* 1. Energy Recovery Wheel (Enthalpy)

1. General specifications
   1. Unit shall be supplied with a rotary heat exchanger capable of transferring sensible and/or latent energy, manufactured by AiRotor Inc.
   2. The wheel exchanger shall be listed in the AHRI Certified Product Directory. The exchanger shall bear the AHRI Certified Product Seal.
   3. Performance data derived from laboratory testing or heat exchanger conditions shall be in accordance with ASHRE Standard 84. Performance shall be rated with AHRI Standard 1060 testing procedures.
   4. Sensible effectiveness, latent effectiveness, total effectiveness, pressure drop, exhaust air transfer ratio (EATR) and outside air correction factor (OACF) ratings shall be clearly documented with performance testing conducted in accordance with ASHRE Standard 84 and AHRI Standard 1060.
2. Product Specifications
   1. Rotary heat exchanger shall meet or exceed performance listed on unit schedule.
   2. Heat exchanger shall be provided with a maximum face velocity less than 1000 feet per minute. Face velocity calculations shall be based on the finned area of the exchanger.
   3. Exchanger manufacturer shall provide an optional purge section to reduce amount of air crossover.
   4. Exchanger shall utilize a permanently bonded 3 angstrom molecular desiccant sieve. Wheel depth shall be a minimum of 8” (200 mm) in depth to provide high efficiency and effectiveness.
   5. The unit shall be provided with an air-to-air rotary wheel heat exchanger in a cassette frame complete with seals, drive motor and drive belt. The energy recovery wheel shall be an integral to unit air handler.
   6. The unit shall have a minimum of 2" MERV 8 filters for the outdoor and return air paths before the wheel to help keep the wheel clean and reduce maintenance.
   7. The matrix design shall have channels to reduce cross contamination between the outdoor air and the exhaust air. All diameter and perimeter seals shall be provided as part of the cassette assembly and shall be factory set. Drive belt(s) of stretch urethane shall be provided for wheel rim drive without the need for external tensioners or adjustment.
   8. Wheel frame construction shall be a welded hub, spoke and rim assembly of stainless, plated and/or coated steel and shall be self-supporting.
   9. The rotor hub shall require no maintenance and shall be equipped with permanently lubricated ball bearings, mounted, and installed in a protected position within the hub. Bearings shall be serviceable or replaceable without complete removal of the rotor from the case.
   10. Fractional horsepower 3-phase drive motor.
   11. Optional VFD can be provided to modulate wheel speed.