

Instructions for Use and Installation **Helo Steam Pro**

STEAM GENERATOR

Helo Steam Pro (1317 - ... - 172) 9,5 kW – 16 kW

CONTROL CENTRE

Pure

Elite



Contents

Specifications	2
Easy maintenance	3
Accessories	3
General	3
Warnings	3
Installation principle	4
Overheating protector	5
Main switch	5
Ventilation	5
Automatic flushing	5
Automatic interim rinsing during use	5
Descaling	6
Cleaning the steam room	6
Steam generator couplings	7
Water and steam pipe connections	8
Electrical connections	9
Remote control	9
Circuit board RJ connectors	9
Switch diagram	10
Heating elements	11
Steam generator resistors	11
Selecting the steam generator output for the steam room	11
Troubleshooting	12
ROHS	14

Specifications

Operating voltage	230V – 240V 1N~ / 2~ 230V 3~ 400V – 415V 3N~
Output options	3.4 / 4.7 / 6.0 / 7.7 / 9.5 / 12.0 / 14.0 kW
Steam generator dimensions	520 x 380 x 160 mm
Parallel coupling	Max 5 steam generators.
Enclosure class	IP 20
Installation	Floor / wall
Water tank material	Aisi 304, stainless steel
Water tank pipes	Aisi 304, stainless acid-proof steel
Weight when empty	about 12 kg
Automatic flushing after one hour of inactivity	
Interim rinsing during use	
Electric water level adjustment	
Electric overflow protector	
Limescale-repelling self-cleaning electrodes	
Overheating protector	
Safety relief valve	
Digital control panel Pure or Elite	

Easy maintenance

Replaceable heating elements (3 pcs)

The steam generator has an overheating protector equipped with a reset button

The fill cap for limescale remover (citric acid) has been placed on a steam pipe of the steam generator cover (see image on page 6).

Components (circuit board, heating elements, surface sensor) are easy to replace.

Accessories

- Essence pump, (Essence pump kit 0038130)
- Essence pump canister 20 l (0038132)
- Automatic flush and rinse cycle. Automatic drain valve 4310130, (included in the Pro models)
- Steam nozzles (3.4 – 6.0 kW 1 piece, 7.7 – 9.5 kW 2 pcs, 12 – 16 kW 3 pcs) (7819604)

General

Steam generators are only intended for use in heating spa facilities. Using steam generators in areas other than steam rooms can damage the building's structure.

The manufacturer is not responsible for damages caused if the unit has been used incorrectly or in a manner for which the unit was not designed.

Water and steam pipe connections must be made prior to connecting the unit into the mains.

Due care and attention must be taken when making the connections. Proper sealing must be ensured for all extensions. A good extension must at least have taped-over twist connections, but it is recommended that connections are soldered.

NOTE: Controlling the lights in the steam room with the circuit board is only possible with resistive loads (incandescent light bulbs). The circuit board relay cannot withstand capacitive loads (switched-mode power supply units). If the lighting fixtures in the sauna have transformers, for example LED or halogen lamps, the steam generator circuit board's relay control must be fitted with a separate relay or contactor for controlling the lights.

Operation of the steam generator controls

Refer to the specific control panel operating manual for the instructions.

Warnings

- This appliance is not intended for use by persons (including children over the age of 8) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been instructed about the safe use of the appliance and the risks involved. Children must not be allowed to play with the appliance or to clean and service it without supervision. (7.12 EN 60335-1:2012)
- The steam generator produces hot water vapour (100 °C) while in use.
- Disconnect the appliance from the electrical supply before servicing and cleaning it.
- Water connection pressure 0.2–1 MPa (2–10 bar)



Warning: Hot water vapour

Testing the water before using the steam generator.

The water test kit supplied with the steam generator includes test slips which are used to determine water hardness as follows:

Dip the test slip in water for about 1 second, take it out and shake off the excess water. After a minute, compare the colour code appearing on the test slip with the code key in the packet.

Test result: °f = French degrees, °dH = German degrees

- < 5° f (< 3° dH) Very soft water.
- > 7° f (> 4° dH) Soft water. Installing the descaling device is recommended
- > 12° f (> 7° dH) Medium-hard water. Install descaling device. Retest the water hardness.
- > 25° f (> 14° dH) Hard water. Install descaling device. Retest the water hardness.
- > 37° f (> 21° dH) Very hard water. Install descaling device. Retest the water hardness.

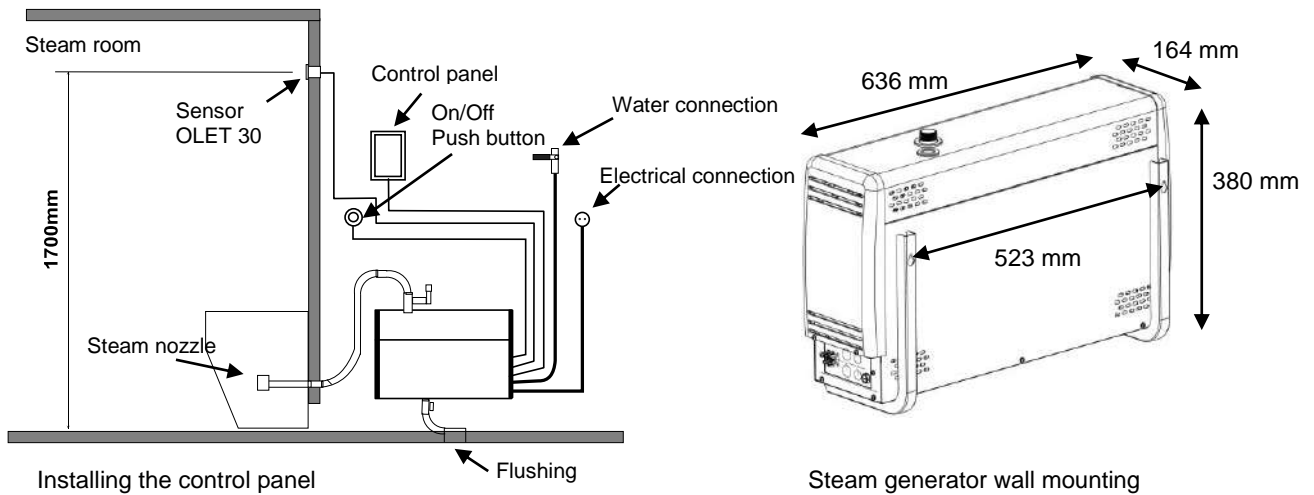
See page 6 for steam generator's operation time in hours before descaling is required.

The steam generator must be placed away from water and moisture (dry room). The room must be airy as the unit also produces heat. The temperature of the space where the steam generator is located must not exceed 35 °C. We recommend leaving at least 300 mm of free space to the sides and above the steam generation unit. Adequate space for maintenance should also be planned for when placing the unit. There should be a drain nearby for draining the tank.

The steam generator can be installed as a freestanding unit or installed on the wall using wall fittings. When using wall fittings, ensure you use appropriate fittings and screws for the type of construction material of your walls. The steam generator weighs about 18 kg when filled with water.

When the automatic drain valve is used, it is recommended you use wall installation to ensure a suitable angle for draining water.

Principle diagram for installation



The control panel unit is installed outside the steam room. The cable of the control panel can be extended with a similar cable.

Steam nozzle / nozzles are fitted approximately 200–400 mm from the floor underneath a bench or a seat, or onto the wall so that the hot steam cannot burn anyone's feet. The steam nozzles are aimed towards the floor. When the nozzles are installed, you must ensure that you place them somewhere where nobody can accidentally touch them. **The steam temperature is +100 °C** and it can cause injuries on contact.

If children or people with impaired reflexes use the steam room, the steam nozzle must be fitted with a protector that prevents people from getting into the hot steam shower.

The Sensor OLET 22 should be fitted about 1700 mm above the floor, ideally on the wall opposite the door. We recommend sealing the sensor installation hole with appropriate sealing material, so that moisture cannot enter the structures.

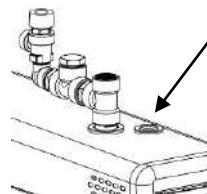
The steam room thermometer must be installed at the height that gives the same reading as that shown on the control panel.

The On/Off push button can be used for starting and stopping of the steam generator remotely. The push button is installed outside the steam room. For more information about the control panel and reception couplings, please refer to the user manual and the switch diagram.

Overheating protector

The steam generator is equipped with an overheating protector. If the protector has tripped, find the root cause with the troubleshooting guide in the instruction manual. The overheating protector is reset by pushing a button.

NOTE: The overheating protector is located under the upper lid of the steam generator. Only a qualified electrician is allowed to do this.



Main switch

There is a main switch at the bottom of the end of the steam generator, which should only be used when the steam room will not be used for a long period of time.

The steam generator's automatic flushing and rinsing function will stop if the power is switched off. (Automatic drain valve)

Ventilation

There is usually no need to ensure ventilation of steam saunas that are used for less than two hours. Steam rooms that are used for more than two hours at a time, on the other hand, do need ventilation for functional and hygienic reasons. The recommended rate of ventilation is 10–20 m³ per person per hour.

If there is an empty space above the ceiling of the steam room, it must not be completely sealed off. Make at least one ventilation hole (100 mm x 100 mm) leading to the empty space, on the same wall as the door.

The supply air valve may be a hole in the bottom part of the wall with the door or a gap under the door.

The exhaust valve is placed in the ceiling or on a wall near the ceiling as far from the supply air valve as possible, however not above the door or the seats. The exhaust valve is connected to an air conditioning channel going outside.

Forced ventilation. If natural ventilation is not adequate (e.g. negative pressure in the room where the fresh air is taken from), the steam room must be equipped with forced ventilation. Its output must be equivalent to 10–20 m³ of ventilation per person per hour.

Automatic flushing

The automatic flushing valve (Automatic drain valve, optional) significantly reduces the accumulation of limescale and impurities in the water tank. For the flushing and rinsing automation to work, do not switch the power off at the switch that may be fitted between the switchboard and steam generator or the main switch until at least 80 minutes have elapsed since the control panel's timer switched the power off. The automatic flushing and rinsing function works as follows:

After the steam generator stops, flushing starts after approximately 60 minutes. The flushing takes approximately 5 minutes, after which the steam generator tank fills again with cold water and flushes for 5 minutes. This is repeated once. After this, the steam generator will shut down to stand-by mode until the next programme is initiated. If the steam generator has stopped and left water in the tank for example because of a power cut. Once the power returns, the automatic flushing and rinsing of the steam generator starts in the above mentioned manner.

WARNING! The water is hot!

Automatic interim rinsing during use

The automatic interim flushing function flushes the water tank automatically after a certain time. It requires an Automatic drain valve for an electronic drain valve. The production of steam stops after 10–20 mins depending on the power.

The Elite control panels allow the user to set interim flushings every one to eight hours. For more information about how to do this, please refer to the control panel user manual.

Descaling

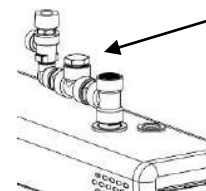
Part of the limescale accumulated in the steam generator is flushed away during the automatic flushing and rinsing cycle, but some of it will remain. Therefore it is important that the steam generator's automatic flushing function is not out of order due to faulty electric connection. The tank must be flushed after every use.

To prolong its service life and to reduce the need for manual descaling **we recommend that steam generators used in public facilities are connected to a water softener, which removes the calcium.** This is especially important if the water hardness exceeds 4° dH (German hardness).

The water softener must not generate foam or produce harmful chemicals, which may give erroneous view of the water level in the tank and cause the temperature switch to trip. (Heating elements will break down after some time.) Manual descaling should be performed according to the chart below.

In normal private use, the need for descaling is minimal if the water is not particularly hard. However, the steam generator must be descaled at least once a year. This removes the limescale from the tank walls and heating elements.

Warning: The inlet pipe nut may be hot.



Steam generator descaling

- Start the steam generator and let it run until the water in the tank boils.
- Stop the steam generator and wait for about 5 minutes.
- Remove the connecting piece's lid nut at the top of the steam generator.
WARNING: The nut on the lid might be hot – risk of burning.
- Pour the descaling agent (e.g. citric acid) into the tank via the connecting piece using a funnel.
- Attach the lid nut to the connecting piece and let the agent work.
- The steam generator flushes and rinses the tank automatically after about one an hour, after which you can use the steam generator again.

Citric acid is an odourless and harmless descaling agent and it does not harm the steam generator's components. If any other type of descaling agent is used, you must not bathe during the descaling procedure.

As can be seen from the adjoining chart, the need for manual descaling depends on water quality, steam generator output and operation time.

Operation time in hours before descaling is required. A water softener must be used in public facilities to reduce the need for manual descaling. In addition, the automatic flushing valve (Automatic Drain valve) must be used.

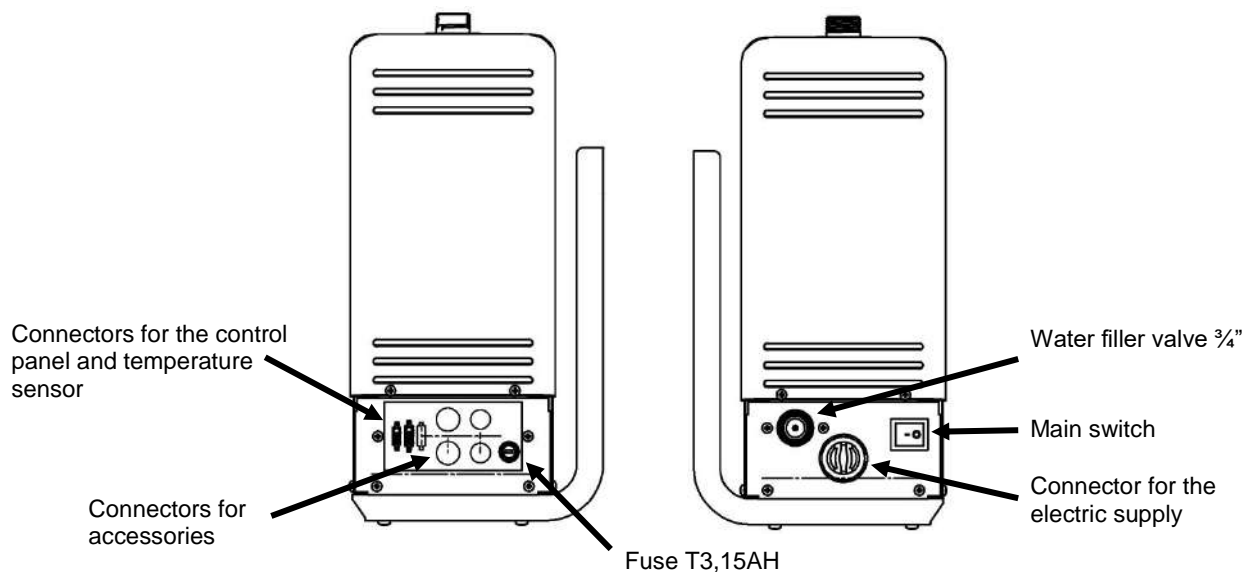
		Hours of operation, different hardnesses			
Steam generator output kW	Amount of descaling agent. Citric acid (1 bag 50g)	Softened water 0.01 – 1° dH	Soft water 1–3° dH	Medium-hard water 4–7° dH	Hard water 8–14° dH
9.5 kW	2 bags	1500	500	180	80
12 kW	2 bags	1300	400	160	70
14 kW	2 bags	1200	300	150	60
16 kW	2 bags	1100	250	140	50

Cleaning the steam room

Rinse the seats and the floor with warm water after every use (do not use a pressure washer). Clean the seats regularly with mild detergent Use ethyl alcohol or dilutine. Never use abrasives, strongly alkaline detergents or solvents to clean the steam room seats and walls. Contact the manufacturer if necessary.

It is important to clean the floor carefully all the way to the corners. Use hot water, a brush and floor detergent that removes dirt and grease.

Steam generator couplings



Safety valve installation

The safety relief valve is installed on the cover's steam hose with the supplied components. As a minimum, seal the threads using thread seal tape. A separate downpipe directly to a drain or to the floor is installed on the safety valve. **NOTE:** The safety valve's downpipe must not be connected to the steam generator's draining pipe or the steam pipe. Use the sealing tape provided or similar sealing on the threads.

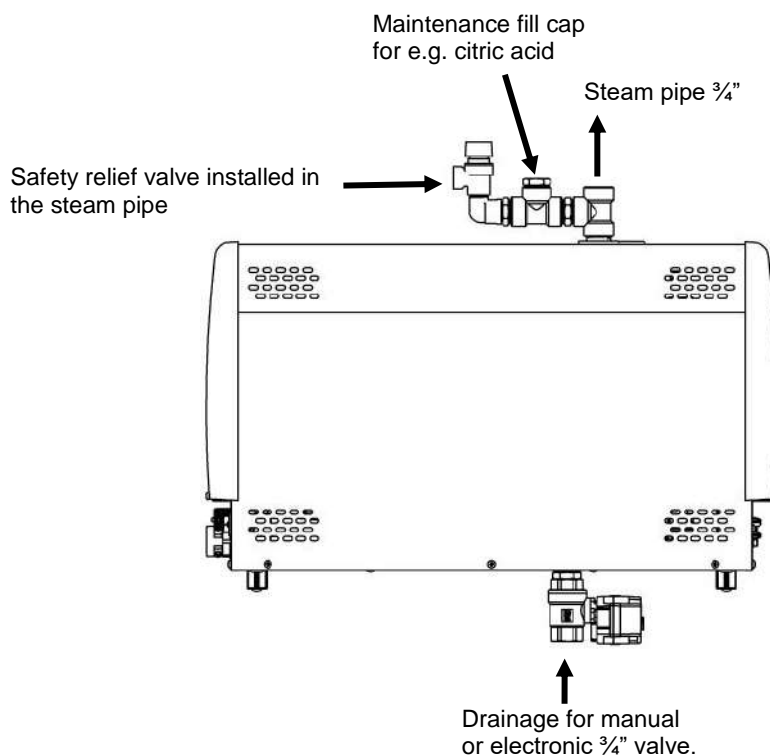


Image. Installation of the safety relief valve and the automatic drain valve. See the circuit diagram for the coupling.

Water and steam pipe connections

Connect the flexible water connection tube in the packaging to the water connection in the installation panel of the unit and to the **cold water piping** of the building. The water pressure must be at least 0.2 Pa (2 bar) and at most 1 MPa (10 bar). The water supply pipe must have a manual stop valve for stopping water supply to the unit, if the unit is not used for a prolonged period.

Installation must follow the local regulations

We recommended at least 18x16mm (steam generator size 3.4 kW-9.5 kW) and 22x20mm (steam generator size 12.0 kW- 16 kW) copper pipe or a silicone tube of similar size when connecting the steam pipe. The steam pipe diameter must be the same for the whole length.

The steam pipe must be tilted upwards or downwards from the steam generator to the steam room, there **MUST NOT** be any water seals or water pockets. The condensation water forming in the steam pipe must be allowed to drain freely to the steam room or back to the steam generator. If an essence pump is connected to the steam generator, the pipe must **ALWAYS** drain away from the steam generator so that the chemicals cannot get into the tank. Recommended maximum length for the steam pipe is 5 m.

We recommend that you always use additional insulation for the steam pipe, for both safety reasons and to prevent water condensation in the pipe.

Clearance from an uninsulated steam pipe to flammable material such as wood must be at least 10 mm.

WARNING: Hot steam can cause burn injuries.

The electromagnetic valve for draining the steam generator's tank is fitted into the draining pipe. Alternatively you may use a manual draining valve. Connect the downpipe (copper pipe with a minimum diameter of 16 mm) to the downpipe of the steam generator. The downpipe is led to the nearest drain outside the steam room. The temperature of the discharge water is 90–95 °C.

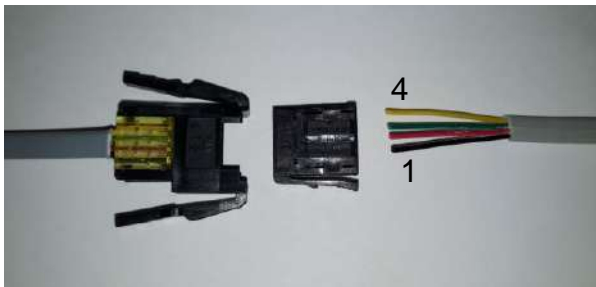
IMPORTANT! No stoppers (valves, taps, etc.) may be fitted on the downpipe.

Regardless of where the downpipe leads, it must descend all the way from the steam generator to the drain. To ensure adequate descent, you may have to place the steam generator on a wall mount or on a stand.

The steamer generator's tank should be drained after each use. This will extend the unit's life and reduces limescale build-up.

The product's warranty will be void if the steam generator has been incorrectly installed or it has been used in a manner other than that described in the user manual. The warranty also expressly excludes operational faults if they are caused by hard water i.e. water with high levels of calcium, or otherwise impure water. The steam generator must be maintained as described in the user manual.

Connecting the control panel and temperature sensor cables



Connecting the control panel cable
 1 = Black
 2 = Red
 3 = Green
 4 = Yellow



Connecting the temperature sensor cable
 Connect the cable to connectors 2 and 3.
 1 = Remains empty
 2 = Red
 3 = White

Electrical connections

The sauna heater must be connected to the mains by a qualified electrician and in compliance with current regulations.

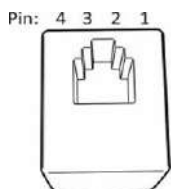
The steam generator should be connected with a semi-permanent connection. Use H07RN-F (60245 IEC 66) cables or a corresponding type.

NOTE: The electric supply must be fitted with a safety switch before the steam generator so that electricity can be switched off from all poles.

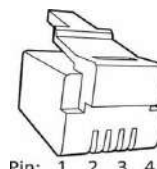
Output kW	Connection cable H07RN-F/60245 IEC 66 mm ² 400 – 415V 3N~	Fuse A	Connection cable H07RN- F/60245 IEC 66 mm ² 230V 3~	Fuse A	Connection cable H07RN-F/60245 IEC 66 mm ² 230–240V 1N~/ 2~	Fuse A
9.5	5 x 2.5	3 x 16	4 x 6	3 x 25	-----	-----
12	5 x 6	3 x 25	4 x 10	3 x 35	-----	-----
14	5 x 6	3 x 25	-----	-----	-----	-----
16	5 x 6	3 x 25	-----	-----	-----	-----

Remote control

The steam generator can be remotely controlled by connecting a closed contactor, which can be pulse triggered, to connectors 3 and 4 of a RJ10 circuit board. The recommended cable size is AWG 24 or 26. The maximum length of an AWG 24 cable is 50 m when using a Elite controller, and 200 m when using a Pure controller. The maximum length of an AWG 26 cable is 30 m when using a Elite controller, and 130 m when using a Pure controller.



Pin layout of a RJ10 circuit board connector



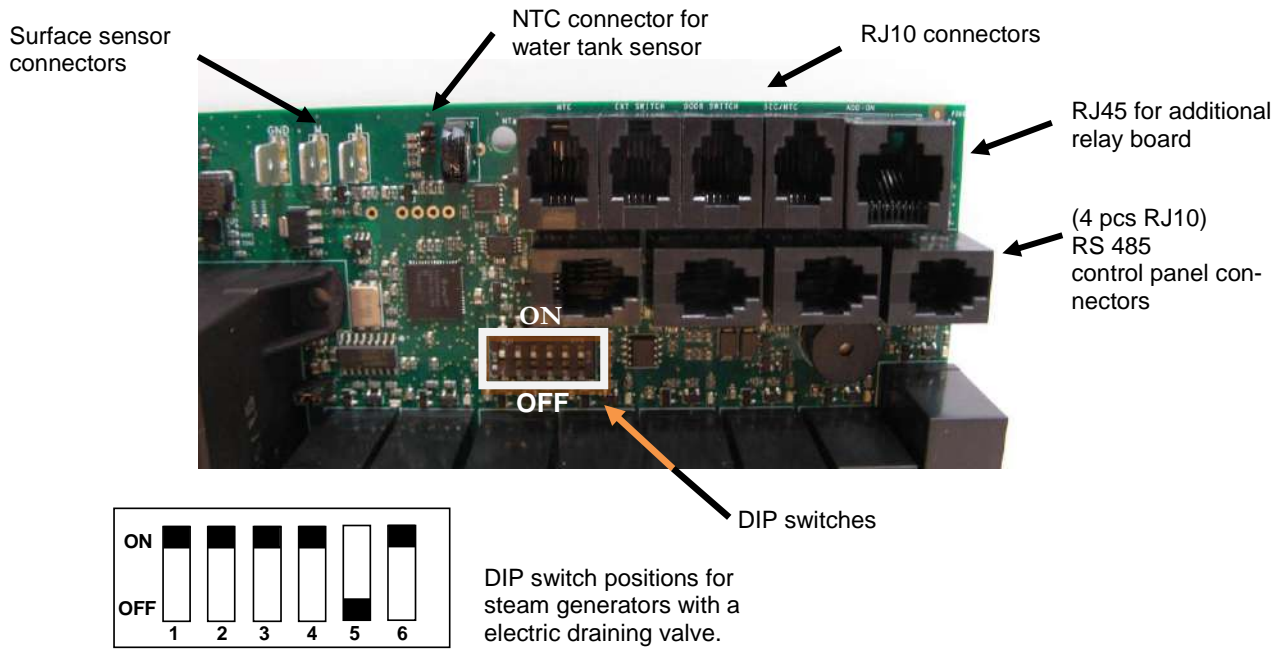
Pin layout of a RJ10 connector

Circuit board RJ 10 connectors

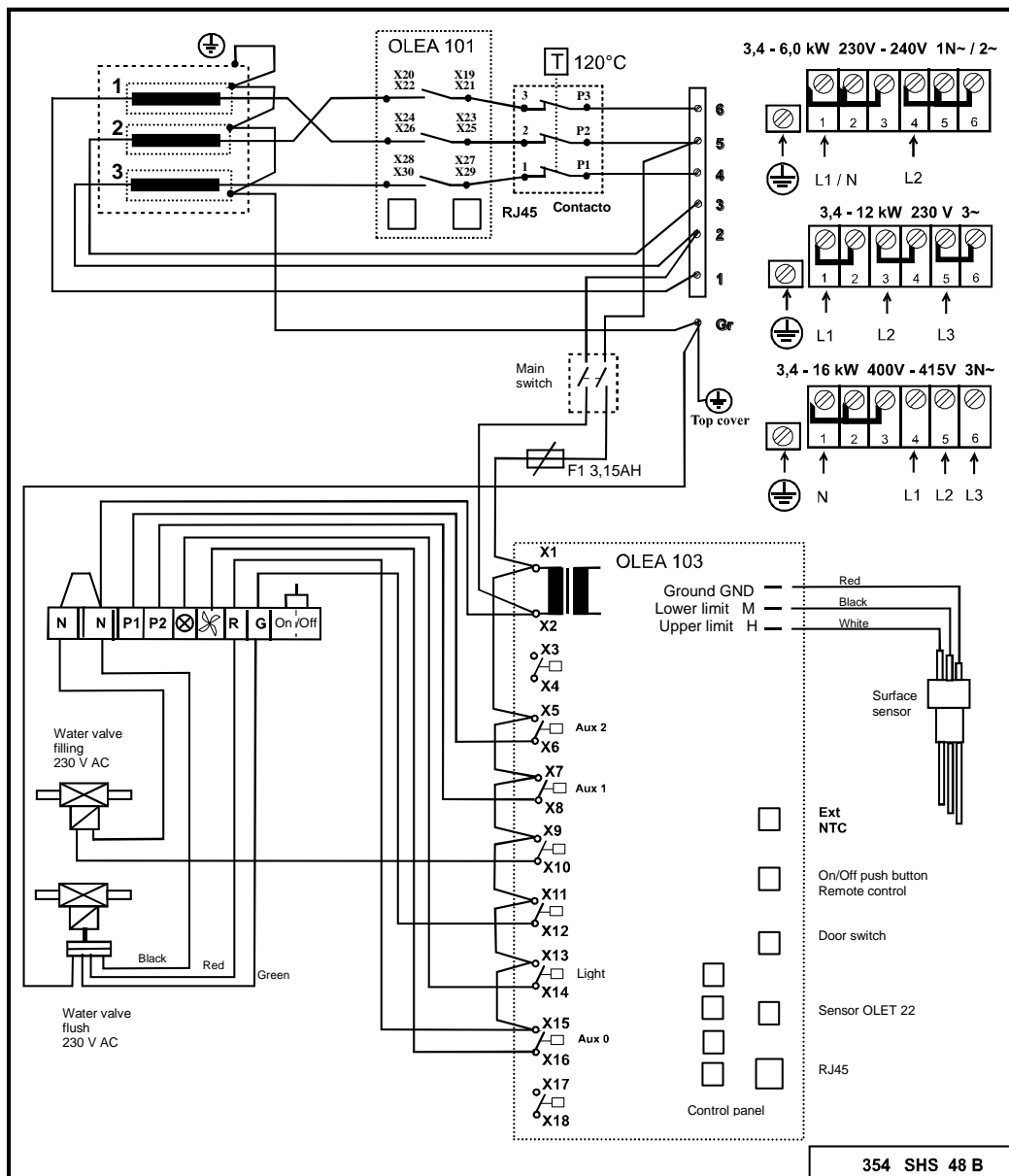
NOTE: Incorrect connections may break a circuit board.

Additional sensor (NTC)			Remote control switch (Ext switch)			Door switch		
Pin 1			Pin 1			Pin 1		
Pin 2	NTC 10 kOhm	3.3 V	Pin 2			Pin 2	Alarm LED	GND
Pin 3	NTC 10 kOhm	CPU	Pin 3	To switch	GND	Pin 3	Door switch	GND
Pin 4			Pin 4	To switch	12 VDC	Pin 4	Door switch	12 VDC

Sensor (Sec/NTC)			4 units of RS 485			Additional relay board (Add-on)
Pin 1	End stop	GND	Pin 1	Serial traffic	A	RJ45 cable from a relay board to an additional relay board.
Pin 2	NTC 10 kOhm	3.3 V	Pin 2	Serial traffic	B	
Pin 3	NTC 10 kOhm	CPU	Pin 3	Power supply	12 VDC	
Pin 4	End stop	10V	Pin 4	Power supply	GND	



Switch diagram



NOTE: Controlling the lights in the steam room with the circuit board is only possible with resistive loads (incandescent light bulbs). The circuit board relay cannot withstand capacitive loads (switched-mode power supply units). If the lighting fixtures in the sauna have transformers, for example LED or halogen lamps, the steam generator circuit board's relay control must be fitted with a separate relay or contactor for controlling the lights.

Steam generator resistors

Output kW	Resistor 230V		
	1	2	3
9.5	5250W / SEPD 116	3500W / SEPD 115	5250W / SEPD 116
12	4250W / SEPD 119	3500W / SEPD 115	4250W / SEPD 119
14	5250W / SEPD 116	3500W / SEPD 115	5250W / SEPD 116
16	5250W / SEPD 116	5250W / SEPD 116	5250W / SEPD 116

Selecting the steam generator output for the steam room

You can estimate the power requirement using the formula below.

Volume (m3) x K1 x K2 = Power requirement (kw)

Mechanical ventilation	K1 = 0.75
No ventilation	K1 = 0.52
Acrylic wall	K2 = 1.00
Light wall board + tile	K2 = 1.25
Heavy wall: stone, concrete + tile	K2 = 1.50
Very heavy wall: stone, concrete + tile	K2 = 2.00

In heavy-built steam rooms, we recommended using e.g. an electric heating cable for warming the seats, walls and floors.

Output	Light structure, acrylic, tempered glass		Light board wall + tile		Heavy wall, concrete, stone		Steam kg / h
kW	No ventilation	Air conditioned	No ventilation	Air conditioned	No ventilation	Air conditioned	
9.5	9–17 m ³	9–13 m ³	9–14 m ³	8 – 13 m ³	7–11 m	6–9 m	13
12.0	12–24 m ³	11–18 m ³	11–20 m ³	9–16 m ³	9–16 m ³	8–12 m ³	16
14.0	18–30 m ³	14–22 m ³	14–24 m ³	12–18 m ³	11–17 m ³	10–14 m ³	19
16.0	23–35 m ³	17–25 m ³	17–27 m ³	14–20 m ³	12–18 m ³	12–16 m ³	21

Table for selecting a steam generator based on the steam room volume and wall materials.

Troubleshooting

WARNING! The steam generator may have several electric circuits. Make sure that the device is completely de-energised before carrying out any work.

Checks and troubleshooting.

In case of malfunction check that:

- the control panel and the steam generator are installed according to the connection diagrams
- the steam generator is installed properly according to this instruction manual
- the downpipe has adequate descent towards the drain
- the dirt filter is clean. The filter is in the incoming water connector. Open the pipe connector for cleaning, remove the filter and remove all the limescale and dirt from it.
- there are no water pockets in the steam pipe or in the outgoing air conditioning pipe.
- There are no sharp bends in the steam pipe (bend radius must be at least 50 mm).
- If there is a tap on the incoming water pipe to the steam generator, this is open.
- the steam room's structure and air conditioning match the installation and building instruction.

Troubleshooting chart

Possible causes and suggestions for fixes

Warming up takes abnormally long.

Cause: Inadequate power output of the steam generator. See output chart.

Action: *Replace with more powerful steam generator.*

Cause: Excessive ventilation of the steam room.

Action: *Reduce ventilation so that it is 10-20 m³ per person per hour.*

Cause: Blown fuse in the switchboard.

Action: *Replace the fuse.*

Action: *Replace the heating element*

Cause: The sensor is too close to the steam shower.

Action: *Move the sensor to another location or redirect the steam shower.*

The steam room does not warm up or there is no steam.

Cause: Blown fuse in the switchboard.

Action: *Replace the fuse.*

Cause: No water is coming to the steam generator.

Action: *Open the incoming water tap.*

Cause: The control panel is not set up right.

Action: *Check the time and temperature settings.*

Cause: The dirt filter is blocked.

Action: *Remove the dirt filter from the incoming water connector and clean it.*

Cause: The electromagnetic valve for the incoming water is stuck.

Action: *Remove the electromagnetic valve and clean it.*

Cause: Too much limescale has accumulated in the steam generator's water tank. See test 1.

Action: *Clean the water tank and surface sensor's pins and replace the heating elements, if necessary.*

Cause: The steam generator is connected for an incorrect voltage (V).

Action: *Check the voltage and the steam generator's connections. See the Connection diagram.*

Cause: The overheating protector has tripped. See test 4.

Action: *Check and fix possible faults in the steam pipe, e.g. blocks caused by several sharp bends, water pockets or significantly reduced inner diameter of the pipe. It is also possible that the tank has been filled with limescale deposits or impurities. See the previous entry.*

Cause: Fault in the circuit board, control panel or electromagnetic valve.

Action: *Replace the faulty part.*

Warm water comes out of the steam nozzle, there is little or no steam in the steam room.

Cause: The electromagnetic valve for the incoming water is stuck open because of dirt or an electrical fault.

See test 3.

Action: Remove the electromagnetic valve and clean it. Fix the electrical fault.

Cause: The electromagnetic valve is broken.

Action: Replace the electromagnetic valve.

Cause: Fault in the circuit board.

Action: Replace the circuit board.

Warm water comes out of the steam nozzles in pulses or as a weak continuous stream with steam.

Cause: Small water pocket in the steam pipe.

Action: Remove the water pocket.

Cause: Too much of the steam pipe is uninsulated.

Action: Insulate the steam pipe.

Warm water continuously comes out of the steam generator's downpipe.

Cause: The automatic electromagnetic flushing valve is stuck open.

Action: Turn off the steam generator. Try again after 80 minutes. If the fault remains, remove the automatic electromagnetic flushing valve and clean it.

Banging noise from the water pipes when the electromagnetic valve opens or closes.

Cause: Inadequate connection in the water pipe coming into the steam generator.

Action: Mount the water pipe securely on the wall.

Cause: Recoil effect in the incoming water pipe.

Action: Install about 1 metre of pressure-proof reinforced rubber hose into the steam generator end of the water pipe.

The safety valve opens or the overheating protector trips.

Cause: Steam pipe is blocked. See test 4.

Action: Remove the block.

Cause: The inner diameter of the steam pipe has significantly decreased. See test 4.

Action: Replace the pipe or the connection where the inner diameter is reduced (minimum inner diameter is 16mm).

Cause: Several sharp bends in the steam pipe. See test 4.

Action: Make the bends less sharp.

Cause: There is a large water pocket in the steam pipe. See test 4.

: Install the steam pipe so that water pockets do not form.

Steam generation is irregular from the beginning.

Cause: The sensor is badly placed. See test 2.

Action: Move the sensor or redirect the steam shower.

Cause: Limescale or other impurities in the dirt filter.

Action: Remove the dirt filter and clean it.

TEST 1.**Checking limescale deposits in the water tank.**

Open the steam generator's uppermost lock nut. Lower a torch bulb that is connected to a battery with wires into the opening use it to light up the interior of the water tank. If there is a layer of limescale thicker than 3 cm on the bottom, the steam generator has not been serviced and the limescale has not been removed according to the instructions.

It is also possible that the flushing and rinsing automation is not working. Check that the steam generator power has not been switched off after bathing using any switches fitted in the supply line. You should only switch the power off from this switch 80 minutes after the control panel has switched the power off.

Check the automatic flushing function by placing a container with a volume of about 12 litres under the downpipe. Start the steam generator for about 15 minutes. Switch off the steam generator **exactly** the same way you normally do after bathing. Wait at least 80 minutes and check if the vessel is filled with water. If it is not filled, there is a problem with the steam generator's electric connections or the power supply has been switched off using a switch on the wire leading from the switchboard directly to the steam generator. It is also possible that the exhaust valve is blocked or the circuit board is faulty.

TEST 2.**Checking the thermostat sensor.**

Wet a small towel with water and hang it on the sensor. If the steam generator starts producing steam within 20 minutes, the sensor works. However, it is placed in the wrong position or the temperature setting is too low. If steam production does not start, use the troubleshooting chart to find the fault.

TEST 3.**Checking the electromagnetic valve.**

Switch off the steam generator using the control panel. If water still flows from the steam nozzles 10 minutes after the power has been switched off from the control panel, there is dirt in the electromagnetic valve. Remove the electromagnetic valve and clean it.

If the water flow stops within 10 minutes after the power has been switched off from the control panel, the fault is in the electrics (faulty connection or circuit board). It is also possible that too much limescale has accumulated in the water tank. See test 1.

TEST 4.**Checking the steam pipe using the safety valve or the overheating protector.**

Remove the steam pipe from the steam generator. Start the generator and let it run for about one hour. If the safety valve or the overheating protector does not trip during the test, there is a block in the steam pipe that prevents the steam flow. Follow the instructions in the troubleshooting chart.

The product's warranty will be void if the steam generator has been incorrectly installed or it has been used in a manner other than that described in the user manual.

The warranty also expressly excludes operational faults if they are caused by hard water i.e. water with high levels of calcium, or otherwise impure water.

The steam generator must be maintained as described in the user manual.

ROHS**Instructions for environmental protection**

This product must not be disposed with normal household waste at the end of its life cycle. Instead, it should be delivered to a collecting place for the recycling of electrical and electronic devices.

The symbol on the product, the instruction manual or the package refers to this.

The materials can be recycled according to the markings on them. By reusing, utilising the materials or by otherwise reusing old equipment, you make an important contribution for the protection of our environment. Please note that the product is returned to the recycling centre without any sauna rocks and soapstone cover.

Please contact the municipal administration with enquiries concerning the recycling place.

