

# Typical Specifications

**Model:** HMD

**Description:** Unit shall be a roof mounted, belt driven, direct gas-fired, heated make-up air unit.

**Certifications:** Unit shall be manufactured at an ISO 9001 certified facility. Unit shall be listed by ETL for US and Canada to ANSI Z83.4-2003/CSA 3.7-2003 for *100% Non-Recirculating Direct Gas-Fired Industrial Air Heaters* and meet Factory Mutual Insurance requirements. Unit shall bear the AMCA certified ratings seal for sound and air performance.

**Construction:** The unit shall be of bolted construction utilizing corrosion resistant fasteners. Housing shall be minimum 18 gauge G90 galvanized steel, bolted to a minimum 14 gauge G90 galvanized steel unit base suitable for curb or flat mounting. The base shall include integral lifting holes. Unit shall be provided with an insulated housing and 1" washable permanent aluminum filters. Internal blower and motor assembly shall be mounted on rubber vibration isolators. Unit shall have removable panels for easy access to all essential components. Unit shall bear an engraved aluminum nameplate. Nameplate shall indicate design CFM, static pressure, maximum fan RPM, and all ANSI required burner information. Unit and gas train shall be factory assembled and tested prior to shipment. Unit shall be shipped in ISTA certified transit tested packaging.

**Burner:** Burner shall be a two stage combustion burner with cast aluminum manifold and stainless steel baffles capable of operation on Natural gas or Propane. Burner shall be non-clogging, with direct spark ignition and have minimum 30:1 turndown capability with no moving parts. Gas train shall include redundant shutoff valves, high and low gas pressure gauges, and stainless steel ball modulating valve.

**Controls:** Unit shall have single point wiring and lockable disconnect switch. Motor starter and controls shall be provide and sized for proper unit operation. Discharge temperature controls shall have digital display with integrated freeze protection and economizer/mild weather burner cutout.

**Wheel:** Wheel shall be DWDI centrifugal forward curved type, constructed of G90 galvanized steel. Wheel shall be balanced in accordance with AMCA Standard 204-05, *Balance Quality and Vibration Levels for Fans*.

**Motor:** Motor shall be NEMA design B with minimum class B insulation rated for continuous duty and furnished at the specified voltage, phase and enclosure.

**Bearings:** Bearings shall be ball type selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

**Belts and Drives:** Belts shall be oil and heat resistant, static conducting. Drives shall be precision machined cast iron type, keyed and securely attached to the wheel and motor shafts. Drives shall be sized for 150% of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

**Product:** Unit shall be model HMD as manufactured by Loren Cook Company of Springfield, Missouri.