

LUCIFER FURNACES

Manufacturer of Industrial Heat Treating Furnaces and Ovens



Series 8000 HSGT-High Speed Steel Inert Atmosphere GT Dual Chamber Furnaces

Dual chamber space saving furnaces for hardening and drawing high speed steels and ceramics. The GT models are designed with a continuously welded furnace shell, gasketed door assembly, and atmosphere inlet and outlet ports for operation with a positive flow of atmosphere in the upper chamber. These models are best suited for constant operation to maintain a dry refractory environment in the work area to minimize oxidation on workloads. The upper chamber, rated for 2450°F, is equipped with silicon carbide heating elements controlled by an SCR power supply. The SCR proportions the lowest power input required for each application, limiting amperage for steady state control. Automatic compensation for changes in element resistance and workload, combined with silicon carbide elements designed with a 200% aging factor, result in excellent element life. This unique operating system saves money on initial purchase by eliminating the large expensive power transformer and oversized contactors. Operation is simplified without the manual adjustment of tap switches.

The lower chamber is complete with wire wound heating elements, stainless steel liner and fan assembly to re-circulate heat for uniform temperature. Available at operating temperatures of 800°F(88), 1200°F(82), 1400°F(84), and 1600°F(86). All models are completely wired, test fired, and shipped ready for connection to main power and atmosphere supply.

Standard Features

- Continuously welded sheet metal single shell construction.
- Both chambers designed with same working dimensions.
- Silicon carbide heating elements mounted above and below hearth for uniform heat in upper chamber.
- Multi-layered energy efficient lightweight ceramic fiber and mineral block insulation for maximum heat storage and minimum heat loss in upper chamber.
- Coil wound heating elements mounted in easy-to-replace holders located on side walls of lower chamber.
- Silicon carbide hearth plate for load support and thermal transfer from floor elements in upper chamber.
- Double pivot horizontal swing upper chamber door with gasket and horizontal swing lower chamber door.
- Safety micro-switch shuts off power to elements and fan when door opens.
- Honeywell digital temperature controller with type R thermocouple on upper chamber.
- Controls are mounted in separate side mounted NEMA 1 panel and operate on 115 volts.

Model Specifications

MODEL	CHAMBER			OVERALL			KW	VOLTAGE	WEIGHT (LBS.)
	H"	W"	L"	H"	W"	L"			
HS82GT-K12	12	12	12	72	42	40	13.1	230/3/60	900
HS82GT-K18	12	12	18	72	42	46	17.2	230/3/60	1000
HS82GT-K24	12	12	24	72	42	52	24	230/3/60	1100
HS82GT-M18	12	18	18	72	48	46	25.6	230/3/60	1225
HS82GT-M24	12	18	24	72	48	52	29.5	230/3/60	1400
HS82GT-O24	18	18	24	78	48	52	41	230/3/60	1700
HS82GT-O36	18	18	36	78	54	64	50	230/3/60	2100
HS82GT-P36	18	24	36	78	54	64	60	230/3/60	2500
HS82GT-R36	24	24	36	84	54	64	72	230/3/60	2960

Note: KW and Voltage based on 1200°F lower chamber.



Options: Flow meters, regulators, oxygen analyzers, dew point indicators, program controllers, over temperature safety systems, timers, recorders, quench tanks, computer interface, gloves and tongs.

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