INSTRON®

The difference is measurable®

1200°C FURNACE

3119-160

The Instron 3119-160 is a 3 Zone Split Tube Furnace with a side entry extensometer port. It is manufactured with a wire-wound element for maximum operation up to 1200°C (2200°F). The elements are uniquely formed to provide optimum temperature uniformity, ensuring conformance with testing standards such as ASTM E21, ISO 6892-2, EN10002-5, and EN2002-2. Top and bottom furnace end plates are provided, designed to be durable and provide excellent insulation. They include a 20mm (0.787in) diameter hole for use with pull rods.

To ensure operator safety the furnace uses high-grade insulation that does not use Refractory Ceramic Fiber (RCF). To prevent burns, the furnace has a protective shield which makes minimal contact with the furnace to prevent heat transfer, meaning that the external surfaces are not excessively hot during normal operation.

Type K thermocouples with miniature plugs are mounted on the center line in the center of each heated zone. To prevent costly replacements of damaged thermocouples, there is a quick release connection on the outside of the furnace. Should damage occur, it is a simple replacement instead of a complex installation.

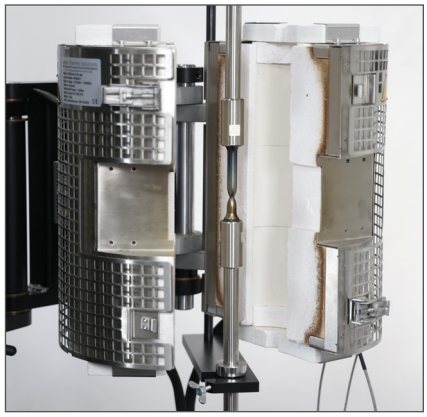
FEATURES

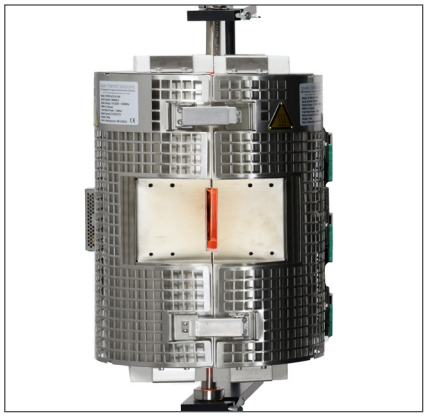
- Split furnace - Makes loading and removing specimen load strings fast and easy.
- Wide temperature range - Capable of maintaining stable temperature control from 200-1050°C (392°F-1922°F)*
- Fast heating rate with minimal overshoot*- reducing time needed to soak specimens prior to testing.
- Extensometer Port - Allowing simple attachment of side entry extensometers for common gauge length and travel requirements
- Testing Standards - Enabling compliance with common elevated temperature testing standards such as: ASTM E21, ISO 6892-2, EN10002-5, EN2002-2.
- Heat shield - Increases operator safety preventing contact with hot areas of furnace.
- Thermocouples connections outside the furnace- Simplifying replacement if thermocouples cables are damaged.
- Standard Instron mountings- Backwards compatible with all existing accessories.

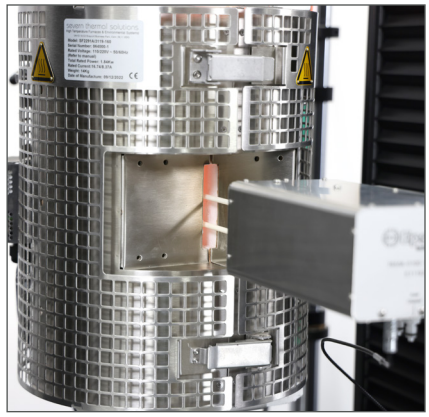
*When combined with 3119-960 Furnace Controller

GENERAL PERFORMANCE

Maximum Element Temperature	**°C**	1200
	°F	2192
Number of Heating Zones		3
Specimen Temperature Range	**°C**	200-1050
	°F	392-1922
Overall Heated Length	**mm**	300
	in	11.81
Thermocouples		3 type K with miniature plugs, located in the center of each zone
Interior Diameter	**mm**	75
	in	2.95
Interior Length	**mm**	100 (Zone 1/2/3 are equal in size)
	in	3.937 (Zone 1/2/3 are equal in size)
Exterior Length	**mm**	350 (394.2 including insulation end plates)
	in	13.7 (15.2 including insulation end plates
Exterior Diameter	**mm**	254 (272.4 with perforated heat shield)
	in	10 (10.72 with perforated heat shield)
Extensometer Front Slot	**mm**	12.7 76.2
	in	0.5 x 3
Power Requirements		Determined by Controller (Furnace can be connected for 110V in parallel and 220v if connected in series)
Rated Power		Each zone is 613 Watts (whether in 220v or 110v configuration)







3119-160 Furnace combined with Instron's 3119-960 3 zone temperature controller ensures fast heat up times, accurate temperature control and full integration with Bluehill Universal Software.

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