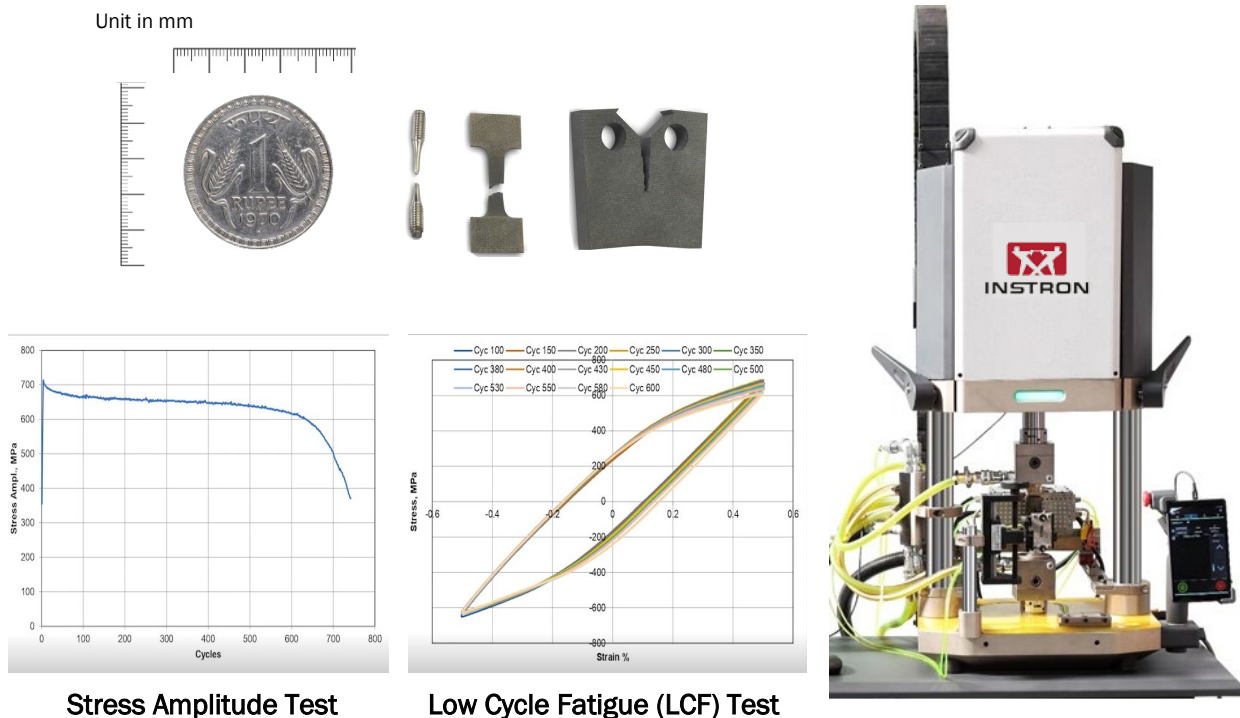


HIGH TEMPERATURE LOW FORCE TEST SYSTEM

LF-OX-XXXX

The LFS is a comprehensive solution for testing materials in the 2 kN to 10 kN range at temperatures upto 1000°C. The systems are fully automated and ideal for research organizations and industries interested in additive manufacturing, microelectronics, metals, plastics, resins, elastomers and biomaterials. The system has a stiffer loadframe, precision servo-controlled actuators, miniature furnace, ISO certified load cells and best-in-class high performance DSP digital controllers. Grips, fixtures, baths and environmental chambers are available for custom applications. The LF-XXX system is well-suited to perform Tension Compression, LCF, Fracture Mechanics and Flexural tests on regular as well as miniature specimens.



LFS Test System

LF-XXX is capable of applying compressive and shear loads on specimens in three orthogonal axes.

- All Electric, no hydraulics involved
- Fatigue rated system for room and high temperature operation
- Miniature box-type furnace upto 1000° C
- Manual self-aligning Universal grips with multiple attachments
- Tabletop Single footprint system with integrated controller enclosure
- Application software as per ASTM Standards*

Universal Grips

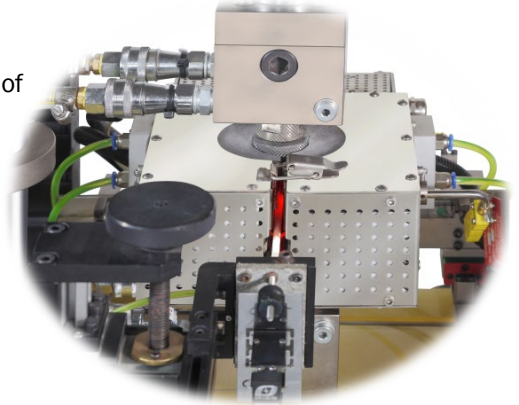
- Regular/Miniature Specimen testing
- Attachments for LCF, 3 pt bend, C(T), tension compression
- Manual self-aligning grips

- Easy specimen insertion
- High temperature operation upto 1000° C
- Grips with refrigeration based cooling ports

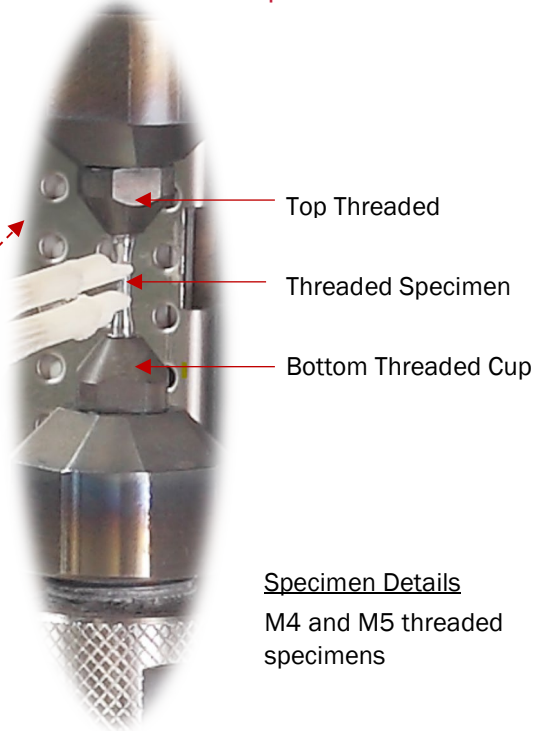
Miniature Furnace

LF-XXX is available with upto 500N capacity configurations for wide variety of applications

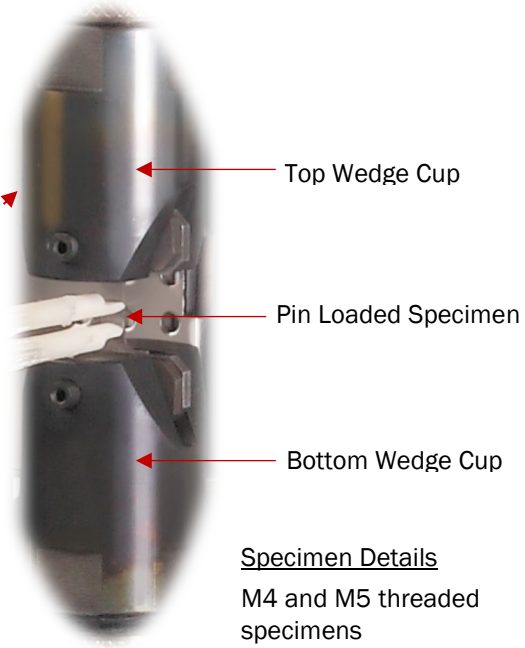
- Max. temperature: 1000° C
- Operating range: 100 to 1000° C
- Accuracy of Temperature control: $\pm 2^{\circ}\text{C}$
- Resolution: 0.1° C
- Rate of heating: upto 5 Deg /min
- Furnace Controller with PID for single zone operation
- Safety interlocks: over temperature protection, emergency stop and cooling unit



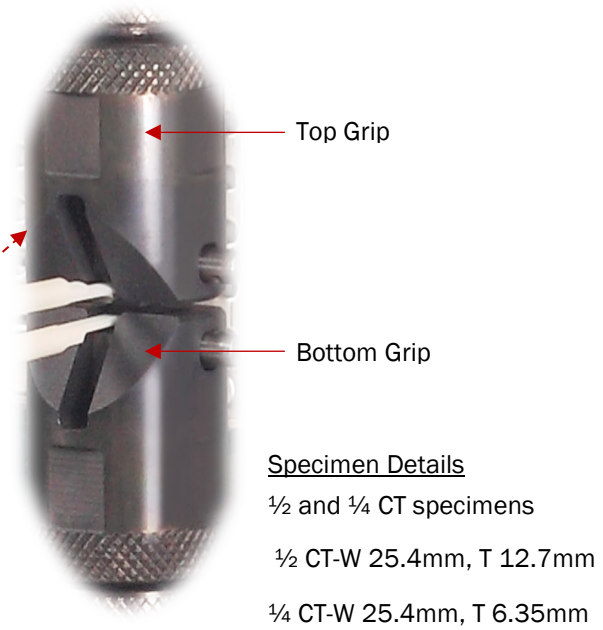
Miniature Threaded Specimen Mounting on Mechanical LCF Grip



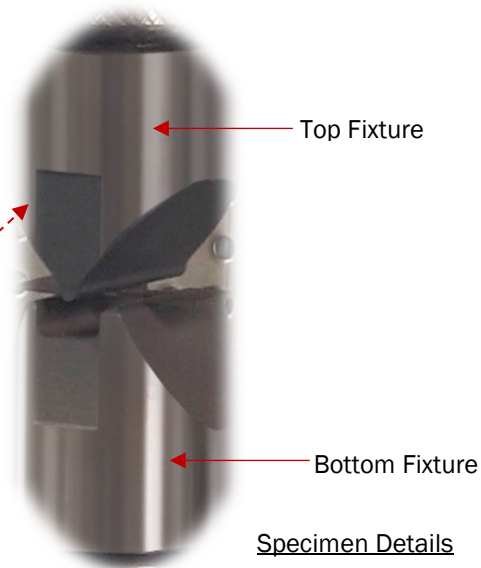
Pin Loaded Specimen Mounting on LCF Grip



CT Grip Mounting on LCF



3-Point Bend



Specimen Details

Fixed span of 8 mm & 15 mm
with 3 mm rollers

Digital Control System

2370 Series digital controllers cover the needs of practically any mechanical test on materials, components and structures. The unified architecture of the hardware and firmware serve system configurations that are compatible with practically all industry standard analog and digital transducers and drives. The 2370 series controllers are built around the latest analog, digital and hybrid integrated circuits providing high performance, versatility, safety and convenience

Controller: 2370 Series	SS
	AC-04-2370-10
Control Channels (DAC)	2
Encoder Channels]	2
Load/ Strain Channels	4
High Level Channels	4
Digital Input Output(Control/Sense)	8
Independent DAQ Rates (kHz)	6
Control Loop update (kHz)	6
Dimensions (l x w x h in mm)	493 x 351 x 133
Weight (kg)	10



WHY CHOOSE INSTRON?

- Instron offers a fully integrated and a comprehensive thermo mechanical fatigue test solution with a high-performance state of the art controller and a dedicated user-friendly application software. The key benefits include
- A multi-coil induction head that allows more complex designs that optimize coupling between coils and specimen to improve heating rates and specimen temperature gradients
- Integrated extensometer with minimal setup time and roller mount for quick and precise adjustment of extensometer position
- Real time thermal strain compensation where the extensometer readout doesn't change even with change in mechanical strain of the specimen due to the variations in temperature

- Optional multi zone temperature tracking: multi point thermocouple-based temperature tracking with guaranteed uniformity across multi zones
- Adjustable induction coil mount that allows easy and precise movement of the induction system to fit specimen size
- Self-aligning, self-locking, zero backlash water cooled hydraulic grips to test threaded and tubular samples.

NOTE

CE certification on Demand
Specification are subject to change without prior notice

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High Temperature LFS_V1