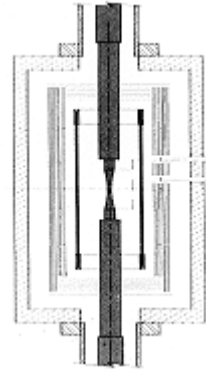


## TESTMASTER

Testmaster furnaces are designed for physical and mechanical property evaluation of high temperature ceramic and metallic materials. They can be used alone as a bench top laboratory furnace or in conjunction with mechanical test machines, laser or mechanical dilatometers, or load cells for thermogravimetric analysis. The Testmaster can also serve as a multipurpose facility suitable for sintering, heat treating, brazing, outgassing, and other high temperature thermal processing experiments.



Each furnace is supplied as a complete system including: vacuum chamber; heat zone; power supply; vacuum pump; and a manual power control system. Additional accessories and enhancements are optionally available to meet individual requirements, including high vacuum pumps, automatic control systems, and data acquisition equipment.

### SPECIAL FEATURES

- Vacuum, inert, oxidizing, or reducing atmospheres
- Complete stainless steel chamber construction
- High temperature capability to 2500 蛭
- Choice of manual or fully automatic controls
- High vacuum pump port included
- Large power supply for rapid heating
- Hearth provided for general purpose use
- Multipurpose accessory ports included

Loading	Element Size (inches)	Maximum Temperature (蛭)	Heat Zone	Power Supply (KVA)	Model Number
Front	3 x 3 x 8	2500	Tungsten	30	383W
Front	3?x 8	2500	Graphite	20	38G
Front	3 x 3 x 8	1700	Molybdenum	15	383M
Front	3 x 3 x 8	1150	Kanthal?/font>	10	383K
Front	3?x 8	2500	Tungsten	20	38W

Testmaster vacuum vessels are made completely from stainless steel, including the chamber, water jacket, and all flanges. Each chamber includes top and bottom center ports for pull rods, load cells, dilatometers, or other accessories. A valved sight window is provided for visual observations or temperature measurements with optical and infrared pyrometers. Additional penetrations include a high vacuum pump port, ports for vacuum gauges and pressure accessories, a port for an ion/cold cathode gauge and three threaded ports for thermocouples or instrumentation leads.

Metallic, graphite or Kanthal?/font> heat zones can be provided. The metallic heat zone uses a tungsten or molybdenum mesh heating element and refractory metal radiation shields for a clean, contamination free environment. The low thermal mass of the metallic zone allows rapid heating and cooling for fast turnaround between experiments. The graphite zone is more durable and abuse resistant, and requires less power to maintain temperature. The Kanthal zone is designed for operation in air oxidizing atmospheres. Heat zones are designed for easy access and long life at maximum rated temperatures.