Typical Specifications

Model: **ERV 1500 - 10000**

Description: Unit shall be belt driven energy recovery ventilator.

Certifications: Unit shall be manufactured at an ISO 9001 certified facility. Unit shall be listed by Underwriters Laboratories (UL 1812) and UL listed for Canada (cUL 1812). Unit shall bear the AMCA certified ratings seal for air performance.

Construction: The unit shall be of bolted construction utilizing corrosion resistant fasteners. Housing shall be minimum 18 gauge galvanized steel, bolted to a minimum 16 gauge galvanized steel base with integral lifting lugs. Unit shall be provided with insulated top, side and interior panels utilizing one inch thick, three-pound density foil faced insulation, manufactured and tested to meet NFPA 90A and UL 181 requirements. Insulation shall be fastened to the panels with weatherproof adhesive and weld pins. Energy recovery wheel shall be mounted in a slide track for easy inspection and cleaning. Separate blower and motor shall be provided for supply and exhaust airstream for independent system balancing. Blower and motor assemblies shall be mounted on rubber vibration isolators. Two inch thick, MERV 8 filters shall be provided for supply and exhaust airstreams. Removable side panels shall be provided for easy access to motors, blowers, filters, and energy recovery wheel. 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.

Energy Wheel: Wheel shall be a total energy recovery wheel constructed of fluted synthetic fiber-based media impregnated with a non-migrating water selective 4 angstrom molecular sieve desiccant. Wheels with the desiccant applied in a secondary operation will not be accepted.

Fan Wheel: Wheel shall be DWDI centrifugal forward curved type, constructed of coated steel. Wheel shall be balanced in accordance with AMCA Standard 204-05, *Balance Quality and Vibration Levels for Fans.*

Motors: Motor shall be Nema design B with class B insulation rated for continuous duty and furnished at the specified voltage, phase, and enclosure.

Coils: All heat and cooling coils shall be tested and rated in accordance with ARI Standard 410 and certified in accordance with the ARI Certification Program. DX coils shall be equipped with distributors to receive expansion valves at the liquid connections.

Controls and Electrical: All internal electrical components shall be pre-wired for single point power connection. Internal control panel shall be UL listed with hinged access door and interlocking NEMA 3R disconnect switch. Each motor shall have a motor starter combination providing fuseless disconnect, over-current, overload and motor starting functions. A 24 volt circuit shall be provided to allow remote on/off control of ERV by building control system. Short circuit protection shall be provided on primary and secondary of control power transformer.

Bearings (Size 1500-8500): Bearings shall be permanently lubricated, sealed ball type selected for a minimum L50 life in excess of 200,000 hours at maximum cataloged operating speed.

Bearings (Size 10000): Bearings shall be designed and individually tested specifically for use in air handling applications. Construction shall be heavy duty regreasable ball type in a pillow block cast iron housing selected for a minimumL50 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 percent of the installed motor horsepower. The variable pitch motor drive must be factory set to the specified fan RPM.

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

2/23/21