EN

EOS Herkules XL S120 HD
EOS Herkules XL S120 Vapor HD

Heater for Sauna Cabins

Installation and Operating Instructions

Made in Germany

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Documentation

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Original installation instructions EN

Characters, symbols and illustrations

ⓘ	Additional information about an operating step
🗋	Cross-reference to a page
🕮	Read instructions
☑	Result of a step
🗔	Table title
🖻	Title of figure
≤ ≥	Less than or equal to, greater than or equal to

Revision history

Date	Version	Description
21.08.2023	01.20	EOS Herkules XL S120 HD 24 kW connection diagram updated
27.07.2023	01.20	Technical data updated
05.012023	01.10	Conversion to HD connections using a copper strip.
30 July 2020	01.00	First version

Contents

1 General safety instructions

1.1 Mounting and electrical installation

These installation instructions are intended for qualified personnel familiar with the laws and regulations applicable to electrical installations at the installation site. Observe the following general safety instructions during mounting, configuration and commissioning of the product.

Risk to life and limb and risk of fire

Risk to life and limb from electric shock and fire in the event of improper or faulty electrical connection. This risk remains also after completion of the installation work.

- ▶ The electrical installation of the heater, vaporiser, relay boxes and other electrical systems or equipment with a fixed mains connection must only be performed by a trained electrician from an authorised electrical company.
- ▶ Ensure compliance with the standards and regulations for electrical installation in your country.
- ▶ The system must be completely disconnected from the mains supply before commencing installation and repair work.
- ▶ The housing cover must only be removed by a specialist.

Fire hazard from overheating

Insufficient ventilation can lead to device overheating and fire.

- ▶ Install air inlets and outlets in the cabin.
- ▶ Observe the cabin manufacturer's safety and installation instructions.

Risk of fire due to sauna stones

It is possible for hot stones or stone pieces to fall out of the rock store.

- ▶ The sauna heater may not be placed on a floor made of easily flammable material (laminate or synthetic flooring, etc.). Ceramic tiles are recommended as a flooring option.

General safety instructions

Risk of burns from hot glass

Glass surfaces in the cabin become hot while the sauna is in operation.

- ▶ When installing the cabin, ensure that the touchable glass surfaces on the outside of the cabin may reach a maximum temperature of 76°C. Appropriate protection may need to be installed if required.

Risk of burns from hot unit

During operation, the sauna heater may become hot and, if touched, could cause burns.

- ▶ Maintain a safe distance.

Sauna cabin and sauna heater

The sauna cabin must be constructed with proper material and built in a professional manner, and the sauna heater must be suited for the cabin.

- ▶ The sauna heater may only be used in sauna cabins made of suitable, low-resin and untreated material (e.g. Nordic spruce). The control unit must not be used in the cabin.
- ▶ Multiple heaters may be installed in one sauna if the heater output can properly supply the cabin volume. In this case, depending on the position, an additional safety temperature limiter must be installed for each additional heater.
- ▶ The sauna heater is not designed to be installed or set up in an alcove or under a bench or sloping roof unless this sauna heater is specifically designed and approved for this type of installation.
- ▶ Receptacles may not be installed inside the sauna cabin.
- ▶ Each sauna cabin must have air inlets and outlets. The air inlets and outlets may be installed from below or from behind the heater. The minimum dimensions of the air inlets and outlets can be found here: 2.5 Technical data, 🗋 EN-14 and 3.1.2 Air inlets and outlets, 🗋 EN-19.
- ▶ The air outlet is always installed in the lower part of the wall, diagonal to the heater. The air inlets and outlets must not be closed. Observe the instructions provided by your sauna cabin manufacturer.
- ▶ Use one of the control units listed below to check and control the sauna heater. This control unit is fixed to a suitable location on the cabin's external wall, and the corresponding sensors according to the installation instructions that accompany the control units inside the sauna cabin.
- ▶ Electrical installations and equipment in the sauna cabin must comply with IEC 60364-7-703 (DIN VDE 0100-703).

- The cabin lighting must be safe for sauna cabin use and installed in such a way that it can be used safely in a sauna cabin. Ensure that the heater is installed in compliance with the standards and legal norms valid in your country.
- The cabin door must open outward and must not have a lock that cannot be opened in the case of failure. We recommend magnetic or spring locks.

Water connection

For Herkules XL S120 Vapor HD, prevent water from flowing from the water supply and the box for the heater's water level control back into the piping system for potable water.

- Close the shut-off valve if the connection to potable water is not used for an extended period of time.

1.2 Operator instruction

The operator of the sauna cabin must be instructed in the general safety instructions during commissioning. The operator must be given a copy of the operating instructions.

Risk of electric shock

A risk to life and limb from electric shock and fire arises in the event of improper repair work. This risk remains also after work is completed.

- ▶ The housing cover must only be removed by a specialist.
- ▶ Repairs and installations must only be performed by a trained specialist.
- ▶ The system must be disconnected and removed entirely from the mains supply before commencing repair work.
- ▶ Use only original spare parts from the manufacturer.

Fire hazard

Objects placed on the sauna heaters can ignite and cause fires.

- ▶ Attach the heater guard rail.
- ▶ Do not place objects on the sauna heater.
- ▶ Fill the rock store as directed.
- ▶ Inspect the sauna cabin prior to each recommissioning and ensure that no towels, cleaning agents or other objects are lying on the sauna heater or vaporiser.
- ▶ If you switch on the heater using pre-set timers or remotely, attach a protective cover to the heater or install a suitable safety system.

Risk of fire due to substances in holder

The holder must not be used if the heater is operated without the vaporiser function (Finnish sauna mode). Substances in the holder pose a risk of fire because they can easily be ignited.

- ▶ Never place herbs or similar substances/objects in the holder if the heater is being operated without the vaporiser function. Observe the manufacturer's specifications when adding sauna essences to the water.
- ▶ Never leave herbal sachets in the holder if the system has a control unit with a post-heating time option; they could dry quickly and catch fire.

Risk of scalding from hot steam

There is a risk of scalding from hot steam at the steam emission outlet when using the vaporiser (Herkules XL S120 Vapor HD). The steam escapes from the long sides of the holder.

- ▶ Add essences and herbs to the holder only from the front side of the heater.

Health risks

Spending time in a sauna cabin can lead to serious health risks or even death for persons with health impairments.

- ▶ Persons with health impairments who spend time in a sauna must consult a doctor before entering a sauna cabin.

Damage to health

Excessive time spent in a heated sauna cabin can lead to overheating of the body (hyperthermia), which may cause serious health problems and even death. Hyperthermia occurs when the core temperature of the body exceeds the norm by a few degrees. Symptoms of hyperthermia include fever, dizziness, lethargy, sleepiness, and fainting. Side effects of hyperthermia include perception disorders, inability to recognize the need to leave the room, inability to identify imminent danger, harm to the foetus in the case of pregnant women, inability to physically leave the room and unconsciousness.

Alcohol, drugs, and medications increase the risk of hyperthermia.

- ▶ Do not exceed the maximum recommended time in the sauna.
- ▶ Leave the sauna cabin if your body responds abnormally to the heat or if you do not feel well.
- ▶ Avoid alcohol, drugs, and medications when you are using the sauna.

Water lime content

Herkules XL S120 Vapor HD: Lime deposits can impact the ability of the vaporiser to function properly.

- ▶ If the water has a lime content of more than 1.3 millimole of calcium oxide per litre (hardness class I or hardness levels 1–7 in Germany), we recommend installing a decalcification system. If a decalcification system is not installed, you must manually descale the vaporiser regularly. The higher the lime content in the water used, the more often the vaporiser must be descaled.

Operation by children or persons with reduced mental capacity

This unit should not be used by children or persons with reduced mental capacity or limited physical or sensory abilities.

- ▶ Children must be supervised to ensure they do not play with the unit.
- ▶ Children and persons who have not received proper instruction must not clean or service the system.

1.3 Safety levels

Safety instructions and important operating instructions are classified. Please familiarise yourself with the following terms and symbols:

⚠WARNING

Warning

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION

Caution

Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Notice

Indicates a hazardous situation which, if not avoided, will result in damage to the unit.

1.4 Standards and regulations

For an overview of the standards that were observed during design and construction of the sauna heater, please refer to the individual product's technical data sheet that can be downloaded from www.eos-sauna.com.

2 Identification

Herkules XL S120 HD is an electrically heated sauna heater available in a variety of output capacities. The 'Vapor' version also has an installed vaporiser that can be used to operate a steamy hot-air bath.

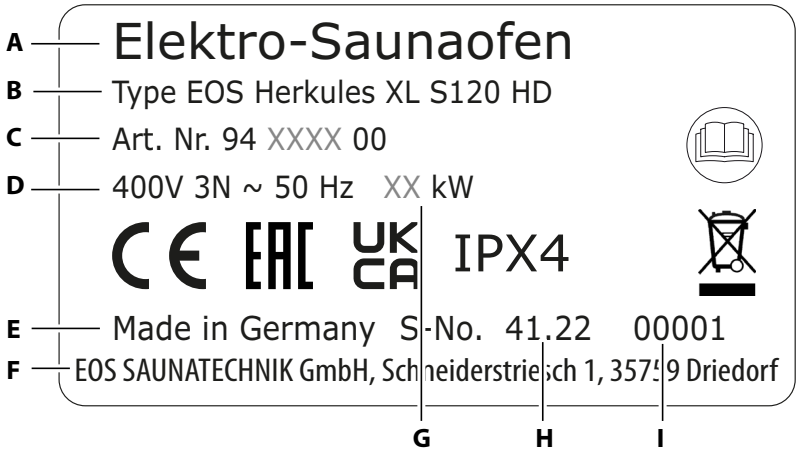
2.1 Requirements for operation

The heater must be operated with one of the following control units:
The power extension units required depend on the output capacity of the sauna heater. See 2.5 Technical data, 🗋 EN-14
The sauna heater can be operated with one of the following control units:

- Econ series (Econ D2 and higher)
- Compact series
- EmoTec series
- EmoStyle series
- EmoTouch series

The control unit is not included in the scope of delivery.

2.2 Nameplate



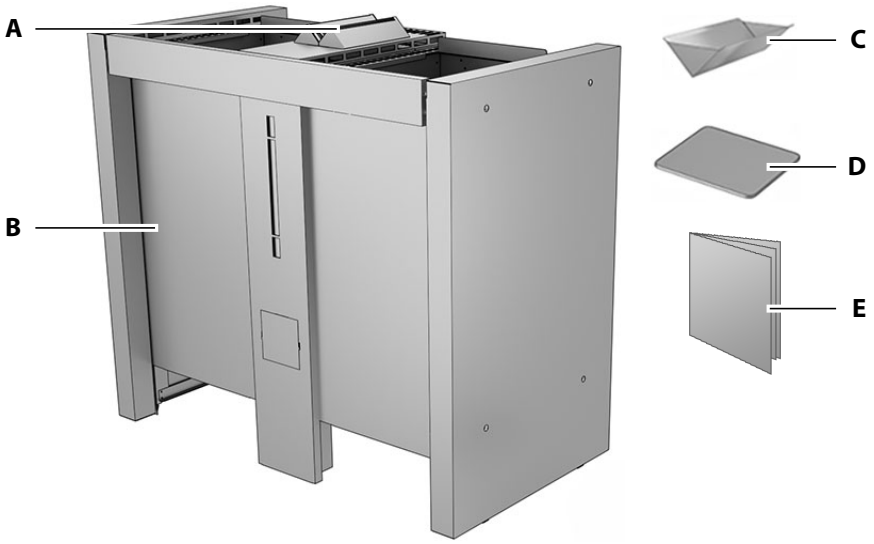
A Name
B Model
C Item number
D Electrical connection
E Country of origin
F Manufacturer
G Heater output
H Manufacturing date
I Serial number

Nameplate

2.3 Scope of delivery

Check the unit upon delivery to ensure that all components were delivered and that it is in proper working order. Contact your distributor if components are missing or damaged. The unit must not be operated if components are missing or damaged.

The following parts are included in the scope of delivery:



A Base mount for holder
B Sauna heater, pictured: EOS Herkules XL S120 Vapor HD
C Holder
D Warning plate with 2 screws (2.9 mm x 9.5 mm)
E Installation instructions

Scope of delivery

Herkules XL S120 Vapor HD comes with a pre-mounted mains water connection (FWA01) on the rear side. Herkules XL S120 HD does not have this pre-mounted mains water connection.

Warning plate (D)


Caution: observe the instructions.


Do not touch hot surfaces.


Do not place objects on the heater.


Read the instructions.

2.4 Accessories

A sauna heater guard rail may be placed around the upper edge of the heater. It prevents accidental contact with hot parts of the heater.
To ensure that the sauna heater is switched off or remains off if, for example, a towel is lying on it, it can be equipped with a safety device.

Accessories	Item no.
Universal sauna stones, 20 kg, caliber 100–150 mm Required: 120 kg	94.7340
Heater guard rail bracket (bracket and guard rail made of wood)	94.5679
Safety device type 5	94.4725
EOSafe D	94.7149
EOSafe L with 25 mm reflector	94.7151
EOSafe L with 50 mm reflector	94.7150
EOSafe L & D with 25 mm reflector	94.7153
EOSafe L & D with 50 mm reflector	94.7152

- The EOSafe D door supervision device can be used to determine if an unauthorised person has entered the sauna.
- The EOSafe L heater monitor can be used to prevent the heater from being switched on if objects have been placed on the heater.

2.5 Technical data

Heater output per DIN	18 kW	24 kW	30 kW
Vaporiser output	3 kW	3 kW	4 kW
Electrical connection	400 V 3N ~ 50 Hz		
for cabin volumes	24 - 35 m^3	35 - 45 m^3	45 - 65 m^3
Minimum dimensions of air inlets and outlets	50 x 6 cm	50 x 8 cm	50 x 10 cm
Weight without stones and packaging	Approx. 85 kg		
Unit dimensions, HxWxD	85 x 96 x 53 cm		
Stone filling, not included in scope of delivery	120 kg, caliber 100–150 mm		
Power extension unit (LSG) required [1] Without vaporiser/with vaporiser	LSG 10 [2]	LSG 36/LSG 36 H	
For use with the control units	Econ series, Compact series, EmoTec series, EmoStyle series, EmoTouch series		
Area of application	For commercial sauna cabins		
Leakage current	Max. 0.75 mA per kW heater output		
Fuse protection for control unit	3 x 16 A	1 x 16 A	1 x 16 A
Fuse protection for LSG unit	3 x 16 A	3 x 50 A	3 x 50 A
Connection control unit – heater (Herkules XL S120 HD)	5 x 1.5 mm^2	-	
Connection control unit – heater (Herkules XL S120 HD Vapor)	5 x 1.5 mm^2 4 x 1.5 mm^2	5 x 1.5 mm^2 3 x 1.5 mm^2	3 x 1.5 mm^2
Connection mains – control unit	5 x 2.5 mm^2	5 x 2.5 mm^2	3 x 1.5 mm^2
Connection mains – power extension unit	5 x 2.5 mm^2	5 x 6 mm^2	5 x 10 mm^2
Connection LSG – heater (without vaporiser)	5 x 1.5 mm^2	2 x (5 x 4 mm^2)	2 x (5 x 4 mm^2)
Connection LSG – heater (Vapor)	5 x 1,5 mm^2	2 x (5 x 4 mm^2) und 1 x (4 x 1,5 mm^2)	
Connection LSG – control unit	4 x 1.5 mm^2		

[1] LSG = power extension unit
[2] For Compact D18/H18 no LSG10 is required.
All line cross-section specifications are the minimum cross-sections of a copper line.

2.6 Intended use

This sauna heater is intended solely for the purpose of heating sauna cabins, together with a suitable control unit and one relay box.
Herkules XL S120 HD is a sauna heater that stands on the floor. It is suitable for cabins for commercial use.

The heater is not suitable for outdoor use.
It must be operated only in sauna cabins and may not be exposed to environmental conditions such as extreme humidity and moisture or the possible formation of condensation or corrosive substances in the ambient air, as well as other weather conditions.

Any use beyond this is considered improper use. Proper use also includes compliance with operating, maintenance and servicing requirements.

Foreseeable misuse

The following are considered instances of foreseeable misuse:

- The heater power does not match the sauna volume.
- The unit is operated without knowledge of or compliance with the safety instructions.
- Operating, service and maintenance requirements are not observed.
- The unit is operated with insufficient air supply or exhaust air.
- The unit is operated without sauna stones or with a rock store that is not filled as directed.
- The unit is operated by children under 8 years of age.
- The unit is operated by children 8 years of age or older, or persons with reduced mental capacity who have not been thoroughly instructed in its use.

The manufacturer is not liable for unauthorised modifications made to the equipment and damages resulting from these modifications. The person modifying the equipment alone shall bear the associated risk.

Identification

General instructions

- Please note that an optimal sauna climate can be achieved only if the cabin with its air inlets and outlets, the sauna heater, and the control unit are synchronized.
- Observe the specifications and information provided by your sauna retailer.
- The sauna heaters heat the sauna cabin with heated convection air. Fresh air is drawn in through the air inlet. It is warmed and rises (convection) and is then circulated in the cabin. Some of the used air is pushed out of the cabin through the cabin's air outlet.
  This creates a typical sauna climate in which temperatures of approx. 110°C are achieved directly below the ceiling. These temperatures drop to approx. 30–40°C in the cabin along the floor. Therefore, it is not unusual that if the temperature sensor above the sauna heater reads 110°C, the thermometer that is mounted approx. 20–25 cm below the cabin ceiling on the cabin wall reads only 85°C.
  When the max. temperature is set for the area around the upper sauna bench, the bathing temperature is typically between 80°C and 90°C.
- Please note that the highest temperatures in the cabin are always above the sauna heater and that is where the temperature sensor and safety temperature limiter should be mounted according to the installation instructions.
- The first time the cabin is heated, you may notice a slight odour resulting from the evaporation of consumables used in the manufacturing processes. Air out your cabin once it has been heated and before using the sauna.

3 Installation

This chapter describes how to install the Herkules XL S120 HD/Vapor HD sauna heater. Prior to installing the heater, air inlets and outlets must be installed in the cabin.
It may be necessary to mount additional fans in the inlets/outlets.
All protective films must be removed.

NOTICE

Damage due to incorrect mounting location

The heater is not suitable for outdoor use.

- ▶ The heater must be operated only inside sauna cabins and may not be exposed to environmental conditions such as extreme humidity and moisture or the possible formation of condensation or corrosive substances in the ambient air, as well as other weather conditions.
- ▶ The heater is not designed to be installed or set up in an alcove or under a bench or sloping roof.

3.1 Specifications for the cabin

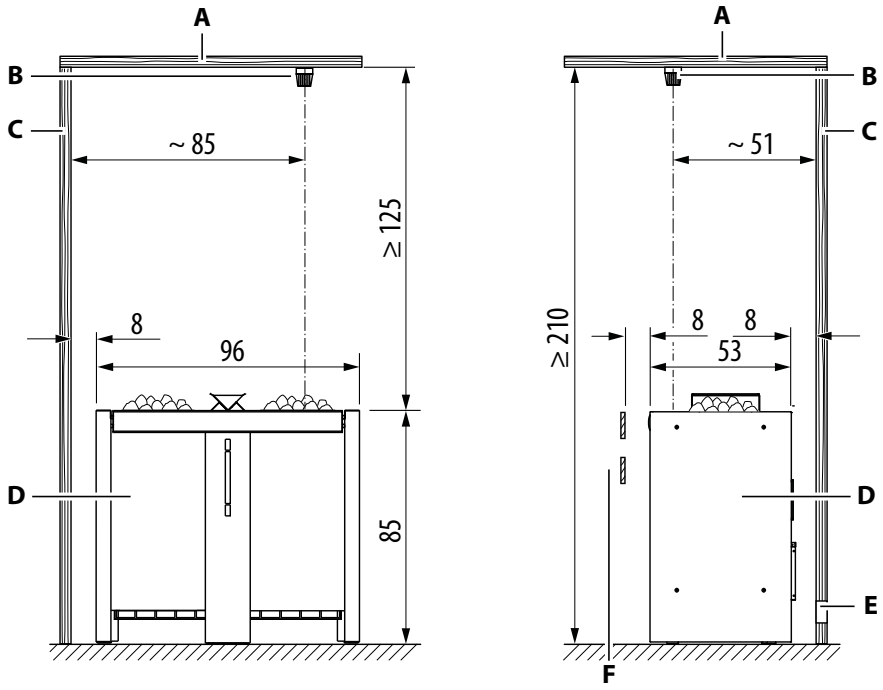
The cabin must be planned and installed according to specifications before the heater is installed. It must be ensured that the heater can be removed from the cabin even after the cabin has been installed
All electrical installations laid inside the cabin must be suitable for a temperature of at least 170°C.
All lines must be routed in such a way that they are well-protected, e.g. in a cable duct.
If single-core lines are used as connecting cables, they must be protected by a flexible metal hose that is connected to the protective conductor.
The minimum cross-section of the connecting cable and the recommended heater power in kW in relation to the cabin volume can be found here: 22.5 Technical data, 🗋 EN-14.

In general, it should be noted that the sauna heater must not be set on a floor made of highly flammable material such as laminate, flooring made of plastic material, etc. Ceramic tiles are recommended as a flooring option. Floor heating in the sauna cabin increases the temperature of the floor's surface temperature.

3.1.1 Installation site

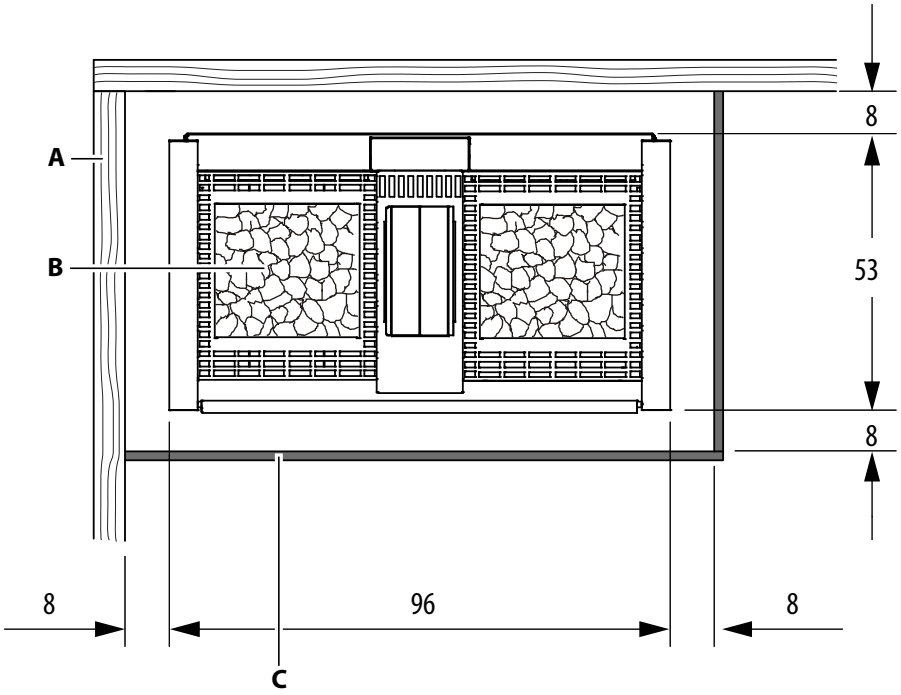
The sauna heater's output selected must be appropriate for the cabin volume; see 2.5 Technical data, EN-14.

- Ceiling height of at least 210 cm
- Distance from top edge of sauna heater to cabin ceiling min. 125 cm
- Distance heater – cabin wall min. 8 cm
- Distance heater – bench min. 8 cm
- Distance heater – flammable material min. 8 cm



A Cabin ceiling
B Temperature sensor
C Cabin wall
D Sauna heater
E Air inlet
F Heater guard rail

Minimum distances in the cabin in cm



A Cabin wall
B Sauna heater
C Heater guard rail

Minimum distances to the sauna heater in cm

3.1.2 Air inlets and outlets

⚠WARNING

Risk of fire due to insufficient ventilation

The sauna heater can overheat if the air supply is insufficient. There is a risk of death due to fire.

- ▶ Ensure that the air inlets and outlets provide sufficient ventilation. Install a fan if necessary.
- ▶ Start the sauna only after all air inlets and outlets have been opened.

NOTICE

Heating process takes too long

If the heating process takes a long time, the underlying reason is that the sauna heater receives insufficient air.

- ▶ A minimum of 5 times the cabin volume of air per hour must be exchanged.

Air inlets and outlets must be installed in the cabin to ensure a sufficient air flow in the cabin and to prevent the heater from overheating.
To support ventilation, additional fans can be mounted, preferably on the side of the exhaust air.
The required size of the air inlets and outlets depends on the heater output; see 2.5 Technical data, 🗋 EN-14.

Depending on the location of the heater, the air inlet must be installed behind or below the heater.

- Heater is located at the cabin wall, 🗋 EN-20
- Heater is located in the middle of the cabin or in front of a glass wall, 🗋 EN-21

Air outlet

The air outlet must meet the following criteria:

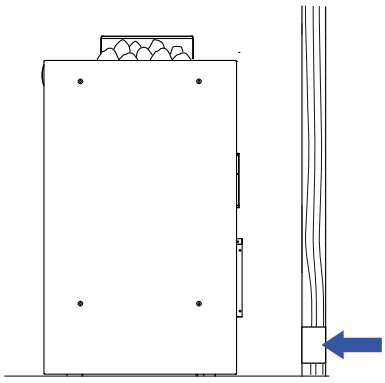
- Location: Across from the sauna heater
- Height: 30–50 cm above the cabin floor

Heater is located at the cabin wall

The air inlet must meet the following criteria:

- Location: Behind the sauna heater
- Height: approx. 10 cm above the cabin floor

If there is still not enough fresh air to reach the sauna heater, a fan must be installed at the opening outside of the cabin.



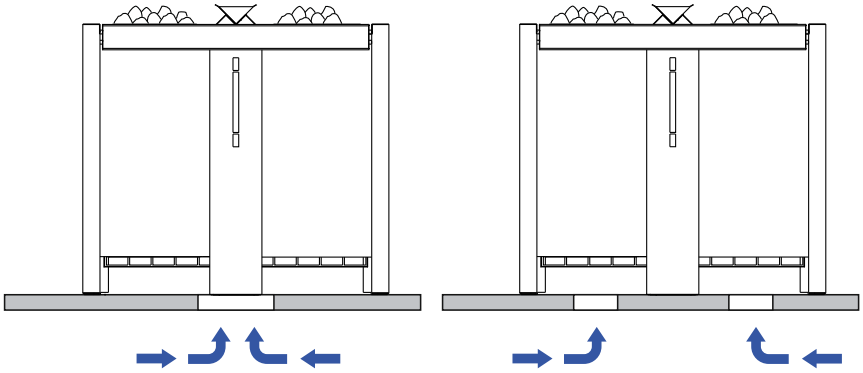
Installing the air inlet in the cabin wall

Heater is located in the middle of the cabin or in front of a glass wall

The air inlet can be either a large opening or multiple small openings.

The air inlet must meet the following criteria:

- Location: Below the sauna heater
- A duct directs fresh air to the opening or openings.
- If necessary, install a fan outside the cabin at the beginning of the duct.



Installing the air inlet in the cabin floor

3.1.3 Connecting cables

The sauna heater must be connected to the control unit or control unit and relay box by means of one or two connecting cables, depending on the heater output. Install the cables in such a way that they are protected from damage. To do this, route empty pipes from the installation site of the sauna heater to the relay boxes.
Outside of the cabin, the cables must be routed under a suitable protective cover (e.g. in a cable duct or empty conduits).
See the connection diagram: Inner wiring diagrams, EN-27.

If there are no empty pipes in your cabin, drill a hole in the cabin wall directly next to the sauna heater where the cable emerges from the sauna heater, and guide the cable through this hole outward to the control unit and relay box. The hole must be large enough to accommodate the cable. The cable and all other connecting cables (supply line to mains and cabin lighting) on the external side of the cabin must be protected from damage. To do this, use installation pipes or attach a suitable protective cover.

3.2 Temperature sensor in the cabin

⚠WARNING

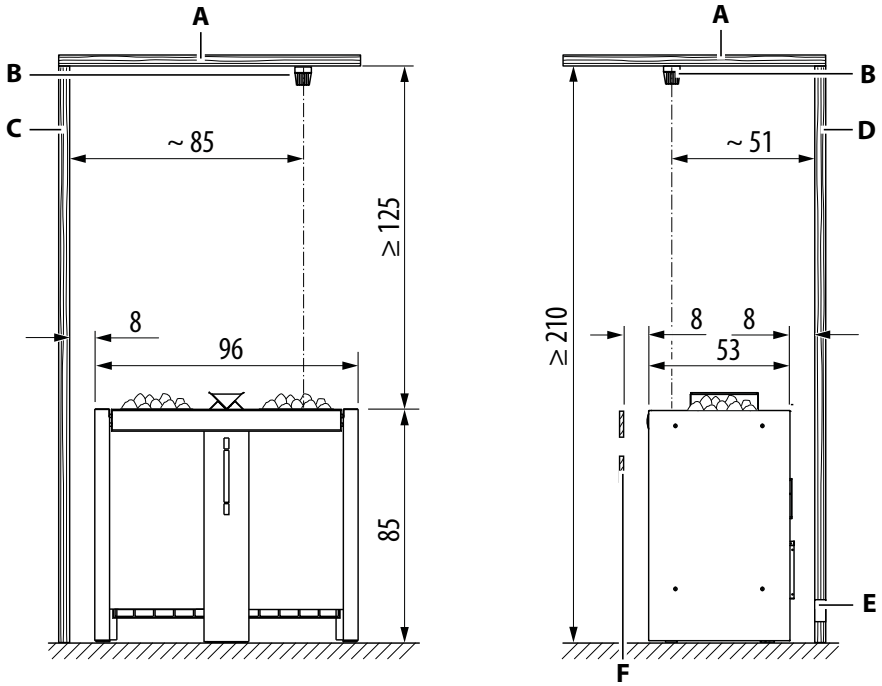
Risk of fire due to incorrect temperature sensor position

Overheating can occur if the temperature sensor with the safety temperature limiter is installed in the incorrect position; in this case, the sensor may read a lower temperature than actually exists in the cabin. This would trigger the sauna heater to continue to heat, even though the desired temperature has already been reached.

- ▶ Install the sensor as shown in the figure: 🖼 Minimum dimensions for mounting sensor in cm, 🗋 EN-22.
- ▶ Ignore any contradictory information found in the instructions for the sauna control unit.

The temperature sensor should be mounted as follows:

- above the front longitudinal side of the sauna heater
- centred above the rock store, which is not adjacent to the cabin side wall



A Cabin ceiling
B Temperature sensor
C Cabin side wall
D Cabin rear wall
E Air inlet
F Heater guard rail

🖼 Minimum dimensions for mounting sensor in cm

NOTICE

Malfunction due to damaged sensor

The temperature sensor is protected by its housing.

▶ Ensure that the housing and the sensor are not damaged during operation.

3.3 Mounting the sauna heater

The sauna heater is supplied mounted and packaged on a pallet. The side panels of the sauna heater must be removed before the sauna heater can be lifted from the pallet. The sauna heater is positioned closely to the designated installation location. The rear side must still be accessible so that the electrical lines can be connected. It may be necessary to connect a water supply line as well (Herkules XL S120 Vapor HD only). Once the lines are connected, the sauna heater can be placed in its final location.
Four people should always transport the sauna heater.

NOTICE

Damage to the device due to incorrect lifting of the sauna heater

Material damage can occur if the sauna heater is lifted from the side panels. The side panels cannot bear the weight of the sauna heater.

▶ Remove the side panels before the sauna heater is lifted manually.

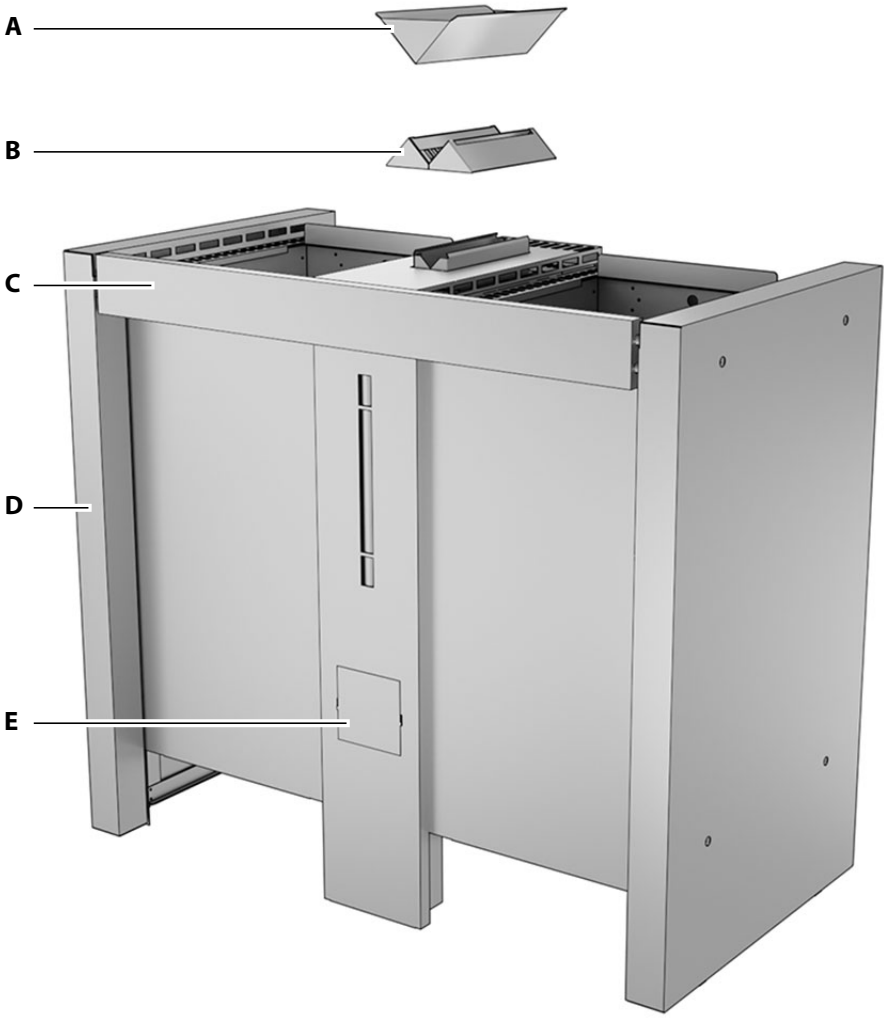
Necessary steps:

▶ Unpacking the heater, 🗋 EN-24
▶ Removing the side panels, 🗋 EN-25
▶ Lifting the heater from the pallet, 🗋 EN-25

Tool:

- Screwdriver

Installation



A Holder
B Base mount for holder
C Wood guard rail
D Side panel
E Cover panel (Herkules XL S120 Vapor HD only)

Installing the sauna heater

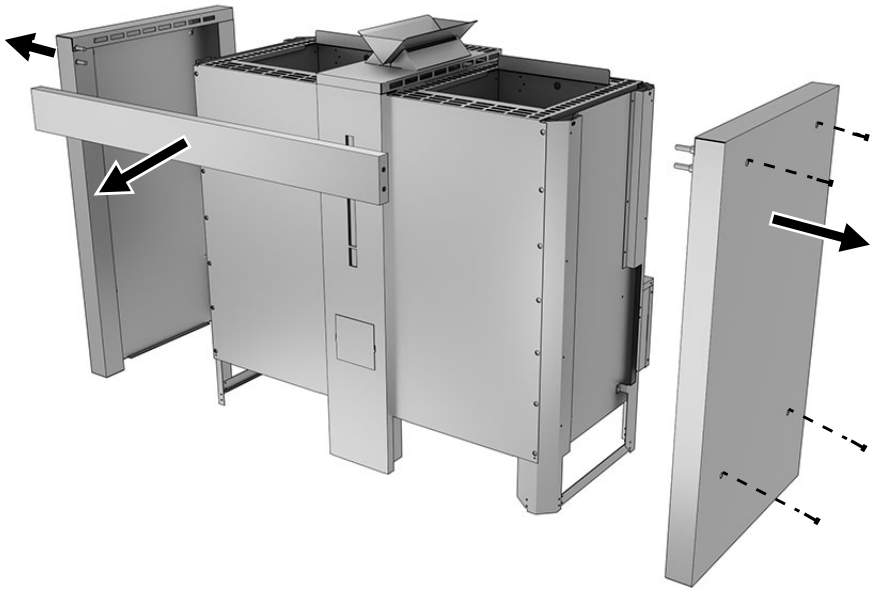
▶ Unpacking the heater

1 Move the pallet with the heater as close to the pre-defined installation site as possible.

2 Remove the heater from the packaging and leave the heater on the pallet.
ⓘ The heater is already assembled with the exception of the holder (**A**).

▶ Removing the side panels

1 Unscrew the 4 screws from each of the two side panels.



2 Remove both side panels.

a) Remove one side panel while holding onto the wood guard rail.

b) Remove the wood guard rail.

c) Remove the second side panel.

▶ Lifting the heater from the pallet

1 CAUTION! The heater weighs a minimum of 85 kg. Four people should always move the heater.
Lift the heater from the pallet and position it close to the designated installation site but ensure that you can still access the rear side.

2 Remove all transport locks and the protective film.

ⓘ Perform the following tasks next:
4.5 Establishing an electrical connection, 🗋 EN-36
4.7 Connecting the water supply (EOS Herkules XL S120 Vapor HD only), 🗋 EN-40

ⓘ Then the heater can be positioned and mounting can be completed:
▶ Assembling the heater, 🗋 EN-44

4 Electrical installation

This chapter describes how the sauna heater is connected to the relay boxes and how the water supply is connected (EOS Herkules XL S120 Vapor HD only). It then describes how the heater is positioned and the water level (EOS Herkules XL S120 Vapor HD only) is set.

4.1 General instructions for electrical installation

Ensure that electrical installation is performed in compliance with the standards and legal norms valid in your country.
Observe the following regulations when installing sauna heaters: IEC 60364-7-703 and/or DIN VDE 0100 part 703:
This most recent version of the standard under amendment of paragraph 703.412.05, states the following:
"The additional protection must be provided for all of the sauna's electric circuits by one or more residual current devices (RCDs) with a rated differential current no greater than 30 mA, with the exception of sauna heaters."

If a residual current device (RCD) is installed, ensure that there are no other electrical consumers not belonging to the sauna system which are fused via this RCD.
If the sauna heater has not been used for an extended period of time, the heater may draw moisture from the ambient air, which, in rare cases, could lead to the RCD to be tripped. This is a physical process and not a fault on the part of the manufacturer.
In this case, the heater must be heated by a technician under supervision which will bypass the RCD function. Once the moisture has escaped from the heating elements after approx. 10 minutes, the RCD can be integrated again in the electric circuit.

If the sauna heater will not be used for an extended period of time, we recommend that you switch on the heater every 6 weeks so that the heating elements do not accumulate moisture. If, during commissioning, the RCD is triggered, the electrical installation must be checked again.
The electrician is responsible for properly connecting the heater; thus, the manufacturer does not assume liability.

4.2 Inner wiring diagrams

The sauna control unit, the relay boxes, and the heater must be connected as shown in the connection diagrams.
Please observe the installation and operating instructions for the control unit and relay boxes.

⚠WARNING

Risk of fire due to improper mounting

The control unit and the sauna heater are designed for connection to 400 V 3N ~.

▶ Use suitable fuses and cable lines.

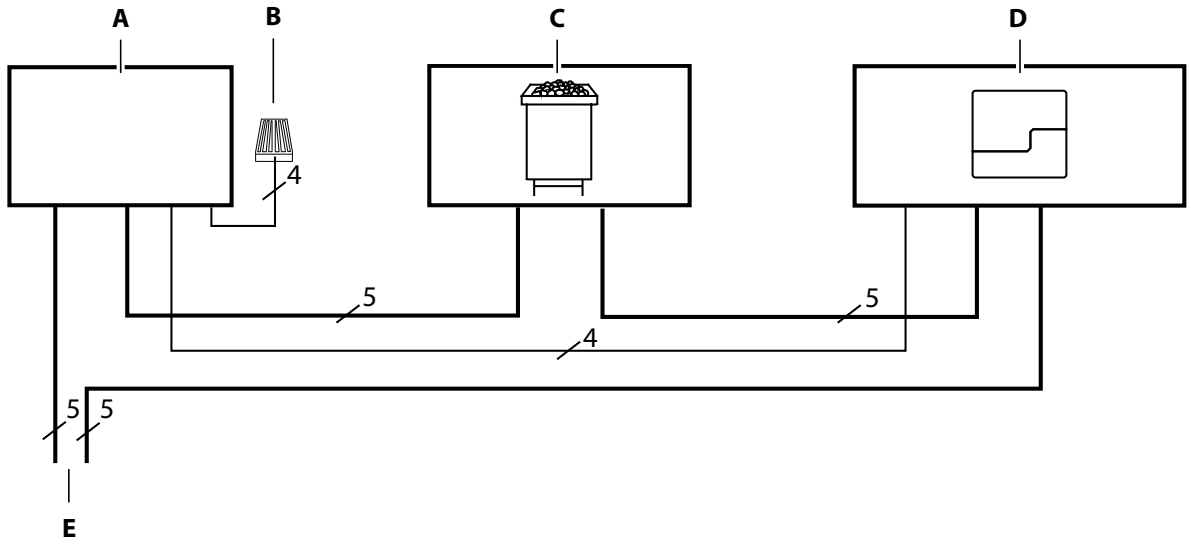
NOTICE

Damage to device from surges

▶ Make sure to always connect neutral conductor N.

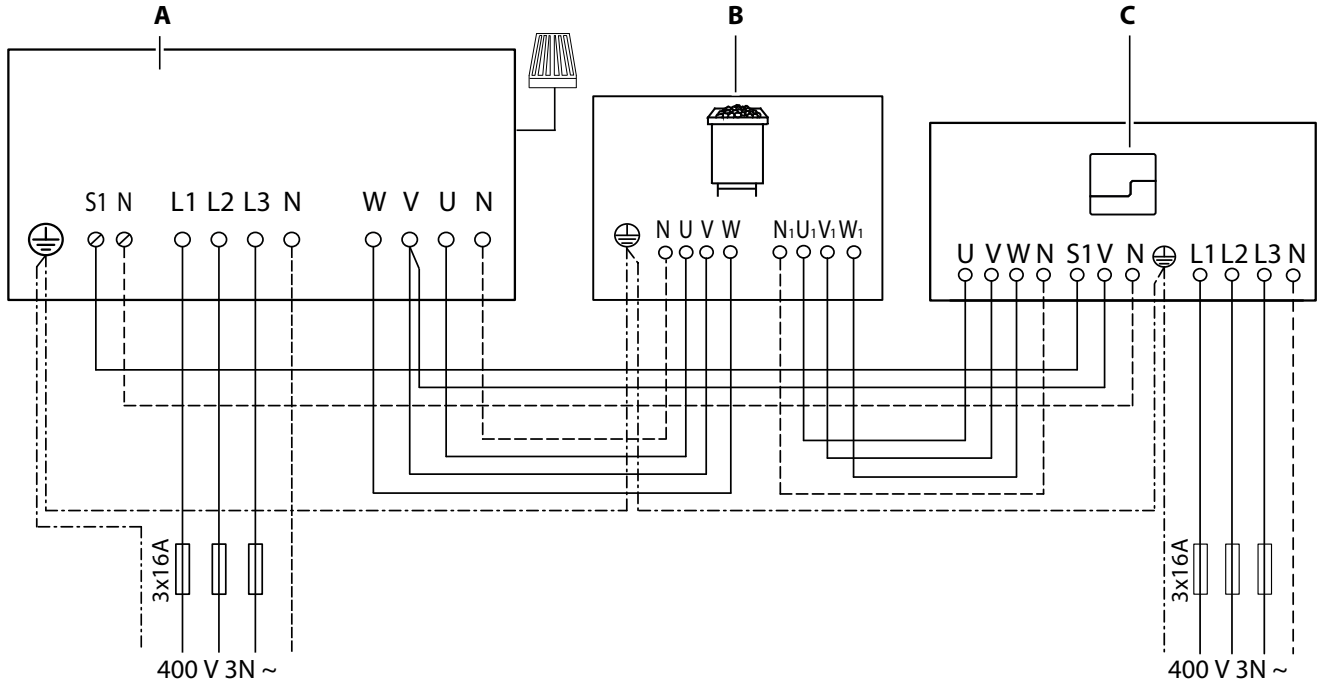
Electrical installation

EOS Herkules XL S120 HD 18 kW



A Sauna control unit
B Temperature sensor with safety temperature limiter
C Heater
D Power extension unit (LSG)
E Mains connection

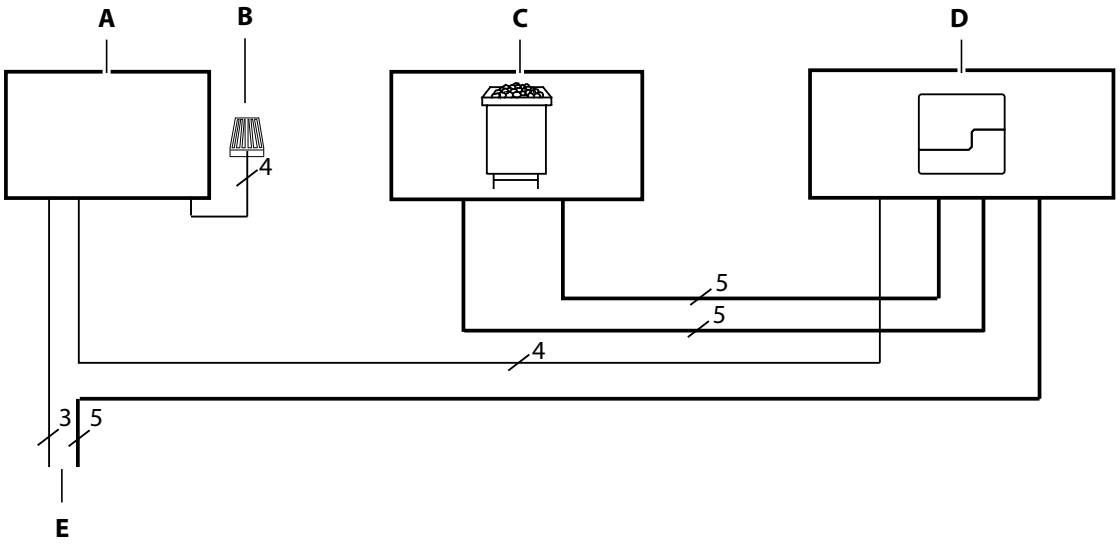
EOS Herkules XL S120 HD 18 kW terminal diagram



A Sauna control unit
B Sauna heater
C Power extension unit LSG 10

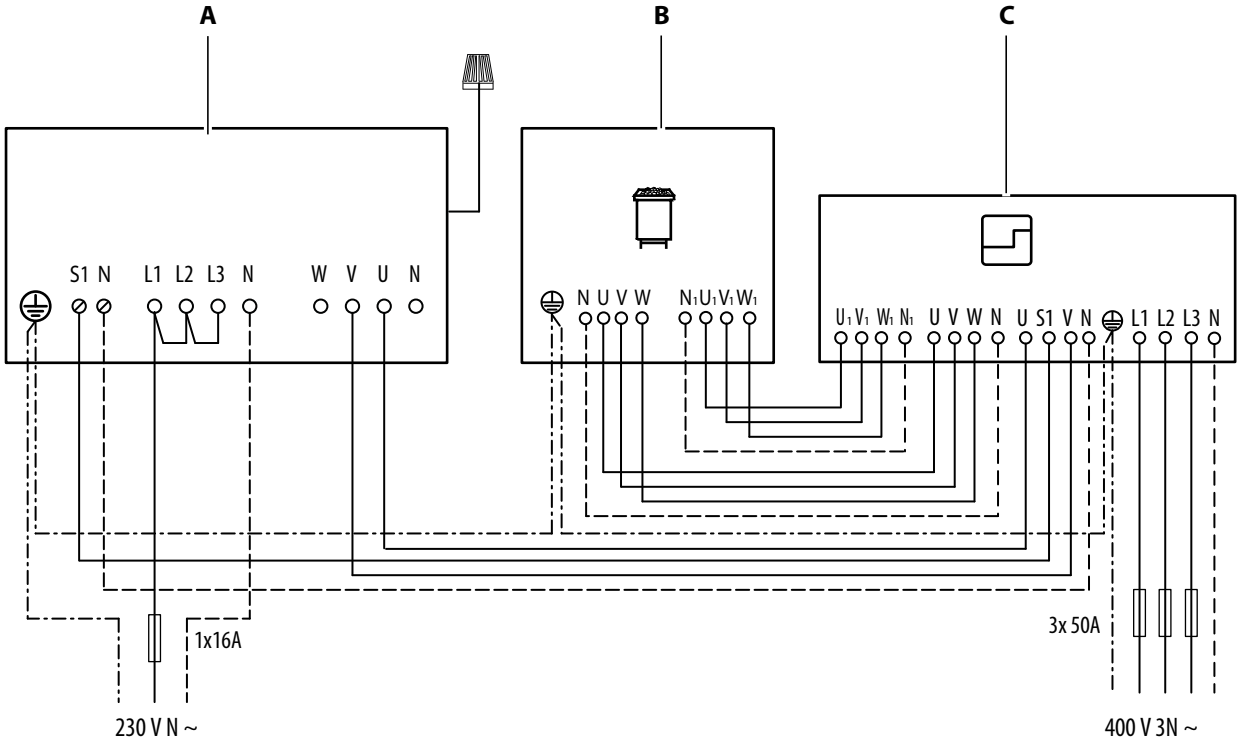
EOS Herkules XL S120 HD 18 kW connection diagram

EOS Herkules XL S120 HD 24 kW/30 kW



A Sauna control unit
B Temperature sensor with safety temperature limiter
C Heater
D Power extension unit (LSG)
E Mains connection

EOS Herkules XL S120 HD 24 kW/30 kW terminal diagram

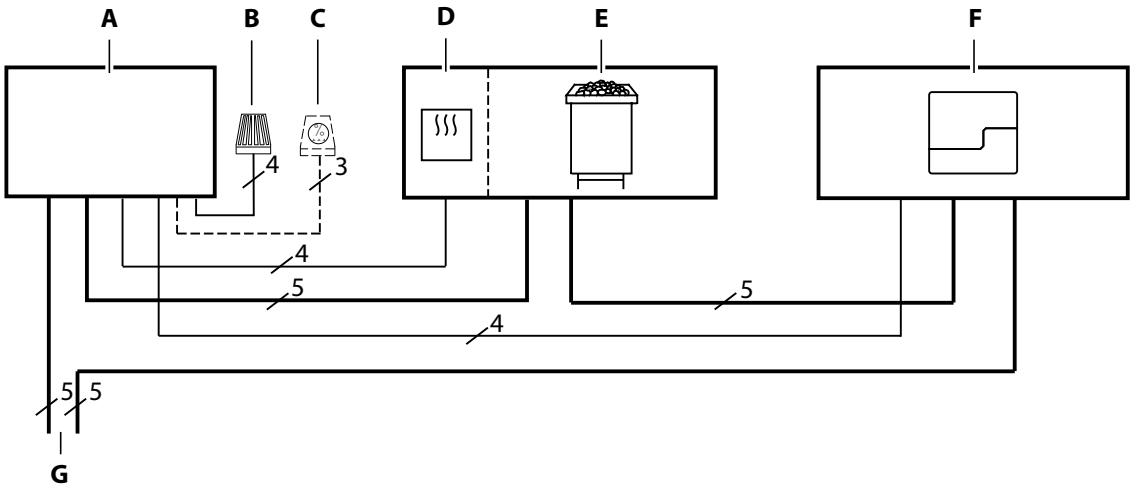


A Sauna control unit
B Sauna heater
C Power extension unit LSG 36

EOS Herkules XL S120 HD 24 kW connection diagram

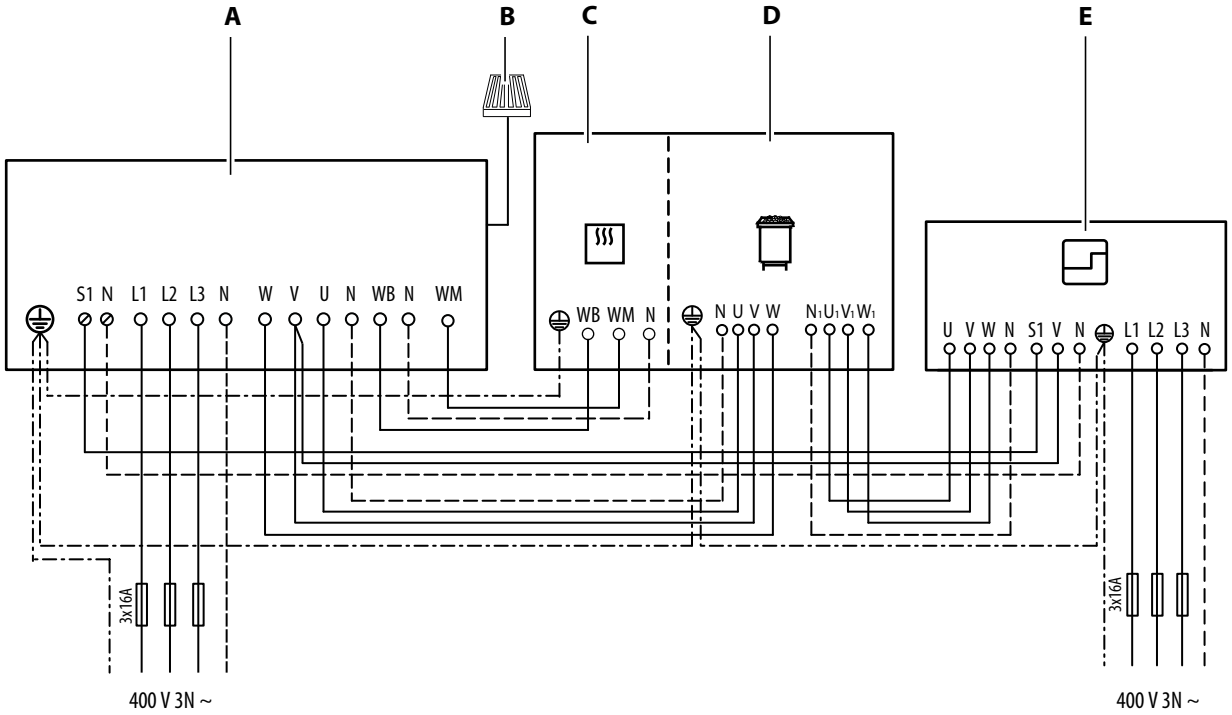
Electrical installation

EOS Herkules XL S120 Vapor HD 18 kW



A Sauna control unit
B Temperature sensor with safety temperature limiter
C Humidity sensor (optional)
D Vaporiser
E Heater
F Power extension unit (LSG)
G Mains connection

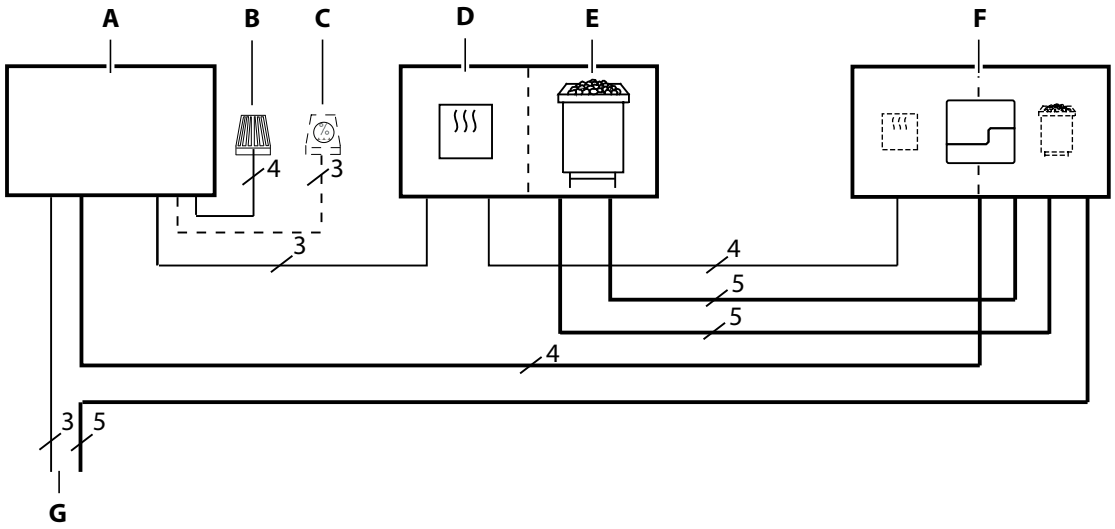
EOS Herkules XL S120 HD Vapor 18 kW terminal diagram



A Sauna control unit
B Temperature sensor with safety temperature limiter
C Vaporiser
D Heater
E Power extension unit LSG10

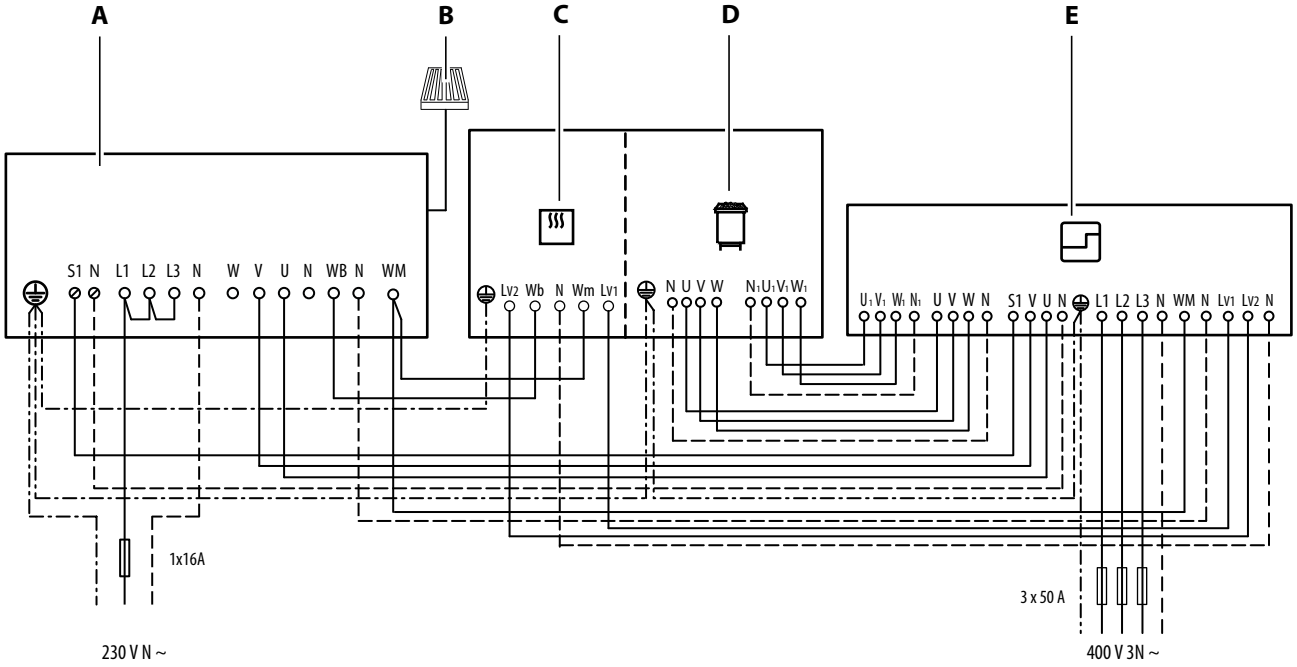
EOS Herkules XL S120 Vapor HD 18 kW connection diagram

EOS Herkules XL S120 Vapor HD 24 kW/30 kW



A Sauna control unit
B Temperature sensor with safety temperature limiter
C Humidity sensor (optional)
D Vaporiser
E Heater
F Power extension unit (LSG)
G Mains connection

EOS Herkules XL S120 Vapor HD 24 kW terminal diagram



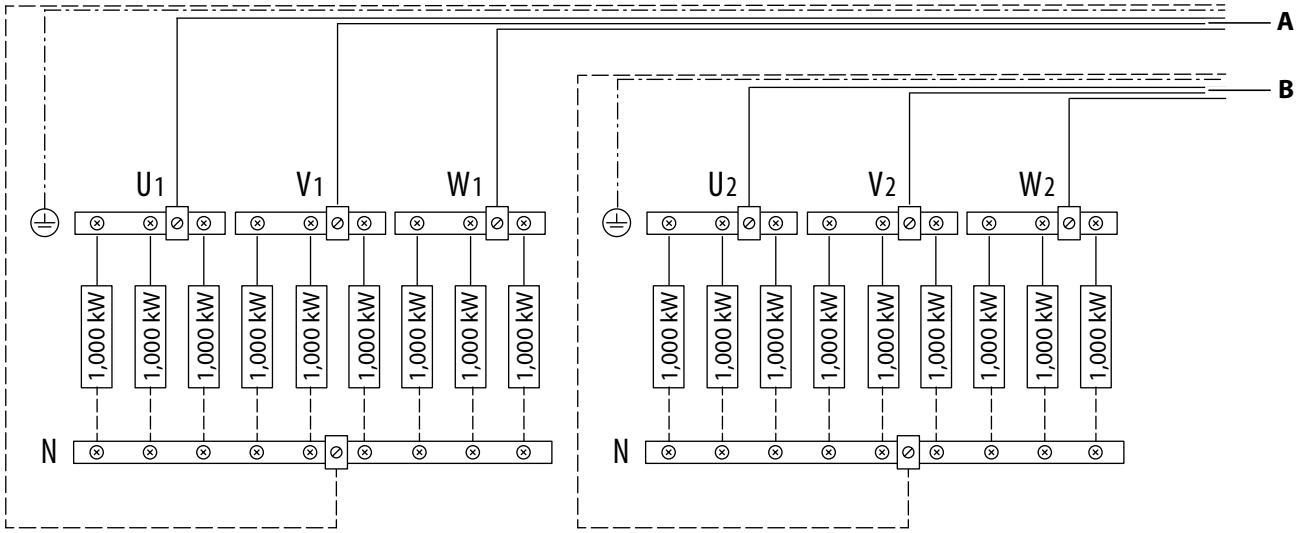
A Sauna control unit
B Temperature sensor with safety temperature limiter
C Vaporiser
D Heater
E Power extension unit LSG 36 H

EOS Herkules XL S120 Vapor HD 24 kW connection diagram

4.3 Internal wiring

For a heater output of up to 24 kW, the heater is connected by two connecting cables. One cable connects the control unit and one connects the power extension unit (LSG). For a heater output of 30 kW or above, both connecting cables are connected to the power extension unit. EOS Herkules XL S120 Vapor HD with a heater output of 24 kW or above has an additional connecting cable that connects the vaporiser to the relay box.

18 kW heater output

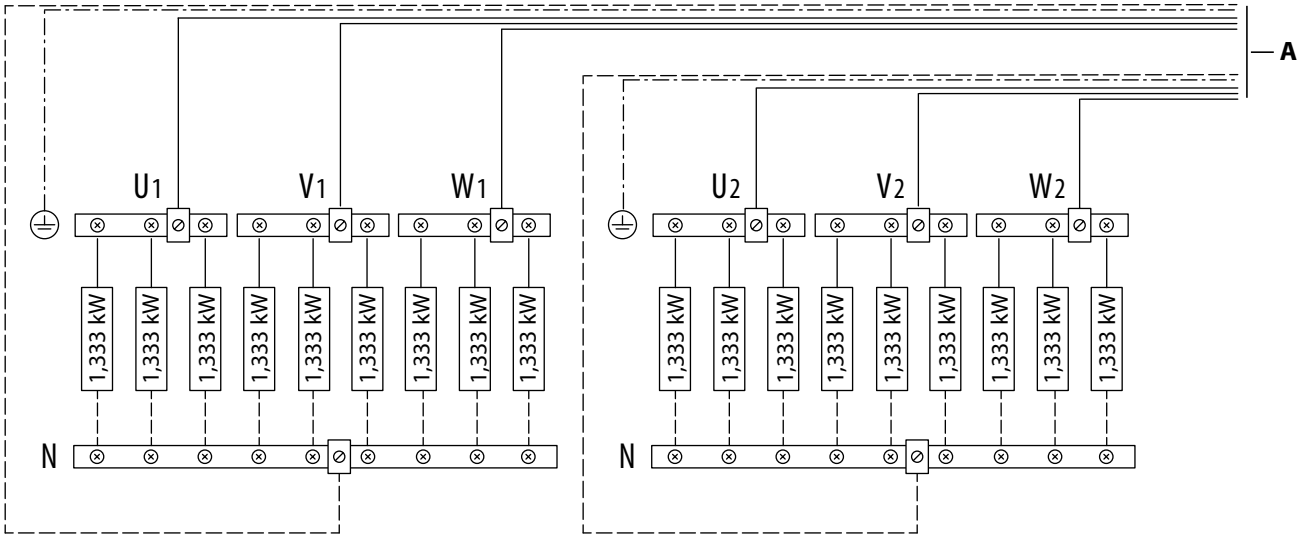


A To control unit

B To power extension unit LSG 10

Circuit diagram for 18 kW heater output

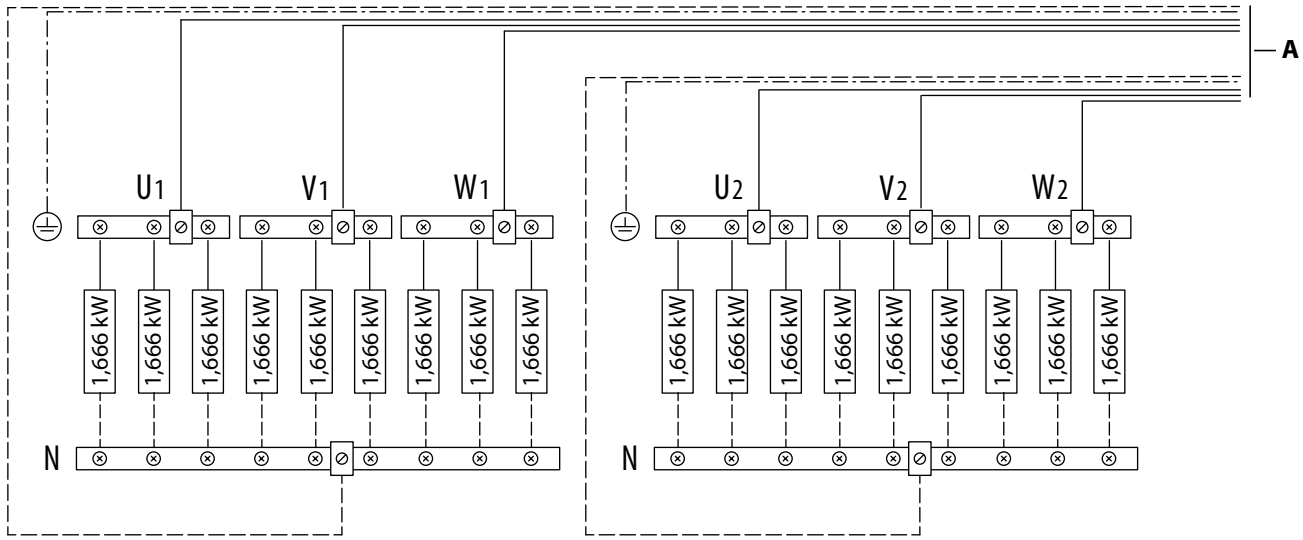
24 kW heater output



A To power extension unit LSG 36

Circuit diagram for 24 kW heater output

30 kW heater output



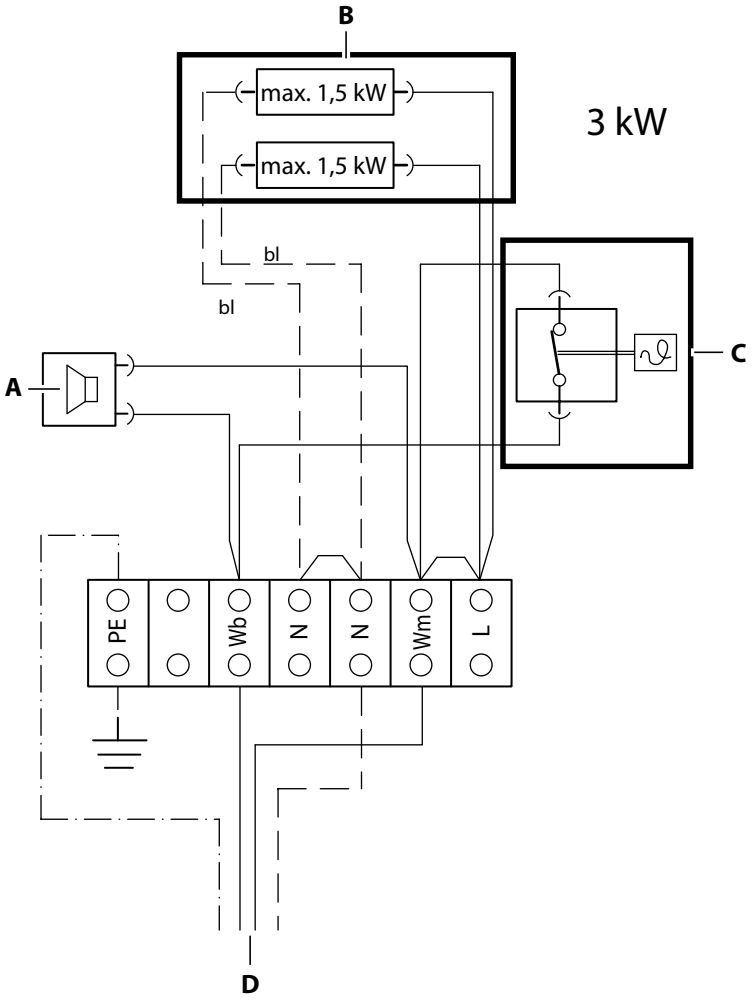
A To power extension unit LSG 36

Circuit diagram for 30 kW heater output

4.4 Vaporiser circuit diagrams (EOS Herkules XL S120 Vapor HD only)

The vaporiser must be connected as shown in the circuit diagrams. Please observe the installation and operating instructions for the control unit and relay boxes.

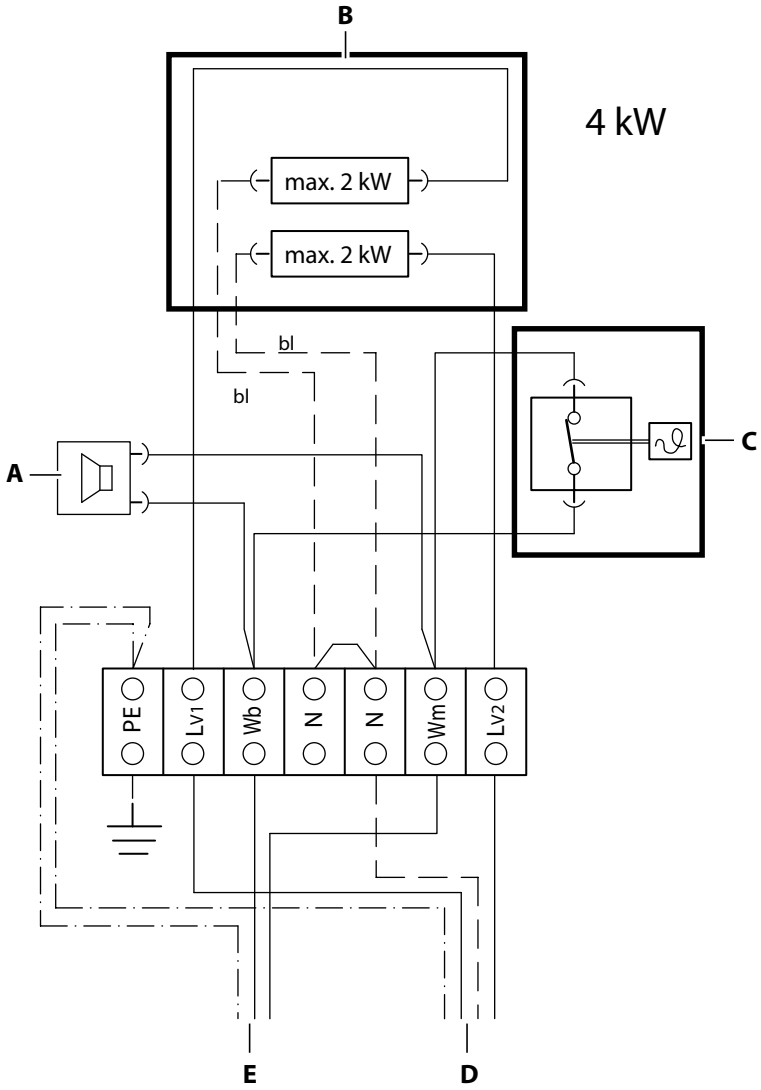
3 kW vaporiser output



A Signal
B Heating element
C Thermostat
D Connection for sauna control unit

Circuit diagram for 3 kW vaporiser

4 kW vaporiser output



A Signal
B Heating element
C Thermostat
D Connection for power extension unit
E Connection for sauna control unit

Circuit diagram for 4 kW vaporiser

4.5 Establishing an electrical connection

The electrical lines should be connected prior to placing the heater in its final location because the connection for the heating coil is located at the rear of the heater.
EOS Herkules XL S120 Vapor HD requires that the vaporiser must also be connected electrically. The electrical connection for the vaporiser is also located at the rear of the heater.

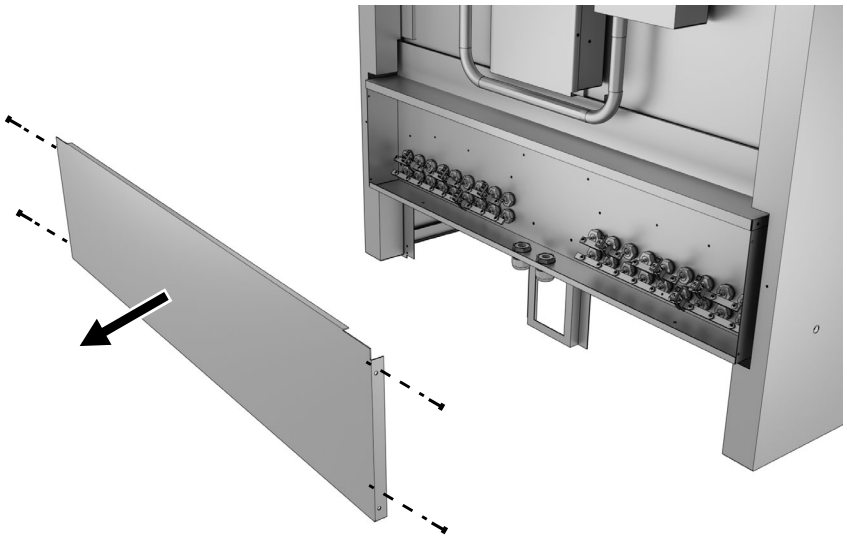
Necessary steps
▶ Opening the terminal box for the heating coil, 🗋 EN-36
▶ Connecting the connecting cable for the heating coil, 🗋 EN-37
▶ Closing the terminal box for the heating coil, 🗋 EN-37
▶ EOS Herkules XL S120 Vapor HD: opening the terminal box for the vaporiser, 🗋 EN-38
▶ EOS Herkules XL S120 Vapor HD: connecting the connecting cable for the vaporiser, 🗋 EN-39
▶ EOS Herkules XL S120 Vapor HD: closing the terminal box for the vaporiser, 🗋 EN-39

Tools:

- Screwdriver

▶ Opening the terminal box for the heating coil

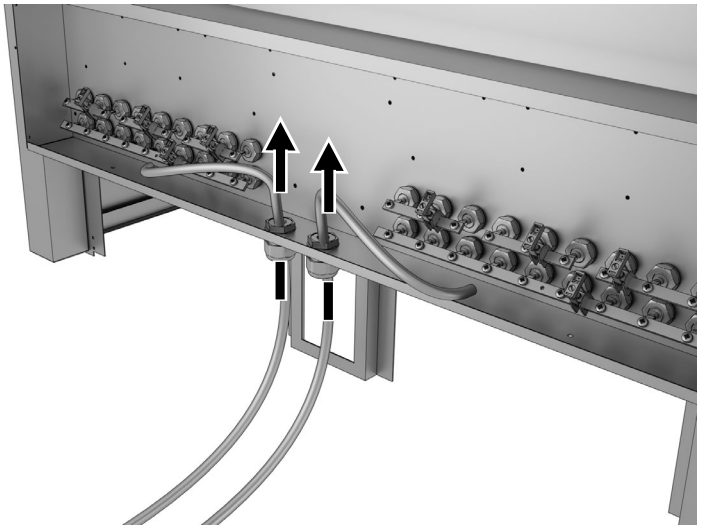
1 Unscrew the 4 retaining screws on the cover of the terminal box.



2 Remove the cover.

▶ Connecting the connecting cable for the heating coil

1 Feed the connecting cables through the cable screw connections in the terminal box.



2 Connect the connecting cables as shown in the connection diagram.
- ⓘ Circuit diagram for 18 kW heater output, 🗋 EN-32
- ⓘ Circuit diagram for 24 kW heater output, 🗋 EN-33
- ⓘ 30 kW heater output, 🗋 EN-33

▶ Closing the terminal box for the heating coil

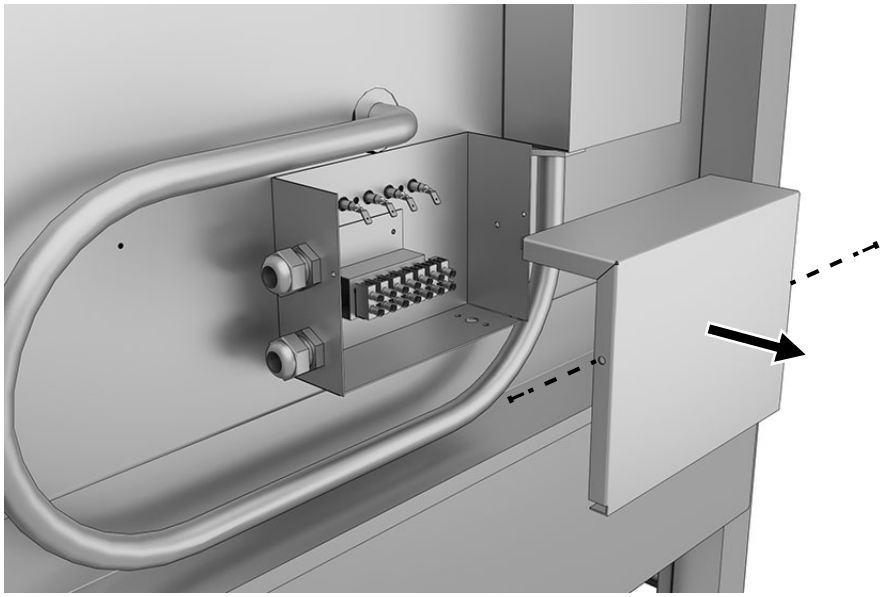
1 Put the cover of the terminal box in place.

2 Screw in the 4 retaining screws and tighten them.

Electrical installation

▶ **EOS Herkules XL S120 Vapor HD: opening the terminal box for the vaporiser**

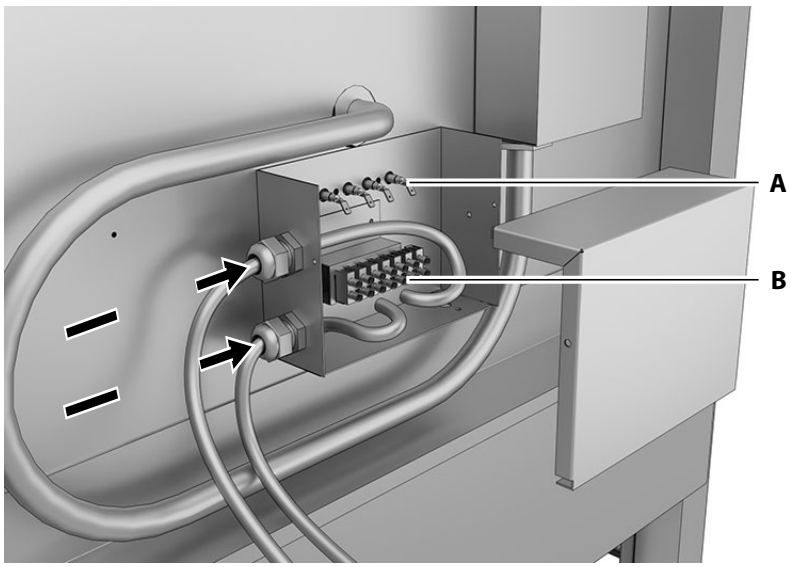
1 Unscrew the 2 retaining screws on the cover of the terminal box.



2 Remove the cover.

▶ EOS Herkules XL S120 Vapor HD: connecting the connecting cable for the vaporiser

1 Feed the connecting cables through the cable screw connections in the terminal box.



A Heater **B** Terminals

ⓘ The connection from the connection terminals to the heaters is pre-mounted.

2 Connect the connecting cables as shown in the connection diagram.
ⓘ Circuit diagram for 3 kW vaporiser, 🗋 EN-34
ⓘ Circuit diagram for 4 kW vaporiser, 🗋 EN-35

▶ EOS Herkules XL S120 Vapor HD: closing the terminal box for the vaporiser

1 Put the cover of the terminal box in place.

2 Screw in the 2 retaining screws and tighten them.

4.6 Heating period limitation

All sauna heaters, except for those installed in public saunas, and which must be operated under the supervision of personnel, must be equipped with a timer that complies with IEC and EN standards. For safety reasons, this timer limits the operation time. This timer is typically integrated in all EOS sauna control units.

- The operation time of a public sauna must be limited so that the heating elements are without power for a minimum of 6 consecutive hours within a 24-hour period before an independent restart can take place.
- Units used in private saunas must be limited to an operating time of 6 hours, and an automatic restart is not permitted.

4.7 Connecting the water supply (EOS Herkules XL S120 Vapor HD only)

The water supply should be connected prior to positioning the heater in its final location because the connection is located at the rear of the heater.

⚠CAUTION

Contamination of potable water

Water that flows from the water level control or the water supply for the sauna heater back into the piping system for potable water contaminates the potable water.

- ▶ Install a check valve.
- ▶ Install a shut-off valve between the heater supply and the connection for the potable water.
- ▶ Ensure that installation complies with the water installation standards and legal norms valid in your country.
- ▶ Comply with DIN EN 1717:2011-08 for installations in CENELEC member states.

NOTICE

Damage caused by lime in the water

Water with an elevated lime content, i.e. more than 1.3 millimole of calcium oxide per litre (hardness class I or hardness levels 1–7 in Germany), can lead to unit malfunctions.

- ▶ Install a decalcification system.

NOTICE

Water damage due to operating pressure in the water supply that is too high

Water can overflow from the container if the water supply connected to the vaporiser has an operating pressure above 6 bar. This could lead to damage by water.

▶ Ensure that the operating pressure for the connected water supply is between 2 and 6 bar.

NOTICE

Unit damage due to operating pressure in the water supply that is too low

Water will not flow fast enough into the container if the water supply connected to the vaporiser has an operating pressure below 2 bar. This also means that the vaporiser's heating element is not completely submersed under water. This can cause damage to the unit.

▶ Ensure that the operating pressure for the connected water supply is between 2 and 6 bar.

Necessary steps

▶ Connecting the water supply, 🗋 EN-42

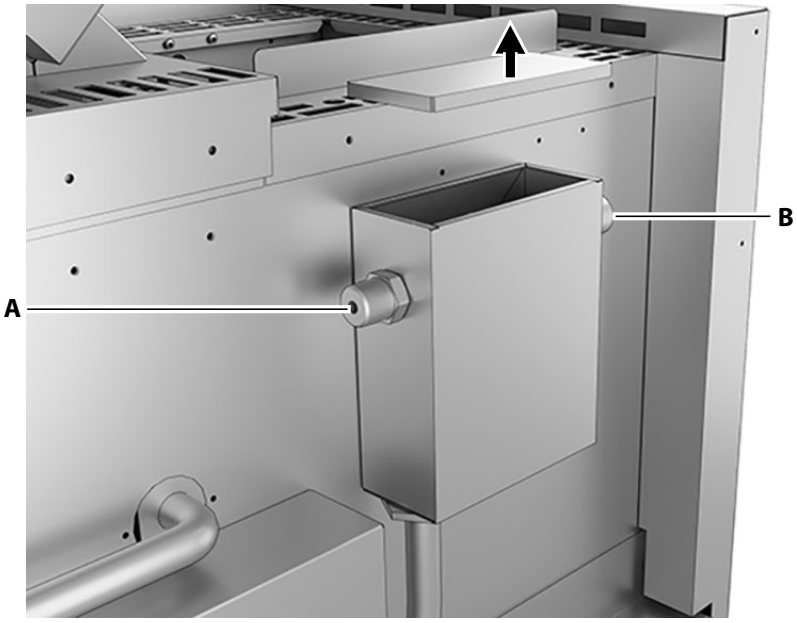
Tools and hardware:

- Spanner
- Water tap adapter, if needed

Electrical installation

▶ Connecting the water supply

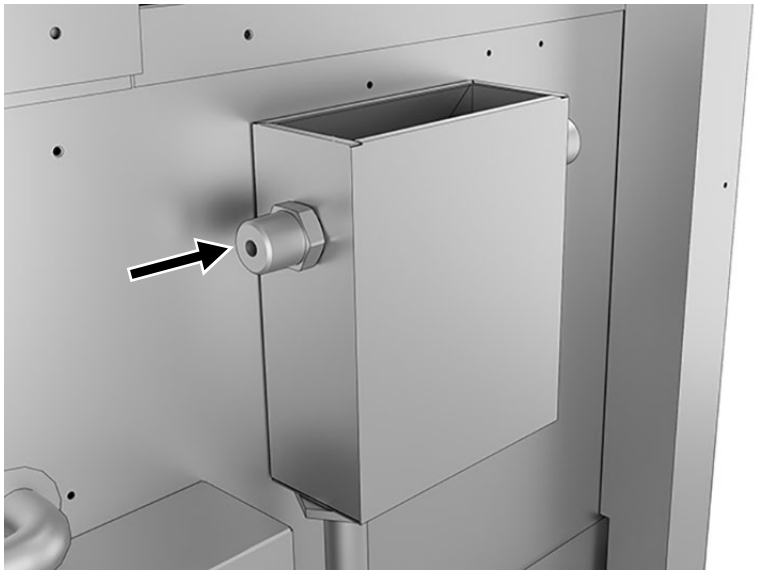
1 Remove the cover from the water level control.



A Supply line connection **B** Overflow connection (optional)

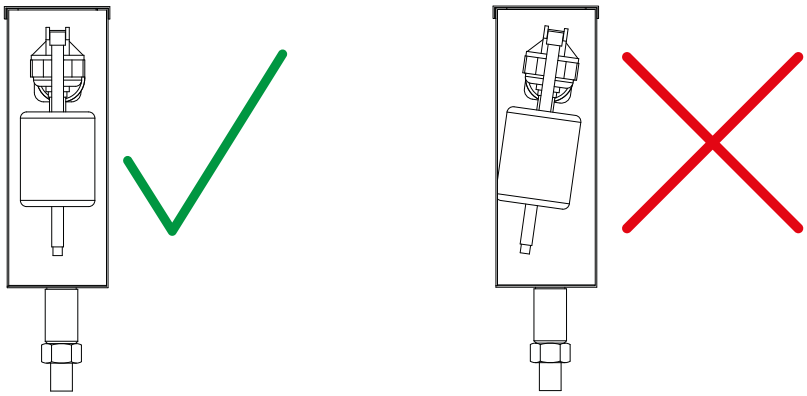
ⓘ The connection at the box for the water level control has a 3/4″ thread.

ⓘ If the water supply that should be connected to the water level control does not have a 3/4″ connection, attach a suitable water tap adapter to the connection with screws.



2 Connect the water supply.
Use pipe insulation tape to ensure it is sealed.

3 Verify that the float valve is aligned vertically.
Align it vertically by hand if needed.



ⓘ The water supply should be opened only after the heater has been placed in its final location. These steps are described in the chapter 4.8 Positioning the heater, 🗋 EN-43.

ⓘ The FWA01 device for the mains water connection has an additional 1/2" connection with a blind plug (opposite the water connection). A line to the outlet channel can be connected to this connection as an option. This allows water to drain off if the valve no longer closes tightly, e.g. due to dirt particles in the valve seat.

4.8 Positioning the heater

The heater is placed in position after the electrical connection and the water supply for EOS Herkules XL S120 Vapor HD have been established.

⚠CAUTION

Skin burns from hot surfaces

If the sauna heater is placed too close to a bench, there is risk of accidental contact with hot surfaces. This could lead to burns.
The optional heater guard rail does not offer sufficient protection in this specific installation configuration.

- ▶ Increase the distance.
- ▶ During the installation, mount a suitable heater guard rail for the heater. See 2.4 Accessories, 🗋 EN-13

Necessary steps

▶ Assembling the heater, 🗋 EN-44
▶ EOS Herkules XL S120 Vapor HD: checking the water installation for leaks, 🗋 EN-45
▶ EOS Herkules XL S120 Vapor HD: setting the water level, 🗋 EN-45
▶ Attaching the warning plate, 🗋 EN-45

Electrical installation

Tools:

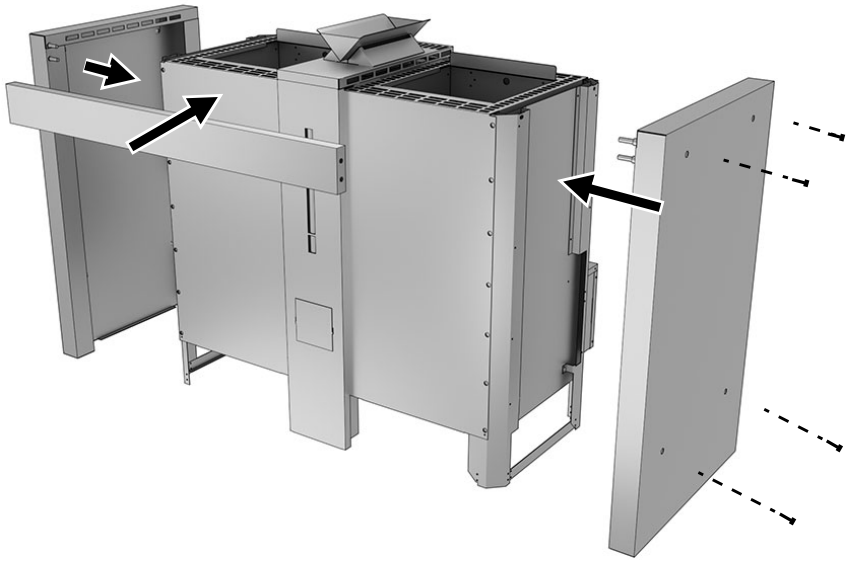
- Screwdriver

▶ Assembling the heater

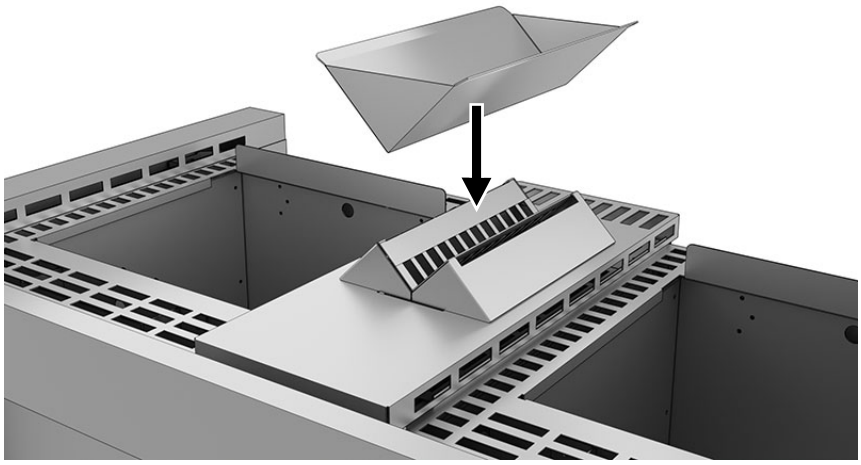
1 CAUTION! The heater weighs a minimum of 85 kg. Four people should always move the heater.
Lift the heater and place it in the pre-designated location. Ensure that the connecting lines are not pinched.

2 Attach the side panels.

3 Screw 4 screws into each of the two side panels.



4 Insert the holder.



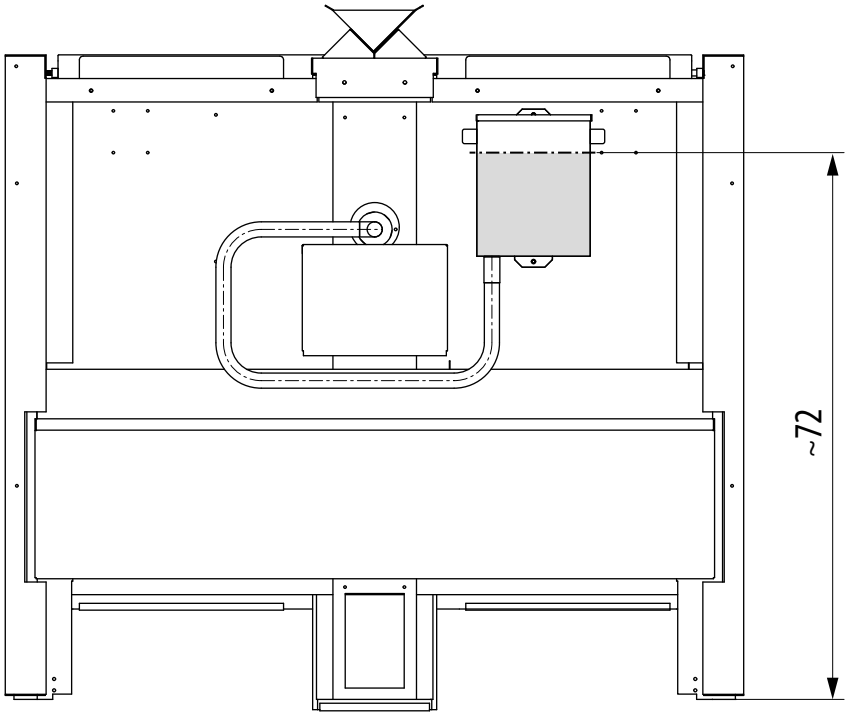
▶ EOS Herkules XL S120 Vapor HD: checking the water installation for leaks

1 Open the shut-off valve for the water supply.

2 Inspect all sections of the water installation.
ⓘ The connections must be free of water leaks.

▶ EOS Herkules XL S120 Vapor HD: setting the water level

1 Set the water level by raising or lowering the float gauge.
ⓘ The water level should be 72 cm high when measuring from the floor up.



Water level in cm

2 Attach the cover for the water level control.

▶ Attaching the warning plate

1 Attach the warning plate so it is in close proximity to the sauna heater and clearly visible at eye level.
ⓘ Warning plate (D), EN-12

2 Attach the plate with the 2 supplied screws.

5

Commissioning

Before the sauna heater can be commissioned, it must be filled with sauna stones, which are available as optional accessories.
Before switching it on, ensure that the air inlets are free of lint. Remove any lint with a moist towel.
The heater is switched on via the control panel for the control unit.
In the process, the power extension units (LSG) switch on together with the heater.
It is operated via the control panel.

⚠WARNING

Risk of fire due to objects on the sauna heater

Objects placed on the sauna heater could catch fire. Herbs placed on the heater could catch fire.
Herbs or similar substances used for aroma infusion purposes, which are located near the heater, could catch fire.

- ▶ Inspect the cabin prior to each use and ensure that no objects are placed on the sauna heater.
- ▶ Start the sauna only after all air inlets and outlets have been opened.

5.1 Filling with stones

The heater is intended for use with natural stones. Use only natural sauna stones of the prescribed caliber of 100–150 mm.

⚠WARNING

Fire hazard from overheating

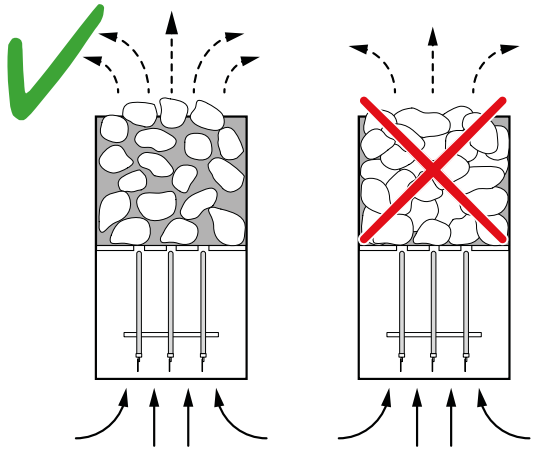
Operating the heater without stones could cause fire or damage to the heater. Stones that are too small or are positioned too close together in the heater prevent hot air from being exhausted. This leads to overheating of the heater.

- ▶ Start the heater only if it has been filled with stones.
- ▶ Ensure stones with the correct caliber are used: 100–150 mm.
- ▶ Place the stones loosely in the rock store.

▶ **Filling the rock store**

1 Thoroughly rinse the stones with running water.

2 Stack each stone loosely leaving sufficient space between them.
ⓘ There must be enough space between the stones so that convection air can circulate sufficiently between them.
ⓘ Fill the store with stones only to the upper edge.



5.2 Starting the heater

A slight odour may be produced the first time the cabin is heated because the heater is being heated for the first time. The odour ceases upon continued operation of the heater.

▶ **Switching the system on**

1 Switch on the sauna heater at the control unit.

2 Use the control unit to select a suitable program.

5.3 Switching the heater on remotely

If you switch on the heater remotely, ensure that no objects are placed on the heater. A suitable safety system (e.g. EOSafe D/L) can be used to prevent this.

5.4 Water splash

The cabin must be sufficiently heated before making the first water splash. The control panel indicates when the desired temperature has been reached.

⚠WARNING

Risk of fire due to sauna essences

Incorrectly diluted sauna essences, essential oils or herbs can catch fire.

- ▶ Never add more sauna essence or essential oils to the water than the amount indicated on the container.
- ▶ Do not add herbs to the water or the stones.
- ▶ Do not use pure sauna essences for water splashes.
- ▶ Do not use alcohol for water splashes.
- ▶ Pour the water over the stones only.

Pour water slowly over the stones so it is evenly distributed. As the hot air rises, steam is distributed evenly in the cabin to create a pleasant infusion experience.
Please note that the sauna stones must be reheated after each water splash to generate an intense burst of steam. Recommendation: During a water splash, no more than approx. 10 cL of water per m^3 cabin volume should be vaporised. After each water splash, wait approx. 10 minutes before starting the next one. This time is needed for the sauna stones to reheat.

5.5 Commissioning the vaporiser (Herkules XL S120 Vapor only)

⚠CAUTION

Risk of scalding from hot steam

Hot steam escapes while the vaporiser is in use.

▶ Be aware of steam escaping from the vaporiser.

▶ **Using the steam function**

1 Ensure that the shut-off valve at the potable water supply is open.

2 Switch on the vaporiser at the control unit.

3 Set the humidity level for the cabin by specifying the vaporiser humidity via the control unit.

ⓘ You will obtain either a humidity value that is regulated when the sensor compares the actual to the target level or a value that is defined by a timed cycle.

ⓘ Note that the relative humidity level can vary greatly due to variable temperature distribution in the cabin. The display on the hygrometer and the display on the control unit can therefore differ.

NOTICE

Damage to the vaporiser from additives

The water in the vaporiser can build foam and boil over if additives are added to it.

▶ Never add essences, essential oils or herbs to the water in the vaporiser; add them to the holder only.

6 Service and maintenance

This sauna heater is made of low-corrosion material. To ensure a long service life, take care of and perform regular maintenance on your sauna heater. Ensure that openings in the intake area and heat reflectors are never blocked. These can easily become blocked with lint and dust as fresh air is drawn in. This limits the air convection ability of the sauna heater and could lead to impermissible temperatures.
Clean and/or descale the units as needed. Contact your sauna retailer or the manufacturer directly if you notice malfunctions or signs of wear and tear.
If you do not use your sauna for a longer period of time, ensure that at the time of recommissioning no towels, cleaners or other objects are lying on the sauna heater or vaporiser.
Contact your sauna retailer or the manufacturer directly if you notice malfunctions or signs of wear and tear.

6.1 Cleaning

The sauna heater must be cleaned regularly. The cleaning frequency depends on how often it is used.

⚠CAUTION

Risk of injury from sharp edges

▶ Use suitable personal protective equipment, e.g. gloves, when cleaning parts with sharp edges.

▶ **Cleaning the heater**

1 Switch off the heater from the control unit.
ⓘ Wait until the heater has cooled completely.

2 Clean the outside of the heater.
ⓘ Use only household cleaning agents.

3 Remove lint and dust from openings and heat reflectors.
ⓘ Openings can easily become blocked with lint and dust as fresh air is drawn in. This limits the air convection ability of the heater and could lead to impermissible temperatures.

6.2 Sauna stones

Sauna stones are a product of nature. Sauna stones must be replenished or reshuffled depending on the intensity of use.
The process of heating and cooling can make the stones brittle. Particular damage to the sauna stones can be caused by aggressive sauna essences, causing them to disintegrate over time. Small particles can break off from the stones. The gaps between the stones also become smaller which means that hot air can no longer rise between the stones.
Check the sauna stones regularly and reshuffle them. Replace damaged stones.
Please observe the following frequencies of time.

Commercial use	Private use
Every 2–3 months	Once per year

Use only natural sauna stones when you refill the rock store. Due to their roughness, they produce a better water splash effect than ceramic sauna stones.

▶ Reshuffling the sauna stones

1 Switch off the heater from the control unit.

2 CAUTION! Caution: stones may be hot. Allow the heater to cool sufficiently before you start to replace the stones.
Remove each stone individually.

3 Check each stone for damage.
ⓘ Discard any stones with severe damage.
ⓘ Replace discarded stones: new stones should have a caliber of 100–150 mm

4 Rinse all stones with cold water.

5 Place the stones loosely so that there is enough space between them for air to circulate sufficiently.
ⓘ ▶ Filling the rock store, 🗋 EN-47

6.3 Descaling the vaporiser (Herkules XL S120 Vapor HD only)

Lime deposits can impact the ability of the vaporiser to function properly. If water with lime content of more than 1.3 millimole of calcium oxide per litre (hardness class I or hardness levels 1–7 in Germany) is used, the unit typically operates properly and requires descaling on an as-needed basis only. The unit must be regularly descaled if water with a higher lime content is used. The higher the lime content in the water used, the more often the vaporiser must be descaled.

Material:

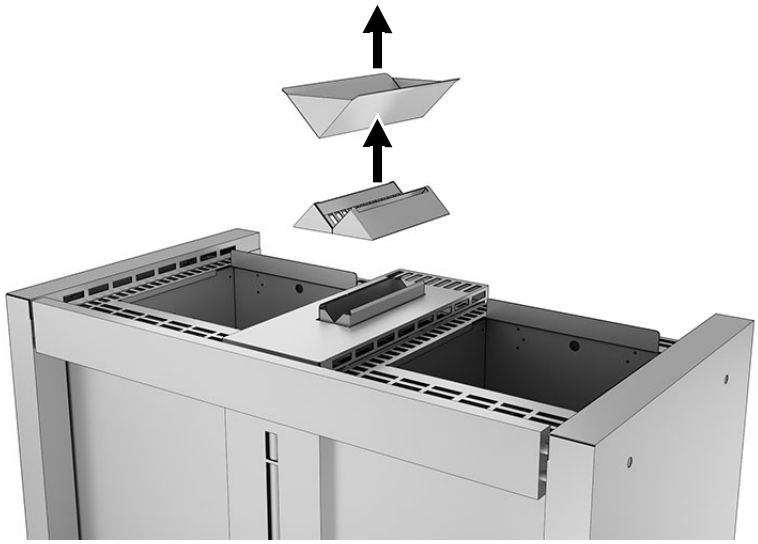
- Descaler for household appliances
- Container
- Short piece of hose, if needed

▶ **Descaling the vaporiser**

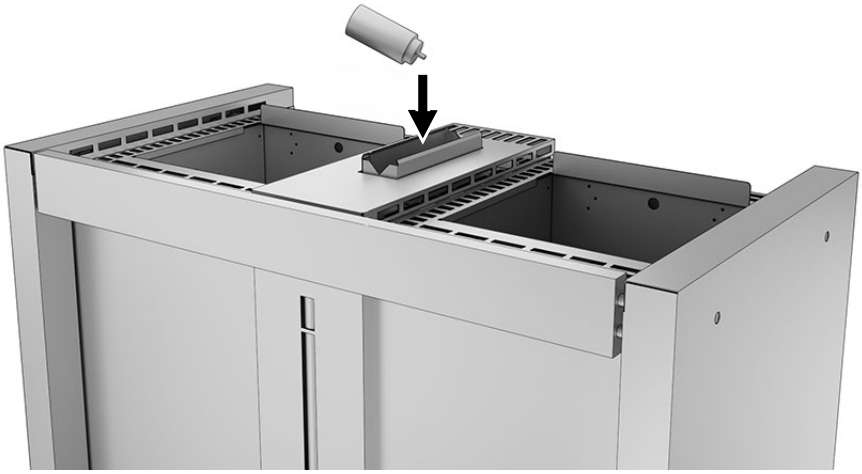
1 Switch off the heater from the control unit.
ⓘ Wait until the heater has cooled completely.

2 Connect the shut-off valve to the potable water connection.

3 Remove the holder and base mount.



4 Add descaler for household appliances to the water in the vaporiser.



ⓘ Measure the quantity of descaler needed for 8.5 litres as specified in the manufacturer's specifications.

5 Switch the heater with vaporiser to ready mode via the control unit.
ⓘ Switch on the heater with vaporiser only for a short time, but do not fully heat.

6 Bring the mixture of water and descaler to a boil in the vaporiser and allow to boil for 10 minutes.

a) Heat the vaporiser via the control unit.

b) Wait until the water starts to boil.

c) Wait for exactly 10 minutes.

d) Switch off the vaporiser via the control unit.

7 Switch off the heater with vaporiser via the control unit.
ⓘ Wait until the mixture of water and descaler in the vaporiser has cooled.

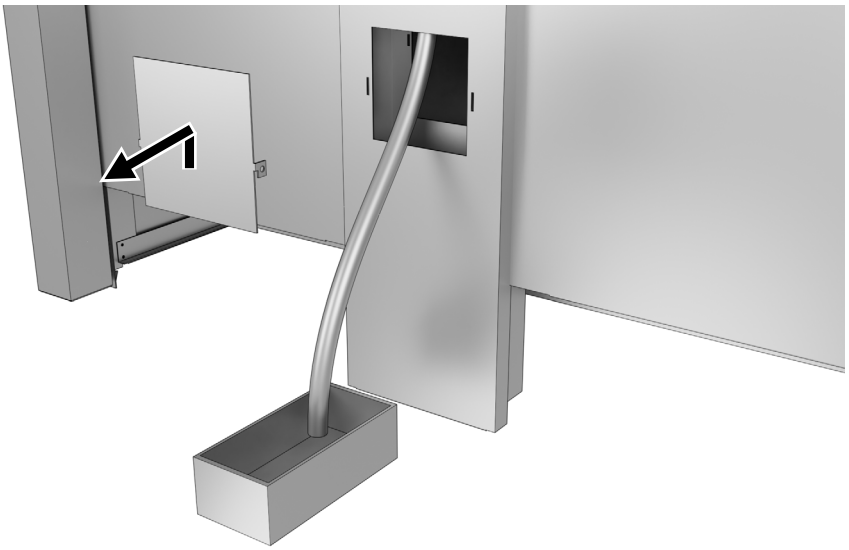
8 Drain the mixture from the vaporiser as follows:

a) Lift the small cover panel on the front of the heater and remove it.

b) Place the container in front of the drainage nozzle.
Place a small piece of hose on the drainage nozzle, if needed.

c) Open the ball valve and allow the mixture of approx. 8.5 litres to drain into the container completely.

d) Close the ball valve.



9 Pour 8.5 litres of ultrapure water into the vaporiser to flush out the remains of the mixture.

10 Open the ball valve and allow the 8.5 litres to drain completely.
ⓘ Empty the container used to collect the water as needed.

11 Close the ball valve.

12 Repeat steps 9 to 11.

13 Attach the small cover panel on the front of the heater.

14 Reposition the holder.

15 Open the shut-off valve to the potable water connection.

16 Restart the heater.

6.4 Cleaning the vaporiser (Herkules XL S120 Vapor HD only)

Typically, it is not necessary to clean the vaporiser if the sauna heater is used as described in the instructions. Cleaning is only necessary if the vaporiser has become contaminated or dirty. This can occur if the vaporiser is not used properly, for example, if additives have been added to the water in the vaporiser.

Material:

- Alcohol or methylated spirit
- Cloth
- Container
- Short piece of hose, if needed

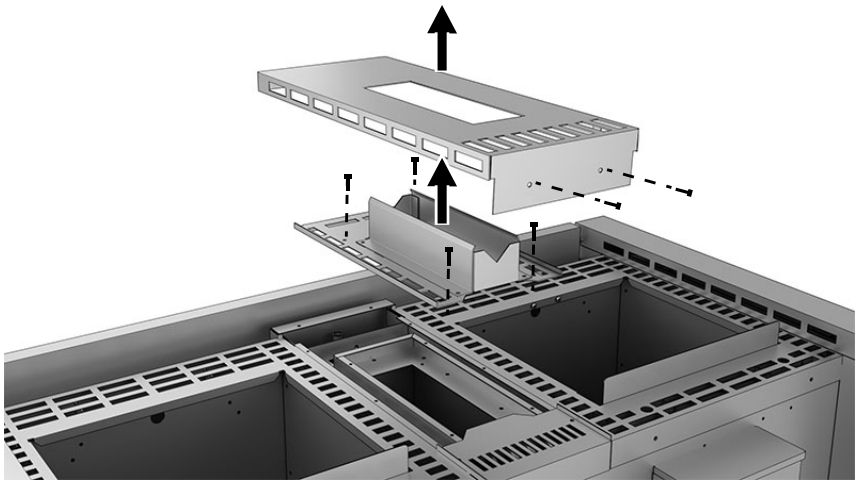
▶ **Cleaning the vaporiser**

1 WARNING! Electric shock may occur if the heater is cleaned while it is connected to the power supply.
Ensure that the heater has been disconnected from all power supply lines:
a) Switch off the heater.
b) Switch off the fuses to disconnect the heater from the mains supply.

2 Close the shut-off valve to the potable water connection.

3 Remove the holder with the base mount.

4 Remove the covers above the vaporiser.
a) Loosen the 2 screws in the middle panel on the rear side.
b) Remove the middle panel.
c) Loosen the 4 screws in the base mount bracket.
d) Remove the base mount bracket.



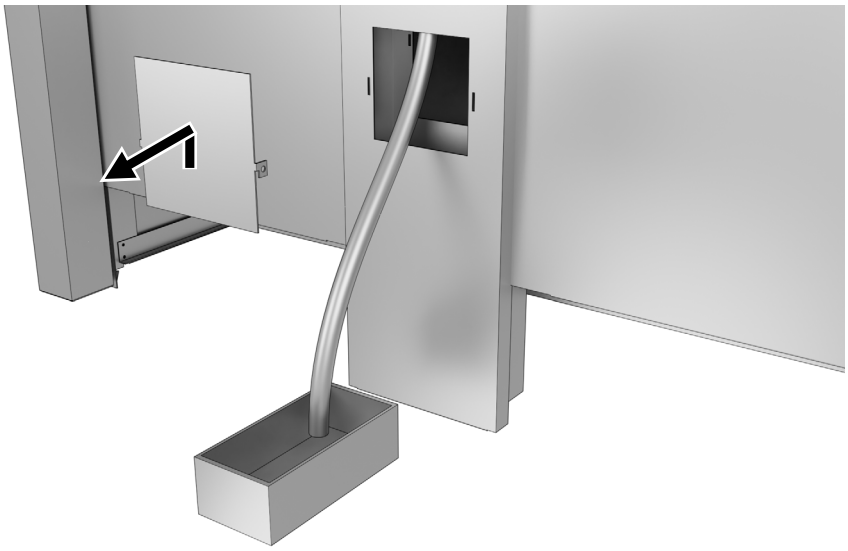
5 Allow the water to drain from the vaporiser:

a) Lift the small cover panel on the front of the heater and then remove it.

b) Place the container in front of the drainage nozzle.
Place a small piece of hose on the drainage nozzle, if needed.

c) Open the ball valve and allow the water to drain into the container completely.

d) Close the ball valve.



6 Moisten a cloth with alcohol or methylated spirit.

7 Thoroughly wipe down the inner walls of the vaporiser with the cloth.
ⓘ Ensure that all residue from the walls is removed.
Even small amounts of essence residue on the vaporiser wall can change the natural composition of the water, which can cause the water to boil over with foam.

8 Mount the middle panel.
a) Attach the base mount bracket.
b) Screw the 4 screws in the base mount bracket.
c) Put the middle panel in place.
d) Screw in the 2 screws on the rear side.

9 Attach the small cover panel on the front of the heater.

10 Place the base mount and holder in position.

11 Open the shut-off valve to the potable water connection.

12 Switch on the fuses for the heater to establish a connection between them and the mains supply.

6.5 Replacing the tubular heating element

You can replace individual tubular heating elements or the entire heating coil. The heating coil is installed on the rear of the sauna heater.
If the heater is too close to the wall, it may be necessary to move it so that you can access the rear side. To move the heater manually, you must remove the stones and the side panels.
The following steps must be completed:

- Remove the stones. See 6.2 Sauna stones, 🗋 EN-51.
- If necessary, move the heater away from the wall. Four people should always move the heater. See ▶ Removing the side panels, 🗋 EN-25.

NOTICE

Damage due to incorrect lifting of the heater

Material damage can occur if the heater is lifted from the side panels. The side panels cannot bear the weight of the heater.

▶ Remove the side panels before the heater is lifted manually.

Necessary steps:

▶ Removing the heating coil, 🗋 EN-58
▶ Replacing a tubular heating element, 🗋 EN-60
▶ Inserting the heating coil, 🗋 EN-61

Hardware + tools:

- Tubular heating element and/or heating coil
- Screwdriver
- Hex key SW 5
- Ring or socket spanner SW 22

⚠CAUTION

Risk of injury from sharp edges

▶ Use suitable personal protective equipment (e.g. gloves) when cleaning parts with sharp edges.

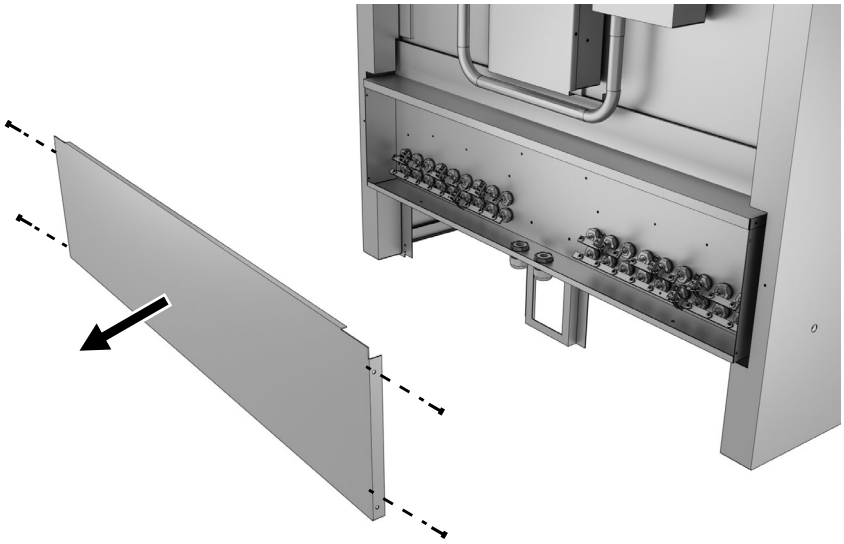
▶ Removing the heating coil

1 WARNING! Electric shock may occur if the heating coil is serviced while the heater is connected to the power supply.
Ensure that the heater has been disconnected from all power supply lines.

a) Switch off the heater.

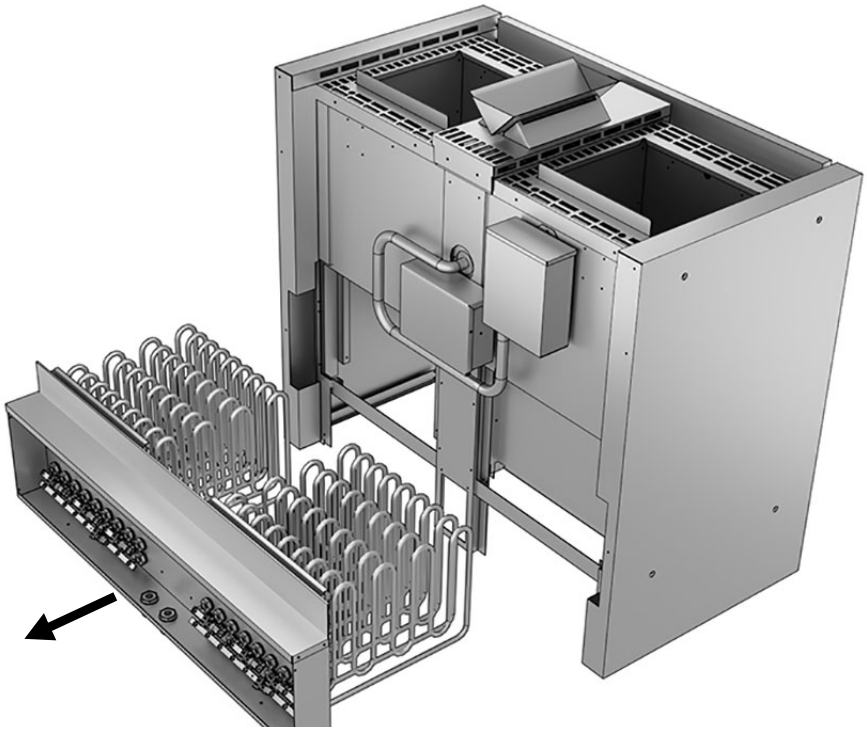
b) Switch off the fuses to disconnect the heater from the mains supply.

2 Unscrew the 4 retaining screws on the cover of the terminal box and remove the cover.



3 Loosen the connecting cable from the connection terminals.

4 Unscrew the 8 hexagon socket screws on the heating coil.



5 Remove the heating coil.

ⓘ Insert the new heating coil.
See ▶ Inserting the heating coil, 🗋 EN-61

ⓘ Replace the tubular heating element.
See ▶ Replacing a tubular heating element, 🗋 EN-60

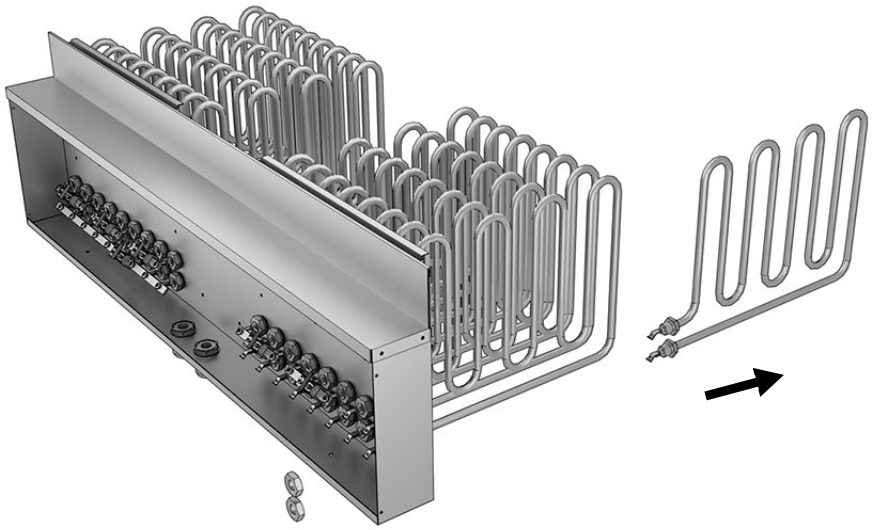
▶ Replacing a tubular heating element

1 Remove the heating coil.
See ▶ Removing the heating coil, 🗋 EN-58

2 Identify the defective tubular heating element by taking measurements.

3 Remove the tubular heating element from the copper strip (M4).

4 Loosen the hexagon nuts from the defective tubular heating element in the terminal box.



5 Remove the tubular heating element.

6 Insert the new tubular heating element and tighten the screws.

7 Screw the new tubular heating element back onto the copper strip (M4).

▶ **Inserting the heating coil**

1 Insert the heating coil.

2 Screw in the 8 hexagon socket screws and tighten them.

3 Connect the connecting cables.
See 4.3 Internal wiring, 🗋 EN-32

4 Close the heater housing.

a) ▶ Closing the terminal box for the heating coil, 🗋 EN-37

b) ▶ Assembling the heater, 🗋 EN-44

5 Switch on the fuses for the heater to establish a connection between them and the mains supply.

6.6 Troubleshooting

Error	Reason	Solution
It takes the heater a long time to heat up the cabin.	Some tubular heating elements are defective.	Replace the tubular heating element or heating coil. See ▶ Replacing a tubular heating element, 🗋 EN-60
	There is not enough space between the stones.	Check the caliber of the stones and replace stones of the wrong caliber. Reshuffle the stones. See ▶ Reshuffling the sauna stones, 🗋 EN-51
	There is insufficient ventilation.	Install the air inlets. If these are insufficient, add a fan to the openings. See 3.1.2 Air inlets and outlets, 🗋 EN-19
	Heater cannot draw in sufficient fresh air.	Heater openings are clogged with lint and dust. See ▶ Cleaning the heater, 🗋 EN-50
	The electrical connection is defective.	Check the installation fuses. Have the control unit's outputs checked by a technician.
	The position of the temperature sensor is not optimal.	Check the position of the temperature sensor and adjust as needed. See 3.2 Temperature sensor in the cabin, 🗋 EN-22
The heater is very hot but cannot distribute the heat throughout the cabin.	There is not enough space between the stones.	Reshuffle the stones.
The safety temperature limiter was triggered and the heater no longer heats.	The safety temperature limiter was triggered by heat accumulation.	Check the inlets, outlets, and the fan and ensure that the heater has access to a sufficient amount of air.
	The position of the temperature sensor with the safety temperature limiter is not optimal.	Check the position of the temperature sensor and adjust as needed. See 3.2 Temperature sensor in the cabin, 🗋 EN-22.
Water with foam is boiling over from the vaporiser.	There are additives, e.g. essence or essential oils, in the container for the water.	Clean the vaporiser. See ▶ Cleaning the vaporiser, 🗋 EN-55

7

General terms and conditions of service

(T&C, Dated 08-2018)

I. Scope

Unless otherwise agreed in writing for specific instances, these terms and conditions of service shall apply to service operations, including reviewing and remedying complaints. All our existing or future legal relationships shall be governed solely by the following terms and conditions of service. We do not recognise any of the customer's conflicting terms and conditions unless we have given our express written consent to their applicability.
We hereby expressly object to any of the customer's terms and conditions included in the customer's General Terms and Conditions of Business or order confirmation. Unconditional acceptance of order acknowledgments or deliveries shall not be construed as any form of acknowledgment of such terms and conditions. Ancillary agreements or amendments must be confirmed in writing.

II. Costs

The customer shall bear the following costs in connection with services rendered:

- Mounting/dismantling and electrical (de-)installation
- Transportation, postage and packaging
- Function testing and troubleshooting, including inspection and repair costs

There shall be no third-party billing.

III. Performance and cooperation obligations

The customer shall provide assistance free of charge to the manufacturer in rendering services.
In the case of a warranty claim, the manufacturer shall provide spare parts necessary for servicing free of charge.

General terms and conditions of service

IV. Service visit by the manufacturer

Services rendered on site by an employee of the manufacturer must be agreed in advance.
If the main reason for the service visit is not the fault of the manufacturer, any costs incurred shall be charged to the customer after the service visit and must be paid by the customer in full within the agreed payment term.

V. Liability

The manufacturer shall assume liability in accordance with the currently applicable statutory regulations. All our products are packaged in such a way that the individually packed goods (pallets) can be shipped.
We wish to point out that our packaging is not suitable for individual shipments via parcel post. The manufacturer shall accept no liability for damages incurred as a result of improper packaging in an individual shipment.

VI. Manufacturer's warranty

The manufacturer's warranty shall apply only if installation, operation and maintenance have been carried out in full accordance with the manufacturer's specifications in the installation and operating instructions.

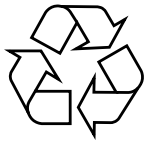
- The warranty period shall commence from the date on which proof of purchase is provided and shall be limited, in all cases, to 24 months.
- Warranty services shall be performed only if proof of purchase of the equipment can be presented.
- Any and all warranty claims shall become void if modifications are made to the equipment without the manufacturer's express consent.
- Any warranty claim shall likewise become void in the case of defects that arise due to repairs or interventions made by unauthorised persons or due to improper use.
- In the case of warranty claims, the serial and article numbers must be provided, together with the unit designation and a meaningful description of the error.
- This warranty shall cover defective equipment parts, with the exception of normal wear parts. Wear parts shall include, for example, light sources, glass elements, tubular heating elements and sauna heater stones.
- Only original spare parts may be used within the warranty period.
- Service visits made by third parties shall require a written order issued by our service department.

- The equipment in question shall be sent to our service department by the customer at the customer's own expense.
- Electrical assembly and installation work, including service visits and parts replacements, shall be carried out at the customer's expense; costs shall not be borne by the manufacturer.

Complaints in respect of our products shall be reported to the responsible distributor and shall be handled exclusively by said distributor.
The manufacturer's General Terms and Conditions of Business, in the version available at www.eos-sauna.com/agb, shall apply in addition to the foregoing terms and conditions of service.

8

Disposal



Electrical devices that are no longer needed must be recycled at a recycling station as per EU guideline 2012/19/EU or as per the Electrical and Electronic Equipment Act (ElektroG).
Observe local provisions, laws, regulations, standards and directives when disposing of the unit.

Do not dispose of the unit with household waste.

Packaging

The packaging of the EOS Herkules can be completely separated for disposal and recycled. The following materials are used in the packaging:

- Used paper/cardboard
- Plastic foil

Electronic waste

Electronic waste must be disposed of at the designated local collection point for electronic waste.

Disposal instructions for commercial users (DE only)

You can find further disposal instructions under www.eos-sauna.com/recycling.

Service address

EOS Saunatechnik GmbH
Schneiderstriesch 1
35759 Driedorf, Germany
Tel. +49 2775 82-514
Fax +49 2775 82-431
Email servicecenter@eos-sauna.com
Web www.eos-sauna.com

Store this address with the installation and operating instructions in a safe place.
Please always provide us with nameplate data, such as model, item number and serial number so we can provide fast and efficient support.

Date of sale

Stamp/retailer signature: