## LUCIFER FURNACES



Manufacturer of Industrial Heat Treating Furnaces and Ovens

## Series 7000 RAM - Removable Alloy Muffle Furnaces



Box furnaces offering the flexibility of heat treating and rapid cooling under protective atmosphere in an alloy muffle with a maximum operating temperature of 2050°F. The muffle is mounted on a portable cart assembly which can be easily rolled in and out of the furnace chamber. A double pivot horizontal swing door mounted on the furnace seals the chamber when the muffle is removed. The holding door maintains the chamber temperature enhancing furnace production capability for fast turnaround of the next muffle. The muffle separates the furnace insulation 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 muffle is equipped with a manually removable plug door on chambers 7"H x 7"W and smaller; larger chambers are standard with a double pivot hinge door mounted on the cart.

All models are completely wired, test fired and shipped ready for connection to main power and regulated atmosphere pressure of 5 PSI. 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 shell construction with structural reinforcement.
- 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.
- Silicon carbide hearth plate for full muffle support and thermal transfer from floor element.
- Plug 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 mounted in separate side mounted NEMA 1 panel and operate on 115 volts.

## **Model Specifications**

MODEL	CHAMBER			OVERALL			кw	VOLTAGE	WEIGHT
	Н"	W"	L"	Н"	W"	L"	r\ vv	VOLTAGE	(LBS.)
7RAM-C12	5	5	12	55	31	50	4	230/1	700
7RAM-C18	5	5	18	55	31	55	5.5	230/1	775
7RAM-F12	7	7	12	57	33	50	6.5	230/460/1	750
7RAM-F18	7	7	18	57	33	55	8	230/460/1	850
7RAM-I12	10	10	12	60	36	50	8	230/460/1	925
7RAM-I18	10	10	18	60	36	55	10	230/460/1	1025
7RAM-I24	10	10	24	60	36	61	13	230/460/3	1100
7RAM-I36	10	10	36	60	36	74	16	230/460/3	1300

**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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