Curing Oven Model: PCO8810

Description: 8’T x 8’W x 10’L (i.d.) Batch Oven, 3 Phase, 220 volt, requires 30 amp circuit

- Side or rear mounted heat unit
- 7.5 HP recirculation fan system (9,000 CFM)
- 2 HP powered exhaust system with upgraded VFD exhaust control (requires class B, 8" dual wall exhaust duct)
- LP gas fuel direct fire burner requires supply adequate to support 750,000 Btu/hr output at 10”-14” w.c. under operation and a 1” size gas pipe.
- Material load-in via double doors at one end. Additional double doors on back or side available upon request.
- Control panel with digital timer and temperature control

Oven Construction: The oven walls, ceiling and roof are made of 20 gauge or thicker steel that has been aluminized or G90 galvanized. The oven utilizes a double panel design. The interior walls and roof are formed into 6” panels to receive factory-supplied insulation. Genuine Rock Wool brand mineral wool insulation of at least 6# density is inserted between these inner panels and the external skins during installation. The main oven enclosure components are bolted together, typically on 6” centers. Threaded inserts in key parts help simplify assembly. When using roof mounted heat units or double load-in frontals, the ovens are equipped with support beams to increase rigidity. No field welding is required. Includes all fasteners, assembly hardware and sealant.

Doors/Frontals: The oven doors are a composite design made of 12, 16,

18, and 20 gauge components that house mineral wool insulation of not less than 6# density. To assure proper explosion relief and allow for emergency egress, the doors include friction latches. Friction latches, often known as “panic latches” or “slam latches” enable the doors to be opened from the inside and also serve to safely vent excessive positive pressure from the oven enclosure. Doors feature fiberglass gasket material to minimize heat loss.

Heat Unit: The heat unit is constructed of primarily 11 gauge, 16 gauge and 18 gauge aluminized, G90 galvanized, and/or stainless steel components with mineral wool insulation of 6# density used throughout the assembly. The heat system utilizes a custom ETL-listed Power Flame Jet Fire forced-induction burner with an integrated combustion supply fan. The heat unit adjusts “on the fly” in response to the control panel’s PID fuzzy logic controller. The heat unit enclosure includes a 20” or larger dual-inlet/dual-outlet forward curving fan wheel to cycle the heated air through the oven enclosure. The heat unit features an oversize fan shaft for durability and reduced vibration, as well as special high-temperature bearing assemblies that are easily accessible. Each unit is optimized for premium results at the customer’s location and shipped with a fan performance graph.

Controls: The heat unit is controlled via a remote control panel. The control panel allows the operator to see a digital display of the oven’s interior air temperature and adjust the heat system’s output so that it maintains a constant curing temperature. The control panel includes a variety of safety devices, including audible and visual alarms. The control system uses a variable frequency device (VFD) to adjust the atmosphere inside the oven by fine-tuning the performance of the exhaust fan. A digital timer may be used to shut down oven operation or serve only as a timer for the operator’s convenience. The controls are housed in a NEMA enclosure. The oven is equipped with a range of redundant safety devices. These devices include:

• High and low pressure gas safety valves

- Manual gas shut-off
- Ignition sensor with auto shut-down
- Combustion safeguard
- Flame safety switch
- Powered air circulation fan
- Powered air exhaust fan
- Intake air proving switch
- Exhaust air proving switch
- High temperature safety switch
- Oven temperature sensor
- Purge timer for combustion
- Purge timer for oven operation
- Motor overload protection
- Fan/belt/motor guards
- Explosion relief design

Exhaust (Curing Oven): A high-performance ventilation fan assembly is mounted on-site to the shop floor using anti-vibration bushings. The assembly uses a backwards-inclined fan mated to a 2 HP motor. The fan intake extends through a special wall skin and special wall panel. The exhaust drive components are housed in a ventilated steel enclosure.

THIS SYSTEM REQUIRES THE USE OF 8” I.D. DOUBLE-WALL (TYPE B) EXHAUST DUCTING WITH A HIGH-FLOW EXHAUST CAP THAT PREVENTS THE INTRUSION OF WATER.

Electrical Requirements: Oven: 30 amp circuit Control Panel: 110 Volt /1 Phase outlet (to be located within 20 feet of the oven)