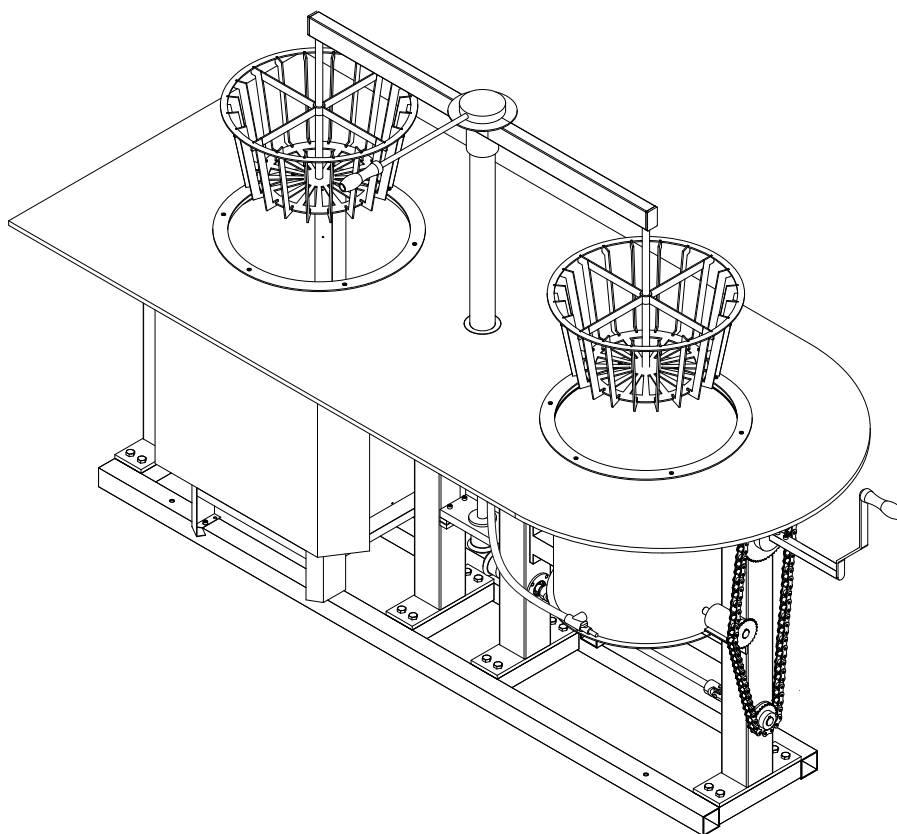


# EOS Skiff

## Sauna Heater with Water Splash Event Device



### Installation and Operating Instructions

**Made in Germany**



Druck-Nr.: 2902 5145  
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# Documentation

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## Original installation instructions EN

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## Characters, symbols and illustrations

①	Additional information about an operating step
📄	Cross-reference to a page
📖	Read instructions
☑	Result of a step
📊	Table title
🖼	Title of figure

## Revision history

Date	Version	Description
10 Apr. 2021	01.00	First version

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# 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.

## General safety instructions

### 1.2 Mounting and electrical installation



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

#### **Risk to life and limb and risk of fire**

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

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

#### **Fire hazard from overheating**

Insufficient ventilation can lead to sauna heater overheating and fire.

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

#### **Risk of burns from hot glass**

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

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

#### **Risk of burns from hot unit**

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

- ▶ Maintain a safe distance.

**Risk of fire due to sauna stones** It is possible for hot stones or stone pieces to fall out of the rock store.

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

**Water connection** If water flows from the water supply and the water level control for the sauna heater back into the piping system for potable water, the potable water is contaminated.

- ▶ Close the shut-off valve if the connection to potable water is not used for an extended period of time.
- ▶ Install a non-return valve (backflow preventer).

## 1.3 Operator instruction

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

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

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


### Fire hazard



Objects placed on the sauna heaters can easily be ignited. There is a risk of death due to fire.

- ▶ Do not place objects on the sauna heater.
- ▶ Fill the rock store as directed.
- ▶ If you operate the sauna heater using pre-set timers or a remote control, install a suitable safety system.
- ▶ Inspect the sauna cabin prior to each recommissioning and ensure that no towels, cleaning agents or other objects are lying on the sauna heater.

## General safety instructions

- Damage to health** Spending time in a sauna cabin can lead to serious health risks or even death for persons with health impairments. Excessive time spent in a heated sauna cabin can lead to overheating of the body (hyperthermia), which may cause serious health problems or even death. Hyperthermia occurs when the core temperature of the body exceeds the norm by a few degrees. Symptoms of hyperthermia include fever, dizziness, lethargy, sleepiness, and fainting. Side effects of hyperthermia include perception disorders, inability to recognize the need to leave the room, inability to identify imminent danger, harm to the foetus in the case of pregnant women, inability to physically leave the room and unconsciousness. Alcohol, drugs, and medications increase the risk of hyperthermia.
- ▶ Persons with health impairments who spend time in a sauna must consult a doctor before entering a sauna cabin.
  - ▶ Warn sauna users by affixing a warning plate. Read the chapter entitled 4.10 Warning plate,  EN-39.
- Health risks** Floor heating in the sauna cabin results in additional warming of the legs and can lead to health risks. Adding essences or other additives for humidification could result in a health hazard. Observe the following when using the sauna:
- ▶ Do not exceed the maximum recommended time in the sauna.
  - ▶ Leave the sauna cabin if your body responds abnormally to the heat or if you do not feel well.
  - ▶ Avoid alcohol, drugs, and medications when you are using the sauna.
- Operating the unit** The sauna heater must not be operated by people who have not received proper training. There is a high risk of injury if the device for rotating the rock stores is operated by people who have not received proper training. Children must not play with the unit. Cleaning and maintenance must not be performed by children.
- ▶ The crank handle must be kept out of the reach of sauna users and only brought to the device by trained personnel when the rock stores are to be rotated.
  - ▶ The rock stores must be immersed to the lowest position on the device to prevent them from rotating.
  - ▶ Children must be supervised to ensure they do not play with the unit.



**Risk of scalding from  
hot steam**

There is a risk of scalding from the steam produced when the rock store is immersed into the tank.

- ▶ Look out for steam and keep a safe distance.
- ▶ The device should only be operated by people who have received proper training.

**Bacterial growth in  
the water tank**

Bacteria may spread in the water inside the water tank.

- ▶ Replace the water regularly.
- ▶ Drain the water if it has not been used over an extended period.

## General safety instructions

### **Sauna cabin and heater**

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

- ▶ The sauna heater may be installed only in sauna cabins made from suitable, low-resin, and untreated material, e.g. Nordic spruce or other materials suitable for sauna construction.
- ▶ One or more than one sauna heater may be installed in a sauna. The heater output must be able to accommodate the cabin volume in all cases. If multiple sauna heaters are used, depending on their position, an additional safety temperature limiter must be installed for each additional sauna heater.
- ▶ The sauna heater is not designed to be installed or set up in an alcove or under a bench or sloping roof unless the sauna heater is specifically designed and approved for this type of installation.
- ▶ Receptacles may not be installed inside the sauna cabin.
- ▶ Each sauna cabin must have air inlets and outlets. The air inlets and outlets may be installed below or behind the sauna heater. The minimum dimensions of the air inlets and outlets can be found here: 2.4 Technical data, [EN-16](#).
- ▶ The exhaust openings are always installed in the lower part of the wall diagonal to the sauna heater. The supply and exhaust openings must not be closed.
- ▶ Use one of the control units listed below to check and control the sauna heater. This control unit is fixed to a suitable location on the cabin's external wall, and the corresponding sensor housings according to the installation instructions that accompany the control units inside the sauna cabin.
- ▶ The cabin lighting must be safe for sauna cabin use and installed in such a way that it can be used safely in a sauna cabin. Ensure that the heater is installed in compliance with the standards and legal norms valid in your country. In CENELEC member states, the cabin lighting must be "protected from splash water" as defined in DIN EN VDE 0100 T 703.
- ▶ Only one sauna light with a maximum of 40 W may be installed with this sauna heater.
- ▶ The cabin must not have a locking device that cannot be unlocked as needed. We recommend magnetic or spring locks.

## **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](http://www.eos-sauna.com).

## 2

## Identification

EOS Skiff is an electrically heated sauna heater with a water splash event device. It has two rock stores, which are alternately heated and immersed in a water bath. EOS Skiff can be combined with one or more sauna heaters to add a water splash event to an existing sauna.

### 2.1 Requirements for operation

The sauna heater must be operated with a control unit, e.g.

- EmoStyle
- EmoTec
- EmoTouch
- ECON

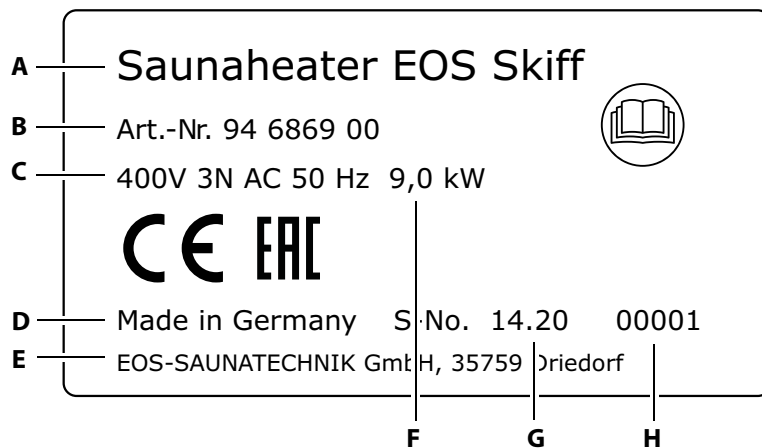
When used in combination with one or more sauna heaters, it must additionally be connected to an output controller (LSG), e.g.:

- The LSG 09R is required for total outputs up to 18 kW.
- The LSG 18 is required for total outputs up to 27 kW.

The sauna heaters can be combined in many different ways and it is not possible to cover every individual case here. Please contact the manufacturer if you have any questions.


The control unit and output controller are not included in the scope of delivery.

## 2.2 Nameplate



- A** Unit type and name
- B** Item number
- C** Electrical connection
- D** Country of origin

- E** Manufacturer
- F** Heater output
- G** Manufacturing date
- H** Serial number

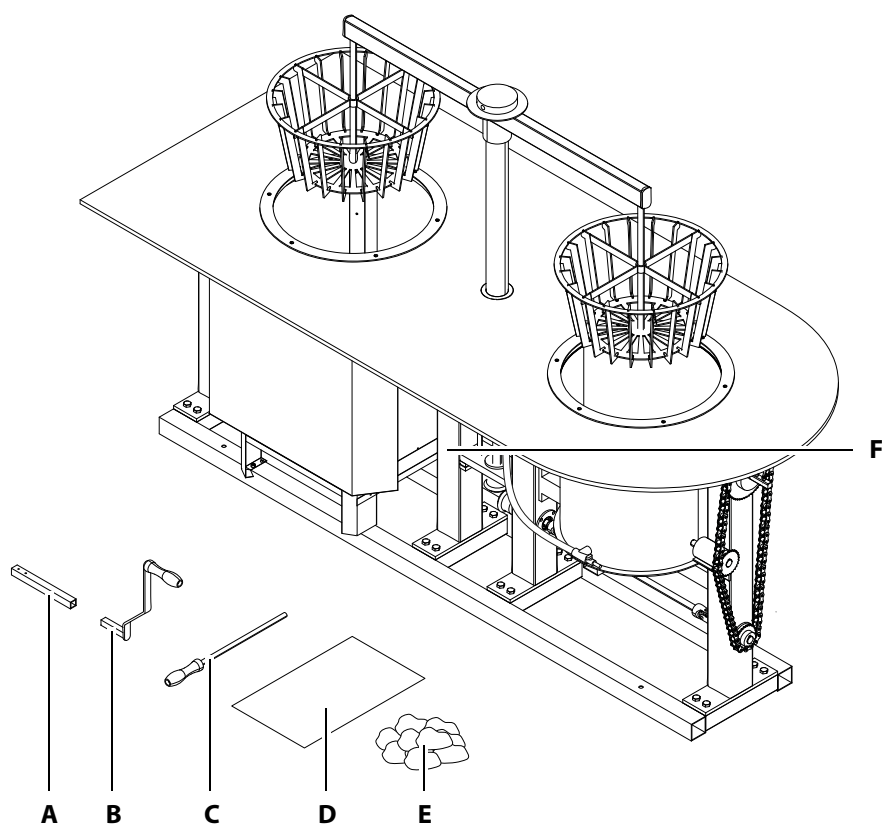
 Nameplate

## Identification

### 2.3 Scope of delivery

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

The following parts are included in the scope of delivery:



**A** Crank handle extension rod


**B** Crank handle

**C** Selector handle

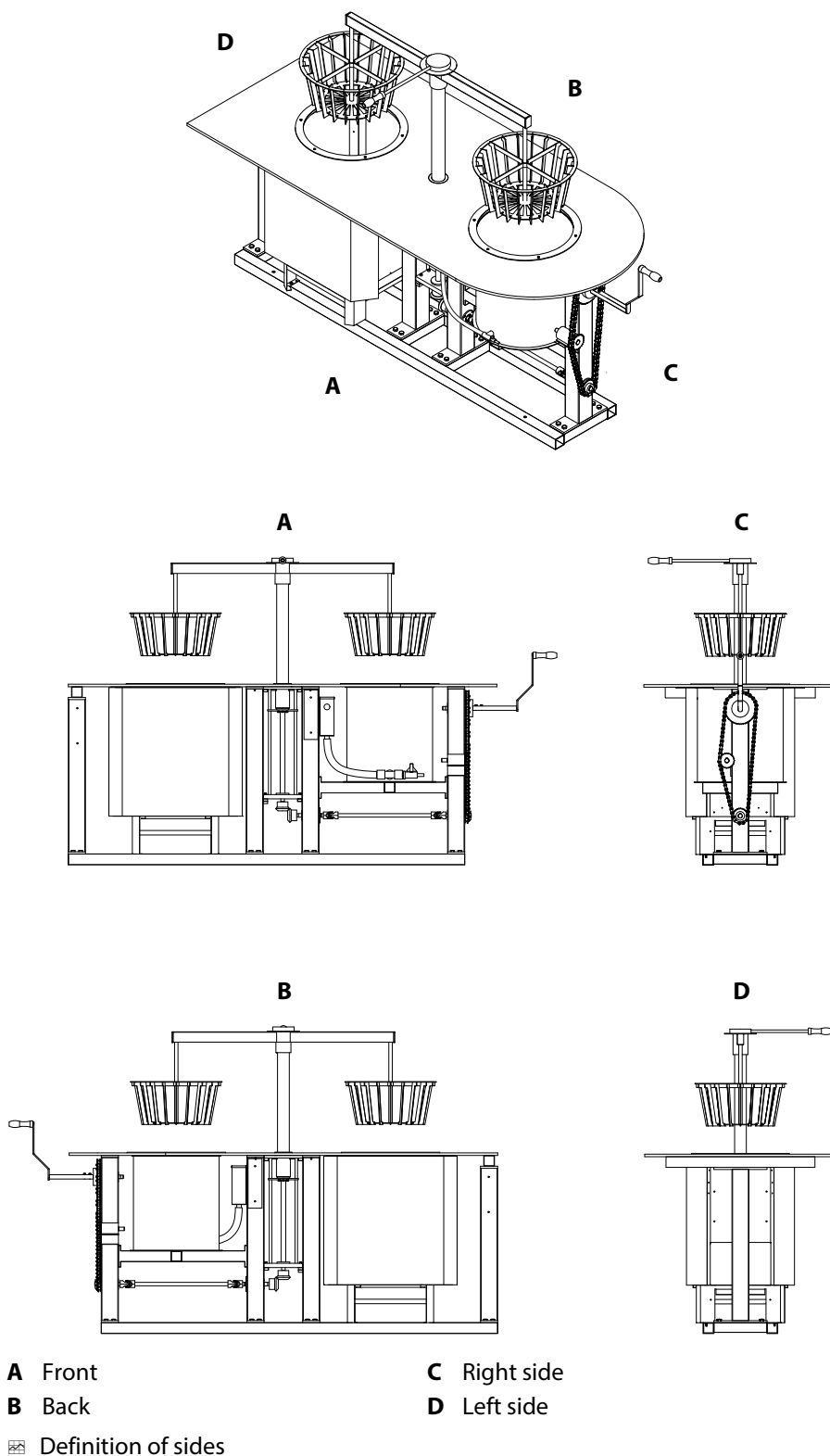
**D** Installation instructions

**E** Sauna stones (available as an option)

**F** Sauna heater (shape of cover plate may vary)

 Scope of delivery

## Definition of sides



## Identification



### 2.4 Technical data

All line cross-section specifications are the minimum parameters of a copper line.

Technical data EOS Skiff	
Heater output	9 kW
Electrical connection	400 V 3N AC 50 Hz
Fuse protection for control unit	3 x 16 A
Connection mains – control unit	5 x 2.5 mm <sup>2</sup>
Connection control unit – sauna heater	5 x 1.5 mm <sup>2</sup>
Unit dimensions W/D/H, cm without external housing (width/depth varies depending on model)	200 x 90 x 150
Minimum size of air inlet and outlet	50 x 6 cm
Stone filling	2 x 30 kg
Compatible control units	EmoStyle, EmoTec, EmoTouch, ECON

### 2.5 Intended use

This sauna heater is intended solely for the purpose of heating sauna cabins, together with a suitable control unit. It is suitable for use with commercial cabins. Any use beyond this is considered improper use.

EOS Skiff is a sauna heater that can be mounted as a free-standing unit or with its left side adjoining a wall. See  Definition of sides,  EN-15.

Proper use also includes compliance with operating, maintenance and servicing requirements.

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

#### Foreseeable misuse

The following are considered instances of foreseeable misuse:

- 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 by children or persons with reduced mental capacity or by persons who have not been thoroughly instructed in its use.



# 3

## Installation

This chapter describes how to install the sauna heater with the mechanical device.

The cabin must be constructed based on the design of the Skiff. In particular, access must be provided for maintenance, cleaning and servicing. Prior to installing the unit, air inlets and outlets must be installed in the cabin. It may be necessary to mount additional fans in the inlets/outlets. Inspection openings must be installed in the external housing to allow the sauna heater to be maintained and, where applicable, repaired, depending on the precise setup. The shape of the cover plate may vary. Fitting a floor drain is also recommended to allow the water to drain during maintenance.

### 3.1 Specifications for the cabin

The cabin must be planned and installed according to specifications before the sauna heater is installed.

Ensure that the total heat output can accommodate the cabin volume.

The floor on which the sauna heater stands must be level. In general, it should be noted that the sauna heater must not be set on a floor made of highly flammable material (laminated, flooring made of plastic material, etc.). Ceramic tiles are recommended as a flooring option.

The heater stands on a pedestal and is attached to achieve the required height. The pedestal must also be constructed from suitable material.

#### Electrical lines

All electrical installations laid inside the cabin must be suitable for silicone cables and a temperature of at least 170°C. All lines must be routed in such a way that they are well-protected, e.g. in a cable duct.

If single-core lines are used as connecting cables, they must be protected by a flexible metal hose that is connected to the protective conductor.

The minimum cross-section of the connecting cable and the suitable cabin size in relation to the connecting cable in kW can be found here:

2.4 Technical data, □ EN-16.

#### **⚠ CAUTION**

#### **Skin burns from hot surfaces**

If the sauna heater is placed too close to a bench, there is risk of accidental contact with hot surfaces. This could lead to burns.

► Provide a heater guard rail.

# Installation

## 3.1.1 Installation site

Depending on which model is selected, the sauna heater is free-standing or installed adjoining the wall.

Please contact the manufacturer of the sauna cabin for full specifications of clearance distances. The distances vary since the unit dimensions are different depending on the model. Calculations of clearance distances must also take into account the specific external housing design as well as the various installation configurations.

## 3.1.2 Air inlets and outlets

Air inlets and outlets must be installed in the cabin to ensure a sufficient air flow in the cabin and to prevent the sauna heater from overheating.

See 2.4 Technical data, [EN-16](#).

The air inlet can be installed behind or below the sauna heater.

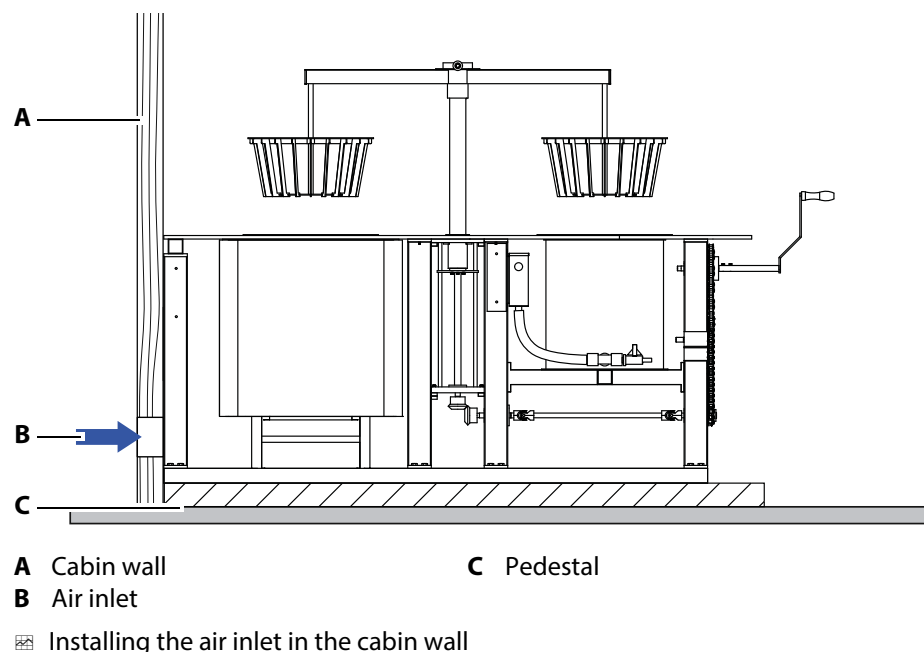
- Air inlet behind the sauna heater, [EN-18](#)
- Air inlet below the sauna heater, [EN-19](#)

### Air inlet behind the sauna heater

The air inlet must meet the following criteria:

- Location: Behind the sauna heater
- Height: 10 cm above the pedestal

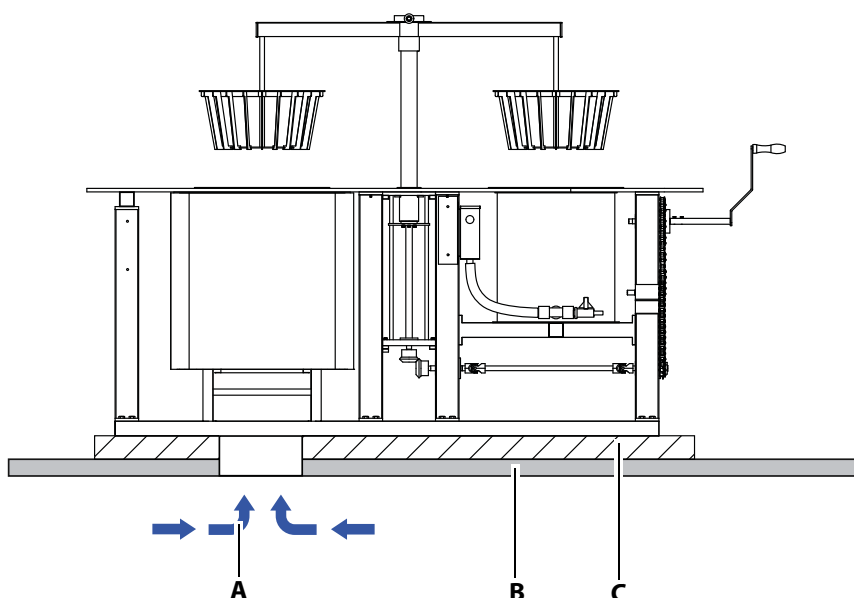
If there is still not enough fresh air to reach the sauna heater, a fan must be installed at the opening outside of the cabin.



## Air inlet below the sauna heater

The air inlet must meet the following criteria:


- Location: below the heater on the sauna heater
- A duct directs fresh air to the opening.
- A fan must be mounted at the beginning of the duct outside of the cabin.



**A** Air inlet

**C** Pedestal

**B** Floor

 Installing the air inlet in the cabin floor

## Air outlet

The air outlet must meet the following criteria:

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

### 3.1.3 Connecting cable

Install the connecting cables for the sauna heater in such a way that they are protected from damage. To do this, route empty pipes from the installation site of the sauna heater to the relay boxes.

Outside of the cabin, the cables must be routed under a suitable protective cover (e.g. in a cable duct or empty conduits).

If there are no empty pipes in your cabin, drill a hole in the cabin wall directly next to the sauna heater where the cable emerges from the sauna heater, and guide the cable through this hole outward to the control unit. The hole must be large enough to accommodate the cable.

The cables and all other connecting cables (supply line to mains and cabin lighting) on the external side of the cabin must be protected from damage. To do this, use installation pipes or attach wood skirting strips.

#### **Specifications for the control unit**

Observe the operating conditions for the control unit to ensure that the sauna cabin's temperature control works properly. The installation site must be selected accordingly.

### **3.2 Installing the temperature sensor in the cabin**

#### **⚠ WARNING**

##### **Fire hazard from overheating**

Overheating can occur if the temperature sensor is installed in an incorrect position.

- Install the sensor housing with the temperature sensor and safety temperature limiter centred above the heated rock store.

The temperature sensor with the safety temperature limiter should be mounted as follows:

- To the cabin ceiling.
- Centred above the rock store which is heated by the heater.
- The temperature sensor must not be mounted above the rock store that is suspended in the water tank.

You should also follow the installation and operating instructions for the control unit.

#### **NOTICE**

##### **Malfunction due to damaged sensor**

The temperature sensor is protected by its housing.

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

## 3.3 Preparing the pedestal

The pedestal on which the sauna heater stands must be mounted in a professional manner and be made of non-flammable material suitable for sauna use. We recommend a height of approximately 17 cm. At this pedestal height the crank handle on the sauna heater is approximately 1 m above the floor and can be operated easily.

If the air inlet for the sauna heater is provided via a duct on the floor, the ventilation hole must also pass through the pedestal. For more information, see section Air inlet below the sauna heater, EN-19.

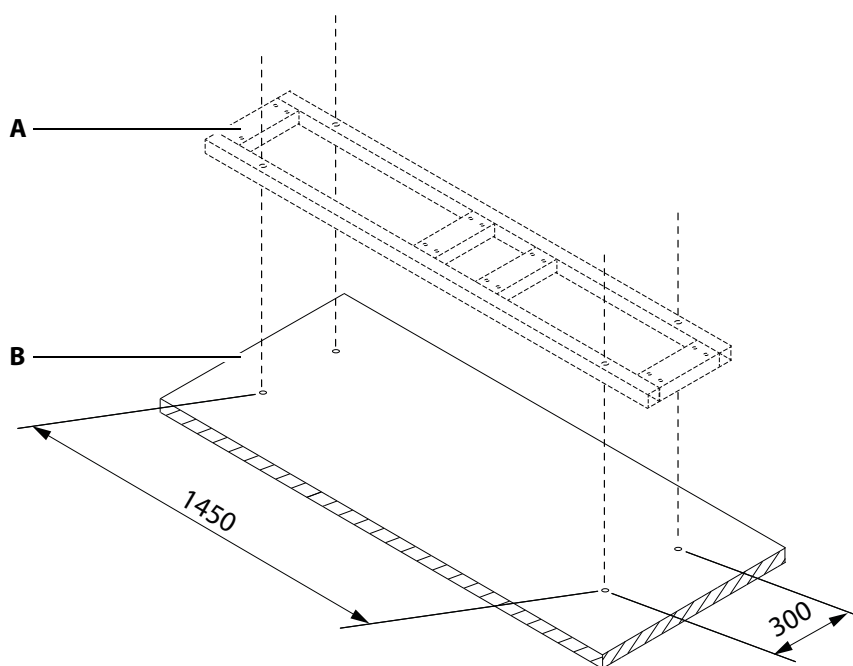
Tool:

- Drill
- 4 screws with corresponding anchors if required

### ► Drilling mounting holes into the pedestal

#### 1 Drill 4 holes into the pedestal.

- ① The base frame of the sauna heater is fixed with 4 screws through these holes, each with a diameter of 10.5 mm. The screws are not supplied. They must be selected to fit the pedestal. The holes must be drilled to fit the screws or anchors selected.



**A** Frame

**B** Pedestal

▨ Pedestal holes (mm)

#### 2 Insert anchors into the holes if required.

### 3.4 Mounting the sauna heater

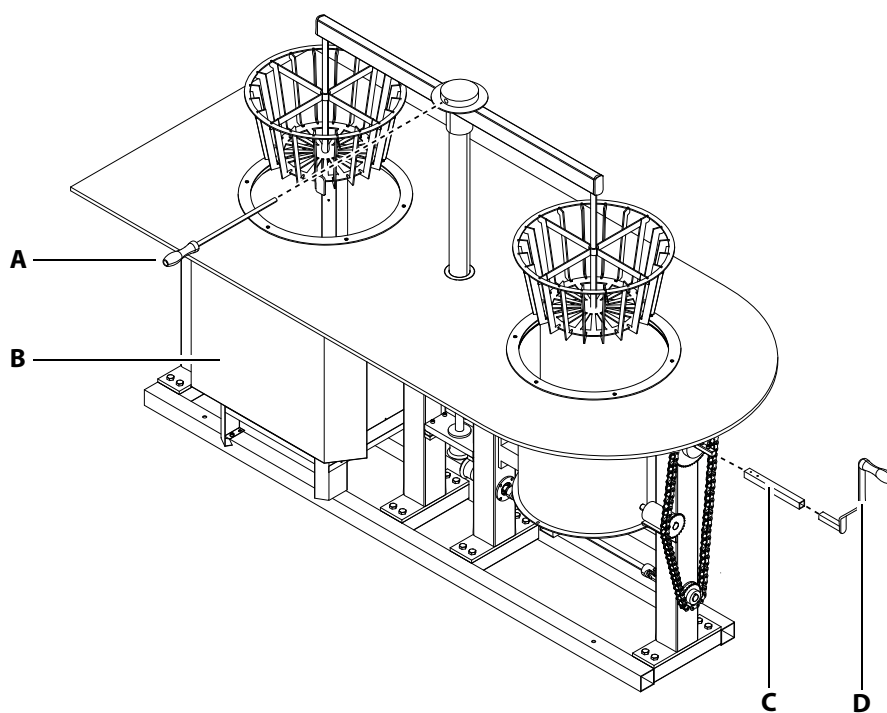
The sauna heater is supplied mounted and packaged on a pallet.

Necessary steps:

- ▶ Unpacking the sauna heater, [EN-22](#)
- ▶ Lifting the sauna heater from the pallet, [EN-23](#)
- ▶ Screwing the sauna heater onto the pedestal, [EN-23](#)
- ▶ Attaching the crank handle and the selector handle, [EN-24](#)

Tool:

- Screwdriver



**A** Selector handle

**B** Sauna heater

Installing the sauna heater

**C** Crank handle extension rod

**D** Crank handle



#### ▶ Unpacking the sauna heater

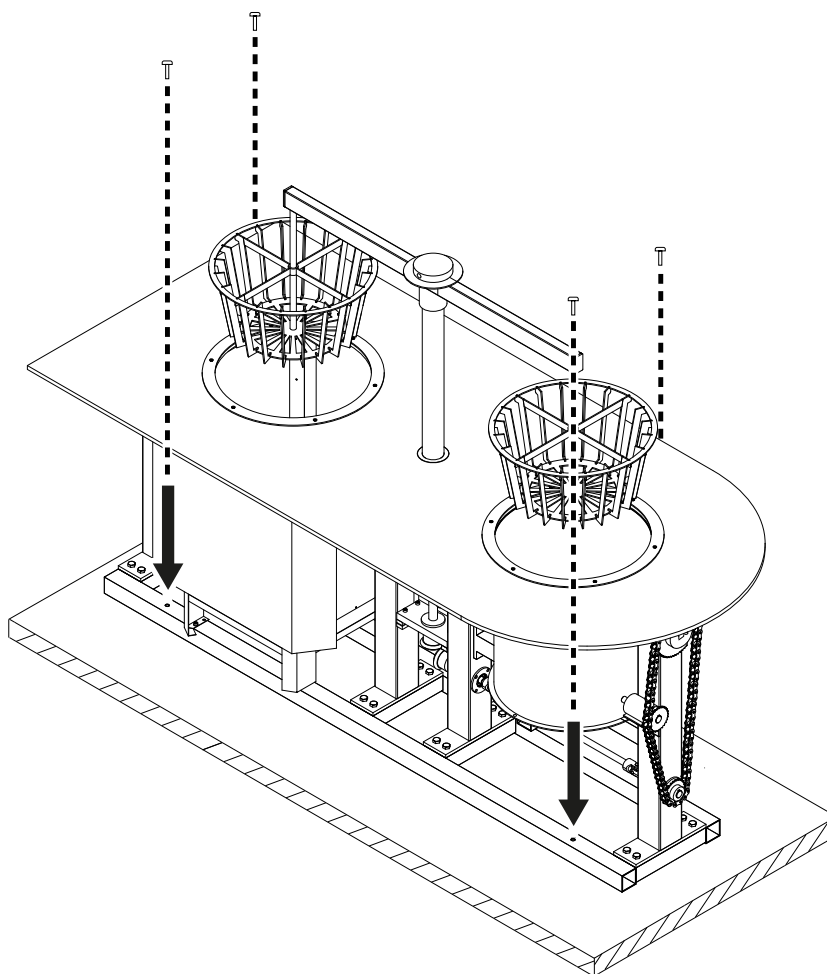
- 1 Move the pallet with the sauna heater as close to the pre-defined installation site as possible.
- 2 Remove the sauna heater from the packaging and leave the sauna heater on the pallet.
  - ① The sauna heater is already assembled apart from the selector handle (**B**), the crank handle (**D**) and the extension rod (**C**).

## ► Lifting the sauna heater from the pallet

- 1 CAUTION! The sauna heater should always be lifted from all four sides by four people.  
Grasp the sauna heater by the frame, lift it from the pallet and place it on the pedestal.  
① Do not lift the sauna heater by the cover plate. The cover plate only lies on the sauna heater and is not affixed to it.
- 2 Ensure that all protective films have been removed.

## ► Screwing the sauna heater onto the pedestal

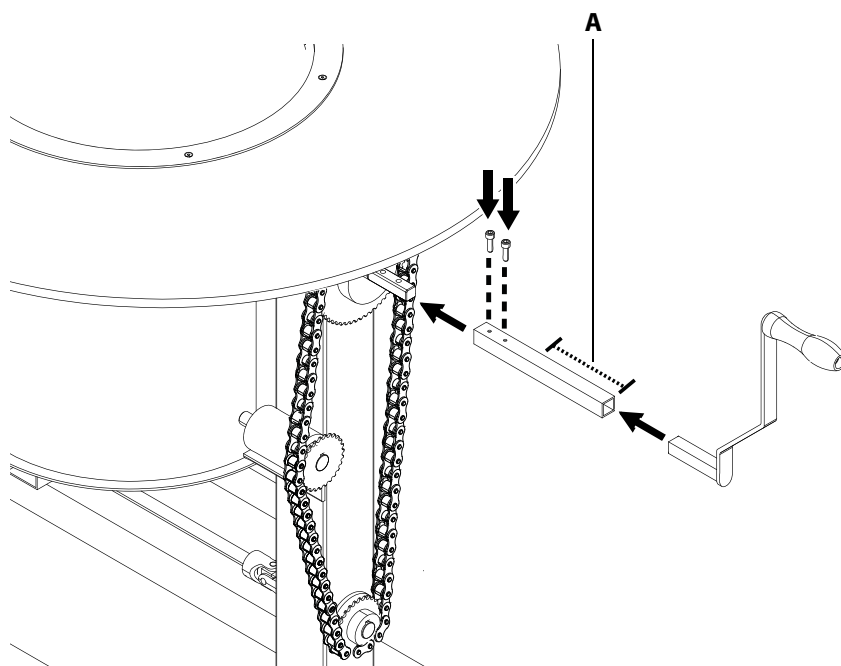
- 1 Align the sauna heater so that the holes in the frame are immediately above the holes in the pedestal.  
① See  Pedestal holes (mm),  EN-21.
- 2 Attach the sauna heater to the pedestal with 4 screws.



# Installation

## ► Attaching the crank handle and the selector handle

- 1 If necessary, shorten the extension rod for the crank handle to fit the external housing provided.
  - ❶ Cut the section (A) with no drill holes to shorten the rod.

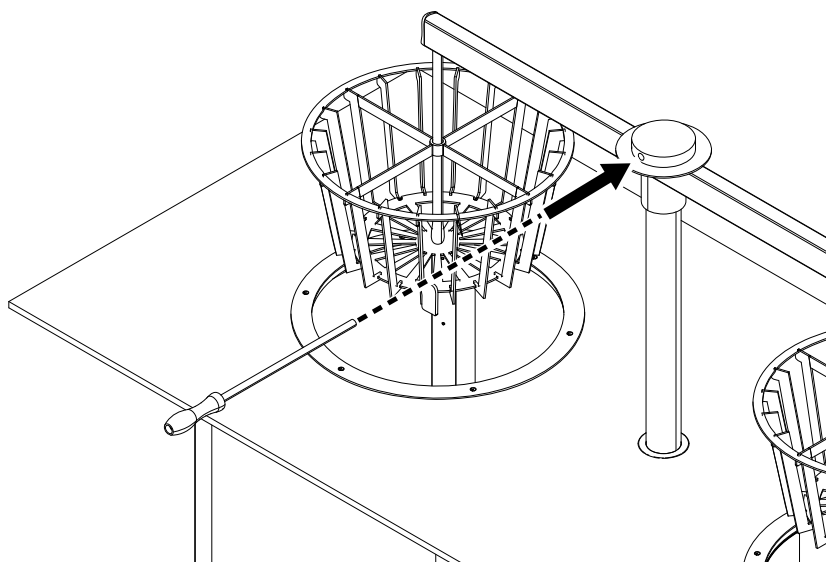


**A** Section for shortening

- 2 Affix the extension rod to the crank handle drive shaft.
  - ❶ Ensure that the holes on the crank handle drive shaft are aligned with the holes on the extension rod.
- 3 Tighten the extension rod to the crank handle drive shaft with 2 screws.
- 4 Attach the crank handle to the extension rod if required.
  - ❶ We recommend removing the crank handle. The crank handle should not be operated by sauna users who have not received proper training and should therefore be kept out of their reach. The crank handle can be brought to the water splash event by trained personnel and taken away afterwards.



**5** Insert the selector handle.



The external housing should not be installed until the electrical lines and water supply line are connected and a function test has been carried out. These steps are described in the chapter [Connections](#), [EN-26](#).

## 4

## Connections

This chapter describes how to connect the sauna heater electrically and fill it with stones. It also describes how to connect the water supply and adjust the water level. This chapter also contains information on attaching a warning plate and mounting the external housing.

### 4.1 General instructions for electrical installation

Ensure that electrical installation is performed in compliance with the standards and legal norms valid in your country.

Observe the following regulations when installing sauna heaters in CENELEC member states:

- DIN VDE 0100 Part 703:  
This most recent version of the standard, applicable since February 2006, under amendment of paragraph 703.412.05, states the following:  
“The additional protection must be provided for all of the sauna's electric circuits by one or more residual current devices (RCDs) with a rated differential current no greater than 30 mA, with the exception of sauna heaters.”
- EN 60335-1 DIN (VDE 0700 Part 1): 2012-10:  
This standard states in section 13.2:  
“At operating temperature, the leakage current may not exceed the following values:  
- 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.”

If a residual current device (RCD) is installed, ensure that no other electrical consumers are fused via this RCD.

By current technological standards, it is not advisable to use vapour-proof tubular heating elements for sauna heaters. It is possible that the magnesium oxide filling in the heaters can draw some moisture from the ambient air through the vapour diffusion silicone stopper, which, in some cases, can lead to tripping of the RCD. This is a physical process and not a fault on the part of the manufacturer.

In this case, the heater must be heated by a technician under supervision which will bypass the RCD function. Once the moisture has escaped from the heating elements after approx. 10 minutes, the RCD can be integrated again in the electric circuit.

If the sauna heater has not been used for a longer period of time, we recommend that you switch on the heater every 6 weeks so that the heating

elements do not accumulate moisture. If, during commissioning, the RCD is triggered, the electrical installation must be checked again.  
The electrician is responsible for properly connecting the heaters; thus, the manufacturer does not assume liability.

## 4.2 Circuit diagram for Skiff

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

When used in combination with other sauna heaters, an output controller is additionally required where total output (Skiff + additional sauna heater) is greater than 9 kW. It can be combined with different sauna heaters in many different ways and it is not possible to cover every individual case here. Please contact the manufacturer if you have any questions.

### **WARNING**

#### **Risk of fire due to improper mounting**

The control unit and the sauna heater must be suitable for connection to 400 V 3N AC.

- Use suitable fuses and cables.
- 

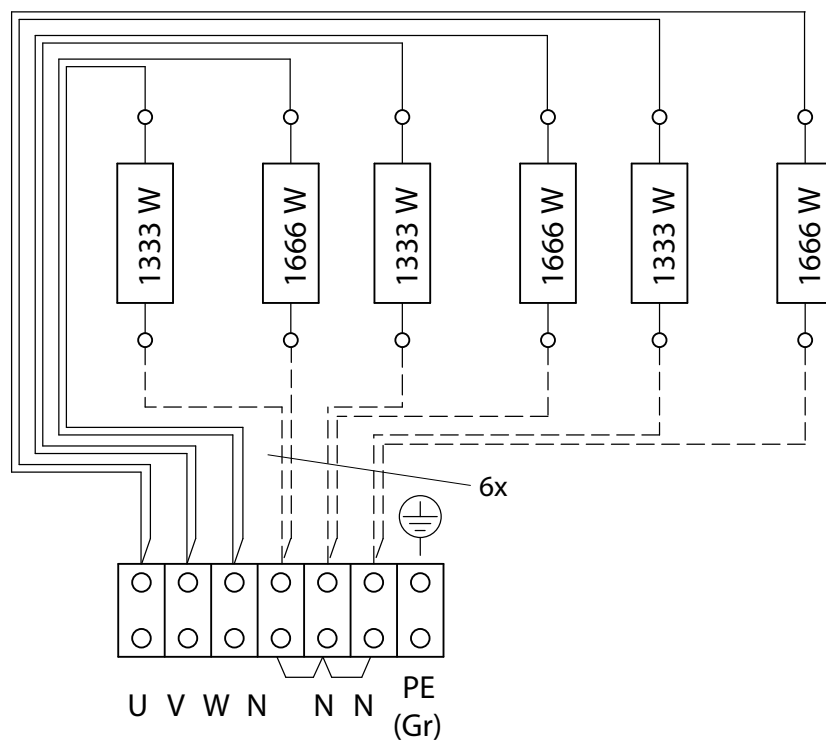
### **NOTICE**


#### **Damage to device from surges**

- Make sure to always connect neutral conductor N.
-

## Connections

### EOS Skiff 9 kW






 Circuit diagram for EOS Skiff

## 4.3 Establishing an electrical connection

The electrical lines should be connected before mounting the external housing whilst the connection for the heating coil is still easily accessible.

Necessary steps:

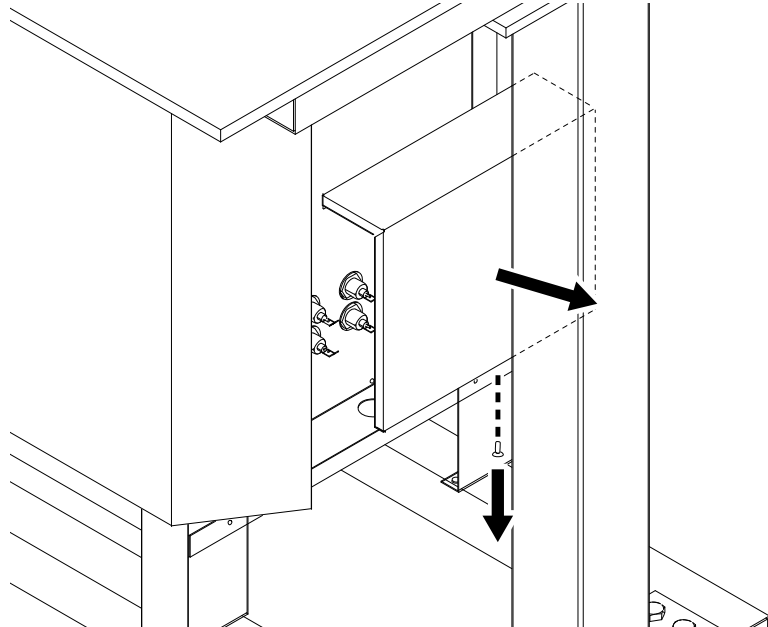
- ▶ Opening the terminal box on the heating coil,  EN-29
- ▶ Connecting the connecting cable to the heating coil,  EN-29
- ▶ Closing the terminal box for the heating coil,  EN-30

Tools:

- Screwdriver

## ► Opening the terminal box on the heating coil

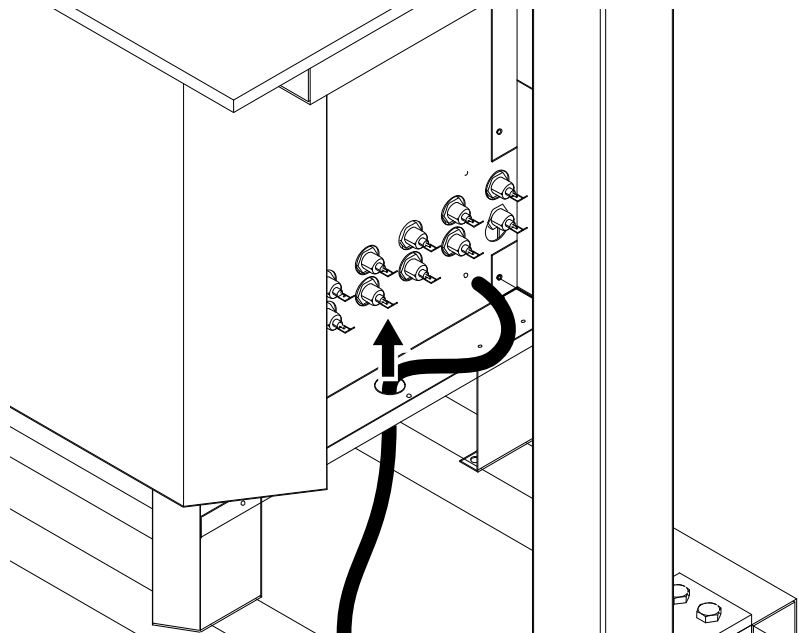
- 1 Unscrew the bottom screw on the cover of the terminal box.



- 2 Remove the cover.

## ► Connecting the connecting cable to the heating coil

- 1 Feed the connecting cable through the opening in the terminal box.





## Connections

- 2 Leave 3 m of the connecting cable loosely below the terminal box if required.

① This cable length is needed for repairs where the sauna heater is installed adjoining the wall. If this is the case, it is not possible to install an inspection opening in the external housing to provide access to the terminal box. The heater assembly needs to be lifted out of the external housing to access the terminal box. The cable needs to be long enough to allow this.

- 3 Connect the connecting cable as shown in the circuit diagram.

 Circuit diagram for EOS Skiff,  EN-28

### ► Closing the terminal box for the heating coil

- 1 Place the cover on the terminal box.
- 2 Screw in the screws and tighten them.

## 4.4 Heating period limitation

### Heating period limitation functions

All sauna heaters, except for those installed in public saunas, and which must be operated under the supervision of personnel, must be equipped with a timer that complies with IEC and EN standards. This timer fully disconnects the sauna heater from the power supply for safety reasons. The timer must be mounted outside of the sauna cabin and may not be overridden. It is typically integrated in the sauna control units.

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

In accordance with UL875 (USA), this timer must fully disconnect the sauna heater from the power supply after one hour and must not switch on again automatically.

## 4.5 Connecting the water supply

The water supply line should be connected before mounting the external housing whilst the connection for the water supply is still easily accessible.

### **CAUTION**

#### **Contamination of potable water**

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

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

### **NOTICE**

#### **Water damage due to water pressure that is too high**

Water can overflow from the container and cause water damage if the water supply connected to the water container has an operating pressure above 10 bar.

- ▶ Ensure that the operating pressure for the connected water supply is between 0.3 and 10 bar.
- 

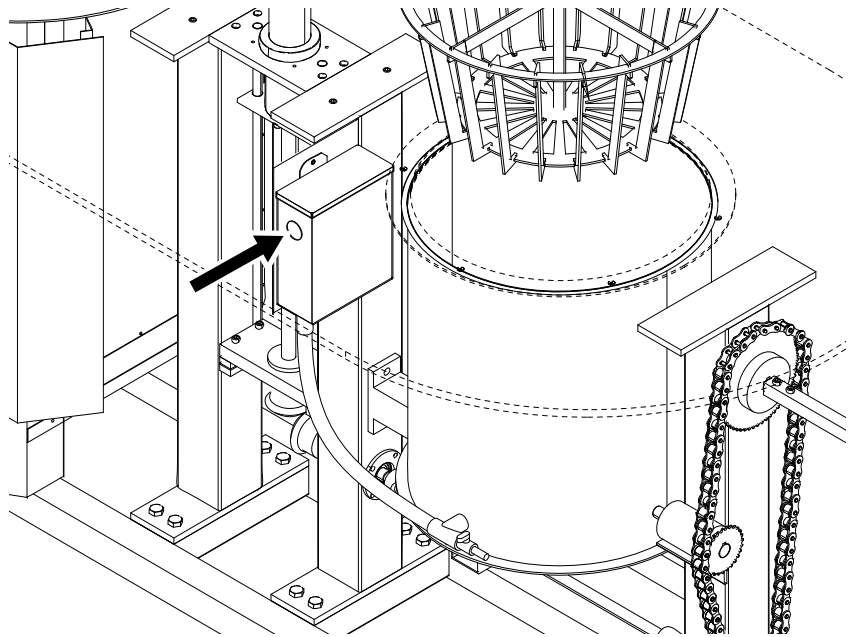
Tools and hardware:

- Spanner
- Water tap adapter, if needed

## Connections

### ► Connecting the water supply

- 1 If the water supply that should be connected to the water level control does not have a 3/4" connection, attach a suitable water tap adapter to the connection with screws.
  - ⓘ Use pipe insulation tape to ensure it is sealed.
  - ⓘ The connection at the container for the water level control has a 3/4" thread.



- 2 Connect the water supply.
  - ⓘ Use pipe insulation tape to ensure it is sealed.
  - ⓘ Do not open the supply line for the mains water connection yet. The water level in the water tank cannot be set correctly until the rock stores have been filled with stones and lowered into the water tank. See ► Filling rock stores with stones, □ EN-33.



## 4.6 Filling rock stores with stones

### WARNING

#### **Risk of fire due to heating without stones**

The sauna heater must be operated with stones to prevent the housing of the sauna heater overheating due to thermal radiation. There is a risk of death due to fire.

- ▶ Start the sauna heater only if the rock stores have been filled with stones.

Material:

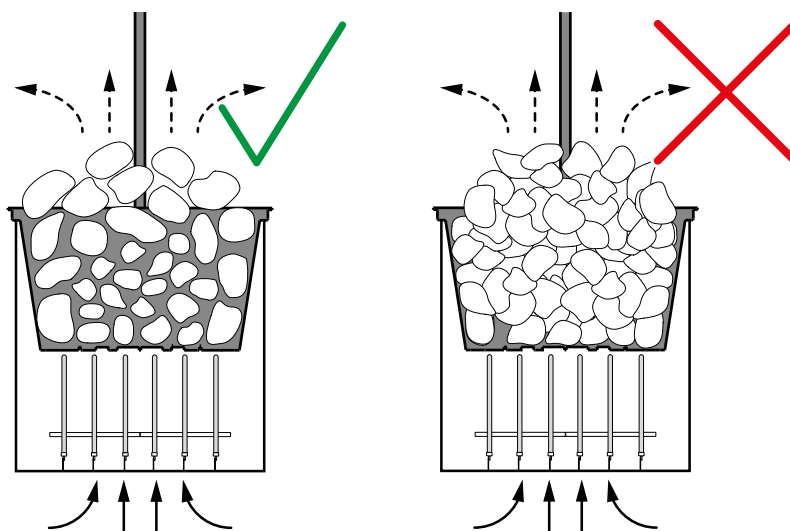
- Sauna stones

#### ▶ **Filling rock stores with stones**

- 1 Thoroughly rinse the stones with running water.
- 2 **WARNING!** Stones that are stacked too closely prevent the hot air from rising properly, thus causing the unit to overheat. The result is a risk of fire.

Stack the stones loosely in the rock store, leaving sufficient space between them. Stack the stones individually.

- ① Place small stones on the inside and bottom, large stones on the outside slats. There must be enough space between the stones so that convection air can circulate sufficiently between them.
- ① Do not fill the rock stores too high with stones to prevent them falling out when the stores are moved.

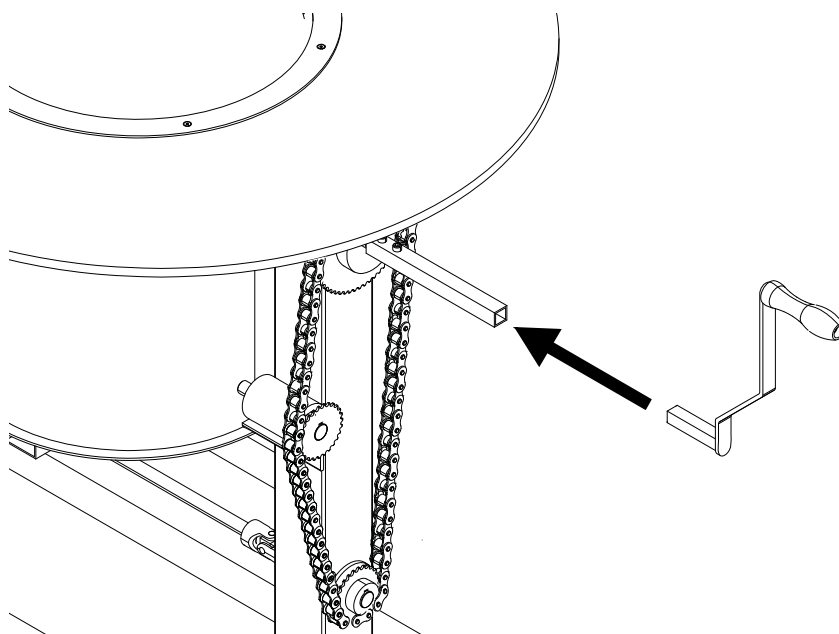


## 4.7 Setting the water level

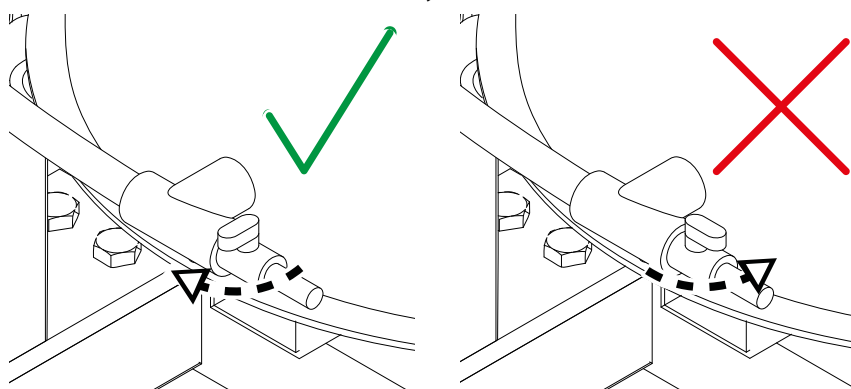
A rock store filled with stones must be lowered into the water tank before the water level can be set. If the water level is set without lowering the rock store into the water tank, the water level may be set too high. The water would then flow out over the edge of the water tank when the rock store is lowered.

### ► Setting the water level

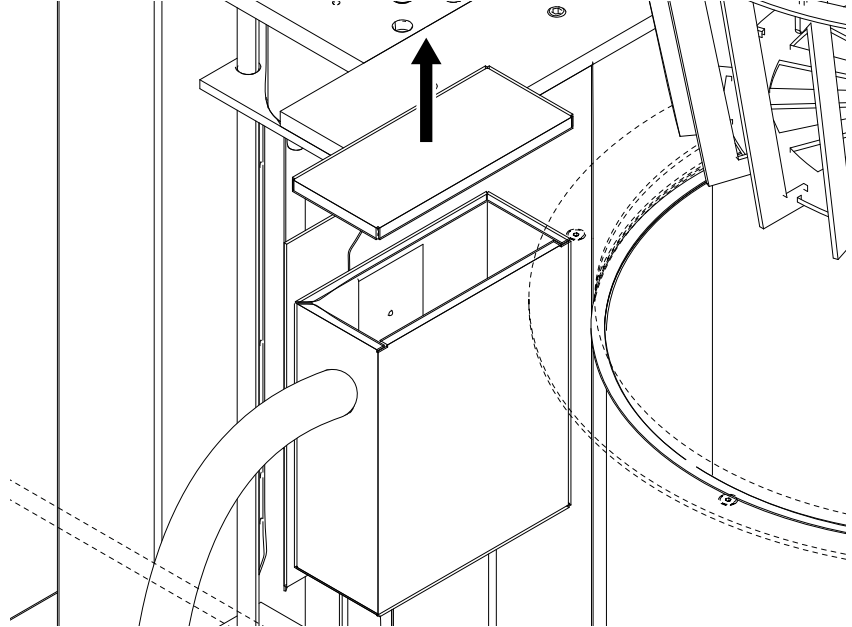
- 1 Attach the crank handle to the extension rod.



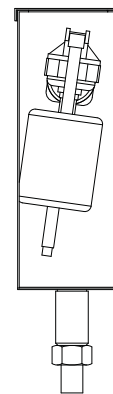
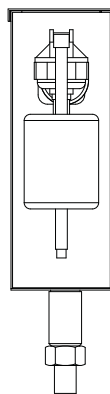
- 2 Close the shut-off valve if necessary.



- 3** Remove the cover from the water level control.



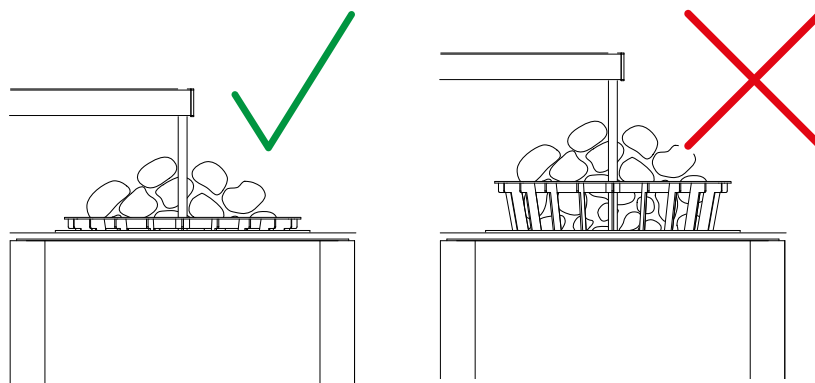
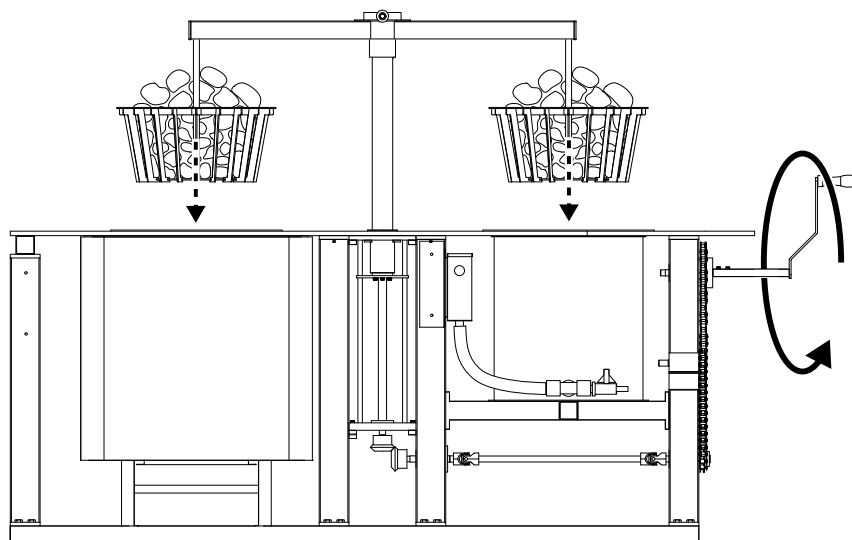
- 4** Verify that the float valve is aligned vertically.  
① Align it vertically by hand if needed.



- 5** Lower the float gauge so that the water level is set to the lowest possible setting the first time the water is poured in.

## Connections

- 6** Turn the crank handle clockwise and lower the rock stores until they are completely immersed in the tanks.



- 7** Open the shut-off valve and the mains water connection supply line.  
① Wait until the water tank is full and the water level has stopped rising.
- 8** Adjust the water level by raising the float gauge.  
① The water level should be set so that the water cannot overflow when the rock store is lowered.
- 9** Place the cover on the water level control.

## 4.8 Function test

A function test should be carried out before the external housing is mounted and the terminal box and water connection on the sauna heater are still easily accessible. The test should ensure that the electrical connection and water connection are working properly.

- Test the electrical connection by switching the sauna heater on and off several times using the control unit. Check whether it heats up when switched on.
- Check the water connection by draining some water from the water tank and refilling it.
  - Draining water from the water tank, [EN-47](#)
 Close the shut-off valve and check whether the water tank returns to the set water level setting.

## 4.9 Mounting the external housing

The external housing should be mounted in a professional manner and be made of non-flammable material suitable for sauna use.

If the external housing is non-removable we recommend installing the following inspection openings for servicing and repairs:

### Opening to water drainage valve

This opening allows the draining valve to be operated and a hose attached to the hose nozzle to drain the water.

### Opening to gear mechanism

The trapezoidal spindle and bevel gears can be cleaned and lubricated through this opening.

### Openings to retaining screws on the heater

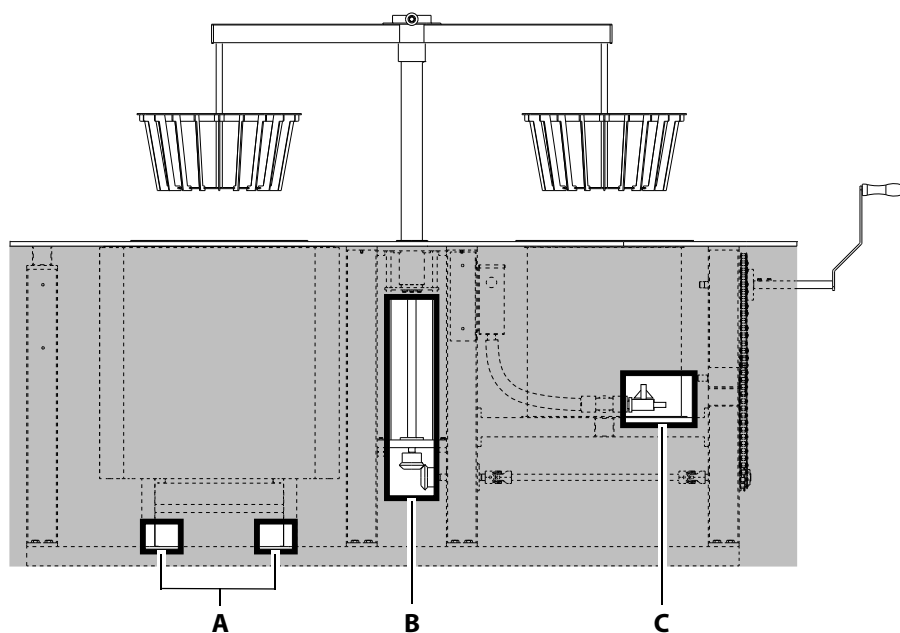
To replace the tubular heating elements, the terminal box must be accessible. There are two ways to approach this depending on how the sauna heater is positioned in the cabin.

- If it is adjoining the wall, the entire heater needs to be lifted out of the external housing to access the terminal box.  
The 4 screws attaching the heater to the base frame can be unscrewed through the openings. The heater can then be lifted out of the external housing.
- If the sauna heater is free-standing, an inspection opening can be made to access the terminal box.  
The cover of the terminal box can be removed through the opening. The retaining screws on the individual tubular heating elements can then be unscrewed.

## Connections

All inspection openings should be large enough to allow the respective work to be carried out.


See illustration showing sides here:  Definition of sides,  EN-15.

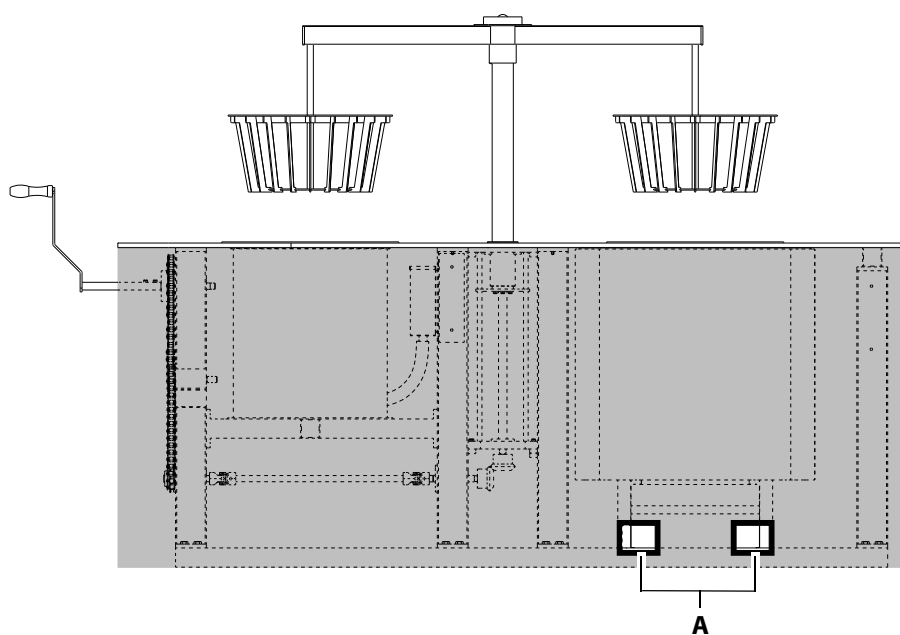


**A** Openings for heater retaining screws (1+2 of 4)


**C** Opening to water drainage valve

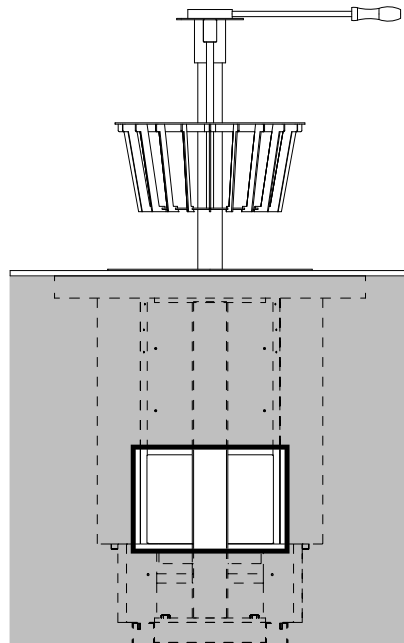
**B** Opening to gear mechanism

 Inspection openings on external housing, front




**A** Openings for heater retaining screws (3+4 of 4)

 Inspection openings on external housing, back



**A** Opening for terminal box

 Inspection openings on external housing, left side

## 4.10 Warning plate

In some countries it is mandatory to warn sauna cabin users of health risks. Ensure that you comply with the standards and requirements stipulated in your country.

A warning plate with the following information should be affixed near the sauna heater so it is clearly visible at eye level:

- Health risks exist if the body overheats.
- Do not exceed the maximum recommended time in the sauna.
- Leave the sauna cabin if your body responds abnormally to the heat or if you do not feel well.
- Consult with a doctor prior to using the sauna if you have a health impairment.
- Avoid alcohol, drugs, and medications when you are using the sauna.

## 5

## Commissioning

This chapter describes how to start the sauna heater and how to perform a water splash event.

**⚠ WARNING****Risk of fire due to objects on the sauna heater**

Objects placed on the sauna heater could catch fire. Herbs placed on the sauna heater could catch fire.

- ▶ Inspect the cabin prior to each use.
- ▶ Air inlets and outlets must remain open.

**⚠ WARNING****Fire hazard from overheating**

The sauna heater can overheat if the air supply is insufficient. There is a risk of death due to fire. A heating process that takes a long time could indicate that the air supply to the sauna heater is insufficient.

- ▶ Commission the cabin only after all air inlets and outlets have been opened.
- ▶ A minimum of 5 times the cabin volume of air per hour must be exchanged.

### 5.1 Starting the sauna heater

The sauna heater is switched on and off using the control panel on the sauna control unit.

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

**General instructions**

The sauna heaters heat the sauna cabin with heated convection air. Fresh air is drawn in through the air inlet. It is warmed and rises (convection) and is then circulated in the cabin. Some of the used air is pushed out of the cabin through the cabin's air outlet. This creates a typical sauna climate in which temperatures of approx. 110°C are achieved directly below the ceiling. These temperatures drop to approx. 30–40°C in the cabin along the floor. Therefore, it is not unusual that if the temperature sensor above the



sauna heater reads 110°C, the thermometer that is mounted approx. 20–25 cm below the cabin ceiling on the sauna wall reads only 85°C. When the max. temperature is set for the area around the upper sauna bench, the bathing temperature is typically between 80°C and 90°C.

## 5.2 Commissioning by remote control

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

## 5.3 Water splash event

Before the first water splash can begin, the cabin must be sufficiently heated. The temperature sensor checks the temperature and, via the control panel, indicates when the desired temperature has been reached. For the water splash event, the rock stores must be lifted using the crank handle and then rotated using the selector handle until they swap position. The rock store that was heated by the heater is then lowered into the water tank using the crank handle.

Please note that the sauna stones must be reheated after each water splash to generate an intense burst of steam. After each water splash event, wait approx. 20 minutes before starting the next one.

### **WARNING**

#### **Risk of fire due to sauna essences**

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

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

We do not recommend adding additives to the infusion water in the water tank. The water in the tank is not replaced until the next water change. So additive levels in the water increase rapidly, leaving deposits on the sides of the water tank. As a consequence, the water tank needs to be cleaned more often.

## Commissioning

### CAUTION



#### **Risk of injury for sauna users**

There is a high risk of injury if people operate the device without proper training. When the rock stores are being rotated, they are hot and hot water drips off them. It is difficult for people who have not received proper training to estimate the radius of movement of the rock stores.

- ▶ Remove the crank handle.
  - ▶ Store the crank handle out of the reach of sauna users.
  - ▶ Always lower the rock stores fully into the tanks to prevent them from moving.
- 

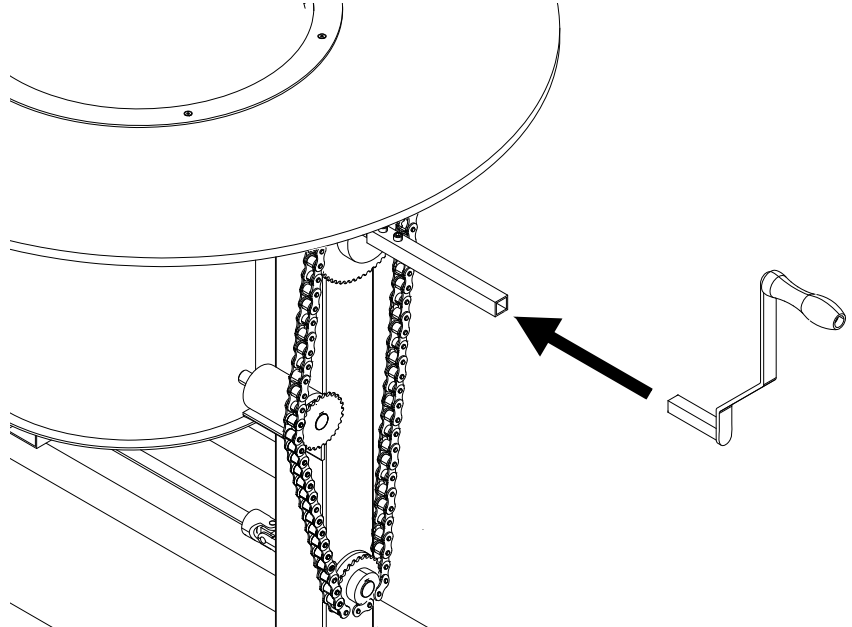
We recommend that the crank handle be brought to the water splash events by trained personnel and taken away afterwards.

Necessary steps:

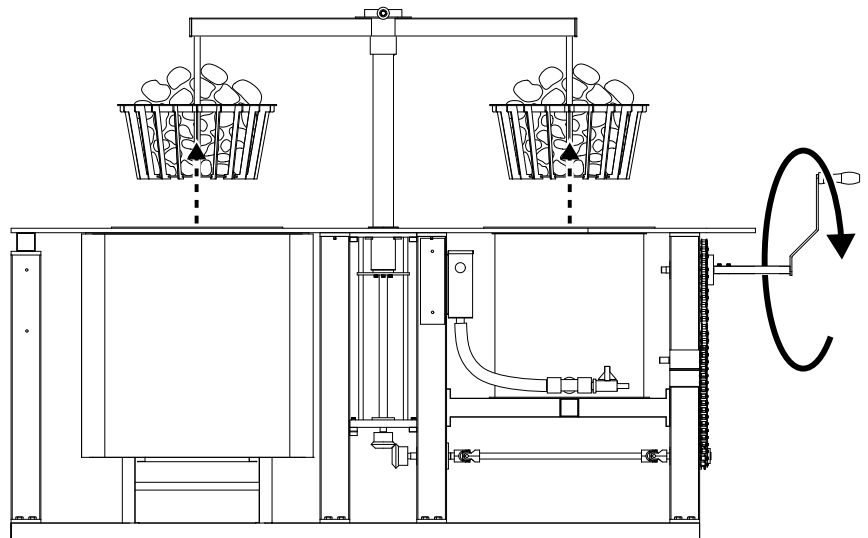
- ▶ Lifting the rock stores,  EN-43
- ▶ Rotating the rock stores,  EN-44

## ► Lifting the rock stores

- 1 Attach the crank handle to the extension rod.



- 2 **NOTICE** Risk of mechanical stress and bending of moving parts. Do not overwind the crank handle.  
Rotate the crank handle anti-clockwise until the rock stores are completely clear of the tank.



# Commissioning

## ► Rotating the rock stores

- 1 **CAUTION!** Risk of burns from hot rock stores and water dripping from the rock store. The rock stores may swing out over the edge of the sauna heater.

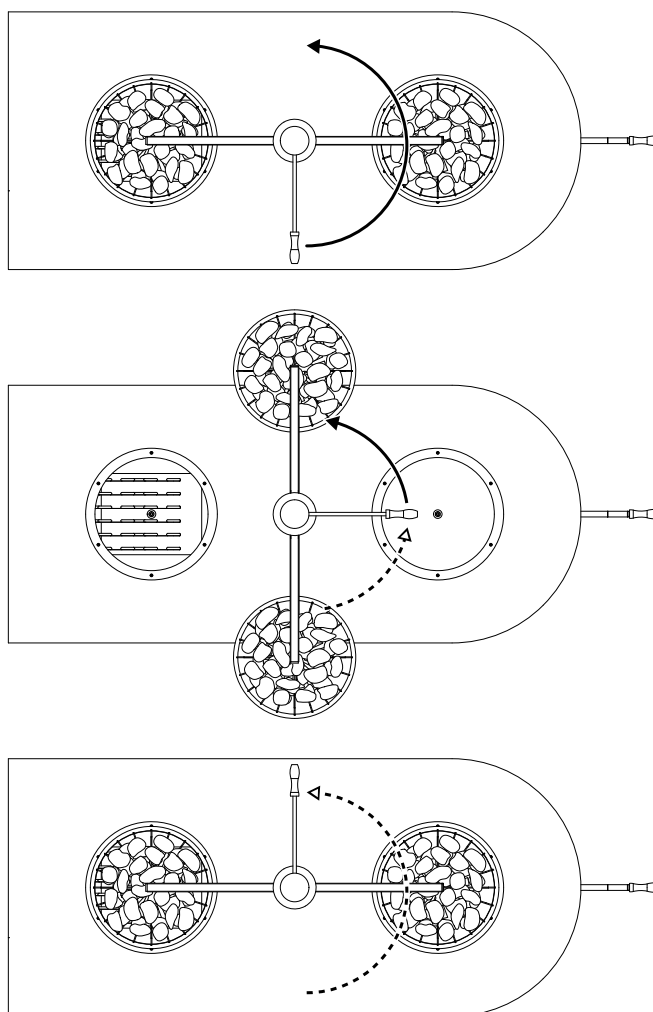
Ensure that there are no persons or body parts (e.g. feet) within range of the rock stores as they are rotated.


❗ Alert sauna users that the rock stores will swing out.

- 2 **NOTICE** Risk of mechanical stress and bending of moving parts. The max. range of rotation of the rock stores is 180°.

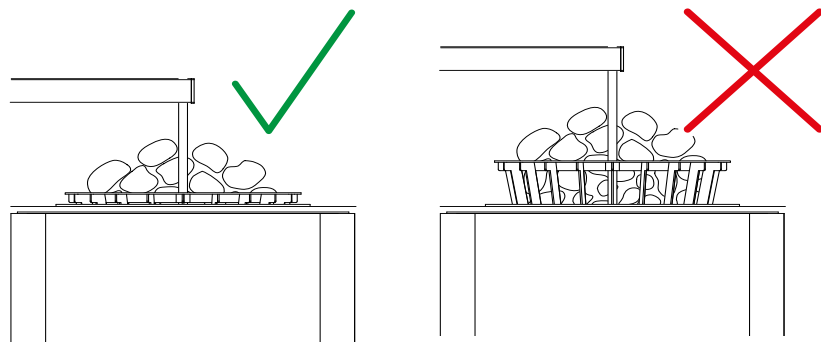
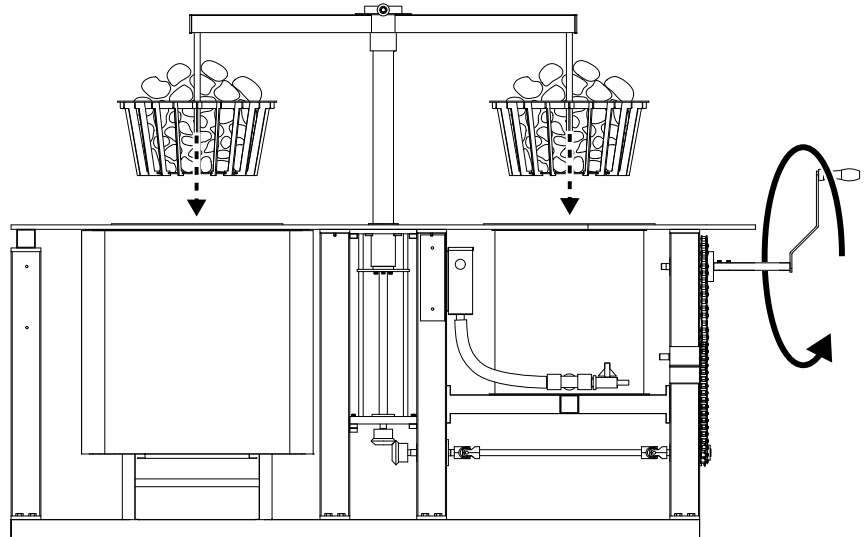
Rotate the rock stores:


- a) Turn the selector handle slowly whilst walking around the sauna heater.
- b) Stop once the rock stores have swapped position.



 Rotating the rock stores

- 3** CAUTION! Risk of scalding Hot steam is produced when the heated stones are immersed in the water tank. Keep your distance.  
Turn the crank handle clockwise and lower the rock stores until they are completely immersed in the tanks.



 Correct lowering depth of rock stores

- 4** Detach the crank handle from the extension rod.

# 6

## Maintenance

To ensure a long service life, take care of and perform maintenance on your event heater. Clean the heater as needed. If you do not use your sauna for a longer period of time, ensure that at the time of recommissioning no towels, cleaners or other objects are lying on the heater.

Contact your sauna retailer or the manufacturer directly if you notice malfunctions or signs of wear and tear.

### 6.1 Cleaning

The sauna heater and the mechanical device must be cleaned regularly. The cleaning frequency depends on how often it is used. It is not necessary to clean the inside of the sauna heater during periodic cleaning.

#### CAUTION

##### **Risk of injury from sharp edges**

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

##### **► Cleaning the sauna heater and device**

- 1 Switch off the sauna heater via the control unit.
- 2 Wait until the sauna heater is completely cool, if necessary.
- 3 **WARNING!** Do not clean the inside of the sauna heater, as this poses a risk of electric shock.  
Clean the outside of the sauna heater.  
① Use only household cleaning agents.

## 6.2 Water tank

The water tank must be cleaned regularly. The cleaning frequency depends on how often it is used. The water must be replaced regularly as it will become contaminated over time and bacteria may develop.

The following steps must be completed:

► Lifting the rock stores, [EN-43](#)

Necessary steps:

► Draining water from the water tank, [EN-47](#)

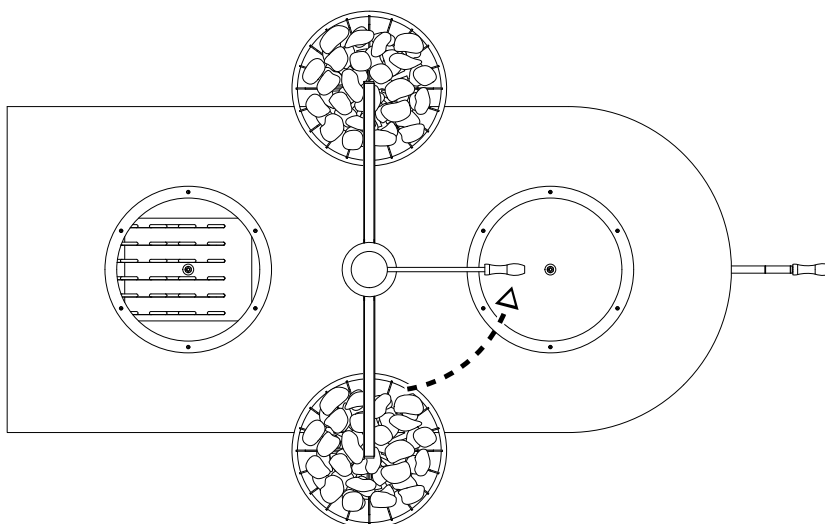
► Cleaning the water tank, [EN-49](#)


Material:

- Cloth
- Container, e.g. a bucket
- Piece of hose, if needed

### ► Draining water from the water tank

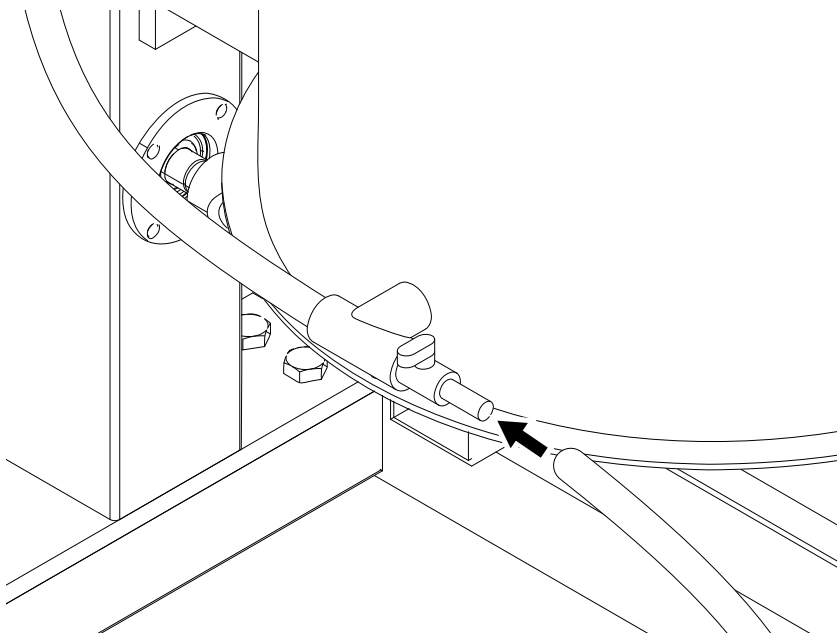
- 1 Switch off the sauna heater.
- 2 Wait until the sauna heater is completely cool, if necessary.
- 3 Turn the selector handle and rotate the rock stores until they are at a right angle to the heater.



- 4 Open the inspection opening for the water drainage valve in the external housing if needed.  
① See  Inspection openings on external housing, front, [EN-38](#).

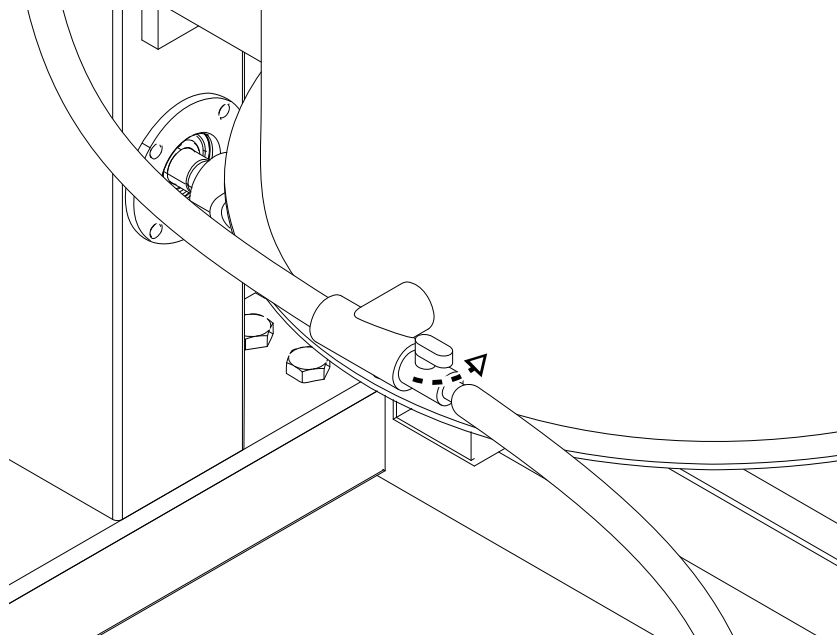
## Maintenance

- 5** Attach the hose to the hose nozzle on the draining valve and route it into the floor drain.



- ① There should be approximately 40 litres of residual water.
- ① If there is no floor drain, you will need to place a container such as a bucket underneath the unit to catch the water.

- 6** Open the draining valve.



- ① Allow the water to drain completely until the water tank is empty.



## ► Cleaning the water tank

- 1 Wipe out the water tank with a damp cloth.
  - ① If it is heavily soiled, moisten a cloth with alcohol or methylated spirit and use this to wipe out the water tank.
- 2 Close the draining valve.
  - ① The water tank fills with water.
- 3 Remove the piece of hose, if used.
- 4 Close the inspection opening, if used.
- 5 Turn the selector handle and swing the rock stores over the tanks.
- 6 Turn the crank handle and lower the rock stores fully into the tanks.
- 7 Remove the crank handle.

## 6.3 Sauna stones

Sauna stones are a product of nature. Sauna stones must be replenished or reshuffled depending on the intensity of use.

The process of heating and cooling can make the stones brittle. Particular damage to the sauna stones can be caused by aggressive sauna essences, causing them to disintegrate over time. Small particles can break off from the stones. The gaps between the stones also become smaller which means that hot air can no longer rise between the stones.

Check the sauna stones regularly and reshuffle them or replace them as needed. Observe the following periods of time:

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

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

The following steps must be completed:

- Lifting the rock stores,  EN-43

## Maintenance

### ► Reshuffling the sauna stones

- 1 **WARNING!** Electric shock may occur if servicing is carried out while the sauna heater is connected to the power supply.  
Ensure that the sauna heater has been disconnected from all power supply lines.
  - a) Switch off the sauna heater.
  - b) Switch off the fuses to disconnect the sauna heater from the mains supply.
- 2 **CAUTION!** Caution: stones may be hot. Allow the stones to cool for at least 45 minutes before you remove the old stones.  
Remove each stone individually.
- 3 Check each stone for damage.
  - ① Sort out any stones with severe damage.
- 4 Rinse all stones with cold water.
- 5 Stack the stones loosely in the rock store, leaving sufficient space between them.
  - ① Stack the stones individually and not too high.  
See 4.6 Filling rock stores with stones, ▢ EN-33.

## 6.4 Gear mechanism



The trapezoidal spindle, bevel gears and chain must be inspected, cleaned and lubricated regularly. The frequency depends on how often the gearing is used. Any dirt or dust that becomes lodged in the tooth flanks or chain links will affect the movement. Regular lubrication reduces wear and tear on the tooth flanks and chain links and improves performance by reducing friction. Use suitable lubricants (e.g. silicone-based).

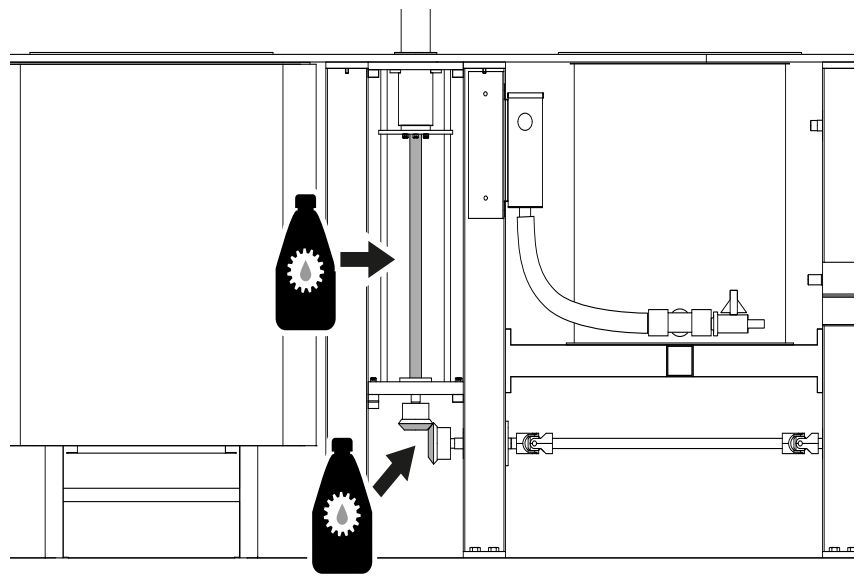
## 6.4.1 Trapezoidal spindle and bevel gears

Material:

- Cloth
- Lubricant: suitable synthetic, non-resinous lubricant or silicone oil

### ► Cleaning and lubricating the gear mechanism

- 1 **WARNING!** Electric shock may occur if servicing is carried out while the sauna heater is connected to the power supply.  
Ensure that the sauna heater has been disconnected from all power supply lines.
  - a) Switch off the sauna heater.
  - b) Switch off the fuses to disconnect the sauna heater from the mains supply.
- 2 Open the inspection opening for the gear mechanism in the external housing if needed.
  - ① See  Inspection openings on external housing, front,  EN-38.
- 3 Wipe off dirt and old lubricant residues with a cloth.
- 4 Lubricate the trapezoidal spindle and bevel gears.
  - ① Use suitable synthetic, non-resinous lubricant or silicone oil only.
  - ① Ensure that none of the lubricant drips onto the floor. If it does, absorb it immediately using a cloth to avoid a slipping hazard.




- 5 Close the inspection opening in the external housing if used.








## Maintenance

### 6.4.2 Chain

The following steps must be completed:

- ▶ Lifting the rock stores,  EN-43

Necessary steps:

- ▶ Disconnecting the sauna heater from the power supply,  EN-52
- ▶ Removing the cover plate (sauna heater is adjoining a wall),  EN-53
- ▶ Removing the cover plate (sauna heater is free-standing),  EN-56
- ▶ Cleaning and lubricating the chain,  EN-56
- ▶ Attaching the cover plate (sauna heater is adjoining a wall),  EN-57
- ▶ Attaching the cover plate (sauna heater is free-standing),  EN-60
- ▶ Moving the rock stores into operating position,  EN-60

Material:

- Cloth
- Chain oil or other synthetic, non-resinous lubricant or silicone oil
- Spanner (sauna heater is adjoining a wall)
- Screwdriver (sauna heater is adjoining a wall)

#### ▶ **Disconnecting the sauna heater from the power supply**

- 1 **WARNING!** Electric shock may occur if servicing is carried out while the sauna heater is connected to the power supply.

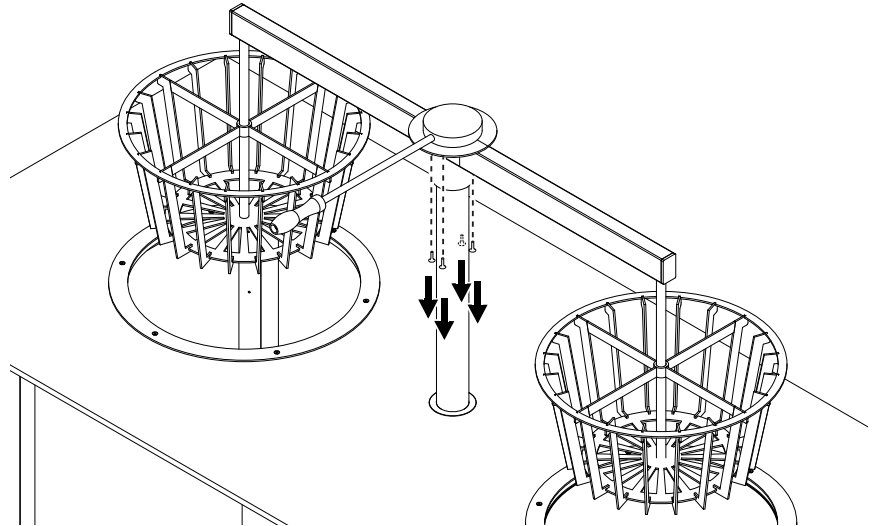
Ensure that the sauna heater has been disconnected from all power supply lines.

**a)** Switch off the sauna heater.

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

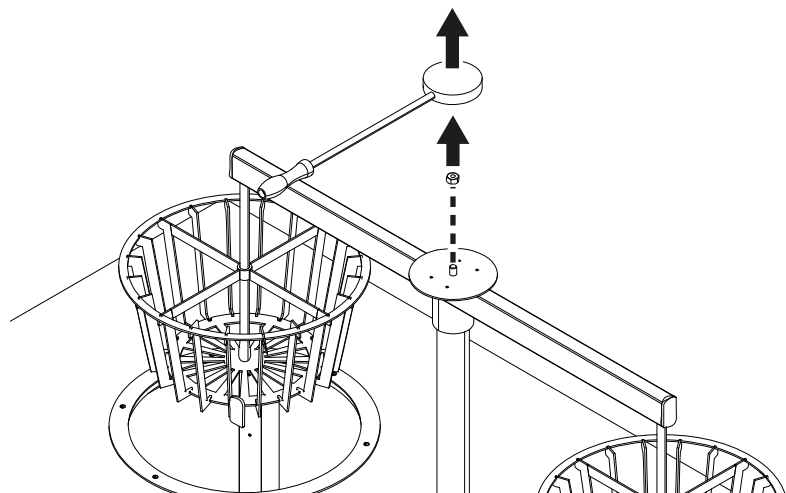
► **Removing the cover plate (sauna heater is adjoining a wall)**

- 1 Unscrew the 4 screws under the cover disc.



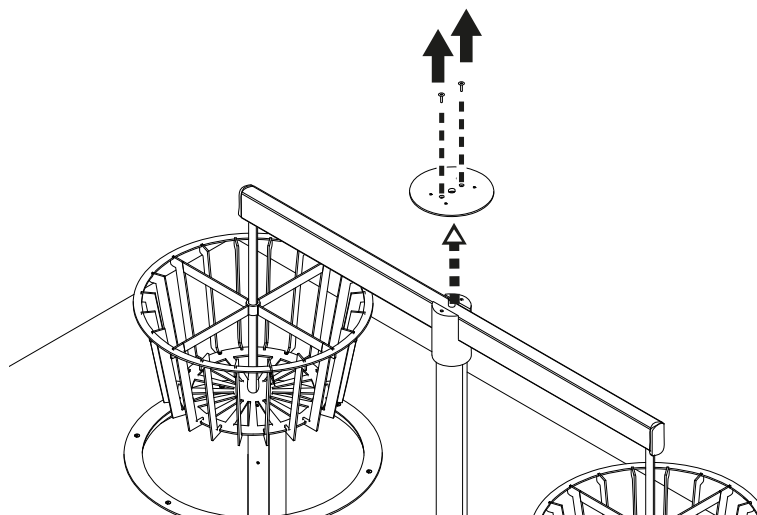
- 2 Remove selector handle with guide disc.

- 3 Unscrew lock nut on the cover disc.



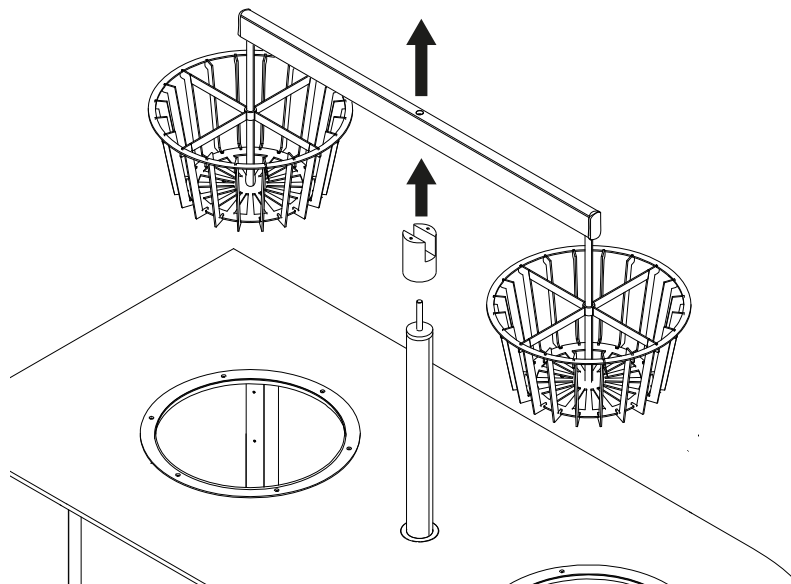
## Maintenance

- 4** Unscrew 2 screws on the cover disc.

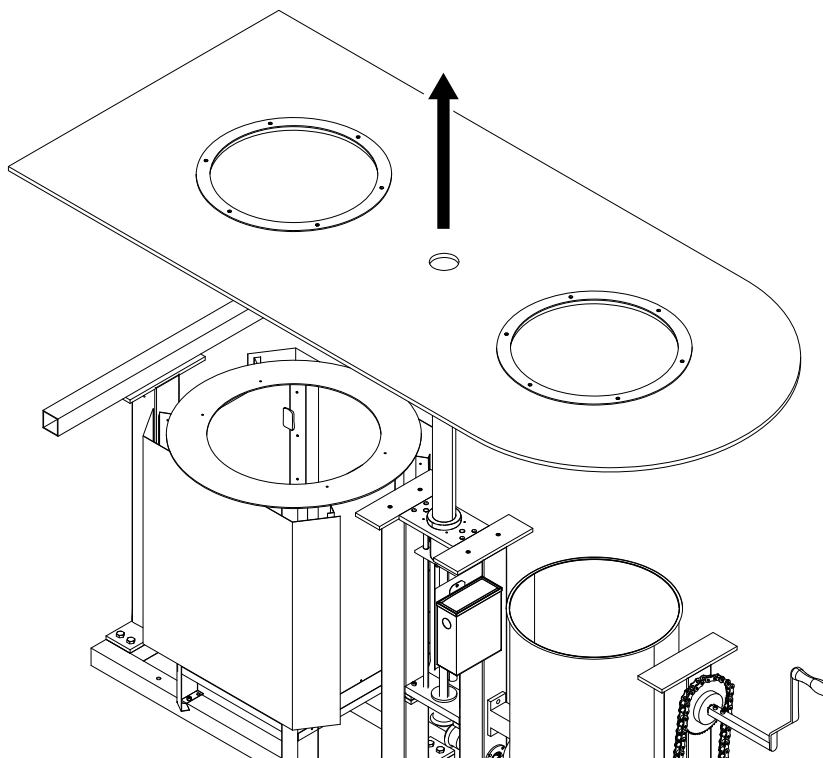


- 5** Remove the cover disc.

- 6** Remove crosspiece together with rock stores.  
① Use two people to lift the rock stores if filled with stones.



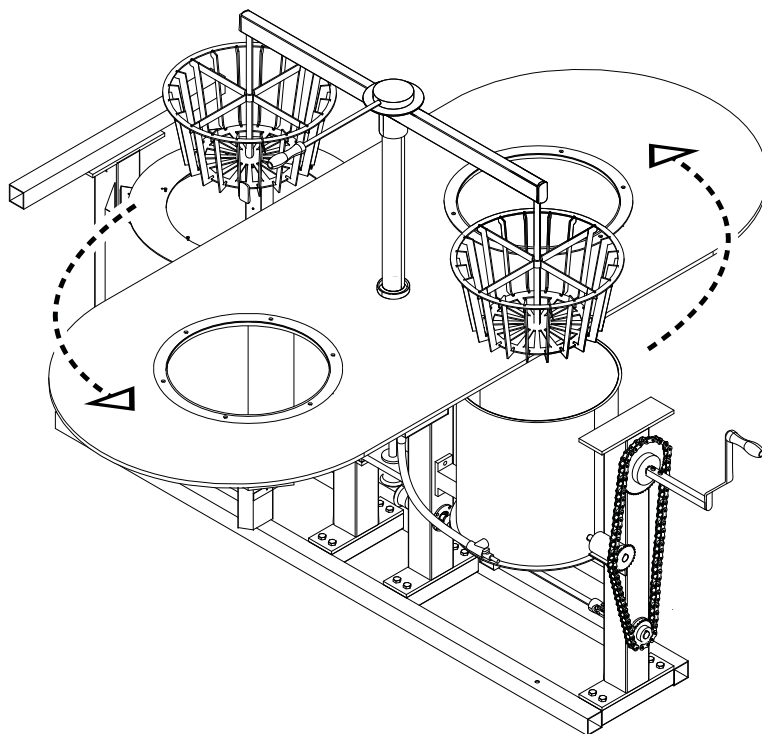
- 7** Remove retaining sleeve for crosspiece.
- 8** Lift cover plate off guiding pin and remove.



## Maintenance

### ► Removing the cover plate (sauna heater is free-standing)

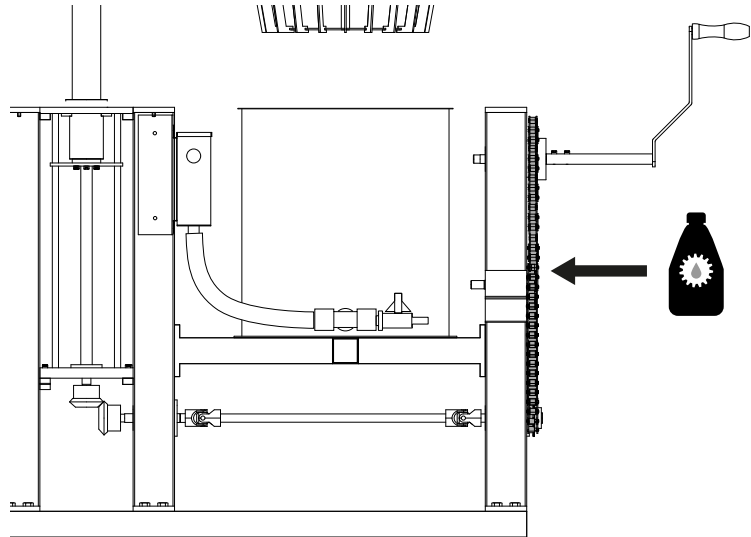
- 1 Lift the cover plate slightly and rotate until it is at right angles to the unit.



### ► Cleaning and lubricating the chain

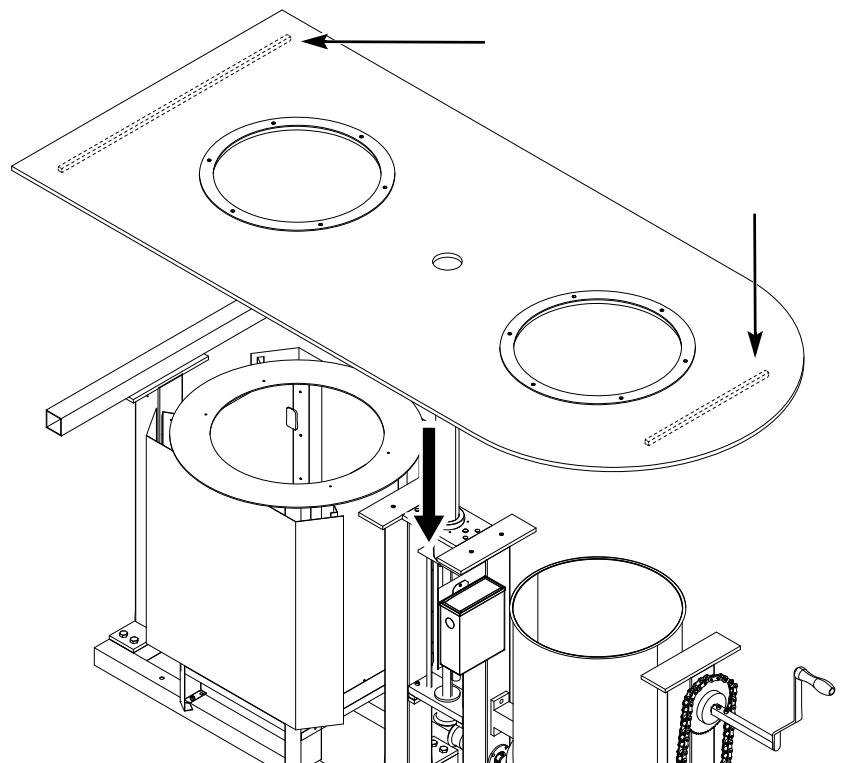
- 1 Wipe off dirt and old lubricant with a cloth.  
① Rotate the crank handle if required to move the chain and reach all chain links.
- 2 Lubricate the chain.  
① Use suitable synthetic, non-resinous lubricant or silicone oil only.





► **Attaching the cover plate (sauna heater is adjoining a wall)**

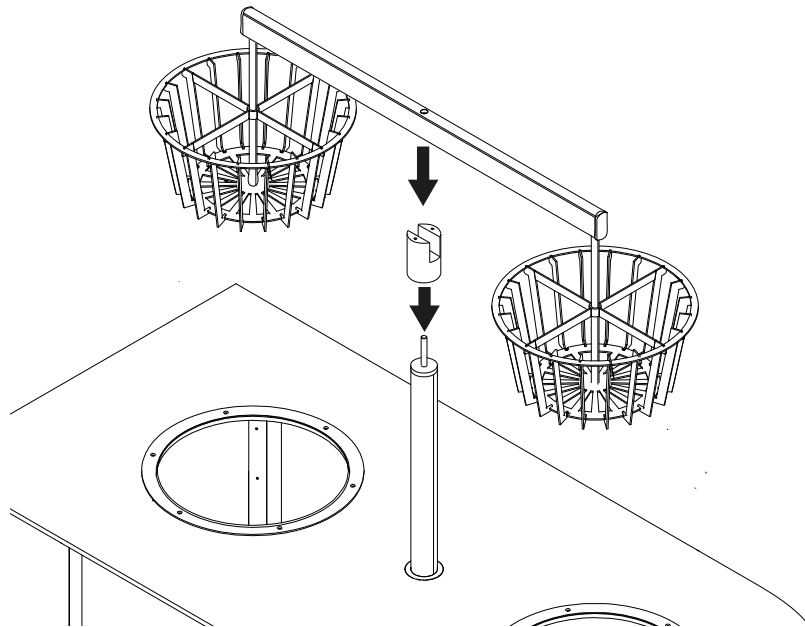
- 1 Lift cover plate off guiding pin and place in position.



- ① Ensure that the guides on the underside of the cover plate click into place.

## Maintenance

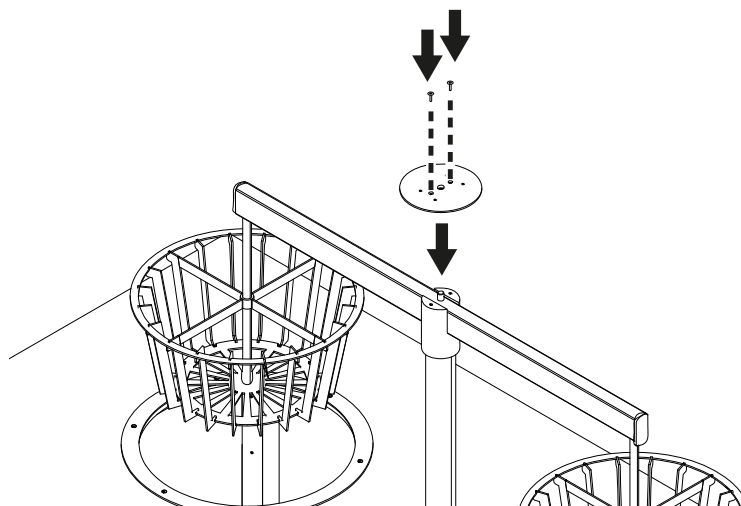
- 2** Lower the retaining sleeve for the crosspiece onto the holding pin.



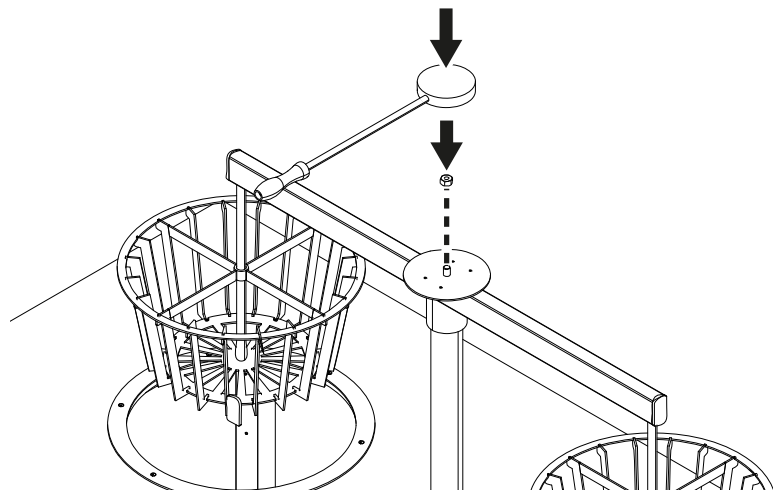
- 3** Lower the crosspiece together with the rock stores into the retaining sleeve.

ⓘ Use two people to lift the rock stores if filled with stones.

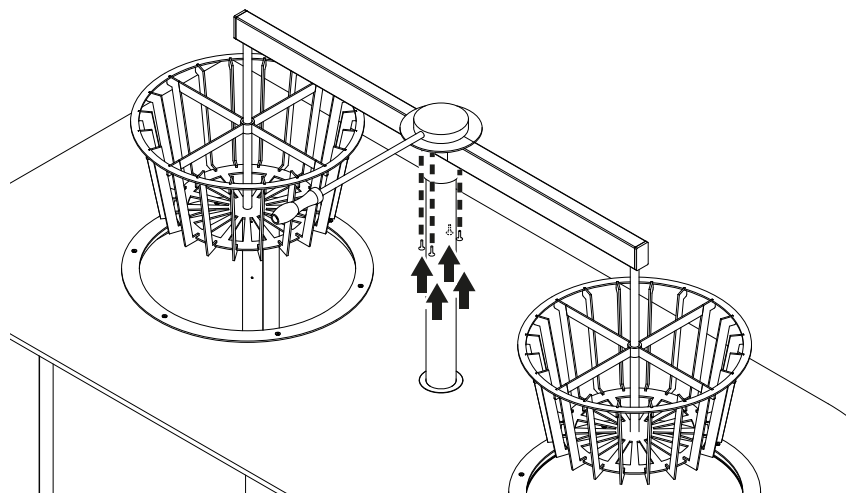
- 4** Mount the cover disc.



- 5 Screw in the 2 screws and tighten them.
- 6 Screw lock nut onto the holding pin and tighten it.

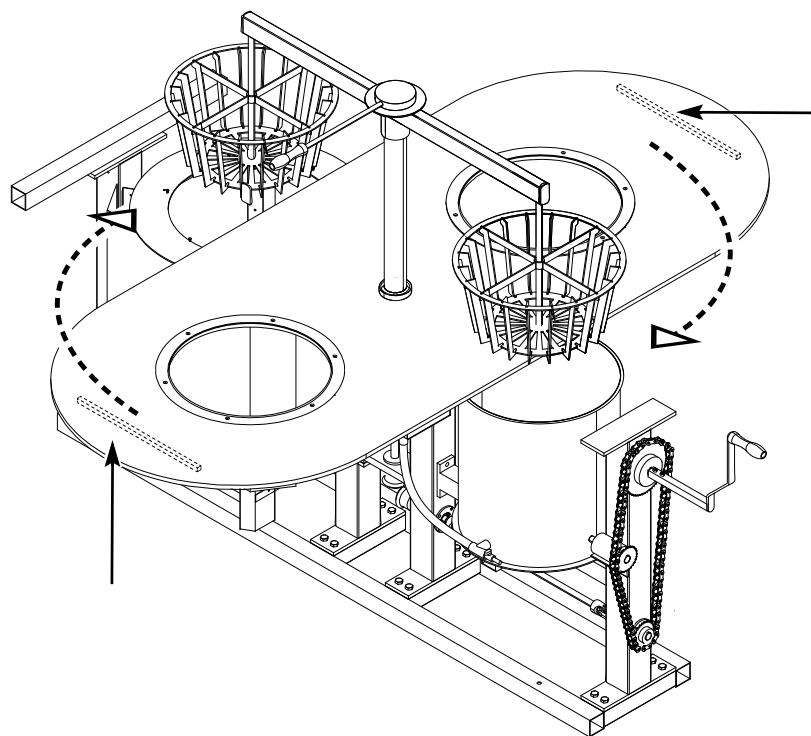


- 7 Mount guide disc with selector handle attached.
- 8 Screw in the 4 screws under the cover disc and tighten them.



► **Attaching the cover plate (sauna heater is free-standing)**

- 1 Lift the cover plate slightly and twist back into operating position. Ensure that the guides on the underside of the cover plate click into place.



► **Moving the rock stores into operating position**

- 1 Turn the crank handle and lower the rock stores fully into the tanks.  
 ⓘ See ☞ Correct lowering depth of rock stores, ▫ EN-45.
- 2 Remove the crank handle.

## 6.5 Replacing the tubular heating elements

Individual tubular heating elements can be replaced. To replace the tubular heating elements, the terminal box must be accessible.

- If the sauna heater is adjoining the wall and the external housing cannot be removed, the heater assembly needs to be lifted out of the external housing to access the terminal box.
- If the sauna heater is free-standing, the inspection opening to the terminal box can be opened.

A description is given for both options below.

The following steps must be completed:

- Lifting the rock stores, ▫ EN-43
- Disconnecting the sauna heater from the power supply, ▫ EN-52


## Necessary steps:

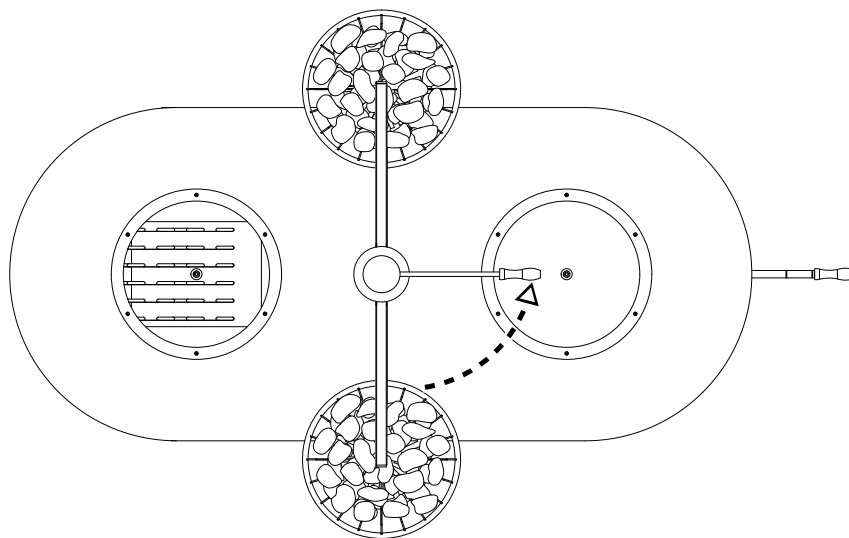
- ▶ Accessing the terminal box (sauna heater is free-standing), [EN-61](#)
- ▶ Accessing the terminal box (sauna heater is adjoining a wall), [EN-62](#)
- ▶ Opening the terminal box for the heating coil, [EN-63](#)
- ▶ Replacing the tubular heating elements, [EN-64](#)
- ▶ Closing the terminal box for the heating coil, [EN-65](#)
- ▶ Readyng the sauna heater for operation (sauna heater is free-standing), [EN-65](#)
- ▶ Readyng the sauna heater for operation (sauna heater is adjoining a wall), [EN-65](#)


## Material:

- Spanner
- Screwdriver

### ▶ Accessing the terminal box (sauna heater is free-standing)









- 1 Open the inspection opening for the terminal box.  
① See  Inspection openings on external housing, left side, [EN-39](#).
- 2 Turn the selector handle and rotate the rock stores until they are at a right angle to the heater.

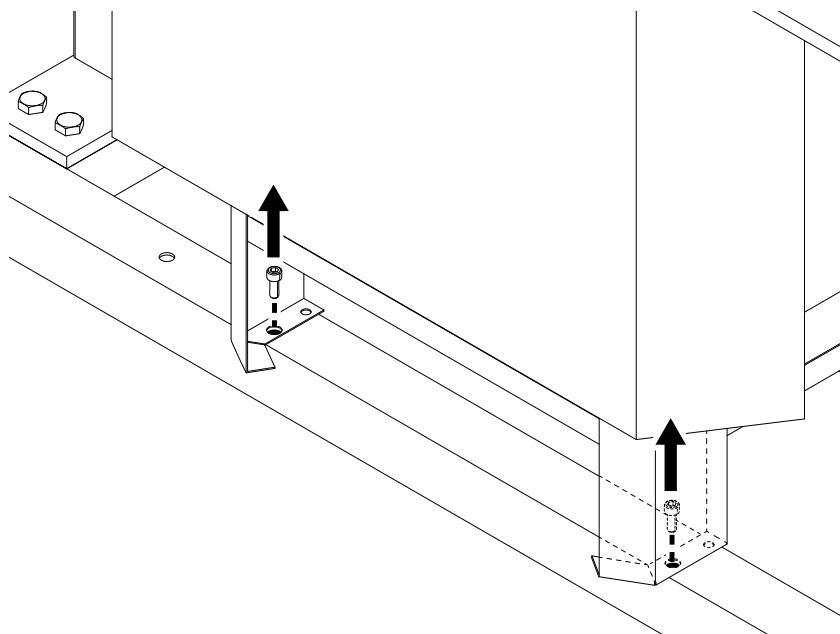



 Rotating rock stores until they are at a right angle to the sauna heater

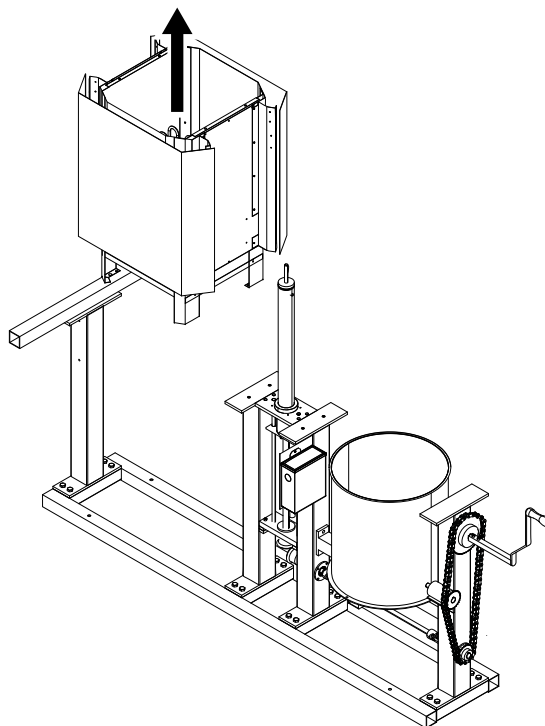
## Maintenance

### ► Accessing the terminal box (sauna heater is adjoining a wall)

- 1 Remove the cover plate:  
► Removing the cover plate (sauna heater is adjoining a wall),  EN-53
- 2 Open inspection openings for the retaining screws on the heater.  
  Inspection openings on external housing, front,  EN-38.  
  Inspection openings on external housing, back,  EN-38.
- 3 Unscrew the 4 screws on the feet of the heater assembly.  
 The process is identical on both sides.

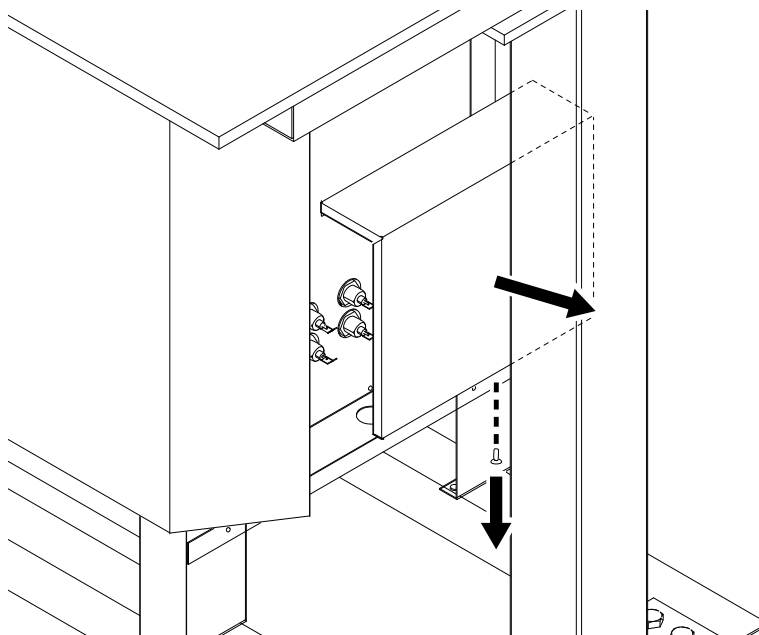


- 4 Use two people to lift the heater assembly out of the external housing.  
 Ensure that the connecting cables are not torn or damaged.



## ► Opening the terminal box for the heating coil

- 1 Unscrew the bottom screw on the cover of the terminal box.

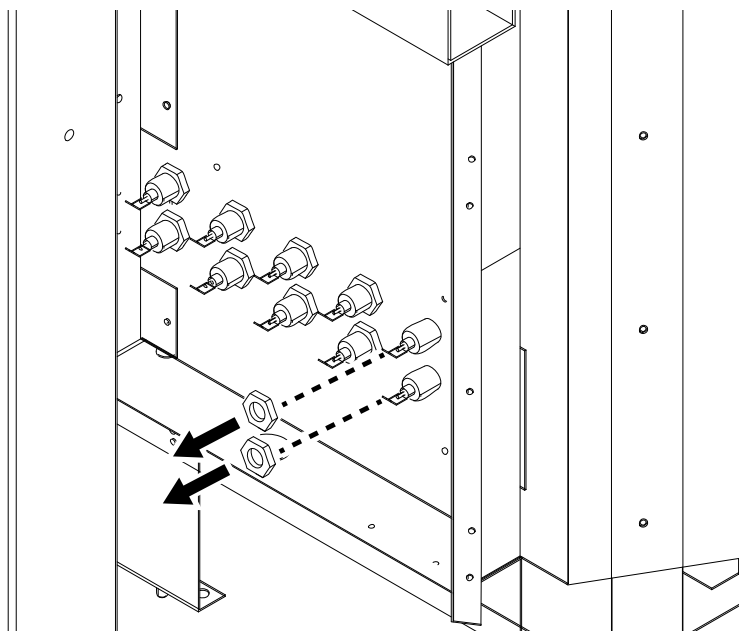


- 2 Remove the cover.

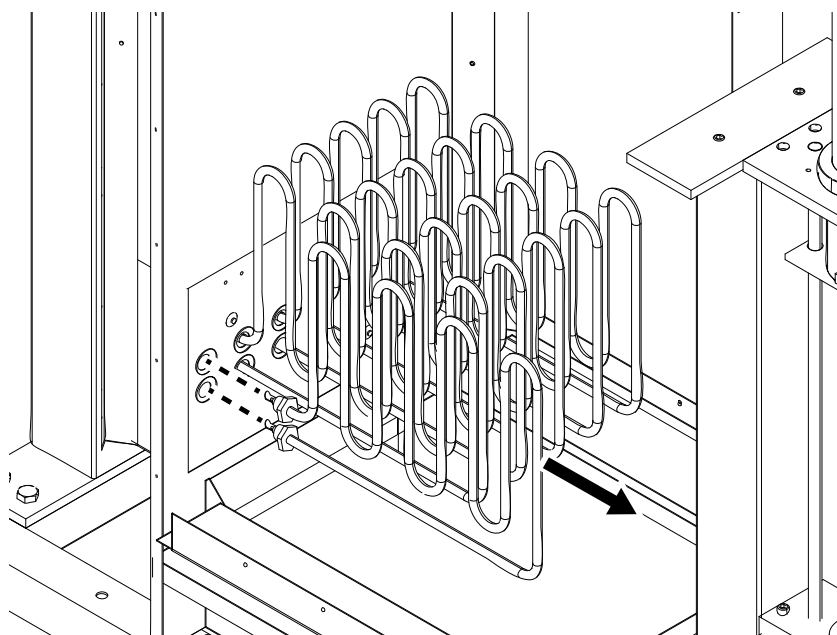
## Maintenance

### ► Replacing the tubular heating elements

- 1 Remove the flat plug from the tubular heating elements.
- 2 Identify the defective tubular heating element by taking measurements.
- 3 Unscrew the 2 hexagon nuts of the tubular heating element to be replaced located in the terminal box.



- 4 Remove the tubular heating element.



- 5 Insert the new tubular heating element.



6 Screw the 2 hexagon nuts on the new tubular heating element in the terminal box.

7 Insert the flat plugs onto the new tubular heating element.

► **Closing the terminal box for the heating coil**



1 Replace the terminal box cover.

2 Screw in the screw at the bottom of the terminal box cover.

► **Readying the sauna heater for operation (sauna heater is free-standing)**

1 Close the inspection opening for the terminal box.

2 Turn the selector handle until the rock stores are over the tank.

3 Turn the crank handle and lower the rock stores fully into the tanks.  
① See  Correct lowering depth of rock stores,  EN-45.

4 Remove the crank handle.


► **Readying the sauna heater for operation (sauna heater is adjoining a wall)**

1 Use two people to place the heater assembly in the external housing.  
① Ensure that the connecting cables are not pinched.



2 Align the holes in the feet of the assembly with the holes in the base frame.

3 Attach the feet to the base frame with 4 screws.

4 Close the inspection opening.

5 Close the cover plate:  
► Attaching the cover plate (sauna heater is adjoining a wall),  EN-57.

6 Turn the selector handle until the rock stores are over the tank, if necessary.

7 Turn the crank handle and lower the rock stores fully into the tanks.  
① See  Correct lowering depth of rock stores,  EN-45.

8 Remove the crank handle.

## Maintenance

### 6.6 Troubleshooting

Error	Reason	Solution
It takes the sauna heater a long time to heat up the cabin.	Some tubular heating elements are defective.	Replace the tubular heating element or heating coil. See ► Replacing the tubular heating elements, EN-64
	There is not enough space between the stones.	Reshuffle the stones. See ► Reshuffling the sauna stones, EN-50
	There is insufficient ventilation.	Install the air inlets. If these are insufficient, add a fan to the openings. See 3.1.2 Air inlets and outlets, EN-18
	The electrical connection is defective.	Check the installation fuses. Have the control unit's outputs checked by a technician.
	The temperature sensor is incorrectly positioned.	Check the position of the temperature sensor and adjust as needed. See 3.2 Installing the temperature sensor in the cabin, EN-20.
The sauna heater is very hot but cannot distribute the heat throughout the cabin.	There is not enough space between the stones.	Reshuffle the stones.
The safety temperature limiter was triggered and the sauna heater no longer heats.	The safety temperature limiter was triggered by heat accumulation.	Check the inlets, outlets, and the fan and ensure that the sauna heater has access to a sufficient amount of air. Replace the safety temperature limiter.
	The position of the safety temperature limiter is not optimal.	Check the position of the safety temperature limiter and adjust as needed. See 3.2 Installing the temperature sensor in the cabin, EN-20. Replace the safety temperature limiter.

# 7

## General terms and conditions of service

(T&C, Dated 08-2018)

### I. Scope

Unless otherwise agreed in writing for specific instances, these terms and conditions of service shall apply to service operations, including reviewing and remedying complaints. All our existing or future legal relationships shall be governed solely by the following terms and conditions of service. We do not recognise any of the customer's conflicting terms and conditions unless we have given our express written consent to their applicability.

We hereby expressly object to any of the customer's terms and conditions included in the customer's General Terms and Conditions of Business or order confirmation. Unconditional acceptance of order acknowledgments or deliveries shall not be construed as any form of acknowledgment of such terms and conditions. Ancillary agreements or amendments must be confirmed in writing.

### II. Costs

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

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

There shall be no third-party billing.

### III. Performance and cooperation obligations

The customer shall provide assistance free of charge to the manufacturer in rendering services.

In the case of a warranty claim, the manufacturer shall provide spare parts necessary for servicing free of charge.

### IV. Service visit by the manufacturer

Services rendered on site by an employee of the manufacturer must be agreed in advance.

## General terms and conditions of service

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

### **V. Liability**

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

### **VI. Manufacturer's warranty**

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

- The warranty period shall commence from the date on which proof of purchase is provided and shall be limited, in all cases, to 24 months.
- Warranty services shall be performed only if proof of purchase of the equipment can be presented.
- Any and all warranty claims shall become void if modifications are made to the equipment without the manufacturer's express consent.
- Any warranty claim shall likewise become void in the case of defects that arise due to repairs or interventions made by unauthorised persons or due to improper use.
- In the case of warranty claims, the serial and article numbers must be provided, together with the unit designation and a meaningful description of the error.
- This warranty shall cover defective equipment parts, with the exception of normal wear parts. Wear parts shall include, for example, light sources, glass elements, tubular heating elements and sauna heater stones.
- Only original spare parts may be used within the warranty period.
- Service visits made by third parties shall require a written order issued by our service department.
- The equipment in question shall be sent to our service department by the customer at the customer's own expense.
- Electrical assembly and installation work, including service visits and parts replacements, shall be carried out at the customer's expense; costs shall not be borne by the manufacturer.

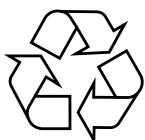
Complaints in respect of our products shall be reported to the responsible distributor and shall be handled exclusively by said distributor.

The manufacturer's General Terms and Conditions of Business, in the version available at [www.eos-sauna.com/agb](http://www.eos-sauna.com/agb), shall apply in addition to the foregoing terms and conditions of service.

# Disposal

## 8

### Disposal



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



Do not dispose of the unit with household waste.

### Packaging

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

- Used paper/cardboard
- Plastic foil

### Electronic waste

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



**Service address**

EOS Saunatechnik GmbH

Schneiderstriesch 1

35759 Driedorf, Germany

Tel. +49 2775 82-0

Fax +49 2775 82-431

Web [www.eos-sauna.com](http://www.eos-sauna.com)

Store this address with the Installation and Operating Instructions in a safe place.

Please always provide us with nameplate data, such as model, item number and serial number so we can provide fast and efficient support.

**Date of sale**

**Stamp/retailer signature:**