

Climate beams

Operation and maintenance

13/01/2021

Before commissioning

The product's dust protection packaging must be removed before commissioning, see further in the product's installation instructions.

The system must be pressure tested before commissioning. Pressure testing up to 900 kPa. In the event of leakage due to defects in the products, Swegon covers the cost of replacement or repair of the product. Any costs or consequent damage that arises prior to pressure testing or due to pressure testing being neglected or occurred too late will not be reimbursed by Swegon.

Remember, pressure testing is a safety precaution to ensure the installation is free from faults and that damage has not occurred during transport, assembly or other handling. Accordingly, the whole installation/circuit and component parts must also be observed during the complete pressure testing.

Note, if the device is to be supplemented with another electrical device, for example, lighting, pressure testing must be performed before this is mounted.

Water quality

Swegon recommends water quality according to VDI 2035-2 for both the heating and cooling systems. In order to maintain the oxygen content in the water below the levels (<0.1 mg/l) prescribed in VDI 2035-2, it is recommended to install a vacuum degasser, particularly in the cooling system where it's more challenging to dissolve gas. It is also important that the pre-pressure in the expansion vessel is dimensioned according to EN-12828 for both the heating and cooling systems and that regular checks are made of the pre-pressure. The cooling and heating systems must be designed to prevent oxygen from entering the system, this is particularly important to consider when selecting flex hose, pipes and expansion vessels. When the system is filled with fresh water, it has an oxygen content of approximately 8 mg/l, however, this oxygen is consumed quickly through corrosion processes and within a few days the oxygen in the water should be consumed. Nevertheless, it is important to avoid filling the system with fresh water unnecessarily.

Automatic deaerators are usually installed to facilitate filling of the system, it is recommended that the automatic deaerators are turned off once the system has been fully vented to avoid these drawing in air in the system if the pre-pressure in the expansion vessel should drop.

Commissioning

For commissioning and k-factors, see our application Sweflow (can be downloaded from the App Store and Google Play), the product's product sheet and the installation instructions.

Function

See the appropriate product datasheet.

Installation

See the product's installation instructions.

Inspection

Inspection of suspension fittings and visible soldered joints must be done in connection with cleaning. If anything is loose or you find drops of water on solder joints, you must check the device carefully and rectify any faults.

Dismantling the lower section

All lower sections are fitted with safety wires. These must not be dismantled.

Maintenance

Swegon's chilled beams are characterised by, among others, the fact that they contain no moving parts. Thus they do not require any maintenance other than cleaning. The cleaning interval varies depending on the type of product, product placement and the type of activity carried out in the premises. Smoking, particle-emitting materials, wall-to-wall carpets and printers, are examples of factors that affect the cleaning interval. In normal operating conditions, the cleaning interval can be set to 5 years.

Clean painted surfaces with a mild soapy solution, never use solvents as these can damage the painted surface.

Air ducts (if applicable) are cleanable through the cleaning hatches in the air duct.

Convectors are cleaned with a vacuum cleaner nozzle that is passed over the outside surfaces of the convector.

Generally, convectors mounted above the suspended ceiling rarely require cleaning due to the very low air velocities generated by the circulating air.