

## **ARCHITECT'S AND ENGINEER SPECIFICATIONS**

The electric plenum rated unit shall be by Indeeco and assembled in U.S.A.

Units shall be certified by ETL and comply with UL1995 and NEC requirements for horizontal discharge mounting. All capacities, voltages and options shall be as specified in the heater schedule. All three-phase heaters shall have a balanced heating load. Control voltage with built-in transformer shall be 24 VAC.

**CABINET** - The cabinet shall be of 20 gauge galvanized steel with 1" of acoustic fiberglass insulation. Inlet and outlet shall be fitted with protective screens and suitable for duct connection. Access panels to fan(s) shall be on both sides of the cabinet. Heater control enclosure shall be dust tight.

**HEATING ELEMENTS** - The heating elements shall be 80% nickel and 20% chromium resistance wire. The heating elements shall be located directly in front of the blower discharge for uniform heating.

**OPERATION** – The heater and fan(s) operation shall be controlled by either built-in or remote thermostat. Fan motor speed shall be field adjusted to provide desired temperature rise.

**SAFETY THERMAL CUTOUPS** - An automatic resetting thermal cutout for primary and fuse link cutout(s) for secondary over-temperature protection shall be built into the unit to provide zero clearance to combustible materials.

**MOTOR AND BLOWER ASSEMBLY** - The PSC motor(s) and blower(s) shall be direct drive and resiliently mounted on a rigid heavy gauge frame for quiet operation and long life. The motor(s) shall be rated for continuous operation and be provided with automatic reset overload. The blower(s) shall be forward curved, double inlet, centrifugal type with discharge directly on the full length of the elements to provide uniform discharge air temperatures.

**AIR FILTERS**- Inlet filter(s) shall be provided to assure clean air circulation. The throw away filter(s) shall be easily removed for changing from outside of the unit.

**DISCONNECT SWITCH** -The unit shall have a door interlocking disconnect rated at a minimum of 125% of the total electrical load and shall have single point electrical connection for the unit.

**BUILT-IN CONTROLS** - Clearly labeled power and control terminal blocks shall be provide for all field electrical connections. Pressure differential airflow switch(s) shall be provide to interlock airflow with the operation of the unit. Power fusing shall be provided for units over 48 amps as required by NEC. Magnetic disconnecting contactor(s) for stage and safety control circuit interlock, fan relay and adjustable motor speed controller shall be provided. Control terminal block shall allow for remote disabling of the fan, remote switch is to be provided by the installer.

**TEMPERATURE CONTROL** - The unit is designed to be controlled by a remote thermostat. Thermostat field connections shall be made at a clear marked control terminal block located inside the heater enclosure.

**FAN SPEED** – Variable fan motor speed control shall be field adjustable to increase temperature rise, factory set at maximum. Controller shall be located inside the control enclosure for ease of adjustment.

The following Factory Installed and prewired Optional Controls shall be as specified in the heater schedule.

- Built-in thermostat for 1 or 2 staged controlled units
- SSR controlled heater (requires remote thermostat control of 0-10VDC, 4-20mA or 0-135 ohm)
- Left hand (U4L6) heater terminal box connection

The following Field Installed Optional Equipment shall be supplied as specified in heater schedule

- Low voltage remote wall mounted 1 or 2-stage thermostat for staged controlled heaters
- Remote wall mounted proportional 0-10VDC thermostat for SSR controlled heater