

Typical Specifications

Model: CPSALE

Description: Unit consisting of a fan, curb cap, inlet box and high velocity nozzle shall be a single width, single inlet, backward inclined airfoil blade, belt driven centrifugal vent set laboratory exhaust blower.

Certifications: Unit shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL/cUL 705) for US and Canada. For restaurant applications, fan shall be listed by Underwriters Laboratories (UL/cUL 762) for US and Canada. For smoke control applications, fan shall be listed by Underwriters Laboratories (Power Ventilator for Smoke Control Systems) for US and Canada. Unit shall bear the AMCA certified ratings seal for sound and air performance (AMCA certification complete with nozzle and inlet box installed). Build-up field fabricated systems or manufacturer provided accessories not installed during ACMA testing are not acceptable.

Construction: The unit shall be of bolted and welded construction utilizing stainless steel fasteners. The scroll wrapper shall be a minimum 14 gauge steel and the scroll side panels shall be a minimum 12 gauge steel. The scroll housing shall have continuously welded seams for leakproof operation. A performance cut-off shall be furnished to prevent the recirculation of air in the fan housing. The adjustable nozzle is positioned to generate the designed outlet velocity. The integral cap and inlet box is intended to be used for curb mounting with bottom intake roof duct connections. Inlet box shall include gasketed access door with quick release latches to allow wheel and inlet removal. Bearing support shall be minimum 10 gauge welded steel. Side access inspection ports shall be provided with quick release latches for access to the motor compartment without removing the weather cover. The fan housing shall have a door for wheel access and threaded drain connection. Lifting lugs shall be provided for ease of installation. Unit shall bear an engraved aluminum nameplate. Nameplate shall indicate design CFM, static pressure, and maximum fan RPM. Unit shall be shipped in ISTA certified transit tested packaging.

Coating: Steel fan components shall be light gray phenolic epoxy with UV top coating electrostatically applied baked powder. Each component shall be subject to a five stage environmentally friendly wash system, followed by a minimum 2 mil thick baked powder finish. Paint must exceed 1,000 hour salt spray under ASTM B117 test method.

Wheel: Wheel shall be steel centrifugal backward inclined, non-overloading airfoil blade type. Blades shall be continuously welded to the backplate and deep spun inlet shroud. Wheel hub shall be keyed and securely attached to the fan shaft. Wheel inlet shall overlap an aerodynamic aluminum inlet cone to provide maximum performance and efficiency. 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 class B insulation rated for continuous duty and furnished at the specified voltage, phase and enclosure.

Bearings: Bearings shall be designed and tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball or roller type in a cast iron pillow block housing selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

Blower Shaft: Blower shaft shall be AISI 316 stainless steel and accurately turned, ground and polished. Shafting shall be sized for a critical speed of at least 125% of maximum RPM.

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: Fan shall be model CPSALE as manufactured by Loren Cook Company of Springfield, Missouri.