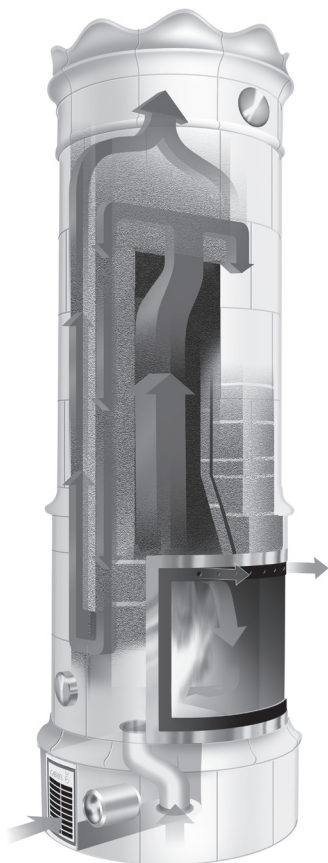


Maintenance and firing instruction



Safety Precautions

Read this entire instruction manual before using the new tiled stove from Gabriel

IMPORTANT! Although the tiled stove is a slow heat releasing fireplace some details will get very hot at risk of burns. **The glass door handle and surrounding metal parts, as well as the soot hole lids should not be touched without protective gloves.**

Keep children, clothing and furniture away from the immediate vicinity of the stove when in use. When you can't touch the side of the upper part of the stove with your palm (without the burning feeling), then stop the firing process and **do not** add any more firewood.

Never use chemicals or flammable liquids to start the fire.

Modification of the tiled stove must not be carried out without the manufacturer's approval.

Avoid creating a negative pressure in the room by starting a kitchen fan or dryer. This can result in smoke coming out into the room.

In case of a chimney fire close the damper for outside combustion air and call the fire department.

EU Declaration of conformity



Gabriel tiled masonry stoves are Swedish made products, CE-approved by the accredited test laboratory SP Technical Research Institute of Sweden and the Engineering Test Institute of Czech Republic, and fulfil the environmental and safety requirements stipulated in the new European standard EN15250 for "Slow heat release appliance fired by solid fuel" (SHRA-products).

The Gabriel stoves also comply with the German standards DIN Plus, BImSchVo 2, and the Austrian 15a B-VG.

CE	
0402/1015	
Gabriel Kakelugnar AB Strandavägen 62 384 71 Timmernabben, SWEDEN 08 Nr G300-370-CPR-150615	
EN 15250:2007 Slow Heat Release Appliance (SHRA) Space heating for residential homes	
Name: Gabriel kakelugnar (300-serie)	
Model: G310 Kungsholm, G315 Karl-Johan, G320 Drottningholm, G340 Gabriel, G350 Duvemåla, G360 Tillinge, G370 Louise	
Brenstoff: Wood logs	
Fire safety	Pass
Distance to combustible materials:	Behind: 50 mm
	Ceiling: 50 mm
	Side: 50 mm
Emission of combustion products	Pass
CO	0,1%
NOx	78mg/m ³
OGC	46mg/m ³
PM	37mg/m ³
Release of dangerous substances	Pass
Surface temperature	Pass
Cleanability	Pass
Mechanical resistance	Pass
Connection to shared chimney	Pass
Temperature in flue spigot	
During nominal heat output	120°C
During safety test	170°C
Thermal storage capacity 100% Peak	after 2,9 h
50% from peak	after 8,0 h
25% from peak	after 17,2 h
Thermal output and Energy efficiency	
Efficiency	92%
Nominal heat output	4,5 KW
Space heating output	156 MJ
Flue draught	12 Pa
Follow the manufactures instruction and maintenance manual. Use only recommended fuel.	

Contents:

- 1 Drying process-ventilation
- 2 First initial firing
- 3 Fuel and firing Schedule
- 4 Wood
- 5 Thermal bridge in a cold stove
- 6 Combustion air damper
- 7 Damper for the smoke gas into chimney (top valve)
- 8 Glass door
- 9 Fan
- 10 Ash removal
- 11 Vermiculite lining
- 12 Chimney sweep
- 13 Combustion air intake
- 14 Troubleshooting



GABRIEL

www.gabrielkakelugnar.com



Gabriel's stove is an accumulating slow heat releasing, approximately 1400 kg heavy, fireplace. When firing, thermal energy is stored in the heavy 5-channel refractory structure and the heat is slowly and evenly released over a long period after the fire has gone out.

1. Drying and ventilation of new tiled stove

A new stove contains a lot of moisture. The stove must be ventilated and dried out at least 4 weeks before gently starting firing. After completion start to ventilate the stove by opening the glass door, removing the lids to the soot holes, and opening the two dampers in order to achieve proper air circulation.

2. Initial first firing (newly installed tiled stove)

The first firings must be done very carefully. In addition to surface moisture, the tiled stove also contains chemically bounded moisture released at different temperatures. Heavy and intense firing can cause damage to the stove. The first three days use batches of approximately one (1) kg fine kindling in the morning and one (1) kg in the evening. Increase the amount of wood to approx. 2 kg kindling during the next month (still one batch morning and evening). The length of the logs should not exceed the maximum of 300mm.

3. The firing schedule

Starting the fire. Place/stack approx. 2 kg fine chopped dry firewood (kindling), approx. 10-15 pcs, **horizontally** with plenty of air in between. For ignition use paper, birch bark or briquettes placed under the kindling.

NOTE!! Never use liquid flammable ignition fluids.

Ignite the fire. Carefully close the glass door, (the door, can in some cases, be left slightly ajar at the firing start-up phase). Ensure the fire will get enough combustion air for a proper start.

1st. wood batch (approx. 3 kg of dry wood = approx. 6 logs). When the yellow flame from the start-fire has faded and left a neat bed of ember, it is time for the first wood batch. Open the glass door carefully and even out the bed of ember. Add all 6 pieces **horizontally** with lots of air in between. Close the glass door.

2nd. wood batch (approx. 3 kg of dry wood = approx. 5 logs) Repeat the same procedure as above. After this wood batch, the stove will start to reach its working temperature. The stove is now so hot that you hardly can keep a hand on it (feel with the palm of your hand on the **upper side** of the stove).

3rd. wood batch (approx. 3 kg of dry wood = approx. 4 logs). Repeat the same procedure as above. After this wood batch, you should definitely **stop firing**, otherwise you risk to damage the stove and the warranty will be null and void. The above steps show the most efficient way to fire the stove. If you like to fire for an extended period of time use fewer pieces per batch, but keep the total weight of wood the same (total approx. 11-12kg).

IMPORTANT! If you can't touch the side of the upper part of the stove with the palm of your hand because it is too hot (due to the heat) then you should stop firing. Otherwise, the risk for overheating is great that the stove could be damaged.

4. Wood

Gabriel tiled stoves should be fired exclusively with wood. The length of the wood logs shall be max. 300 mm and not lie flush against the glass pane. Most important is to use dry wood (i.e. birch logs, which are most common - cut during winter and used in the fall). Damp wood will not achieve high enough temperatures during combustion, as a large part of the energy is than spent on drying the wood. A white or invisible smoke from the chimney shows that you burn dry wood. Note that split oak wood needs at least a 2- year drying period before use. **Never burn household waste (garbage), plastic, rubber, chipboard, impregnated, painted or treated wood, or other inappropriate materials.**

5. Thermal bridge – cold stove – cold chimney

If the stove has not been used for a longer period of time, a "thermal bridge" formation or other obstacles could block the chimney. Open the two dampers completely. Use a large newspaper sheet, put it inside the stove on top of the cassette and lit it. Close the glass door. If the paper burns intensely you have broken the thermal bridge and got a good draught. If it burns poorly and creates a lot of smoke, you may have a blocked chimney (bird's nest?) – Call the chimney sweep.

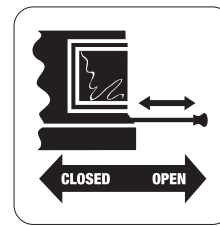
6. The damper for combustion air (bottom damper)

The combustion air intake to the firebox is regulated by a sliding valve placed at the bottom/front of the cassette under the glass door. The valve shall be fully open (pulled out) during firing. At the end of the firing, close the damper completely (pushed in).

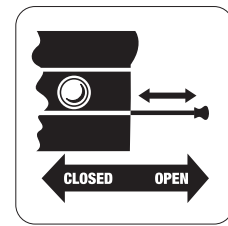
7. Damper for smoke gas into chimney (top sliding valve)

The damper placed on top/side of the tiled stove side should be fully open (excerpt) at the start of firing. Always use dry wood, otherwise there is a risk for tar building up and the damper can get stuck. When there is no ember left you close the damper almost completely (i.e. close damper, then again

Damper – combustion air



Damper (top valve) – smoke gas



pull out approx. 2 cm). Thus the accumulated heat is kept longer in the tiled stove. The damper shall be regularly pushed back and forth in order to prevent soot building up in the damper rail and prevent it from sticking. At various weather conditions the damper can be used to regulate the draught intensity, (i.e. if it is too windy the flame intensity can be adjusted by slightly closing the top damper).

8. Glass door

The glass pane in the door is made of heat-resistant glass and "flushed" on the inside by the combustion air flow (inlet air) to prevent soot building up. Still damp wood, oversized wood logs and bad draught can cause the building up of soot on the glass pane. Cleaning of the glass should be done when the pane is cold and is easiest done using a damp paper cloth/napkin dipped in cold ash (from the firebox), or with a cleaning agent from your fireplace dealer.

9. Fan

A fan can be connected to the tiled stove to speed up the convection heat, and get a better and faster heat distribution in the room.

10. Ash removal

The bed of ash in the firebox should not exceed 5 cm and is removed and emptied on a regular basis into a metal bucket. Let the ash cool down before you throw it away. For the storage of ash outside always use a metal bucket on a non-combustible surface.

11. Vermiculite lining

The firebox is lined with boards of vermiculite. These insulation boards are designed to increase the temperature in the firebox and thereby reduce carbon monoxide emissions for a better environment. Their service life span depends on how they are treated (i.e. if the wood logs are thrown in, there is a great risk they will crack). The boards are consumables and get brittle when used, and should be replaced when cracked. You can buy vermiculite boards at your local stove dealer and cut them to size with ease.

12. Chimney sweeping

Chimney sweeping normally takes place once per year. (Check your local authorities and contact your local chimney sweep for advice). Don't forget - dry wood produces less ash and soot building up. If the stove is used continuously more sweeping should be done for better safety and energy efficiency.

13. Air intake for combustion

The grid at the bottom of the tiled stove (air intake for convective heat) and the air intake for the combustion air from outside the house shall not be blocked.

14. Troubleshooting

Smoke enters into the room:

- Bad draught or cold chimney
- Thermal cold bridge in the channels/chimney – see item 5
- Damper is not open
- Negative pressure in the room – open a window
- Kitchen extractor fan is on – turn it off
- Chimney blockage (i.e. bird's nest) – call the chimney sweep

The fire does not catch on properly:

- Damp wood
- Bad initial start-up fire (re-start with kindling)
- Bad draught in the chimney – open the damper (fully extended)
- Insufficient combustion air supply – check air inlet/open the glass door ajar
- Extremely humid weather condition – bad draught

Glass pane – soot building up:

- Damp wood
- Check the combustion inlet air
- The fire did not start well
- Insufficient heat in the fireplace (damp wood)
- The wood is too close to the glass pane

Smoke gas damper runs slowly or is stuck:

- Layers of soot and tar may have been accumulated in damper rail
- Slide the damper valve regularly back and forth
- If the damper valve is stuck-call the chimney sweep