

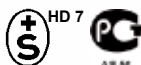
SteamTec Premium

steam generator



GB Installation instruction and operation manual

Made in Germany



English

Inhalt

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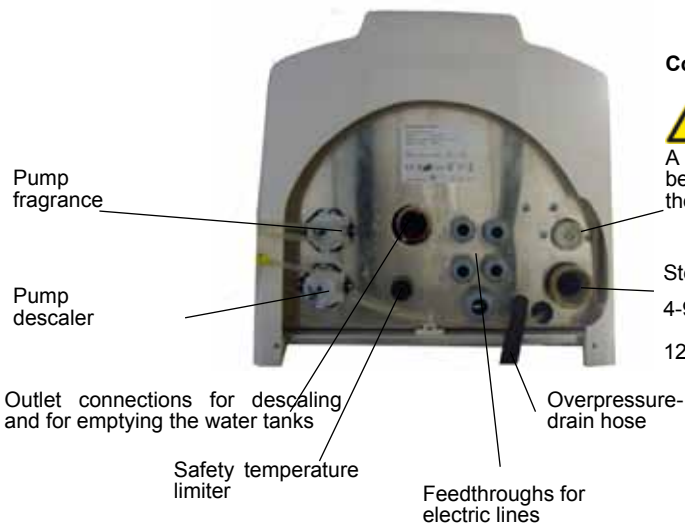
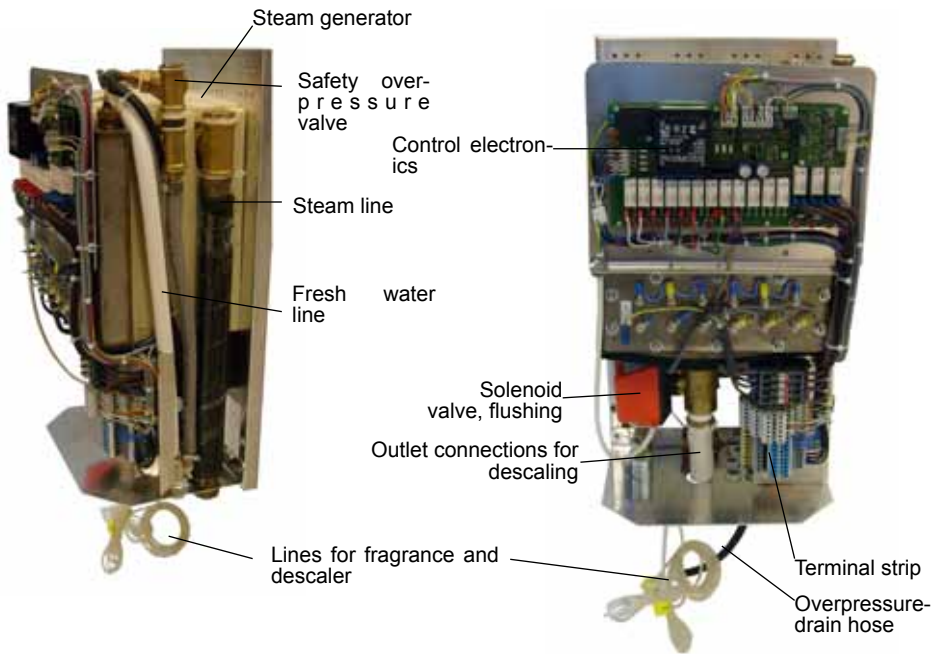


- Prior to installation, please read these instructions through carefully and store them. They provide valuable information on the proper installation of your steam generator.
- The steam generator must be inspected immediately after unpacking for completeness and for possible transport damages. The EOS plants shall not bear any liability for damages which have been caused through transport or intermediate storage.

The following are included in the scope of delivery:

- (1) Steam generator
- Skeleton construction set:
 - (2) Drilling template
 - (3) Wall plug for sensor installation
 - (4) Wall plug for steam discharge
 - (5) Flush-mounted housing for panel
 - (6) Assembly instructions
- (7) Steam jet
- (8) Fragrance jet 4mm / G1/2"
- (9) 4 Screws 45 x 40
- (10) 4 Dowel M8
- (11) Operating panel with 7 m connection
- (12) Sensor
- (13) Sensor package leaflet
- (14) 0.5 m metal-braided pressure hose 3/8 - 500 - 3/4
- (15) 0.4 m flexible hose 28 - 22 with hose clamp
- (16) 7 m extension for sensor
- (17) 5 l storage tank for descaler with level detection
- (18) Operating instructions





Connection for fresh water



Caution!
A water treatment system must be fitted upstream depending on the hardness of the water

Steam line connection
4-9 kW 1" inside thread with screw connection
12-18 kW Ø 35 mm inside thread with screw connection for soldering.

1. General information

Your steam generator is a high-quality, electrically-operated unit. Operation takes place via a panel with switching possibilities for steam, fragrance, exhaust air and light, which can be installed both inside the cabin as well as on the unit. The temperature control also takes place via the panel.

The electrical / electronic components and the steam tank made of stainless steel are arranged in a housing.

The water feed is automatically controlled, whereby a manual drain, for example for cleaning the device, is possible.

The housing consists of deep-drawn plastic. The steam tank and all wear parts are made of stainless steel.



Important note

Contact your water supply company and ask about the hardness level of your water. Within the hardness range I (0-8.4° German degree of hardness), the device generally works without faults and is descaled through the descaling unit installed. Should your water lie within the hardness ranges II - III, a water treatment system (water filter) must be installed in front of the evaporator.

Conversion for water hardness units						
		°dH	°e	°f	ppm	mMol/l
German degrees	1°dH =	1	1	2	18	0
English degrees	1°e =	0	1	1	14	0
French degrees	1°f =	0	0	1	10	0
CaCO ₃ (USA)	1 ppm =	0	0	0	1	0
mMol/l	1 mMol/l =	6	7	10	100	1

Table acc.: (Lit.: Krause, page 35)

1.1 Device functions

The steam generator works without pressure.

The electrically operated resistance heaters, which are made of stainless steel, are integrated into the steam tank.

This principle works almost independently of the water quality.

Permanent steam production is ensured through the automatic water level control.

The optional supply air fan ensures optimum steam distribution through the supply of fresh air.

1.2 Installation locations and connections

- The assembly location of the steam generator may lie max. one floor above or below the steam cabin and the length of the line between the steam generator and the steam jet should not exceed 6 m.

If the distance is larger, the steam line must be selected one dimension larger than stated in these instructions.

Two steam jets should be provided for steam generators >9 kW.

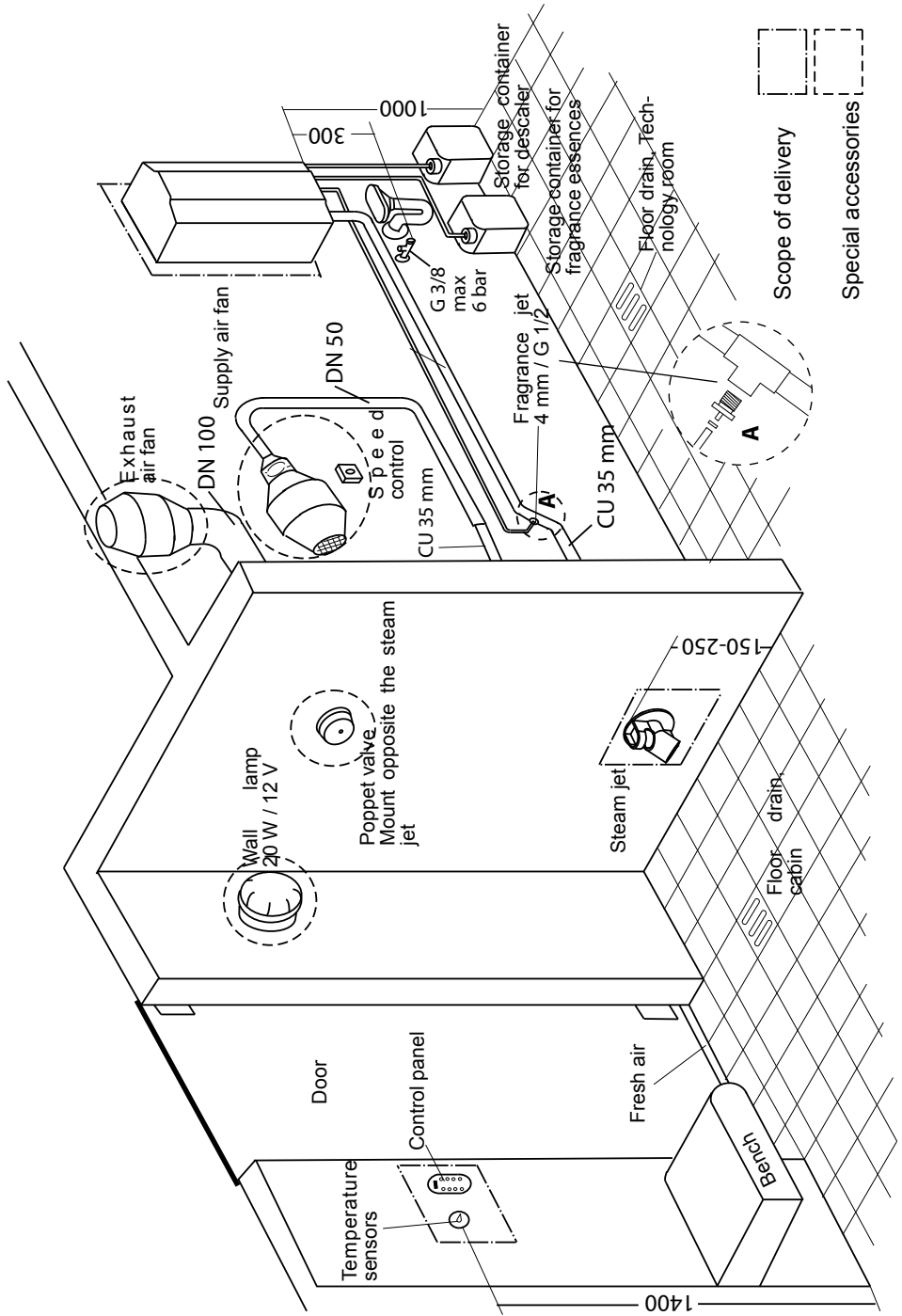
Please follow the instructions below for assembly of the system components.

- The electrical installation must be designed acc. DIN VDE 0100.
The system must be supplied via a separate power circuit with a residual current circuit breaker ($I_{\Delta} = 30 \text{ mA}$) which disconnects the device at all poles from the mains with a contact opening width of at least 3mm.
The electrical installation may only be undertaken by a licensed electrician.
- The steam generator water connection is a 50 cm-long reinforced hose (R 3/8") on a connection bracket provided on-site (R 1/2") with 1-6 bar water pressure, directly from the water mains.
At more than 6 bar water pressure, a pressure reducing valve (setting 4-6 bar) is to be provided.
- For the water drain for control and cleaning purposes, the drain must be connected with the outlet via a funnel siphon made of heat-resistant material.
The funnel and the drain must be dimensioned large enough so that they are briefly able to hold 5-7 l of fluid.
Place the collecting funnel at least 30 cm below the drainage outlet.
- Provide the following connection lines / empty pipes

Designation	Empty pipe	Line
Temperature sensor	Yes	2 x 0.5 mm ²
Wall lamp	Yes	2 x 1.5 mm ²
Fragrance dosage pump	Yes	4 x 0.75 mm ²
Supply air fan	Yes	3 x 1.5 mm ²

- For the steam line, the minimum pipe diameter must be 35 mm.
The steam line(s) from the steam generator to the steam jets should be made of copper or stainless steel pipe with sufficient heat insulation (20mm).
You can find the position of the steam jet in the cabin drawing.
The steam line must not be lockable and it must not be possible to shut it off. It must be protected against outside influences (kinking or deformation).
Only 45° bends may be used due to flow reasons.
- Connect the optional supply air fan with the steam jet using a pipeline (HT pipe DN 40).
For assembly, please observe the Assembly instructions enclosed with the fan.
Always mount the applicable check valve horizontally.
If possible, do not mount the supply air fan on the outer wall of the cabin.

1.3 Installation overview



2 Device installation

2.1. Skeleton construction installation

For the skeleton construction, the skeleton construction kit included in delivery is required. Carry out installation of the skeleton construction according to the Installation overview.

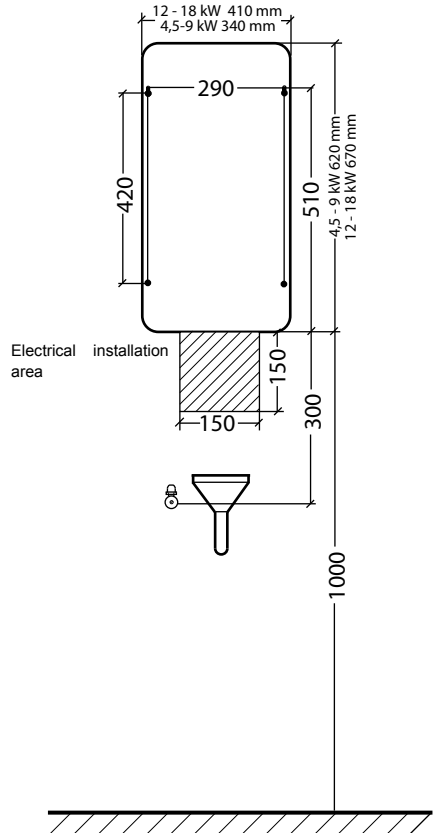
2.1.1 Fresh water and wastewater

The positions of fresh water and wastewater are to be provided according to the drilling template included in the skeleton construction set.

2.1.2 Connections for water feed and drainage

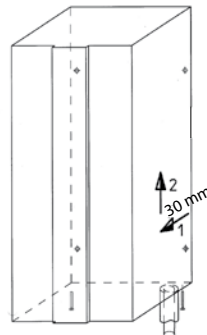
Important notes:

The regulations of EN 1717 or DIN 1988 part 4 must be observed. Suitable measures must be taken to avoid water flowing back into the drinking water mains. Pipe dividers or system dividers are suitable for this. Ask your drinking water supplier or a specialist sanitary dealer.



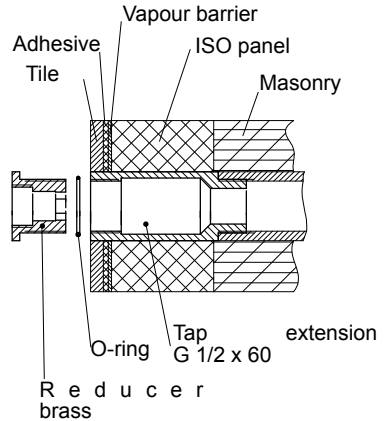
2.2. Dismantling the steam generator hood

- Unscrew and remove the two screws 3.2 x 16mm from the hood under the steam generator.
- Make the assembly drillholes according to the drill template on the wall.
- Insert the upper fastening screws into the dowel and screw in to a wall distance of 5 mm.
- Hook in the steam generator and screw in the lower screws.



2.3. Temperature sensors

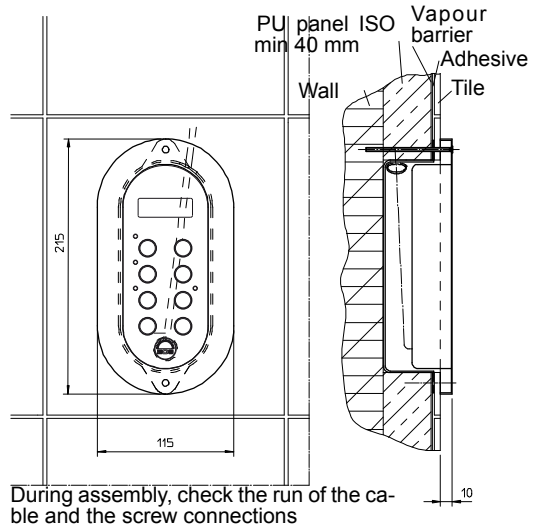
The temperature sensor may not be arranged directly over the steam nozzle. The recommended positioning can be found in the Assembly diagram. There is a sensor protection tube $\frac{1}{2}$ " x 120 mm for assembly located in the skeleton construction set. This must be inserted into the wall, flush with the tiles.



2.4. Control panel

For flush-mounted installation, the flush-mounted housing (skeleton construction set) must be inserted into the wall. An empty tube connection ($\varnothing 20$ mm) must be provided to the steam generator. When tiling, please ensure that the two fixing holes in the flush-mounted housing are left clear.

Alternatively, it can be mounted in the housing.

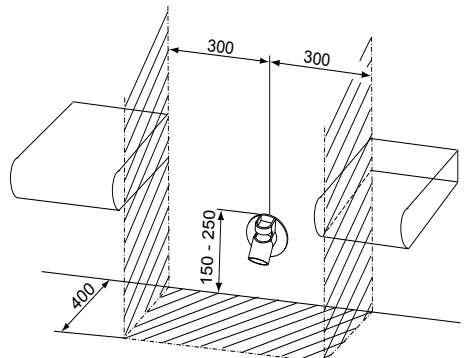


2.5. Steam jet

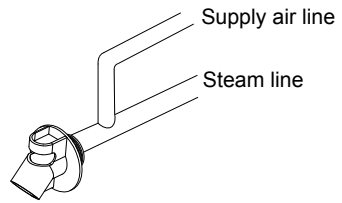


When positioning the steam outlet jet, you must ensure that the user cannot scald themselves later on the hot steam. The steam outlet temperature at the jet is approx. 100° C!

At the end of the steam line, in the cabin, the transition sleeve 35 mm to 5/4" inside thread (skeleton construction set) must be installed flush with the tiles.



Should several steam jets be mounted in the cabin as shown in the adjacent diagram, the connections of the supply air and steam lines should be placed as close as possible to the respective steam jet.

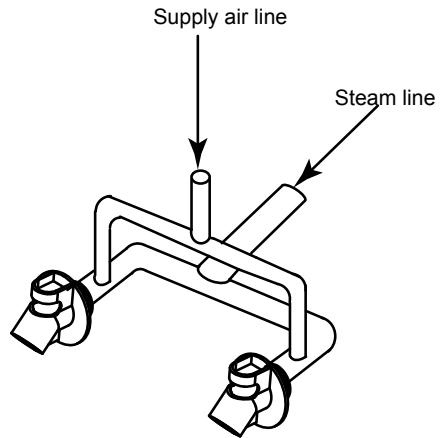


2.6. Steam line

The steam line must always be designed in copper or stainless steel (min. Ø 22 mm, we recommend 35 mm to prevent noises developing) for all steam generators, here narrow 90° bends in 2 x 45° are to be laid. The steam line insulation should be designed with Isover, Armaflex HT or materials of the same quality to a thickness of 25 to 30 mm.

When laying the steam line, please ensure a gradient (min. 1 cm / m) in the direction of the steam jet in order to avoid condensation build-up (water trap). The steam line should not exceed a length of 5 m. Pressure build-up in the steam line is not permissible.

As additional equipment for the automatic fragrance dosage, a ½" sleeve must be positioned just before the steam jet in the steam line gradient. It must be ensured that the fragrances cannot flow via the steam line into the steam generator.



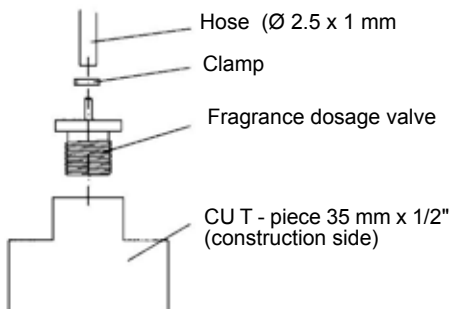
2.7. Steam connections

- Screw the flexible hose with braided stainless steel provided on the steam generator onto the freshwater connection (3/8") to be made on-site.
- The water tank is emptied via the flushing program, which runs automatically.
- Connect the steam line to the device with the RG screw connection 1" x 35.
- Steam output on the right side under the steam generator.
- Screw in the steam jet with silicone seal included in delivery into the on-site, pre-installed transition sleeve 5/4" x 35. Seal the steam jet thread slightly.
- Hang the overpressure outlet hose into the siphon.

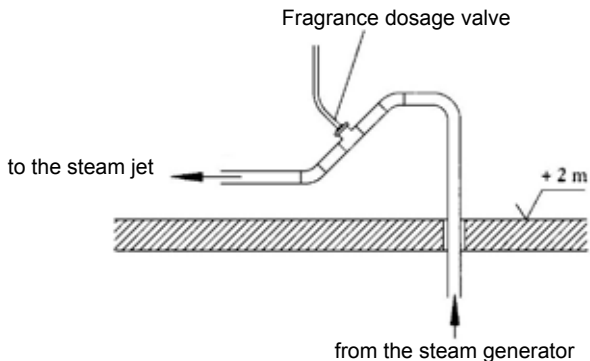
2.8. Installation of the fragrance system

The optional fragrance dosage valve must be installed in the falling steam line. It must be mounted as close as possible to the steam generator as shown in the following Figs.

The maximum hose length on the metering pump pressure side is 2 m.



When arranging the steam generator under the steam cabin, position the fragrance valve according to our Fig.



2.9. Ventilation

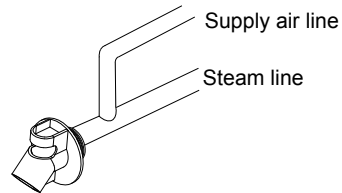
The steam cabin set-up room must be sufficiently well-ventilated. Ventilation can be carried out via a poppet valve which is included in the additional accessories for the exhaust air fan. The poppet valve must be connected on-site to an exhaust air pipe which should lead directly out into the open air. We do not recommend the connection of central ventilation systems due to the risk of possible condensation formation.

For installation of an exhaust air fan (additional equipment) into the exhaust air line, an empty pipe connection must be provided to the steam generator according to the Installation overview.

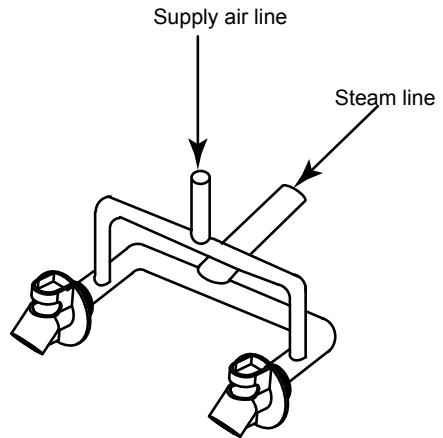
2.9.1. Supply fan

(Additional equipment - recommended from SteamTec Premium 6.0 kW)

The connection of the supply air (\varnothing 35 mm in Cu) with the steam line should be carried out on-site as close as possible to the steam jet.



Should several steam jets be mounted in the cabin as shown in the adjacent diagram, the connections of the supply air and steam lines should be placed as close as possible to the respective steam jet.



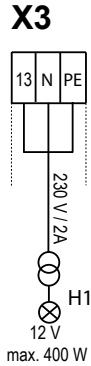
2.10. Illumination

(Additional equipment)

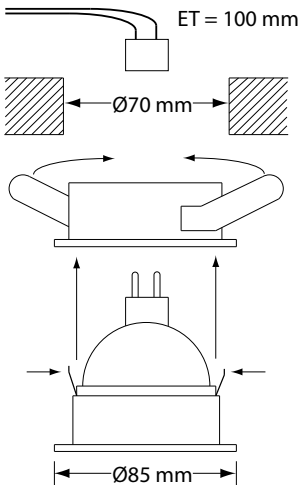
A connection possibility 230 V / 2A for the on-site transformer max. 12 V / 400 W is available in the steam generator as a standard measure.

It is still possible to control, for example, an RGB coloured light via the steam generator.

Please find details on the connection of the different illumination possibilities in the terminal diagram further down

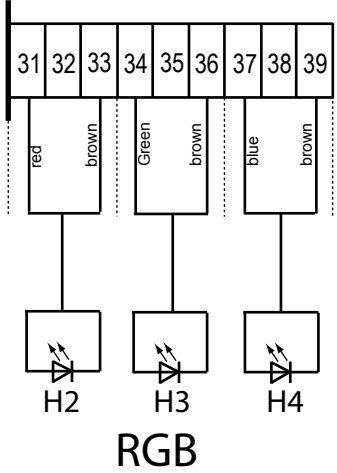


2.10.1 Installation dimensions for RGB or halogen spotlights

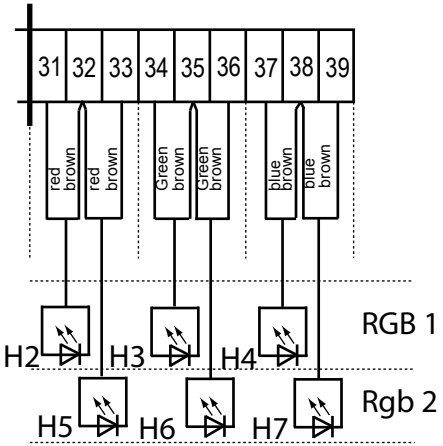


2.10.2 Connection of the RGB coloured light

X3



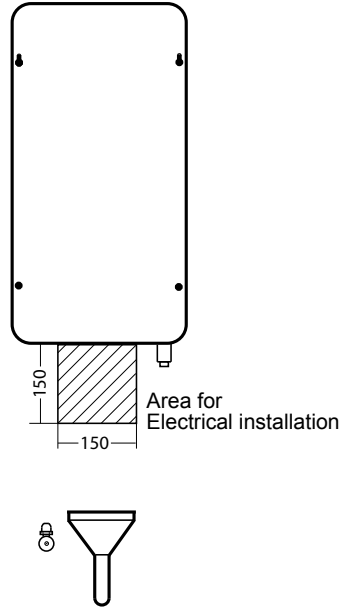
X3



3. Electrical installation

During the electrical installation, the respective VDE, country and EVU regulations must be maintained in their respective valid version. Installation and inspection work is to be carried out exclusively by a licensed electrician, taking the valid standards into account.

The power supply must be provided taking the required line cross-section into account. The electrical installation must be designed acc. DIN VDE 0100. The system must be supplied via a separate electrical circuit feed line. Furthermore, the steam generator must be protected by a separate residual current circuit breaker ($I_{\Delta} = 30 \text{ mA}$), which disconnects the device on all poles from the mains with a contact opening width of at least 3 mm. The electrical installation may only be undertaken by a licensed electrician.



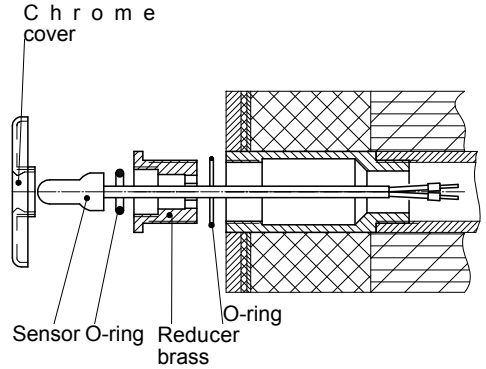
All electrical lines connected to the steam generator are to be laid according to the drilling template on the steam generator in the area of the connection. An approx. 0.5 m cable length is required for connection to the device. The maximum line length to the operating panel is 7 m!

3.1. Connection lines

Steam Tec Temperature Sensor	Steam Tec Controls	Steam Tec wall light 20 W / 12 V	Steam Tec RGB lamp	Steam Tec Extractor	Steam Tec blower
2 x 0,75 max. 7 m included	4 x 1,0 max. 7 m included	3 x 1,5 230 V or transformer (not included)	4 x 2 x 0,8 IY(ST)Y	3 x 1,0	3 x 1,0
optional					

All cross-sections are minimum in mm² CU

- Feed all electrical lines from below through the PG glands or through the rear wall.
- Connect the temperature sensor and install it according to the drawing.
- Install the operating panel into the pre-installed flush-mounted housing.
- Lay the lines to the generator.
- Insert the operating panel and fix with the stainless steel screws 4 x 30 included in delivery.
- If the operating panel is installed in the generator hood, the line must be shortened to 1.5 m. In the hood, the two screws are removed, the line is fed through the rubber guide and the panel is fixed with the two screws.

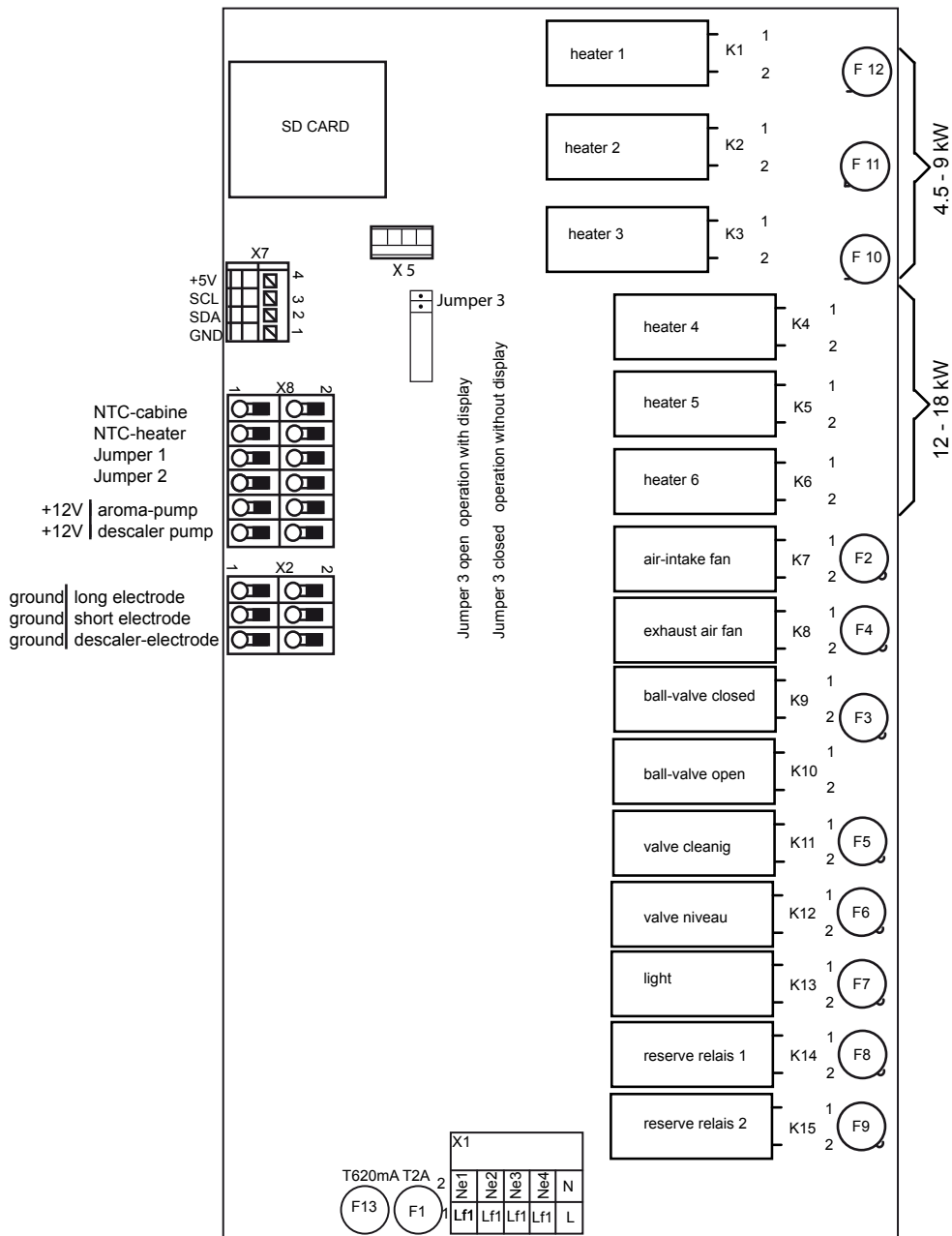


Now connect the steam generator including the additional equipment according to the following terminal diagram.

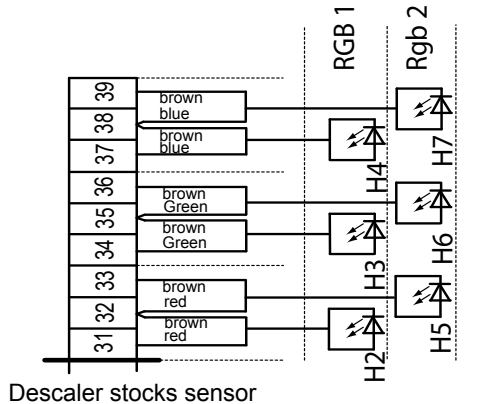
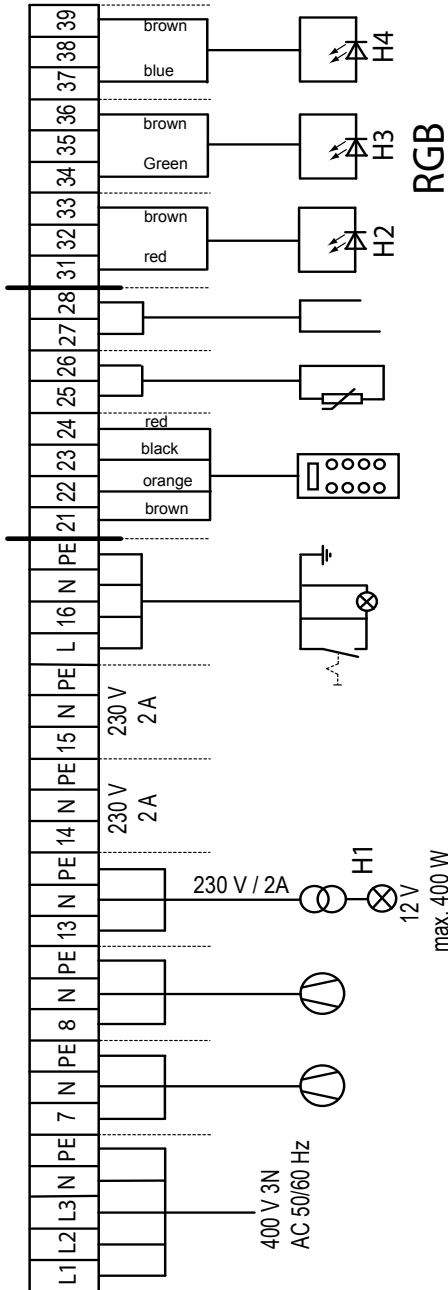
Assembly of the steam generator housing

Fix the steam generator hood with the two screws underneath the housing.

3.2. Overview of the components on the printed circuit board



3.3. Terminal diagram



Descaler stocks sensor

Temperature sensor, cabin

Control panel

Janitor switch (optional)

Reserve 2 e.g. (to be provided on-site)

Reserve 1 - "Starry sky"

- Audio feed

- Additional heating

Cabinet lighting

Exhaust air fan

Supply air fan

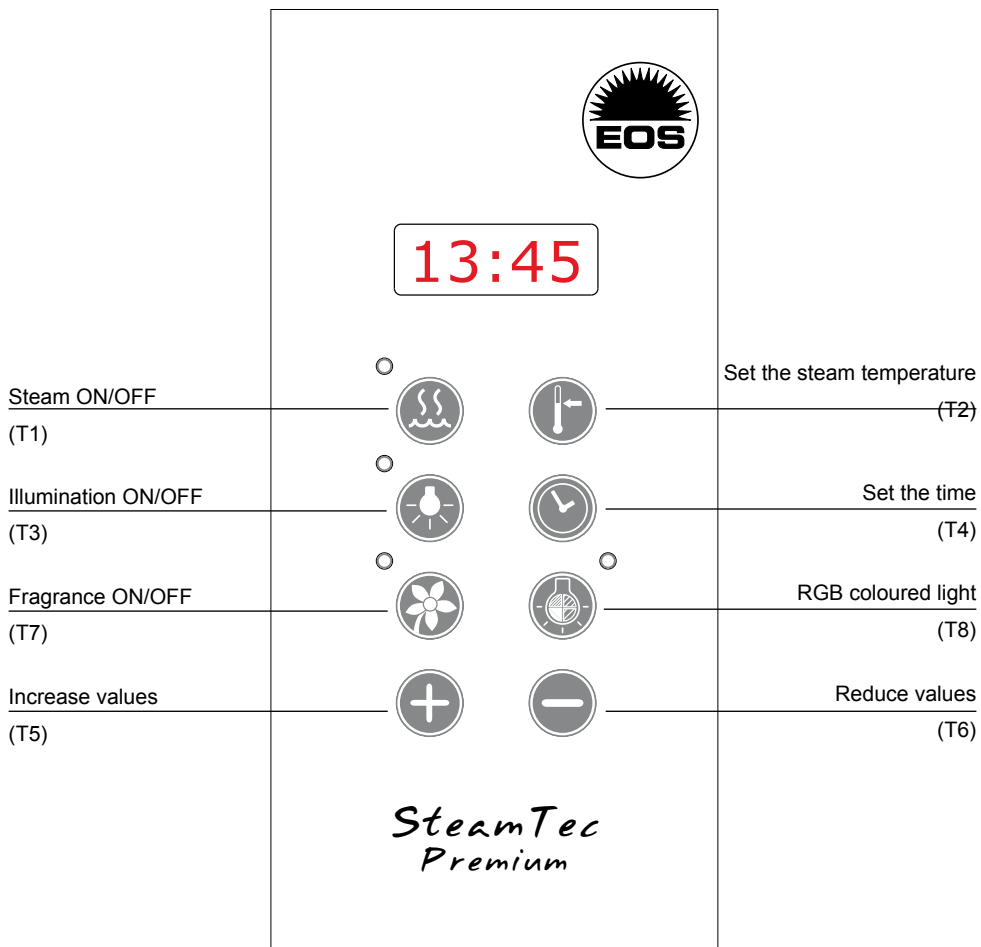
Mains

4. Functional descriptions

On the following pages you will find explanations on the operation and care of your steam generator. We wish you lots of fun with your SteamTec Premium steam generator and wish to thank you for placing your trust in us!

In normal operation, the time and the temperature are shown in the display alternately at intervals of 5 seconds.

The steam generator is switched on/off with the (T1) key.



4.1. Setting the nominal temperature / time, T2/T4 key

Keep the respective key pressed down and set the required value with +/-.

The adjustment range of the nominal temperature is 30° C - 50° C.

4.2. Fragrance

By pressing the T7 fragrance key, the automatic fragrance dosage is switched on and off.

If the T7 key is pressed, the dose can be selected with + and –.

Stage 1 = 2 minutes break 2 seconds pump on

Stage 1 = 4 minutes break 2 seconds pump on

Stage 3 = 6 minutes break 2 seconds pump on

Stage 4 = 8 minutes break 2 seconds pump on

The fragrance is not dosed until the steam cabin temperature has reached 30 °.

Stage 5 = Continuous operation of the pump for filling, without temperature limitation.

If no automatic fragrance dosage is available, the fragrance can be added to the steam jet by hand.

4.3. Exhaust air fan

(Additional equipment)

The exhaust air fan switches on automatically after the steam generator has been switched off with a follow-up time of 5 min. and ensures that the steam is extracted from the steam cabin. This reduces the residual humidity in the cabin. In program step P5, a follow-up time of 5 -20 minutes can be selected for the fan (see 2. Customer Programming).

4.4. Supply air fan

(Additional equipment)

The supply air fan switches on at the same time as the steam production and ensures the supply of fresh air and improves the development of steam in the cabin. The supply air quantity can be regulated in 5 stages. On reaching the set nominal temperature, the fan continues to run for approx. 5-7 s.

4.5. Colour change light (RGB LED)

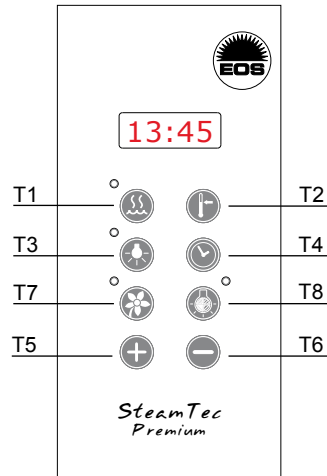
(Additional equipment)

The colour change light is activated using the T8 key.

The colours change in a gentle, fixed sequence. By pressing the 8 key again, the colour shade currently lit up can be stopped. Pressing again switches off the colour changer. If a steam generator has special equipment, max. 2 RGB lights (special accessories) can be connected. 2 further lights can be controlled via an additional module.

5. Customer programming (User level) ,see page 26

1. By pressing the T2 and T4 keys for approx. 5 s, the controls will switch to the function "Customer programming" (User level).
2. On the left-hand half of the display, the program step P0 will appear, and in the right-hand half of the display, the preset parameter value e.g. 02 will appear.
3. The program step can be switched with the T1 or T3 key from P0 – P2.
4. The parameters can then be set with the +/- key.
5. After finishing programming, leave this level by simultaneously pressing buttons T2 and T4 again.



5.1 Programming (Service level), see page 27

You can get to the Service level if you press the T1 + T3 keys simultaneously for 5 s when in the User level.

Steam Tec Premium programming table (Firmware 21)

Using the following program steps, you can adapt the steam generator during initial commissioning or later use to the customer's requirements, and to the local situation.

5.2. The relay described as P0- P1 can supply additional modules actively with power such as for example:

- Starry sky with glass fibre technology
- Bench heating 230V max. 250 W (construction kit controller)
- Audio music

The connected additional devices are switched on or off by pressing the steam generator start key T1.

6. Software update

The control on the steam generator has been achieved with a modern Flash- μ C. Program changes can also be performed subsequently by using this controller without removing the controller from the hardware. The performance of a program update is described in the following.

6.1. Preparation of the hardware

The folder on the main path \ATE17010 must be set up on an SD card. The current program with the designation S17010xx.hex is copied into this folder. (xx = placeholder for the program version ..04.05...40...etc.

6.2. Implementation of software update

1. Switch off controls (disconnect from the mains)

2. Insert SD card until it clicks into place

3. Switch on control (switch the mains)

The LED alternating flashes red and green while the SD card searches for a program.

If a program has been found, it is downloaded and the LED on the SD card flashes green.

If the program update has been successfully completed, the LED permanently illuminates green.

4. Now wait approx. 2 seconds and then remove the SD card. The newly loaded program is started.

Error: if the LED illuminates in red, no suitable program could be found for an update on the SD card.

7. Remote control

The remote control can be set in the programming point Pb.

This means:

- 00 The device is operated via the panel (factory setting)
- 01 The control panel has no function. The steam generator is switched on or off via a remote "master switch" (connection KI L,16, N, PE to X3).
- 02 Master switch open - steam generator switched off
 Master switch closed - generator on and can be operated via the control panel.
 Here, for example, operation via the control panel can be limited to a certain time through an external timer.
 A standard contact-breaking switch should be used as a "master switch". Do not use a relay type switch.

USER LEVEL (Press keys T2 + T4 simultaneously for 5 s)

MENU	PARAMETERS	FUNCTION	VALUES
P0	00	Relay 14 off	00...02 (00 ex-works)
	01	Relay 14 on if steam generator on	
	02	Relay 14 on if coloured light on (synchronous)	
P1	00	Relay 15 off	00...02 (00 ex-works)
	01	Relay 15 on if generator on	
	02	Exhaust air on if cabin light on (synchronous)	
P2	05	Follow-up time exhaust fan in minutes	05...20 (05 ex-works)

SERVICE LEVEL (while on the user level, press keys T1 + T3 simultaneously for 5 s)

MENU	PARAMETERS	FUNCTION	VALUES
P4	XX	Shows the installed firmware version	e.g. "21"
P5	01	Descaling and cleaning on [01] / off [00]	00 - 01 (01 ex-works)
P6	30	Temperature nominal value (cabin), in °C	30 ... 50 (30 ex-works)
P7	XX	NTC1 sensor actual value, °C	+/-10° [0]
P8	XX	NTC2 sensor actual value, °C	+/-10° [0]
P9	01	Descaling after 10 hours of operation	00 - 03
	02	Descaling after 20 hours of operation	
	03	Descaling after 30 hours of operation	
PA	00	Continuous operation without time limitation	00 - 03
	01	4 hour runtime limitation	
	02	30 mins. runtime limitation	
	03	45 mins runtime limitation	
Pb	00	Operation via the digital control panel	00 - 02 (00 ex-works)
	01	Digital control panel without function. Janitor switch* switches the generator on / off	
	02	Janitor switch open - Generator switched off. Janitor switch closed - Operation via digital control panel.	
Pc	00	Flushing/descaling after 30 min. break	00 - 01 (00 ex-works)
	01	Forced flushing/descaling after 3 min.	
Pd	00	8 key control panel / P0-Pr menu (standard supply)	00 - 02 (00 ex-works)
	01	6 key control panel / P0-P3 menu	
	02	8 key control panel with EQS FL printed circuit board	
PE	XX	Operating hours counter	---
PF	XX	Flushing cycle counter	---

This level can be exited by pressing T2 + T3.

8. User level

8.1 Operation with display

In normal operation, the time and the temperature are shown in the display alternately at intervals of 5 seconds.

8.2 Setting the time

If the time key is pressed for a longer period, you can change the time using the adjusting keys T5 and T6.

8.3 Temperature control

Adjustment range of the nominal temperature = 30° C - 50° C

Water level control is activated. If probe 1 (long probe) is free, the steam generator is filled via the K11 + K12 valves (rinsing + level). If probe 1 is assigned and probe 2 (short probe) is free, further filling takes place only via the K12 valve (level) until the short probe, too, is covered and then filling is continued for 10 s. If probe 1 is covered, the temperature is controlled via temperature sensor 1 (NTC 1).

Relays 1-6 are switched on 2k below nominal temperature.

Relay 1 is switched off 1k below nominal temperature, and the generator reduces to 50% power.

Actual temperature = Nominal temperature -> relay 1, relay 2 and relay 3 switch off.

Relays 4 - 6 also switch off 1k above nominal temperature.

Relays 2 and 3 switch on 0.5k below nominal temperature.

Relay 1 also switches on 1k below nominal temperature.

8.4 Fragrance

From a sauna temperature of 30° and if the generator has been enabled, the fragrance pump is switched on.

The fragrance pump function can be adjusted via the programming step P3 with the parameters 1-4. Once the nominal temperature value has been reached and the heating is off, the timer is stopped and continues only when the heating is switched on again.

Parameter 1 = 2 minute break - 2 seconds pump on

Parameter 2 = 4 minute break - 2 seconds pump on

Parameter 3 = 6 minute break - 2 seconds pump on

Parameter 4 = 8 minute break - 2 seconds pump on

This function is activated/deactivated via the T7 key. If pressed, the current fragrance stage is shown in the display (e.g.: d__4). When the key is pressed, a different fragrance stage can be selected. In this function, stage 5 can also be selected. If stage 5 is selected, the fragrance pump runs for filling until the T7 key is pressed again. Then the pump is switched off.

8.5 Exhaust air

Programming step P2, adjustment range 5-20 minutes.

After switching off the generator, relay 7 exhaust air is switched on for the time selected in P3. If jumper 1 (input 1) is assigned, the relay 7 exhaust air is also switched on when the generator is activated.

If parameter 02 is set in P1, the relay switches dependent on the light function. If the light is on, the exhaust air is on. If the light is off, the exhaust air with set follow-up time is off.

8.6 Reserve relay 14

Function programming in the customer programming

P0 = 00 Relay always off

P0 = 01 Poss. activation of the relay only if the generator is in operation.

P0 = 02 Relay active if RGB = AN

8.7 Reserve relay 15

Function can be programmed in the customer programming

Poss. activation of the relay only if the generator is operating.

9. Service level

9.1 Supply air

The supply air fan always operates with the heating. The fan switches off 7s after the heating switches off completely.

9.2 Stand-by

If PA = 01 is selected in the program step of the service programming, the generator is switched into Stand-by after 4 hours of operation. The generator can be put back into operation by pressing the T1 generator key or by switching the janitor switch off and then back on again.

In program step PA = 02, the runtime limitation takes place to 30 min. and for PA = 03 to 45 min.

If the programming step PA = 00 is selected in the service programming, the generator does not automatically switch into Stand-by.

9.3 Tank flushing with descaler

If the programming step P5 = 00 has been selected in the service programming, no tank flushing takes place. **Caution!** This may lead to destruction of the heating rods!

If the programming step P5 = 01 is selected in the service programming (factory settings), the tank is flushed if the generator is (automatically or through the operator) switched into Stand-by mode after a period of 30 min. has passed. The prerequisite for this is that the operating time set in program step P9 (10/20/30 hours) has been exceeded. E 35 is shown in the display. "E" stands for the tank flushing function, and "35" is the time passing in minutes until flushing of the tank has been completed and the generator can be put back into operation.

If the ball valve has closed again after flushing of the tank, the generator can be put back into operation. The command "Motor closed" stops during operation.

9.4 Room illumination light

The light can be switched on at any time.

Depending on the P1 parameter 02, the exhaust air is also switched on with light ON and switched off with light OFF with the selected follow-up time (P2).

9.5 Operating hours counter

It is possible to read off the operating hours in the menu item PE

9.6 Flushing process counter

It is possible to read off the number of flushing processes carried out in the menu item PF.

10. Steam control

Prior to using your steam bath, shower off the stress from your body and then dry yourself off thoroughly, as only dry skin can sweat well.

- Once the set cabin temperature has been reached, enter the cabin and close the door. Avoid the area of the steam outlet nozzle, which may cause scalds when hot steam (100° C) is emitted.
- Only use your "personal health centre" as long as you feel a sense of well-being. Time slot between 15 and 20 min.
- Only drink prior to or after steam applications sufficient fluids (mineral water, fresh juices etc.) in order to realign your fluid loss. Drinking between two steam applications has an adverse effect on the purification process.
- After a hot steam bath, enjoy the switch between hot and cold in a manner according to Sebastian Kneipp. This wakes up tired people, stimulates the circulation and prevents depositions in the bloodstream. It is extremely vitalizing - and healthy!
- The steam gently surrounds the surface of your skin, penetrating gently into the upper layers and thus pleasantly soothing tense muscles.
- By inhaling this mild, damp heat (the recommended cabin temperature lies between 42° and 45°C), the mucous membranes are gently moistened and the airways are flushed out. Should you suffer from chronic complaints (such as asthma, hayfever etc.), we ask you to consult your doctor prior to taking a steam bath.

11. Flushing and descaling

Limescale caused by hard water in the tank and the radiators has an extremely adverse effect on the lifetime of the heating rods.

On public systems, a water treatment system must be installed upstream to prevent limescale from penetrating into the device!

For private systems, a water treatment system must be provided upstream depending on the degree of hardness of the water in order to prevent limescale penetrating into the machine.

The device is equipped with an automatic descaling and flushing device which is adjusted by the technician according to the local requirements.

Observe the guidelines on page 6

If flushing is active in the program, the flush process / descaling begins 30 minutes after the steam generator has been switched off

E 35 is shown in the display.

E stands for the program and 35 for the running time of the flushing program

During each descaling process, approx. 100 ml softening acid is filled through the hose pump into the steam tank.

After an exposure period of 30 min., the water is drained off with the lime sludge via the electrical ball valve.

The flush valve flushes the tank out again, the ball valve closes and the flushing program is ended.

Runtime of the flushing program: Approx. 35 min

During this time, the steam generator cannot be switched on using the T1 start key.

From time to time, please check whether descaler is being consumed from the storage container. If the filling level in the storage container remains the same for a longer period of time, this indicates a malfunction in the descaling unit. In this case, have the unit inspected immediately as otherwise damaging limescale deposits may be formed inside the device.

If the descaler stocks are almost empty, this is shown in the display through the F 5 indicator.



Caution!

Be very careful with the descaler container, Never put this container close to other chemicals (development of poisonous gases)!

Do not position the container higher than the upper edge of the steam generator!

We recommend a height of approx. 1.50 m from top edge of finished floor.

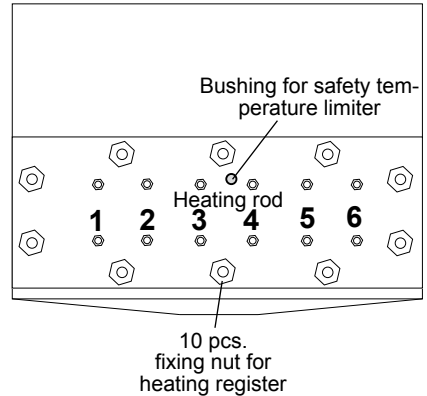
Descaler type recommendation: Only use descaler suitable for kettles. Please observe the manufacturer's dosage instructions.

Important note:

We shall bear no liability for damages which may occur through the use of an unsuitable descaler!

12. Replacing the heater register

- Prior to all work on the steam generator, disconnect this on all poles from the mains (trigger the residual current circuit breaker and secure against inadvertent switch-on).
- Remove the steam generator housing.
- Drain off any water still in the steam generator. To do this, first interrupt the water supply, remove the drive for the ball valve and open the ball valve.
- Disconnect the electrical connections for the 6 heating rods.
- Pull the safety temperature limiter out of the bush.
- Remove the 10 fixing nuts for the heating register.
- Remove the heating register and the old seal.
- Lay the new seal over the stand bolts.
- Insert a new heating register and screw it down with the 10 fixing nuts. Do not tighten the nuts too tightly as otherwise you may damage the seal.
- Push the two safety temperature limiters back into the bush. Ensure that the capillary tube on the sensor is neither kinked nor damaged.
- Reconnect the 6 heating rods.
- Close the ball valve and plug the drive back in.
- Enable the water supply again .
- Carry out a test run on the generator and check the heating register flange for tightness.
- Then reinstall the housing.



13. Error messages and troubleshooting

Error	Cause	Remedy
F1	Sensor breakage	Check the sensor circuit. If necessary, replace the sensor
F2	Temp. over 130°C Sensor defective	Check the sensor circuit. If necessary, replace the sensor. Reset the thermofuse (under black cap at the bottom).
F3	Temp. reached 106°C, Device calcified, Water level probe defective, Foaming of water in tank, Overpressure in tank	Check the water tank and heating elements for scale, clean if necessary. Check the water level probe, clean if necessary. Inspect the tank for possible foaming (e.g. from essences), rinse thoroughly. Check if steam pipes may be blocked (e.g. condensed water) and creates overpressure. Allow the device to cool down and carry out a RESET (disconnect from mains temporarily).
F5	Descaler container empty	Fill up the descaler liquid

Please contact our Service Center should the error messages occurred and could not be rectified.

14. Service

- Please note that all work may only be carried out by licensed specialist personnel.
- The steam generator must be disconnected from the mains prior to carrying out service work.
- Please contact your authorised EOS partner should you have further questions, or require support or service.

15. Maintenance

Maintenance of the unit should take place at least twice per year on commercially operated steam generators (public steam rooms).

Maintenance of the unit should take place at least once per year on privately used systems.

During maintenance the water supply hoses and the drain should be inspected as well.

16. Technical data

Unit type	Power in kW	Nominal voltage	Fuse protection in A	Line cross-section in mm ²	Dimensions H/W/D in mm	Weight without water
SteamTec Premium	4.5	400 V 3 N AC 50/60 Hz	3 x 16	5 x 2.5	620 x 320 x 320	Approx. 26 kg
	6.0					
	9.0					
	12		3 x 35	5 x 6	670 x 410 x 400	Approx. 31.5 kg
	15					
18						

Heating time limitation:	30 minutes 45 minutes 4.0 hours Continuous operation
Display:	LED segment type (4 digits)
Protection class:	IP x4
Temperature control range:	30-50° C
Sensor system	
Cabin:	NTC sealed, 60° C
Tank (overheating):	NTC sealed, 145° C
Water level monitoring:	Automatic with safety switch-off
Temperature control:	Two-point control
Fragrance injection control:	4 step, time-based (active above 30°C)
Exhaust air fan:	230 V 50 Hz 75 W DN 100°
Blower (cool air supply):	230 V 50 Hz 105 W DN 100 with speed control and check valve
Cabin light:	230 V 50 Hz 2.0 A (approx. 400W)
Coloured light:	RGB-type, LED 1.2 W 350 mA, max. 10 W per colour
Water connection:	3/4" outside thread
Steam connection:	4.5 - 9 kW - 1" inside thread with screw connection 12 - 18 kW - Ø 35 mm with screw connection for soldering

Spare parts for Steam Tec steam generator

Parts designation	Part no.
SteamTec heating block 12/15/18 KW	20014732
SteamTec heating block 6 KW	20014413
SteamTec heating block 4.5 KW	20014412
SteamTec heating block 9 KW	20014414
Temperature sensor NTC 1 SteamTec 1000 Ohm	20014405
Temperature sensor NTC 2 SteamTec 1000 Ohm	20014874
Installation package leaflet SteamTec 18KW	945172
Operating device for SteamTec steam generator	20014764
Package leaflet for SteamTec temperature sensor	20014899
Heating register seal 18KW for SteamT steam generator	20014766
Heating register seal 4.5 to 9kw for steam generator	20014765
Fragrance jet for SteamTec steam generator	20014811
Electronics fuse for SteamTec steam generator	20014873
Power pack for SteamTe steam generator	20014763
Motor for SteamTec fragrance pump	20014985
Pump head for SteamTec steam generator	20014767
Contactora ABB A16-30-10	20013000
Servomotor with ball valve for SteamTe steam generator	20014834
Safety temp. limiter for SteamT steam generator	20014769
Water level electrode SteamTec	20014804
Silicon tube for Steam Tec fragrance pump	20014771
Double solenoid valve SteamTec 3/4-12.5 230V	20014770
Steam jet SteamTec 1 1/4"	20014403
SteamTec supply air fan	20014401
SteamTec exhaust air fan DN 100	20014402

Please keep this address in a safe place together with the installation guide.

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.

Service Address:

EOS Saunatechnik GmbH
Adolf-Weiß-Straße 43
35759 Driedorf-Mademühlen, Germany
Tel: +49 (0)2775 82-514
Fax: +49 (0)2775 82-431

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

WARRANTY

The warranty is provided according to the legal regulations at present.

Manufacturer's guarantee:

- The period of guarantee starts from the date of purchase and lasts up to 2 years by commercial use and 3 years by private use.
- Always include the completed guarantee certificate when returning equipment.
- The guarantee is void for appliances which have been modified without manufacturer's explicit agreement.
- Damages caused by incorrect operation or handling through non-authorized persons are not covered under the terms of guarantee.
- In the event of a claim please indicate the serial number as well as the item number and model name with detailed description of the fault.
- This guarantee covers defective parts and labour but not the defects caused by wear and tear.

In case of complaint please return the equipment in its original packaging or other suitable packaging (caution: danger of transport damage) to our service department.

Always include the completed warranty certificate when returning equipment.

Possible shipping costs arising from the transport to and from point of repair cannot be overtaken by us.

Outside of Germany please contact your specialist dealer in case of warranty claims. Direct warranty processing with our service department is in this case not possible.

Equipment commissioning date:

Stamp and signature of the authorized electrician:

Handling procedures for return shipments (RMA) - Details for all returns !

Dear customer

we hope that you will rejoice in the ordered articles. Just in case that you are not entirely contented as an exception, please follow the procedures specified below. This enabling us to ensure a quick and smooth handling of the return shipment.

Please absolutely respect for all returns!

- Please add the available **RMA-voucher** always **completely filled out** together with an **invoice copy** to the return shipment! Do not stick it on the goods or on the packaging. **We do not accept the return shipment without these papers.**
- Not prepaid parcels **will be refused** and returned to Sender! Please always ask for the **RMA-No.** for the cheapest return.
- **Please pay attention that** the goods have to be sent back **without visible marks of use** in the **original scope of delivery and in original packing.**
- We recommend to use an **additional solid and break-proof covering box** which should be padded out with styrofoam, paper or similar. Transport damages as a result of faulty packing are for the sender's account.

Form of complaint:

1) Transport damage

- Please check the content of your parcel immediately and advise the forwarding company of a claim (parcel service/ freight forwarder)
- Do not use damaged goods!
- Ask the forwarder **for a written acknowledgement of the damages.**
- **Report the claim promptly by phone to your dealer.** He will discuss with you how to act in this case.
- If the transport box has been damaged, please use an additional covering box. Do not forget to add the **acknowledgement of the damage of the forwarding company !**

2) Faulty goods

- The implied warranty period is 2 years. Please contact your dealer in case of **faulty or wrong articles or missing accessories.** He will discuss with you the individual case and try for immediate and customer-friendly solution.
- For **economic returns** within Germany you will get an **RMA-number from the manufacturer.**
- All returns have to be in the **original packing of the goods with corresponding accessories.** Please repack the goods to avoid damages. In case of wrong delivery, please do not use this article !

3) Problems of installation and functioning

- Please **read the manual carefully first of all** and pay attention to the indicated assembly or installing instructions.
- **Your dealer should be the first contact person** because he knows his products best and also knows possible problems.
- **In case of function problems with an article,** please check at first whether there is an obvious material defect. The quality system in our factory reduces malfunctions of new appliances to almost zero.