

Instructions for use and installation LAAVA and SKLE

ELECTRIC SAUNA HEATER

1105 – 901
1105 – 1051
1105 – 1201
1105 – 1501

CONTROL PANEL

1410 – 33 – 1517
1410 – 33 – 1517 – 3
1410 – 33 – 1519

1601 – 12
1601 – 13
2005 – 6

CONTACTOR BOX

2005 – 4



Laava



Skle

IMPLEMENTATION

Before installing and using the sauna heater, please check the following:

- Make sure you have received all the necessary equipment: sauna heater, control centre, sensor.
- Make sure the voltage of the sauna heater and the control centre is correct and the control centre matches the sauna heater.
- Make sure the output of the sauna heater matches the volume of your sauna. The volumes presented in Table 1 must be adhered to.
- Refer to the installation measurements given in Image 1. The specified measurements must be adhered to. Any deviation causes a fire hazard.
- Read these instructions for use and installation carefully.
- Before taking a sauna bath, make sure the sauna room is suitable for taking a sauna bath.
- Before setting remote control mode, make sure the sauna room is suitable for taking a sauna bath.

Persons with reduced physical and mental capacity, sensory handicap, or little experience and knowledge about how the device is operated (e.g. children), should only operate the device while supervised or according to instructions given by the persons in charge of their safety.

Make sure that children do not play with the sauna heater.

SELECTION OF SAUNA HEATER OUTPUT

The output of sauna heater is determined in accordance with the volume of the sauna room as specified in the Table below. The values given apply for a well insulated sauna. If the sauna has unclad walls made of tile or concrete, add approximately 1.5m³ for each m² of tile or concrete wall. The sauna heater output is then determined according to the total volume. Any timber walls should also be insulated.

INSTALLATION OF THE SAUNA HEATER IN THE SAUNA

These sauna heater models are installed freestanding and fixed on the floor from two legs with cotter bolts. When fixing the sauna heater, adhere to the minimum distances from flammable surfaces as specified in the sauna heater's rating plate. The sauna heater can be installed on a wooden floor. The walls behind the sauna heater or the ceiling must not be clad with fibre concrete board, for example, because it may result in an excessive rise in temperature of the wall material. The sauna heater must not be installed in a recess or surrounded by enclosed covering. Wooden panels can be used as wall and ceiling material. A single sauna heater is allowed per sauna room.

INSTALLATION OF THE CONTROL CENTRE

The control centre is installed outside the sauna in a dry space. The sensor is attached to the sauna wall as specified in Image 1. Any deviation from the given measurements constitutes a fire hazard. Any draft from the door, valves, etc. has a negative impact on the thermostat and should be avoided.

The following control centres are compatible with the sauna heater:

- | | |
|--------------------------|-----------------------------------|
| • 1410 – 33 – 1517 | (OK 33 PS) |
| • 1410 – 33 – 1517 -3 | (OK 33 PS – 3) |
| • 1410 – 33 – 1519 | (OK 33 US) |
| • 1601 – 12 and 2005 - 4 | (Digi I + contactor box WE 4) |
| • 1601 – 13 and 2005 - 4 | (Digi II + contactor box WE 4) |
| • 2005 – 6 | (Building automation centre WE 6) |

Detailed operating instructions are available in the specific operating instructions for each control centre model.

SAFETY RAIL

If a safety rail is installed, it must adhere to the minimum distances specified in Table 1. The safety rail must not be enclosed.

SENSOR

The sensor is placed on the centre line of the sauna heater in accordance with the measurements specified in Image 1. The sensor is equipped with a 5m heat-proof ($T\ 170^{\circ}\text{C}$) $4 \times 0.25\text{mm}^2$ cable, which can be extended with a regular low-current wire (with a similar cross-section).

ELECTRICAL INSTALLATION

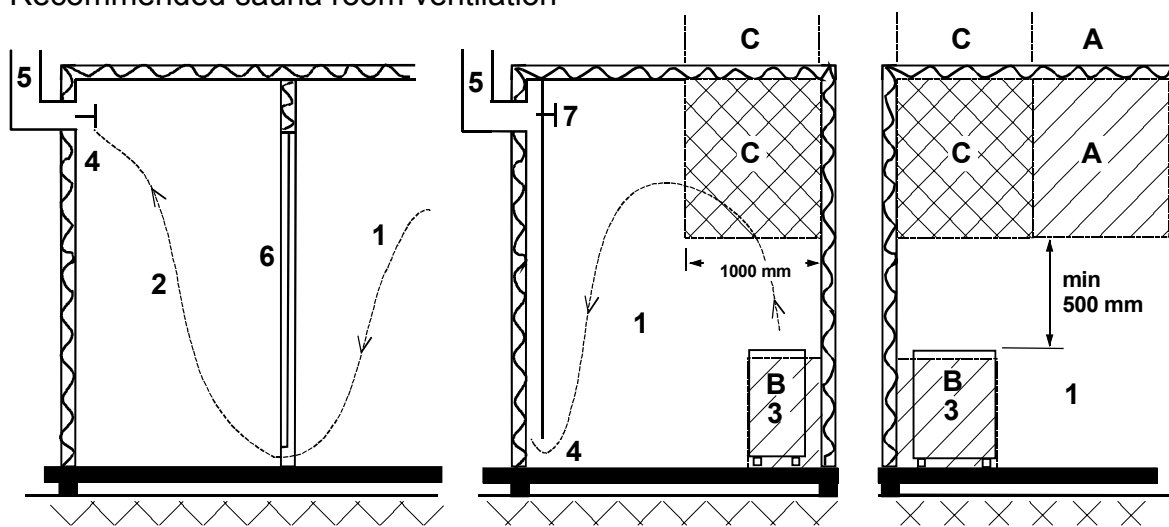
Only a qualified electrician should connect the sauna heater and the control centre to the electrical power network in accordance with the current regulations. The necessary connection diagrams are available inside the sauna heater and the control centre and at the end of the operating instructions. The sauna heater must be connected semi-permanently with medium-duty, or stronger, rubber cable H07RN-F (60245 IEC 66), see Table 1.

NOTE: Do not use PVC insulated connection cable, which is prone to thermal embrittlement.

The connection box must be splash-proof and it must have a draining device. The height of connection box measured from the floor must not exceed 500mm. If connection or installation cables are mounted on or inside the sauna wall at the height of over 1,000mm from the floor they must resist at least 170°C when loaded (e.g. SSJ).

Electrical devices installed over 1,000mm from the floor must be approved for use in ambient temperatures over 125°C (T 125 marking).

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.

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.

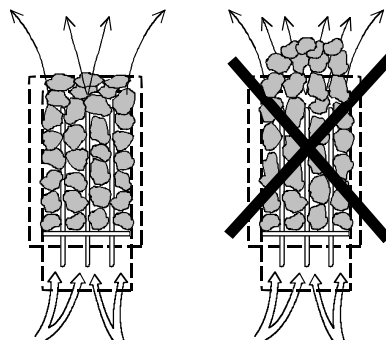
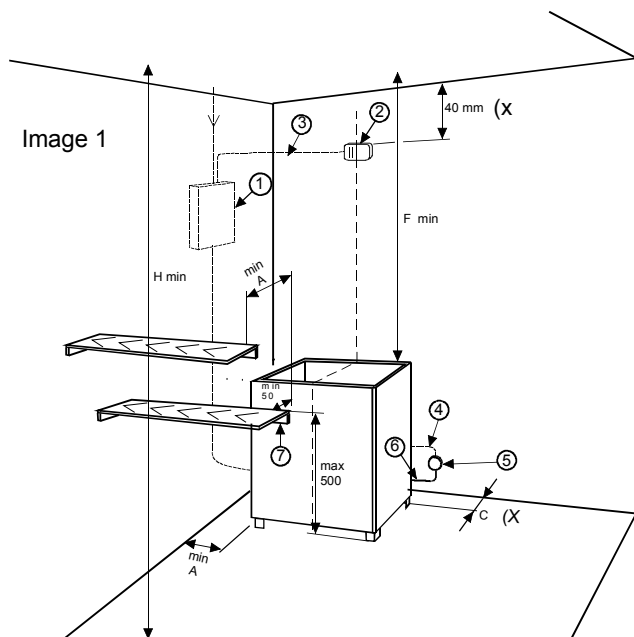


Table 1.

SAUNA HEATER		SAUNA		MINIMUM DISTANCES					CABLES			
Model	Output	Volume		Height	From the sauna heater				Sensor	Control panel / contactor box	Sauna heater H07RN-F / 60245 IEC 66	Front fuse
		min.max.		H min.	to the side wall A	to the ceiling F	to the front (safety rail) and top bench A	to the back C A psolutely required				
	kW	m ³	m ³	mm	mm	mm	mm	mm	mm ²	mm ²	mm ²	A
1105-901	9,0	8	13	1900	80	1200	80	110	4 x 0.25	5 x 2.5	5 x 2.5	16
1105-1051	10,5	9	15	1900	80	1200	80	110	4 x 0.25	5 x 2.5	5 x 2.5	16
1105-1201	12,0	10	18	2100	120	1400	120	120	4 x 0.25	5 x 4	5 x 4	20
1105-1501	15,0	14	24	2100	120	1400	120	120	4 x 0.25	5 x 6	5 x 6	25

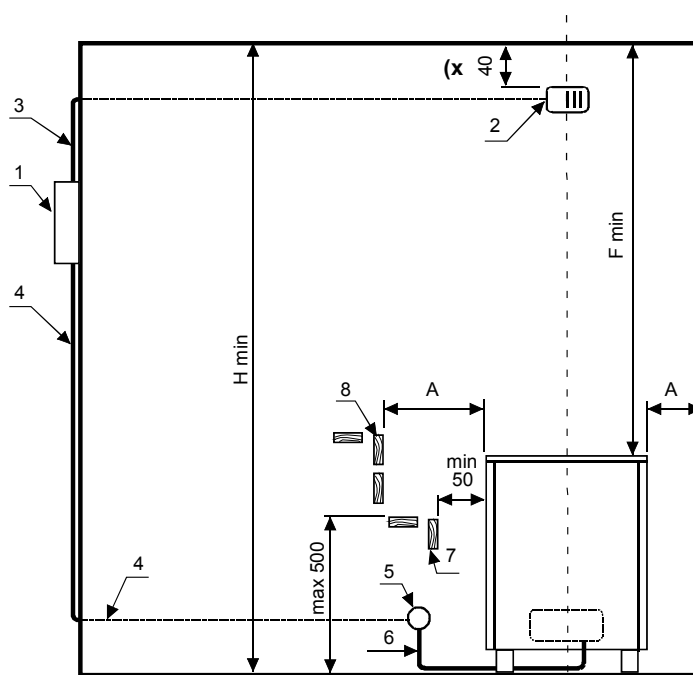
Control panel: 1410-33-... and 2005-6



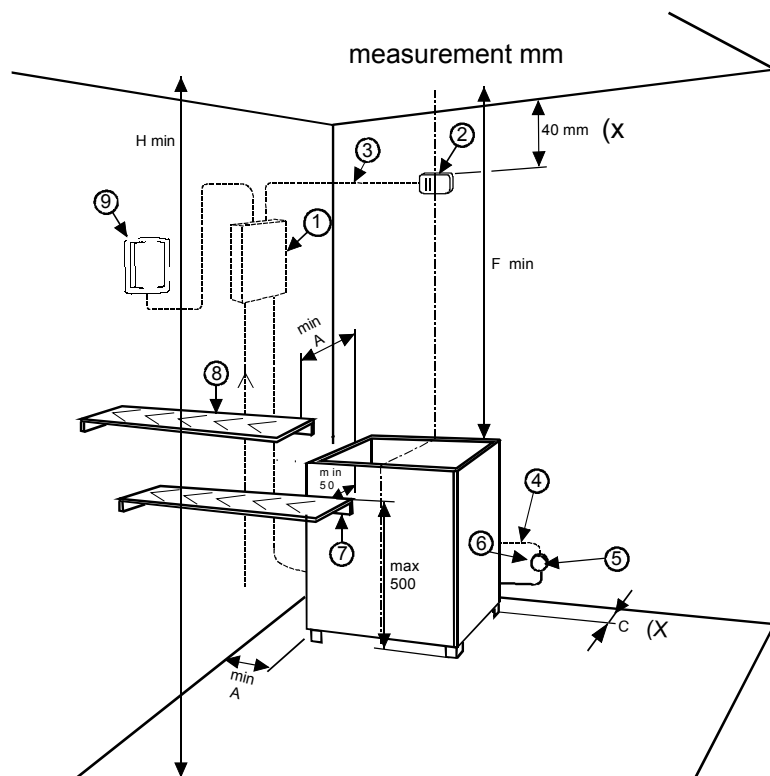
1. Control panel
2. Sensor
3. Heat-proof cable
4. Sauna heater supply cable
5. Connection box
6. Sauna heater connection cable
7. Lower bench or safety rail

X) = The given minimum distance is absolutely required, no deviation allowed.

Image 1

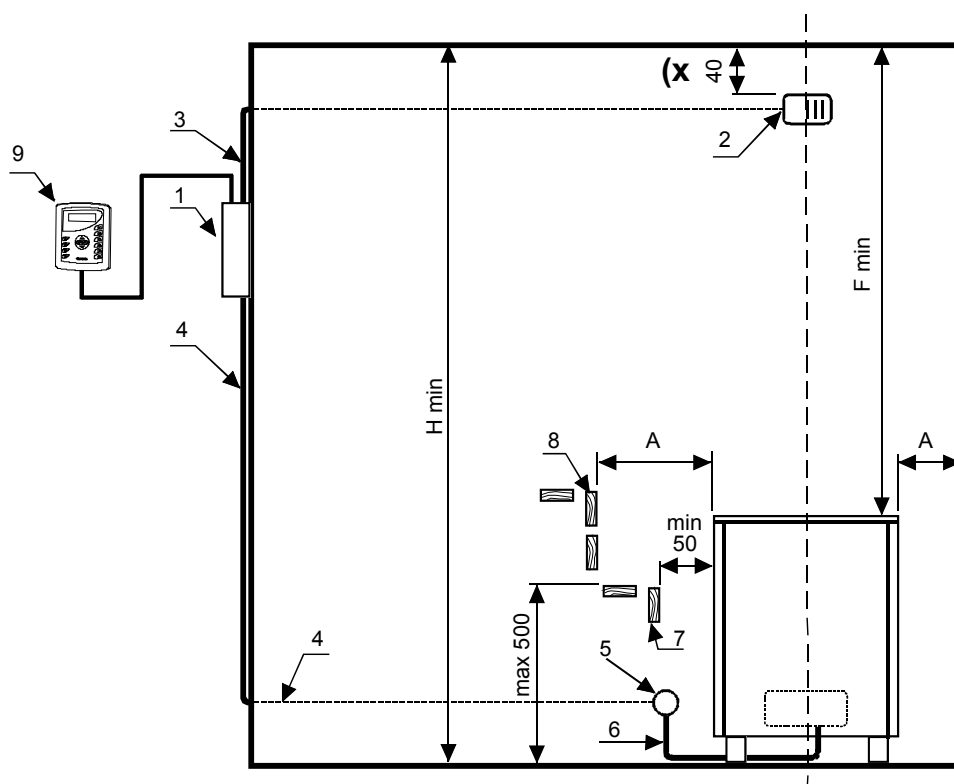


Control panel: 1601-.. + contactor box 2005-4

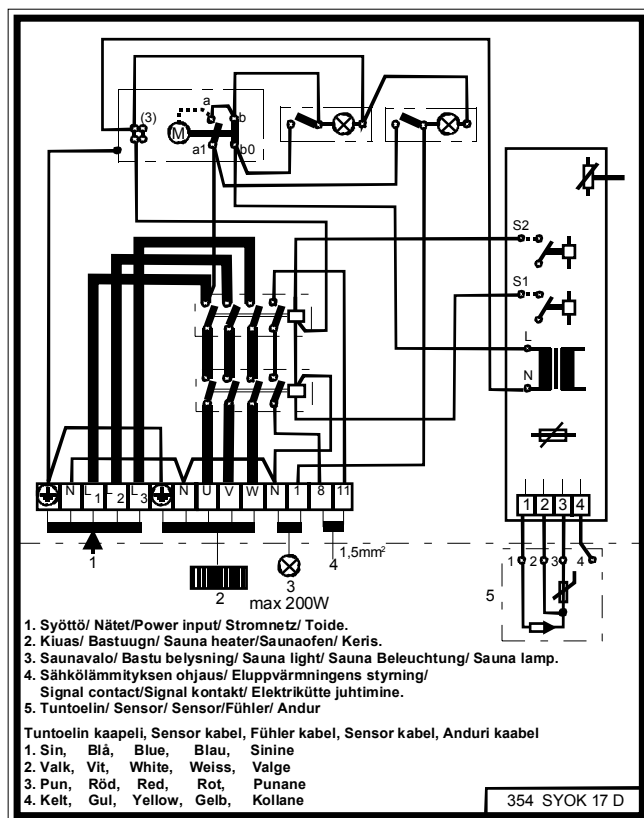


1. Contactor box
2. Sensor
3. Heat-proof cable
4. Sauna heater supply cable
5. Connection box
6. Sauna heater connection cable
7. Lower bench or safety rail
8. Top bench or safety rail
9. Control panel

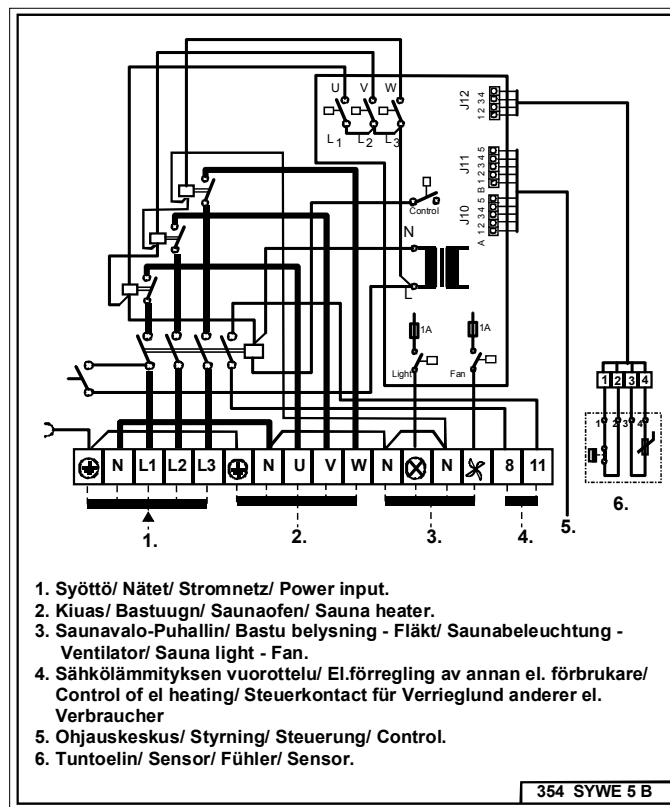
(X = The specified measurement is absolutely required, no deviation allowed)



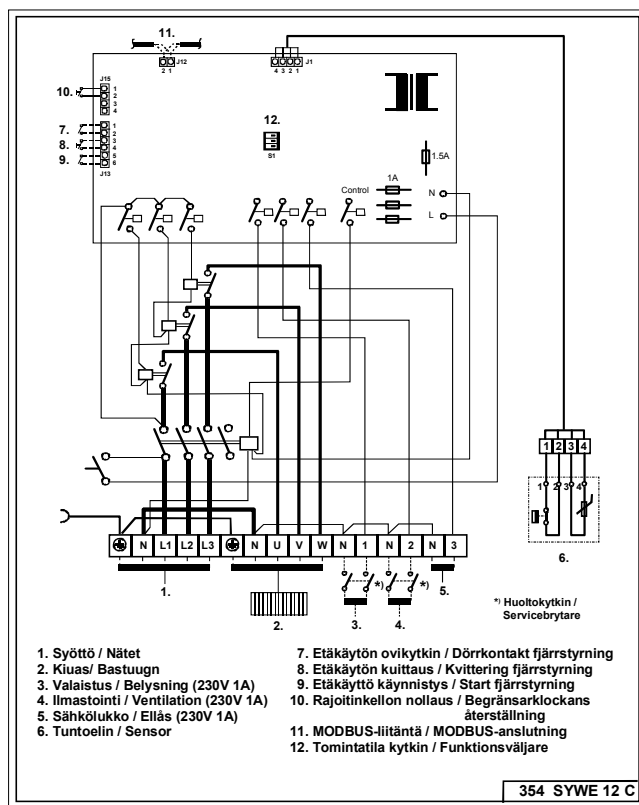
1410 – 33 - ... (OK 33 ..)



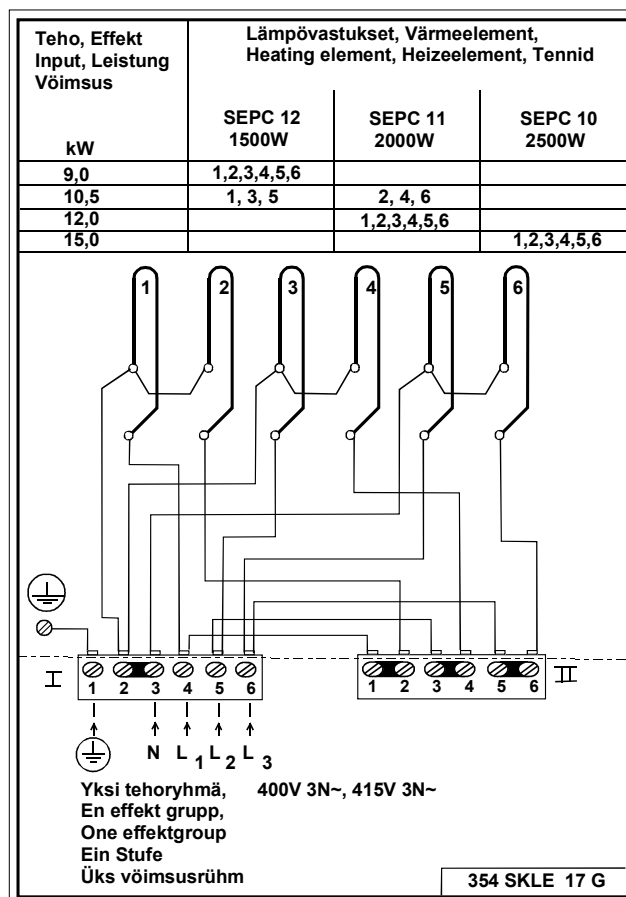
2005 – 4 (WE 4)



2005 – 6 (WE 6)



1105 - ... (Skle - Laava)



Ympäristönsuojeluun liittyviä ohjeita

Tämän tuotteen käyttöön 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.