

# LUCIFER FURNACES

Manufacturer of Industrial Heat Treating Furnaces and Ovens



## Series 8000 AM - Alloy Muffle Dual Chamber Furnaces



Model 85AM-K24  
with optional strobe light

Unique "Space Saver" design offers the convenience and economy of two independently controlled chambers in one packaged assembly. The upper chamber (Hardening) is equipped with an alloy muffle for operation with a positive flow of atmosphere to 2050°F. The alloy muffle separates the chamber refractory and heating elements from the workload and atmosphere to minimize scale and oxidation on most tool steels. This design achieves lower dew points in the work chamber, reduces atmosphere consumption and shortens purge time. The AM models are ideal for cyclical or production type applications.

The lower chamber (Tempering) is complete with a stainless steel liner and fan to recirculate the heat for uniform temperature. Available at operating temperatures of 800°F(88), 1200°F(82), 1400°F(84), and 1600°F(86). Ideal for Tool Rooms and Schools, providing a complete heat treat station in one furnace.

Ruggedly constructed and rated for work loads up to 50 lbs. per square foot of hearth area. All models are completely wired to N.E.C., assembled, test fired and shipped ready for connection to main power supply. Compact design, fast installation, and simple, safe, dependable operation. All models will operate with inert atmosphere. Flammable atmosphere may be used with the addition of Atmosphere Safety System per NFPA Code 86 C.

### Standard Features

- Welded sheet metal single shell construction.
- Both chambers designed with same working dimensions.
- Heavy gauge coil wound low watt density heating elements for longer life.
- High grade alloy muffle with inlet pipe and front flange.
- Multi-layered energy efficient lightweight firebrick and mineral block insulation for maximum heat storage and minimum heat loss.
- Elements mounted in easy-to-replace holders located on side walls and below the hearth for uniform temperature on upper chamber.
- Silicon carbide hearth plate for muffle support and thermal transfer from floor elements in upper chamber.
- Manual vertical lift door (8000 AM) and double pivot horizontal swing doors (85AM & 89AM) with high temperature ceramic fiber gasket on upper chamber.
- Safety micro-switch shuts off power to elements and fan on lower chamber when door opens.
- Honeywell digital temperature controller with type K thermocouple and magnetic contactor on each chamber.
- Controls are mounted in separate side mounted NEMA 1 panel and operate on 115 volts.

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## 8000 AM Model Specifications

MODEL	CHAMBER H" W" L"	OVERALL H" W" L"	KW	VOLTAGE	WEIGHT (LBS.)
8AM-C12	5 5 12	80 32 42	6	230/1	725
8AM-C18	5 5 18	80 32 48	7.5	230/1	800
8AM-F12	7 7 12	84 35 42	9	230/1	875
8AM-F18	7 7 18	84 35 48	11.5	230/1	1000
8AM-I12	10 10 12	92 38 42	11.5	230/1	1150
8AM-I18	10 10 18	92 38 48	14.5	230/3	1285
8AM-I24	10 10 24	92 38 54	19.5	230/3	1400
8AM-I36	10 10 36	92 38 68	25	230/3	2050

## 8500 AM Model Specifications

MODEL	CHAMBER H" W" L"	OVERALL H" W" L"	KW	VOLTAGE	WEIGHT (LBS.)
8AM-G18	8 12 18	68 40 48	14.5	230/460/3	1425
8AM-G24	8 12 24	68 40 54	19	230/460/3	1550
8AM-G36	8 12 36	68 40 66	24.5	230/460/3	1700
8AM-J18	10 15 18	70 43 48	21.5	230/460/3	2500
8AM-J24	10 15 24	70 43 54	25	230/460/3	2800
8AM-J36	10 15 36	70 43 66	30	230/460/3	3350
8AM-K12	12 12 12	72 40 42	14.5	230/460/3	1600
8AM-K18	12 12 18	72 40 48	20	230/460/3	2400
8AM-K24	12 12 24	72 40 54	24.5	230/460/3	2800
8AM-K36	12 12 36	72 40 66	29	230/460/3	3400

## 8900 AM Model Specifications

MODEL	CHAMBER H" W" L"	OVERALL H" W" L"	KW	VOLTAGE	WEIGHT (LBS.)
8AM-M24	12 18 24	72 46 54	29	230/460/3	2950
8AM-M36	12 18 36	72 46 66	39	230/460/3	3300
8AM-N24	15 15 24	76 43 54	30	230/460/3	3100
8AM-N30	15 15 30	76 43 60	36	230/460/3	3250
8AM-N36	15 15 36	76 43 66	42	230/460/3	3500
8AM-O18	18 18 18	80 46 48	32	230/460/3	3100
8AM-O24	18 18 24	80 46 54	39	230/460/3	3400
8AM-O36	18 18 36	80 46 66	46	230/460/3	3900
8AM-P24	18 24 24	80 58 54	46	230/460/3	4000
8AM-P36	18 24 36	80 58 66	59	230/460/3	4500
8AM-R24	24 24 24	86 58 54	51	230/460/3	5200
8AM-R36	24 24 36	86 58 66	68	230/460/3	5700

**Notes:** Quench tanks may be stored below furnaces with chamber heights through 12" high.

KW and Voltage based on 1200°F lower chambers.

**Options:** Flow meters, regulators, oxygen analyzers, dew point indicators, muffle thermocouples, cascade and multi-zone control systems, supervised flame curtains, supervised burn-off systems, program controllers, over temperature safety systems, cooling systems, timers, recorders, quench tanks, alternate door arrangements, computer interface, special voltages, gloves and tongs.

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