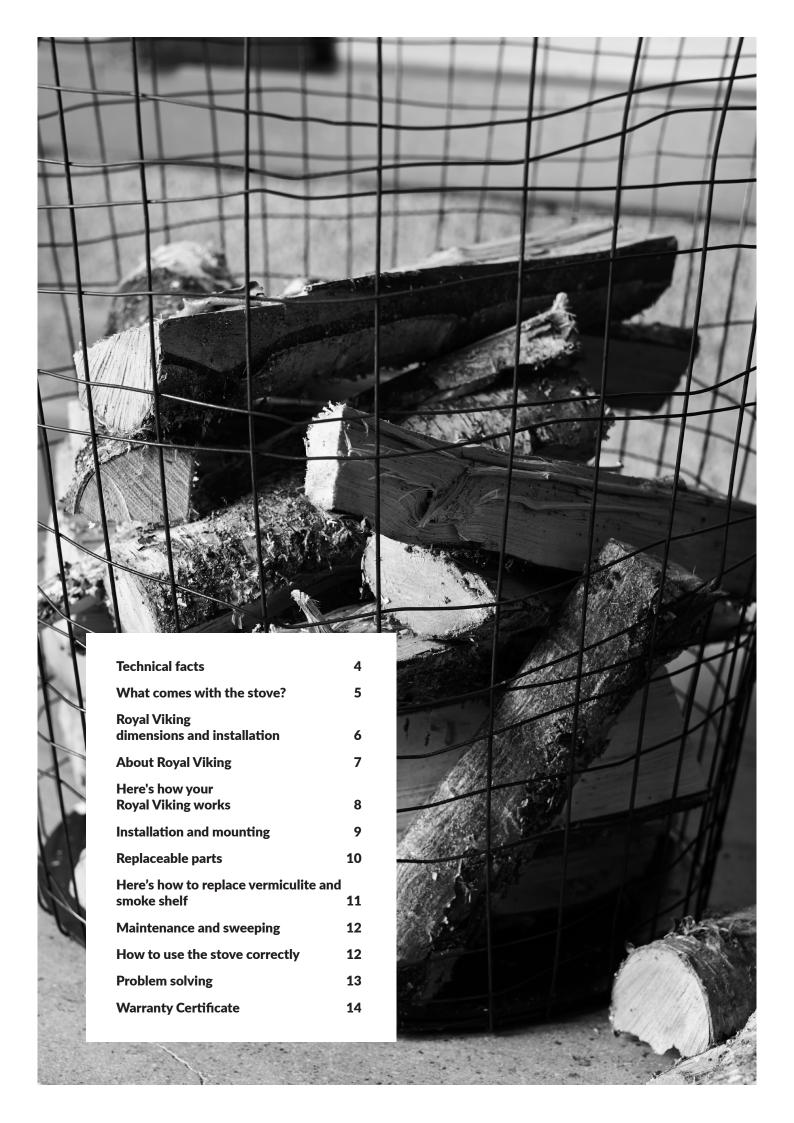


# **Royal Viking**

Installation and Maintenance Manual





# It'll soon be time to light your first fire.

Congrats on your new stove! All of us at Josef Davidssons hope that you, like many other people around the country, will enjoy many, many wonderful moments around the fire. This manual contains instructions on how to install your oven as well as maintenance advice and tips on the best way to light the fire. Don't hesitate to contact us if you have any further questions about using a fire or about your Royal Viking.

Warm regards,

Josef Davidssons

## **TECHNICAL DATA**

Efficiency (%) 80

Nominal Power (kW) 6.0

Heating surface (approx. m²) 30-80

Weight (kg) 280

Size (HxWxD mm) 1,670x560x560 Fireplace dimensions (HxWxD mm) 300x290x320

Fireplace opening (HxW) 355x195
Mounting options Rear
Flue pipe dimension (Ø, mm) 125
Log length (mm) 300-350
Distance to combustible material See page 6
CE marked according to standard EN13240





# IMPORTANT BEFORE YOU GET STARTED!

# **Professional mounting**

The manual contains instructions on how to mount and install Royal Viking. To ensure the function and safety of the stove, we recommend that installation be carried out by a professional. Contact one of our dealers who can assist with the installation or recommend a suitable technician.

# **Building application**

When installing a fireplace and erecting a chimney, a building application must be submitted to the municipality's building committee. Contact your building committee if you are unsure of how the application works.

# Load-bearing substrate

Make sure that the wooden floor joists in your home have sufficient bearing capacity for a stove with a chimney. Normally, a stove and chimney can be placed on standard wooden floor joists in a single-family house if the total weight does not exceed 400 kg.

#### Hearthstone

Ember coming from the range poses a risk of fire. If you have a flammable floor in front of your stove, it must be protected by an outer hearth that covers at least 300 mm in front of the door and 100 mm along each side. The hearthstone can consist of, for example, natural stone, concrete, sheet metal or glass.

The specified safety distances in this manual apply to the Swedish market. If the stove is installed in another country, local regulations must be met.

### NB.

The installation must be inspected by an authorised master chimney sweep before using the stove.

## WARNING! THE STOVE GETS VERY HOT

When burning, some areas of the stove become very hot and can cause burns if touched. Also, be careful with heat radiating through the glass of the door. If flammable material is placed closer than the specified safety distance, it can quickly catch fire. Smouldering combustion can cause rapid gas ignition with the risk of injury to persons and property.

# WHAT IS INCLUDED WITH THE STOVE?

Make sure all parts are included in the package.



# 1. Installation manual

Guide to installation and maintenance of your stove.

## 2. Glove

Made of flameproof material.

# 3. Ash pan

Collects ashes left after burning.

## 4. CE mark

Placed in a prominent position at the rear of the stove.

# TIP!

The pallet is recycled as untreated wood. Corrugated cardboard is sorted as corrugated cardboard, and plastic tapes go into the "flammable" containers at the recycling centre.



# ROYAL VIKING DIMENSIONS AND INSTALLATION

Here are the most important dimensions required for proper installation and optimal operation.

All measurements are indicated in millimetres.

# Installation distance

Please consider the safety installation distance.

The lowest possible ceiling height is 2,200mm for a safe distance.

Allow at least 1,000mm distance from flammable materials in front of the stove.

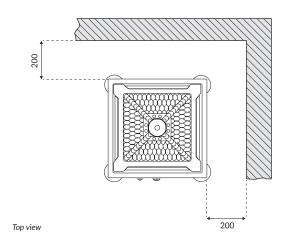
The distances refer to installation with an insulated flue pipe.

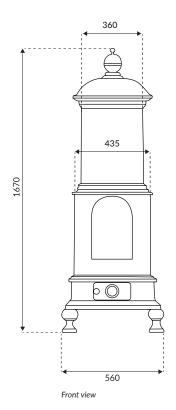
Non-insulated flue pipes must have a distance of at least 500 mm to combustible material.

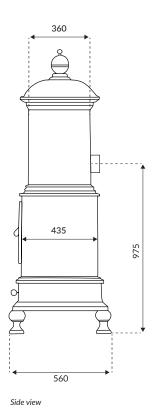
If you choose a diagonal position, keep in mind that the measurement always starts from the centre of the flue pipe.

Always contact your chimney sweeper if you are unsure how to place and install your range.

Fireplace opening Height middle 355mm, Width 195mm.







### NB!

Keep in mind that the hearthstone (floor cover) should cover at least 300 mm in front of and at least 100 mm on the side of the fireplace opening.

# **ABOUT ROYAL VIKING**

### Manufacturer's declaration

This product has been manufactured in accordance with the product type approval document, which includes assembly and maintenance instructions as accompanying documents.

### General

The Royal Viking is made of heavy castings and the fireplace is lined with vermiculite internally. Externally, the combustion chamber as well as the flue gas shaft, is fitted with flanges, which are designed so that flue gases travel upwards and make a u-turn, before travelling back down. This means that heat is very efficiently utilised. The average flue gas temperature is only 213°C.

The chimney sweep must always examine the installation prior to the stove being lit. This applies regardless of whether it is connected to an existing or new chimney. Please read the installation instructions carefully before starting the installation.

Due to cast iron being a heat retaining material, the stove will emit residual heat for several hours after use.

The fireplace door is equipped with a window of ceramic hardened glass that allows the fire to be viewed. Thanks to the sealed doors and the unique air supply to the fire, the stove provides maximum heat output and low wood consumption. The wood is burned when the supply of secondary air flows through the holes of the rear vermiculite plates and is distributed across the glass. Primary air is supplied when the fireplace door is left half-open during the ignition phase and when the vent on the ash door is open. This makes it easier to get the initial fire going.



# HERE'S HOW YOUR ROYAL VIKING WORKS

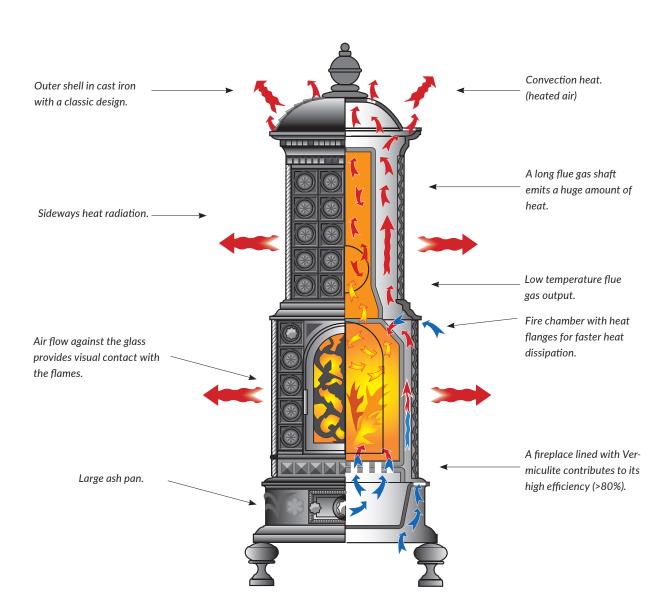
### **Convection air**

In addition to radiating heat, the Royal Viking is also equipped with convection technology. This means that the cool room air is sucked under the stove and heated, before being pushed out through the top of the stove to flow back into the room. This causes the sides of the stove to be cooler so that larger areas around the stove are heated.

## **Combustion air**

Primary air is supplied when the rotary damper is open on the ash door and the fireplace door is left half-open during the ignition phase. The secondary air is supplied through the slider to the front above the fireplace door.

The secondary air is heated in the stove and enters the fire through the holes in the vermiculite on the rear of the fireplace back and is also blown against the glass.



## INSTALLATION AND MOUNTING

The stove meets the requirements for connection to a chimney designed for 350°C smoke temperature.

The external diameter of the connectors is 125mm.

The optimum chimney draft is between -10 to -15 Pa. The draft is mainly affected by the length and area of the chimney, but also by how pressure-tight it is. The minimum recommended chimney length is  $3.5 \, \text{m}$ , and the appropriate cross sectional area is  $120\text{-}180 \, \text{cm}^2$  ( $125 \, \text{mm}$  in diameter).

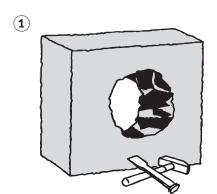
A flue with narrow bends and horizontal draught reduces the draft in the chimney. The maximum horizontal flue is 500 mm, provided that the vertical flue length is at least 5 m. It should be possible to sweep the flue throughout its length, and the soot doors must be easily accessible.

Check that the chimney is sealed and that no leakage occurs near the soot doors and smoke connections. The stove can be connected to the chimney with several fireplaces.

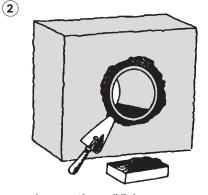
## **IMPORTANT**

We recommend a soot hatch for easy access all the way to the chimney shaft, as well as a damper on the connecting pipe in order to be able to regulate the chimney draught should it become too strong.

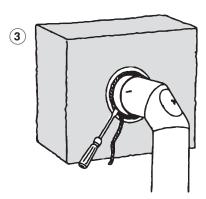
# CONNECTING THE STOVE TO AN EXISTING CHIMNEY



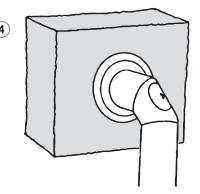
Carefully make a hole in the spot where you will connect your stove to the chimney stack.



Immure the wall lining.



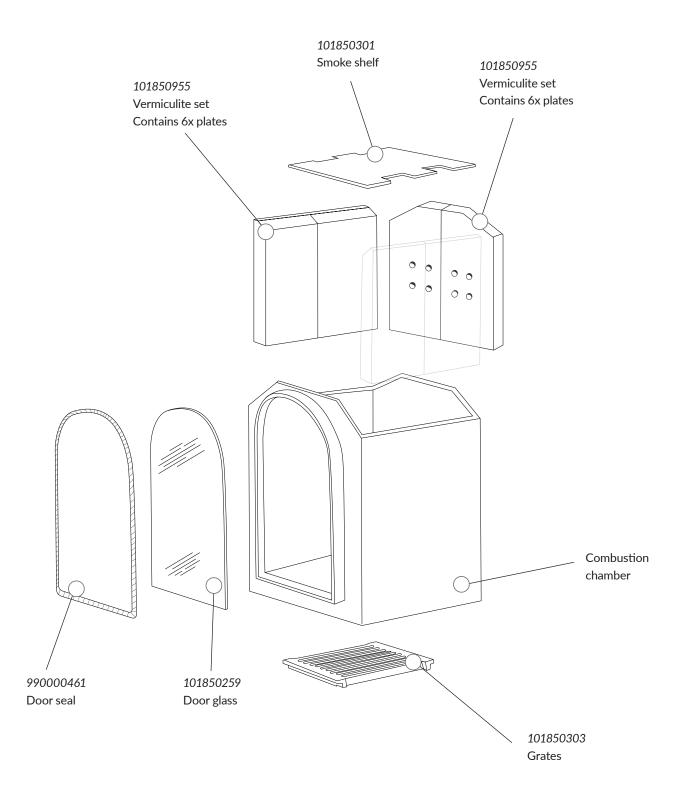
Stuff with tow material between the flue and the wall mounting connectors.



Finish with the flue rosette to seal the installation.

# **REPLACEABLE PARTS**

The Royal Viking is built to be used for decades to come, but do not forget to replace wear details when needed. Keep an eye on the vermiculite plates, grates and seals and replace them when they become worn.



# HERE'S HOW TO REPLACE THE VERMICULITE, SMOKE SHELF AND GRATES

# **Removal of worn components**

All components are loose. The vermiculite is removed by lifting up the smoke baffle. Then lift up the side vermiculite and angle it into the fireplace to lift it out. It doesn't matter which side is removed first. When one side (2x stones) has been removed, the smoke baffle may be angled outwards. The opposite side can then be removed in the same way, followed by the rear plates. The grate can be lifted upwards using, for example, a screwdriver.

# **Installing new parts**

The grate can easily be added to its frame.

Then replace the rear vermiculite. Any side of the side vermiculite can then be replaced followed by the smoke baffle and, lastly, the corresponding side stones.

All spare parts can be found at josefdavidssons.se



## **MAINTENANCE**

The stove may be wiped down with a slightly damp cloth. This should be done when the stove is cold.

Ash should regularly be removed from the grate.

Empty the ash pan as soon as it is full.

After using the fire for some time, some soot may become stuck on the glass. With the Dry wiper you can keep the glass clean easily.

Keep the fireplace and flue clean. If you use the stove often, you should sweep the chimney every once in a while in-between visits from the chimney sweep.

Products and recommendations can be found on our website josefdavidssons.se



# **Sweeping**

Lift the top off the stove.

Loosen the flue gas top, which is fixed with two M6 nuts, one on either side. This will make the whole flue gas shaft accessible for sweeping. Remove the smoke baffle in order to clean the soot from the chimney.

We recommend that the connection pipe between the stove and the chimney features a soot hatch to make it is easier to sweep all the way to the chimney ducts.

# **HOW TO USE THE STOVE CORRECTLY**

### First fire

A new Royal Viking should be lit carefully on the first few occasions. This makes the heat-resistant colour more durable. There may also be a slightly unpleasant smell at the first firing. This is completely normal and due to excess paint or oil remaining on the iron casting. The smell will disappear quite quickly and won't come back.

#### **Firewood**

The best heat value is obtained from split birch wood. Leafy trees generally burn calmer than conifer wood, which creates a more even heat. If you are burning oak, beech or other wood with high heat value, always mix the wood with other wood. Otherwise you risk damaging your fireplace. The wood should be dry, with preferably 15-20% moisture content. For a normal fire, approximately 1.5-2 kg wood / hour is a suitable amount of wood. 1 kg birch wood produces about 4 kW power.

# Lighting the fire

Completely open the dampers above the fireplace door. They are opened by pulling outwards on the knobs. Place briquettes in the centre of the fireplace. Pile up about 1.5 kg of small wood logs crosswise, like a log house, on top of the briquettes. Start by lighting the briquettes. These should in turn ignite the wood. Keep the hearth door open during the first few minutes until the wood is properly ignited. Depending on the chimney draft, you may need to have to leave the door open slightly longer to build a temperature in the hearth and get a satisfactory chimney draught. Then close the door and adjust the valves to the desired intensity of the fire. The range should be properly heated before starting to reduce the air supply. If the fire wane too much when closing the fireplace door, the valve on the ash hatch may be opened slightly. This damper should be closed to allow for cleaner combustion once the fire has got going.

## Adding firewood

When the intensity of the fire has decreased, it is time to replenish. Open the door carefully. That way, you avoid smoke gusts. Use a fireplace tool or a piece of wood to distribute ash and glow. Refill with 2-4 logs and close the door when the wood is properly lit (1.5-2 kg wood).

### **Continuous fire**

In order to kindle the fire correctly, it is necessary to achieve as high a temperature as possible in the hearth. Then you'll have a clean combustion and get the most out of the range and the firewood. With clean combustion, you avoid soot coating the fireplace and the glass. When you use the fire correctly, smoke shouldn't be visible.

## FIRE-LIGHTING PROBLEMS AND SOLUTIONS

### Poor draft

- The connection to the chimneystack has not been properly sealed. Ask the chimney sweep to check the connection between the stove and the chimney is completely sealed.
- The flue pipe is clogged. Clean the flue pipe and combustion chamber.
- The chimney is too short, has too much cross-sectional area or has been clogged by a bird nest. Contact chimney sweep or reseller for guidance.
- Negative pressure in the home. Open a window or place an exterior wall vent near the range.
   The firewood has too much moisture content or is too cold. Only use dry wood with a maximum moisture content of 20%.

## Draft is too strong

- The sealing tape at the door is worn. Check the sealing tape and replace worn tape.
- The chimney is too long. Contact chimney sweeper or dealer for guidance.

# The glass pane gets sooty

- The wood is too damp. Only dry wood with a maximum moisture content of 20% should be used.
- The damper is overly closed. Open the valve to provide more air to the combustion.

# The glass pane turns white

- Poor combustion. Follow the instructions for correct fire-lighting provided in this manual.
- Poor quality combustibles for fire-lighting. Do not use waste wood, ground wood, impregnated wood, laminated plastic, plywood or the like. Always use clean and dry firewood.

# Smoke emission in the room when the door is opened

- Opening the door too quickly causes pressure equalisation in the combustion chamber. Open the door slowly.
- Poor chimney draught. Contact your chimney sweep or reseller to check the height of the chimney in relation to the draught that the stove requires.
- Too much negative pressure in the home. Open supply air valve or window to add oxygen to the air.

# White smoke

- Combustion temperature is too low. Increase air supply.
- The wood is damp and contains water vapour. Use clean and dry firewood.

### Black or grey black smoke

• Incomplete combustion. Increase air supply.

### **ROYAL VIKING**

# **WARRANTY CERTIFICATE**

# **WARRANTY TERMS**

Josef Davidssons Eftr AB is responsible for ensuring that the products are not defective in way that can be attributed to manufacturing or storage at the factory. The warranty is valid from the date of delivery to the customer.

Josef Davidssons Eftr AB accepts no responsibility for dismantling and assembly costs for replacement of a stove.

Josef Davidssons Eftr AB accepts no liability for costs due to downtime or other direct or indirect costs or damage.

The warranty conditions do not apply to glass or the replaceable fireplace parts. Warranty period for grates, branding iron, vermiculite and glass is 1 year.

10 years

**Royal Viking** 

Markus and Mikael Andersson, part-owners

# NB!

The installation of a fireplace must be reported to the local building authority. The homeowner is responsible for ensuring that the required safety requirements are met and must have the installation checked by a qualified inspector.

The chimney sweeper must be informed about the installation as it causes a change in the need for sweeping.





# **CUSTOMER SERVICE & CONTACT**

Our Customer Service offers you personal help and answers to your questions.

Contact us by phone or email.

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