

# Typical Specification

**Model:** TCNS-B

**Description:** Fan shall be a roof mounted, hooded, belt driven, tubular centrifugal supply fan.

**Certifications:** Fan shall be listed by Underwriters Laboratories (UL 705) and UL listed for Canada (CUL 705).

**Construction:** The fan shall be of welded and bolted construction utilizing corrosion resistant fasteners. Housing shall be minimum 12 gauge steel. Drive components shall be isolated from the air stream with a removable bearing cover and a continuously welded belt tunnel. Adjustable motor plate shall utilize threaded studs for positive belt tensioning. Extended lube lines shall be furnished for lubrication of fan bearings. The spun aluminum hood shall be constructed from minimum 16 gauge marine alloy aluminum and shall be bolted to a rigid support structure. A weather cover shall be incorporated to protect the motor. The housing shall be bolted to a square base with continuously welded corners. An electrical conduit shall be provided from the fan base into the motor compartment. Unit shall bear an engraved aluminum nameplate and shall be shipped in ISTA certified transit tested packaging.

**Wheel:** Wheel shall be centrifugal backward inclined, non-overloading flat blade type, constructed of 100% aluminum, including a precision machined cast aluminum hub. Wheel hub shall be keyed and securely attached to the fan shaft. Wheel inlet shall overlap an aerodynamically efficient 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*.

**Coating:** All 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.

**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 regreasable ball type in a cast iron pillow block housing selected for a minimum L50 life in excess of 400,000 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 TCNS-B as manufactured by Loren Cook Company of Springfield, Missouri.