EOS SteamRock II Basic

steam generator

EN **Installation and operation manual**

Made in Germany

CE EAC UKCA

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Subject to technical changes

Version 02 | firmware R0.91

English

Contents

1. General safety instructions

1.1 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.

1.2 Mounting and electrical installation

Observe the various qualifications required for performing installation, repair, and service work.

Qualified personnel

Cleaning and service work must be performed only by persons with the following qualifications:

- Qualified personnel: Persons who have been instructed by the distributor on how to perform service work.
- Trained personnel: employees extensively trained by the distributor.
- Authorised personnel: Persons with regulatory approval for a specific field of work, e.g. electrical installations.

These installation instructions are intended for authorised personnel familiar with the laws and regulations applicable to electrical installations at the installation site. Observe the following general safety instructions during assembly, setup and commissioning.

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 also applies following completion of the installation work.

- The electrical installation of the steam generator and otherelectrical 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 applicable standards and regulations for electrical installation.
- The system must be disconnected and removed entirely from the mains supply before commencing installation and repair work.
- The housing cover must only be removed by a trained specialist.

Fire hazard from overheating

Insufficient ventilation can lead to device overheating and fire.

- Do not install the steam generator and control panel in enclosed cabinets or wood panelling.
- Observe the cabin manufacturer‘s safety and installation instructions.

- Touchable glass surfaces on the outside of the cabin must not exceed 76°C. Provide a protective system if needed.

Risk of burns

Touching hot pipelines can result in skin burns.

- Insulate hot device parts.
- Insulate hot pipelines; they must not remain exposed.

Risk of poisoning from fumes

Descaler can react with other chemicals, which can create poisonous fumes.

- Place the container for descaler only under the steam generator and secure it so it does not tip.
- Ensure that the container with descaler cannot be mistaken for the container with essence.
- When refilling a container, ensure that descaler is not poured into the container for essence.
- Never place containers with descaler close to other chemicals.
- Never place other chemicals close to the container of descaler.

Risk of scalding

Contact made with hot steam or hot water can result in scalding of the skin.

- The steam pipe must always have an unobstructed exit outlet in the cabin so that excess pressure does not build up in the vaporiser tank.
- The hose for excess pressure and the drain outlet for emptying the vaporiser tank must be routed in such a way that there is no risk of scalding if hot water escapes unintentionally.
- When commissioning, take measurements to ensure that the set output does not heat the cabin to over 50°C.

Risk of chemical burns

Descaler consists of an acidic solution, which can burn eyes and skin.

- Wear eye and skin protection when connecting the descaler line and refilling descaler.
- Clean contaminated clothing thoroughly.

Damage to the unit due to high levels of lime

Lime deposits clog the vaporiser tank, slowing down the transfer of heat to the water. This can lead to malfunctions because of overheating and blockages in the drain. A water softening system does not replace regular descaling.

Non-compliance with these guidelines resulting in damage to the unit renders the warranty void.

- Check the hardness of the water before installing the unit.
- In locations where the water is high in calcium carbonate (above 5° dH), a water softening system is recommended.
- If the level on the hardness scale is 11° dH or above, connecting a water softening system to the steam generator is recommended.
- A water softening system is required if the steam generator is used commercially.

Damage to the unit

Corrosive or heavy saline atmospheres damage the contacts in the control panel, in the relay box and in the sensors.

- The control panel and sensors should not be installed in a corrosive or heavy saline atmosphere.

Damage due to incorrect mounting location

The device is not suitable for outdoor use!

- It must be operated only inside buildings 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.
- Similarly, excessive cold and extreme exposure to sunlight must be prevented.
- Protect the unit accordingly if there is an increased risk of mechanical damage.

1.3 Operator instruction

The technician and/or distributor must instruct the operator of the steam generator in the general safety instructions when commissioning the unit. The operating instructions must be given to the operator.

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 also applies after work is completed.

- The housing cover must only be removed by a trained 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.

Risk of burns and chemical burns

Touching hot parts may lead to skin burns and chemical burns of the skin.

- The operator must be familiar with the unit's hot parts and be able to identify them.
- The operator must be familiar with the settings for the heat output and/or steam supply and understand how it is controlled.

Health risks

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

- Persons with health disorders must consult with a doctor before visiting a steam room.

Equipment damage due to overuse

The uninterrupted operation time of the steam room can lead to property damage.

- In a commercial steam room, the steam generator must be set so that it turns itself off after a specific period of time.
- If the steam generator does not shut itself off, usage must be supervised at all times.
- Inspect the cabin before each use.

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.

1.4 Standards and regulations

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

Local regulations also apply to the installation and operation of heating, sauna, and steam room systems.

2. Identifikation

2.1 Manufacturer

EOS Saunatechnik GmbH

Schneiderstriesch 1

D-35759 Driedorf, Germany

Tel.: +49 2775 82-0

Fax: +49 2775 82-431

2.2 Copyright

The copyright owner of the present installation manual and operating guide is EOS Saunatechnik GmbH.

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2.3 Idenfication of the unit

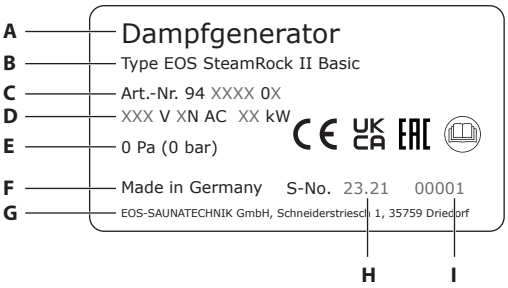
Product name:

EOS SteamRock II Basic

2.4 Information about the unit

▶ **Nameplate**

The nameplate is attached to the underside of the base of the housing.



A Product description
B Model name
C Product code (item no.)
D Supply voltage (model dependent)
E Operating pressure Pascal (bar)
F Country of origin
G Manufacturer
H Production date
I Serial number

2.5 Models

Model	Power output	Steam production	Fuse protection	Weight
Type 1	3 kW	6 kg/h	3 x 16 A	27 kg
	6 kW	8 kg/h		
	9 kW	12 kg/h		
Type 2	3 kW	6 kg/h	3 x 35 A	29 kg
	6 kW	8 kg/h		
	9 kW	12 kg/h		
	12 kW	16 kg/h		
	15 kW	20 kg/h		
	18 kW	24 kg/h		

2.6 Cabin volume for each output capacity

The output capacity of the unit must be calculated for each installation individually and account for the size of the cabin and the design.

The output capacity is calculated using the following formula:

- **Room volume [m^3] x K1 x K2 = output capacity [kW]**

The following applies:

K1: ventilated room = 0.75, unventilated room = 0.52
K2: lightweight construction (e.g. acrylic panels) = 1; Tiled rigid foam panels = 1.25; Tiled concrete walls = 1.50; Solid wall made of concrete, stone or similar with tiles = 2.00.

2.7 Intended use

The SteamRock II Basic steam generator is designed to produce steam for a steam room or a sauna with humid operation. The SteamRock II Basic is operated with an external control unit, like for instance the Econ S2 or EmoTouch 3/LSG-Steam, which is not included in the scope of delivery and must be approved by EOS Saunatechnik GmbH.

2.8 Foreseeable misuse

The following are considered instances of foreseeable misuse:

- The output of the steam generator does not match the cabin volume.
- The steam generator and the control unit are connected incorrectly.
- 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 after technical or other modifications are made to the steam generator.
- The unit is operated by children or persons with reduced mental capacity or by persons who have not been thoroughly instructed in its use.
- The use by persons with certain ailments or health conditions, such as for instance heart and cardiovascular disorders, which might lead to physical injuries through the use of a sauna or a steam room (a doctor should be consulted in advance).

3. Scope of delivery

The SteamRock II Basic scope of delivery includes:

- SteamRock II Basic steam generator
- 4 screws 5 x 40 with 4 dowels F6 for installing the steam generator on the wall
- 2-part brass union 1 1/4“ - 35 mm for steam pipe connection
- 0,5 m connection hose for water supply 3/8“ - 3/4“
- 5 l container for descaler liquid with rod electrode (level sensor)
- Installation & user manual
- Pre-mounted power supply cable with CEKON type plug (16A or 32A)
- Steam outlet, 1 1/4“ external thread

Accessories

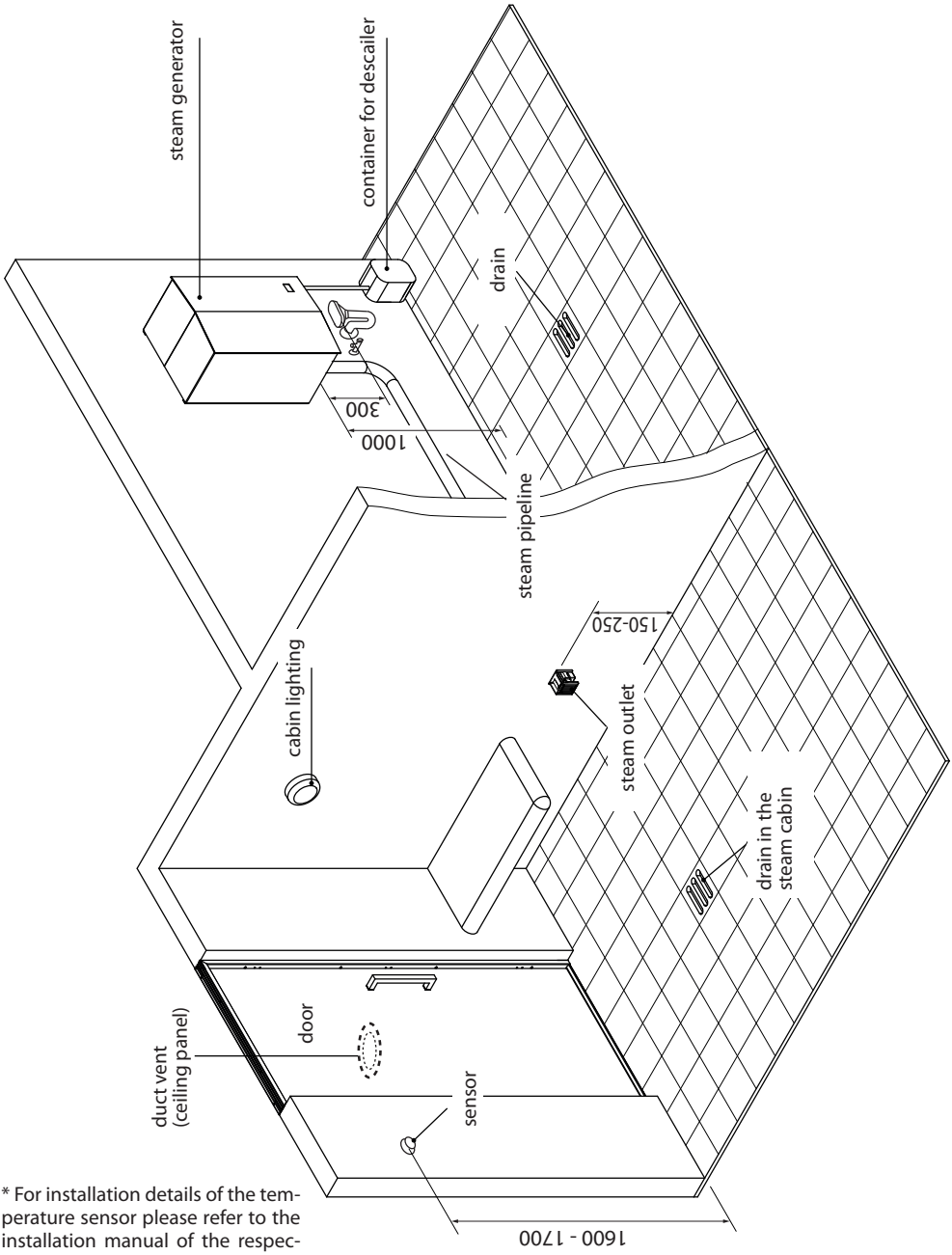
Description	Item no.
Descaler liquid „SteamClean“, 5 kg canister. Acid solution.	2001.6065
Steam outlet, 1 1/4“ outer thread, white plastic	2001.5575
Container for essences, with level probe, 5 l volume	94.6298

4. Specifications

Dimensions H x W x D [mm]	670 x 460 x 350 mm
Weight [kg]	28 kg (type 1 - 9 kW) / 30 kg (type 2 - 18 kW)
Water supply pressure [bar]	2 - 8 bar
Operation pressure max. [bar]	Pressureless type steam generator
Performance at 3 bar [steam/h]	3 kW - 4 kg/h, 6 kW - 8 kg/h, 9 kW - 12 kg/h, 12 kW - 16 kg/h, 15 kW - 20 kg/h, 18 kW - 24 kg/h
Vaporizer tank	High grade stainless steel
Internal overheating protection	Thermofuse with capillary sensor, 3-pole circuit breaker
Heating system	Inner heating elements, switchable in 3 kW steps
Drain and cleaning system	Integrated automatic draining and descaling system (requires optional descaling liquid). Note: descaler must be foaming.
Water drain	1“ drain pipe at the unit’s bottom side
Water level control	Automatic through integrated level probe
Control system	not included (external control unit required)
Water supply	¾“ external thread
Steam output	1 1/4“ external thread, with 2-part brass union
Ambient temperature (operation / storage)	5°C to 45°C / 0°C to 60°C
Ambient humidity (operation)	30% bis 75%
Outputs / Connections	• Mains (pre-mounted mains cable) • Connection for external control unit • Connection for level sensor in the descaler tank • Connection for level sensor in the fragrance container
Power output [kW]	type 1 - 3.0 / 6.0 / 9.0 kW (9 kW default) type 2 - 9 / 12 / 15 / 18 kW (18 kW default)
Fuse protection [A]	type 1 - 3 x 16 A type 2 - 3 x 32 A
Min. cross section power supply line	type 1 - 5 x 2,5 mm^2 type 2 - 5 x 6,0 mm^2
Power supply	400 V 3N ~, 50/60 Hz, with pre-mounted mains cable with Cekon-type plug

5. Installation

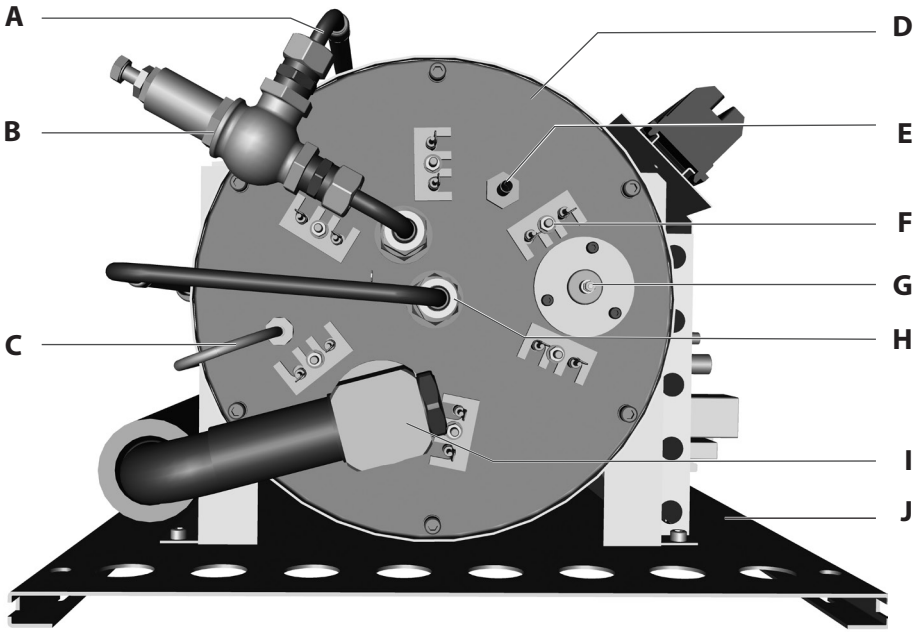
5.1 Installation example



* For installation details of the temperature sensor please refer to the installation manual of the respective control unit.

5.2 SteamRock II Basic - position of key components

▸ **Top view**



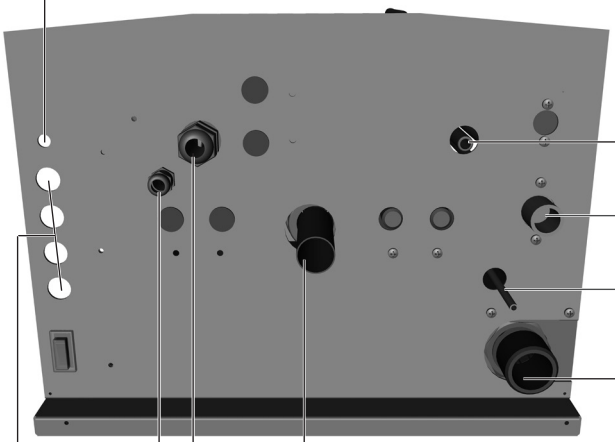
A drain line of the pressure relief valve
B pressure relief valve with drain
C descaler liquid supply hose
D water tank lid
E tube for overheating limiter fuse (STB)
F mounting nuts SW 19 and connection terminals for *heating elements
G water level probe (level sensor)
H rinsing and filling
I steam output pipe with flexible pivot joint
J chassis (rear side with ventilation holes)

NOTICE

*The prime heating element (G) has a special colour-coded marking of the connection wire. This specially marked heating element (G) is located next to the overheating limiter fuse (F). After disconnection make sure, that this heating element (G) is connected to the same colour-coded wire.

Incorrect connection may lead to damages to the unit.

▸ Bottom view



Status LED for operation states and error signals

drain line from pressure relief valve

water supply, 3/4" external thread

white hose for descaler (plugs into the container for descaler)

steam output, 1 1/4" external thread

water tank drain, 1" external thread

mains connection*
9 kW: with pre-mounted cable and CEE-plug 16A
18 kW: with pre-mounted cable and CEE-plug 32A
no pre-mounted power plug for single-phase connection!

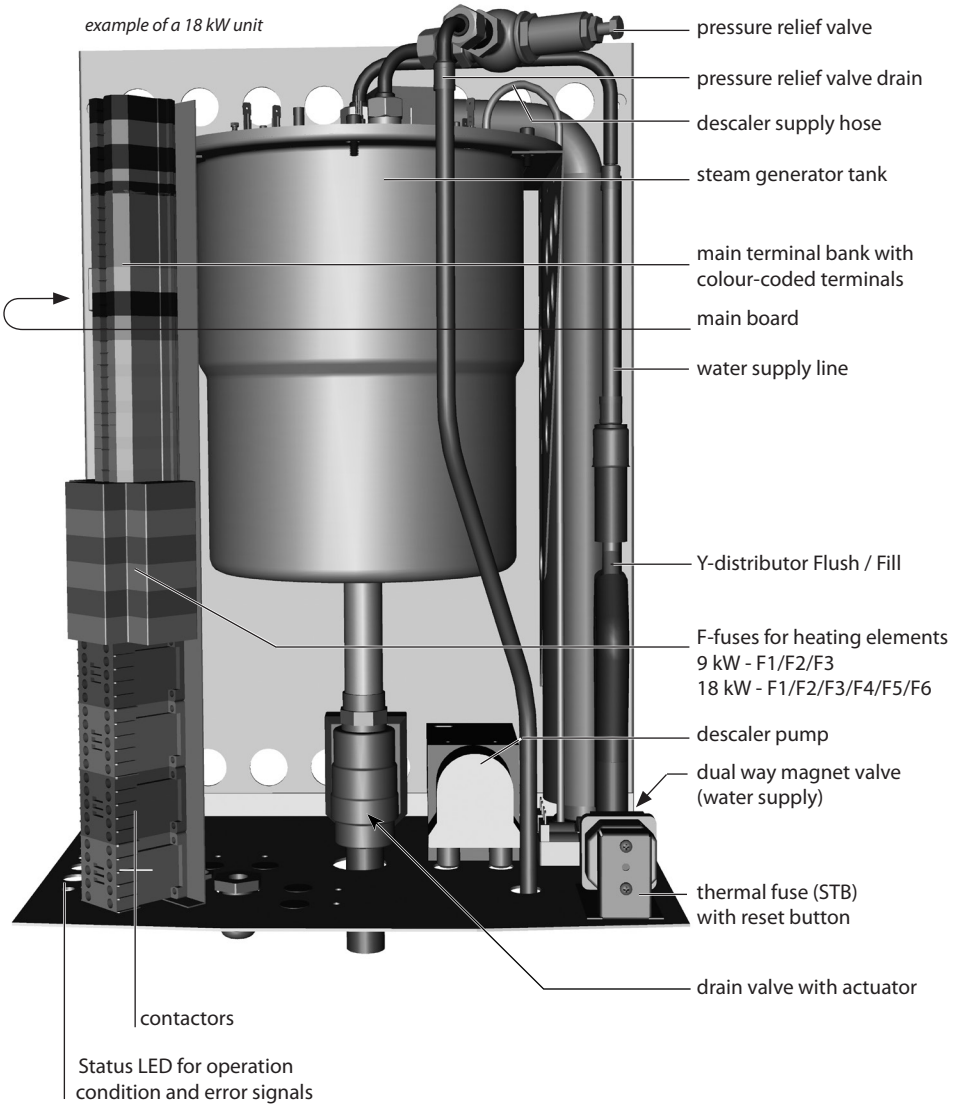
cable to descaler level probe

connection (strain reliefs) for cable connection to control unit

* The cable gland of the mains cable has a warrant seal. Make sure not damage the seal. Warranty void by damaged or removed seal.

All incoming and outgoing connections go through the bottom panel (steam pipe may also lead upwards) and are accessible from outside.

▸ Overview without external housing



Mains cable is fitted with a Cekon plug
(not with single-phase connection)

5.3 Installation location requirements

The steam generator is only intended for installation outside of steam rooms and is connected to the room via a steam pipe. The following climatic conditions must be met at the installation site:

- Ambient temperature during operation 5°C to 40°C
- Air humidity during operation 30% to 75% rel. air humidity
- Storage temperature: 0°C to 60°C

▸ Steam room requirements

- Floor drain
- Air extractor so that temperature control works properly

▸ Steam generator requirements

- Stable wall for installation as the total weight can equal approx. 45 kg.
- Near the unit: Mains connection 400 V 3N ~, with standardised CEE plug sockets *(not for single-phase connection)*
- Drain outlet below the unit or in close proximity
- Water supply line in close proximity
- Length of steam pipe, max. 10 m
- All pipelines and connections must be accessible for service.
- The room in which the steam generator is installed should be as near to the steam room as possible so that the pipeline distances are as short as possible.

NOTICE

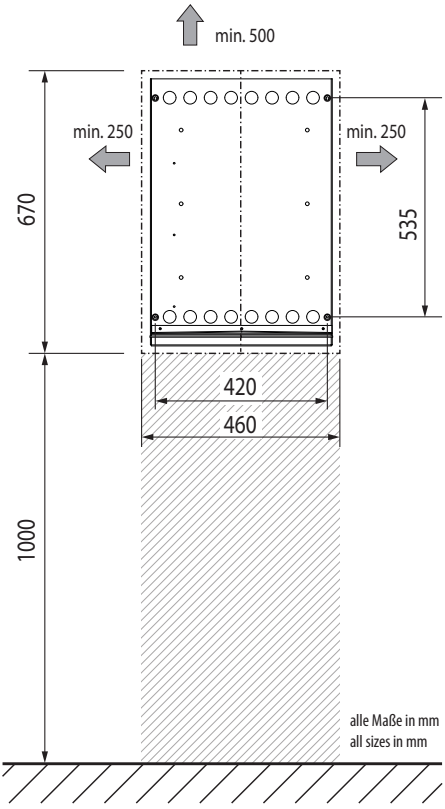
Damage due to inadequate installation site

The steam generator may vibrate slightly when the water boils.

If the wall bearing capacity is insufficient or the wall is of poor quality, the steam generator cannot be securely installed and may fall off.

Before installation, check the quality and bearing capacity of the wall intended for installation. The wall must be able to support a total weight of max. 45 kg.
Before installation, check how the steam pipe is to be laid. Standard routing leads the line out from the steam generator downwards.

▸ Measurements for installation



The following distances must be observed:

Distance between drill holes	Horizontal: 420 mm
	Vertikal: 535 mm
On the side to the left and right	Min. 250 mm
Top	Min. 500 mm
Bottom	Approx 1000 mm
The space underneath the unit must not be occupied by other installations.	

5.4 Mounting the steam generator

The steam generator is mounted on the wall with four (4) retaining screws and suitable anchors. Note that the steam generator may vibrate slightly when the water boils. Ensure that you have sufficient hardware for securing it if you do not use the supplied screws and anchors.

Necessary steps:

Preparing for installation

Loosen the vaporiser from the shipping plate

Removing the housing cover

Mounting the vaporiser

Hardware + tools:

Four 5 x 40 screws; four F6 anchors (included in scope of delivery)

Spirit level

6mm drill

Phillips screwdriver

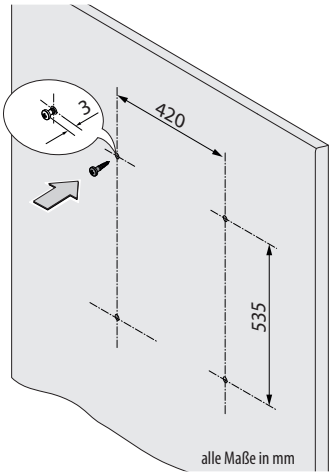
Recommendation: 2 persons to mount the vaporiser

▸ Preparing for installation

1. **NOTICE Ensure that the holes are aligned vertically and horizontally. Use a spirit level. Drill two (2) holes above and below.**

Distance between lower edge and the floor: min 1000 mm
Distance to the ceiling: min. 550 mm
Horizontal distance between drill holes: 420 mm
Vertical distance between drill holes: 535 mm

2. Insert the anchors and screw in the top two screws. Allow the screws to protrude approx. 3 mm so you can hang the vaporiser on them.



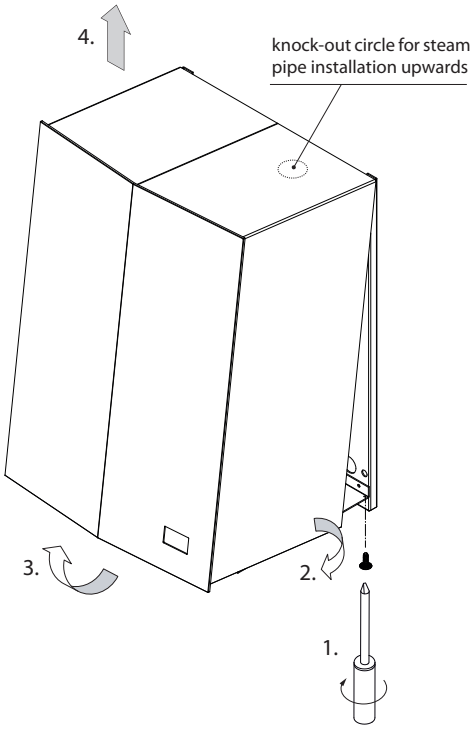
▸ Loosen the steam generator from the shipping plate

1. **CAUTION! Vaporiser and shipping plate weigh approx. 35 kg.**
   Obtain help from a second person..
   Lift the steam generator out of the shipping box with the shipping plate. Do not pull or hold the device by the plastic housing!
2. Place the shipping plate with the steam generator on a flat surface.
3. Removing the housing cover, as described below
4. Loosen the vaporiser from the shipping plate.
   ⓘ NOTICE
   Completely remove the 4 fixing screws so that the steam generator can be lifted off the shipping plate.

▸ Removing the housing cover

1. Loosen the 2 retaining screws on the bottom of the vaporiser.
2. Pull the two side walls of the housing cover outward slightly.
3. Swing the housing cover carefully toward you and remove it upward.

   NOTICE: It must be possible to move the cover's mounting brackets past the side of the metal housing.
4. Loosen the screws from the generator and remove the shipping plate.

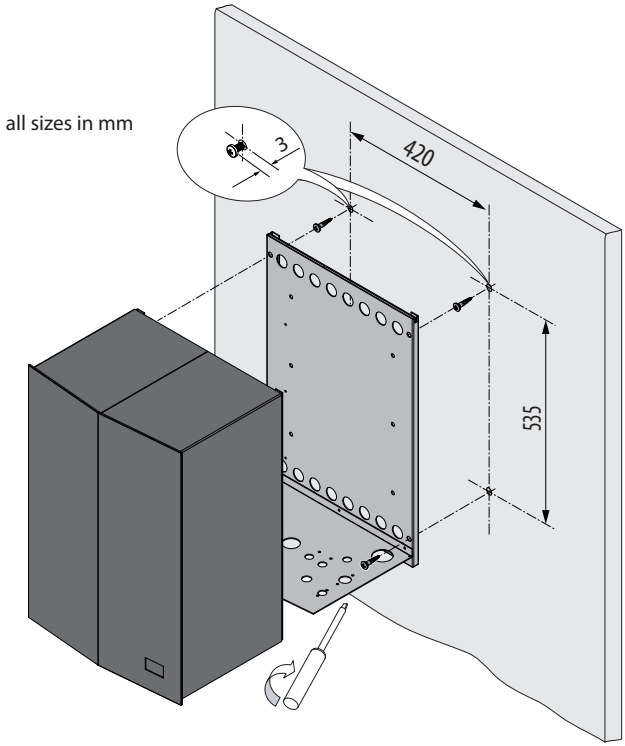


▸ Mounting the steam generator

1. **CAUTION!** Generator with the chassis weighs approx. 28 kg.

   Two people are needed to mount the unit.

   Hang the generator on the pre-mounted screws by inserting the screws that are on the top of the rear of the unit into the keyholes and then allow the steam generator to drop down gently until it catches in place.
2. Ensure that the unit is perpendicular to the floor. ⓘ Drill new holes if needed.
3. Screw in the bottom two screws and tighten them.
4. Tighten the top two screws so that the unit is mounted securely on the wall.ⓘ Position the housing cover in place only after the electrical connections and data lines have been mounted.



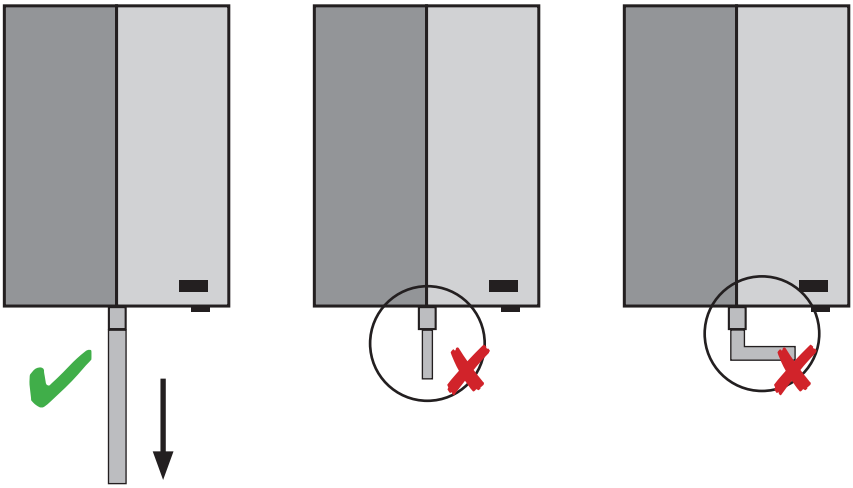
5.5 Water and steam pipes

NOTICE

The connection for the water supply line and drain outlet must comply with the European Union's current applicable standards DIN 1988/EN 1717 and DIN 1986/EN 12056. It may be necessary to install a check valve. Local regulations must also be observed.

- Lime deposits resulting from hard water have a considerable negative impact on the service life of the vaporiser. Systems that are used commercially must always be equipped with a water softening system to prevent the build-up of lime in the vaporiser tank. For privately used systems, a water softening system is required when the water hardness level equals 14° dH (approx. 2.5 mmol/l) or higher.
- The water must be potable. The water pressure must be between 2 and 8 bar.

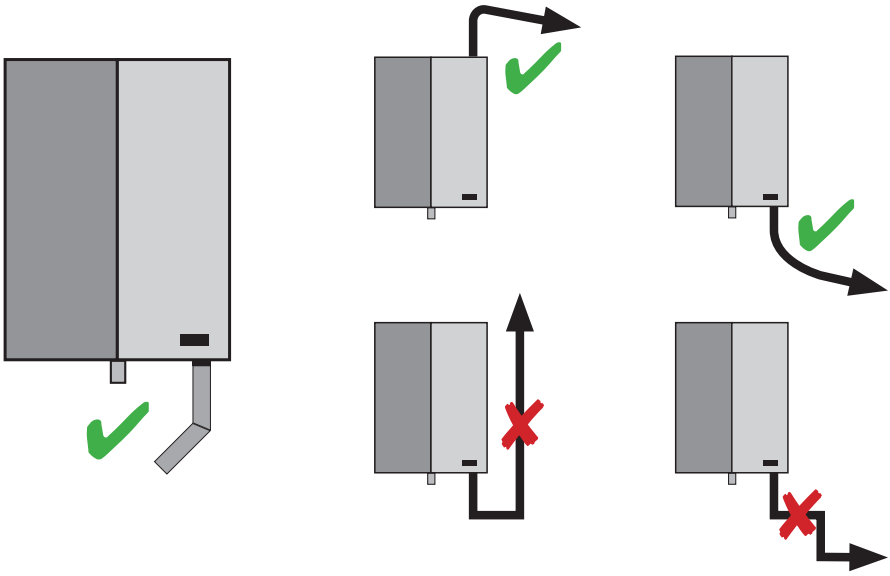
▸ Connecting the drain outlet correctly



Example of a correctly and incorrectly installed drain line for rinsing

- The diameter of the extending pipe must not be smaller than the drain outlet on the unit. (min. 40 mm).
- The drain pipe must not have any kinks.
- The drain outlet and escaping water can be very hot. The outlet for draining the water tank and the hose for excess pressure must be arranged in such a way that, if hot water escapes unexpectedly, it does not pose a risk to persons nearby.
- The connection line for the drain must be heat-resistant up to 110°C.

▸ Installing the steam pipe correctly



Example of a correctly and incorrectly installed steam pipe

- The pipeline for steam emission must be capable of withstanding temperatures up to 110°C. A copper pipe with a diameter of 35 mm is preferable.
- The copper pipe must be insulated with material capable of withstanding temperatures up to 110°C, e.g. mineral wool. This prevents the steam inside the steam supply from cooling and condensing, which optimises the delivery of steam to the cabin.
- Plastic pipes or flexible hoses with a metal sheath must be capable of withstanding temperatures up to 110°C and be resistant to corrosion and deformation.
- The steam pipe must have a diameter of at least 35mm. The diameter of the steam pipe may be smaller than the corresponding connection on the unit. Steam can enter the cabin quickly and with minimum loss when the pipe has a diameter of 35°mm, making the unit is almost silent when operating.
- The steam pipe must not have any kinks.
- The steam pipe must gradually descend toward the steam outlet at a 1– 2° incline so that no condensate can collect in the pipeline. A siphon may be installed to remove condensate as needed.

ⓘ Notice: Each 90° elbow generates steam flow resistance as approx. 1 m steam pipe length.

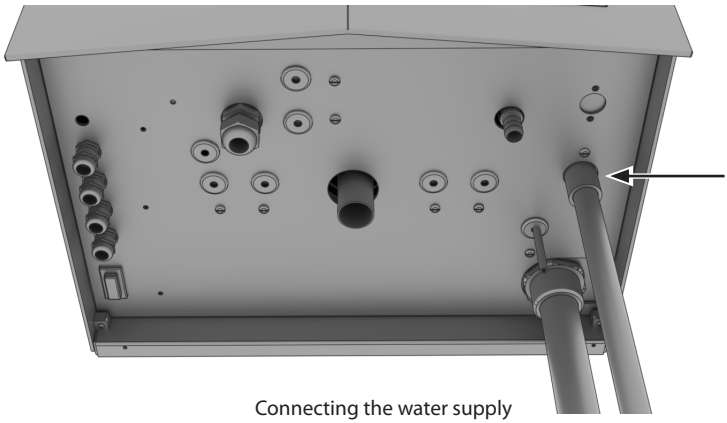
▸ Note for installations in saunas with humid sauna operation mode

The SteamRock II Basic steam generator can be uses as an external steam source for saunas with himid operation mode in combination with a suitable sauna control unit.

The steam pipe should installed so that the steam is injected by the sauna heater, e.g. directly above the heater. So that the steam could spread around the cabin with the rising hot air.

▸ Connecting the cold water supply line

Connect the cold water supply to the 3/4“ water supply line on the base plate of the housing with the supplied hose.

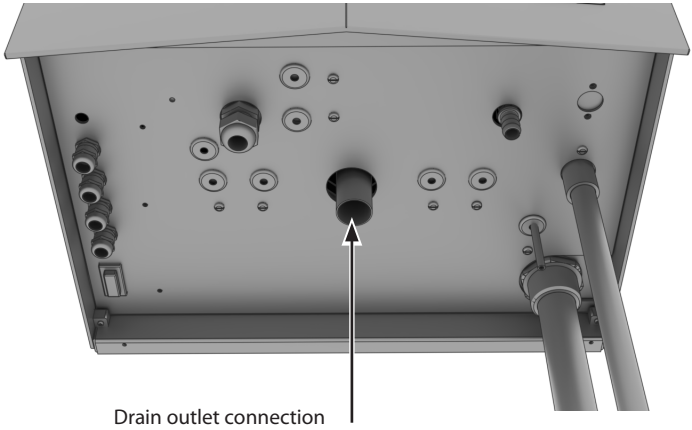


Connecting the water supply

▸ Connecting the drain outlet

1 Screw a drain pipe onto the 1“ thread of the drain pipe.

ⓘ Alternately, a hose can also be attached and tightened.



ⓘ The diameter of the drain pipe or hose must not be made smaller. The line must not have any sharp kinks.

ⓘ See Correctly and incorrectly installed drain outlets for rinsing,

2 Run the drain pipe or hose to the drain or attach it to the waste water pipe.

5.6 Mounting the steam pipe

▶ **Necessary steps**

Connecting the steam supply to the housing floor

▶ **Hardware + tools:**

Ø 35 mm pipe, heat-resistant up to 110°C

T-piece: 1 1/4" for steam supply, 3/8" for essence nozzle

Silicone, heat-resistant up to 110°C

Spanner 19, 36, 46, 50

NOTICE

Contamination of and damage to the vaporiser tank

After descaling, and once the vaporiser tank is drained, a suction effect can occur, during which residue of essences from the steam supply can enter the tank.

Oils in the essences, even in small quantities, can create a thick layer of foam on the water's surface. The water level sensor cannot differentiate foam from water, and the actual water level lies significantly below the layer of foam. This could cause overheating and an emergency shutdown, which can lead to various types of damage, e.g. failure of the safety temperature limiter.

Furthermore, the foam can be drawn into the steam supply together with the water from the tank. The vaporiser tank is drained empty in just a few minutes from this suction. This can cause serious overheating.

- Connect the essence line so that it is not possible for condensate with essence to flow back into the vaporiser tank.
- Connect the essence line as close to the steam emission nozzle/cabin as possible.

NOTICE

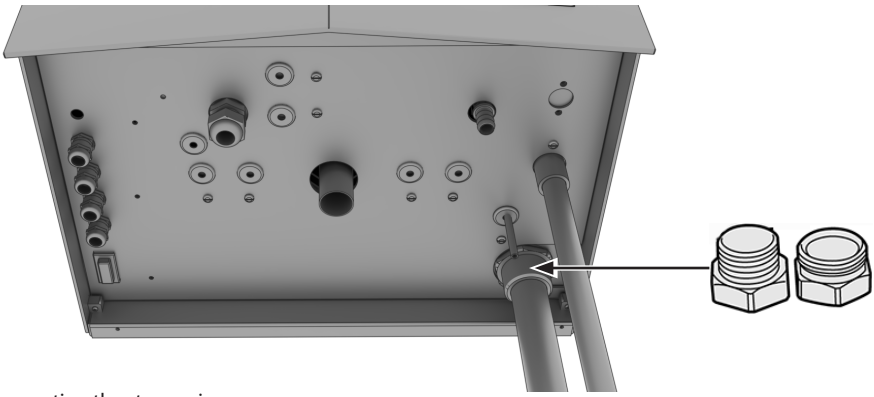
Damage to the steam supply

If the injection nozzle for essence is inserted from the side into the vertical pipe or from below into the horizontal pipe, it is possible for essence to dry up before drops of it reach the rising steam. In such instances, a sticky substance can form, which can block the injection nozzle and the pipe.

- Attach the injection nozzle to the section of the steam supply that slopes slightly toward the cabin.
- Insert the injection nozzle from above into the steam supply, so that the essence can drip down into the steam.
- Attach the nozzle as close as possible to where the steam is emitted near the cabin.

▸ Connecting the steam supply to the housing floor

Connect the steam supply with the supplied 2-piece screw 1 1/4“ on 35 mm to the steam emission.



Connecting the steam pipe

As standard, steam emission runs downwards. The steam emission pipe can also be turned upward via the flexible joint at the generator cover.

Für die aufsteigende Verlegung der Dampfleitung siehe weitere Informationen auf der Seite 29.

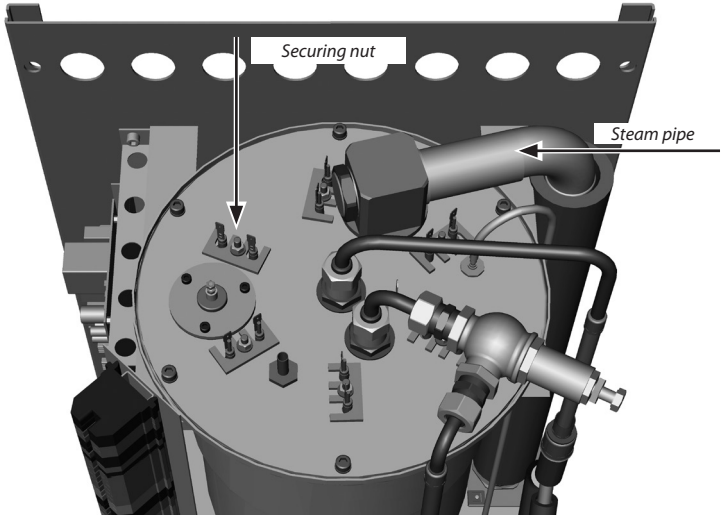


Image shows 18 kW version

Lay the steam pipe so it descends towards the steam outlet without any sharp 90° bends.

ⓘ Positioning the steam pipe correctly

Check the screws in the tubular heating elements and tighten as needed (SW 19).

▸ Rotate the steam pipe upwards and lay it in ascending order

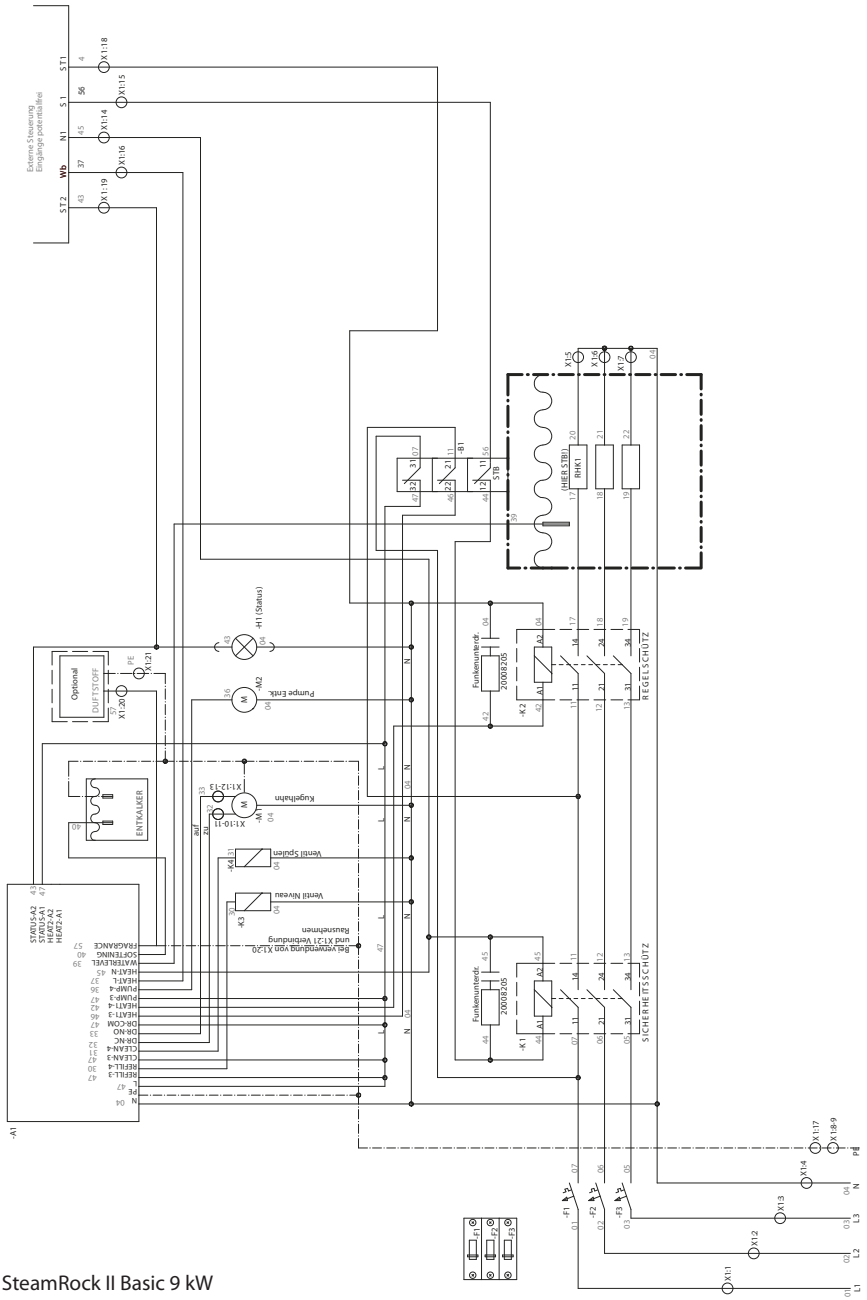
Cut out the pre-punched opening for the ascending pipe in the housing.

1. Loosen the nut on the steam pipe's flexible joint.
2. Loosen the two screws on the base plate used to fix the steam pipe and pull the steam pipe out from the base plate.
3. Rotate the steam pipe upwards and retighten the nut on the flexible joint.
4. The possible connection of the fragrance dosing line should be placed as close as possible to the steam nozzle in the falling segment.

   Important note: The connection of the fragrance dosing line must not be installed in the rising segment of the steam pipe. This can lead to fragrance residues getting into the water tank and causing excessive foaming. This can cause overheating and equipment damage.

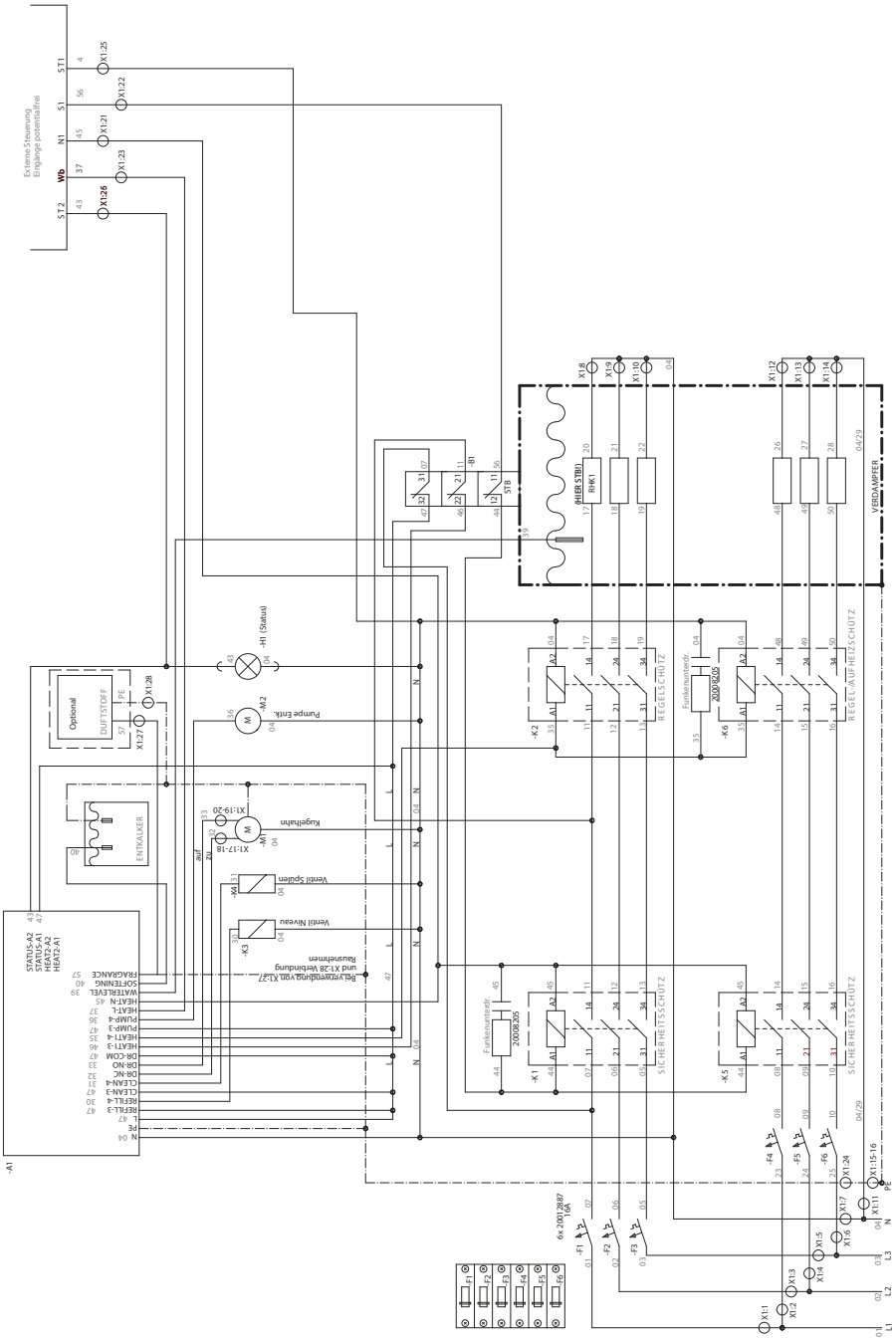
6. Elektrische Installation

6.1 SteamRock II Basic 9 kW main circuit diagram and internal wiring



EOS SteamRock II Basic 9 kW

6.2 SteamRock II Basic 18 kW main circuit diagram and internal wiring



EOS SteamRock II Basic 18 kW

6.3 Mains connection

⚠ WARNING

Risk of electric shock.

A faulty electrical connection poses the risk of an electric shock. This risk also applies following completion of the installation work.

- Electrical installation must only be carried out by a qualified and licensed electrician.
- Work on the steam generator may be performed only if the power supply has been disconnected.
- The unit must be connected to the power supply according to the circuit diagram and the terminal scheme.

The applicable international (VDE), national and local (EVU) legal norms and requirements in their currently valid versions should be observed. All installation and verification work in Germany should be carried out by a licensed and appropriately qualified electrician in compliance with VDE 0100 part 701.

▸ Leakage current

The electricity supply must be protected by a residual-current-operated protective device (RCD) with a rated fault current of <30 mA. Please ensure that no other electrical appliances are protected by this RCD device.

The leakage current must not exceed the following values in accordance with DIN EN 60335-1:2012-10:

- For stationary class I heating appliances: 0.75 mA or 0.75 mA per kW rated power input of the heating unit, whichever is higher, up to a maximum of 5 mA.

▸ Mains plug

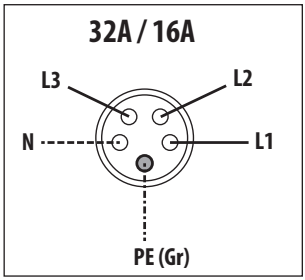
The pre-mounted mains cable is equipped with a CEE plug.

The fitting for the line on the base plate and the plug have a guarantee seal. The guarantee is no longer valid if the seal is broken.

A separately fused CEE plug socket is required for the connection:

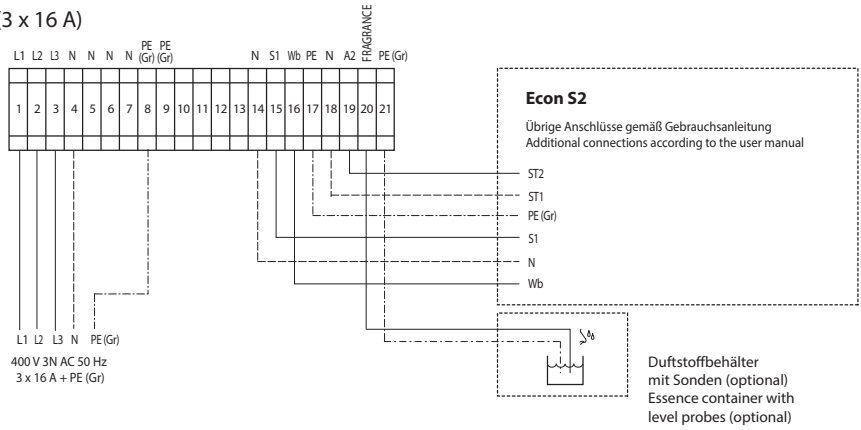
- 9 kW version – type 16 A
- 18 kW version – type 32 A

Each phase must be fused separately.

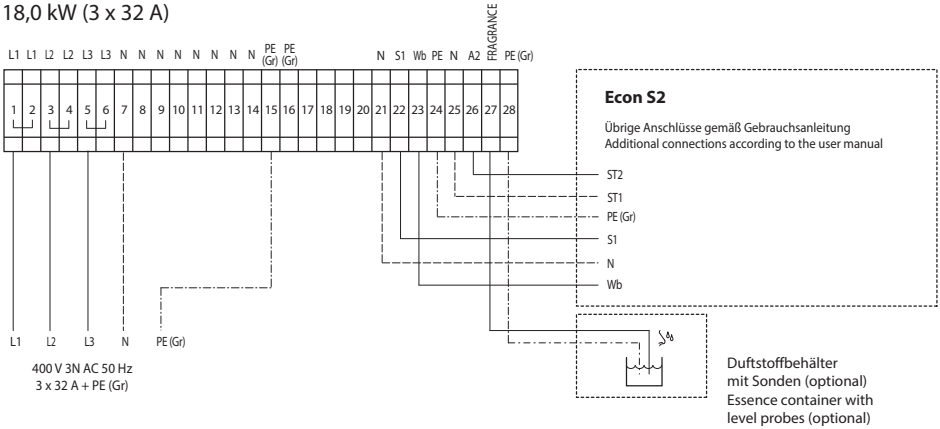


6.4 SteamRock II Basic connection to Econ S2

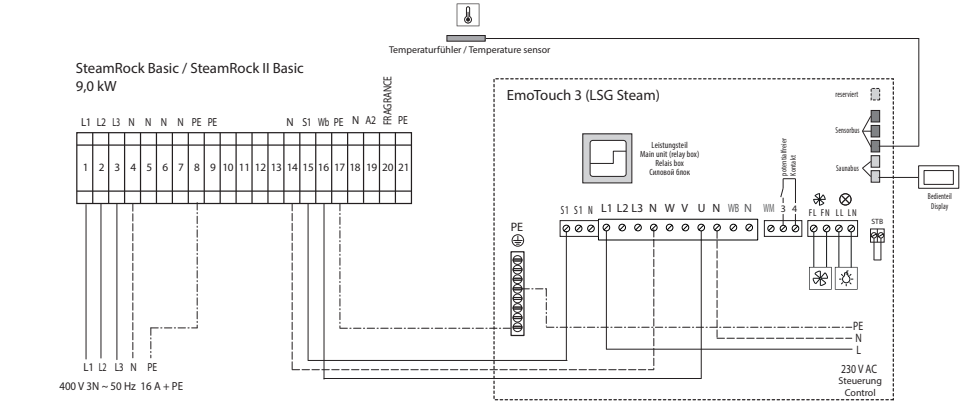
SteamRock II Basic
9,0 kW (3 x 16 A)

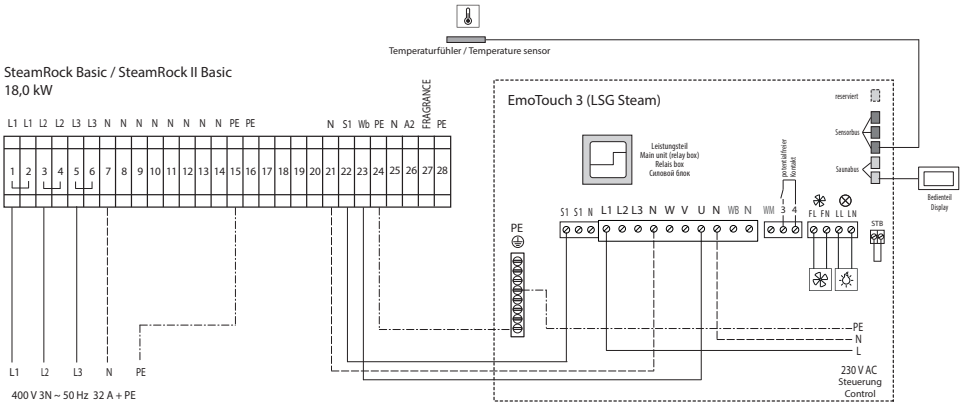


SteamRock II Basic
18,0 kW (3 x 32 A)



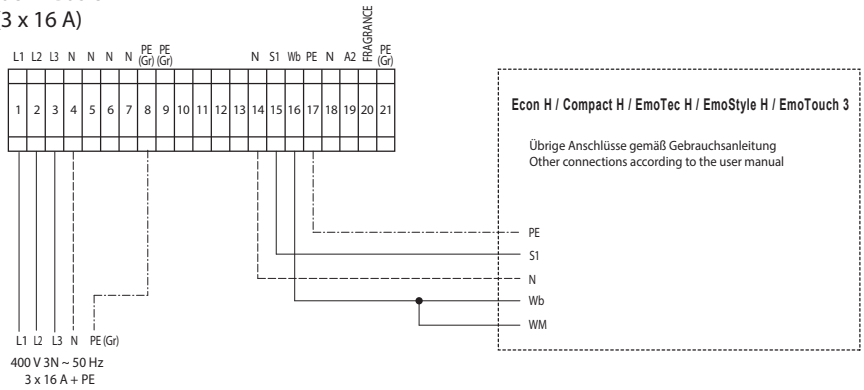
6.5 SteamRock II Basic connection to LSG Steam (EmoTouch 3)



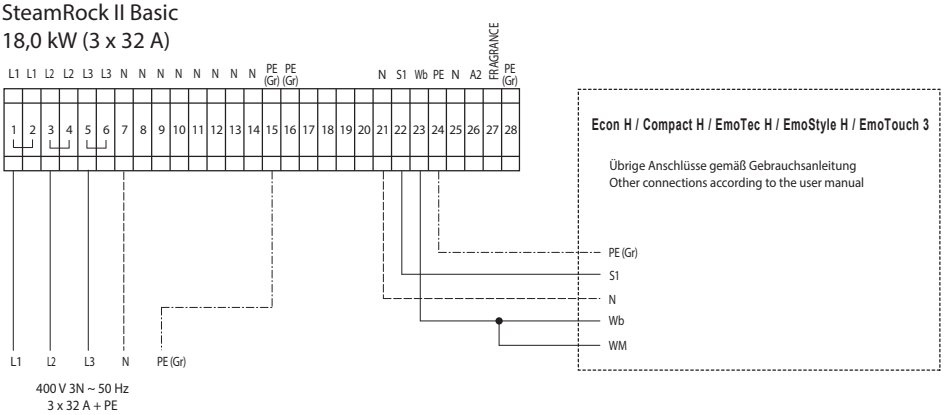


6.6 SteamRock II Basic connection to sauna control units (Bi-O sauna)

SteamRock II Basic
9,0 kW (3 x 16 A)



SteamRock II Basic
18,0 kW (3 x 32 A)



7. Integrated cleaning system

7.1 General information and connection

The steam generator is equipped with an automatic descaling and draining system. Included with the delivery is a 5 l container for descaling liquid with the level probe. Descaling liquid is not included and optionally available (consumable product).

⚠ CAUTION

Risk of injury from descaler (acid cleaner)

Descaler is an acid solution. Corrosive! Irritating on skin and eyes!

- Make sure to wear an appropriate protection and observe due precautions by refilling the container. Avoid contact with clothing. Observe the instructions in the safety data sheet of the descaler.

⚠ WARNING

Risk of poisoning from toxic fumes

Descaler can react with other chemicals, which can create toxic fumes.

- The container for the descaler may only be placed under the steam generator.
- Never place containers with descaler close to other chemicals.
- Never place other chemicals close to the container of descaler..

NOTICE

Damage to equipment by use of incorrect descaler (cleaner).

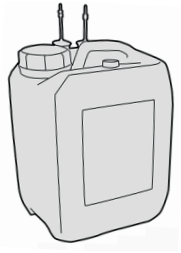
Place the container for descaler not higher than the bottom of the steam generator. Use only the suitable descaler designed for descaling of water boiling equipment, dilute if necessary as specified by the manufacturer. An approved cleaner is available at EOS as an accessory. The warranty will be void by the use of an unsuitable and unapproved descaler.

The integrated cleaning system may not be able to remove all scale deposits depending on the local water hardness level and intensity of use. In such case an appropriate water softening system must be pre-installed.

By commercial operation an external water softening system must be pre-installed in either case.

▸ Connecting the level sensor of the descaler container

- Place the container for descaler under the steam generator on a stable surface.
- Connect the white, 2-core cable pre-mounted on the steam generator to the clips for the level sensor on the descaler container.
- Insert the PTFE tube from the dosing pump (page 16-17) into the container. Ensure that the end of the tube reaches to the bottom of the container.
- Upon installation and connection of the steam generator fill the container with the descaler liquid.



Container for descaler with level probes

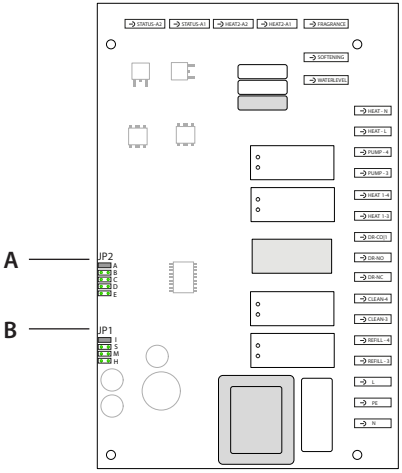
- Verify that both level probes in the container do not touch the bottom and have 1 cm gap above it.

7.2 Setting up the automatic draining

If a steam generator is more than 45 minutes in a standby mode and the descaling cycle is not yet pending, then it will automatically drain and refill water. This is to reduce the scale growth. This process can take around 10 minutes.

If this function is not required, it can be disabled or later enabled again as follows:

- Disconnect power and open the unit.
- At the jumper group **JP1** set the jumpers on **H** and **S** (for this take one jumper from the JP2 group).
- Switch on the power.
- The status LED on the main board will flash as follows
  • **two** times if the function is enabled.
  • **three** times if the function is disabled.
- Switch off the power again.
- In the jumper group JP2 set the jumper back on A position, in the jumper group JP1 set the jumper on H position
- Close the unit's housing, switch the power on.

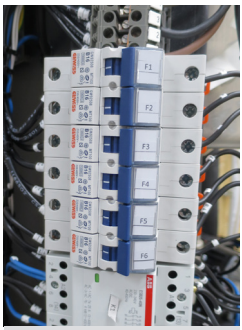


Main board SteamRock II Basic
A. jumper group JP2
B. jumper group JP1

8. Adjusting the power output

The power output of the EOS SteamRock II Basic steam generator must be adjusted to the steam room cabin size, see chaper 2.6 cabin sizes per power rating, page 11.

The indicated steam quantity means the maximum possible steam production by continuous operation. The real steam production may vary depending on the temperature and cabin construction.



F-switches in a SteamRock II Basic 18 kW

The power output is set with the F-fuses mounted on the main rail on the front side of the generator (as shown on the left).

Each F-fuse adjusts power by 3 kW. An 18 kW steam generator can therefore be set to 18 / 15 / 12 / 9 / 6 / 3 kW. A 9 kW steam generator - respectively to 9 / 6 / 3 kW power output.

The power adjustment can be made with any F-fuse except the F1.

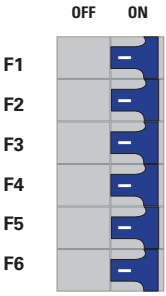
Notice: the F1 fuse must be always switched on.

The example on the left shows F1- F6 fuses of a18 kW model. The 9 kW version has accordingly only three fuses F1 - F3.

To reduce power, switch an F-fuse to the LEFT (off). Each fuse corresponds to 3 kW. To increase power, switch the F-fuse back to the RIGHT in "on" position. Factory default: all fuses enabled (ON position).

Make sure to set the power as per steam room size. We recommend to check the estimated power requirement in advance and to carry out a practical test.

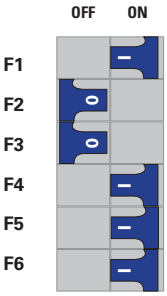
Example 1



18 kW model

18 kW active power

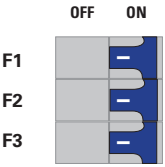
Example 2



18 kW model

12 kW active power

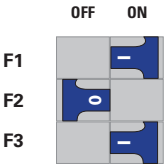
Example 3



9 kW model

9 kW active power

Example 4



9 kW model

6 kW active power

▸ **Examples of power configurations:**

F1	F2	F3	Power
x	x	x	9 kW
x	0	x	6 kW
x	0	0	3 kW

x = ON
0 = OFF

for 9 kW

F1	F2	F3	F4	F5	F6	Power
x	x	x	x	x	x	18 kW
x	x	x	0	x	x	15 kW
x	x	0	0	x	x	12 kW
x	x	0	0	0	x	9 kW
x	0	0	0	0	x	6 kW
x	0	0	0	0	0	3 kW

for 18 kW

NOTICE

Malfunctions and faulty temperature control by incorrectly selected power

Incorrectly selected power can lead to malfunctions and faulty temperature regulation. Particular attention must be paid by power increase.

- The adjustment of the power output may only be carried out by a qualified specialist.
- Make sure to conduct a practical test to ensure that the steam room functions correctly after the power adjustment.
- If you are unsure which power to select, start with a lower setting first.
- Consult EOS service if necessary.

⚠ CAUTION

Risk of scalding by too high humidity and temperature

During commissioning, it must be ensured that the programmed power output matches the cabin size and is not able to generate excessive temperatures in the cabin.

The temperature in a steam room must not exceed 50 °C, unless it is limited by the control unit.

During a humid sauna operation, make sure that there is no impermissibly high air humidity in relation to the air temperature in case the climate (humidity) is not controlled by the control unit.

9. General operation

The steam generator SteamRock II Basic is switched on and off through an external control unit. The control unit, such as e.g. Econ S2, can be ordered at EOS Saunatechnik GmbH.

The steam generator does not have an On/Off-switch and is always connected to the mains.

Flashing codes of the status LED

The SteamRock II Basic features a status LED, which indicates the operation status or faults. THis LED is located on the bottom panel, see page 16.

Flashing code	Meaning
Light off	Generator powerless or is starting
Light on	Normal operation
1 x flash	Waiting for descaling (descaling pending)
2 x flash	Descaling in progress
3 x flash	Refill descaler (descaler container empty or disconnected)
4 x flash	Water filling fault
5 x flash	Drain fault
6 x flash	Fault: Essence container empty (optional equipment)

9.1 Normal operation

Once connected to the power the steam generator will first make a self-test.

- If it determines that the descaling must be carried out before the steam production can be started, then the generator will launch a descaling cycle, see chapter 9.2.
- If the descaling is not yet required, the steam production can be started through the control unit.
- During the self-test the steam generator will also check the water level and therefore the correct operation of the water filling and drain function.
- The steam generator will continuously check the refilling of the water tank. By a short-term interruptions the heating process will be temporarily paused. If the interruption takes longer than 40 seconds the heating process will be stopped and an error message "Water filling fault" will be given.
- Please bear in mind that the steam generator will require approx. 10 minutes to fill water at the initial start.

9.1 Resetting the safety temperature limiter (STB)

The safety temperature limiter (STB) switches off the heater if the vaporiser tank overheats. To restart the heating, you must press the Reset button.

⚠ CAUTION

Risk of burns from hot parts

The steam pipe of the steam generator is very hot and can cause burns.

- Do not touch the steam pipe of the water tank.
- Allow the steam generator to cool down for at least 30 minutes.
- Wear protective clothing (gloves).

NOTICE

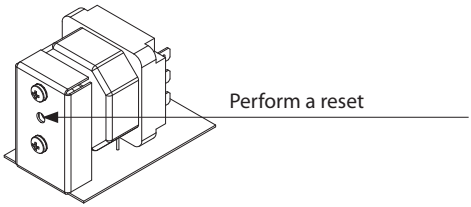
Damage to the safety temperature limiter

The safety temperature limiter can become damaged if you press the Reset button without troubleshooting the cause of overheating. Pressing the Reset button without troubleshooting the cause can damage the safety temperature limiter and can lead to overheating and indirect damages to the steam generator.

- Troubleshooting and Reset/operation of the safety temperature limiter must be performed only by qualified personnel..
- Rectify the reason for overheating.
- Allow the steam generator to cool for approx. 30 minutes.
- The Reset button should be operated only by qualified personnel.

Performing a reset

1. Rectify the reason for overheating.
2. Open the housing,, see chapter 5.4.
3. Use a suitable tool to lightly press the Reset button on the safety temperature limiter. If light pressure is not sufficient, wait until the steam generator has cooled down some more.
4. Close the housing.
5. Restart the unit.



10. Cleaning and servicing

The SteamRock II Basic steam generator must be serviced and cleaned regularly. The frequency depends on intensity of use. The integrated cleaning and descaling system increases the service life of the steam generator. It does not replace a pre-installed water softening system, which is required by hard water or if used commercially.

10.1 Regular maintenance

▸ Recommended service intervals

- Private use - at least once a year
- Commercial use - at least twice a year or more depending on the intensity of use and water quality.

⚠ WARNING

Danger to life and limb

Electrical current pose a danger to life and limb.

- Before opening the housing, disconnect all power supplies.

⚠ CAUTION

Risk of scalding from hot water

The drain outlet and escaping water can be very hot.

- Allow the vaporiser tank and pipelines to cool for approx. 30–45 minutes..
- Begin service work only once the steam generator has been switched off and is cool..
- Wear safety goggles/protective clothing (gloves).

⚠ CAUTION

Risk of poisoning from toxic fumes

Descaler can react with other chemicals, which can create poisonous fumes.

- The container for the descaler may only be placed under the steam generator.
- Never place containers with descaler close to other chemicals.
- Never place other chemicals close to the container of descaler.

▸ **Scope of servicing**

- Check and clean all pipes as needed.
- Check and clean the drain as needed.
- Check and replace the pump hose for the descaling pump and essence pump as needed.
- Visual inspection: Lime scale in the vaporiser tank.
- Check the rod electrode and clean manually, if needed.
- Check and clean the drain valve.
- Open the vaporiser tank and check the internal surfaces for lime scale. Clean as needed. Check the water quality if there is an increased amount of visible lime scale. Install an upstream water softening system as needed. Ensure that the unit has a supply of soft water. See Removing the cover from the vaporiser tank.
- Check the washer for the cover of the vaporiser tank. Replace old, hardened, or damaged seals.

10.2 Servicing the vaporiser tank

⚠ WARNING

Danger to life and limb

Improper installation poses a danger to life and limb from electrical currents. This risk exists also after installation work has been completed.

- Before servicing the vaporiser tank, disconnect the connection to all power supplies.

⚠ CAUTION

Risk of scalding

The drain outlet and escaping water can be very hot.

- Begin service work only once the steam generator has been switched off and is cool.
- Allow the vaporiser tank and pipelines to cool for approx. 30–45 minutes.
- Wear protective clothing (gloves).

▸ **Removing the housing cover**

- Disconnect the mains connection and shut off the water supply.
- Remove the housing cover.

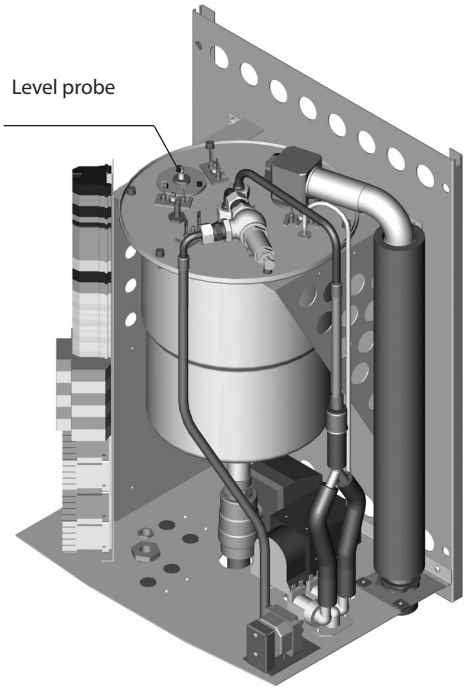
▸ Checking the level probe

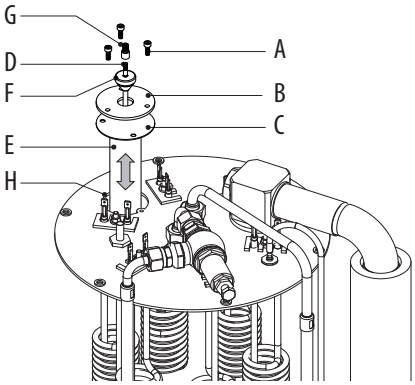
1. Close the water supply. Allow the steam generator to cool for approx. 30–45 minutes. Wear gloves.
2. WARNING! Risk of electric shock. Ensure that the mains connection is disconnected. Disconnect the connecting cable from the level sensor from the „level sensor“ slot on the main circuit board.
3. Then unscrew the 3 socket screws (A), pull out the plate (B) with seal (C) and level probe upwards.
4. Check the tip of the level probe rod (D) for scale deposits.
5. Remove the lime scale manually, as needed. Make sure that the plastic coating of the rod does not get damaged.
6. Reinstall the level probe in reverse order.

NOTICE

Equipment damage if the insulation of the level probe is damaged

Damaged insulation of the level probe can lead to the level control not working reliably anymore and leading to overheating and equipment damage.

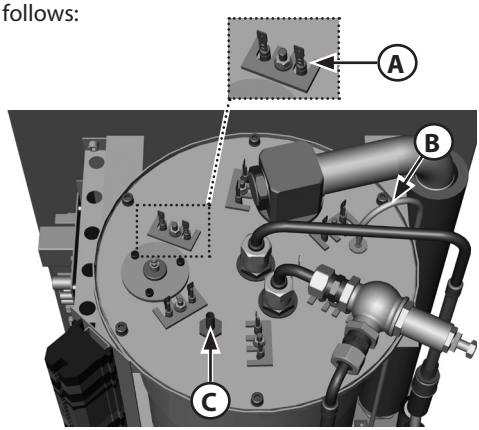




A = M 4x12 socket screw
B = mounting plate
C = silicone seal
D = level probe rod
E = protective metal enclosure
F = grommet
G = M4 hexagon nut
H = opening in the tank lid

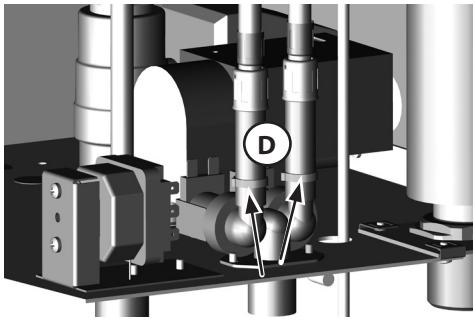
10.3 Dismantle the vaporiser tank with heating spirals

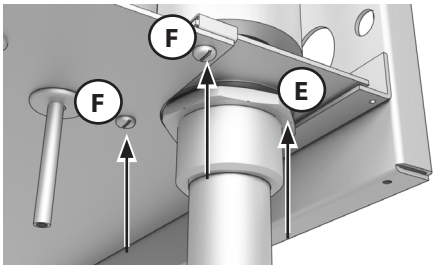
If necessary, the vaporiser tank can be opened as follows:



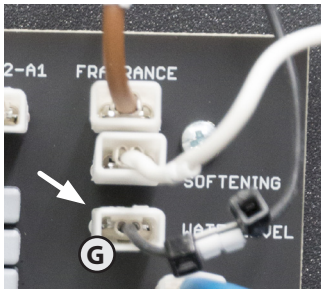
▶ Removing the vaporiser tank cover

1. CAUTION! Check if the mains connection has been disconnected and close the water supply. Allow the steam generator to cool for approx. 30–45 minutes. Wear gloves.
2. Unplug the connections on the flat plug lugs (A) from the heating coils.
3. Mark the lines so that you maintain the correct sequence when you plug them back in.
4. CAUTION! The descaler hose has descaler residue. Wear gloves. Remove the descaler hose and place it in a bucket so that the descaler can drain.
5. Remove the descaler hose (B) and place it in a bucket so that the descaler can drain.
6. Remove the capillary tube sensor (C) from the intake pipe.
7. Carefully lay the capillary tube sensor to the side.
8. The capillary tube must not be kinked, jammed, or damaged. The capillary tube sensor may not be damaged.
9. Loosen the 2 hose clamps (D) at the double valve and remove the flexible water supply lines.
10. Loosen the steam supply (E) at the bottom panel of the housing.

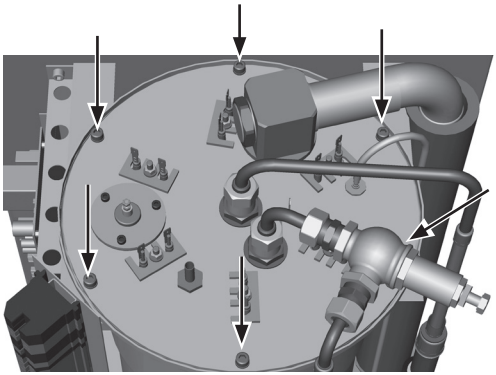




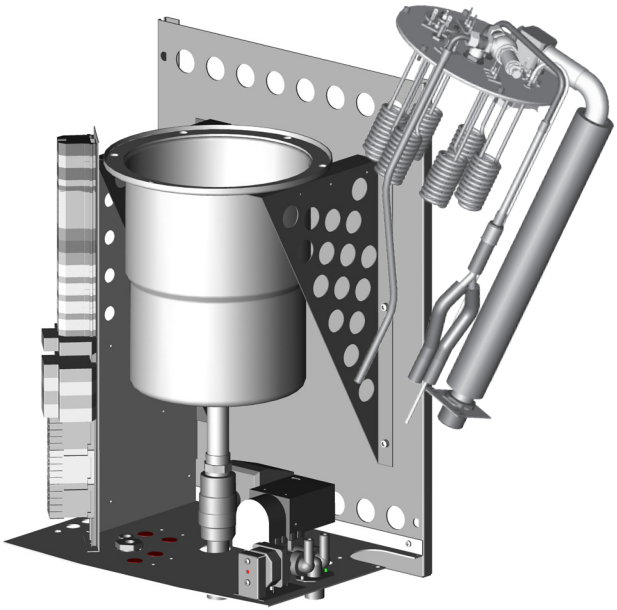
11. Loosen the 2 screws (F) for the steam pipe on the carrier plate.
12. Disconnect the connection line (G) of



the water level control on the main board („Water level“ terminal).



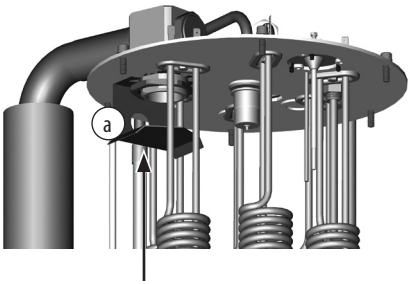
13. Loosen the 6 hexagon socket screws along the lid edge.
14. Lift up the cover with all mounted parts until the heating coils have been removed completely from the tank and put this assembly aside.
15. Remove lime scale mechanically from the heating elements and inner walls of the vaporiser tank as needed. Clean the walls with an appropriate cleaner, as needed if there are oily remnants or alike pollution.
16. Check the sealing O-ring at the tank edge for damage and replace as needed.



▸ Closing the vaporiser tank

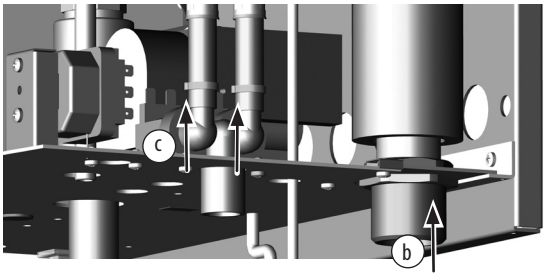
Now mount the tank lid with heating coils into the tank. The assembly process takes place in the reverse order. Make sure that the silicone sealing ring fits the mounting holes so that the socket screws can be screwed in. Please also note that the deflector plate **(a)** at the inner side of the lid does not get bent. Reconnect the steam pipeline on the coupling to the steam generator.

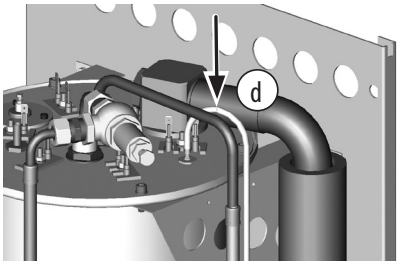
Reconnect the heating coils.



Check all screws for tightness before commissioning. Connect the steam pipe **(b)** to the bottom of the housing. Place the flexible water pipe on the water inlet valve and fix it with the hose clamps **(c)**. Attach the descaling hose **(d)** to the connection nipple for the descaler.

Then check the water tank and all attachments for leaks before recommissioning.

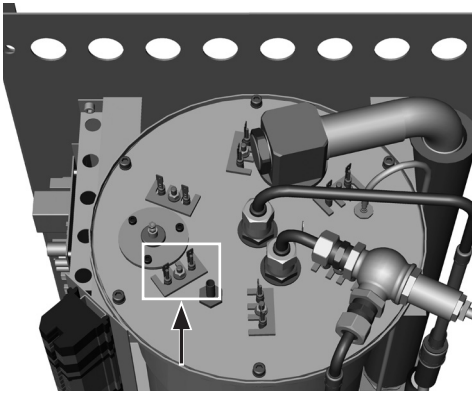




NOTICE

Equipment damage due to overheating by incorrect connection of heating elements.

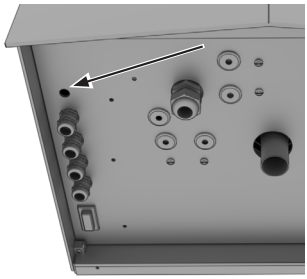
Please make sure that the primary heating element, as marked on the right, is connected to the appropriate, colour-coded supply line.



11. Troubleshooting

SteamRock II Basic steam generator will display the operation states and common malfunctions by flashing of the main operation LED (pilot lamp) on the bottom housing of the unit.

▸ Flashing codes of the status LED:



Status-LED

- **Off -** Steam generator switched off
- **Permanently on -** Normal operation
- **1 x flash** - Wait for descaling
- **2 x flashes** - Descaling is in progress
- **3 x flashes** - Error: descaler empty
- **4 x flashes** - Error: filling error
- **5 x flashes** - Error: draining error
- **6 x flashes** - Error: fragrance container empty (optional accessory)
- **Permanently flashing -** Incorrect setting (configuration)

▸ Possible faults and troubleshooting

Fault: **Overheating limiter fuse releases repeatedly.**

Reason: Water level too low, overheating limiter fuse mounted incorrectly. Water supply issues (filter blocked, too low pressure).

Solution: Check the limiter fuse for correct position. Inspect water tank for limescale and clean if necessary. Check water supply line.

Reason: Water foaming through contamination by oils, plasticiser and similar substances. Incorrect water level detection which leads to overheating.

Solution: Check water supply for possible contamination sources (e.g. PVC tubes and pipes). Check the essence dosing injection connection - make sure essences may not get into the tank. Clean the tank thoroughly if contaminated with oils.

Fault: **Drain fault**

Reason: drain blocked with scale chunks and deposits. Drain discharge line connection incorrect (smaller diameter, sharp bends).

Solution: Open water tank and clean the drain. Make sure the drain pipe and the drain valve are clear. Alternatively dismount the actuator, manually open the ball valve and clean the drain from below. Then close the valve and mount the actuator back. Make sure the drain discharge line connected to the generator has at least the same diameter and has no sharp angles.

Use the optionally available filtering grill in the water tank to keep the drain clear.

Reason: Actuator or ball valve faulty

Solution: Contact EOS customer service for assistance.

Fault: **Water filling fault**

Reason: Water supply blocked.

Solution: Check water supply. Check if the filter mesh at the water supply connector is blocked, clean if necessary.

Reason: Water filling valve is blocked or faulty.

Solution: Clean the valve (e.g. pressurized air) and make sure it is operational.

Reason: Water level probe got stuck or is faulty.

Solution: Make sure the float of the probe can move freely, clean if necessary and check for functionality (see chapter installation > water level control for details).

Fault: **No decaler liquid (also shown on the Econ S2 display)**

Reason: Descaler level low. Connection cable to level probe interrupted.

Solution: Refill descaler (cleaner). Check the level probe and cable connections. Restart the generator.

Fault: **Thermo-fuse triggered (also shown on the Econ S2 display)**

Reason: Overheating in the water tank.

Solution: See point #1 „overheating limiter fuse". Restart the generator.

Fault: **Steam outlet spits hot water.**

Reason: Water foaming.

Solution: Check if the water may be foaming due to contamination with oils or similar substances. Clean the tank if necessary.

Reason: Steam pipe installed incorrectly, steam pipe blocked by condensed water.

Solution: Make sure the steam pipe is not blocked by condensed water. If necessary a syphon may need to be installed. Make sure the steam can go through the pipe freely.

Reason: Water level probe fault.

Solution: Inspect the water level probe, clean if necessary. Make sure that the float can move freely. See page 17 for details.

Fault: **No steam produced (heating does not start)**

Reason: Overheating limiter fuse released.

Solution: Overheating due to too low water level. Reset the limiter fuse by pushing firmly on the reset button located on the bottom side of the generator under the rubber cap (see page 12). Inspect the generator for possible reasons for overheating. Attention! Allow min. 5 minutes to cool down the generator.

Fault: **Status LED flashes continuously**

Reason: Incorrect configuration or setup (e.g. jumper JP1 or JP2 set incorrectly)

Solution: Check the jumpers JP1, JP2 for correct position. Restart the generator. Check connection to control unit.

Recycling

Devices or lighting elements that will not be used any longer have to be handed in at a recycling station according to regulation 2012/19/EU. Do not dispose it with the normal household waste.

Service Address:

EOS Saunatechnik GmbH
Schneiderstriesch 1

35759 Driedorf, Germany

Tel: +49 (0)2775 82-514
Fax: +49 (0)2775 82-431

servicecenter@eos-sauna.de
www.eos-sauna.de

Please retain this address together with the installation guide for further references.

To help us answer your questions quickly and competently please provide the information printed on the type shield including the model, item no. and serial no., in all inquiries.

Equipment commissioning date:

_____

Stamp and signature of the authorized electrician:

General Terms and Conditions of Service

I. Scope

Unless otherwise agreed in writing in a specific case, these terms and conditions of service shall apply to service operations, including examining and repairing complaints. All our existing or future legal relationships shall be governed solely by the following terms and conditions of service. Our recognition of any conflicting terms and conditions of the Ordering Party shall be conditional upon our having given our express written consent to their applicability. We hereby expressly object to any terms and conditions of the Ordering Party contained in its General Terms and Conditions of Business or order confirmation. If order confirmations or deliveries are accepted without reservation, this shall not be deemed to constitute recognition of such terms and conditions. Any ancillary agreements or amendments must be confirmed in writing.

II. Costs

The Ordering Party shall bear the following costs in connection with the service operation:

- De-installation/installation and electrical works (connection / disconnection).
- Transportation, postage and packaging.
- Function testing and troubleshooting including inspection and repair costs.

There shall be no third-party billing.

III. Obligations / Ordering Party's cooperation

The Ordering Party shall provide free-of-charge assistance to the manufacturer in carrying out the service operation.

In the case of a warranty claim the manufacturer shall provide the required replacement parts to the Ordering Party free of charge.

IV. Service visit by the manufacturer

In the event that it is essential that a manufacturer employee carry out the service operation on site, this must be agreed in advance. Where the main reason for the service call is not the fault of the manufacturer, any costs incurred shall be recharged to the Ordering Party after the service visit and shall be paid as per agreed payment terms.

V. Liability

The manufacturer shall assume liability in accordance with the currently applicable statutory regulations. The packaging for all of our products is designed for the shipping of individually packed goods (pallet). We expressly point out that our packaging is not suitable for individual shipments via parcel post. The manufacturer shall accept no liability for damage incurred as a result of improper packaging in an individual shipment.

VI. Manufacturer's Guarantee

The manufacturer's guarantee shall apply only in the event that installation, operation and maintenance have been carried out in accordance with the manufacturer's specifications contained in the installation instructions and instructions for use.

- The guarantee period shall commence from the date on which proof of purchase is provided and shall be limited, in principle, to 24 months.
- Guarantee services shall be performed only if the original proof of purchase relating to the equipment can be presented.
- Any and all guarantee claims shall become void if modifications are made to the equipment without the manufacturer's express consent.
- Any guarantee claim shall likewise become void in the case of defects that arise due to repairs or interventions made by unauthorized persons or due to improper use.
- In the case of guarantee claims, the serial and article numbers must be indicated together with the product name and a meaningful description of the fault.
- This guarantee shall cover defective equipment parts, with the exception of usual wear parts. Wear parts are, among others, lamps, glass parts, heating elements and sauna stones.
- Only original replacement parts may be used within the warranty.
- Service visits by outside companies shall require a written order to be issued by our service department.
- The equipment in question shall be sent to our service department by the Ordering Party and at its expense.
- Electrical installation and connection works in the event of service or replacement shall be carried out at the Customer's expense and shall not be borne by the manufacturer.

Complaints in respect of our products shall be reported to the responsible authorized dealer and shall be exclusively handled via the latter.

The manufacturers General Terms and Conditions of Business, which can be found at www.eos-sauna.com/agb, shall apply in addition to the foregoing terms and conditions of service.

As of 08/2018