

Sale terms and conditions concerning the quality, packaging, handling and maintenance of Energy Recovery Wheels.



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1. Quality assurance and measurement process by manufacturer

1.1. In order to ensure quality, Seller/Manufacturer records each RRG by taking pictures of ready product:

1.1.1.before packing (at least 4 pictures from 4 sides) 1.1.2.after packing (at least 2 pictures from 2 sides)

1.1.3. prepared for transportation (at least 1 overall picture).

1.2. in a case of claim about quality those photos will be used to evaluate of a claim (also for insurance claim from logistic). Those pictures will be archived for 6 months from date of shipment.

2. Quality acceptance guide / allowed imperfections:

2.1. steel sheet of casing is without corrugations and indentations, clean, no inscriptions, acceptable scratches created from technological reasons during production (a.k.a. machine traces)

2.2. each casing is marked with necessary safety signs (e.g high voltage, grounding point)

2.3. cloth sealing system, with material affixed to the wheel circumference is to be homogeneous and undamaged, joined in an overlap in the direction of the wheel rotation, covering space of 20-25 mm from the edge of wheel

2.4. each wheel marked with two directional labels (arrows), sticked in accordance with the direction of work

2.5. all screws in casing are mounted and there are no loose screws

2.6. all holes in casing are covered with screws, bolts or plugs

2.7. horizontal brushes are parallel to the wheel and touches the surface of aluminum matrix

2.8. acceptable mechanical damages of surface of wheel such as wraps, dents, burrs, crushing, with a depth not bigger than 3 mm, and a total area not greater than 0.5% for each side of the wheel

2.9. acceptable aluminum matrix irregularities, with foil edge sticking out no more than 3 mm and imperfection width of not more than 45 mm per each side of the wheel

2.10. rotating rotor does not contact with the casing (only cloth sealing system have contact with casing)

2.11. two transport belts are installed

2.12. segmented belt fastened and tight

2.13. joining elements (rotor bolts, shaft washers and bolts, engine mount bolts) are screwed and marked with yellow paint

2.14. each exchanger is marked with individual label containing the serial number (or number of order) 2.15. each exchanger have an individual tilt indicator

Imperfections from 2.8 and 2.9 do not impact performance of the product or product durability / life- expectancy. Therefore, those may not be basis for a quality claim or refuse delivery. In addition, manufacturer takes reasonable steps to ensure high

quality and minimizing above imperfections. It is not allowed to unscrew or remove parts from point 2.12, 2.13 and 2.13 by Customer, under the risk of loses the warranty.

3. Packaging of RRG:

3.1. Single piece packaging:

3.1.1.aluminum matrix covered by sheets of cardboard 3.1.2.casing corners secured with cardboard angles 3.1.3.all tightly wrapped with a white stretch film

3.1.4.each RRG marked with the type of exchanger, order number, safety signs 3.1.5.protruding places are marked with a red X-mark

3.1.6.wooden structural elements may be added to ensure safety

3.2. Collective packaging (if applies):

3.2.1.as per MOQ = 4 or 5 pieces in a wooden box, possible to lift using a forklift 3.2.2.each box marked with the type of exchangers, order number, safety signs

3.2.3.one tilt indicators may be added to ensure safe transportation



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4. Packaging of loose wheels:

- 4.1.1.a wheel arranged sideways on a pallet and the surface of pallet is larger than the diameterof the wheel
- 4.1.2. aluminum matrix covered at both sides by a sheet of cardboard and/or securing sponge
- 4.1.3.side edges secured with cardboard and/or securing sponge
- 4.1.4.all uptight with bonding tape
- 4.1.5.all wrapped around with a white stretch film
- 4.1.6.as per MOQ = 4 or 5 pieces possible to lift using a forklift

4.1.7.each box marked with the type of exchangers, order number, safety signs 4.1.8.wooden structural elements may be added to ensure safety

4.1.9.two tilt indicators may be added to ensure safe transportation

5. Customer verification after delivery:

5.1. Within 48 hours of delivery, the Customer should verify each heat exchanger and file any complaint. The following quality aspects must be verified:

5.1.1.compliance of the delivered goods with the order

5.1.2. providing the Technical and Operating Documentation

5.1.3.the occurrence of mechanical damage and other nonconformities that may indicate irregularities in the transportation process – in this situation, the Customer must document the condition of the shipment and identified defects with photos.

6. Handling and operating guidelines:

6.1. our wheel are equipped with the special lifting straps attached on the both sides of the casing – they are already tied to the transportation holes on both sides of the upper casing of an exchanger and are designed particularly for the lifting purposes – any other method of lifting is prohibited – complaints for the errors caused by incorrect transportation of wheels (without using lifting straps) will be automatically rejected

6.2. for internal transportation it's recommended to use of cranes / lifts and lifting straps

- 6.3. lifting straps provided are adapted to the weight of the exchanger and cannot be replaced
- 6.4. remove the lifting straps after installation

6.5. it is not acceptable to roll the wheel on any surfaces

6.6. it is not acceptable to place the wheel itself directly on the floor or other surface, unless

it is done for limited amount of time, and supported on multiple points using soft and clean pads (e.g. felt or soft rubber)

6.7. during transportation, the exchangers must be placed vertically, and it is not allowed to tilt them or transport in lying position – each exchanger is marked with tilt indicator and after transportation a slope \leq 30° is acceptable

6.8. a special care is needed when taking out from stretch film and cardboard box

7. Storage guidelines:

7.1. if the exchanger is not installed immediately, leave the product in its original packaging and follow the rules of proper storage – prolonged exposure of the product to the improper conditions may damage and shorten the lifetime of various

rotary heat exchanger components

7.2. avoid exposure to moisture, excessive sunlight and other weather conditions

7.3. make sure the rotary heat exchanger is positioned vertically on the dry and flat ground; long- term storage on curved floor may cause tilting of energy recovery wheel and seriously affect the factory precalibration. In extreme cases, warped wheel may scrub the interior of the casing and force the user to perform additional adjustments. 7.4. support and secure the exchanger against mechanical damages

7.5. do not stack exchangers on top of each other - each product needs to be placed separately

8. Connecting to the power

8.1. According to "Motor Manual" file.



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9. Maintenance

9.1. user must follow instructions for installation and maintenance as described in Technical and Operating Documentation – please use latest version of "Operational Manual" which is available at our website
9.2. adjusting the belt tension by the service technician is necessary – according to timetable from "Operational Manual"

9.3. maximum air velocities up to 5 m/s - if the wheels were operated at a higher velocity, complaints will be rejected

9.4. correct value of RPM is 10 or 20 – if the wheels were operated at a different speed, complaints will be rejected 9.5. all remaining AHU operating parameters should be in accordance with generally known and used

principles for the operation of air handling units and current level of knowledge about thermodynamics – if the wheel will be exposed to other/differ operating conditions, complaints will be rejected

9.6. wheel frost control must be provided, by preheating, rotation control or both

9.7. motor overcurrent protection must be provided

10. Claim procedure

In case of a claim Customer should contact to our Technical Support and fill "Customer claim form" (only gray fields) which is

attached to this document. It is the Customer's responsibility to properly document the complaint by:

- 10.1. taking pictures of heat recovery wheel:
- 10.1.1. nameplate with serial number and tilt indicator
- 10.1.2. pictures of whole exchanger from each side
- 10.1.3. pictures with clear marking of non-conformity
- 10.1.4. for already assembled and working exchangers pictures of whole exchanger assembled in air handling unit
- 10.2. very detailed description of irregularities:
- 10.2.1. what happened?
- 10.2.2. what were the signs of the irregularity?
- 10.2.3. how the irregularities were detected?
- 10.2.4. what was the working parameters of AHU?

The more photos, information and data, the faster and more efficient the complaint handling will be.

3.2.1.as per MOQ = 4 or 5 pieces in a wooden box, possible to lift using a forklift 3.2.2.each box marked with the type of exchangers, order number, safety signs

3.2.3.one tilt indicators may be added to ensure safe transportation

Only correctly documented and described complaints will be considered. In the absence of evidence of irregularities, complaints will be rejected. Swiss Rotors will answer to all correctly submitted complaints within 72 hours of receiving full data necessary for the assessment.