100-500 g	6.00 in
632.57E-04	0.50 in	+3% / -3%	2200°F	100-500 g	3.25 in



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