

# Typical Specifications

**Model:** VAHB

**Description:** Fan shall be a fixed pitch, belt driven vane axial fan.

**Certifications:** Fan shall be manufactured at an ISO 9001 certified facility. Fan shall be listed by Underwriters Laboratories (UL 705) and UL listed for Canada (cUL 705). Fan shall bear the AMCA certified ratings seal for sound and air performance.

**Construction:** Fan shall be of bolted and welded construction utilizing corrosion resistant fasteners. Housing shall be minimum 10 gauge steel with continuously welded seam. Housing shall incorporate minimum 1-1/4" x 1-1/4" x 1/4" welded inlet and outlet flanges pre-punched for mounting. Housing shall include nine continuously welded steel discharge vanes and aerodynamically designed dual belt tunnels. Copper lube lines shall be extended from the bearings to the outside of the housing. Adjustable motor plate shall be attached to a welded motor sub-base and shall utilize threaded studs for positive belt tensioning. 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 steel fan components shall be Lorenized™ with an electro statically 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 fixed pitch; one piece cast aluminum, 7-blade airfoil design. The propeller shall be attached to the shaft utilizing a taper lock bushing and retaining plate bolted to the shaft. Propeller shall be balanced in accordance with AMCA Standard 204-05, *Balance Quality and Vibration Levels for Fans*, Category BV-3.

**Motor:** Motor shall be heavy duty type 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 500,000 hours for horizontal units and L50 life in excess of 300,000 for vertical units at maximum cataloged operating speed, horsepower, and static pressure.

**Fan Shaft:** Fan 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.

**Belts and Drives:** Belts shall be oil and heat resistant, static conducting. Drives shall be precision machined cast iron fixed pitch 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 VAHB as manufactured by Loren Cook Company of Springfield, Missouri.