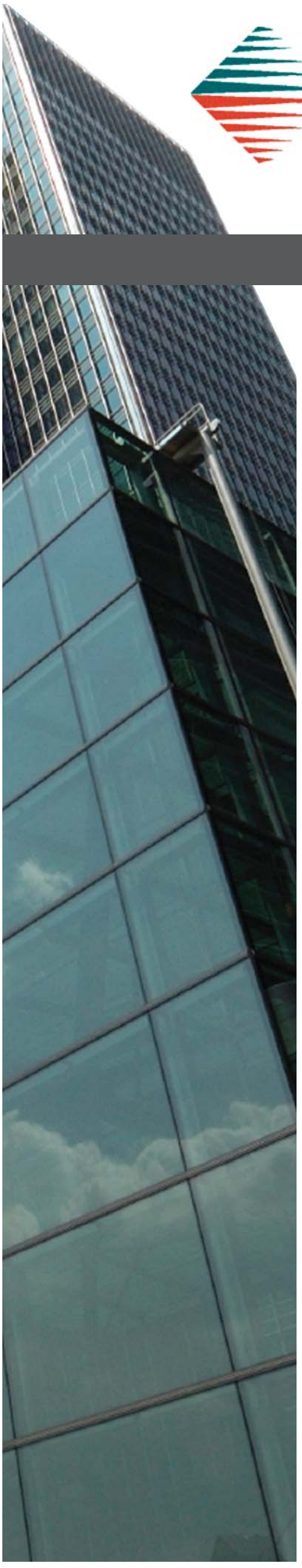


Innergy tech inc.

ENERGY RECOVERY WHEELS

The most effective type of energy recovery

ARI certified product

Innergy tech's ERW3000 energy recovery wheels offer the most effective air-to-air energy recovery technology. In a world where new standards for indoor air quality (IAQ) leads to increased heating, cooling, humidifying and dehumidifying energy consumption and costs, HVAC manufacturers and building owners are now more than ever on the lookout for solutions. Fortunately, no other product is better equipped to face this challenge than Innergy tech's energy recovery wheels. In fact, not only does this technology can help in meeting or even exceed all these regulations, but it can also result in substantial energy savings which often lead to some of the shortest payback periods seen in this industry.

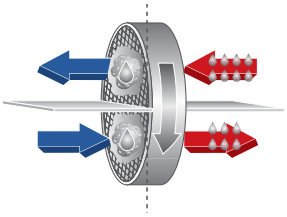
Furthermore, with its high quality construction, its unique polymer desiccant and **ARI certified performances**, one can easily understand why Innergy tech's energy recovery wheels are fast becoming one of the most popular energy recovery components in the industry.

Features and benefits:

- Recovers sensible and latent energy
- **Rapid payback due to high levels of effectiveness**
- Bactericide desiccant; will not promote growth of mold or bacteria
- Unique polymer desiccant
- Segmented design for ease of maintenance
- Aluminum media for increased fire protection
- Meets NFPA 90A and NFPA 90B, tested under UL Standard 723
- **ARI certified performances; Bears the ARI Standard 1060-2005 certified seal**

Options:

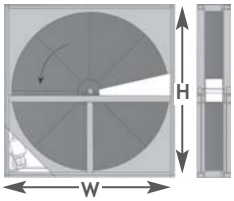
- Purge section
- Variable frequency drive (VFD)
- Sensible only wheels also available



Operating principle:

Optimal energy transfer The ERW3000 Series installed in a ventilation system recovers both heat and moisture from one air stream and transfers it to the other. It supplies a continuous flow of fresh air providing a comfortable level of humidity at a minimal ventilation cost.

Dimensional data



Diameter in/mm	Width (W) in/mm	Height (H) in/mm	Depth(D) in/mm	Weight lb/kg
48/1219	58/1473	58/1473	15/381	720/327.3
54/1372	64/1626	64/1626	15/381	790/359.1
62/1575	72/1829	72/1829	15/381	910/413.6
70/1778	80/2032	80/2032	15/381	1080/490.9
78/1981	87/2210	87/2210	15/381	1230/559.1
88/2235	95/2413	95/2413	16/406	1400/636.4
96/2438	103/2616	103/2616	16/406	1560/709.1
108/2743	115/2921	115/2921	16/406	1800/818.2
120/3048	127/3226	127/3226	16/406	2080/945.5

Heat wheels Specifications

1- General Specifications:

1.1 Furnish and install the ERW3000 energy recovery wheel, to be manufactured by Innergy tech inc.

1.2 The energy recovery wheel shall transfer both sensible and latent energies between outgoing and incoming air streams in a counter flow arrangement.

1.3 The energy recovery wheel shall be labeled for direction of air flow, exhaust and supply inlets and outlets.

1.4 The energy recovery wheel must be manufactured in North America.

1.5 The energy recovery wheel manufacturer must have at least ten (10) years of experience in the manufacturing of energy recovery components.

2- Product Specifications:

Media

2.1 The rotor media shall be made of aluminum with a minimum thickness of 2 mil.

2.2 All surfaces shall be coated with a non-migrating desiccant specifically developed for the water vapor transfer.

2.3 Etched or oxidized surfaces are not acceptable.

2.4 Desiccant must be a polymer hygroscopic coating.

2.5 Desiccant shall be bactericide and non-corrosive.

2.6 The rotor shall be constructed of equal width alternate layers of corrugated and flat aluminum sheet material to create a flat and smooth surface.

2.7 Dry particles up to 800 microns shall freely pass through the wide angle media, minimizing air pressure drop and pre-filtering requirements.

2.8 As specified in ASHRAE 52.2-1999, MERV 6 type filters shall be used on both faces of the wheel. Filters to be supplied by others.

Purge & Casing Assembly

2.9 The unit shall be provided with a factory set, but field adjustable, purge section designed to limit cross contamination when operated under appropriate design conditions.

2.10 The rotor shall be provided with a structural frame which limits the deflection of the rotor due to air pressure differential to less than 1/16 of an inch.

2.11 The framing shall be made of heavy-duty welded tubular steel construction.

2.12 Framing shall be painted with polyester based enamel.

2.13 The cover panels shall be made of galvanized steel to prevent corrosion.

2.14 The cassette shall be mounted with removable cover panels for service access to the motor and drive.

2.15 The rotor shall be supported by two pillow block bearings which can be maintained or replaced without removal of the rotor from its casing or the media from its spoke system.

Rotor seals

2.16 The rotor shall be supplied with non-contact labyrinth seals facing the media and with nylon contact seals on all other surfaces.

2.17 The seals shall be specifically designed to compensate for pressure fluctuations.

2.18 The seals shall be adjustable to ensure proper sealing.

Rotor frame system

2.19 Rotor spoke system shall be a segmented design.

2.20 The rotor spoke system shall be made of strong aluminum materials providing the structural integrity required at design pressure differentials.

2.21 The rotor hub shall be made of extruded aluminum, without welding, for precision machining and stiffness.

Drive system

2.22 The rotor shall be driven by a high performance link belt made of polyurethane elastomer reinforced with polyester for easier installation and replacement.

2.23 An A/C inverter duty motor shall drive the rotor.

2.24 Wheel shall be perimeter driven.

2.25 Speed reduction is available by pulley change out or by controlling the motor frequency.

2.26 Speed reducer shall be permanently lubricated.

Options

2.27 Optional VFD controllers.

2.28 Optional wheel surface paint for applications in corrosive environments.

3- Quality Assurance Specifications:

3.1 The energy recovery wheel shall be a UL recognized component and bear the UL mark.

3.2 The energy recovery wheel shall comply with the requirements of UL723.

3.3 The manufacturer's quality procedures shall be ISO 9001–2000 certified.

3.4 The manufacturer shall be a participant in the ARI Standard 1060-2005 certification program.

4- Performance Specifications:

4.1 The energy recovery wheel shall bear the ARI 1060-2005 Standard Certified Product Seal.

4.2 Sensible, latent and total effectiveness along with pressure drop, EATR and OACF ratings, shall be clearly documented in the ARI Certified Product Directory (Standard 1060-2005).

4.3 Performance tests shall be conducted in accordance with AHSRAE Standard 84-91.

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