

ASSEMBLY INSTRUCTION
DrainBox

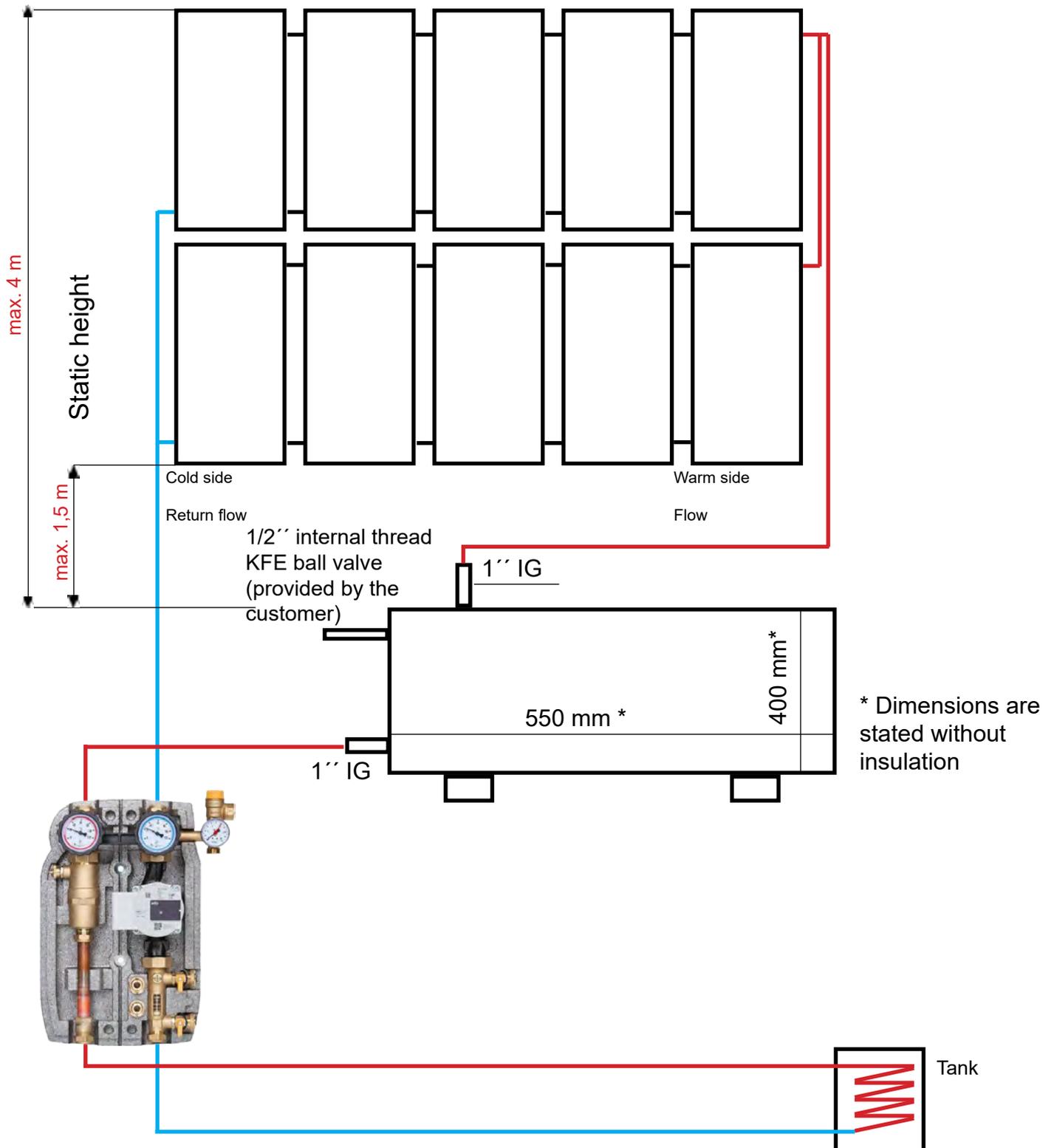


SOLARE KOMPETENZ
AUS SACHSEN

Horizontal DrainBox

Assembly instruction for the integration of the draining system Drain Box horizontal:

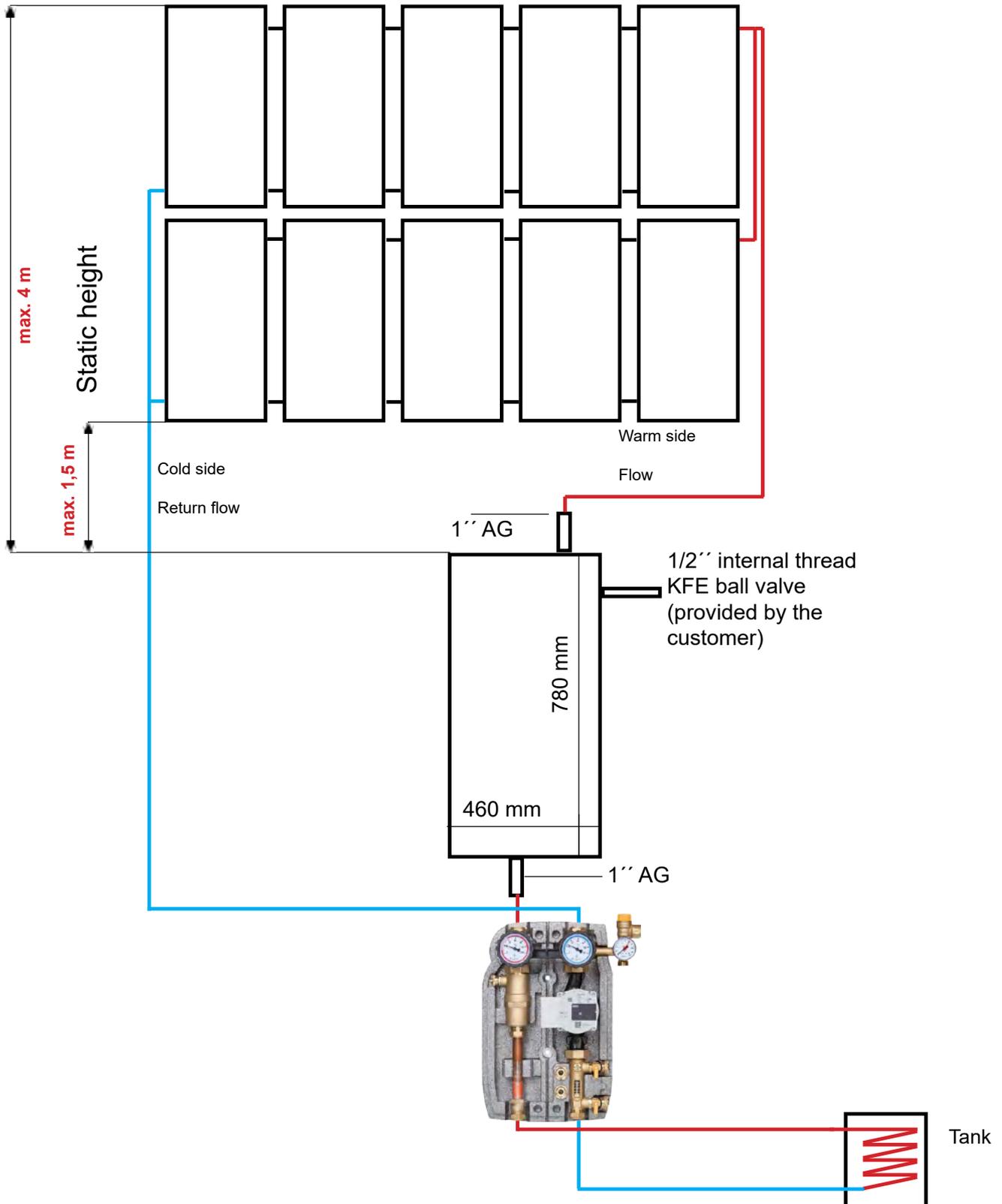
Installation scheme:



Vertical DrainBox

Assembly instruction for the integration of the draining system Drain Box vertical:

Installation scheme:



Filling of the installation

Important to observe: When installing multi-row collector fields, it is important to ensure prior to the assembly of the Drain Box that the cold side of the collector field (return flow) is connected below and that the warm side of the collector field (flow) is connected above. For further information, please consider the installation scheme.



Filling of the installation:

When installing, please pay attention to the indicated distance dimensions between Drain Box and collector field. If the assembly should not be possible in the required dimensions, the usage of a second or respectively bigger pump should be considered.

Drain Box top edge until the lower edge of the collector field: static height of maximum 1,5 m!
Drain Box top edge until the top edge of the collector field: static height of maximum 4 m!

After having integrated the Drain Back container into the flow of the collector field (the delivery of the hydraulic accessories has to be rendered by the customer), the installation has to be filled with a suitable mixture of glycol and water. The filling happens via the return flow and the flow at the same time until the liquid comes out at the opened KFE ball valve at the Drain Box. Thereto, please connect a pipe to the KFE ball valve which leads to a collecting vessel with a capacity of approx. 10 liter. As soon as the liquid comes out at the KFE ball valve, the filling pump has to be switched off immediately. Once there is no liquid coming out of the KFE ball valve, the necessary liquid volume in the Drain Back container is reached and the valve can be closed.

After the filling, we recommend running the installation on manual for 15 minutes. Please check that there is no air inside the circulating pump. However, if this should be the case, it is necessary to vent the installation. After having done so, please check the filling level of the Drain Box again. If necessary, appropriate mixture of glycol and water has to be refilled.

For each collector, 0,5 liter of the glycol-water-mixture now have to be drained. For this purpose, please open the KFE ball valve at the Drain Box and drain the liquid at the solar station or the pump group. After having drained the exact quantity, please close the KFE ball valve and refill the drained liquid into the installation via the filling station. Therefore, a prepressure will develop in the installation.

After having closed all valves, the installation can be put into operation.

Technical specifications

Solar controller:

For the operation of a Drain Back installation, any solar controller without rotation speed control can be used. When applying controllers which are equipped with a rotation speed controller, the following aspects have to be considered:

- The least rotational speed has to be set higher than for not self-draining installations, because otherwise, the circulation may break off. The lowest rotational speed should be at least 50 %.
- The filling process necessarily has to happen with full rotational speed. Otherwise, the installation will not get filled.

Please note:

The gravity brake of the solar station has to be taken out of operation!

As the draining of the collectors happens on the cold side of the system, it is not allowed to install slides or flap valves which prevent the draining of the installation.



Technical specifications:

Volume: 79 l (vertical) & 62,8 l (horizontal)

Useable volume: 66 l (vertical) & 53,4 l (horizontal)

Initial operation

After the installation of the system components, the filling of the system with fluid, the venting, and the adjusting of the installation pressure, the installation is prepared for initial operation.

For initial operation use the factory-adjusted solar controller. Please take further information for the process of initial operation from the attached manual of the controller.



Report for the initial operation

| | |
|---------------------------|--|
| Builder | |
| Collector type | |
| Number of collectors | |
| Collector expanse | |
| Type of tank | |
| Storage volume | |
| Primary heat source | |
| Heat transfer medium | |
| Frost protection | |
| Height of installation | |
| Content of installation | |
| Pipe length F + BF | |
| Pipe dimension | |
| Date of initial operation | |
| Executing company | |

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