Typical Specifications

Model: **LXUMSC**

Description: The fan shall be a belt driven, high temperature, upblast steel propeller roof exhaust fan with motor outside of airstream.

Certifications: Fan shall be listed by Underwriters Laboratories as a “Power Ventilator for Smoke Control Systems” and UL listed as “Power Ventilator for Smoke Control Systems Certified for Canada”.

Construction: The fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. The fan shall consist of an upper and lower assembly. The upper assembly shall consist of a base, unit housing, butterfly discharge damper, and a wind band. The integral cap shall have an integral venturi and continuously welded corners. Unit housing shall be minimum 14 gauge steel. Dampers of aluminum or galvanized steel construction. Damper assembly shall be furnished with fusible links that melt at 165°F allowing dampers to open automatically when power is off. Dampers shall meet UL 793 snow load testing of butterfly dampers (10 lb/sqft). Unit shall be tested to operate at 500°F for 4 hours per IRI requirements and operate at 1000°F for 15 minutes per SBCCI requirements. Dampers shall be protected by a continuously welded steel wind band. Wind band shall be a minimum 18 gauge steel with minimum one inch flanges for maximum strength and rigidity. The lower assembly consists of a bolted, minimum 12 gauge galvanized die formed angle frame power assembly with minimum 18 gauge galvanized outer housing panels fastened to the outer frame. The motor is located out of the airstream and shall be mounted to a minimum 10 gauge galvanized adjustable motor plate assembly which shall utilize threaded J-bolts and pivot design for positive belt tensioning. The motor shall be protected by a minimum 18 gauge motor cover. The fan shall include integral lifting lugs capable of safely supporting the total weight of the fan with motor. 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: All non-galvanized steel fan components shall be Lorenized™ with an electrostatically applied, baked polyester powder coating. 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.

Propeller: Propeller shall be a high-efficiency fabricated steel design with blades securely fastened to a minimum 7 gauge steel hub. The hub shall be keyed and locked to the fan shaft utilizing two setscrews. Propeller 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 type in a cast iron housing 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: Fan shall be model LXUMSC as manufactured by Loren Cook Company of Springfield, Missouri.