

# Taurus

TAU-90NS TAU-180NS	TAU-105NS TAU-180NS-V12	TAU-120NS TAU-210NS-V12	TAU-150NS TAU-240NS-V12
TAU-90NS-G TAU-180NS-G	TAU-105NS-G TAU-180NS-G-V12	TAU-120NS-G TAU-210NS-G-V12	TAU-150NS-G TAU-240NS-G-V12

Congratulations on your purchase of SAWO sauna heater.  
Please read the manual carefully before using the heater.



**ELECTRIC  
SAUNA HEATER**

Not for use in the USA, Canada and Mexico.

**ENGLISH**

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READ THE MANUAL FOR  
ADDITIONAL IMPORTANT  
INSTRUCTIONS



COVERING THE HEATER  
CAUSES FIRE HAZARD

## **Safety Instructions**

Please take note of these safety precautions before using the sauna or when installing the heater.

### **For user:**

- This product is not designed to be used by persons (including children) with limited physical or mental abilities and limited experience and knowledge except under close supervision by a responsible person with knowledge and experience or having been advised by such person.
- Cleaning and user maintenance shall not be made by children without supervision.
- Under no circumstances should children be allowed to play with the device.
- Do not use the heater as a grill.
- Do not put wood of any kind on the electric heater.
- Do not cover the heater. It may cause a fire.
- Do not use the heater as clothes dryer. It may cause fire.
- Never sit on the heater. It is really hot and can cause serious burns.
- Do not use chlorinated water (e.g. From the swimming pool or jacuzzi) or seawater. It can destroy the heater.
- When installing a new heater, switch the heater on for 30mins. Do not stay inside the sauna room while performing the operation. See page 13.
- Make sure that no flammable objects have been placed on the heater before activating the preset time function or the stand-by mode for the remote operation.

## **For Technicians:**

- Wiring and repairs must be done by a certified electrician.
- Follow the Minimum Safety Distances when mounting the heater (see Fig.2)
- The electronic and electric system should be mounted in a way so that incoming air will not interfere with it. The control must be mounted outside the sauna cabin.
- If this sauna heater is used for public saunas or saunas that may be switched on by a separate remote-control system/ the door of the sauna room must be fitted with an interlock such that the stand-by mode setting for remote operation is disabled if the sauna door is opened when the stand-by mode setting for remote operation is set.
- When positioning the sauna heater, observe the minimum safety distances (see Fig. 2).
- Observe the specifications on volumes of the sauna cabin (see Fig.9).
- Observe the specifications on ventilation of the sauna cabin (see Fig.8).

## Heater Installation

In most countries there is a law that requires heater to be screwed to the floor as indicated in Fig.1A. Ensure that there is enough space for service and maintenance, see Fig.1B. To avoid accidental contact with heater it is recommended to install Taurus heater guard. For safety and convenience, follow the minimum safety distances as provided in Fig.2. Follow the room volumes given in the Technical Data in page 15. Do not install more than one heater in sauna room unless you follow the special instructions for tandem-heater installation.

A certified electrician must do the installation of the heater to ensure safety and reliability. Improper electrical connections can cause electric shock or fire. Refer to the electrical diagram in page 7.

The cable must be HO7RN-F type or its equivalent. To connect the cable, open the side of the heater where terminals are located (see Fig. 5). An electrical supply cable must be connected to the terminal block through the strain reliever.

Fig. 1A **STAND**

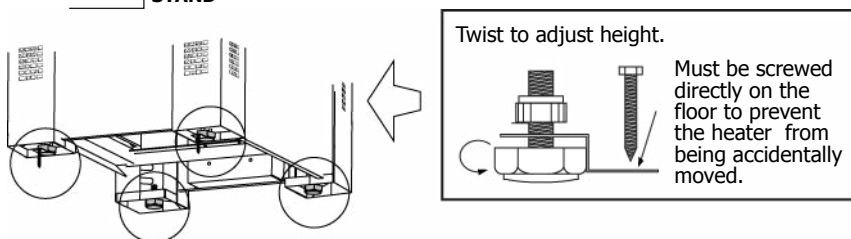
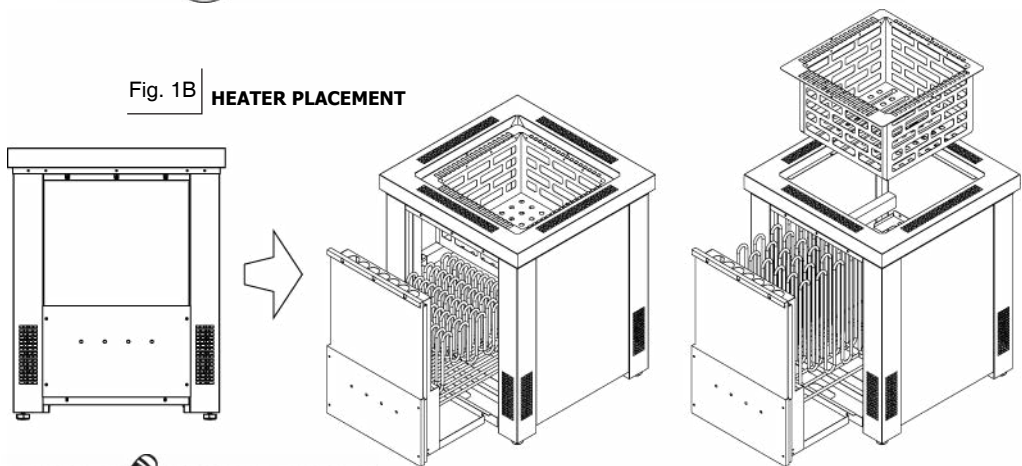


Fig. 1B **HEATER PLACEMENT**



### NOTE:

Remove the carton from the heating elements before installing the heater as it is only intended to protect them during shipment.

#### TAURUS G-Model

- Heating elements separated from stones.

#### TAURUS

- Heating elements in contact with stones.

# Heater Stones

The main purpose of the stones in the heater unit is to store enough energy to efficiently vaporize the water thrown on top of the stones to maintain correct humidity in the sauna room. The stones must be removed at least once a year or every 500 hours which ever occurs first. All stone crumbles must be removed from the heater unit and replaced with new ones as described in the heater manual. The required amount of stones is also listed in the manual provided. See Fig.9.

**NOTE! Never use the heater without stones as it may cause fire. Use only manufacturer recommended SaWo-stones. Using unsuitable stones may lead to heating element damage and will void the warranty. Never use ceramic stones or other artificial stones of any type!**

## Loading stones into the heater

It is recommended that all stones should be rinsed to remove any stains or dust that can cause unpleasant odour during the first few times of using the heater. It is important that the stones are loaded carefully in a way that they do not block air circulation through the heater. Larger stones that won't fit between the heating elements must not be forced in place instead they must be completely removed. Small crumble or stone pieces smaller than 35mm in diameter must not be loaded into the heater because they will block the air circulation and will cause overheating and possible heating element damage.

**NOTE! Heating element damage due to overheating caused by wrong kind of stones or stones which were wrongly loaded into the heater is not covered by the factory warranty.**

Fig. 2A **Minimum Safety Distance (mm)**  
**Commercial Use**

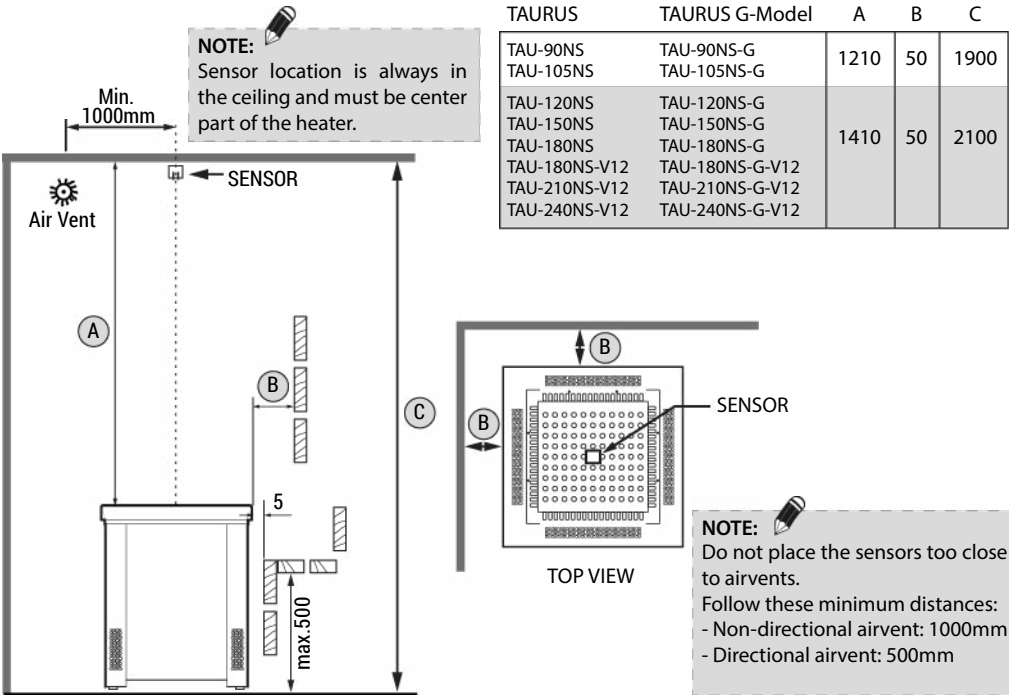


Fig. 2B **Minimum Safety Distance (mm)  
Residential Use**

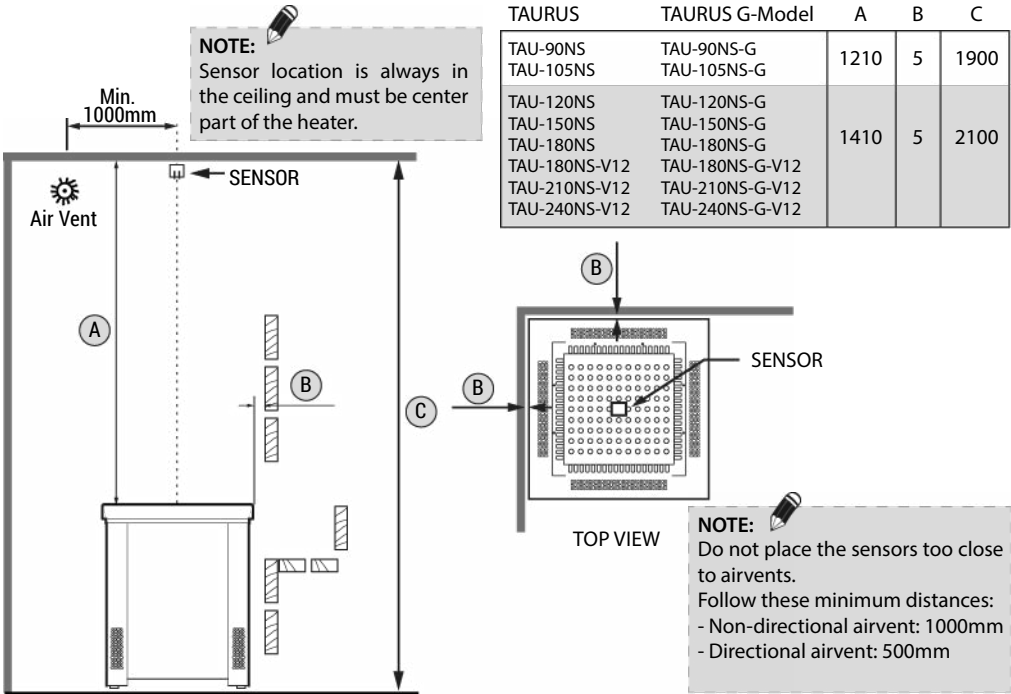


Fig. 3

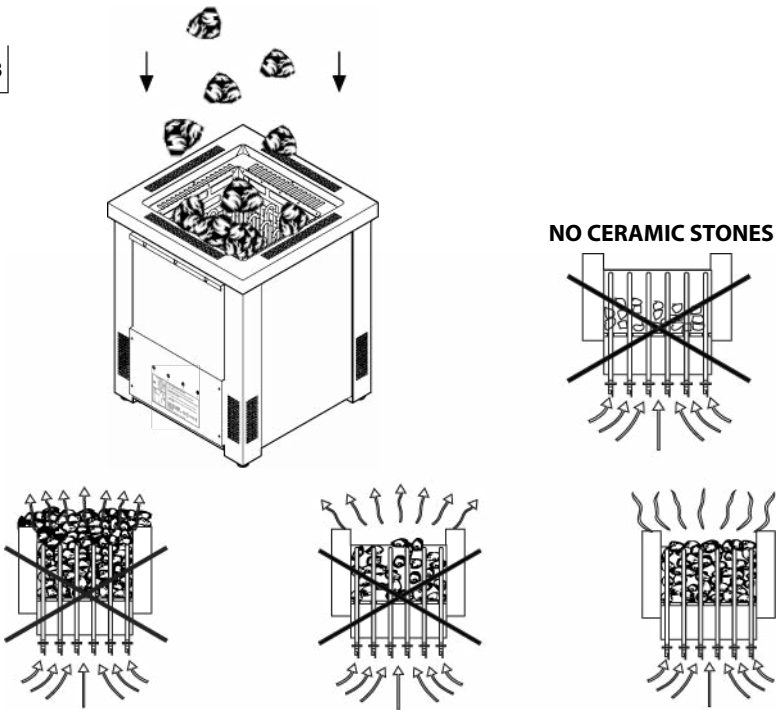
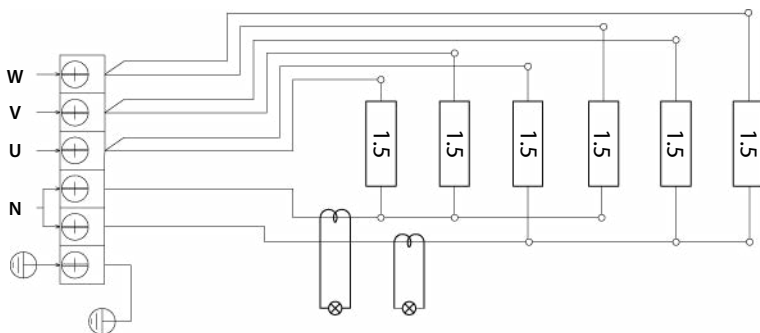


Fig. 4 **Electrical Diagram**

## TAURUS

**TAU-90NS**  
9.0 kW  
400V 3N~  
50/60 Hz

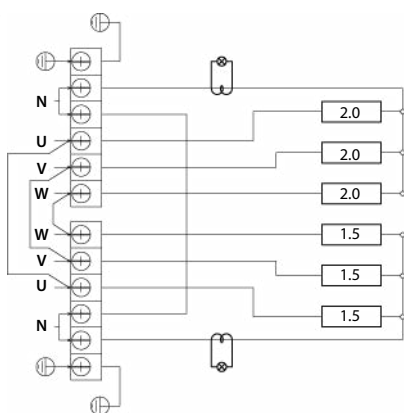
TERMINAL 1  
9 kW



**TAU-105NS**  
10.5 kW  
400V 3N~  
50/60 Hz

TERMINAL 1  
6 kW

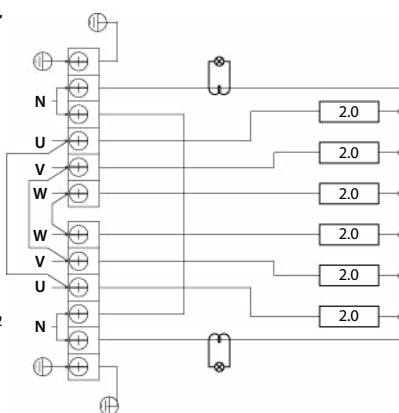
TERMINAL 2  
4.5 kW



**TAU-120NS**  
12.0 kW  
400V 3N~  
50/60 Hz

TERMINAL 1  
6 kW

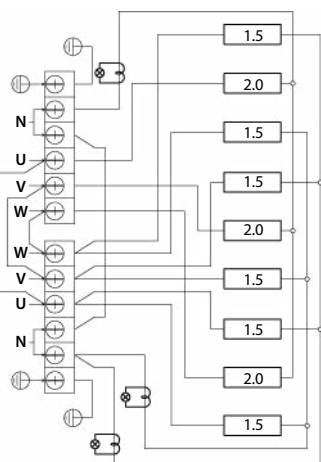
TERMINAL 2  
6 kW



**TAU-150NS**  
15.0 kW  
400V 3N~  
50/60 Hz

TERMINAL 1  
6 kW

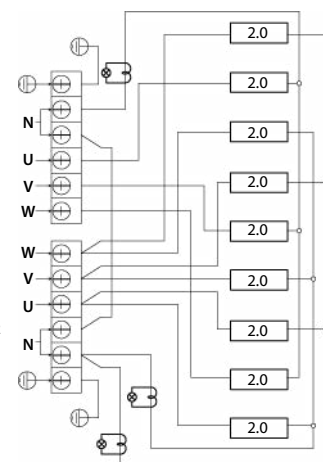
TERMINAL 2  
9 kW



**TAU-180NS**  
18.0 kW  
400V 3N~  
50/60 Hz

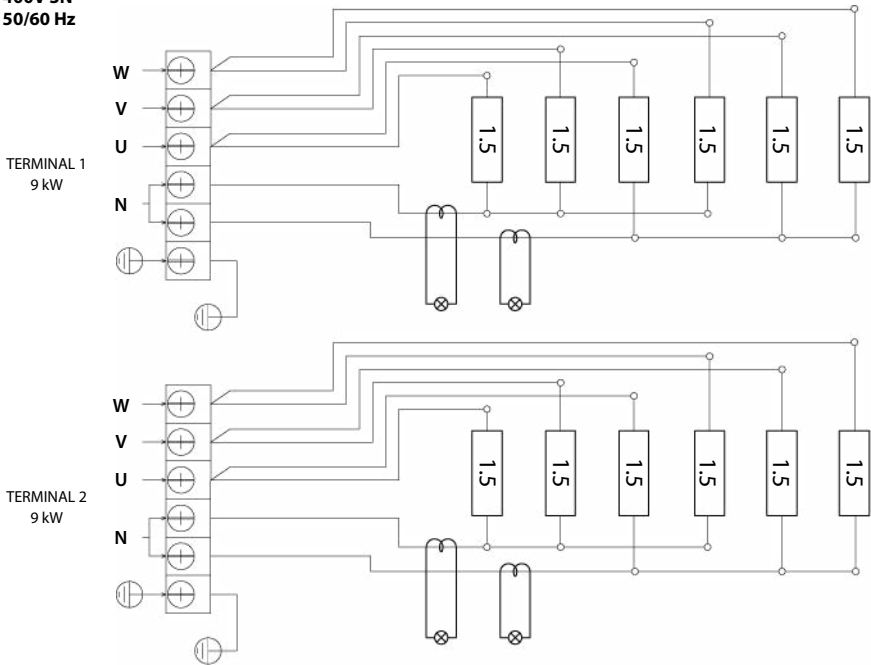
TERMINAL 1  
6 kW

TERMINAL 2  
12 kW

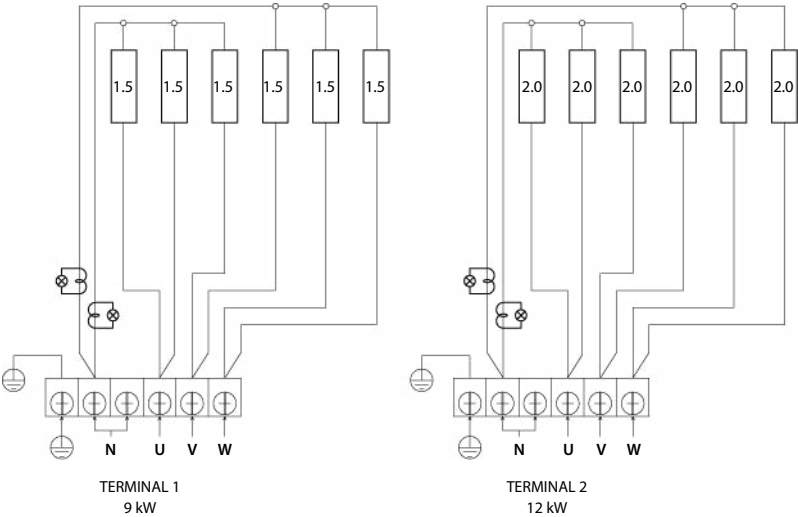




**TAU-180NS-V12**  
**18.0 kW**  
**400V 3N~**  
**50/60 Hz**

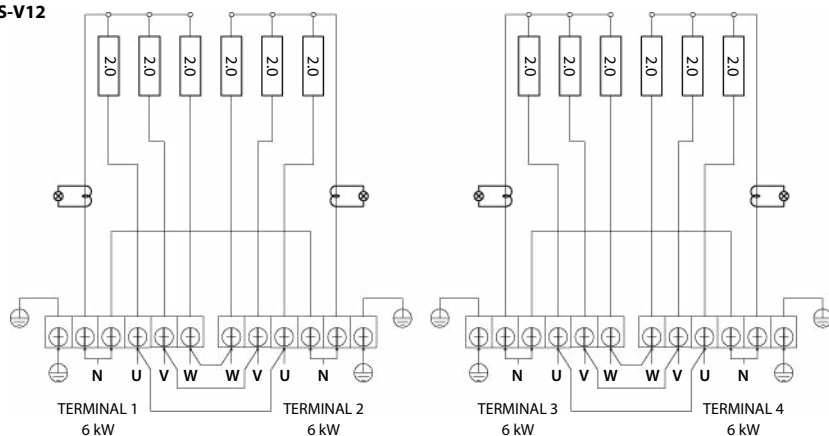


**TAU-210NS-V12**  
**21.0 kW**  
**400V 3N~**  
**50/60 Hz**

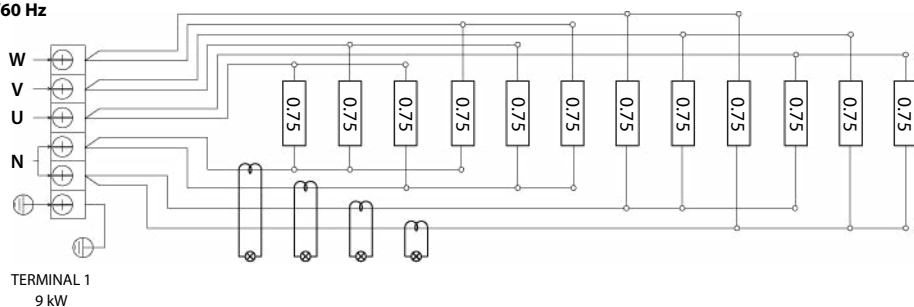


**TAU-240NS-V12**

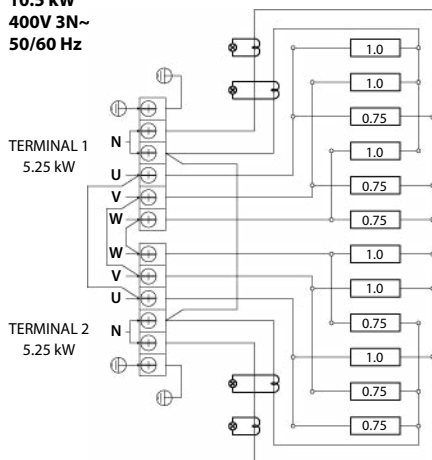
24.0 kW  
400V 3N~  
50/60 Hz

**TAURUS G-Model****TAU-90NS-G**

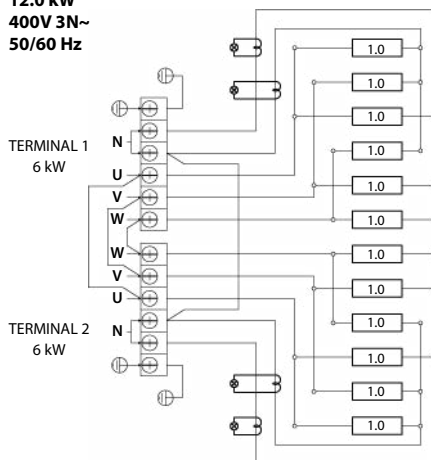
9.0 kW  
400V 3N~  
50/60 Hz

**TAU-105NS-G**

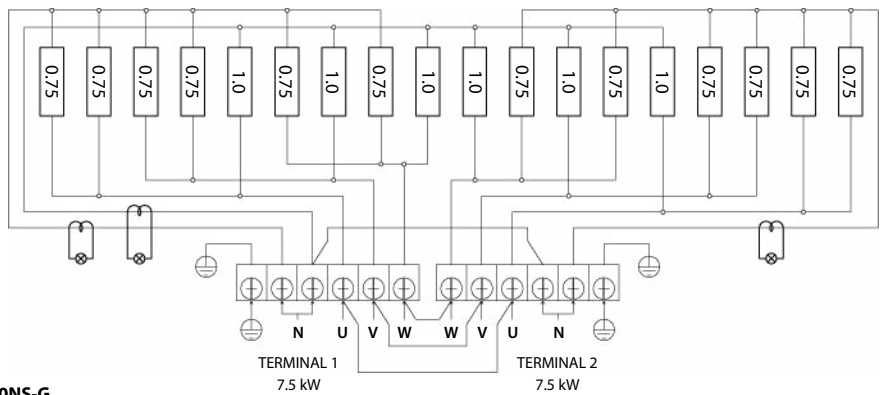
10.5 kW  
400V 3N~  
50/60 Hz

**TAU-120NS-G**

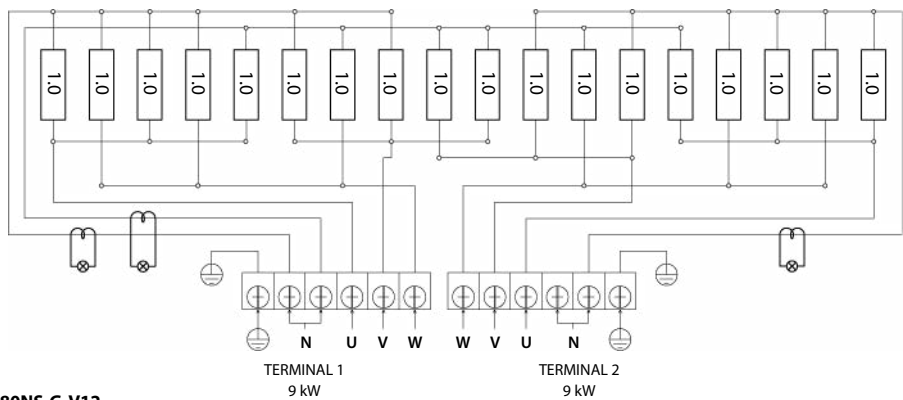
12.0 kW  
400V 3N~  
50/60 Hz



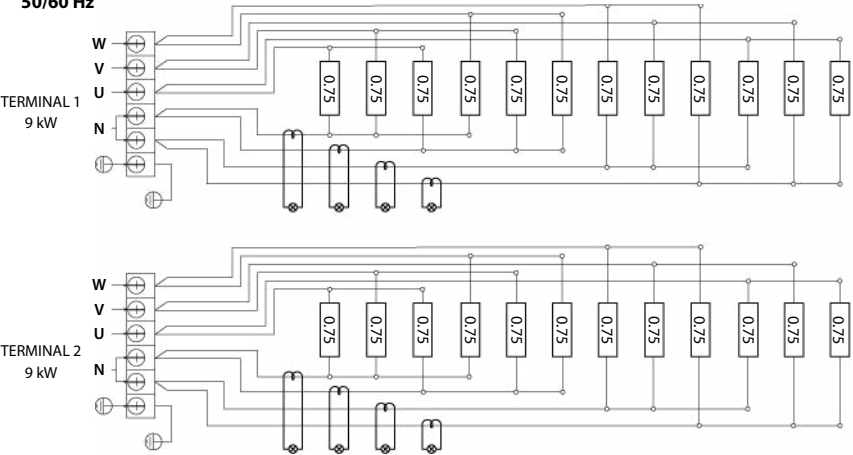
**TAU-150NS-G**  
**15.0 kW**  
**400V 3N~**  
**50/60 Hz**



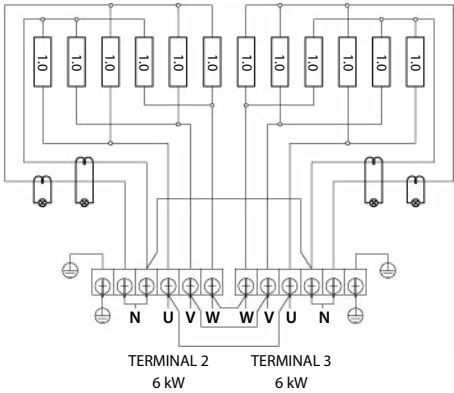
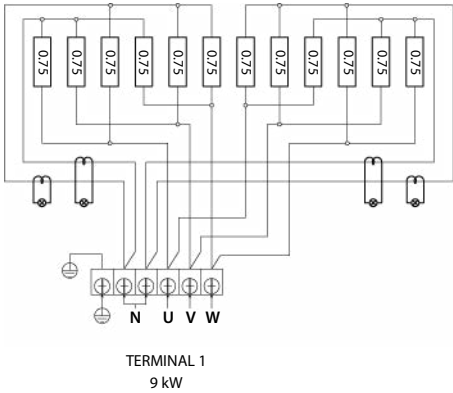
**TAU-180NS-G**  
**18.0 kW**  
**400V 3N~**  
**50/60 Hz**



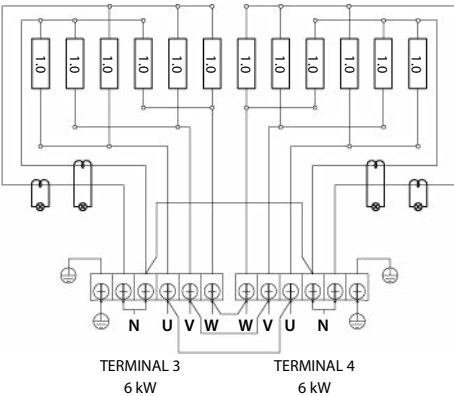
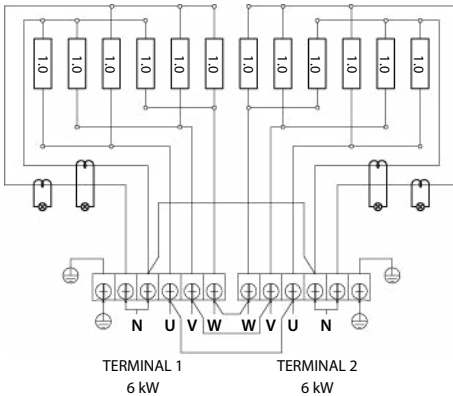
**TAU-180NS-G-V12**  
**18.0 kW**  
**400V 3N~**  
**50/60 Hz**



**TAU-210NS-G-V12**  
**21.0 kW**  
**400V 3N~**  
**50/60 Hz**



**TAU-240NS-G-V12**  
**24.0 kW**  
**400V 3N~**  
**50/60 Hz**



# Product Illustration

Fig. 5 Heater Placement

*For illustrative purpose only*

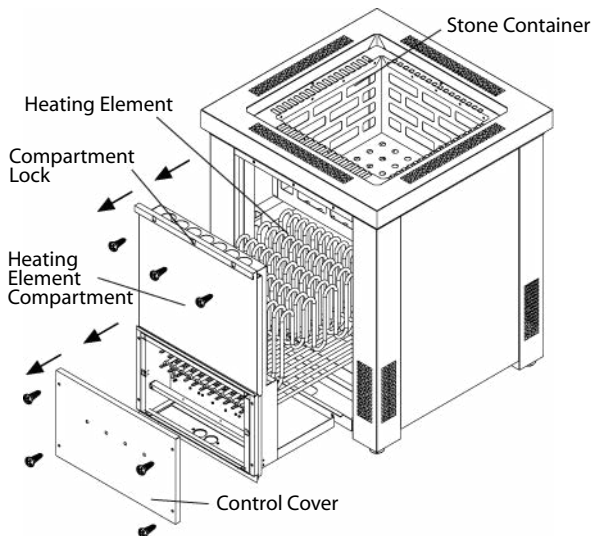
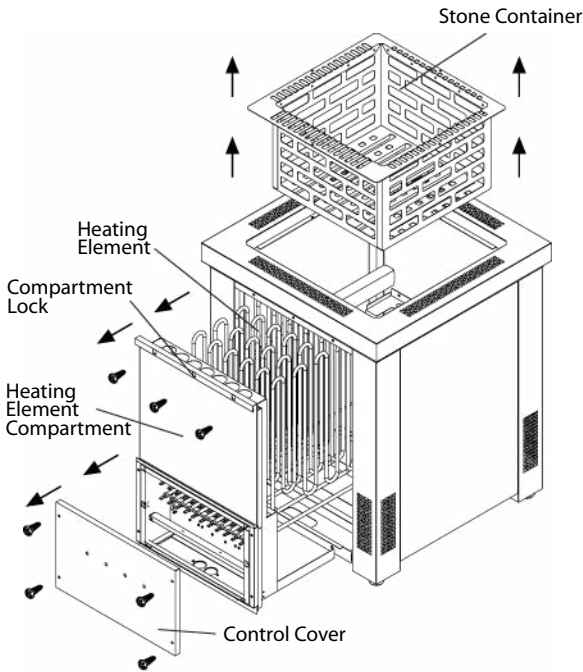
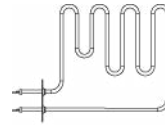


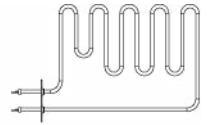
Fig. 6

## Heating Element

TAURUS

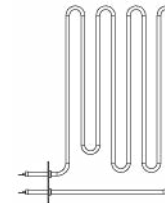


TAU75

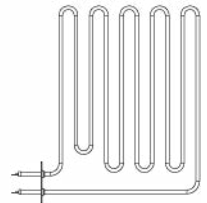


TAU100

TAURUS G-Model



TAU150



TAU200

### NOTE:

#### Removing Heating Elements:

- Carefully remove the stones.
- Remove the stone container.
- Unscrew compartment lock.
- Unscrew and remove control cover.
- Carefully pull out the heating element compartment.
- Replace heating element.

### NOTE:

#### Removing Heating Elements:

- Carefully remove the stones.
- Unscrew compartment lock.
- Carefully pull out the heating element compartment.
- Replace heating element.

## Heating of the sauna

### CAUTION!

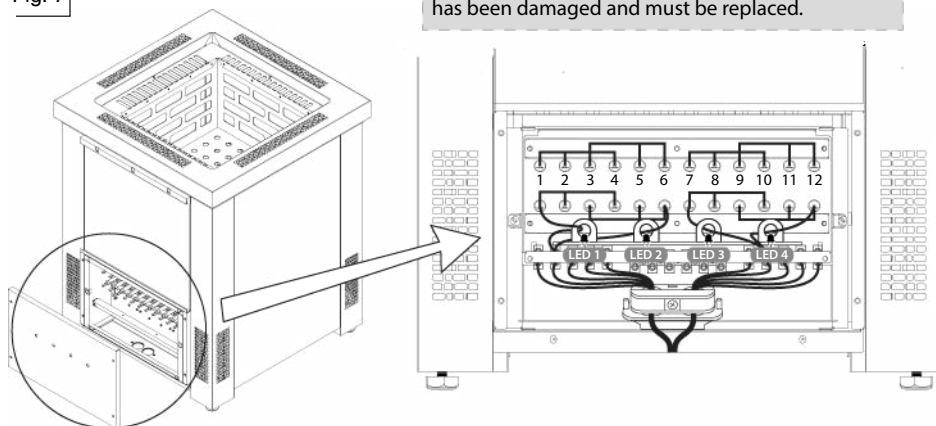
Smoke and odor formation when heating up for the first time Work materials from the manufacturing process will be present on the new heating elements. These evaporate when the sauna heater is heated up for the first time. This produces smoke and an unpleasant odor. Breathing in the fumes or smoke can be harmful to your health.

Perform the following steps when operating the sauna heater for the first time and if the heating elements for the sauna heater have been changed. In this way you will prevent damage to health due to the fumes and smoke produced when heating up for the first time.

1. Select the highest possible temperature in the sauna control.
2. Heat up the sauna heater for half an hour. DON'T stay in the sauna
3. Allow the sauna cabin to ventilate thoroughly after heating up for the first time.
4. If no smoke or odor is produced the next time the sauna heater is heated up, you can start to use the sauna. If smoke or odor is produced again, leave the sauna cabin immediately and repeat the initial heating up process followed by ventilation.

Always check the sauna room before switching sauna heater on (to be sure that there is no combustible things within the safety distances of the heater or on the heater). Make sure that sauna room has been efficiently ventilated. If the output of the heater is proper it will take about an hour to reach suitable temperature (Fig. 8). The temperature in sauna room should be between  $+60 - +90\text{ }^{\circ}\text{C}$ , according to the preference of user. Too powerful heater will heat sauna room too quickly and the stones won't have enough time to warm. The water poured on the stones will not evaporate, but flow into the stone holder. An underpowered heater, on the other hand, would lead to an undesirably long heating period.

Fig. 7



## Insulation

The sauna must have proper insulation on the walls, ceiling and door. One square meter ( $\text{m}^2$ ) of uninsulated surface increases the cubic volume by approximately  $1,2\text{m}^3$  when determining the power requirement of the heater. Refer to Technical Data. Ensure that moisture proofing is appropriate for the sauna room. The purpose of this is to prevent spreading of moisture to the other rooms or wall structure. Moisture proofing must be placed between heating insulation and panel. Thermal and moisture proofing need to be installed according to the following order from outside to inside.

- The recommended minimum thickness of the thermal insulation in the walls is 50mm and in the ceiling 100 mm.
- It is possible to use carton- or aluminum foil laminate as a vapor barrier, which is affixed over the insulation aluminum foil inwards.
- Leave at least 20 mm air slot between vapor barrier and inside panel
- To prevent gathering of the moisture behind the panel leave the slot between wall panel and ceiling.

## Air Ventilation

To have a soothing sauna, there should be a proper mixing of hot and cold air inside the sauna room. Another reason for ventilation is to draw air around the heater and move the heat to the farthest part of the sauna. The positioning of the inlet and outlet vents may vary depending on the design of the sauna room or preference of the owner.

The inlet vent may be installed on the wall directly below the heater (Fig. 8A). When using the mechanical ventilation, inlet vent is placed at least 60 cm above the heater (Fig. 8B) or on the ceiling above the heater (Fig. 8C). Through these positions, the heavy cold air that is blown into the sauna is mixed with the light hot air from the heater, bringing fresh air for the bathers. It is recommended that the inlet vent must have a diameter of 5-10cm.

The outlet vent should be placed diagonally opposite to the inlet. It is recommended that the outlet vent is placed under the platform in a sauna as far as possible from the fresh air vent. It can be installed near the floor and stale air is led outside through a pipe to a vent in the sauna ceiling, or under the door (to the washroom). In this case, the sill slot must be at least 5 cm and it is recommended that there is mechanical ventilation in the washroom. The size of the exhaust should be twice that of the inlet.

Fig. 8

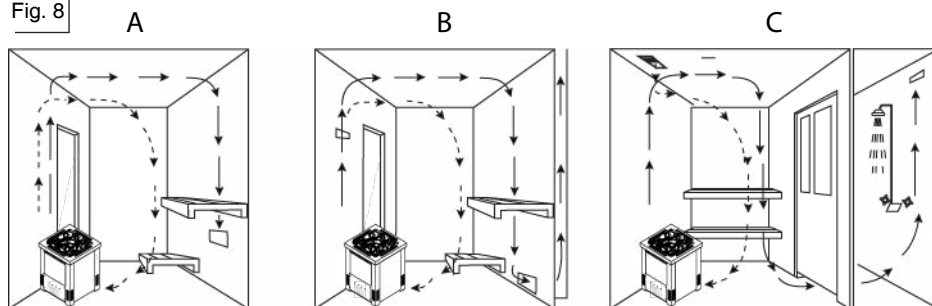


Fig. 9 | **Technical Data**

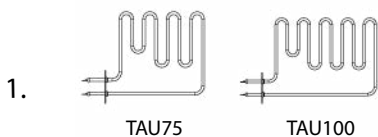
HEATER MODEL	kW	HEATING ELEMENT		SAUNA ROOM MIN MAX (m <sup>3</sup> )	SUPPLY VOLTAGE	SIZE OF HEATER			SIZE OF WIRE (mm <sup>2</sup> )			WEIGHT OF HEATER (kg)	STONES (kg)	CONTROL	FUSE (AMP.)
		kW	TYPE NUMBER			LENGTH	WIDTH	HEIGHT	T1	T2	T3				
TAU-90NS	9.0	6 x 1.5	TAU150	8 - 14	400V 3N~	590	590	710	5 x 2.5			37	40-50	separate	3 x 16
TAU-105NS	10.5	3 x 2.0 3 x 1.5	TAU200 TAU150	9 - 15	400V 3N~	590	590	710	5 x 1.5	5 x 1.5	5 x 4.0	37	40-50	separate	3 x 10 3 x 10 3 x 20
TAU-120NS	12.0	6 x 2.0	TAU200	10 - 18	400V 3N~	590	590	710	5 x 1.5	5 x 1.5	5 x 4.0	37	40-50	separate	3 x 10 3 x 10 3 x 20
TAU-150NS	15.0	3 x 2.0 6 x 1.5	TAU150 TAU200	13 - 23	400V 3N~	590	760	710	5 x 1.5	5 x 2.5	5 x 4.0	56	60-75	separate	3 x 10 3 x 16 3 x 25
TAU-180NS	18.0	9 x 2.0	TAU200	17 - 29	400V 3N~	590	760	710	5 x 1.5	5 x 4.0		56	60-75	separate	3 x 10 3 x 20
TAU-180NS-V12	18.0	12 x 1.5	TAU150	18 - 30	400V 3N~	590	760	710	5 x 2.5	5 x 2.5		56	80-100	separate	3 x 16 3 x 16
TAU-210NS-V12	21.0	6 x 1.5 6 x 2.0	TAU150 TAU200	22 - 35	400V 3N~	590	980	710	5 x 4.0	5 x 4.0		74	80-100	separate	3 x 20 3 x 20
TAU-240NS-V12	24.0	12 x 2.0	TAU200	26 - 42	400V 3N~	590	980	710	5 x 4.0	5 x 4.0		74	80-100	separate	3 x 20 3 x 20
TAU-90NS-G	9.0	12 x 0.75	TAU75	8 - 14	400V 3N~	590	590	710	5 x 2.5			38	40-50	separate	3 x 16
TAU-105NS-G	10.5	6 x 0.75 6 x 1.0	TAU75 TAU 100	9 - 15	400V 3N~	590	590	710	5 x 1.5	5 x 1.5	5 x 4.0	38	40-50	separate	3 x 10 3 x 10 3 x 20
TAU-120NS-G	12.0	12 x 1.0	TAU100	10 - 18	400V 3N~	590	590	710	5 x 1.5	5 x 1.5	5 x 4.0	38	40-50	separate	3 x 10 3 x 10 3 x 20
TAU-150NS-G	15.0	6 x 1.0 12 x 0.75	TAU75 TAU100	13 - 23	400V 3N~	590	760	710	5 x 2.5	5 x 2.5	5 x 4.0	56	60-75	separate	3 x 16 3 x 16 3 x 25
TAU-180NS-G	18.0	18 x 1.0	TAU100	17 - 29	400V 3N~	590	760	710	5 x 2.5	5 x 2.5		56	60-75	separate	3 x 16 3 x 16
TAU-180NS-G-V12	18.0	24 x 0.75	TAU75	18 - 30	400V 3N~	590	760	710	5 x 2.5	5 x 2.5		56	80-100	separate	3 x 16 3 x 16
TAU-210NS-G-V12	21.0	12 x 0.75 12 x 1.0	TAU75 TAU100	22 - 35	400V 3N~	590	980	710	5 x 4.0	5 x 4.0		75	80-100	separate	3 x 20 3 x 20
TAU-240NS-G-V12	24.0	24 x 1.0	TAU100	26 - 42	400V 3N~	590	980	710	5 x 4.0	5 x 4.0		75	80-100	separate	3 x 20 3 x 20



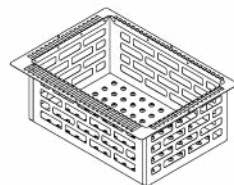
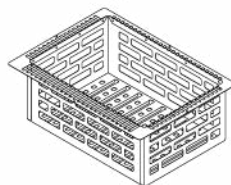
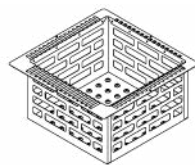
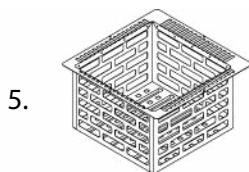
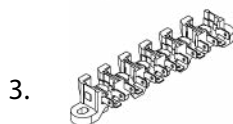
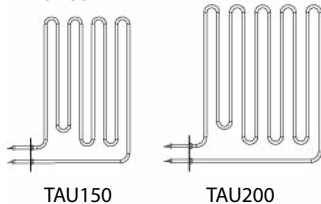
# Tuarus Heater Spare parts

1. Heating Element
2. Cable Holder
3. Terminal Block (Large)
4. Leveling Bolt
5. Stone Container
6. Cable Box Cover
7. Current Sense PCB

TAURUS G-Model

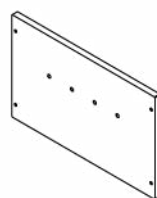
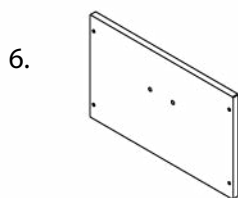


TAURUS



TAURUS

TAURUS G-Model



6 Heating Element

12 Heating Element





[www.sawo.com](http://www.sawo.com)  
[info@sawo.com](mailto:info@sawo.com)

Subject to change without notice.

**CE IPX4** 

TAU\_ML(En0416)