

# EUE(D,E,G,V,S) Air heater, EUN(N,P) Air cooler, EUR(E,F) Liquid-coupled heat exchanger

## Cleaning

Not even an efficient air filter can remove all dust from the air. Any dust deposits on the heat transfer surfaces will impair the heat transfer. Coils must therefore be kept clean. Cleaning should appropriately be carried out according to one of the alternatives below or combinations of these:

1. Blowing clean with compressed air
2. Blowing clean with steam. Caution! Do not use steam to clean coils containing evaporative refrigerant.
3. Flushing and rinsing with water (max 40 °C if the coil contains evaporative refrigerant). If the heat transfer surfaces are laden with greasy dust, use a suitable detergent.
4. Vacuum-cleaning

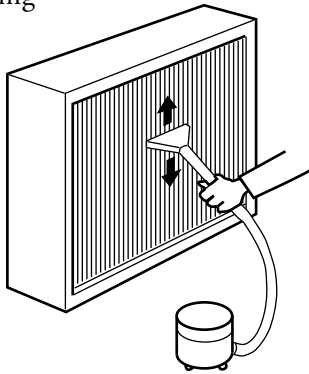


Fig. 1

After cleaning, remove all fallen dust from the bottom before starting the fan.

Clean the drain tray of cooling coils whenever the need arises. Also check the water trap and, if necessary, clean it and fill it with water.

## Measures to be taken if freezing is likely to occur

If the water in a coil freezes, the coil will burst. This will allow the water to run out of the system and may cause damage.

If the outdoor air temperature is low, freezing in ventilation systems is likely to occur in the following cases:

### 1. Oversized coil.

Lower the water temperature.

### 2. The heat supply has ceased or dropped.

If the heat supply to the coil can be expected to cease or if it considerably drops, the outdoor air intake must then be securely closed and all the fans must be stopped.

N.B.

Open the air recirculation damper if the heat supply has ceased or dropped. The pressure in the premises may then be sub-atmospheric, even if the fans are not running. The outdoor air may then be drawn in through the unit, which will give rise to freezing.

The anti-freeze thermostat must not be adjusted to such a low temperature that the risk of freezing is incurred.

If the building is unheated for an extended period of time during the winter, all pipes and coils must be thoroughly drained of water. Do not refit the drain plugs to the coils until just before the system is filled with water. Blow compressed air through the coils to make certain that all water has been drained.

## Emptying

EUEE and EUNN

After emptying, the drain plugs must not be screwed back in. Otherwise, there is risk that the control valve will leak and refill the finned coil.

EUR(E,F)

The EUR(E,F) cannot be completely emptied. The liquid in the coil must contain anti-freezing agent if freezing is likely to occur.

Water and 30% ethylene glycol should be used as the heating medium.

## Coils for hot water

Ensure that the outlet water temperature does not drop by an abnormal amount and that the water is always in circulation. Make sure that the valves are open, the pipes and the coils are thoroughly vented and the circulation pump is running, even if heating is temporarily interrupted, such as during the night.

## Coils for steam

Check that there is steam pressure all the way to the heating coils (the boiler must have the correct steam pressure and all the valves must be open) and that the condensate trap and venting valves are in working order throughout the system. One faulty condensate trap can give rise to repercussions on all the traps.

## Cooling coils

The cooling coils must be emptied if the air temperature drops below the freezing point of the refrigerant. The drain plugs should not be inserted since the shut-off valves may then leak and refill the coil with refrigerant. Compressed air should be blown through the coil to make certain that the coil has been completely drained.