



Rotary heat exchangers Operation and Maintenance

Start up

Start up includes the inspection of correct installation and adequate electrical connection of the energy recovery equipment, along with a mechanical and electrical check.

1. Make sure that the air streams can flow freely through the exchanger.
2. Check if the exchanger has been properly installed and make sure that the application limits (temperature, pressure difference, etc.) cannot be exceeded.
3. Check smooth and unrestricted rotor running. Visually check the wheel sealings; if the rotor is blocked by the sealings, they have to be adjusted. The sealing should touch the rotor slightly.
4. Check free access to the driving motor.
5. Check drive tension.
6. Check direction of rotation. When looking towards the warm side, the rotor must rotate from the exhaust air flow via the purge sector into the supply air flow.
7. Check tension of the drive belt.
8. Check electrical connection. Change the direction of rotation, if necessary, by interchanging the phases.
9. Variable speed drive: See start-up instructions for the specific control drive.



Service and maintenance

The environment around a heat exchanger influences its function, efficiency and pressure drop. The most important parts of the heat exchanger should be checked regularly, especially if air quality deteriorates. Only periodic visual checks are necessary. Below you will find some simple checking procedures.

Maintenance of the rotor

The rotor faces must be inspected regularly for dirt and dust deposits. Even if the air-handling unit has filters, these may be broken or ineffective, allowing dirty air to bypass the filter. This will dramatically increase dirt deposits.

If there are dirt and dust deposits on the rotor, these can be easily removed, using one of the following methods:

- vacuum cleaner, if there is not too much dirt;
- compressed air, if there is a lot of dirt, but it is not firmly attached, at the same time taking care not to damage the wheel;
- hot water (max. 70 °C) or detergent spray (e.g., Decade, ND-150, Chem Zyme, Primasept, Poly-Det, Oakite 86M or the like) to remove greasy deposits, if there is a lot of firmly attached dirt. Strongly alkaline or other substances corrosive to the rotor should obviously be avoided.
- minimum distance of nozzle to the rotor shall be no less than 30cm, pressure maximum 50bar (water cleaning device e.g. type Kärcher).
- mild detergent (no strong alkaline or acids shall be used which could react with the aluminium).
- after cleaning blow out the water with air.

When cleaning take care that the exchanger is not damaged, neither mechanically nor chemically.

Maintenance of drive unit

The rotor is driven by motor via a drive belt around the rotor periphery. Tension of the drive belt must be checked after the first 100 operating hours. Tension can be increased by shortening the belt, which is joined by means of small fishplates. The motor itself requires no maintenance.

Maintenance of seals between rotor and housing

Clearance between seals and rotor must be checked during inspection and, if necessary, corrected.

The seals require no further maintenance.