



Viking Royal

Installation and user manual

Version 2023-01

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Dear Customer!

We are pleased you chose to purchase a Viking Royal cast iron stove. Thank you! You made a good choice!

Viking Royal is a classic stove. Its history stretches far back in time and have helped keep people in the north warm for many generations. You now join that crowd and we wish you many wonderful moments in front of the heat and glow from the flames!

Please read through this manual before using the stove for the first time. If any questions arise, do contact your local dealer for help.

Best regards,

*Nordic Heating AB
Forsbacka, Sweden*

<u>Technical data</u>	
Power (kW)	4,5-14
<u>Weight (kg)</u>	280
<u>Height (mm)</u>	1670
<u>Width (mm)</u>	560
<u>Depth (mm)</u>	560
<u>Fire chamber size H, W, D (mm)</u>	390*280*325
<u>Flue connection (mm)</u>	125
<u>Efficiency (%)</u>	81,4
<u>Distance to combustible, backside (mm)</u>	>150
<u>Distance to combustible, sides (mm)</u>	>150
<u>Distance floor – cc flue connection (mm)</u>	975
<u>Warranty</u>	<u>10 years</u>



Introduction

VIKING-ROYAL is made completely out of cast iron and the fireplace chamber is made out of chamotte bricks. The combustions is good and in compliance with EcoDesign.

The stove as a heat resistant glass which makes it easier to keep the glass clean. Primary air is regulated with the damper on the lower door. Secondary air is supplied by using the dampers above the fireplace door.

The chimney connection is placed on the backside of the stove.



To consider before and during the installation

In most cases, local authorities might need to approve the installation of a new fireplace in your home. If you are unsure, do contact your dealer or local authority. Also, please consider that it often is required to have the complete installation checked by an expert, such as a chimney sweeper, before you can start using the stove.

If the stove is to be connected to an existing chimney, make sure the chimney is suitable for it. For example, it needs to have an appropriate length and dimension and without extensive leakages.

Adequate access to combustion air must be ensured. Viking Royal is easy to install in the vast majority of houses, but sometimes an extra wall valves or slit valves in windows need to be installed to get a sufficient inflow of air. In houses with mechanical exhaust ventilation, which creates a strong negative pressure in the house, combustion can be disturbed. Consult your dealer before purchase or installation.

Remember that the floor surface must be completely horizontal and even and able to support the weight of the stove. The stove weighs 280 kg. In normal cases, Viking Royal can be installed without floor reinforcement measures, but consult a professional if you are unsure.

Safety distance to combustible material

For combustible and heat-sensitive floors, you must use a fire-proof floor protection that must cover an area of at least 30 cm in front of the stove and at least 10 cm from the side. For this, there are suitable glass and floor plates in metal. NOTE: Local regulations in your country can be different. If you are unsure, ask your local dealer for help!

If the ceiling height is below 220 cm, heat-reducing measures should be ensured above the stove. This can for example be a heat shield with an air gap or a silicate board. Ask your dealer or other local expert for advice.

Keep at least 100 cm free in front of the stove. Behind the stove and to the sides of the stove, a distance of at least 15 cm to combustible material must be maintained. Safety distances can be reduced through heat-reducing measures.

Please note that uninsulated flue pipes are assessed individually and often have different distance requirements than a stove. If needed, this too can be reduced with heat-reducing measures. For insulated pipes, other measurements apply, often significantly lower. Read the chimney manufacturer's instructions.

Recommended fuel

Only wood logs with a maximum moisture content of 20% should be used in the stove. Wood with higher moisture content creates a bad combustion and makes the glass and chimney dirty.

First time the stove is used

Before and during the first usage of the stove make sure the door to the combustion chamber and ash box are slightly open to prevent the sealing material and varnish from melting together. During the first usage, the stove must be kept under supervision.

The varnish only hardens after a few hours of heating. Check the gaskets of the stove before the first use. During the first usage, the temperature must be kept quite low (add smaller amounts of fuel more often). All materials must first adapt to the heat and the gasket must dry out. This prevents micro cracking, damage to the paint and deformation of the material.

All stoves tend to create an unpleasant smell the first time they are used. The smell will soon disappear.

To start and maintain a fire in the stove

NOTE: It is forbidden to use liquid fire lighters (such as gasoline, lighter fluids etc) to start a fire!

With the help of a solid kindling agent (for example, fire lighter bags) and dry wood, it is very easy and quick to light a fire. Place a couple of larger wood logs in the bottom of the combustion chamber and cover it with small logs. Keep some distance between every log or air can flow in between. Then, place the kindling agent on top of the smaller pieces of wood. Allow the fire to burn with the primary and secondary air controls fully open after ignition. The combustion air is then supplied to the fuel through the grate from below (primary air) and also from above (secondary air). The primary air damper should be fully or partially open until a good glow bed is achieved, then reduced and finally fully closed.

Once the fire has started and the draft is sufficient, you can add larger logs. Don't overfill - about three "normal sized" logs will do. Due to the high temperatures of the stove, including the handle, please use the enclosed protective glove.

Large amounts of fuel and an excessively strong draft can cause the stove to overheat and be damaged. Even the chimney and adjacent walls and objects can reach impermissibly high temperatures. Do not add more wood than 1.5-2 kg of wood at a time.

When there are embers and no flames, you can add more wood, but remember:

- Close the damper to the combustion chamber.
- Open the door a little for 3-5 seconds to equalize the pressure, then you can open the door completely.
- Fill with firewood, but do not throw logs into the fireplace. Close the door carefully.

In normal operation, the stove must be used with the door closed and the ash box inserted. Adjust the combustion using the air controls and, if necessary, by reducing the draft in the chimney. Empty the ash box after the fire is burnt out. Make sure the flame is out and the stove has cooled down and that the ash is placed in a non-combustible container.

If the chimney draft is bad, it can cause bad combustion, which might lead to black/dirty glass. Moreover, smoke might escape into the room when the stove door is opened.

When burning at low pressure or in other unfavorable weather conditions, such as strong wind, disturbances in the chimney draft can occur, which means that smoke can enter the room and it can be difficult to get the fire going. Then you should add less wood and open the dampers more until the fire takes hold properly.

In case of repeated problems, it may be that a flue gas fan at the top of the chimney is required. This means nothing wrong with either the stove or the chimney, but probably depends on purely physical phenomena such as where the chimney comes up and how long it is.

Recommendations from the manufacturer

- ✓ Only use spare parts recommended by the manufacturer. Buy them from your local dealer.
- ✓ Only use wood with the correct moisture content. The wood logs should have been stored outside, under protection from rain etc, for at least one season. Before using them, bring them inside for a few days to dry up even more.
- ✓ Light the fire on top of the logs. We recommend to use fire lighters of some sort.
- ✓ Even if the stove is built to withstand continuous usage we recommend that both the stove and the chimney is allowed to "rest" the same amount of hours as the stove has been used. For example, if the stove is used for four hours, let it rest for four hours before using it again.

Warranty

Viking Royal comes with a 10 year warranty. Save your invoice as it might be needed in a possible warranty claim.


WARRANTY TERMS

- In case of damage or material defects that occur during the warranty period, the manufacturer provides free replacement parts or, in serious cases, a completely new stove.
- Any damage resulting from incorrect storage, incorrect operation or incorrect maintenance, which does not comply with what is stated in the manual or due to other reasons not attributable to the manufacturer, results in the warranty not being valid.
- The warranty does not cover glass, seals/gaskets or parts that are damaged on them as a result of careless behavior by the user or failure to comply with the instructions in the manual, and especially in these cases:
 - ◇ fuel other than wood has been used,
 - ◇ the fireplace has been loaded with too much wood,
 - ◇ a very large fire has been made in an unheated/cold stove,

- ◇ the fireplace has been showered with water,
- ◇ changes in the stove itself or in the installation
- ◇ mechanical damage
- ◇ failure to follow installation instructions
- ◇ corrosion – the stove must be protected against moisture
- ◇ incorrect chimney draft
- ◇ defects resulting from transport

- The gaskets should be replaced before each firing season.
- The warranty does not cover the parts of the fireplace that are in direct contact with the fireplace's burning fuel, such as grates, fireplace plates, smoke diverter shelf, etc. These are considered to be wear parts.
- Discolouration/fading of the patina is a natural phenomenon and does not constitute a valid reason for warranty claims. However, a cast iron stove might be painted if needed. If the need occur, contact your local dealer.
- The warranty only applies if the stove has been installed in accordance with the installation instructions and approved by an expert.
- If a broken stove cannot be repaired at a reasonable cost, the manufacturer is responsible for a new one. The responsibility covers new product and transport of this, not other direct or indirect costs.
- The stove must not be moved from the original installation location.
- Only the manufacturer's spare parts may be used.
- The use of the stove, the method of connection to the chimney and the operating conditions must be in accordance with this manual. It is forbidden to modify the stove in any way.
- The stove is entirely handmade at every stage of production and therefore individual parts and components may differ in appearance and weight. This is not a casting fault and nothing that can render a replacement under warranty!

Declaration of Conformity

Manufacturer: Agromatic Nordic Heating AB Address: Stentorpsvägen 12, 81842 Forsbacka E-mail: info@nordicheating.se Website: www.nordicheating.se Telephone: 026-30340							
THIS DECLARATION OF CONFORMITY IS ISSUED UNDER OUR SOLE RESPONSIBILITY FOR THE FOLLOWING PRODUCT:							
Trade name				Viking Royal			
Identification of product:				www.nordicheating.se			
THE OBJECT OF THE DECLARATION DESCRIBED ABOVE IS IN CONFORMITY WITH							
The relevant union harmonization legislation:				Relevant harmonized standards:			
DIR 2009/125/EC				EN 13240:2001/A2:2004/AC:2007			
REG (EU) 2015/1185				CEN/TS 15883:2010			
REG (EU) 2015/1186							
REG (EU) 2017/1369							
REG (EU) 305/2011							
Technical documentation:							
Indirect heating functionality:				No			
Direct heat output (kW)				11,3			
Energy Efficiency Index (EEI)				108			
Test report number				3156 A1 23			
Fuel	Recommended fuel	Alternative fuel	η_s [x%]:	Emissions at nominal heat output			
				PM	OGC	CO	NOx
Wood logs with moisture content $\leq 25\%$	Ja	No	71,4	43	103	1373	132
Compressed wood with moisture content $< 12\%$	No	No					
Other woody biomass	No	No					
Non-wood biomass	No	No					
Lignite briquettes	No	No					
Peat briquettes	No	No					
Blended biomass and fossil fuel briquettes	No	No					
Other fossil fuel	No	No					
Characteristics when operating with the preferred fuel							
Item	Symbol	Value	Unit	Item	Symbol	Value	Unit
Heat output				Useful efficiency, based on net calorific value			
Nominal heat output	P _{nom}	11,3	kW	Useful efficiency at nominal heat output	$\eta_{th,nom}$	81,4	%
Auxiliary electricity consumption				Type of heat output/room temperature control			
Vid nominell avgiven värmeeffekt	e _{lmax}	-	kW	Single stage heat output, no room temperature control			Yes
Vid lägsta värmeeffekt	e _{lmin}	-	kW	Two or more manual stages, no room temperature control			No
I standbyläge	e _{lSB}	-	kW	With mechanic thermostat room temperature control			No
				With electronic room temperature control			No
				With electronic room temperature control plus day timer			No
				With electronic room temperature control plus week timer			No
				Other control methods			
				Room temperature control, with presence detection			No
				Room temperature control, with open window detection			No
				With distance control option			No
Specific precautions for assembly, installation, or maintenance		Always keep at least the minimum declared distance to combustible material from the product. During usage of product, always consider general risk for fire in surrounding environment. Always make sure the product has access to sufficient oxygen for combustion.					

The undersigned is responsible for the manufacture and conformity with the declared performance.



Marcus Frisk, CEO, Agromatic Nordic Heating AB, Forsbacka, 2023-09-20

Declaration of Performance



Declaration of performance according to regulation (EU) 305/2011
Nr NH-1450

1. Product trade name	Viking Royal
2. Intended area of use	Wood burning stove
3. Manufacturer	Agromatic Nordic Heating AB Stentorpsvägen 12 818 42 Forsbacka
4. According to AVCP	System 3
5. European standard	EN 13240:2001/A2:2004/AC:2007
Notified Body Name	Instytut Nafty I Gazu ul. Lubicz 25A 31-503 Krakow, Poland
Notified Body ID	1450
Test report	3156 A1 23
Essential characteristics	Performance
Fire Safety	Pass
Flue gas temperature in flue connector at nominal power	242,5°C
Safety distance to combustible materials	Minimum distance in mm sides 150 mm rear 150 mm in front 1000 mm
Emission of flue gases	CO: 0,11%
Release of dangerous substances	NPD
Fuel storage place safety	NPD
Surface temperature	Pass with glove
Mechanical resistance	Pass
Nominal heat output	11,3 kW
Efficiency	81,4%

The undersigned is responsible for the manufacture and conformity with the declared performance.

A handwritten signature in blue ink, appearing to read "Marcus Frisk".

Marcus Frisk, CEO
Forsbacka 2023-09-30

