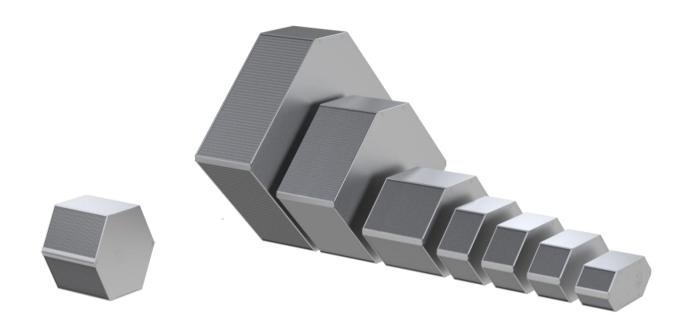
# **INSTRUCTIONS RFK+ / RFC+**







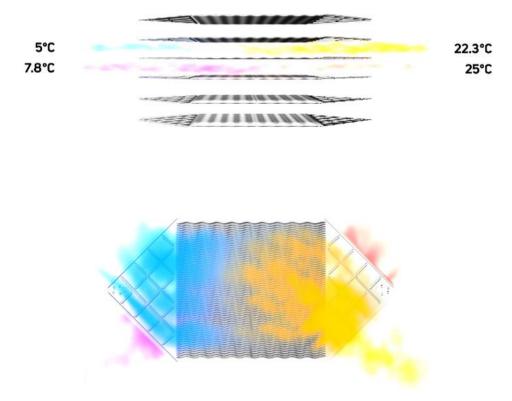
# **USE**

The air to air plate exchanger is used in heat recovery units, where it transfers both heat and moisture from exhaust air. The collected heat is returned to the space and significantly assists in lowering energy consumption. In the case of an enthalpy air to air exchanger, moisture is transferred through a special membrane returning humidity to the ventilated space. The efficiency of the exchanger is proportional to the outside temperature and the type of exchanger.

#### **DESCRIPTION**

The counterflow air-to-air exchanger is made of durable materials. The casing is made of aluminum sheet and sealed with hot melt adhesive. The faces are glued with MS polymer. The exchangers are silicone-free and comply with REACH directive 2006/1907/EC. The exchanger is composed of individual aluminum plates with a special foil, which are joined together by a double hem. Between the plates, exhaust air and outside air flow, transferring heat and moisture from one to the other.

In the heat exchanger, exhaust and supply air do not mix. Recutech exchangers are rated to 100% tightness.







# TECHNICAL DATA AND OPERATING CONDITIONS

Operating temperatures range from -40°C to +60°C.

Relative humidity from 0% to 100%.

The maximum recommended head flow is 3 m/s at the inlet.

It is recommended to use an exchanger with a balanced ratio at the outlet and inlet. Or with a maximum offset of +/- 50%. The maximum pressure difference between inlet and outlet is 800Pa.

Use of double hemming technology on all sizes to ensure maximum tightness.

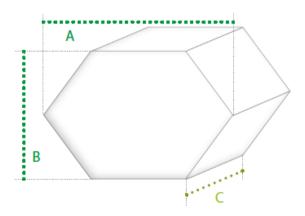
Efficiency up to 95% guaranteed by Eurovent certification.

# **TAGGING**

| Model  | Dimensions [mm] |     |            |                   | Example performance at EN 308* Winter (06.09.24) |                 |                        |                  |                        |                      |
|--------|-----------------|-----|------------|-------------------|--|-----------------|------------------------|------------------|------------------------|----------------------|
|        | А               | В   | С          | Plate<br>distance | Width  | Air<br>velocity | Air flow               | Pressure<br>drop | Sensible<br>efficiency | Latent<br>efficiency |
| RFK+16 | 366             | 366 | 100 - 750  | 2,8               | 300 mm   | 1,7 m/s         | 410 m³/h               | 77 Pa            | 188 %                  | 57 %                 |
| RFK+17 | 397             | 172 | 150 - 1000 | 2,2               | 300 mm   | 1,7 m/s         | 185 m <sup>3</sup> /h  | 137 Pa           | 81 %                   | 56 %                 |
| RFK+23 | 455             | 230 | 150 - 1000 | 2,2               | 300 mm   | 1,7 m/s         | 260 m <sup>3</sup> /h  | 133 Pa           | 81 %                   | 56 %                 |
| RFC+27 | 496             | 271 | 150 - 1000 | 2,5               | 300 mm   | 1,7 m/s         | 320 m <sup>3</sup> /h  | 123 Pa           | 77 %                   | 54 %                 |
| RFC+31 | 537             | 312 | 150 - 1000 | 2,5               | 300 mm   | 1,7 m/s         | 370 m³/h               | 162 Pa           | 80 %                   | 61 %                 |
| RFC+39 | 619             | 394 | 150 - 1000 | 3,0               | 300 mm   | 2 m/s           | 580 m <sup>3</sup> /h  | 174 Pa           | 76 %                   | 56 %                 |
| RFC+53 | 758             | 533 | 150 - 1000 | 3,0               | 300 mm   | 2 m/s           | 820 m³/h               | 180 Pa           | 74 %                   | 55 %                 |
| RFC+67 | 899             | 674 | 150 - 1000 | 2,9               | 300 mm   | 2 m/s           | 1050 m <sup>3</sup> /h | 215 Pa           | 74 %                   | 59 %                 |
| RFC+81 | 1040            | 815 | 150 - 1000 | 3,1               | 300 mm   | 2,3             | 1450 m³/h              | 252 Pa           | 74 %                   | 57 %                 |
| RFC+95 | 1182            | 957 | 150 - 1000 | 3,1               | 300 mm   | 2,3 m/s         | 1700 m <sup>3</sup> /h | 242 Pa           | 77 %                   | 57 %                 |

RFC+27-<mark>152</mark>-25 Key to coding (model case)

\* Outside: -3 °C, RH - 90 % Inside: 25 °C, RH - 60 %







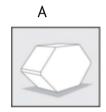


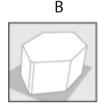
# **INSTALLATION**

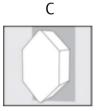
The exchanger can be installed in the unit in any position.

- A Installation on a wide tray, a 3-5° exchanger slope is recommended for condensate drainage
- B installation on the face of the face, recommended inclination of the heat exchanger 3 5° due to condensate drainage
- C Installation on a narrow tray, the position is only possible if the entire weight of the exchanger is not on the narrow tray alone

The two faces of the heat exchanger must be secured firmly and over the entire surface to prevent them from sagging during airflow.







Handle the heat exchangers with care. The exchanger is tested for tightness of the individual chambers and extra care must be taken to avoid damage to the exchanger plates!!!

Handle the heat exchanger with a handling strap, if the heat exchanger is not equipped with a handling strap, handle the heat exchanger by gripping the casing sides.

For large heat exchangers, it is possible to use vacuum grips attached to the casing sides. The heat exchanger is glued together using a special hot melt adhesive, so do not expose the heat exchangers to radiant heat above 80°C.







# CONDITIONS OF USE OF THE PRODUCT IN HAZARDOUS AREAS

The exchanger is not grounded as standard.

The grounding requirement must be specified in the order.

The heat exchanger will be grounded via its own grounding terminal. Grounding will be performed according to the requirements of ČSN 332030 Article 11.

#### **ODOUR**

The exchanger meets the hygiene standard DIN ISO 846. In addition to odors caused by microorganisms, other odors may occur.

Odors from production: The exchanger smells plastic, musty or even chemical. Odors are caused by the production process and storage, they evaporate after a few days of ventilation. Set the ventilation device to the highest air exchange rate and repeat until the odor disappears.

In addition to such odors, odors from the outside can also enter the interior through the ventilation equipment, transmission through the membrane cannot be ruled out. These odors can stick and last for a long time. It can also be odors from other rooms such as smoke, garlic, onions. The procedure is the same as for factory odors. (we recommend the use of a hood if it is about smells from the kitchen)

Unknown odor: If the odor accumulates and becomes prominent and does not evaporate after several days, contact your service technician. Before this step, check the air ducts and filters to see if the odor is coming from outside the heat exchanger.





#### MAINTENANCE AND CLEANING

As long as the filters approved by the manufacturer of the ventilation unit are used and their regular replacement is observed, the heat exchanger does not require special maintenance. If the exchanger does become dirty, carefully remove the exchanger and clean it with a soft brush. It is possible to use the brush attachment on the vacuum cleaner and vacuum up the dirt. Blow the cleaned heat exchanger with air (from the vacuum cleaner) so that there is no fine dust. If necessary, the exchanger can be rinsed with lukewarm water. Allow the exchanger to dry thoroughly before inserting it into the unit!

**Disinfection:** Bacillos AF can be used to disinfect the exchanger. Read carefully packaged instructions for use.

**Important:** Do not use any sharp tools or hard-bristled brushes for cleaning. Avoid pressure washing as there is a risk of permanent damage to the heat exchanger!

#### **DELIVERY AND PACKAGING**

The exchangers are supplied in foil-wrapped stackable pallets with order type information and a note on handling and storage basics.

Pallet dimensions: 89 x 89 cm

80 x 110 cm

117 x 117 cm

140 x 140 cm

170 x 170 cm



#### **STORAGE**

Stored heat exchangers must be properly and visibly marked in the warehouse to prevent confusion. Marking shall be done in a manner that does not damage the products. The temperature in the warehouse shall not fall below 0°C and shall not exceed 40°C. The exchangers shall be stored in a dry and dust-free environment. Storage of exchangers or packed pallets in layers shall be stored at a height proportional to their load capacity and stability.



