* 1. Energy Recovery Wheel (Sensible)
1. General Specifications
2. Furnish and install the SEW or sensible energy wheel as shown in the schedule, to be manufactured by Novelaire.
3. The media shall be in accordance with NFPA or UL guidelines. The minimum acceptable performance shall be as specified in the drawings/submittal.
4. The NovelAire SEW is AHRI certified using the 84-2020 ASHRAE Standard (Method of Testing Air-to-Air Heat/Energy Exchangers) and AHRI Standard 1060-2018 (Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment) and carries the AHRI certification stamp.
5. Product Specifications
6. The SEW or sensible energy wheel shall be constructed of corrugated synthetic fibrous media.
7. Rotors must be shown to be hydrophobic to limit the potential transfer of water vapor.
8. Media shall be synthetic to provide corrosion resistance and resistance against attack from laboratory chemicals present in pharmaceutical, hospital, etc. environments as well as attack from external outdoor air conditions.
9. Face flatness of the wheel shall be maximized(+/-0.032 in) in order to minimize wear on inner seal surfaces and to minimize cross leakage.
10. Rotor shall be constructed of alternating layers of flat and corrugated media. Wheel layers should be uniform in construction forming uniform aperture sizes for air flow.
11. Wheel layers that can be separated or spread apart by air flow are unacceptable due to the possibility of channeling and performance degradation.
12. The media shall be listed or recognized by UL or equivalent. The minimum acceptable performance shall be as specified in the drawings/submittal.
13. The wheel frames shall consist of evenly spaced galvanized steel spokes, galvanized steel outer band and rigid center hub. The wheel construction should allow for post fabrication wheel alignment
14. The wheel seals shall be full contact nylon brush seals or equivalent. Seals should be easily adjustable.
15. Cassettes shall be fabricated of heavy duty reinforced galvanized steel. Cassettes shall have a built in purge section minimizing cross contamination of supply air. Bearings shall be inboard, zero maintenance, permanently sealed roller bearings, or alternatively, external flanged or pillow block bearings.
16. Drive systems shall consist of fractional horsepower A.C. drive motors with multilink drive belts.
17. Optional VFD can be provided to modulate wheel speed.