

PRODUCT INFORMATION



Series LF Top Loading Multi-Purpose Furnace

High Temperature Vacuum or Controlled Atmosphere Refractory Metal Heat Zone

EQUIPMENT SPECIFICATIONS

Chamber: Double-walled, water-cooled 304L stainless steel chamber with water-cooled, hinged lid.

Hot Zone: 3" (76.2mm) dia. x 5" (127mm) high tungsten mesh element with tungsten and molybdenum sheet heat shields.

Power Supply: 12 KVA 220/1/50-60 SCR controlled with current limiting and soft start features fully interlocked for failsafe operation.

Temperature Sensor: (2) Type "C" molybdenum sheathed thermocouples

Controller: Precision Digital PD-550 programmable temperature controller with auto-tuning. PID control. 1/16th DIN, two programs store 15 segments each for precision set-point control. Software for RS-485 serial communications included.

Overtemperature Controller & Hot Zone Interlock: Precision Digital PD-570 indicator controller. 1/16" DIN, hot zone temperature safety interlock. Software for RS-485 serial communications included.

PUMPING SYSTEMS AVAILABLE:

Roughing Pump Vacuum System: Manual vacuum system with VRL 902111 vacuum instrument, Leybold Heraeus Model D8B, 198.2 LPM (7.0 CFM) direct drive mechanical pump and all necessary plumbing and manifolding.

Turbo Molecular Pump Vacuum System: 2" (50.8 mm) manual high vacuum system with Granville 330 vacuum instrument, high vacuum gate valve, Varian TMP V81, rated 77 L/S N₂, Varian SH-100 dry scroll pump rated 90 L/M, and all necessary plumbing and manifolding.

Diffusion Pump Vacuum System: 2" (50.8) manual high vacuum system with Granville 330 vacuum instrument, Leybold Heraeus Model D8B (7.0 CFM) – (198.2 LPM) direct drive mechanical pump, Varian HS-2 diffusion pump, water baffle, high vacuum gate valve, and all necessary plumbing and manifolding.

PERFORMANCE SPECIFICATIONS

Operating Temperature: 3632°F (2000°C)

Diffusion Pumping System: Vacuum (10^{-5} – 10^{-6} torr) and inert gas (to 2 PSIG) (.14 KGS/SQ.CM)

Turbo Molecular Pumping System: Vacuum (10^{-5} - 10^{-6} torr) and inert gas (to 2 PSIG) (.14 KGS/SQ.CM)

Roughing System: Vacuum (10^{-2} – 10^{-3} torr) and inert gas (to 2 PSIG) (.14 KGS/SQ.CM)



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APPLICATIONS: This vertical furnace is used for high vacuum heat treatment of metals and ceramics, reactivity studies, and small scale sintering studies.



Centorr/Vacuum Industries Manufactures a complete line of High Temperature Vacuum and Controlled Atmosphere Furnaces for the Research and Development Laboratory, the Materials, Testing and Evaluation Laboratory, and for Production.



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