MAGNUM®



Käyttöohjeet

Kiukaat ilman ohjauskeskusta

These instructions are intended for the owner of the sauna or the person responsible for its maintenance, as well as for the electrician who installs the sauna stove. The electrician will give these instructions to the owner of the sauna or the person responsible for its maintenance after the stove has been installed successfully. The owner of the sauna stove or the person responsible for its maintenance must store these instructions for the entire lifespan of the sauna stove, because changes may be made to the components. Keeping the original instructions ensures that the circuit diagrams and the connection methods used during maintenance works are intended for this particular sauna stove.

The owner of the sauna must read these instructions carefully before first using the sauna stove. The instructions contain full operating and maintenance instructions, installation instructions, a troubleshooting guide and the warranty terms for the sauna stove and its parts.

The electrician must ensure that the device has been disconnected from the power supply before performing any installation or maintenance work. The fitter should avoid touching the internal components and integrated circuits of the device unnecessarily. Touching can result in a discharge of static electricity, which may damage the device or one of its electrical components. The electrician must ensure that the device is grounded correctly and that all connections have been completed according to the instructions.

THE ONLY PURPOSE OF THIS SAUNA STOVE IS TO HEAT THE SAUNA TO A SUITABLE SAUNA TEMPERATURE. THE SAUNA STOVE MUST NOT BE USED FOR ANY OTHER PURPOSE.

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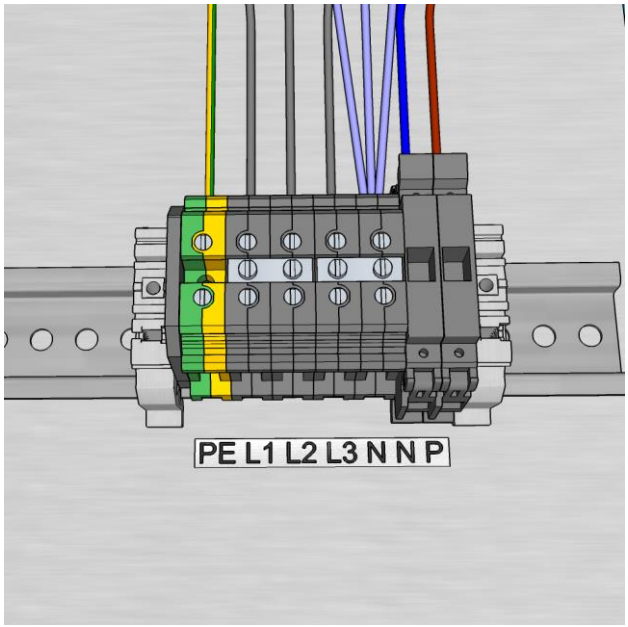
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1. INSTALLATION OF THE SAUNA STOVE

- **Instructions for the electrical installation are provided in the circuit diagram in these installation instructions as well as on the sticker on the sauna stove.**
- **The electrical installation work may only be performed by an electrician qualified for the job, in accordance with applicable regulations.**
- **The sauna stove is connected to the power grid semi-permanently with H07RN-F or similar rubber cable.**
- **Check the required cable dimensions in the table below.**
- **Please note! The use of a PVC cable as a connection cable is not permitted.**

HEATER	POWER	FUSES	FEED CABLE	SAUNA SIZE
Magnum 6	6,0kW	3x10 A	5x1,5mm2	5-8m3
Magnum 6,6	6,6kW	3x10 A	5x1,5 mm2	5-9 m3
Magnum 9	9,0kW	3x16 A	5x2,5 mm2	8-15 m3
Magnum 10,5	10,5kW	3x16 A	5x2,5 mm2	10-20 m3

1. Remove the stainless steel frame from the upper part of the sauna stove - Original, Lite, Cenik models. Sade heater has no removable parts.
2. Remove the protective plastics from the metal parts.
3. Fold the sauna stove's cardboard box up and set the sauna stove on its side on the cardboard. Ensure that the sauna stove does not become scratched.
4. Open the hatch at the base of the sauna stove.
5. Prepare the feed cable from the control center to the sauna heater. Insert the feed cable through the gland seal.
6. Connect the feed cable to the sauna heater. PE, L1, L2, L3, N.



7. .If the sauna heater has lighting, connect the lighting cable after the feed cable. N, P.
8. Close the hatch and lift the sauna heater upright. Tighten the gland seal.
9. Test that all resistors heat up.

All connection changes must be made outside the sauna heater. The terminal block may be different from the picture, but the connection principle is the same for all sauna heaters.

2. PILLING THE STONES IN TO HEATER – MAGNUM ORIGINAL, LITE, CENIK

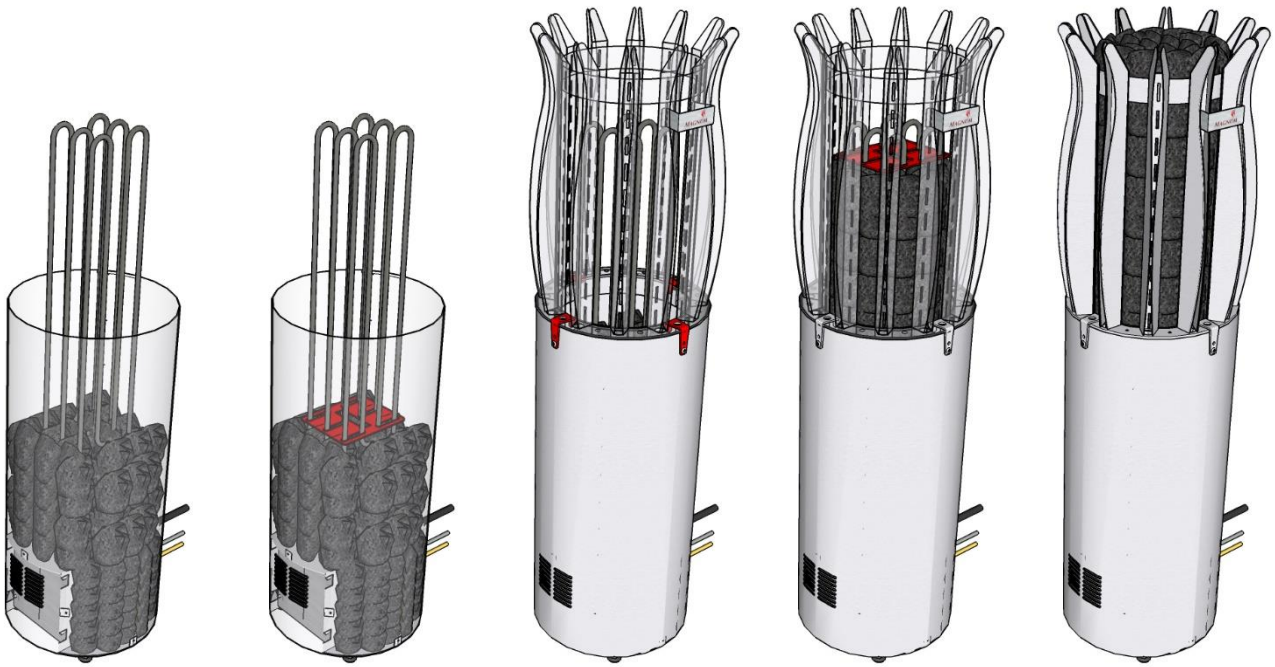
Preparations:

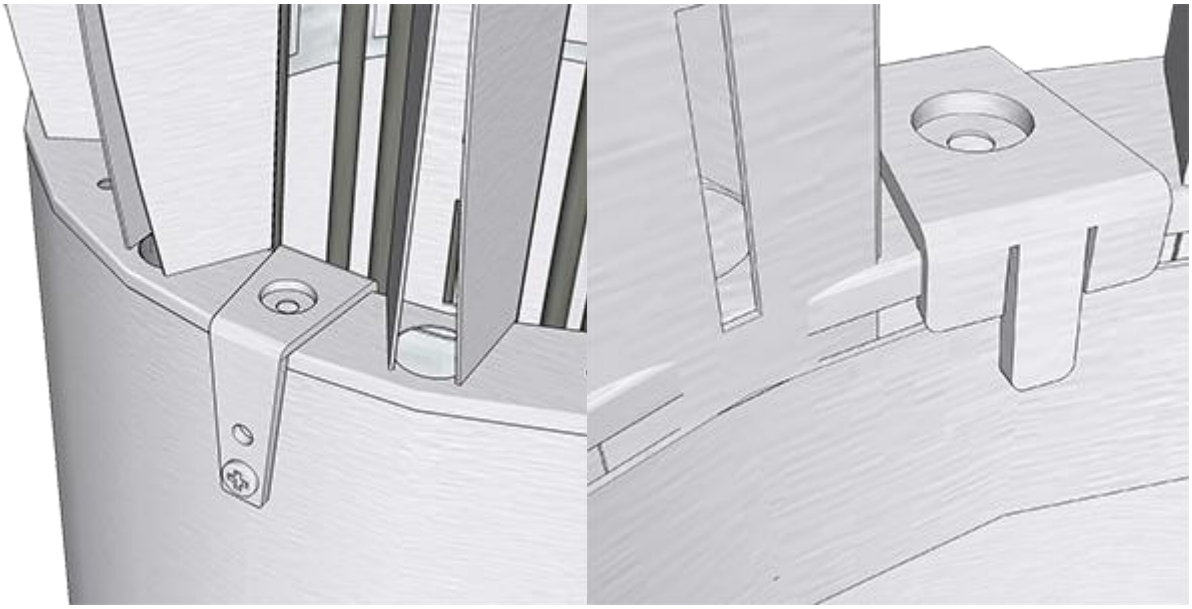
1. Ensure that the sauna stove is correctly connected and that the resistors definitely heat up. **Do not pile stones in the sauna stove if the sauna stove does not work fully!**
2. The benches should be installed before the stones are piled in the sauna stove, particularly if the sauna stove is integrated through the benches.
3. Place the sauna stove in its intended location, considering the safety distances. Straighten the sauna stove, using the adjustment feet.
4. For piling stones in the sauna stove, you will need a spirit level, protective gloves, 70 – 150 kg of rocks with a diameter of 5 – 10 cm (depending on the sauna stove model, **see section 5.2**), specifically rocks intended for use in the sauna stove, for example olivine diabase, olivine or peridot. Wash the rocks, if necessary.
5. In the installation illustrations, the parts of the sauna stove have been rendered in different colours and transparent, to make the instructions clearer.

Stone piling stages:

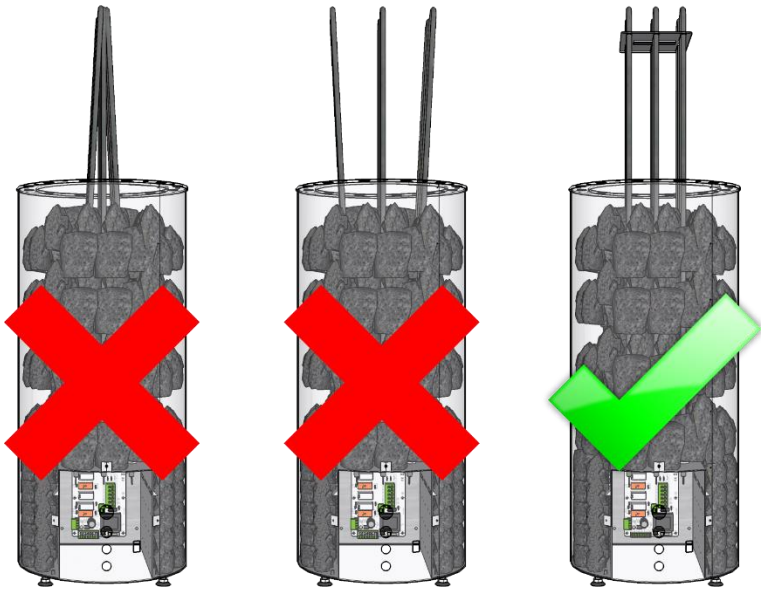
Please note! It is advisable to have small, smooth stones ready for piling in the upper section. Large stones will be placed in the lower section.

1. Make sure the stones are not tumbled on the sauna stove bottom. Do not wedge the resistors. Ensure that the resistors remain vertical throughout the entire stoning process. Do not pack the stones tightly. **Ensure that there are stones also between the resistors.**
2. If you have reached about 50mm above the bend in the middle of the resistors, drop the first resistor plate on top of the stones. This plate will help the resistors stay upright, and prevent them from moving as the stones sink.
3. Continue piling stones in the sauna stove until you have reached about 60mm from the highest section of the lower part. In LITE/CENIK models put the casing between the upper and lower part in its place. In the Original model, the casing is fixed, as the fibre lights are connected to it. Put the upper part in its place. Put brackets 4 pcs in place to hold upperpart in place.
4. Pile the sauna stove with stones until you have reached approx. 50 mm below the highest point of the resistors.
5. Lower the upper resistor plate on the stones. This plate will help the resistors stay upright, and prevent them from moving as the stones sink. If necessary, install the sauna stove's wall brackets in accordance with **SECTION 4.5.**
6. Finish piling stones in the sauna stove. The stones on the top should be tightly packed. You should put large stones on top.





When the lower part of the sauna stove is piled with stones, install the securing bracket of the upper part in all Cenik models and in all 10.5kW models with a high upper part. The external casing of the lower part of the sauna stove has pre-drilled holes for the fastener, and it will be secured with one screw. The bracket will be positioned in line with the smaller hole of the intermediate casing in the Lite/Cenik model, and at the fibre light in the Original model. **In the Lite and Cenik models, the casing must be rotated already before the upper part has been installed in the right place.** The bracket will press the lower band of the upper part downwards, and the upper part will not be able to move or rise upwards.



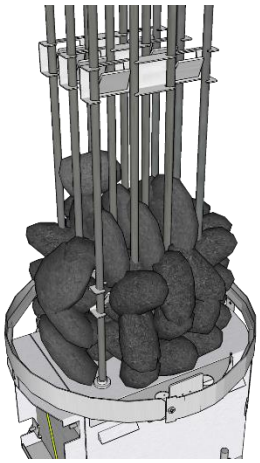
When piling stones in the sauna stove, always ensure that the resistors are straight. **Resistors that are turning outwards can be a fire hazard. Resistors that are turning inwards can burn through prematurely.** If necessary, attach the sauna stove to the wall with the supporting brackets included in the package. A sauna stove with too few stones is a fire hazard! Covering the sauna stove is a fire hazard! The uppermost layer of the stones must be as tight as possible, the resistors must not be visible. We recommend that the sauna stove stones are re-piled on a yearly basis! Always replace burned and cracked stones with new ones. If you use the sauna every day, it is recommended that the stones are piled again every 3 mths. The use of ceramic stones other than (KERKES) is forbidden. Other ceramic stones may cause the resistors to break down prematurely.

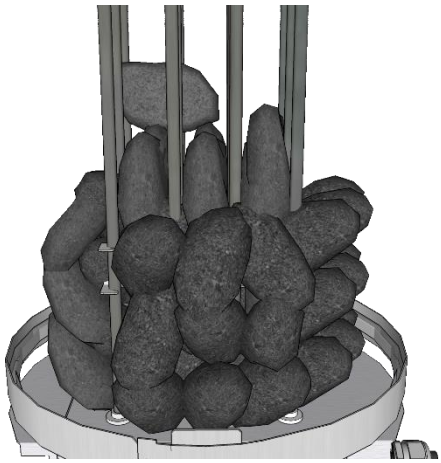
3. - PILLING THE STONES IN TO HEATER – MAGNUM SADE

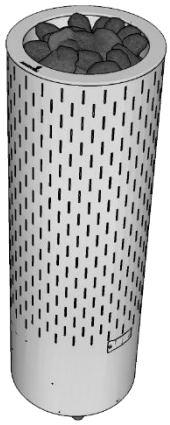
Preparations:

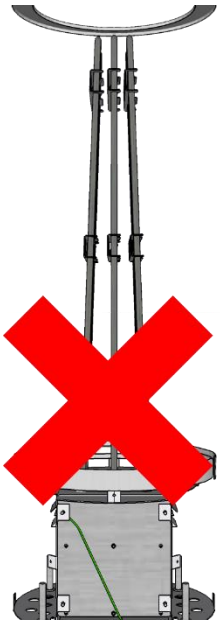
1. Ensure that the sauna stove is correctly connected and that the resistors definitely heat up. **Do not pile stones in the sauna stove if the sauna stove does not work fully!**
2. The benches should be installed before the stones are piled in the sauna stove, particularly if the sauna stove is integrated through the benches.
3. Place the sauna stove in its intended location, considering the safety distances. Straighten the sauna stove, using the adjustment feet.
4. For piling stones in the sauna stove, you will need a spirit level, protective gloves, 70 – 150 kg of rocks with a diameter of 5 – 10 cm (depending on the sauna stove model, **see section 5.2**), specifically rocks intended for use in the sauna stove, for example olivine diabase, olivine or peridot. Wash the rocks, if necessary.
5. In the installation illustrations, the parts of the sauna stove have been rendered in different colours and transparent, to make the instructions clearer.

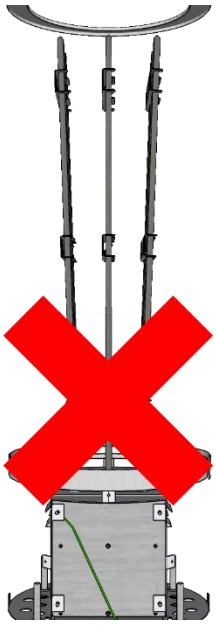
Make sure the stones are not tumbled on the sauna stove bottom. Do not wedge the resistors. Ensure that the resistors remain vertical throughout the entire stoning process. Do not pack the stones tightly. **Ensure that there are stones also between the resistors. Pile stones same way from bottom to top of the heater. Stop when you reach top level of heater.**

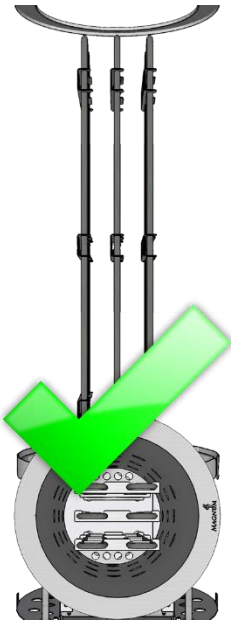










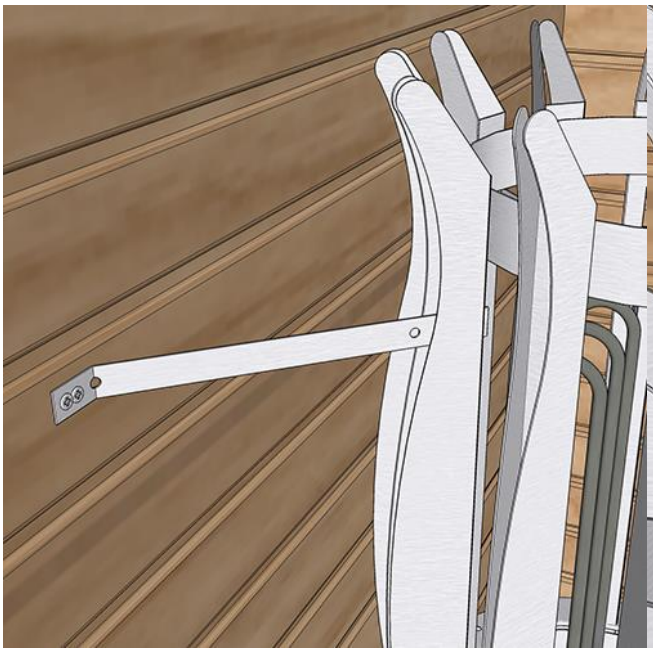


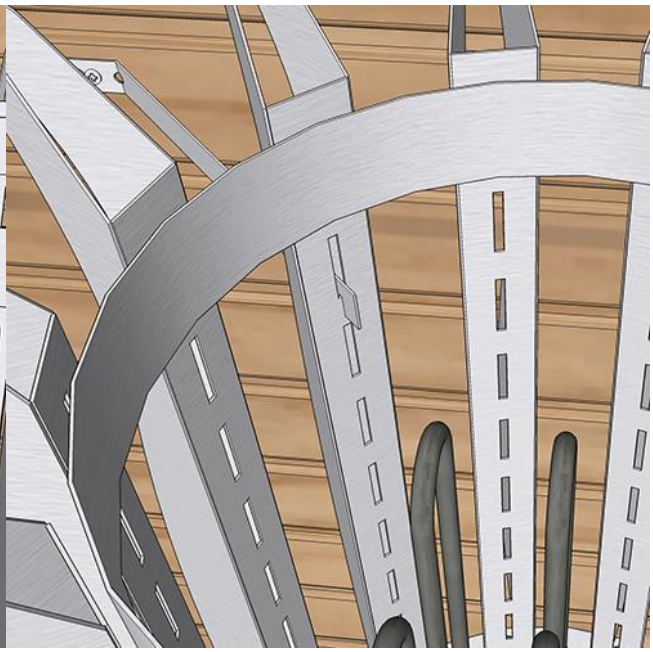
When piling stones in the sauna stove, always ensure that the resistors are straight. **Resistors that are turning outwards can be a fire hazard. Resistors that are turning inwards can burn through prematurely.** If necessary, attach the sauna stove to the wall with the supporting brackets included in the package. A sauna stove with too few stones is a fire hazard! Covering the sauna stove is a fire hazard! The uppermost layer of the stones must be as tight as possible, the resistors must not be visible. We recommend that the sauna stove stones are re-piled on a yearly basis! Always replace burned and cracked stones with new ones. If you use the sauna every day, it is recommended that the stones are piled again every 3 mths. The use of ceramic stones other than (KERKES) is forbidden. Other ceramic stones may cause the resistors to break down prematurely.

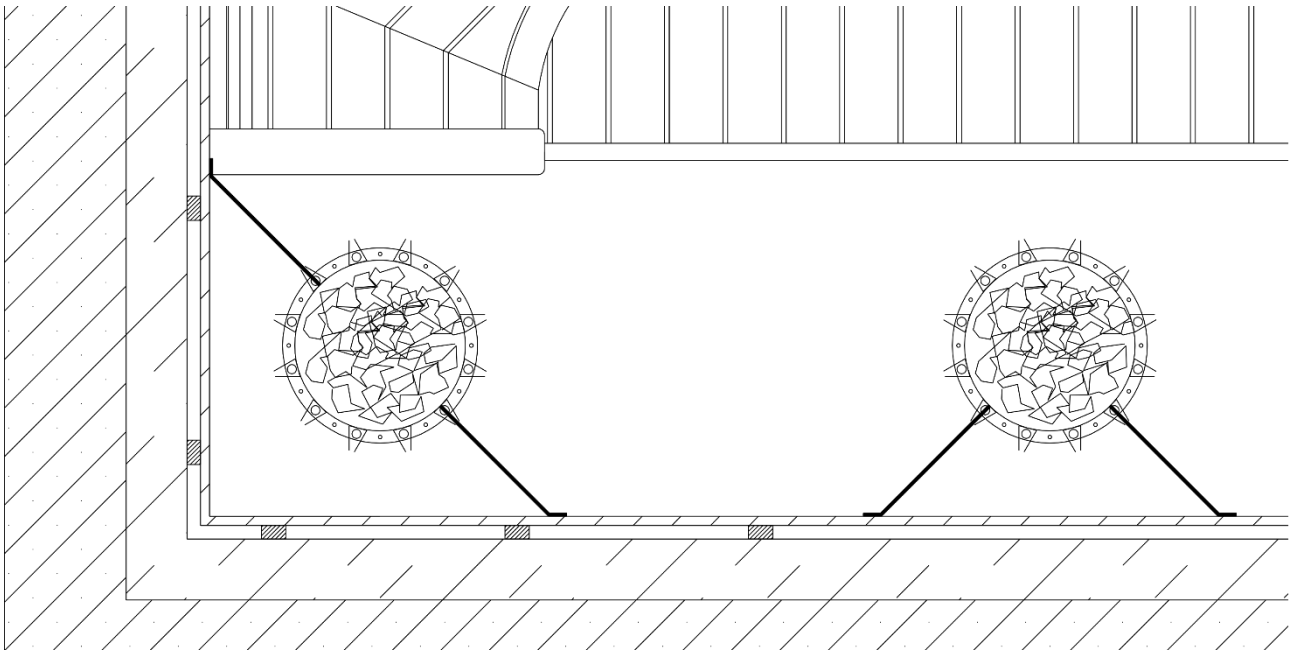
4. SAUNA STOVE WALL BRACKET

The sauna stove can also be secured to a wall, using the wall brackets included in the package. The bracket is intended to be installed between the gaps on the upper part's profile.

1. Test the fit of the brackets to the sauna stove/wall before attaching to the wall. In Lite/Original/Cenik sauna stoves, the bracket can be installed in the upper band or between the profile. In Sade heater, you can choose any groove outside of the heater.
2. Bend the brackets, if necessary PLEASE NOTE: if you are bending the brackets by hand, use protective gloves.
3. When the bracket seems to be positioned well, mark the attachment points on the wall.
4. Drill a small starting hole at the mark, so that the panel would not crack during the screwing process
5. Place the brackets to the hollows of the upper part of the sauna stove, according to the image, and screw the brackets to the wall
6. Finish piling stones in the sauna stove. The brackets will be covered by the stones.

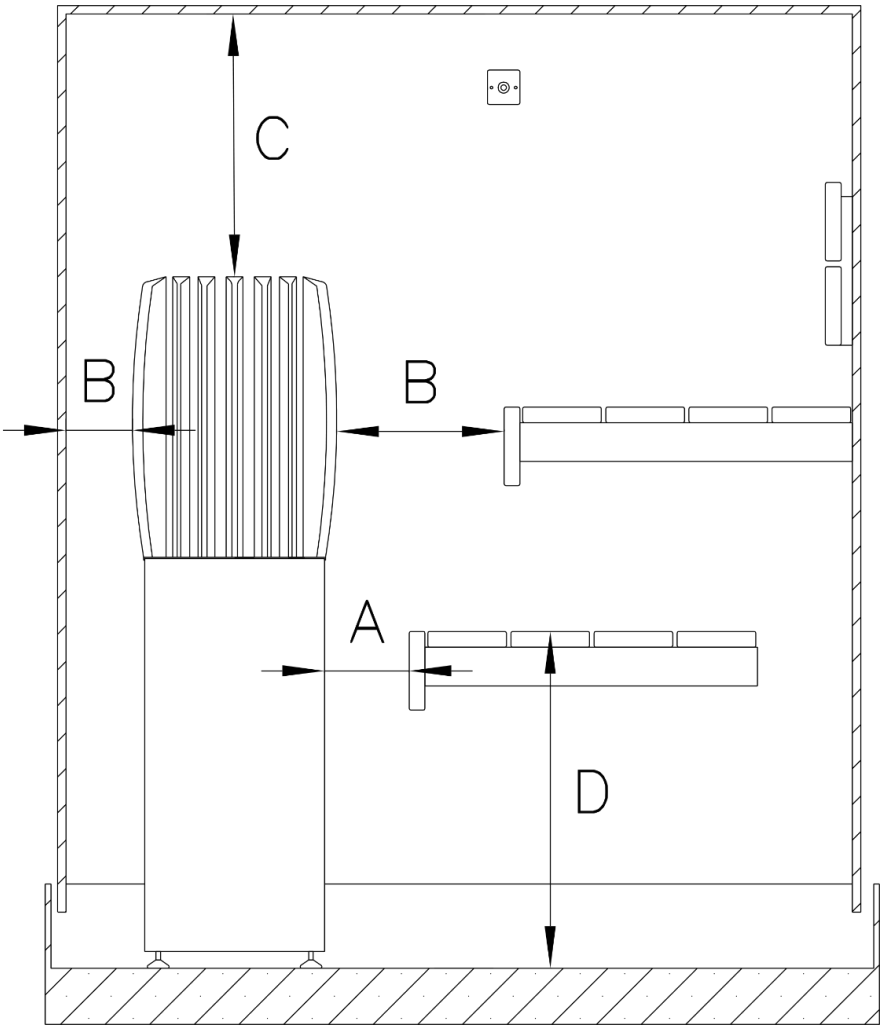






5. TECHNICAL INFORMATION AND SAFETY DISTANCES OF THE SAUNA STOVES

5.1 ILLUSTRATION OF SAFETY DISTANCES

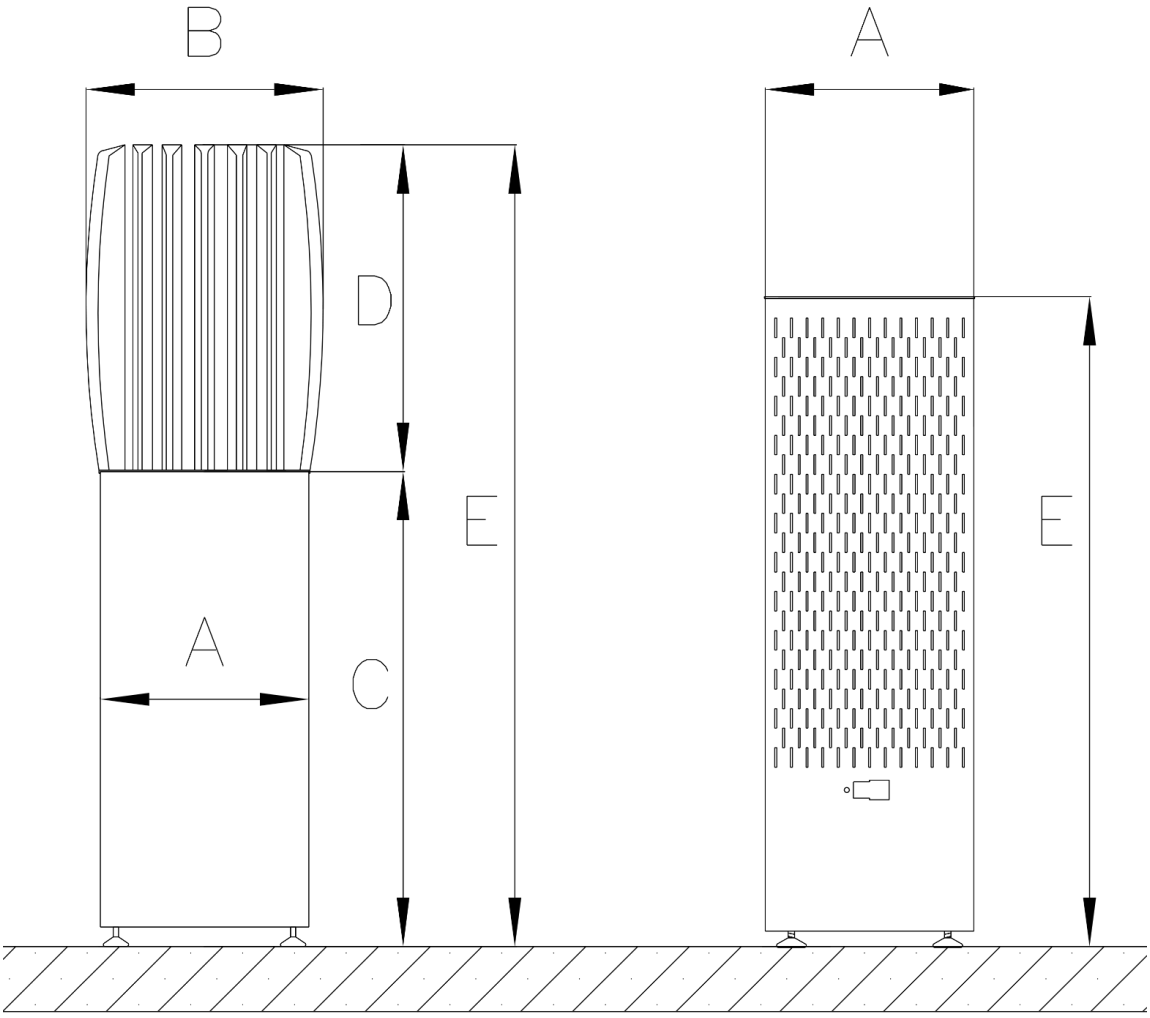


Safety distances to flammable structures	Safety distance Below **A**	Safety distance Above **B**	Safety distance to the ceiling **C**	Safety distance downwards, maximum height **D**
Magnum Original	20mm	70mm	800mm	700mm
Magnum Lite	50mm	100mm	800mm	700mm
Magnum Cenik	50mm	100mm	800mm	500mm
Magnum Sade	40mm	100mm	1100mm	850mm
PILLAR UPPER PARTS		**Pillar UPPER PARTS!**		
Magnum Original	20mm	**110mm**	800mm	700mm
Magnum Lite	50mm	**140mm**	800mm	700mm
Magnum Cenik	50mm	**140mm**	800mm	500mm

Reducing safety distances:

- 50% using single protection (1mm metal/fibreboard and 30mm air gap)
- 75% using double protection (double protective covering and air gap)

5.2 PHYSICAL MEASUREMENTS AND TECHNICAL SPECIFICATIONS OF THE SAUNA STOVES



	Original 6	**Original 6,6**	**Original 9,0**	**Original 10,5**
Capacity	6,0 KW	6,6 KW	9,0 KW	10,5 KW
Diameter of the lower part **A**	320 mm	320 mm	320 mm	320 mm
Diameter of the upper part **B**	320-395 mm *	320-360 mm *	320-360 mm *	320-385 mm *
Height of the lower part **C**	730 mm	730 mm	730 mm	730 mm
Height of the upper part **D**	230mm	500-530mm *	500-530 mm *	700-710 mm *
Total height **E**	960 mm	1270-1300 mm	1270-1300 mm	1440-1450 mm
Sauna dimensions	5-9 m3	5-9 m3	8-15 m3	10-20 m3
Sauna min. height	1760 mm	2070-2100 mm	2070-2100 mm	2240-2250 mm
Fuse	3x10 A	3x10 A	3x16 A	3x16 A
Connection cable	5x1,5 mm2	5x1,5 mm2	5x2,5 mm2	5x2,5 mm2
Weight without stones	19kg	23kg	23kg	24kg
Stone amount	n.60kg	n.80kg	n.80kg	n.100kg

**Check the upper part diameter in section 2.3*

	Sade 6,0	**Sade 9,0**
Power	6,0 KW	9,0 KW
Total diameter **A**	325 mm	325 mm
Total height **E**	980-1000 mm	980-1000 mm
Sauna room size	5-8 m3	8-15 m3
Minium height of sauna	2100 mm	2100 mm
Fuses	3x10 A	3x16 A
Connection cable	5x1,5 mm2	5x2,5 mm2
Weight without stones	20kg	20kg
Stone amount	n.70kg	n.70kg

	Lite 6	**Lite 6,6**	**Lite 9,0**	**Lite 10,5**
Capacity	6,0 KW	6,6 KW	9,0 KW	10,5 KW
Diameter of the lower part **A**	320 mm	320 mm	320 mm	320 mm
Diameter of the upper part **B**	320-395 mm *	320-360 mm *	320-360 mm *	320-385 mm *
Height of the lower part **C**	730 mm	730 mm	730 mm	730 mm
Height of the upper part **D**	230mm	500-530mm *	500-530 mm *	700-710 mm *
Total height **E**	960 mm	1270-1300 mm	1270-1300 mm	1440-1450 mm
Sauna dimensions	5-9 m3	5-9 m3	8-15 m3	10-20 m3
Sauna min. height	1760 mm	2070-2100 mm	2070-2100 mm	2240-2250 mm
Fuse	3x10 A	3x10 A	3x16 A	3x16 A
Connection cable	5x1,5 mm2	5x1,5 mm2	5x2,5 mm2	5x2,5 mm2
Weight without stones	15kg	18kg	18kg	20kg
Stone amount	n.70kg	n.90kg	n.90kg	n.110kg

**Check the upper part diameter in section 2.3*

	Cenik 6,6	**Cenik 9,0**
Capacity	6,6 KW	9,0 KW
Diameter of the lower part **A**	320 mm	320 mm
Diameter of the upper part **B**	320-370 mm *	320-370 mm *
Height of the lower part **C**	530 mm	530 mm
Height of the upper part **D**	700-710mm	700-710 mm
Total height **E**	1200-1210 mm	1200-1210 mm
Sauna dimensions	5-9 m3	8-15 m3
Sauna min. height	2000-2010 mm	2000-2010 mm
Fuse	3x10 A	3x16 A
Connection cable	5x1,5 mm2	5x2,5 mm2
Weight without stones	20kg	20kg
Stone amount	n.90kg	n.90kg

**Check the upper part diameter in section 2.3*

5.3-UPPER PARTS: SIZE TABLE

Upper part	Width	Height
Original/Lite Vase 6,6kW sekä 9,0kW	360mm	530mm
Original/Lite Vase 10,5kW	370mm	700mm
Original/Lite Tulip 6,6kW sekä 9,0kW	360mm	500mm
Original/Lite Tulip 10,5kW	370mm	700mm
Original/Lite Pillar 6,6kW sekä 9,0kW	320mm	530mm
Original/Lite Pillar 10,5kW	320mm	710mm
Original/Lite Reed 10,5kW	370mm	710mm
Original/Lite 10.5 kW Arrow	385mm	700mm
Original/Lite 6,0kW Swan	395mm	230mm
Original/Lite 6,0kW Vase	360mm	230mm
Cenik Vase 6,6kw and 9,0kW	370mm	700mm
Cenik Tulip 6.6 kW and 9.0 kW	370mm	700mm
Cenik Pillar 6.6kW and 9,0kW	370mm	710mm
Cenik Reed 6.6 kW and 9.0 kW	370mm	710mm

6. WARRANTY – TERMS APPLY ONLY IN FINLAND

Tähtisaunat Oy (the manufacturer) grants warranty for the products it manufactures according to these terms and conditions. For private/apartment use, the warranty period is **24 mths** from the delivery date. The receipt, the order confirmation about the purchase of the sauna stove, the receipt log of the construction site or other corresponding material can all be used as the warranty certificate.

TOy guarantees the quality and functionality of the sauna stoves during the warranty period. The warranty requires that the manufacturer's instructions are followed carefully. The warranty does not cover faults caused by incorrect installation and/or incorrect use.

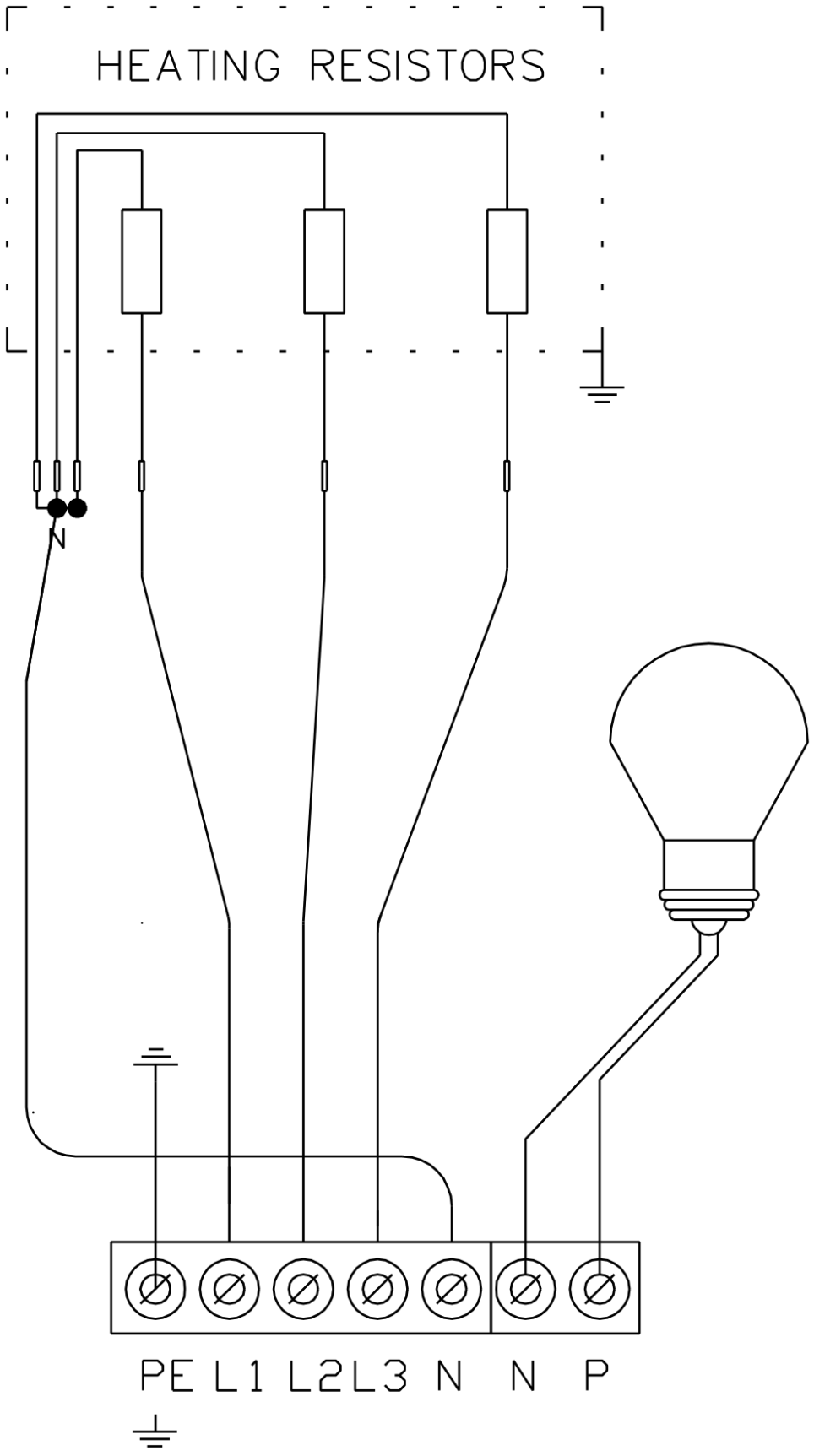
Warranty terms and conditions:

6. For sauna stoves in apartment use, the sauna stove stones are piled/replaced at least once a year Damaged stones must always be replaced when piling the stove with stones again, but we recommend replacing the stones every time.
7. The manufacturer's instructions have been followed when piling stones in the sauna stove **CHAPTER 4.4**
8. The sauna stove's centre has been installed and connected to the power supply by a licensed company/technician with a valid qualification regarding electrical installations The installation must have been completed in accordance with the installation instructions. No ceramic stones are used in the sauna stove. If ceramic stones have been used, the warranty is not binding for the manufacturer to compensate for any damage caused by ceramic stones.
9. Under no circumstances is the manufacturer liable for direct or indirect damage such as loss of production, decrease in profit, loss of profit, loss of contracts or loss of benefit.
10. The sauna stove is always controlled by its own control system.
11. In case of a possible fault situation, the product must never be dismantled, or attempted to repair without the manufacturer's permission and/or instructions If the centre or another control device has been dismantled, the manufacturer reserves the right not to replace the product or the part of the product in question during the warranty period. The manufacturer may charge for possible spare parts, if a warranty term has been breached. When troubleshooting for issues outside the scope of the manual, the buyer should inquire the manufacturer about possible solutions to the problem before replacing all components.
12. In troubleshooting situations, the manufacturer will not compensate for the dismantling of any sauna equipment during repair work done on the sauna stove. E.g. benches.
13. In troubleshooting situations, the warranty does not cover the removing/re-positioning of the sauna stove stones.
14. With regard to repair work covered by the warranty, Tähtisaunat Oy will compensate any installation technician expenses up to the amount of one hundred (100€) Euros. This includes travel expenses and work on site. The compensation is paid when the defective product has been returned to the manufacturer, and deemed to be defective due to the manufacturer's fault Compensation is not paid for those work hours used for troubleshooting before calling technical support. If the defective part is not returned, no compensation is paid. Neither is compensation paid if the damage has occurred due to misuse or incorrect connection. In these cases, the manufacturer can charge the full price from the buyer, according to the spare parts price list. The compensation claim must be submitted to the manufacturer in writing, and it must include the warranty certificate of the sold product, with the sales date specified on it. The receipt, the order confirmation about the purchase of the sauna stove, the receipt log of the construction site or other corresponding material can all be used as the warranty certificate.
15. Returning spare parts to the manufacturer is carried out at the buyer's expense. Tähtisaunat will pay for the freight of the spare parts to be delivered to the buyer.
16. The warranty period for replacement parts is 6 mths from the date of delivery.
17. In cases of repair, the manufacturer's warranty is limited only to repairing or replacing the centre, it does not extend to any other electrical systems in the building.
18. The warranty does not cover blue stains or darkening of the stainless steel, caused by extended heating times and high temperatures.

Institutional/Professional use

Tähtisaunat Oy grants sauna stoves a 3-month warranty in institutional/professional use. Institutional use denotes premises which are kept hot constantly, e.g. swimming pools, gyms, etc. It is not recommended to keep the sauna stove turned on for more than six (6) hours at a time.

7. CONNECTION DIAGRAM



8. SAUNA STOVE CARE AND MAINTENANCE

Stove stones are most important aspect of sauna stove maintenance, and they have to be replaced regularly. The thermal capacity and thermal conductivity of the stove stones decrease over time, and the stones will start to crumble. **The most common reason for the resistors breaking is not replacing the sauna stove stones often enough.** As a result of the temperature variations, the sauna stove stones settle and the mass sinks, which can damage the resistors. The hot wire inside the resistor cannot withstand excessive twisting or bending. Consequently, the resistor could be broken on the inside although it might look completely intact. It is recommended to re-pile the stones at least once a year, replacing any cracked stones with new ones and washing the dust off the old usable stones. If you have a sauna every day, it is advisable to re-pile the stones every three months.

There can be a lime build-up on the sauna stove from the water thrown on the rocks; it must be cleaned either with cleaning wipes made for stainless steel, or mechanically with extra fine steel wool. The upper part can be washed for example with cloths made for cleaning stoves. If you use chemicals to wash the sauna stove, make sure that all chemicals are rinsed off before the next heating time, and the stones must not be subject to any superfluous substances. In other words, always remember to remove the stones before using any chemicals.

Below, you can keep a track of the sauna stove stone replacements and other maintenance measures. The manufacturer has the right to obtain information about all maintenance measures for warranty purposes. We recommend keeping the receipts for any purchased stones etc.

Maintenance history.

Päivämäärä	Toimenpide

MAGNUM®

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