Typical Specifications

Model: **QMXLE**

Description: Fan shall be a belt driven, tubular mixed-flow upblast laboratory exhaust blower.

Certifications: Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL/cUL 705) for US and Canada.

Construction: The fan shall be of welded and bolted construction utilizing corrosion resistant fasteners. Housing shall be minimum 14 gauge steel with integral inlet collar for slip fit duct connections. Straightening vanes shall be included to assure maximum efficiency and low noise levels. Adjustable motor plate shall utilize threaded studs for positive belt tensioning. Extended lube lines shall be furnished for lubrication of fan bearings. Lifting lugs shall be provided for ease of installation. Discharge nozzle shall be provided to efficiently increase discharge velocity to the specified requirement. Discharge nozzle shall have hinged discharge damper to prevent rain infiltration. The damper assembly shall be protected by a continuously welded steel windband of minimum 18 gauge steel with flanges for maximum strength and rigidity. A reinforced curb cap shall allow freestanding installation onto integral members of the roof structure without the use of guy wires. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA certified transit tested packaging.

Coating: All steel fan components shall be coated with an electrostatically applied, baked phenolic epoxy powder coating with an ultraviolet protective top coat. 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, non-overloading, high efficiency mixed-flow type. Contoured single thickness blades shall incorporate 3-D curvature for maximum efficiency across the entire surface of the blade. Blades shall be continuously welded to the backplate and inlet shroud. Hubs shall be keyed and securely attached to the fan shaft. Wheel 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.

Blower Shaft: Blower shaft shall be AISI C-1045 hot rolled and accurately turned, ground and polished. Shafting shall be sized for a critical speed of at least 125% of maximum RPM.

Bearings: Bearings shall be designed and tested specifically for use in air handling applications. Construction shall be heavy duty concentric locking 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.

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.

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