

I. Product specification

1. Overview.

- RT series is a complete set: aluminum wheel, casing, sealing, drive belt, and motor with optional controls.
- **Recovery /wheel types:**
 - sorption (total: sensible and latent),
 - enthalpy (hygroscopic: sensible and moderate latent),
 - condensation (non-hygroscopic: sensible-only)
- Airflow range: from 353 – 40 715 m³/h.
- Wheel diameters: 500 – 2400 mm, with depth of 200mm.
- Manufactured and delivered out of 4 locations in Switzerland, Poland, UAE and the US
- Performance certified with Eurovent and AHRI.
- Wheels independently tested and certified according to Hygienic norms – VDI 6022, SWKI VA104-01



2. Wheel Construction.

- Wheel structure: Monolith (patent-pending solution).
- Hub: made of extruded aluminum, diameter of 150mm or 200mm, depending on wheel diameter. For wheel diameters over 1800mm, hub is reinforced with 45mm spokes to reduce torque and eliminate material fatigue.
- Bearings: Permanently sealed and lubricated ball bearings. Oversized bearings designed for over 200 000 hours of duty (20000 L10 hours of duty, 1000 rpm, 3000 kg). Maintenance free.

3. Energy Recovery Solution.

- Transfer media: corrugated aluminum with optional desiccant coating for latent recovery.
- Desiccant type: 3A molecular sieve as desiccant for fast absorption of moisture and antimicrobial properties.
- Cross-contamination: minimal - high selectivity desiccant absorbs only water molecules of 2.7A (only water molecules fits desiccant pores of 3A; most contaminants like ammonium >3A).
- Performance certification: Eurovent and 1060 AHRI Certified with high recovery efficiency.

4. Casing Frame.

- Structure: double wall.
- Frame material: 1mm to 1.5mm prime hot-dip galvanized steel (DX51D+Z275), tested for corrosion resistance of 400 hours of salt spray.
- Sizes: 18 industry standard casing sizes.

5. Sealing.

- System: twin on both sides of wheel.
- Sealing on wheel peripheries: non-contact sealing type around both diaphragms, reinforced and industrial-grade fabric.
- Sealing on central beams: durable brush seals along both central beams.

6. Motors.

- AC 3 phase motor (230/400V 3 Ph 50Hz) as standard, reliable and UL-recognized
- EC 1 phase motor (230V 1Ph 50Hz) as option - high efficiency (IE4+) with integrated controls for variable speed
- Controls: 0-10V analog signal or ModBus digital connection.

7. Belt Drive System.

- Segmented composite or durable polyurethane belt. No dust.

8. Cleaning, Purge, Drain pan.

- Transfer media: cleanable (low-pressure air or water, max. 20bar, temp. up to 30°C, at distance over 50cm).
- Purge section: provided as standard, for applications that requires additional elimination transfer of exhaust air into the supply air.

9. Warranty.

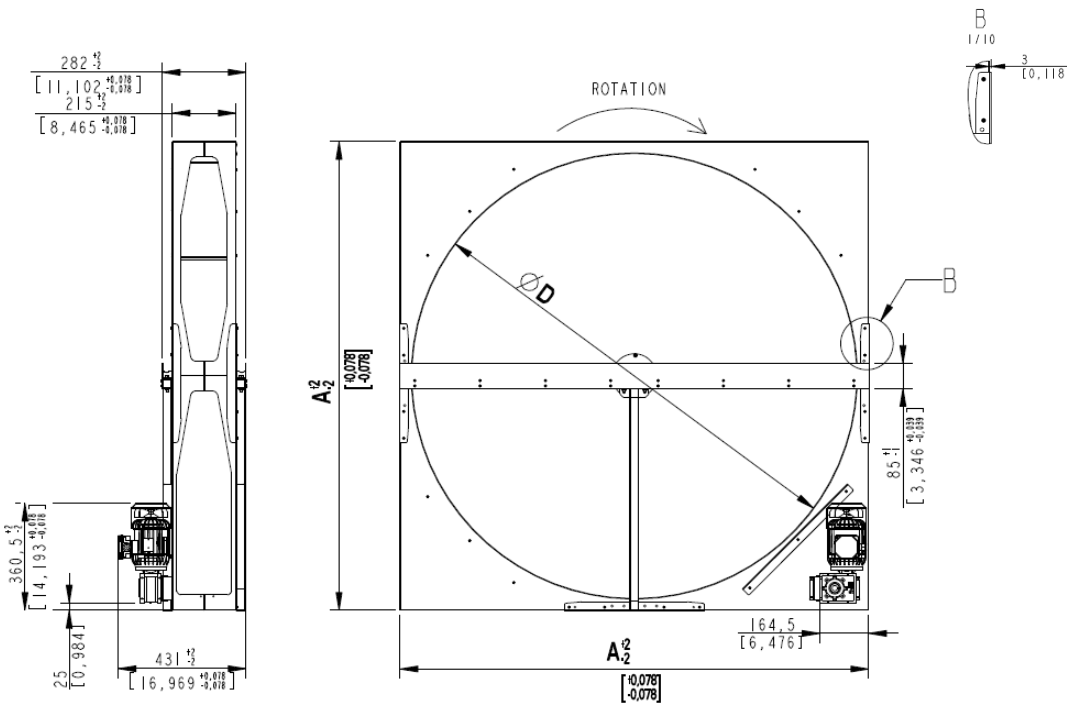
- Terms: 2-Year limited warranty.

II. RT Series - technical data:

1. Energy recovery model sizes and performance details at velocity range of 1 – 5 m/s (min / max):

| RT- Series | Width x height x depth | Airflow (1 - 5 m/s) | Effectiveness min/max | | | Pressure loss |
|------------|------------------------|---------------------|-----------------------|---------|---------|---------------|
| | | | Sensible% | Latent% | Total% | |
| Model | mm | m3/h | | | | Pa |
| RT - 500D | 580 x 580 x 215 | 353 - 1767 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 600D | 680 x 680 x 215 | 509 - 2545 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 700D | 780 x 780 x 215 | 693 - 3464 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 800D | 880 x 880 x 215 | 905 - 4524 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 900D | 980 x 980 x 215 | 1145 - 5726 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1000D | 1080 x 1080 x 215 | 1414 - 7069 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1100D | 1180 x 1180 x 215 | 1711 - 8553 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1200D | 1280 x 1280 x 215 | 2036 - 10179 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1300D | 1380 x 1380 x 215 | 2389 - 11946 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1400D | 1480 x 1480 x 215 | 2771 - 13854 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1500D | 1580 x 1580 x 215 | 3181 - 15904 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1600D | 1680 x 1680 x 215 | 3619 - 18096 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1700D | 1780 x 1780 x 215 | 4086 - 20428 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1800D | 1880 x 1880 x 215 | 4580 - 22902 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 1900D | 1980 x 1980 x 215 | 5104 - 25518 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 2000D | 2080 x 2080 x 215 | 5655 - 28274 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 2200D | 2280 x 2280 x 215 | 6842 - 34212 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |
| RT - 2400D | 2480 x 2480 x 215 | 8143 - 40715 | 87%-67% | 86%-67% | 86%-66% | 35 - 286 |

2. Casing drawings and dimensions [mm]



| RT /RT-D Series | Dimensions [mm] | | |
|-----------------|-----------------|------|-----|
| Model | A | B | C |
| RT - 500D | 580 | 580 | 215 |
| RT - 600D | 680 | 680 | 215 |
| RT - 700D | 780 | 780 | 215 |
| RT - 800D | 880 | 880 | 215 |
| RT - 900D | 980 | 980 | 215 |
| RT - 1000D | 1080 | 1080 | 215 |
| RT - 1100D | 1180 | 1180 | 215 |
| RT - 1200D | 1280 | 1280 | 215 |
| RT - 1300D | 1380 | 1380 | 215 |
| RT - 1400D | 1480 | 1480 | 215 |
| RT - 1500D | 1580 | 1580 | 215 |
| RT - 1600D | 1680 | 1680 | 215 |
| RT - 1700D | 1780 | 1780 | 215 |
| RT - 1800D | 1880 | 1880 | 215 |
| RT - 1900D | 1980 | 1980 | 215 |
| RT - 2000D | 2080 | 2080 | 215 |
| RT - 2200D | 2280 | 2280 | 215 |
| RT - 2400D | 2480 | 2480 | 215 |

III. AHRI certified performance:

Performance benefits:

- Meets ErP 2018 requirements of recovery efficiency.
- **High sensible and latent recovery effectiveness at moderate pressure drop.**
- AHRI certified and independently tested wheel performance.
- Complete list of certificates is available on AHRI site: www.ahridirectory.org

AHRI CERTIFIED
www.ahridirectory.org

Certificate of Product Ratings

AHRI Certificate Reference Number : 204014544 Date : 07/01/2019 Model Status: Active
 Old AHRI Reference Number :
 Brand Name : Swiss Rotors
 Product Type : Wheel
 Model Number : RT - 1900-S
 Selection Software Name :
 Selection Software Version :

Rated as follows in accordance with the latest edition of ANSI/AHRI 1000 (I-P) Performance Rating of Air-to-Air Exchangers for Energy Recovery Ventilation Equipment and subject to rating accuracy by AHRI-sponsored, independent, third party testing.

| Normal Air Flow (cfm): 8410 Pressure Drop (at Normal Airflow, in H ₂ O): 0.82 | Leakage Ratings | | Pressure Drop | EATR(%) | OACF | Purge/Angle |
|---|-----------------|-----|---------------|---------|------|-------------|
| Test 1 | 0 | 2.4 | 1.10 | | | N/A |
| Test 2 | 1 | 0.0 | 1.20 | | | 4 |
| Test 3 | 0.5 | 0.0 | 1.17 | | | 8 |

| | Sensible(%) | Latent(%) | Total(%) |
|-----------------------|-------------|-----------|----------|
| 100% Air Flow Heating | 74 | 74 | 74 |
| 75 % Air Flow Heating | 77 | 76 | 77 |
| 100% Air Flow Cooling | 71 | 72 | 72 |
| 75% Air Flow Cooling | 74 | 77 | 76 |

| | Net Sensible(%) | Net Latent(%) | Net Total(%) |
|-----------------------|-----------------|---------------|--------------|
| 100% Air Flow Heating | 73 | 73 | 73 |
| 75 % Air Flow Heating | 76 | 76 | 76 |
| 100% Air Flow Cooling | 70 | 71 | 71 |
| 75% Air Flow Cooling | 73 | 76 | 75 |

AHRI CERTIFIED
www.ahridirectory.org

*Active Model Status are those that an AHRI Certification Program Participant is currently producing AND selling or offering for sale. CR new models that are being marketed but are not yet being produced. Production Shipped Model Status are those that an AHRI Certification Program Participant is no longer producing BUT is still selling or offering for sale.
STATUS NOT AUTHORIZED BY AHRI include an availability in sale. The new published rating is shown along with the previous (i.e. DRN) rating.

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CERTIFICATE REPAIR/REPLACEMENT
 The first reference for the model used on this certificate can be verified at www.ahridirectory.org, click on "Verify Certificate" link and enter the AHRI Certificate Reference Number and the date on which the certificate was issued.

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IV. EUROVENT certified:

CERTIFICATE N° 19.05.031

Air-to-Air Regenerative Heat Exchangers / Echangeurs régénérateur air air

Granted on May 28, 2019 - Date 1ère admission 28 mai 2019

This document is valid at the date of issue - Check the current validity on: www.eurovent-certification.com

Participant/Titulaire
 Swiss Rotors AG
 Zugerstrasse 70B
 6340 SAAR, Switzerland

This certificate is issued by Eurovent Certita Certification according to the certification rules:
 ECP AARE - - Air-to-Air Regenerative Heat Exchangers - in force at established date.

Pursuant to the decision notified by Eurovent Certita Certification, the right to use the mark ECP shall be granted to the beneficiary company for all products inside the defined scope according to "certify-all" principle and in the conditions defined by the certification program mentioned.

Unless withdrawn or suspended, this certificate remains valid as long as the requirements for the certification program framework are met. The validity of the certificate is to be verified on www.eurovent-certification.com

THIS CERTIFICATE HAS BEEN ISSUED ON 28/05/2019
 THIS CERTIFICATE IS VALID UNTIL 31/08/2020

Ce certificat est délivré par Eurovent Certita Certification dans les conditions fixées par le référentiel:
 ECP AARE - - Echangeurs régénérateur air air - en vigueur à date d'émission.

En vertu de la décision notifiée par Eurovent Certita Certification, le droit d'usage de la marque ECP, est accordé à la société qui en est bénéficiaire pour les tous les produits entrant dans le champ d'application défini selon le principe "certify-all" et dans les conditions définies par le programme de certification mentionné.

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CE CERTIFICAT A ÉTÉ ÉMIS LE 28/05/2019
 CE CERTIFICAT EST VALIDE JUSQU'AU 31/08/2020

Paris, 28 mai 2019
 MANAGING BOARD MEMBER / MEMBRE DIRECTEUR

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 From: www.cofrac.com
 Accreditation #4602 Products and Services Certification according to NF EN ISO 9001:2015 - From: www.cofrac.com

CERTIFICATION DE PRODUITS ET SERVICES
 COFRAC est accrédité en accord MSA (USA) et MSA (FRANCE) par le comité de normalisation américain (ANSI) et le comité de normalisation français (AFNOR).
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CERTIFICATE N° 19.05.031

Appendix / Annexe

Granted on May 28, 2019 - Date 1ère admission 28 mai 2019

This document is valid at the date of issue - Check the current validity on: www.eurovent-certification.com

List of certified products and characteristics is displayed on: www.eurovent-certification.com

This certificate is valid for the following trade names:
 Ce certificat est valide pour les marques commerciales suivantes:
Trade Name / Marque Commerciale

Swiss Rotors

This certificate is valid for the following manufacturing places:
 Ce certificat est valide pour les sites de production suivants:
Manufacturing Place / Site de Production

Oensingen, Switzerland

This certificate is valid for the following software:
 Ce certificat est valide pour les logiciels de sélection suivants:
Software / Logiciel de sélection

SELECTION 30.11.2018_10

EUROVENT CERTITA CERTIFICATION SAS au capital de 100 000 € - 48-50 rue de la Victoire 75009 Paris - FRANCE
 Tel. : 33 (0)1 75 44 71 71 - 513 133 637 RCS Paris - SIRET 513 133 637 000 35 - TVA FR 5961313637
 508.D08 TEMPLATE_ECP_Certif_Air_Rev1.0

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