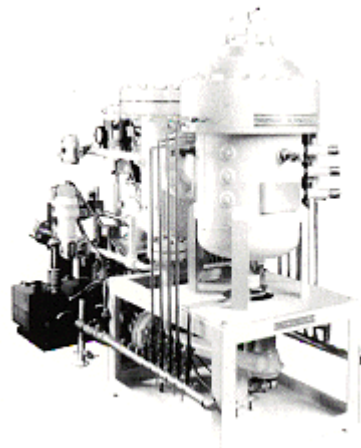


## METALMASTER

Metalmaster furnaces are designed for processing of refractory metals under high vacuum conditions at elevated temperatures. They can be supplied without high vacuum pumps for processing under inert or reducing gas atmospheres. In addition to refractory metal processing, Metalmaster furnaces are also used for processing high purity advanced ceramic materials which are susceptible to contamination in traditional graphite furnaces.

Each furnace is supplied as a complete system including: vacuum chamber; metallic heat zone; power supply; vacuum pumps; and a programmable control system. Optional upgrades to the power supply, vacuum pumps, and controls are available to meet individual requirements.

Loading	Work-Zone (inches)	Work Volume (cubic feet)	Model Number
Top	5?x 10	0.1	612
Top	10?x 14	0.6	1218
Bottom	13?x 18	1.4	1624
Front	12 x 12 x 12	1.0	121212
Front	12 x 12 x 24	2.0	121224
Front	16 x 16 x 48	7.0	161648
Front	12 x 18 x 36	4.5	121836



Each Metalmaster furnace is fabricated with a stainless steel chamber, water jacket, and flanges. Internal baffling efficiently directs water flow, permitting heat zone operation to 2500 蛭 without use of an intermediate water-cooled copper "heater shell."

Cylindrical mesh heating elements provide uniform heating from all sides while operating at a low watt density for long life. Multiple radiation shields conserve energy while providing a clean environment and rapid thermal cycling capability. Heat zones are designed for prolonged use at normal operating temperatures and intermittent use at maximum operating temperatures.

Mesh Temperature Element	Radiation Shields (蛭)	Operating Maximum Normal (蛭) (蛭)	
Tungsten	Tungsten & Molybdenum	2500	2200
Tantalum	Tantalum	2500	2200
Molybdenum	Molybdenum & Stainless Steel	1700	1600



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