

## Instructions for use and installation MAGMA and SKLA

### SAUNA HEATER

1101 – 181  
1101 - 210 400V 3N~  
1101 - 262

### CONTROL PANEL + CONTACTOR BOX

1418-22-1517-3	+	2005-1
1418-22-1517	+	2005-1

### SAUNA HEATER

1101 – 181  
1101 - 210 400V 3N~  
1101 - 260

### CONTROL PANEL + CONTACTOR BOX

1601-12	+	2005-5
1601-13	+	2005-5



MAGMA



SKLA

## USING.

Before you start to install and use the sauna heater check the following:

- that you have got all the parts needed.
- check that the voltage of the heater and the control box is the right one and that the control box suits your heater.
- check that the effect of the heater suits your sauna. You must not exceed or go below the volumes mentioned in table 1.
- look at the installation distances in fig. 1. You have to follow these, otherwise it can cause a burn.
- study these installation- and using instructions carefully.

**NOTE!** Prior to switching the heater on, ensure that the sauna room is ready for heating

## HOW TO CHOOSE THE EFFECT OF THE HEATER.

Noticing the volume of the sauna you choose the effect of the heater according to table 1. The volumes mentioned in table 1 are valid under the assumption that the sauna is well insulated. If there are walls of bricks or concrete in the sauna you have to add to the volume about 1,2m<sup>3</sup> for every brick- or concrete wall m<sup>2</sup> and then you choose the effect of the heater according to the composed volumes.

## MOUNTING OF THE SAUNA HEATER

The sauna heaters are freestanding models and these heaters must be firmly fastened to the floor by screwbolts through two of the feet. When fastening the heater to the floor please follow the requirements about the minimum distances to combustible material indicated on the name plate of the heater and in table 1 and fig. 1. Do not protect the wall behind the heater with for instance asbest- or eternite plates, as these may cause a too high temperature increase in the wall. Do not place the sauna heater in a nisch, and you must not have a compact quard rail around the heater. Draught from door, vents etc. should be avoided as this effects the thermostat.

## QUARD RAIL

If you put a quard rail around the heater you have to note the minimum distances mentioned in table 1.

## MOUNTING OF THE CONTROL BOX

The control box must be installed in a suitable place outside the sauna room. The sensor unit should be fastened to the wall in the sauna according to fig 1. please follow the measurements mentioned in fig 1. otherwise it may cause a burn.

## CONNECTION

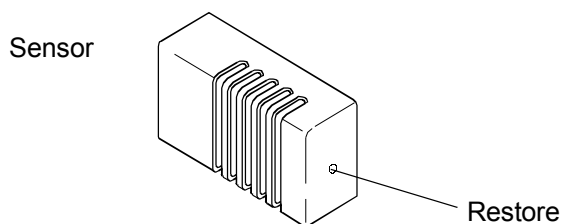
The electrical installation of the sauna heater and the control panel must be made by a qualified electrician according to the requirements. The principal connection will be made in accordance with fig. 1. The required wiring diagrams are inside the heater and the control panel. The heater can be connected by using a rubber wire HO7RN-F, table 1. The connection box must be a splash water proof construction and its height from the floor may not be higher than 500mm. If the connection - and installationwires come inside the sauna or inside the walls of the sauna higher than 1000mm from the floor they must loaded take at least 170 °C (for instance HO7SS-K4G) All electrical appliances that are installed higher than 1000mm from the sauna floor must be accepted for use in 125 °C surrounding temperatures (marking T 125).

## INSTALLATION OF THE CONTROL UNIT AND SENSOR ELEMENTS

The control unit is electrically connected via a cable to the contactor box. The control unit is intended for installation outside the sauna room. Check the control unit location from the control unit installation and user instructions. The sensor is fixed to the wall of the sauna, directly on the middle line of the heater, 40mm from the ceiling. Any deviation from the given installation measurements will cause a risk of fire.

The temperature limiter in the sensor element cuts off all the electricity to the heating elements if the heater temperature increases to a level where it causes a danger to the wooden parts of the sauna. Once the temperature is reduced the limiter can be restored by pressing the reset button.

**Before pressing the reset button, the reason for the triggering of the temperature limiter must always be clarified!**

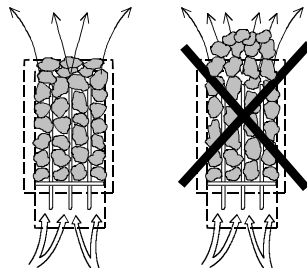


### SAUNA HEATER STONES

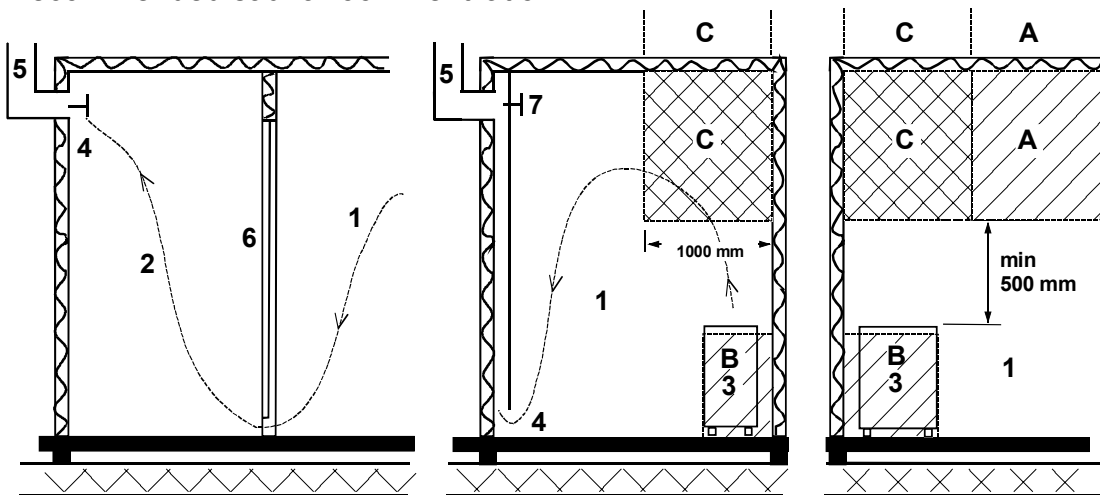
Quality stones meet the following requirements:

1. Sauna stones should withstand heat and heat variation caused by vaporisation of the water thrown on the stones.
2. Stones should be rinsed before use in order to avoid odour and dust.
3. Sauna stones should have an uneven surface to supply a larger surface for the water to evaporate from.
4. Sauna stones should be large enough (intended for large sauna heaters, approx. 80 - 120mm), to allow good ventilation between the stones. This extends the useful life of the heating elements. The maximum stone capacity is about 60kg
5. Sauna stones should be piled sparsely in order to enhance ventilation between the stones. Do not bend the heating elements together or against the frame.
6. Rearrange the stones regularly (at least once a year) and replace small and broken stones with new, larger stones.
7. Stones should be piled so that they cover the heating elements. Do not, however, pile a large heap of stones on the heating elements. Any small stones included in the stone delivery package should not be placed on the sauna heater, because they might fall through the heater's vertical beams.

The warranty does not cover defects resulting from poor ventilation caused by small and tightly packed stones. Structural clay tiles are not allowed. They may cause damage to the sauna heater. Damages caused by using structural clay tiles will not be covered by the warranty.



### Recommended sauna room ventilation



- |  |                          |                            |
|--|--------------------------|----------------------------|
| 1. Sauna room  | 3. Electric sauna heater | 5. Exhaust flue or channel |
| 2. Washroom  | 4. Exhaust valve         | 6. Door to the sauna room  |
| 7. A ventilation valve can be installed here to be kept closed while the sauna is heated and during bathing. |                          |                            |

Inlet vent can be positioned in the A zone. Make sure the incoming fresh air will not interfere with (i.e. cool down) the sauna heater's thermostat near the ceiling.

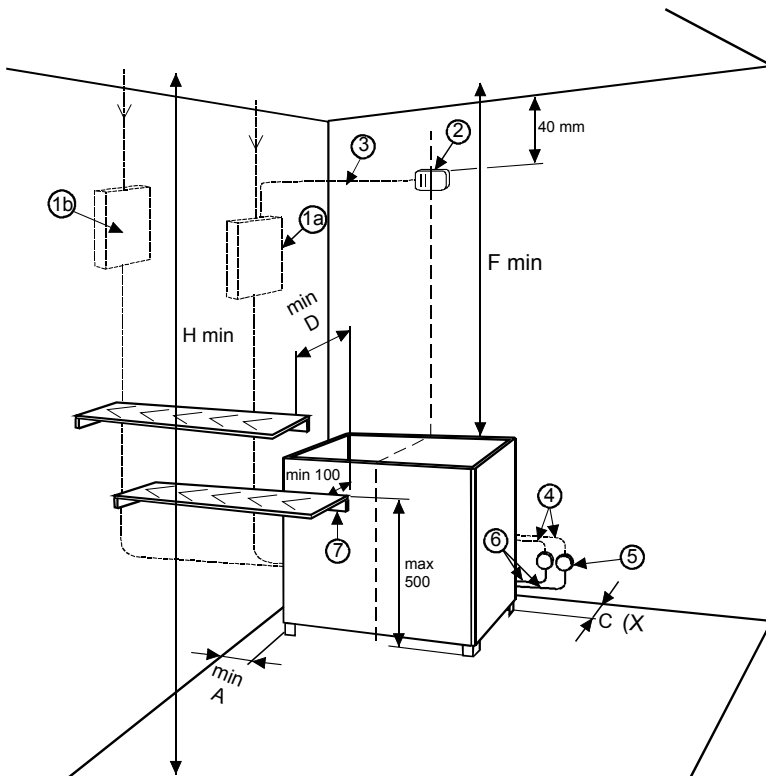
The B zone serves as the incoming air zone, if the sauna room isn't fitted with forced ventilation. In this case, the exhaust valve is installed min 1m higher than the inlet valve.

**DO NOT INSTALL INLET VALVE WITHIN ZONE C, IF THE SAUNA HEATER'S CONTROL THERMOSTAT IS LOCATED AT THE SAME ZONE.**

Installation when using control panel

1418-22-1517-3 + 2005-1  
 1418-22-1517 + 2005-1  
 1418-22-1519 + 2005-1

TABLE 1.															
HEATER			SAUNA			MINIMUM DISTANCES				CABLE TO			MAIN FUSE		CONTROL PANEL
Type	Effect	Group-Effekt		Volume	Height	From heater to				Thermostat	Controlpanel and heater		Group-fuse		PANEL
		I	II	Min	Max	ceiling	front wall	side wall	Back side		Grupp I	Grupp II	I	II	
	kW	kW	kW	m <sup>3</sup>	m <sup>3</sup>	H min	F	D	A	C	H07RN-F	H07RN-F	A	A	1418-22-1517-3 1418-22-1517 2005-1
						cm	cm	cm	cm	cm	mm <sup>2</sup>	mm <sup>2</sup>			
1101-181	18	9	9	18	30	210	140	16	14	16	4x0,25	5 x 2,5	16	16	X X X
1101-210	21	9	12	24	36	210	140	16	14	16	4x0,25	5 x 2,5	16	20	X X X
1101-262	26	10,5	15,5	30	46	220	150	16	14	16	4x0,25	5 x 2,5	16	25	X X X



Picture 1

- 1a. Timer and thermostat in control box
- 1b. Contactor box
- 2. Sensor unit
- 3. Heat resistant cable
- 4. 2 kpl. Feeder cable to heater
- 5. Junction box
- 6. 2 kpl. Connection cable to heater
- 7. Lower bench or heater guard rail

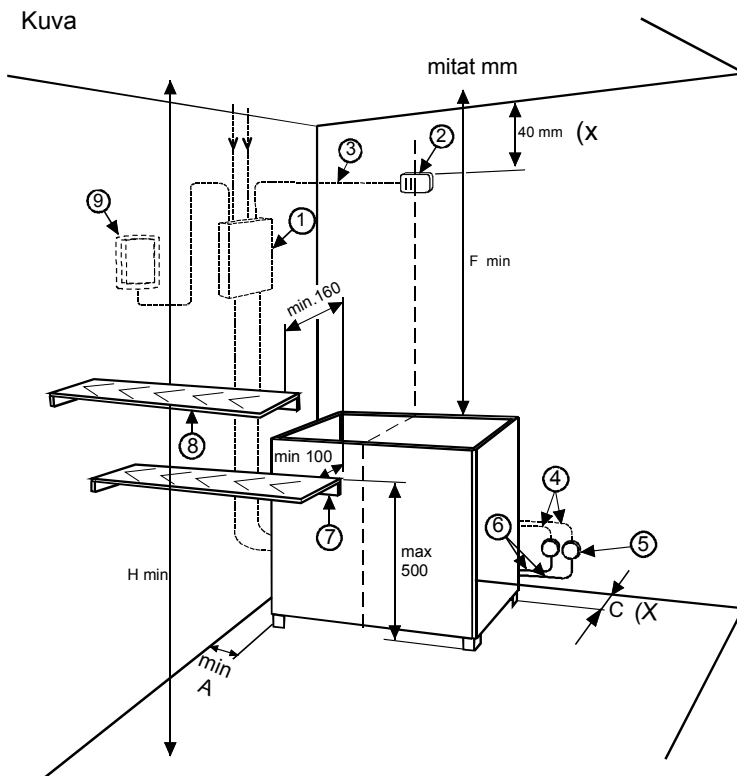
(X= The given measurement is absolute, no variations acceptable)

Installation when using control panel

1601 – 12 + 2005-5  
1601 – 13 + 2005-5

TABLE 1.															
HEATER			SAUNA			MINIMUM DISTANCES				CABLE TO			MAIN FUSE		
Type	Effect	Group-Effect		Volume		Height	From heater to				Thermostat	Controlpanel and heater		Group-fuse	
		I	II				ceiling	front wall	side wall	Back side Absolute		Group I	Group II	I	II
	kW	kW	kW	m <sup>3</sup>	m <sup>3</sup>	H min	F	D	A	C	mm <sup>2</sup>	mm <sup>2</sup>	mm <sup>2</sup>	A	A
1101-181	18	9	9	18	30	2100	1400	160	140	160	4x0,25	5 x 2,5	5x2,5	16	16
1101-210	21	9	12	24	36	2100	1400	160	140	160	4x0,25	5 x 2,5	5x4	16	20
1101-260	26	13	13	30	46	2200	1500	160	140	160	4x0,25	5 x 2,5	5x6	16	25

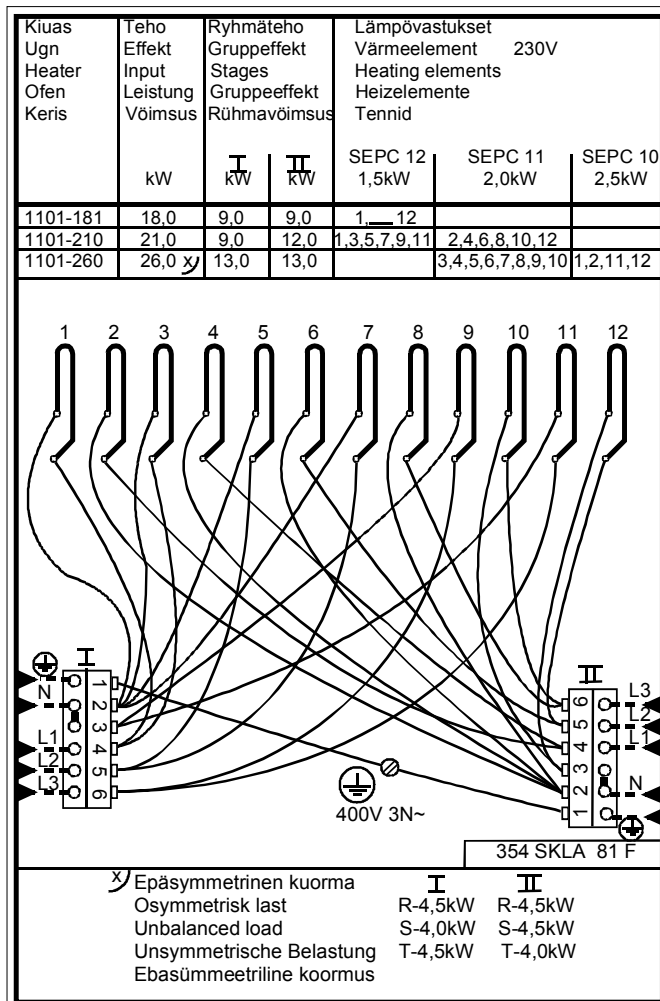
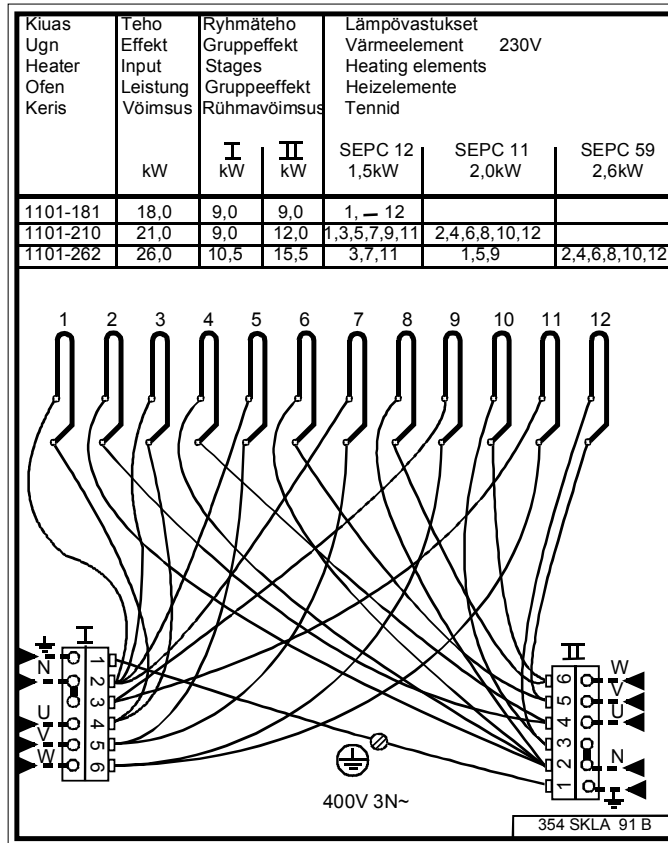
Measurements in mm



Picture

1. Contactor box
2. Sensor
3. Heat resistant cable
4. Feeder cable to heater
5. Junction box
6. Connection cable to heater
7. Lower bench or heater guard rail
8. Upper bench or heater guard rail
9. Control panel

(X = The given measurement is **absolute**, **no variations** are acceptable)



**Ympäristönsuojeluun liittyviä ohjeita**

Tämän tuotteen käyttöiän päätyttyä sitä ei saa hävittää normaalin talousjätteen mukana, vaan se on toimitettava sähkö- ja elektroniikkalaitteiden kierrätykseen tarkoitettuun keräyspisteeseen.

Symboli tuotteessa, käyttöohjeessa tai pakkauksessa tarkoittaa sitä.



Valmistusaineet ovat kierrätettävissä merkintänsä mukaan. Käytettyjen laitteiden uudelleenkäytöllä, materiaalien hyödyntämisellä tai muulla uudelleenkäytöllä teet arvokkaan teon ympäristömme hyväksi. Tuote palautetaan ilman kiuaskiviä ja verhoukiviä kierrätyskeskukseen.

Tietoa kierrätyspaikoista saat kuntasi palvelupisteestä.

**Anvisningar för miljöskydd**

Denna produkt får inte kastas med vanliga hushållssopor när den inte längre används. Istället ska den levereras till en återvinningsplats för elektriska och elektroniska apparater.

Symbolen på produkten, handboken eller förpackningen refererar till detta.



De olika materialen kan återvinnas enligt märkningen på dem. Genom att återanvända, nyttja materialen eller på annat sätt återanvända utsliten utrustning, bidrar du till att skydda vår miljö. Produkten returneras till återvinningscentralen utan bastusten och eventuell täljstensmantel.

Vänligen kontakta de kommunala myndigheterna för att ta reda på var du hittar närmaste återvinningsplats.

**Instructions for environmental protection**

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

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



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

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

**Hinweise zum Umweltschutz**

Dieses Produkt darf am Ende seiner Lebensdauer nicht über den normalen Haushaltsabfall entsorgt werden, sondern muss an einem Sammelpunkt für das Recycling von elektrischen und elektronischen Geräten abgegeben werden.

Das Symbol auf dem produkt, der Gebrauchsanleitung oder der Verpackung weist darauf hin.



Die Werkstoffe sind gemäß ihrer Kennzeichnung wiederverwertbar. Mit der Wiederverwendung, der stofflichen Verwertung oder anderen Formen der Verwertung von Altgeräten leisten Sie einen wichtigen Beitrag zum Schutze unserer Umwelt. Dieses Produkt soll ohne Steine und Specksteinmantel an dem Sammelpunkt für Recycling zurückgebracht werden.

Bitte erfragen Sie bei der Gemeindeverwaltung die zuständige Entsorgungsstelle.