

# LUCIFER FURNACES

Manufacturer of Industrial Heat Treating Furnaces and Ovens



## Series 4000 AM - Atmosphere Alloy Muffle Ovens



Recirculating ovens equipped with an alloy muffle for use with a positive flow of inert atmosphere. Available at operating temperatures of 1200°F(42), 1400°F(44), 1600°F(46) and 1800°F(49) for tempering, drawing, annealing and preheating steel, aluminum, glass and ceramics. The 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, reduces atmosphere consumption and shortens purge time. The AM models are ideal for cyclical or production type applications.

The 4000 AM models are designed with a fan assembly mounted through the rear wall of the chamber which recirculates the air flow around the outside of the muffle. These models are rated for work loads up to 25 lbs/sq ft of hearth area. The larger 4055 AM models are equipped with the fan mounted through the door, recirculating the atmosphere and heat inside the work area. These models are rated for work loads up to 50 lbs/sq ft of hearth area.

All models are completely wired to N.E.C., test fired and shipped ready for connection to main power and regulated atmosphere pressure of 5 PSI. All models will operate with inert atmosphere.

### Standard Features

- Welded sheet metal shell construction with structural reinforcement.
- Heavy gauge coil wound low watt density heating elements for longer life.
- High grade flat wall and corrugated alloy muffles 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.
- Silicon carbide hearth plate for full muffle support and thermal transfer from floor elements on 4055 AM models.
- Stainless steel fan with motor and belt drive.
- Double-pivot horizontal swing door with high temperature ceramic fiber gasket, swing bolts and handles for sealing against muffle flange.
- Honeywell digital temperature controller with type K thermocouple and contactor.
- Controls are mounted in separate side mounted NEMA 1 panel and operate on 115 volts.

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## 4000 AM Model Specifications

MODEL	CHAMBER			OVERALL			KW	VOLTAGE	WEIGHT (LBS.)
	H"	W"	L"	H"	W"	L"			
4AM-B12	9	9	12	56	33	48	3.5	230/460/1	375
4AM-B18	9	9	18	56	33	54	4.5	230/460/1	485
4AM-B24	9	9	24	56	33	65	5.5	230/460/3	515
4AM-B36	9	9	36	56	33	77	7.5	230/460/3	655
4AM-H12	9	12	12	56	36	48	4	230/460/1	520
4AM-H18	9	12	18	56	36	54	5.5	230/460/1	590
4AM-H24	9	12	24	56	36	65	6.5	230/460/3	665
4AM-H36	9	12	36	56	36	77	8.5	230/460/3	805
4AM-K12	12	12	12	56	36	48	5	230/460/3	620
4AM-K18	12	12	18	56	36	54	6.5	230/460/3	650
4AM-K24	12	12	24	56	36	65	8.5	230/460/3	740
4AM-K36	12	12	36	56	36	77	12	230/460/3	890
4AM-M18	12	18	18	56	42	54	10	230/460/3	700
4AM-M24	12	18	24	56	42	65	12	230/460/3	790
4AM-M36	12	18	36	56	42	77	14	230/460/3	955
4AM-M48	12	18	48	56	42	89	16	230/460/3	1170

## 4055 AM Model Specifications

MODEL	CHAMBER			OVERALL			KW	VOLTAGE	WEIGHT (LBS.)
	H"	W"	L"	H"	W"	L"			
4AM-O18	18	18	18	68	43	59	13	230/460/3	930
4AM-O24	18	18	24	68	43	65	15	230/460/3	1035
4AM-O36	18	18	36	68	43	77	18	230/460/3	1230
4AM-O48	18	18	48	68	43	89	20	230/460/3	1425
4AM-P24	18	24	24	68	49	65	16	230/460/3	1495
4AM-P36	18	24	36	68	49	77	21	230/460/3	1690
4AM-P48	18	24	48	68	49	89	24	230/460/3	1885
4AM-R24	24	24	24	68	49	65	20	230/460/3	1925
4AM-R36	24	24	36	68	49	77	24	230/460/3	2175
4AM-R48	24	24	48	68	49	89	32	230/460/3	2450
4AM-S36	24	36	36	68	61	77	34	230/460/3	2475
4AM-S48	24	36	48	68	61	89	40	230/460/3	2750
4AM-T30	30	30	30	68	55	71	32	230/460/3	3250
4AM-T36	30	30	36	68	55	77	34	230/460/3	3510
4AM-T48	30	30	48	68	55	89	42	230/460/3	3975

**Options:** Flow meters, regulators, oxygen analyzers, dew point indicators, muffle thermocouples, cascade and multi-zone control systems, door curtains, 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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