

Boiler charging station

Operating instructions

EN



Boiler charging station

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1 Key background information

1.1 Limitation of liability

The contents of these operating instructions have been created with due consideration of applicable legislation and standards. The device has been developed in accordance with the state of the technological art¹.

The manufacturer accepts no liability for damage resulting from:

- ▶ Disregard for or non-compliance with the operating instructions
- ▶ Deliberate misuse
- ▶ Incorrect use
- ▶ The use of untrained professionals (for maintenance and repair work, etc.)
- ▶ Technical modifications to the device that have not been discussed with the manufacturer.
- ▶ Use of spare parts that have not been approved by the manufacturer

1.2 Responsibilities of the operator

The safety, accident prevention and environmental protection regulations applicable to the area in which the device is used must be complied with.

The following is of particular relevance:

- ▶ The operator must ensure that these operating instructions are available for the entire life cycle of the Boiler charging station.
- ▶ The operator must ensure that the maintenance intervals described in these operating instructions are complied with.
- ▶ The operator must regularly check the function and integrity of all safety equipment on a regular basis.

NOTICE



When assembling and operating the Boiler charging station, be aware of country-specific standards and guidelines.

1.3 Documentation

1.3.1 Contents and structure

These operating instructions are an integral part of the device. They contain instructions and information regarding the safe use of the device and must be made available to all users for the device's entire life cycle.





These operating instructions are intended for use by trained professionals.

¹ Technical modifications reserved!

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1.3.2 Labelling system used in the documentation

The following types of alert are used:

Alert type	Representation	Meaning
Acute danger of death	 DANGER	Dangerous situation that will inevitably cause death or severe injury if it is not avoided
Risk of death and severe injury	 WARNING	Dangerous situation that may cause severe injury or death if it is not avoided
Risk of mild to moderate injury	 CAUTION	Dangerous situation that may cause mild to moderate injury if it is not avoided
Information, tips to make operation easier	 NOTICE	Indicates information that does not relate to personal hazards, e.g. warnings regarding material damage

⚠ *Indicates a general safety notice*

■ Indicates an instruction

⇒ *Indicates the consequences of an action*

1.4 Intended audience

These operating instructions are intended for use by trained professionals.

The operator of this device must ensure that suitable and safe conditions are in place as described in these operating instructions.

Professional – Trained expert who understands the risks of Boiler charging station and who is familiar with the technology used in the device. Professionals are trained and capable of assembling, maintaining and repairing the device.

1.5 Replacing wear parts

Be aware that the Boiler charging station contains parts which, depending on how frequently and how much they are used, will be subject to technology-related wear and tear, even if they are cared for and maintained properly. Mechanical parts and components that come into contact with hot water and steam are particularly affected by this, such as hoses, gaskets, valves, etc.

Wear-related defects of course do not represent faulty workmanship and are therefore not covered by the warranty or guarantee; regardless of this, faults and malfunctions must always only be rectified by trained professionals. For more information, contact your dealer.

2 Safety

2.1 Important safety notices

- ⚠ Read these operating instructions carefully before use.**
- ⚠ Only connect the Boiler charging station to a power supply with the appropriate mains voltage.**
- ⚠ Before carrying out any maintenance, cleaning or repair work, the power supply to the Boiler charging station must be disconnected.**
- ⚠ Maintenance, cleaning and repair work must only be carried out by trained professionals.**
- ⚠ In the event of damage to the Boiler charging station or if its function is impaired, the Boiler charging station must not be used. Contact your dealer immediately.**
- ⚠ Note the maintenance instructions and intervals.**
- ⚠ Protect the Boiler charging station from the influences of weather.**
- ⚠ Never use the Boiler charging station outdoors.**
- ⚠ For your own safety and to ensure the long service life of the Boiler charging station, you should only use original spare parts.**
- ⚠ The device must only be used in accordance with the instructions for correct use.**

2.2 Instructions for correct use

2.2.1 Area of use

The Boiler charging station has been built in accordance with the state of the technological art and in compliance with safety technology regulations. No liability will be accepted for any damaged cause by inappropriate use, misuse, incorrect connections or incorrect maintenance / repair by untrained personnel. Such cases will also invalidate all warranty clauses.

The Boiler charging station is used so that the boiler's operating temperature can be reached quickly (in order to avoid falling short of the dew point). This means that the boiler will deliver a longer service life while at the same time reducing harmful emissions.

The Boiler charging station is fully pre-assembled and designed for installation on a wall.


The Boiler charging station is not intended to be used by persons (including children) with limited physical, sensory or mental capacities or a lack of knowledge and experience.

2.2.2 Environmental conditions relevant to safety

- The Boiler charging station must not be assembled or operated outdoors.
- The components are not UV resistant.
- The installation location for the Boiler charging station must be selected so that maintenance and repair work can be carried out when required.


Boiler charging station


2.3 Observance of the operating instructions


NOTICE	
	<p>Read these operating instructions carefully before use.</p> <p>To ensure the device is operated safely, the instructions in this operating manual as well as regional regulations (e.g. health and safety regulations) that must be made available to the operator of the device must be complied with.</p>

2.4 Residual risks and safety measures

DANGER	
	<p>Electrical power!</p> <p>Risk of death from electric shock.</p> <ul style="list-style-type: none">➤ Do not touch live cables or components with wet hands.➤ Be aware of health and safety regulations when handling electric current.

WARNING	
	<p>Hot water!</p> <p>Risk of severe scalding.</p> <ul style="list-style-type: none">➤ Allow the Boiler charging station to cool down before carrying out any maintenance, cleaning or repair work.

WARNING	
	<p>Hot surfaces!</p> <p>Risk of severe scalding.</p> <ul style="list-style-type: none">➤ During operation, do not touch any pipes or components.➤ Allow the Boiler charging station to cool down before carrying out any maintenance, cleaning or repair work.➤ Wear heat-resistant safety gloves when having to work on any hot components.

CAUTION	
	<p>Working on the device by inadequately trained personnel!</p> <p>Risk of injury and material damage.</p> <ul style="list-style-type: none">➤ Maintenance, cleaning and repair work must only be carried out by trained professionals.

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3 List of components

- 1 Ball valve with blue thermometer handle (including gravity brake)
- 2 Ball valve with red thermometer handle
- 3 Thermal mixing valve
- 4 Circulating pump
- A Boiler return
- B Boiler supply
- C Reservoir supply/heating circuit
- D Reservoir return/heating circuit

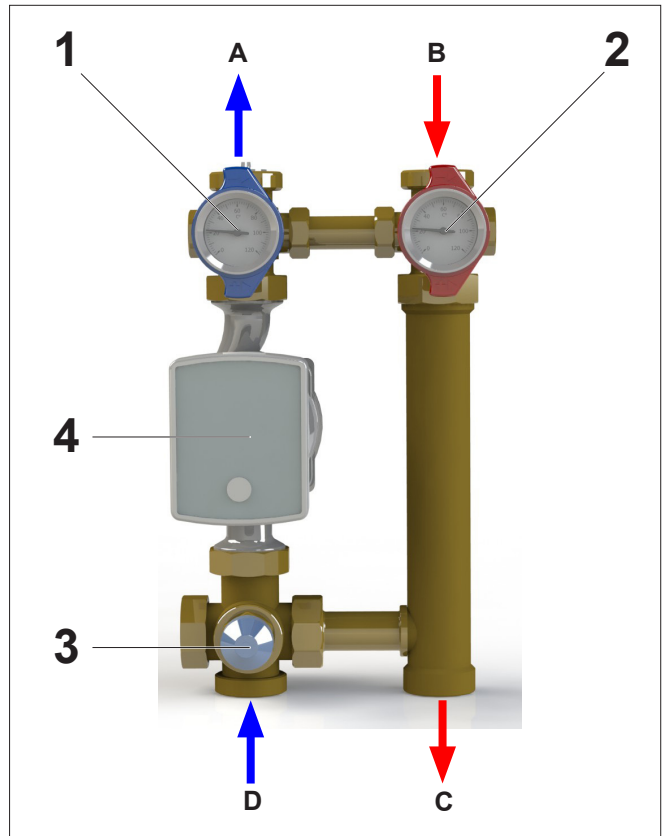


Fig. 1: List of components

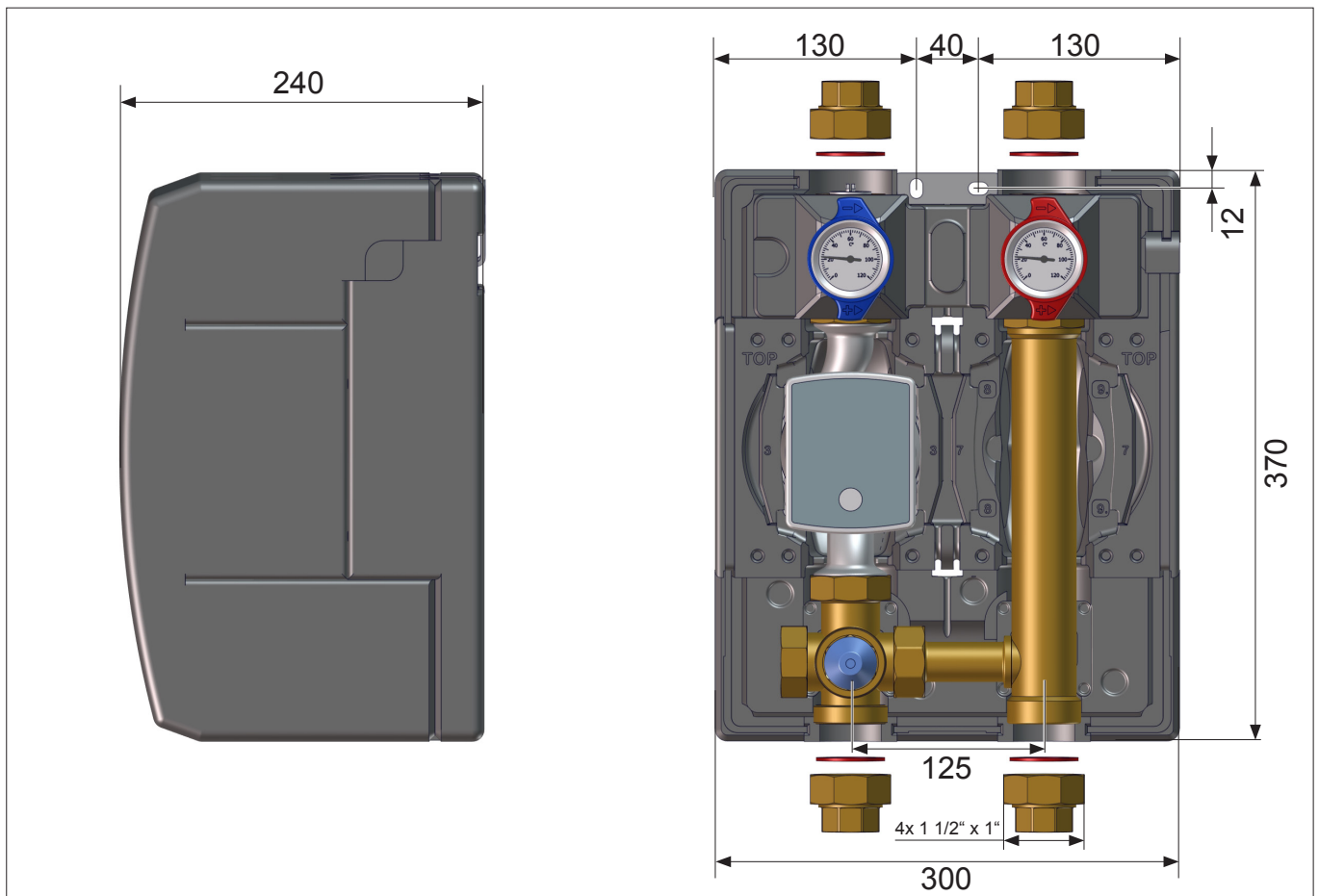


Fig. 2: Dimensions (mm)

4 Functional diagram

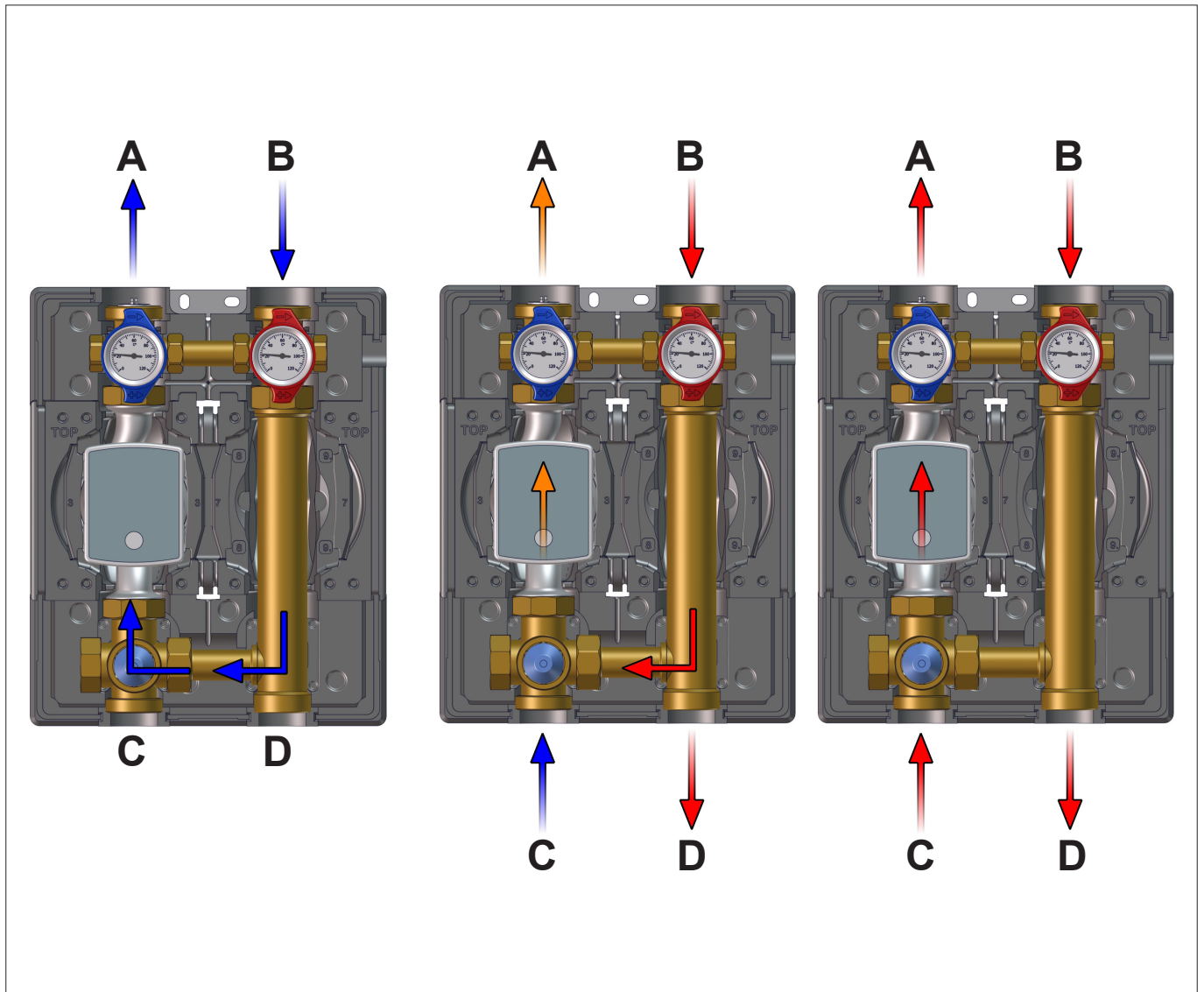







Fig. 3: Functional diagram

A	Boiler return
B	Boiler Supply
C	Reservoir supply/heating circuit
D	Reservoir return/heating circuit

Boiler charging station

5 Assembly and initial commissioning

5.1 Safety

DANGER	
	<p>Electrical power!</p> <p>Risk of death from electric shock.</p> <ul style="list-style-type: none">➤ Do not touch live cables or components with wet hands.➤ Be aware of health and safety regulations when handling electric current.
CAUTION	
	<p>Risk of material damage!</p> <p>The Boiler charging station is not splash or drip-proof.</p> <ul style="list-style-type: none">➤ Only install the Boiler charging station in a dry location.
CAUTION	
	<p>Material damage caused by pressure shocks!</p> <p>Opening the shut-off cocks too quickly can cause pressure shocks.</p> <ul style="list-style-type: none">➤ Always open the shut-off cocks slowly and in a controlled manner.
NOTICE	
	<p>The Boiler charging station must only be assembled and installed by trained professionals.</p> <p>When assembling and operating the Boiler charging station, be aware of country-specific standards and guidelines.</p> <p>Do not make any changes to components (e.g. pumps, valves, etc.), supply or drainage lines and/or safety equipment that could impair the operating safety of the Boiler charging station.</p> <p>Ensure that the power supply to the Boiler charging station is accessible at all times.</p>
NOTICE	
	<p>Wear personal protective equipment when carrying out maintenance, cleaning or repair work.</p>

5.2 Assembly

- Remove the front insulating jacket of the Boiler charging station.

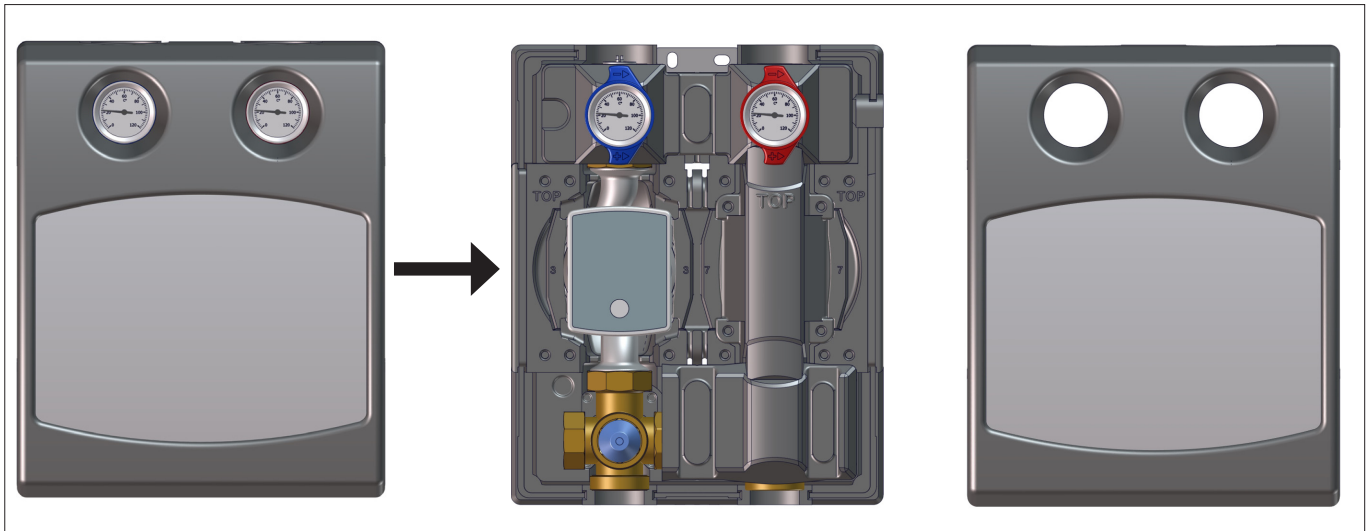


Fig. 4: Remove front insulating jacket

- Draw on the drilling points for assembling the Boiler charging station (see Fig. 2 on page 7).
- Drill the holes in accordance with the screw and dowel size.
- Fit the wall brackets.
- Push the rear insulating jacket onto the wall bracket.
- Position the Boiler charging station and fix it with the retaining brackets.
- Close the supply and return lines (system connections, see Fig. 1 on page 7).
- Check all screw connections to ensure they are tight.

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5.3 Initial commissioning

Requirement

- Boiler charging station is fully assembled.
- The thermal mixing valve is pre-set at a fixed value.

CAUTION

Changing the pre-set values of the mixing valve!

Possible malfunctions.

- Do not remove protective cap.
- Do not change valve default value.

Connecting the power supply

- Connect the power supply to Boiler charging station.

NOTICE



The electrical installation of the Boiler charging station must only be performed by trained professionals.

⇒ *The Boiler charging station switches on automatically once the power supply has been connected.*

- Ventilate the heating system.

NOTICE



Switch off the circulating pump during the venting process.

Thermometer handle positions

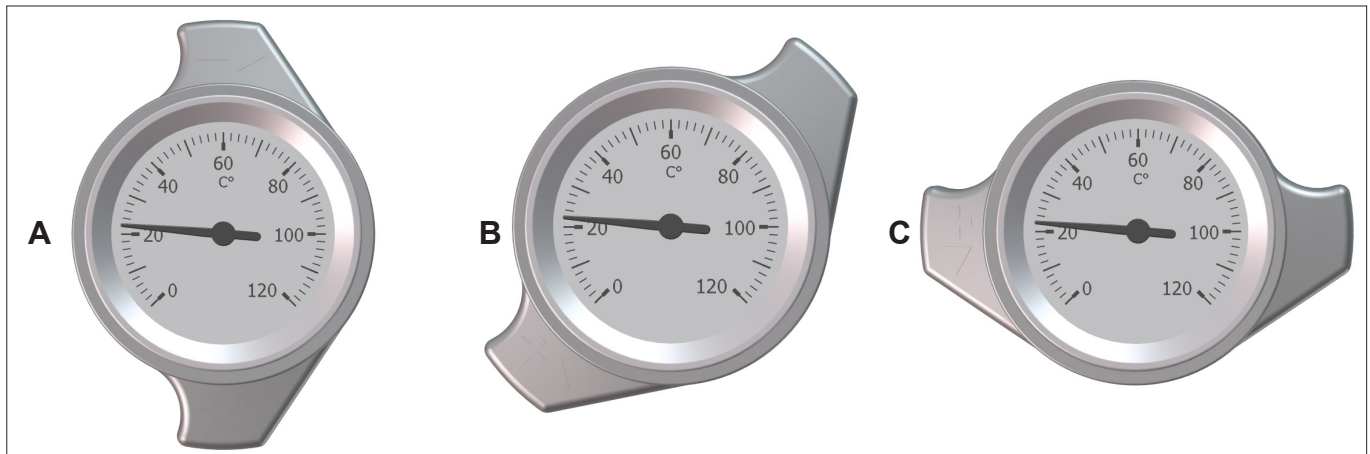


Fig. 5: Thermometer handle positions

- A Operation setting: Gravity brake ready for operation; shut-off cock open
- B Draining: Gravity brake open; shut-off cock ½ open (only in the supply line)
- C Service position: Shut-off cock closed

6 Maintenance

6.1 Safety

DANGER



Electrical power!

Risk of death from electric shock.

- Do not touch live cables or components with wet hands.
- Be aware of health and safety regulations when handling electric current.
- Disconnect the power supply to the Boiler charging station and ensure it cannot be switched back on before carrying out any maintenance, cleaning or repair work.

WARNING



Hot water!

Risk of severe scalding.

- Allow the Boiler charging station to cool down before carrying out any maintenance, cleaning or repair work.

WARNING



Hot surfaces!

Risk of severe scalding.

- When maintaining, cleaning or repairing the device, do not touch any pipes or components.
- Allow the Boiler charging station to cool down before carrying out any maintenance, cleaning or repair work.
- Wear heat-resistant safety gloves when having to work on any hot components.

6.2 Recommended maintenance intervals

Task	Interval
Check the shut-off cocks and ball cocks for clearance	Annually
Check for any noise coming from the pumps	Annually
Check Boiler charging station for any leaks (visual inspection)	Annually

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6.3 Maintenance work

6.3.1 Dismantling the circulating pump

- Disconnect the power supply to the Boiler charging station and ensure it cannot be switched back on.
- Remove the front cover on the Boiler charging station (see Fig. 4 on page 10).
- Close the shut-off cocks (items 1+2) by turning the handle of the thermometer (see “Thermometer handle positions” on page 11).
- Remove the insulations (Fig. 6).

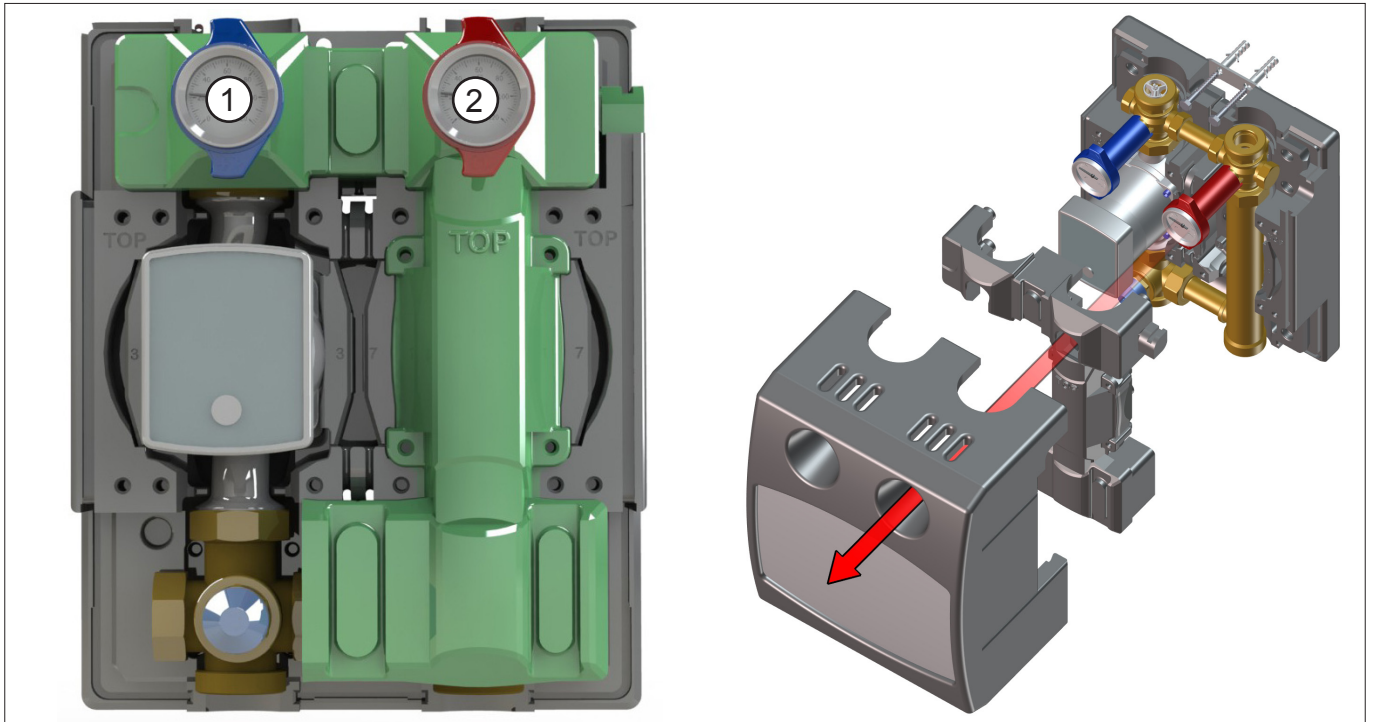


Fig. 6: Remove insulations

- Unfasten the wiring on the circulating pump.
- Loosen the nuts (item A) and remove the circulating pump (item B).

WARNING



Hot water!

Risk of severe scalding.

- Allow the Boiler charging station to cool down before carrying out any maintenance, cleaning or repair work.
- When draining the Boiler charging station, do not touch the hot water.

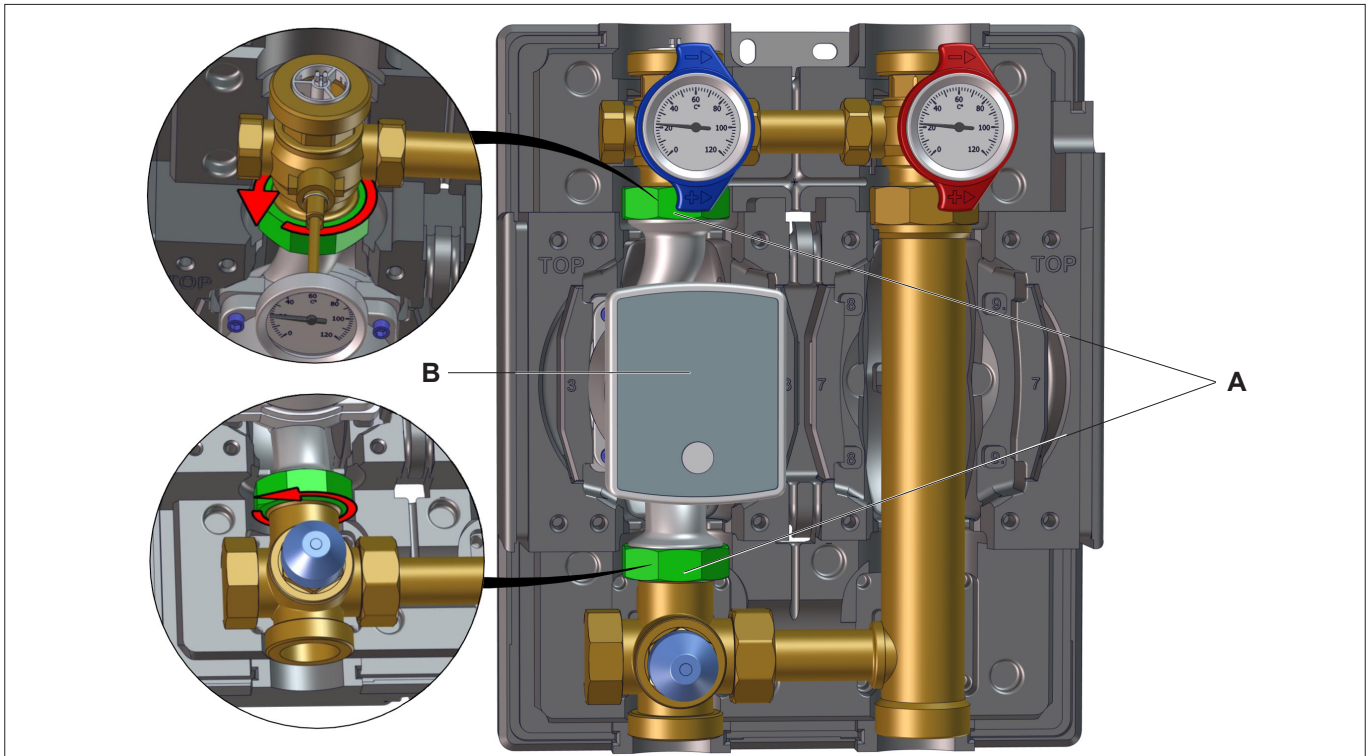


Fig. 7: Dismantling the circulating pump

6.3.2 Assembling the circulating pump

- Replace damaged or faulty gaskets if required.
- Insert the circulating pump and tighten the nuts (for tightening torques, see “Technical data” on page 15).
- Connect the wiring of the circulating pump according to the circuit diagram and pump documentation.
- **Slowly** open the shut-off cocks (items 1+2 Fig. 6 on page 13) by turning the handle of the thermometer (see “Thermometer handle positions” on page 11).
- Prime the Boiler charging station **slowly** with pressure and vent it if necessary.

NOTICE



Switch off the circulating pump during the venting process.

- Check the Boiler charging station for leaks.
- Restore the power supply to the Boiler charging station.
- Fit the insulations and the front panel.

7 Technical data

General	
Dimensions (W x H x D)	300 x 370 x 240 mm
Weight	Approx. 8 kg
Power supply	See pump/controller instructions
Maximum operating pressure	10 bar
Maximum permissible operating temperature	90 °C (Observe pump specifications)

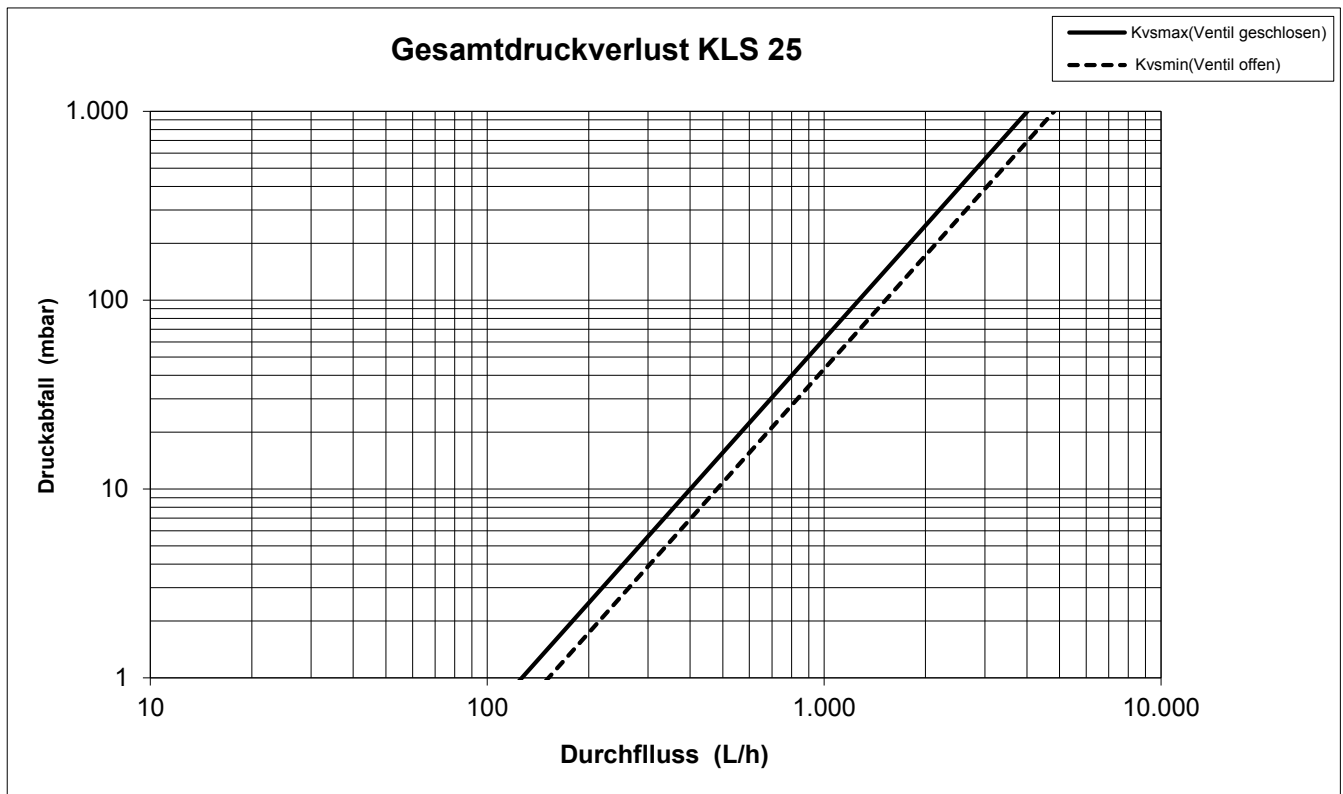
Circulating pumps
The technical data relating to the circulating pumps is provided in the respective pump documentation.

Materials	
Fittings	Brass Ms 58 (CW614N)
Pipe components	Steel pipe, coated
Plastic	Shock-resistant and temperature-resistant
Flat gaskets	AFM 34 or EPDM
O-rings	EPDM

Tightening torque for screw connections with Reinz AFM 34 gasket	
$\frac{3}{4}$ "	35 Nm
1"	55 Nm
1 $\frac{1}{4}$ "	90 Nm
1 $\frac{1}{2}$ "	130 Nm
2"	190 Nm

Boiler charging station

Characteristics



8 Decommissioning, recommissioning

8.1 Decommissioning

- Disconnect the power supply to the Boiler charging station and ensure it cannot be switched back on.

DANGER



Electrical power!

Risk of death from electric shock.

- Do not touch live cables or components with wet hands.
- Be aware of health and safety regulations when handling electric current.
- Disconnect the power supply to the Boiler charging station and ensure it cannot be switched back on before carrying out any maintenance, cleaning or repair work.

- Remove the front cover on the Boiler charging station (see Fig. 4 on page 10).
- Close all shut-off cocks for the water connections.

In the event of prolonged periods of non-use:

- Depressurise the Boiler charging station (for example, by opening the venting valve).

NOTICE



During the depressurisation process of the Boiler charging station, water can leak out.

8.2 Recommissioning

- **Slowly** open all shut-off cocks for the water connections.
- Prime the Boiler charging station **slowly** with pressure and vent it if necessary.
- Restore the power supply to the Boiler charging station.
- Assemble the front panel of the Boiler charging station.

9 Dismantling

Dismantling can be performed for two reasons:

- In order to reassemble the device elsewhere.
- In order to dispose of the device.

NOTICE



If the Boiler charging station is to be reassembled elsewhere, the dismantling process must be prepared properly. All installation and fastening parts must be carefully dismantled, labelled and, if necessary, packaged for transportation. This will ensure that, upon reassembly, all the parts can be correctly assigned and fitted back in the appropriate place.

10 Disposal

10.1 Safety

WARNING



Incorrect disposal pollutes the environment and the groundwater!

- When disposing of system parts and operating materials, the regulations and guidelines set down by the legislator of the respective country must be observed.

10.2 Disposal

- Separate the components of the Boiler charging station into recyclable materials, hazardous materials and operating materials.
- Dispose of the Boiler charging station components or recycle them.

