

Rotary heat exchangers Installation, initial operation and maintenance

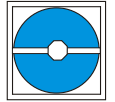
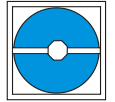
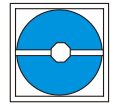


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Frame / Sheets

Frame and sheets are made of seawater resistant aluminum respectively of galvanized steel and thus, do not require maintenance.

Storage mass

Prior to initial operation especially of vertical rotors take care that no objects or pressing felt packings are blocking free movement. The storage mass of the rotary heat exchanger is made of lapped aluminum foil. In most cases and due to the countercurrent principle self-cleaning is realized being absolutely sufficient for the self-cleaning of the storage mass. In case self-cleaning is insufficient the storage mass can be periodically (dependent on the degree of soiling) cleaned with compressed air or in case of tenacious impurities with high-pressure cleaners (medium: purely water without chemical admixtures).

Attention: Impinge air or water jet rectangular onto the storage mass!

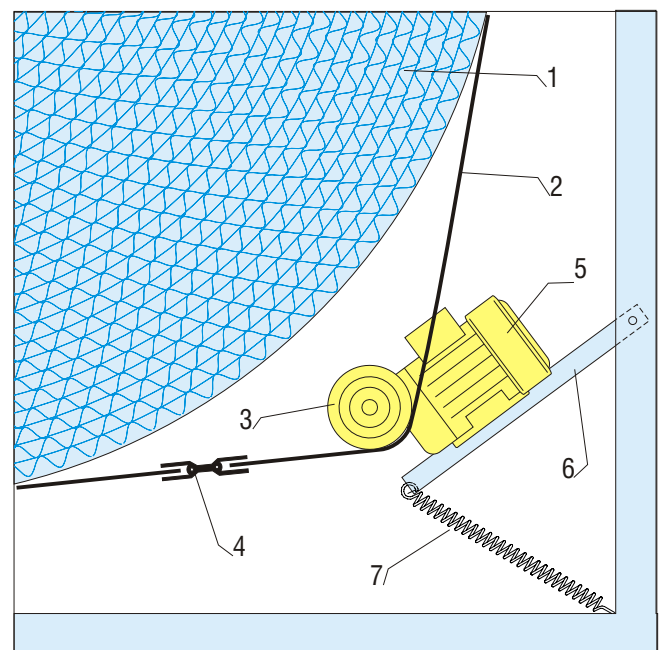
Direction of rotation

Take care that the storage mass is rotating from the exhaust air across the cleaning sector into the supply air. This direction of rotation of the storage mass is marked by a yellow arrow in the edge of the driving motor.

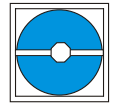
Attention: In case of initial operation check direction of rotation.

V-belt

The drive V-belt is designated SPZ or SPA and is commercially supplied with the designation "Endless V-belt". Connection is done by flexible locks. Due to the fact that the V-belt is subject to natural stretching which may well exceed the size of the tensioning device it is recommended to periodically check the tension of the V-belt. Particular in the first 400 operating hours. In case the drive of the storage mass can no longer be guaranteed because the V-belt is insufficiently tensioned, the latter has to be shortened. For simplicity of execution this procedure does not need any explanation.



- | | |
|-------------------|---------------|
| 1 Rotor wheel | 5 Motor |
| 2 V-belt | 6 Motor frame |
| 3 V-belt pulley | 7 Spring |
| 4 Hinge connector | |



Gaskets

Felt gaskets of the type: NF-PES-LE 0.32 grey are inserted in normal temperature rotors. The felts shall be pushed as close as possible towards the storage medium while direct abrading has to be prevented. Felts are pressed by manufacturer but may change their position due to transport.

Attention: Check felts and gaskets prior to initial operation and lay on the felts when the fans are operating.

Ball-bearings

The ball-bearings used are of low-maintenance and designed for an operating time of 100.000 hours. Generally, they can be used for temperatures of up to +120°C (+248°F).

Under normal operating conditions maintenance is not required.

Driving motor

Rotary heat exchangers are equipped with threephase current backgeared motors for 3 x 380 / 220 Volt with thermal protection contacts at 140°C (284°F). Should the rotors be delivered without wiring, the motor is always star-connected. In connection with the controllers KR 4/ KR 7 the motors have to be run in triangulated wiring connection 220 Volt and connected thermal protection contacts! Otherwise warranty is excluded.

The motor may easily be mounted at another edge of the device in case mounting shows that the location is not suitable. Under normal operating conditions the motor does not require maintenance (gearing with lifelong grease lubrication).

Attention: Special motors for e.g. enamelling lines with oil filling (opening at the top).

Controll

For this see corresponding controller instructions (attached to the controller).

Final inspection by manufacturer

Final inspection by the manufacturer is confirmed by a yellow label being attached at the inside of the inspection door.

Among others, the completeness of the delivery (with special regard of the rotor control and its components) is confirmed. In case of questions we'd ask you to indicate the corresponding inspection number / date and the respective rotor size and number.

The rotor size and number are indicated on the rating plate which is attached at the outside of the inspection door. It is additionally imprinted in the frame of the inspection door.

Assembly

Assembly of the rotor has to be done on a horizontal surface. The exact rotor fitting position is determined by the designation "Abluft" (exhaust air). This mark at the rotor frame corresponds to the inlet side of the exhaust air. In case of horizontal rotors it has to be observed, however, that the circumferential support frame incl. middle frame is needed. The respective sketch may be ordered. Diagonal flow of the rotors has to be avoided because the rotor mass may be driven by the air stream. If necessary install guiding plates.

Connections of conduits

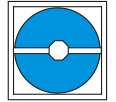
Inlet of forces through the connection conduits into the frames of the rotary heatexchangers has to be prevented.

Fixing of the rotor ist the best by drilling screws. -

For inspection works the rotor has to be accessible within the installation.

The rotors are designed for countercurrent operation supply air / exhaust air. If this is not the case we'd expect consultations.

Direct current operation leads to a considerable decrease in performance. In addition, danger of soiling is increased.



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