

Control Options for Industrial Direct Fired Heaters

Clogged filter switch with light:

senses air pressure drop across the filter, and is mounted in unit. When the filter becomes dirty, the switch activates a remote control panel light, indicating a required filter change.

Convenience-unit outlet, power by others:

provided with a 20-amp, 115-volt, GFCI outlet receptacle for field wiring to customer's 115/1/60 power supply.

Dual-range selector dial, 90°-140°F, 401M:

allows for two, separate discharge temperature setpoints for spray and dry modes in both paint booth applications.

Electronic time clock

A clock which cycles the unit on and off, or changes from day to night operation, at selected times of the day.

Fire stat, discharge:

250°F rated high-limit control mounted in the blower discharge. If the discharge temperature exceeds the control's settings, the unit shuts down. Requires manual reset of control.

Flame-failure unit shutdown:

relay interlocked with flame-safety relay. When burner fails to light within 30 seconds, the relay energizes, opening the blower-starter circuit and shuts down the unit.

High gas-pressure regulator:

required on all applications where the unit's inlet gas pressure exceeds 2 psi.

High gas-pressure switch:

stops unit operation when unit's inlet gas pressure exceeds setpoint. Standard on all FM manifolds over 2,500 MBTU and on FIA (IRI) manifolds over 150 MBTU.

High temperature option:

adapts unit with special construction and controls to high temperature paint-booth and industrial-process heating applications.

Low fire start:

allows burner circuit, with an electrical interlock, to energize when modulation control is in low fire. This is accomplished with a relay circuit on Maxitrol Systems.

Low gas-pressure switch:

stops unit's operation when inlet gas pressure goes below setpoint. Standard on FM manifolds over 2,500 MBTU and on FIA (IRI) manifolds over 150 MBTU.

Low-temperature blower shutdown with bypass timer:

shuts blower off if discharge temperature drops below 40°F for longer than five minutes.

Operating lights on remote panel:

Up to five labeled pilot lights mounted on a remote control panel face, indicating unit's primary functions.

1. clear: blower run light
2. clear: burner on light
3. amber: low-temperature failure light
4. red: flame failure shutdown light
5. amber: clogged filter light

Pre-purge timer:

allows unit's blower to run for one minute, purging any gas residue in the unit, before the burner circuit can energize.

Pressure gauge, 0-35":

monitors supply pressure to unit, or to burner on gas manifold. Reads low gas pressures between 0 and 35".

Pressure gauge, 0-15#:

monitors supply pressure to unit, or to burner on gas manifold. Reads low gas pressures between 0 and 15#.

Proof of closure:

gas manifold supplied with a motorized gas valve and an internal micro switch. The valve must be in a closed position, with micro-switch contact closed, before main burner can energize.

Smoke detector and sampling tube:

stops unit's operation when smoke is detected. An ionization smoke detector and sampling tube are shipped loose for field mounting.

Variable air volume:

allows unit to adjust to a building's variable exhaust loads automatically. Used with a variable frequency drive, the unit can turndown air volume to 40% of full capacity. Fast-acting dampers maintain proper air velocity across burner. Control interface prevents overfiring at low speeds.