Installation Instructions for TBLA/TCLA/TCLAS Air heaters for water GOLD/SILVER C/COMPACT

1. General

The TBLA/TCLA/TCLAS air heater uses hot water as the heating medium for post-heating the supply air.

Finned-tube heat exchanger fabricated of copper tubes and profiled aluminium fins. The headers and the pipework to the water connections are made of copper. The male threaded pipe connections are made of brass.

Extra accessories
GOLD/COMPACT:
Circulation pump used for ensuring the frost guard function. Supplied with T coupling, non-return valve and commissioning valve. The automatic pump control system is integrated into the control equipment of the air handling unit. See the individual instructions for the TBPA circulation pump.

The TBVL valve set with 2(3)-way valve, actuator, connection cable with quick-fit connector, frost guard sensor (insertion type), and T-piece (for air heaters without outlet for an insertion sensor). See the individual instructions for the TBVL. If the air heater is to be installed outdoors or in a cold space, take into consideration the enclosure class of the actuator and the permissible ambient temperature. If necessary, see to it that required protection is arranged.

If you use a valve of your own, you have the option of instead selecting a set of electrical connection components. This set contains a connection cable with quick-fit connector, resistor and insertion or strap-on sensor.

SILVER C:
The TBVA Valve set consisting of a 2(3)-way valve including actuator can be ordered. See the instructions for TBVA accessories. If the air heater/cooler is to be installed outdoors or in a cold space, take into consideration the enclosure class of the actuator and the permissible ambient temperature. If necessary, ensure that the required protection is arranged.

TBLA

TCLA/TCLAS

2. Maintenance

Check at least twice a year whether cleaning is necessary.

Cleaning shall only be done by blowing with compressed air against the ordinary direction of airflow, vacuum cleaning with a soft nozzle or wet cleaning with water and/or solvent. Before you begin wet cleaning, you should cover adjacent functional sections to protect them. After wet cleaning, you should blow the surfaces dry with compressed air to remove every trace of cleaning solvent.

If cleaning solvent is used, this solvent must not contain ingredients that will corrode aluminium or copper. Swegon's cleaning agent is recommended. This cleaning agent is sold by Swegon or Swegon Service.

While cleaning, check whether the liquid circuit needs to be vented.

3. Installation

For the installation of air heaters in duct systems, see the individual instructions entitled: Installation Instructions for Duct Accessories.

Always connect the liquid circuit for counter-flow circulation to ensure optimal air heater performance. Connect the inlet water pipe to the upper or lower air heater connection depending on the direction of airflow. See Fig. 1.

See to it that the frost guard connection, if fitted, always is nearest to the return liquid connection.

Use a pipe wrench to restrain the pipe connections of the air heater when tightening the external pipe connections to avoid damaging the tubes in the air heater.

Always fill the air heater with liquid from the lower connection. Vent the system before you commission it.

The supply flow temperature should be between 55-70°C.

Continuous circulation through the air heater is required whenever the outdoor temperature is low, to ensure satisfactory anti-freeze monitor function in the air heater. A secondary pump and non-return valve must therefore be installed as illustrated in Fig. 2. A pump kit consisting of a pump, non-return valve and commissioning valve is available as an accessory.

4. Electrical connections

For particulars of the electrical connections of the valve actuator and circulation pump, see the separate instructions for the TBVL/TBVA valve kit.

Fig. 1

1) Connection for a frost guard sensor, if required

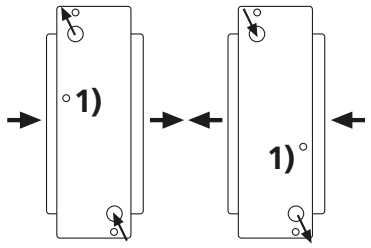
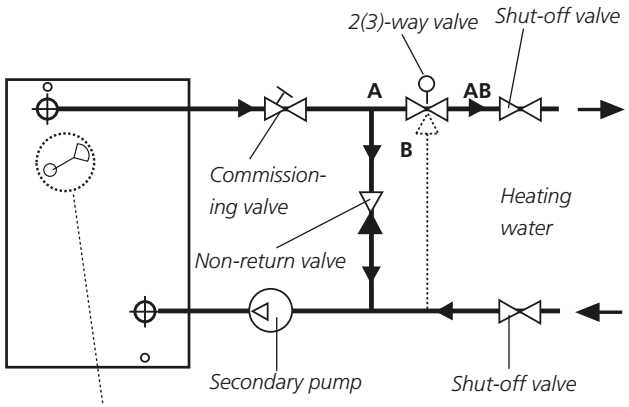


Fig. 2

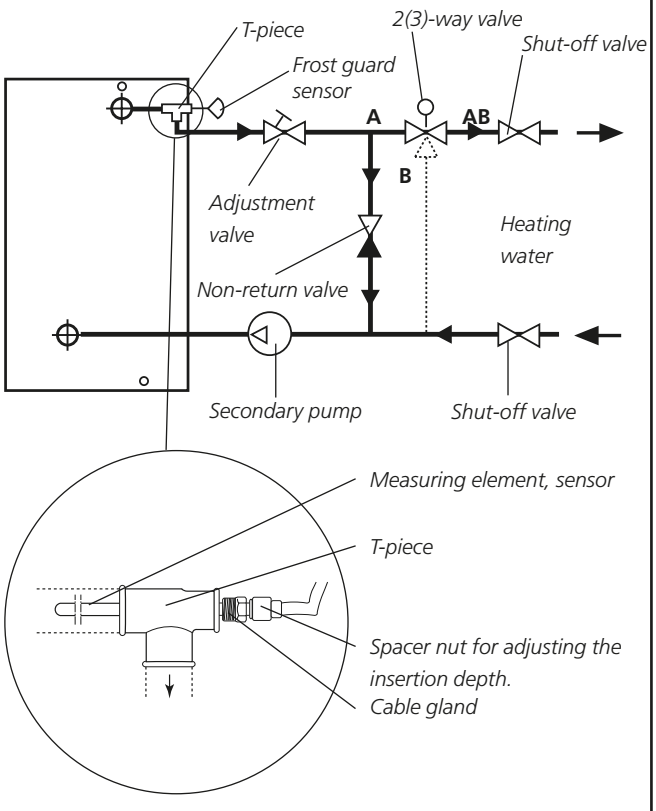
Pipe connection example

Installion of frost guard sensor in the connection for an insertion sensor (if any)



Frost guard sensor.

Installation of frost guard sensor if the air heater lacks a connection for an insertion sensor



Swegon reserves the right to alter specifications.