

LUCIFER FURNACES

Manufacturer of Industrial Heat Treating Furnaces & Ovens



Series 7000 IQ Integral Quench Controlled Atmosphere Furnaces



Integral Quench Furnaces are ideal for heat treatment of small parts under protective atmosphere for operation to 2050°F. The economical design of these units provides an inexpensive manual method of heating & quenching small parts without exposure to air. The workload is heated in the furnace chamber and pulled into the vestibule section where the parts drop through a manually operated flapper mechanism into a basket located in the quench tank. The quench basket is easily removed from the tank. The furnaces are complete with an alloy muffle which separates the atmosphere and workload from refractory and elements, and an inner door which separates the furnace chamber from the vestibule section. An outer door provides a positive seal against the vestibule. The EQ Models operate under a positive flow of protective atmosphere to minimize scale and oxidation on most tool steels. This design achieves lower dew points, reduces atmosphere consumption and shortens purge time.

Compact design, easy installation and simple, safe, dependable operation. Available in 7 standard sizes. 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. 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.
- Manual vertical lift inner and outer door assemblies.
- Vestibule with flapper and chute.
- Quench tank constructed from continuously welded mild steel.
- 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.
- 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.

LUCIFER FURNACES

Manufacturer of Industrial Heat Treating Furnaces & Ovens



Series 7000 IQ - Integral Quench Controlled Atmosphere Furnaces

Model Specifications

MODEL	CHAMBER H" W" L"	OVERALL H" W" L"	KW	VOLTAGE	QUENCH CHUTE (WxL)	QUENCH TANK (GAL)	WEIGHT (LBS.)
7IQ-C12	5 5 12	58 31 68	4	230/1	3 X 6	15	750
7IQ-C18	5 5 18	58 31 73	5.5	230/1	3 X 9	15	850
7IQ-F12	7 7 12	60 33 68	6.5	230/460/1	5 X 6	15	825
7IQ-F18	7 7 18	60 33 73	8	230/460/1	5 X 9	15	925
7IQ-I12	10 10 12	66 36 51	8	230/460/1	8 X 6	30	950
7IQ-I18	10 10 18	66 36 61	10	230/460/1	8 X 9	30	1050
7IQ-I24	10 10 24	66 36 71	13	230/460/1	8 X 12	30	1200

Options: Air operated doors, quench tank agitation and heating, water or fan cooled vestibule, sight ports, flow meters, regulators, oxygen analyzers, dew point indicators, muffle thermocouples, cascade and multi-zone control systems, supervised flame curtains, supervised burn-off systems, program controls, over temperature safety systems, cooling systems, timers, recorders, computer interface, special voltages, gloves and tongs.