

Parra 21, fireplace stove



Installation and instructions for use

PARRA SAUNA FIREPLACE STOVE INSTALLATION, USE AND MAINTENANCE INSTRUCTIONS

Congratulations on your excellent choice of sauna stove! A PARRA sauna stove is a high-quality, traditional Finnish product that will serve you long when used and cared for properly. This guide describes the installation, use and maintenance of the stove. Read the guide carefully before using the stove and keep it for further reference.

A PARRA sauna stove is a fireplace intended for heating a sauna. It is not intended for continuous heating of an entire building. Only wood may be burned in a PARRA sauna stove.

WARNINGS

- ! You must not burn wood in the tunnel of the Parra stove, but all combustible material must be in the firebox on top of the grate.
- ! Parra fireplace stove is intended for heating a sauna. It is not intended for continuous heating of the entire building.
- ! Only wood may be burned in the Parra fireplace stove.
- ! The door of the fireplace must be kept closed to prevent smoke leaks during lighting, adding wood and removing ash.
- ! The parts of the stove, especially the outer surfaces, are hot during use. Remember to be careful around hot surfaces.
- ! Making changes to the stove is prohibited.
- ! Before installing the stove, make sure that all the safety distance requirements for the structures are met.
- ! Remember to remove all protective plastic before the first heating.
- ! Use stove adjustment legs in all conditions and on all substrates, as they increase air circulation under the stove keeping the platform dry.
- ! Take care of the sauna's adequate ventilation and ventilation, this way you extend the lifespan of the heater and the sauna.

TECHNICAL SPECIFICATIONS

Table 1: TECHNICAL SPECIFICATIONS

	P 21 Fireplace stove
Sauna volume	8–21 m ³
Connecting flue diameter	143 mm
Height of upward flue connection	705 mm
Temperature class required of the chimney flue	T600
Minimum size of replacement air aperture in the sauna room	Ø100 mm
Height	690 mm
Width	430 mm
Depth	490 mm
Max. length of firewood	35 cm
Firewood diameter	10–15 cm
Approximate amount of stones	35 kg
Stone diameter	8–12 cm
Weight of the fireplace	56 kg
Water heater / volume (OPTIONAL)	chimney container 30 l
Fireplace glass door	•
Adjustable legs	•

Height of the chimney connector

The heights of the chimney outputs of the Parra sauna stove models are shown in table 1 and the figure above (size B). The effect of optional items installed on top of the sauna stove on the chimney connector height is shown in table 2.

Table 2: Effect of Parra accessories on the height of the chimney connector

Accessory	Add to the height of the chimney connector
Water heater VS 30	525 mm
65° angled smoke duct	246 mm (to the centre of the duct)
90° angled smoke duct	177 mm (to the centre of the duct)
25 cm smoke duct	approx. 200 mm
75 cm smoke duct	approx. 700 mm

CE marking

Table 3: CE MARKING



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64700 Teuva, Finland

Basic Features	Performance level	Harmonized technical Specifications
	Parra 21 fireplace stove	
Fuel	Wood	
Fire safety: (ignition, risk to adjacent structures)	Approved	EN 15821:2010
Safety distances as follows:		
To backside and sides direction	250 mm	
To up direction	250 mm	
Combustion emissions	Approved	
Surface temperature	Approved	
Release of hazardous materials	NPD	
Cleanability	Approved	
Flue gas temperature	464 °C	
Mechanical strength	Approved	
Heat production and efficiency	Approved	
Carbon monoxide emission with @ 13 % O ₂ :	0,36 % Approved	
Overall coefficient of efficiency	62 % Approved	
Flue draught	12 Pa	
Heat production to room space	16 kW	
Fuel charges	5+3,7= 8,7 kg	
Gap of ash receptacle	25 mm	
Long time durability	Approved	
Flue gas mass flow	Approved	
Declaration of performance - No: DoP-PK	https://www.teuvan.com/assets/pdf/DoP-PK.pdf	

SAUNA STOVE INSTALLATION AND FOUNDATION

All local regulations, including regulations with reference to local and European standards, must be adhered to when installing the fireplace.

Before installation

Remove all packaging material and protective plastic. Shining, stainless parts (decorative strips, exterior of the furnace door, exterior surfaces of stainless models) may have a thin protective film, which also must be removed entirely. The film must also be removed if the sauna stove is exposed to sunlight when stored, as the sunlight may make the film difficult to remove.

Before placing the stones in the sauna stove, heat it to remove protective agents. Ensure sufficient ventilation when doing this. It is recommended to do the first heating outdoors with a non-insulated connector duct mounted to the stove to attain draught.

Sauna room size

A PARRA sauna stove can be installed in a sauna room whose size conforms to the size stated in the technical specifications. Carefully select the sauna stove model, as you must consider the properties that affect the heating of the sauna room when choosing the size of the stove. A sauna stove with insufficient power must be heated longer and harder, making its useful life shorter. If the sauna is made of timber but is not insulated and is used in the winter, the computational volume of the sauna room is the real size multiplied by 1.5. For every unlined square meter of stone wall, add 1.2 cubic meters to the computational space. Similarly, every square meter of door or window surface will increase the computational space by 1.2 cubic meters. Choose the sauna stove according to the computational space you attain with these rules.

Placement

Install the sauna stove on a level, non-moving, stable and incombustible platform. The load-bearing capacity of the floor must be sufficient considering the weight of the sauna stove, the water heater, if any, and the flue. Use the adjustable legs (optional) to fine-tune the position of the sauna stove and ensure that it is steadily level and does not wobble. The adjustable legs are mounted to the flanges at the bottom of the sauna stove body. To adjust the height, turn the bottom nuts. Lock the leg in place with a nut attached above the flange.

Flue

PARRA sauna stoves are connected to a CE-labelled PARRA flue, Parra chimney or a flue conformant to sections E1 and E3 of the National Building Code of Finland. The heat classification of the flue must be at least T600 and it must be chimney fire proof.

PARRA sauna stoves are not suitable for installation in a shared smoke duct system.

A 30-litre water heater installed above the stove on the flue is available as an option. In this case, close the rear connection.

Connect the sauna stove to the flue with a separately supplied angular duct or direct flue. Models with a rear connection aperture can also be connected to the flue with a separately supplied rear connection duct. In these models, close the second connection aperture with the supplied cover. With a masonry flue, make sure you don't obstruct the flue with the connector duct. You can insulate the gap between the flue and the connector duct with

suitable mortar or incombustible and heat-resistant mineral wool (minimum volume weight 100 kg/m³).

Furnace door

The door of the Parra sauna stove's furnace is packaged inside the furnace during transportation. The hinge pin is in place in the body's hinge flanges. Install the door so that the hinge flanges on the stove body remain inside the door flanges. For details, see figure 2.

The door can be installed for right-handed or left-handed use.

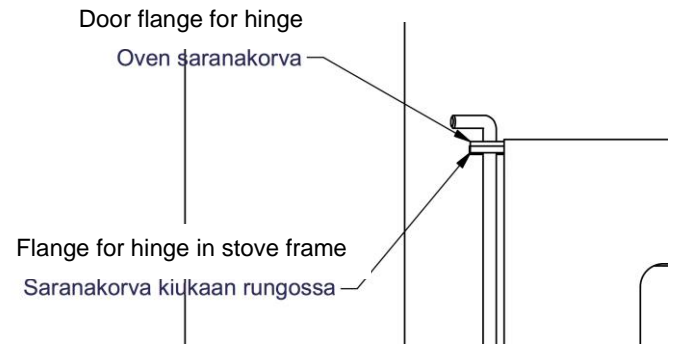


Figure 2: Furnace door hinge

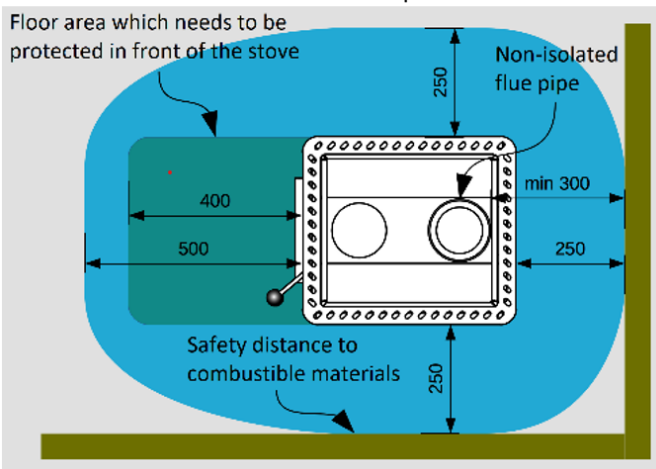
Safety distances

Table 4: SAFETY DISTANCES (pls. see with pictures at the last page)

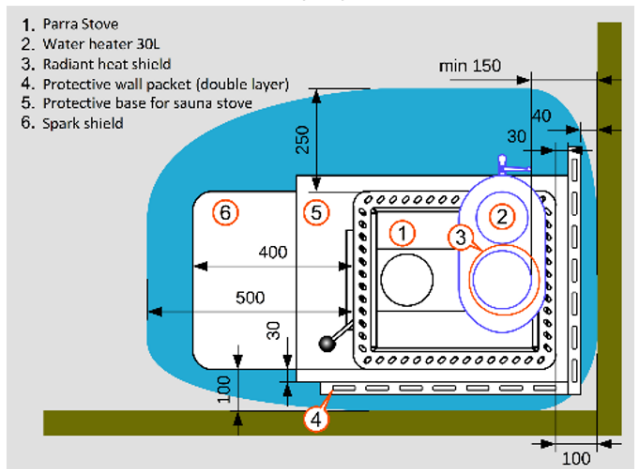
Parra 21	
Safety distances combustible materials	
- sides	250 mm *)
- rear	250 mm *)
- front	500 mm
- above	1150 mm
Minimum distance (air gap) to incombustible walls	50 mm

- *) Can be reduced to 100 mm with the optional Parra sauna stove protective wall. In this case, the connect- or duct's thermal radiation shield is also needed.
- ***) Requires the use of a radiation shield intended for the sauna stove

Parra 14, 21, 28 and Q20 stoves safety distance to **combustible** materials without protective walls



All Parra stoves safety distance to **combustible** materials with double layer protective walls



Protecting the walls

If necessary, the safety distances behind and on the sides of the sauna stove can be reduced with optional Parra stove protective walls. This allows for reducing the safety distance to 100 mm on the sides and behind the stove. The distance from the building wall and from the exterior surface of the stove to the protective wall must be at least 30 mm to allow for air circulation. When using protective walls, the uninsulated connection duct to the flue must be protected with a Parra thermal radiation shield. With the thermal radiation shield, the safety distance of the uninsulated connection duct to the wall is reduced to 150 mm.

Protecting the floor

The sauna stove can be installed directly on a concrete floor with at least 60 mm concreting, if the floor structures under the stove do not have parts susceptible to heat, such as electric wiring or pipes.

Harmful heating of the structural part underneath the sauna stove must be prevented. The mortar, glue and water insulation of a tile floor do not withstand the thermal radiation from the stove without a shield. It is recommended to use the optional Parra sauna stove's shield platform for protecting the underlying structures. Use the sauna stove's adjustable legs even with the shield platform. The adjustable legs lift the stove, improving air circulation underneath it, which makes the shield platform and the sauna faster to dry after the sauna bath. Carefully observe the instructions from local fire authorities. If necessary, consult them for advice.

When installing on flammable floor, a Parra sauna stove's shield platform or corresponding protective shield must be used. The floor area to shield in front of the stove must extend at least 100 mm from the sides of the door and at least 400 mm in front of it. Shield this area, if necessary, with a shield plate of 450 x 280 x 6 mm (optional), which attaches firmly to the floor and the stove platform.

Stove stones

The recommended stones for the stove are peridotite or olivine diabase stones with a diameter of 8–15 cm. The stones must be washed before use. Lay in the stones so that you put the largest ones at the bottom with the greatest stone surface against the stove's steel surface. Put the stones in the side pockets and generously, approximately 10–15 cm, over the centre channel. An appropriate amount of stones guarantees a good sauna bath. When laying in the stones, make sure that the sweeping hole doors stay in place.

Ventilation

Make sure the ventilation in the sauna is arranged so as to guarantee enough supply air for combustion and that the air in the sauna is fresh and has sufficient oxygen levels for sauna bathing. The task of the ventilation is to also remove the humidity from the room after the sauna bath.

For combustion air, connect fresh-air duct with a diameter of 100 mm close to the sauna stove. The grills for the supply air for the sauna must be placed so that they will not get blocked easily. The burning consumes a lot of air, and natural ventilation will work well in wood-burning sauna as long as there is fire in the furnace.

If the sauna space has mechanical ventilation, the supply air duct can also be placed over the stove. In this case, install the exhaust air duct at the bottom of the sauna, preferably on

the opposing wall. Air can also be exhausted from the washing room, in which case you need to leave a gap of at least 8 cm under the door between the sauna and the washing room. When using mechanical ventilation/exhaust fan, make sure that it will not cause excessive underpressure in the sauna room, which may reduce the draught in the furnace and make it more difficult to light up.

Install a ventilation valve on the sauna ceiling or top of the wall. Keep it closed during the sauna bath and then open to dry the sauna. Sufficient ventilation after sauna is necessary to guarantee a long useful life of the sauna stove and the sauna.

Fuel

The fuel of a PARRA sauna stove is only natural chopped wood. The dimensions are shown in table 1. The amounts of firewood used for heating the sauna stove or when adding wood are shown in table 3. Make sure you do not fill the furnace past the top of the filling hole when you add wood. The performance values shown in the table apply to birch firewood. Other wood can also be used. To attain good burning, make sure that the firewood is dry.

Do not use materials with high calorific value, such as **briquettes, coal, plastic or liquid fuels** to heat a PARRA sauna stove. They are specifically against the recommendations.

You can store an amount of wood suitable for a few uses close to a PARRA stove. The wood must be placed so that its temperature will not exceed 80 °C.

Heating

Open the flue damper, if any, and empty the stove's ash tray before heating. Use small, dry wood for ignition. Then use the ash tray to adjust draught. At the early stages of heating, the ash tray may be wide open. When heating, the ash tray may be open up to the 25-mm limiter. If you open the ash tray, make sure not to burn the stove too hot. A small draught will reduce the amount of wood needed but also prolong the time needed for heating the sauna. Usually, one full load of wood is enough to heat up the stove. After this, add the amount of larger wood necessary to sustain burning during the sauna bath.

Make sure that the supply air grills are clean and open.

If the sauna has been unused for a long time, make sure the flue is in order and open before you light up the fire. The draught will be poor with a cold flue and under certain weather conditions. In this case, start the fire with a small amount of wood. Closing the sauna door or windows may help in the starting stages.

Water for steaming

The water you pour on the stove must be water suitable for domestic use. Impurities and minerals in the water, such as soil, iron and salt, will reduce the useful life of the stove.

CLEANING AND MAINTENANCE

Empty the ash tray preferably after sauna bathing once the fire has been extinguished properly and definitely before the next heating. Also clear out loose ash from the furnace. Ash in the furnace disturbs the circulation of air, which shortens the useful life of the stove. Use an ash bucket or other suitable place for emptying the ash tray of the stove and make sure that the hot ash will not pose a fire hazard.

Make sure the ash table is intact and in place, supported by its holders.

The stove, connection duct and flue must be cleaned and swept regularly in accordance with the regulations of the Ministry of the Interior. This is very important particularly if the stove has not been used for a long time. In connection with the sweeping, the flues of the PARRA sauna stove must be cleaned through the sweeping hole on top of the stove. The stove ducts are rather high, which means that little soot will not essentially affect the heating of the stove. Also make sure that the sweeping hole cover (and the cover of the alternative flue connector) are properly in place. In connection with the sweeping, check the stove stones and remove the dilapidated ones. Replace removed stones with new ones.

You can wash a PARRA stove externally with soap and water and dry with a soft cloth.

A qualified person must regularly service the stove. Use only original PARRA spare parts.

INSTALLATION

Before installation, ensure the load-bearing capacity of the wall to be installed, on which the installation opening for the fireplace stove is to be cut. Remove the cover plate with the bay door and the insulation frame. Measure an opening in the wall for the insulation frame. The fireplace stove can be installed on a wall with a maximum thickness of 140 mm. The wall material can be either wooden or made of stone.

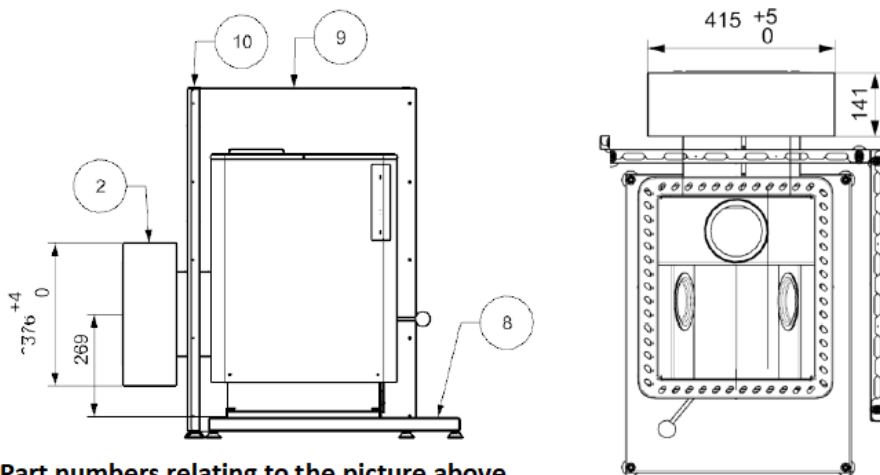
Install the protective walls of the heater in place before installing the heater and push the heater into place from the side of the sauna room. Make sure that the protective distances between the stove and the structures during installation are sufficient. Install the insulation frame so that the insulation frame is even ("in line") with the edge of the tunnel and that the surface of the insulation faces the adjacent space. Fasten the stove's cover plate in place in the tunnel with countersunk screws M5x10 (4 pcs) and to the wall, with the screws that came with the delivery. When installing on a stone wall, nylon plugs must be used in connection with the screws.

Fireplace stove through hole for wooden wall:

Width 420 mm
Height 380 mm

Height from the stove bottom level to the middle of the through hole 270 mm

Pls. see that the height of the protective base is 60-75 mm depending on the adjustment



Part numbers relating to the picture above

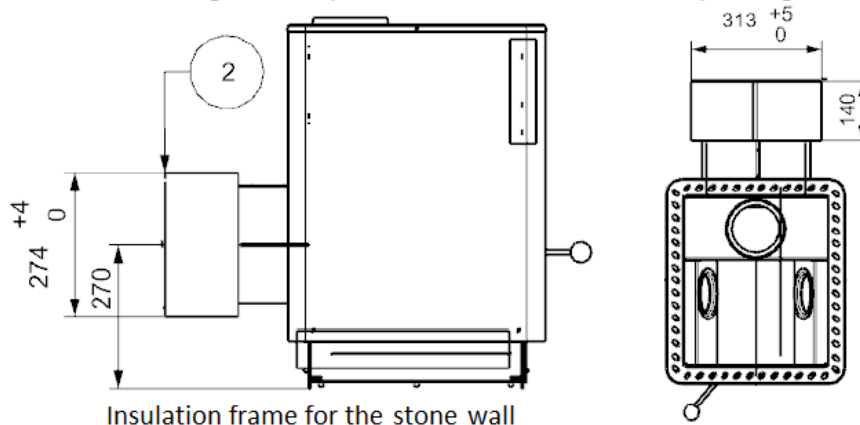
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|--|---|
| 2. Insulation frame for wooden wall | 9. Stove protective wall solid |
| 8. Protective Base for Fireplace stove | 10. Stove protective wall with slot for the stove |

Dimensions for the through hole cut for the stone wall:

Width 318 mm
Height 280 mm

Height from the stove bottom level to the middle of the through hole 270 mm

Pls. see that the height of the protective base is 60-75 mm depending on the adjustment



SAFETY INSTRUCTION

The stove will get very hot when used. Its surfaces will be burning hot. Consider this when moving close to the stove and using it. Do not leave combustible materials within the safety distance of the stove. Never cover the stove or the ventilation holes in its body.

In case of chimney fire, close the stove's air regulator (ash tray) and flue damper, if one has been installed. Keep the fire furnace door closed. Contact the local fire authority. Do not extinguish the fire with water. A sweeper must check the stove and the flue after the chimney fire before the next heating. To avoid a chimney fire, remember to sweep regularly and use only dry wood with sufficient draught for the burning.

NOTE! Chimney fires, even extinguished ones, must always be reported to fire authorities.

WARRANTY

PARRA sauna stoves are covered by one-year warranty from their date of delivery. The warranty is valid in Finland only. The warranty applies only to workmanship and materials. The warranty does not cover cost of transportation, installation, wear and tear, faults from use in conflict with the operating instructions or any other expenses. The manufacturer will rectify possible errors either by repairing the faulty part or supplying a new one. Under no circumstances will the manufacturer be responsible for indirect or consequential damage. For more information on the terms of warranty, visit our website at www.parrasauna.fi.

Product, serial number _____

Checked by _____

<i>Part</i>	<i>Description</i>
Type label	Lower part of the stove right side
Ash table	At its place
Ash tray	At its place
Door	Inside the fire pit
Hinge pin	Taped to the bottom of the ashtray
Operation instructions	Inside the fire pit
Flue connector shutter	P14, P21 and P28 Inside the fire pit
Adjustable legs	P14, P21 and P28 Inside the fire pit
Rear connector duct	P14, P21 and P28 Inside the fire pit

Manufacturer



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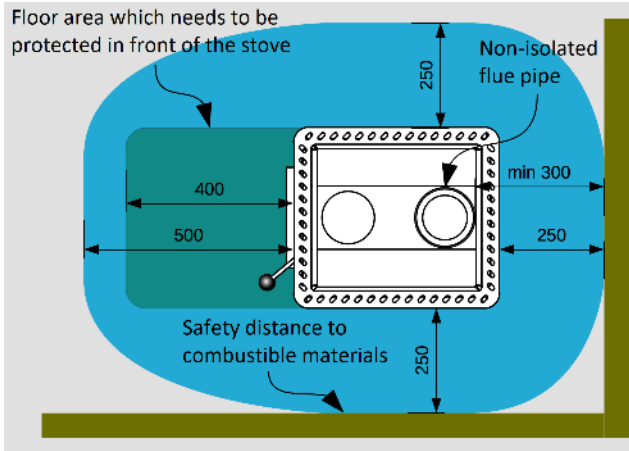
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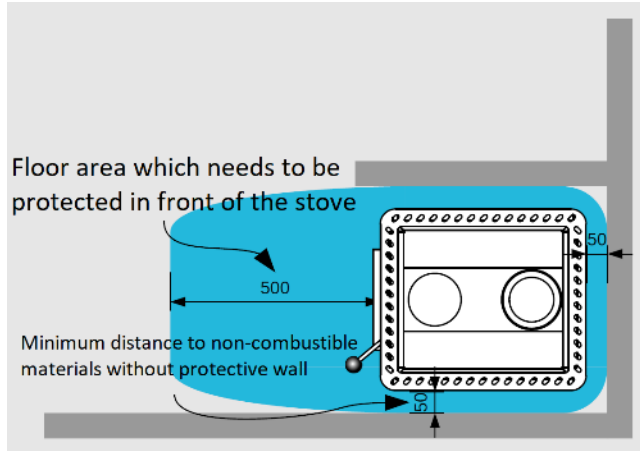
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KEITINTEHDAS

MINIMUM SAFETY DISTANCES OF PARRA STOVES

Parra 14, 21, 28 and Q20 stoves safety distance to **combustible** materials **without** protective walls



Parra 14, 21, 28 and Q20 stoves safety distance to **non-combustible** materials **without** protective walls



All Parra stoves safety distance to **combustible** materials **with** double layer protective walls

