SKAMET

WOOD-BURNING SAUNA STOVE

7-12 m^3

INSTALLATION AND OPERATING MANUAL

PS, SS and SSY models



SKAMET OÜ • PÄRNU, ESTONIA

CE

EN 15821:2010

Thank you for choosing a Skamet sauna stove.

This manual provides guidance to ensure the safe installation, operation and long service life of your sauna stove. We wish you many enjoyable and relaxing sauna experiences!

Intended use

- The sauna stove is designed to heat a sauna room.
- Any other use is considered improper use.
- Regular maintenance is also an essential part of proper use.
- Choose the heating capacity of your sauna stove carefully. If the heating capacity is too low, the stove will need to be heated for longer periods and more intensively, which will shorten its service life.
- Only a sauna stove with suitable heating capacity may be installed in the sauna room. The room must have adequate natural ventilation in accordance with applicable requirements.
- The manufacturer is not liable for damage caused by unauthorized modifications or improper use.

Safety requirements

- The sauna stove is intended exclusively for heating a sauna room.
- The sauna stove reaches extremely high temperatures during operation – risk of burns.
- Unauthorized modifications to the sauna stove's construction are prohibited.
- Avoid overheating the sauna stove.
- Before each use, ensure that there are no unnecessary objects near the sauna stove.
- The sauna stove must not be operated by children or persons lacking the knowledge or experience required for safe operation, unless supervised by a responsible person.
- Children must be supervised to ensure that they do not play near the sauna stove.
- The sauna stove must not be connected to a shared flue gas system.
- In the event of a fire, call the emergency number **112**.

⚠ WARNING: Incorrect installation or operation of the sauna stove may cause a fire or serious burns.

Metal-cased sauna stoves

Skamet's small sauna stove models are enclosed in a double-layer metal casing on the sides and at the rear. An ash drawer is located beneath the firebox, and a compartment for sauna stones is situated above it. A cast-iron grate is positioned between the firebox and the ash drawer, allowing the air required for combustion to enter the firebox.

A trapezoidal flue gas channel runs through the centre of the stove, with a secondary combustion chamber at its end. The flue outlet has a diameter of 115 mm and is located at the top of the stove. Metal-cased sauna stoves heated from the sauna room can also be connected to the chimney through the rear wall. The flue gas channel is equipped with two cleaning hatches.

There is a 5 cm air gap between the sauna stove and its metal casing, covered at the top by a perforated metal plate. The perforations create air turbulence, directing part of the hot air through openings along the sides and ends of the stove into the spaces between the sauna stones, providing additional heating.

Mesh-cased sauna stoves

The SS and SSY models are additionally surrounded by a mesh casing, allowing sauna stones to be placed around the entire stove. There is an approximately 8 cm gap between the sauna stove and the surrounding mesh casing, which is filled with sauna stones. As the sauna stove heats up, the stones absorb heat and release it gradually.

Note! All Skamet wood-burning sauna stoves are equipped with **integrated flue gas channels** that direct hot flue gases through the stove, maximizing the use of heat generated during combustion.

Sauna stoves heated from an adjacent room

For models heated through a wall from an adjacent room, a decorative trim is available as an optional accessory. It covers the gaps around the stove door opening at the top and on both sides.

For more information, see: Decorative Trim for Sauna Stoves

1. Ash drawer
2. Fire grate
3. Firebox
4. Air gap
5. Flue gas channel inlet
6. Flue gas channel
7. Cleaning hatch
8. Flue gas passage
9. Flue outlet

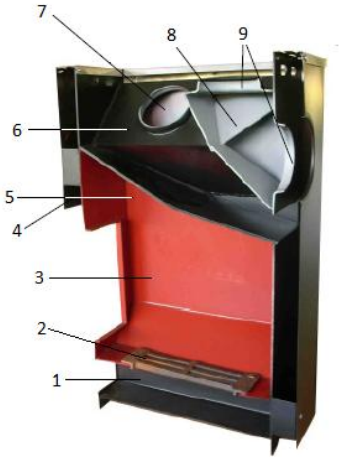


Figure 1. Cross-section of the sauna stove

Technical specifications

Parameter	Values	
	PS models	SS and SSY models
Efficiency (%)	**85.5**	**85.5**
CO emissions (%)	**0.136**	**0.136**
Heat output (kW)	**6.8**	**6.8**
Flue gas temperature (°C)	**195**	**195**
Chimney draught (Pa)	**12**	**12**
Flue gas mass flow (kg/h)	**1.7**	**1.7**
Durability and fire safety tests	**Passed**	**Passed**

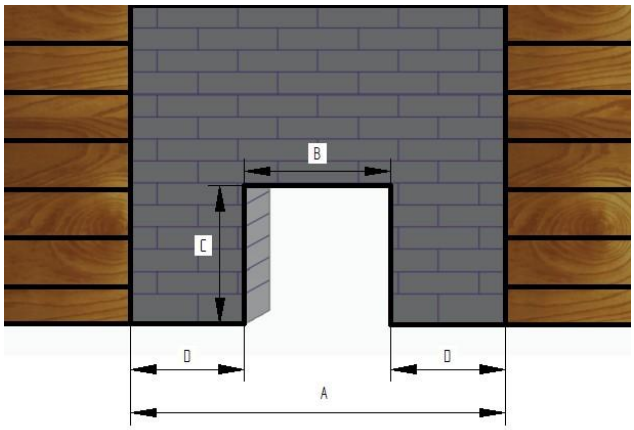
Table 1. Technical specifications

Safety distances from combustible materials

Safety distances from combustible materials (cm)	PS-110 GL	SS-110 GL, SSY-110 GL
	PS-210 GL	SS-210 GL, SSY-210 GL
Distance to side wall	**25**	**25**
Distance to rear wall	**15**	**15**
Distance from sauna stones to ceiling	**124**	**124**
Distance from flue pipe to ceiling	**108**	**108**
Thickness of insulation layer beneath the stove	**15**	**15**
Distance from metal door to front wall	**50**	**50**
Distance from glass door to front wall	**65**	**65**

Table 2. Safety distances from combustible materials

Safety distances for sauna stoves heated through a wall:



	A min (cm)	B min (cm)	C min (cm)	D max (cm)
PS	141	31	39	55
SS; SSY	141	31	39	55

Specifications of PS, SS and SSY series models



Sauna stove model	Sauna room volume m³	Efficiency %	Stove weight (kg)	Stone capacity (kg)	Firebox length (cm)	Height (cm) - A	Width (cm) - B	Depth (cm) - C	Tunnel length (cm) - D	Door height (cm) - E	Door depth (cm) - F
PS-110 GL	7-12	85.5	40	20	35	60	39	45	-	-	-
SS-110 GL	7-12	85.5	50	90	40	65	43	51	-	-	-
SSY-110 GL	7-12	85.5	50	70	40	65	53	53	-	-	-
PS-210 GL	7-12	85.5	45	20	55	60	39	45	17	38	29
SS-210 GL	7-12	85.5	55	90	55	65	43	51	16	38	29
SSY-210 GL	7-12	85.5	55	70	55	65	53	53	16	38	29

Table 3. Technical specifications

Installation

Choosing the installation location

- At least 1 m² of free space must be provided in front of the sauna stove to ensure safe operation and maintenance.
- The sauna stove must be installed on a stable, fire-resistant base.
- Electrical equipment and wiring must not be located within the safety clearance area of the sauna stove.

Installation location

When choosing the installation location for the sauna stove, the required safety distances and sufficient space for maintenance must be taken into account in addition to the dimensions of the stove.

Wall protection

If wooden walls are closer to the sauna stove than the required safety distances, the wall surfaces must be protected using appropriate materials (e.g. a heat shield).

A single-layer heat shield can be made of non-combustible fibre-reinforced cement board at least 7 mm thick or a metal sheet at least 1 mm thick.

A sufficient number of fixing points must be provided to ensure structural stability.

A masonry wall at least 5.5 cm thick provides protection equivalent to a single-layer heat shield. The masonry wall must have open edges and be positioned at least 3 cm away from the surface being protected.

The masonry wall must extend at least 60 cm above the top of the sauna stove and at least 50 cm beyond its sides.

Floor protection

When installing the sauna stove on a floor made of combustible materials (wood, plastic or other materials), a concrete base at least 15 cm thick must be provided to protect the floor from heat.

For example, Silca 250 KM may be used as a suitable insulating material.

The base must extend approximately 20 cm beyond the sides of the sauna stove and at least 30 cm in front of it.

The base plate should be raised slightly above the floor surface to allow the wooden floor to remain dry.

Connecting the sauna stove to a masonry chimney flue

⚠ The cross-sectional area of the chimney flue must not be smaller than the cross-sectional area of the sauna stove's flue outlet.

The sauna stove has a flue outlet on top.

To connect the stove to the chimney, mark the required opening on the chimney wall and make it slightly larger than the flue connecting pipe.

The gap between the connecting pipe and the chimney opening must then be sealed using a suitable fire-resistant material, such as fire-resistant mineral wool.

A suitable sealing gap around the pipe is approximately 1 cm.

The inner corners of the flue opening should be rounded to allow the flue gases to flow freely.

The flue connecting pipe must not be inserted too deeply into the chimney flue. If necessary, the pipe must be shortened.

⚠ For detailed fire safety requirements, consult your local fire safety authority, which is also responsible for approving the sauna stove installation where required.

Ventilation

Proper ventilation is essential for a safe and comfortable sauna environment. Correct ventilation ensures an adequate supply of combustion air to the sauna stove and removes moisture and flue gases from the sauna room.

Air circulation in the sauna

- The fresh air inlet must be located near the sauna stove at floor level (figure 2, letter “A”).
- The air outlet must be located as far away from the sauna stove as possible, preferably near the ceiling (figure 2, letter “B”).
- Air must flow from the sauna stove through the sauna room towards the exhaust vent.

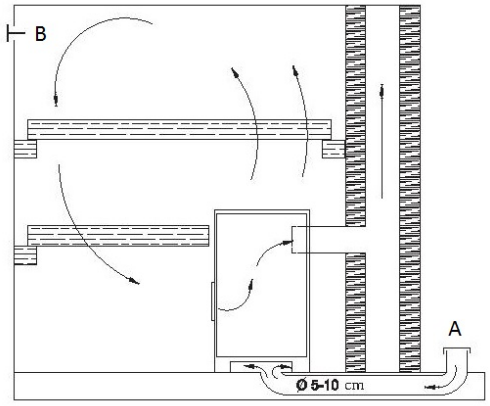


Figure 2. Natural ventilation

Incorrectly designed ventilation can cause:

- Poor combustion
- Smoke entering the sauna room
- Insufficient heating capacity

Heating

Initial heating

The outer casing of the sauna stove is coated with heat-resistant paint, which reaches its final hardness during the first heating. During initial heating, the paint softens before curing, so contact with painted surfaces must be avoided.

Substances released from the painted surfaces may produce an unpleasant odour. Therefore, it is recommended to carry out the initial heating **outdoors or in a well-ventilated sauna room**, at the stove's installation location.

The sauna stove must always be heated for the first time **without sauna stones**. The stones may only be placed in the stove after it has cooled down completely. Water must not be poured onto the metal casing during initial heating.

When carrying out the initial heating outdoors, it is also recommended to install the connecting flue pipes in their intended positions so that any odours are eliminated from them as well.

Heating the sauna stove

Use only dry firewood to heat the sauna stove. The use of coal, treated wood, plastic, waste materials and liquid fuels is prohibited.

The manufacturer recommends filling the firebox with firewood to no more than 2/3 of its capacity. Excessive amounts of firewood may cause the stove to overheat and shorten its service life.

For sauna stoves heated from an adjacent room, firewood must not be burned in the firebox extension.

The ash drawer may only be kept open when lighting the fire to provide the additional air required for ignition. Once the fire is burning properly, the ash drawer must be closed. During heating, the ash drawer must remain as closed as possible. Operating the sauna stove with the firebox door open is prohibited.

A sauna stove with suitable heating capacity will heat the sauna room to the desired temperature in approximately one hour.

Adequate chimney draught must be maintained during heating to ensure that the sauna stones heat up properly and that smoke does not enter the sauna room through the firebox door. Excessive draught may cause the sauna stove to overheat and shorten its service life.

Overheating (e.g. burning several full loads of firewood consecutively) causes the stove to become excessively hot and significantly reduces its service life.

Sauna stones

We recommend using only stones specifically designed for sauna stoves.

- **⚠ Sauna stones must not obstruct airflow between the stove's inner structure and outer casing.**
- Before placing the stones in the stove, remove any dust from them.
- Place larger stones at the bottom of the stone compartment, with their smoother sides facing the walls of the compartment.
- Place smaller stones on top, as they heat up more quickly.
- For mesh-cased models, do not pack the stones too tightly between the mesh casing and the stove. Arrange the stones so that sufficient air gaps remain between them and they do not press against the stove walls.
- Some natural stones may contain unsuitable substances (e.g. sulphur compounds) and are therefore not suitable for use as sauna stones.

- Inspect the sauna stones at least once a year. Remove any accumulated stone debris and replace damaged stones. If the sauna stove is used intensively, inspect the stones more frequently.

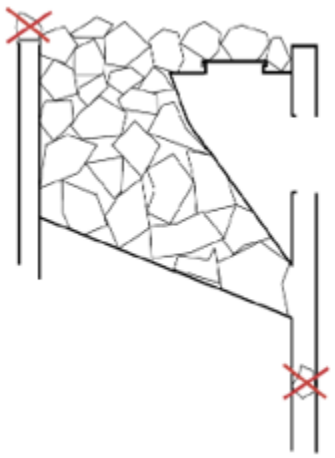


Figure 3. Arrangement of sauna stones

Water for sauna steam

Use only **clean tap water** for producing sauna steam. Salty, hard or iron-rich water may damage the sauna stove and significantly shorten its service life. Seawater considerably accelerates corrosion.

Pour water only onto the sauna stones – do not allow water to come into contact with the metal parts of the firebox or chimney.

Sauna stove maintenance

Regular maintenance ensures the safe and efficient operation of the sauna stove. Maintenance and cleaning of the chimney and flue that require specialist knowledge must be carried out by a qualified professional.

- Empty the ash drawer before each heating. This ensures proper draught and allows combustion air to cool the fire grate, extending its service life. Ash may still contain glowing embers. Remove the ash into a metal container and do not store the ash container near combustible materials.

- Clean the flue gas channels and chimney regularly, removing accumulated soot and ash through the cleaning hatch and firebox.
- If the sauna stove has not been used for an extended period, check the condition of the flue gas channels and chimney, as well as the chimney draught, before lighting the fire.
- Carry out maintenance only when the sauna stove has cooled down completely.
- Sauna stones gradually deteriorate due to temperature fluctuations. Rearrange the stones at least once a year, remove stone fragments and replace cracked stones with new ones.

🔥 **Before heating**

- ☑ Ash drawer empty
- ☑ Flue unobstructed
- ☑ Area around the sauna stove clear

Warranty

- The warranty period is **24 months** from the date of purchase or delivery.
- The warranty is valid only if the sauna stove has been installed correctly and used for its intended purpose.
- The warranty does not cover damage caused by overheating, the use of unsuitable fuel, incorrect installation or improper maintenance.
- The manufacturer is not obliged to replace the sauna stove door glass if it breaks during use.
- If a defect is discovered, please submit a warranty claim with a description of the defect to info@skamet.ee. The claim must include photo(s) clearly showing the defect and a copy of the proof of purchase.

Manufacturer

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