

GELATI

ROMA

LIMONE

FRAGOLE

TUTTI FRUTTI

# JD 320/Viking 30

Installation and maintenance manual



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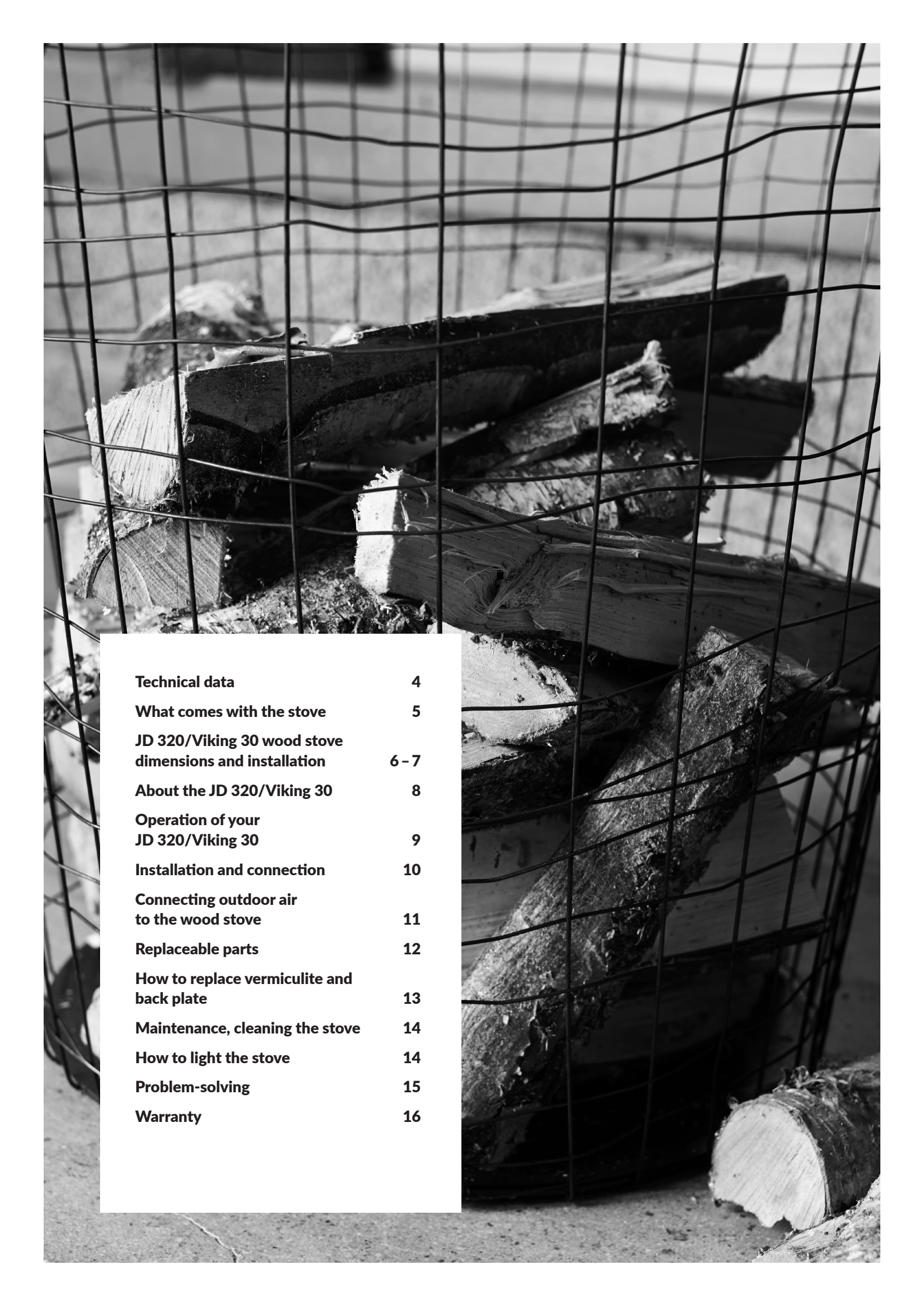


JOSEF DAVIDSSONS

since 1882

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## It will soon be time for the first fire.

Congratulations on your new JD 320/Viking 30! All of us at Josef Davidssons Eftr. hope that, like many others around the country, you will have many happy hours in the kitchen.

The JD 320/Viking 30 is a fine wood stove which works equally well for cooking and for cold winter evenings.

This manual provides instructions in how to install your wood stove and maintenance advice and tips on the best way to run it. Do not hesitate to contact us if you have more questions about firing and your JD 320/Viking 30.

Best wishes,



Markus



Mikael

## TECHNICAL DATA

Efficiency (%)	78
Output (kW)	3–8
Heating capacity (approx. m <sup>2</sup> )	up to 80
Weight (kg)	150
Size (H x W x D mm)	850–900 x 300 x 600
Firebox size (H x W x D mm)	300 x 190 x 390
Firewood length (mm)	300–350
Flue dimensions (Ø, mm)	125
Clearance to flammable material	See page 7
Approval certificate number	0386/04
CE standard EN12815	



## IMPORTANT POINTS BEFORE YOU GET STARTED:

### Fitting by a professional

The manual contains instructions on how the JD 320/Viking 30 should be fitted and installed. To guarantee the function and safety of the stove, we recommend installation by a professional. Contact one of our dealers, who can help with the installation or recommend a suitable fitter.

### Building application

To install a fireplace and fit a chimney, a building application has to be submitted to the municipal planning committee. Contact your planning committee if you are unsure how to apply.

### Supporting base

Check that the wooden joists in your home are sufficiently strong to take a wood stove and chimney. The wood stove and chimney can normally be placed on ordinary wooden joists in a house if the total weight does not exceed 400 kg.

### Hearth

Embers falling from the stove constitute a fire risk. If you have a flammable floor in front of your wood stove, it must be protected with a hearth area covering at least 300 mm to the front of the fire door and 100 mm to either side. The hearth may be made of real stone, concrete, sheet metal or glass, for example.

The safety clearances given in this manual apply to the Swedish market. If the wood stove is installed in another country, the local regulations must be observed.

### NOTE:

The installation must be inspected by a qualified chimneysweep before the wood stove is used.

### WARNING! THE WOOD STOVE CAN GET VERY HOT

When you light the stove, some surfaces can get very hot and could cause burns on contact. Beware also of the intense heat which radiates through the glass door. If flammable material is placed closer than the specified safety clearance, it could catch fire quickly. Smouldering can cause sudden ignition of gas with a risk of personal injury and material damage.



## WHAT COMES WITH THE WOOD STOVE?

Check that all parts are included in the package.



### 1. Installation instructions

Guide to installing and maintaining your wood stove.

### 2. Fire cement

Sealant for connection to chimney.

### 3. Stove black

Black polish for maintenance and care of the stove.

### 4. Ash pan

Collects ash left over from burning.

### 5. Lining sleeve (for rear connection)

For fitting instructions, see page 10.

### 6. Connecting pipe (for rear connection)

For fitting instructions, see page 10.

### 7. Oval sleeve (for top connection)

For fitting instructions, see page 10.

### 8. CE mark

Guarantees that the product satisfies all essential health and safety requirements under the Construction Products Directive. Placed on the bottom of the heat deflector.

### 9. Poker

Practical poker included.

A. With Viking 30.

B. With JD 320.

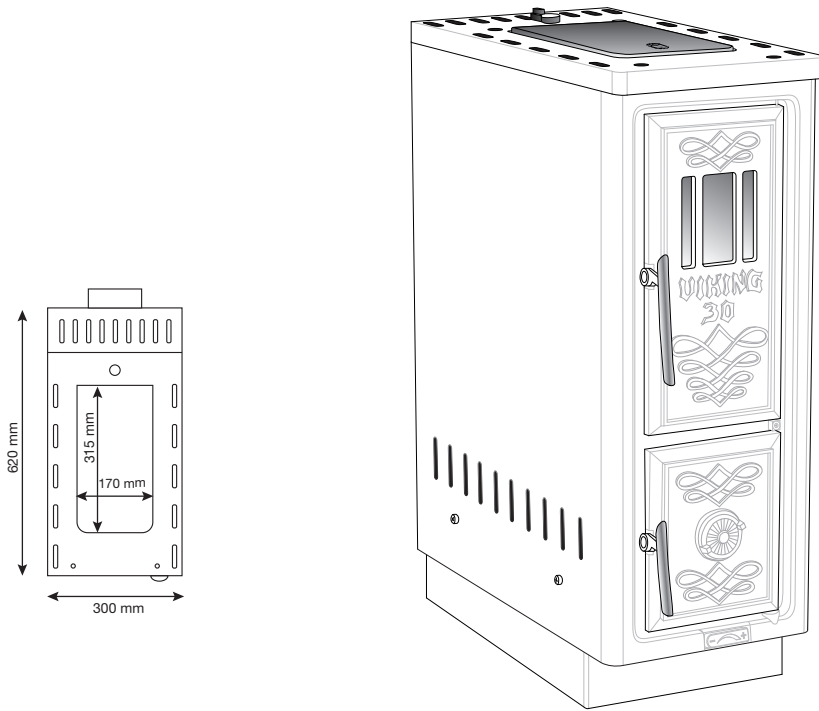
#### TIP:

The pallet is classed as untreated wood. Corrugated cardboard goes into card and plastic tape into the combustible bin at the recycling centre.

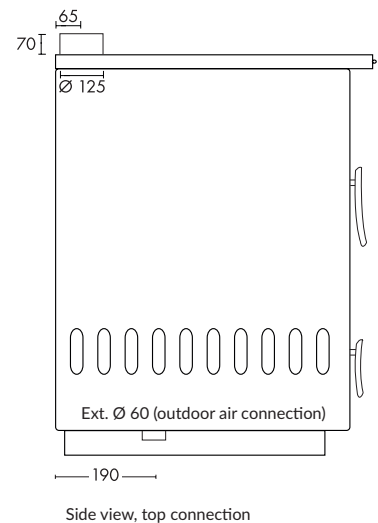
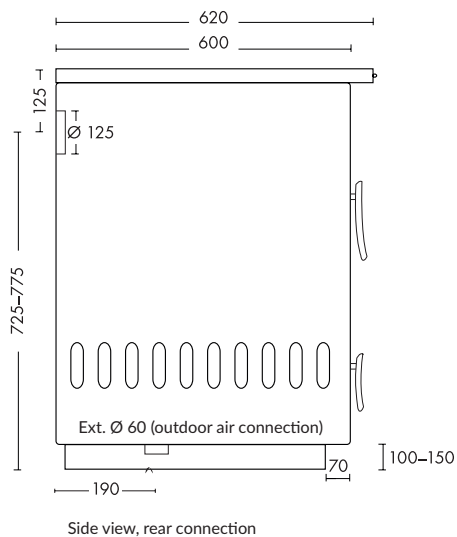
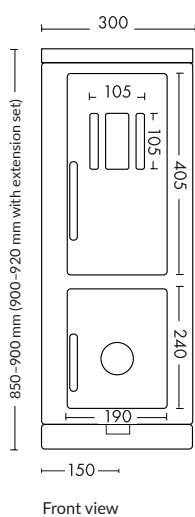
## JD 320/VIKING 30 WOOD STOVE DIMENSIONS AND INSTALLATION

The pictures show the major dimensions required for correct installation and optimum function.

All dimensions are given in millimetres.



**VIKING 30/JD 320**



\*Connection for outdoor air. Connecting sleeve for outdoor air,  $\varnothing$  60 mm.

### NOTE:

Remember that the hearth plate (floor protection) must reach at least 300 mm to the front and at least 100 mm to the sides of the fire door.



### Installation clearances

Observe the safety clearances for installation.

Lowest possible ceiling height for proper safety clearance is 2000 mm.

In front of the wood stove there must be a clearance of at least 1,000 mm to flammable material.

The clearances relate to installation with an insulated outlet pipe.

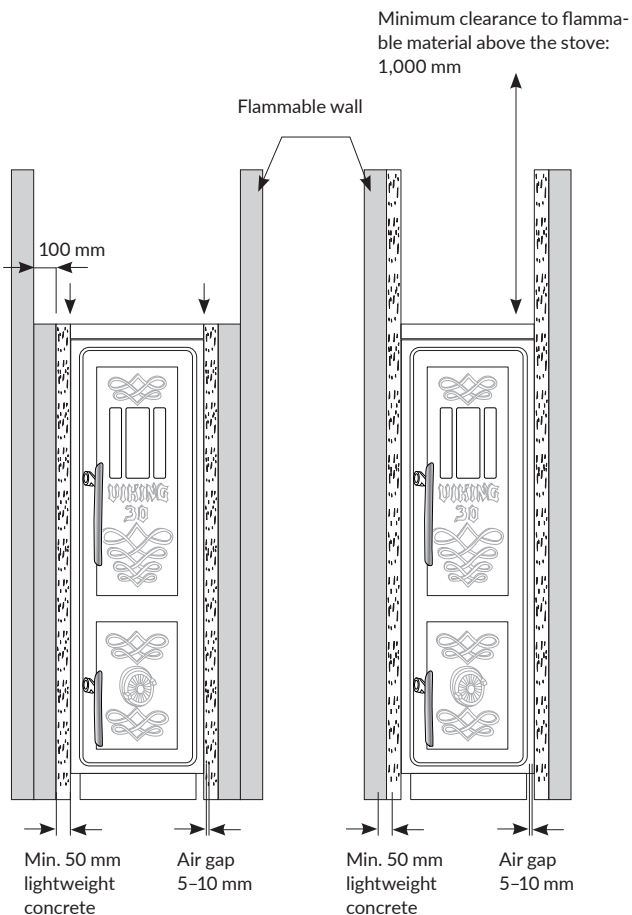
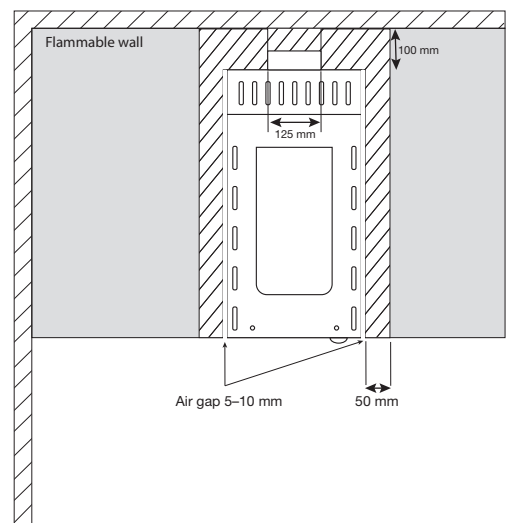
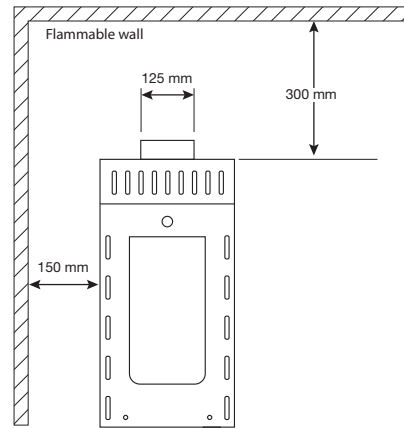
Uninsulated outlet pipes must have a clearance of at least 500 mm to flammable material.

The stove has been tested and approved with 50 mm of lightweight concrete or similar material as a firewall.

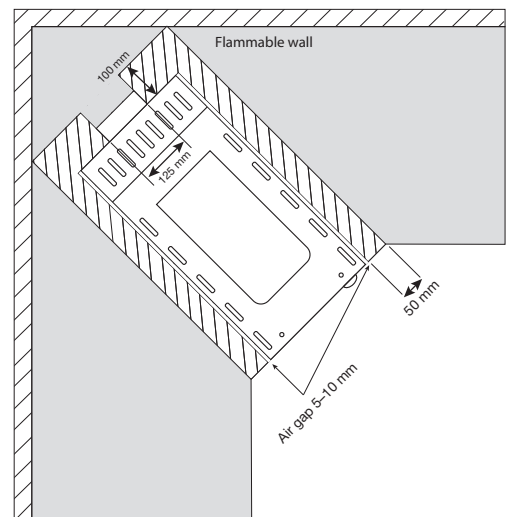
In a diagonal position, remember that the dimensions are always taken from the centre of the outlet pipe.

Between the stove and any wall cabinet there must be a safety clearance of at least 1,000 mm and 150 mm to the sides.

Always contact your chimneysweep if you are unsure of how to position and install your stove.



Front view



### IMPORTANT:

Between the stove and any insulating material (lightweight concrete etc.) there must be an air gap of 5-10 mm.

## ABOUT THE JD 320/VIKING 30

### Manufacturer's warranty

This product has been manufactured in accordance with the type approval document for the product, which includes the installation and maintenance instructions as a related document.

### General

The JD 320/Viking 30 is made of heavy cast iron and the firebox is lined with vermiculite. Between the vermiculite lining and the thick cast iron sides there is an air gap, with oval holes in the top, providing for good circulation of air to prevent overheating of the sides. With its heat-retaining materials, the stove gives off good after-heat for several hours after it stops burning.

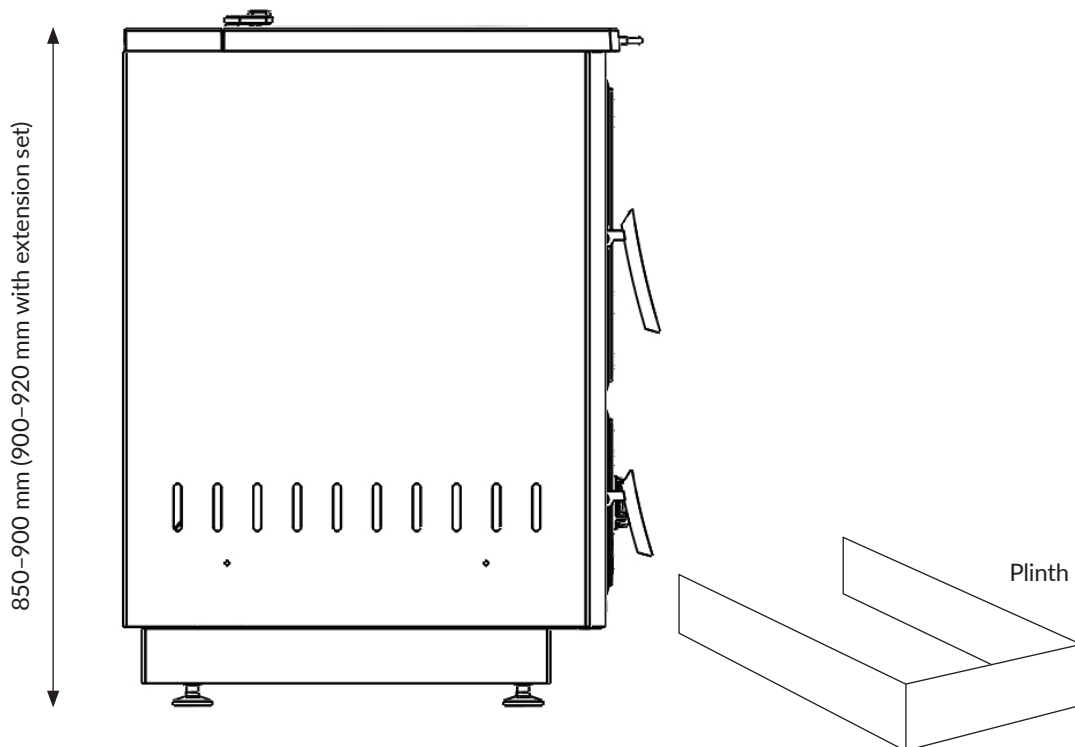
The fire door is provided with a window of ceramic-hardened glass to view the fire. Thanks to the tight covers and the special supply of air to the fire, the stove maintains a maximum heat output and low wood consumption. The wood burns when the supply of secondary air

flows through the holes in the vermiculite sides and through primary air supplied when the fire door is ajar in the lighting-up phase. The JD 320/Viking 30 is fitted with a throttle valve and a removable hotplate.

### Adjustable stove height

The total height of the stove is adjustable between 850 and 900 mm (900–920 mm with an extension set). Lift the front of the stove so it rests on the rear screw feet to make it easier to adjust the front feet, and vice versa. The screw feet can be fine-adjusted from inside with a slotted screwdriver. The four screw feet have an M12 thread and take a 12 mm spanner.

When the wood stove has been adjusted to the right height and is standing in the right place, the plinth can be screwed on. The long sides are slightly curved, enabling them to fit tightly around the stove and hold the plate securely in place.





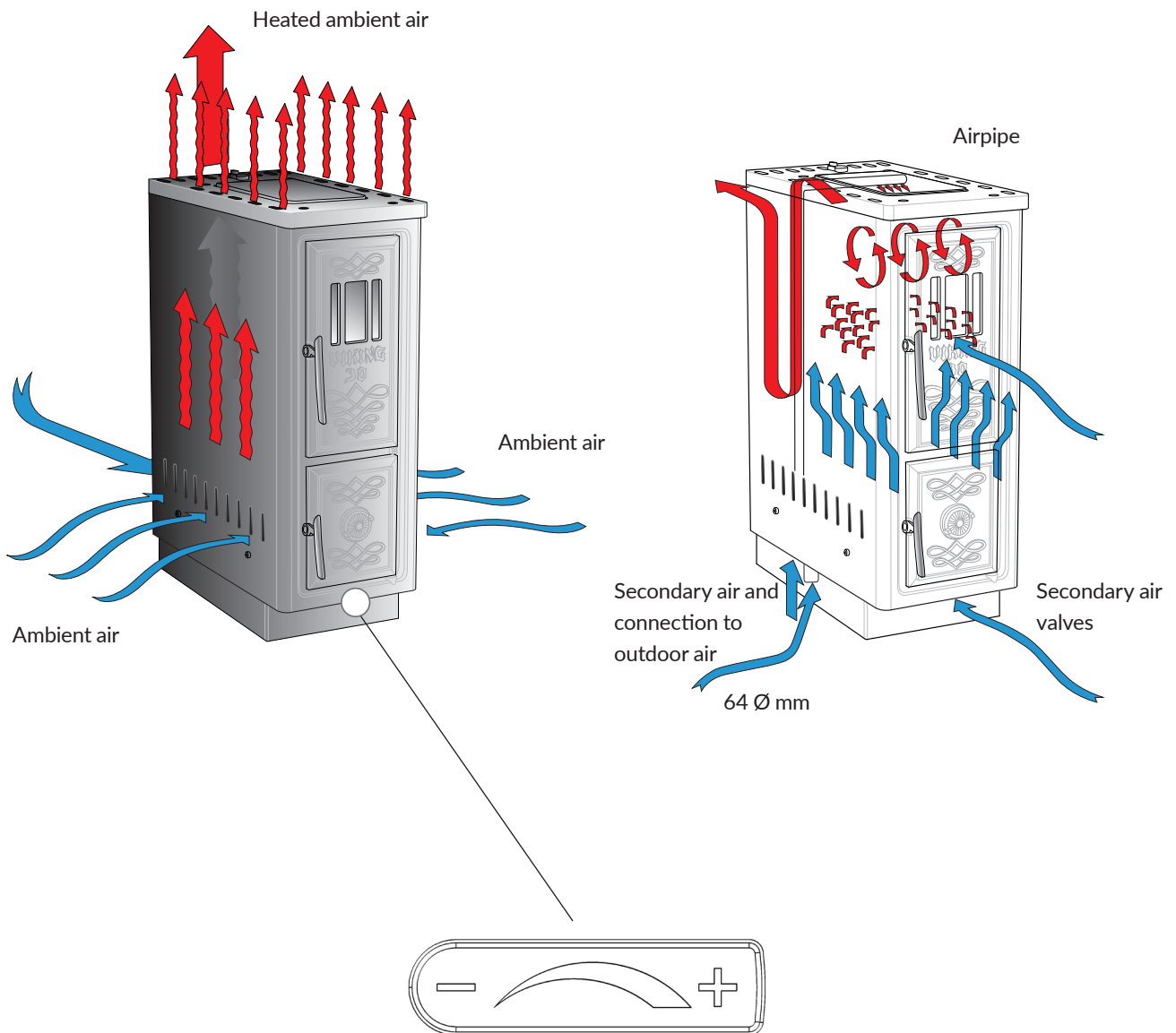
## OPERATION OF YOUR JDE 320/VIKING 30

### Convection air

Apart from radiating heat, the JDE 320/Viking 30 is also designed for convection. That means that the cool ambient air is sucked in to the sides of the stove, heated up and pushed through the oval holes in the top to flow out into the room. This makes the sides of the stove cooler and heats a larger area around the stove.

### Combustion air

The primary air is supplied when the fire door is left ajar as wood is fed in and during the lighting-up phase. The secondary air is supplied through the rotary valve on the lower door and through a fresh air intake under the stove. The secondary air is then heated up in the stove and passes into the fire through the holes in the vermiculite in the firebox.



If you have connected outdoor air, you can regulate the supply of air here with the aid of the supply air knob. When outdoor air is connected, the valve on the lower door should be closed.

## INSTALLATION AND CONNECTION

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

The connecting sleeve measures 125 mm on the outside, and can be used for both rear and top connection. For top connection, the connecting sleeve adds 50 mm, so the starting height is 50 mm above the grate.

When an uninsulated 125 mm outlet pipe is used, the pipe passes out of the back of the stove. For top connection with an insulated outlet pipe, remember that this sticks out behind the stove.

The optimum chimney draught is between -10 and -15 Pa. The draught is mainly affected by the length and area of the chimney, and also by how pressure-tight it

is. The minimum recommended chimney length is 3.5 m and a suitable cross-sectional area is 120–180 cm<sup>2</sup> (125 mm in diameter).

A flue with sharp bends and horizontal sections will reduce the draught in the chimney. The maximum horizontal flue length is 500 mm, provided that the vertical flue length is at least 5 m.

It should be possible to sweep the whole length of the flue, and the soot hatches should be easy to get at.

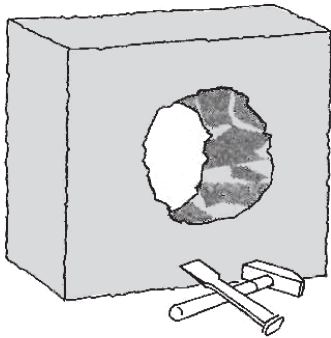
Check that the chimney is tight and that there are no leaks around soot hatches and flue joints. The wood stove may be connected to a chimney with other stoves.

**Important:**

With a top connection, the first pipe must have a soot hatch to allow for sweeping.

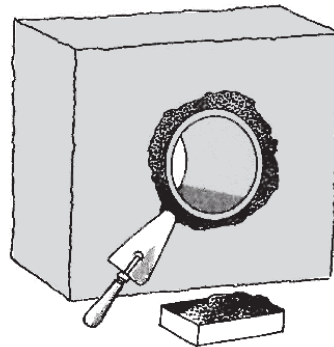
## CONNECTING THE WOOD STOVE TO AN EXISTING CHIMNEY

①



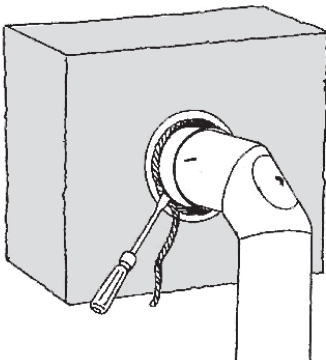
Carefully cut a hole where you want to connect your stove to the chimney stack.

②



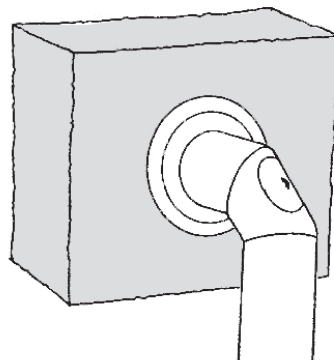
Cement in the lining sleeve.

③



Plug with oakum between the flue and the lining sleeve.

④



Close with a flue ring to cover the installation.

### NOTE:

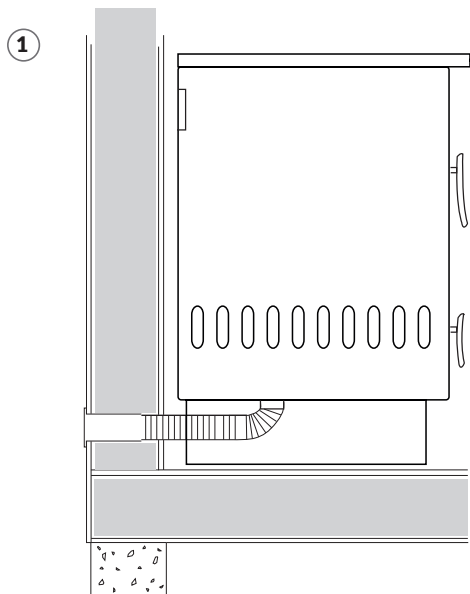
Steps 3 and 4 apply to top connection to an existing chimney. To connect straight back to an existing chimney, do not use oakum but use the fire cement supplied instead.



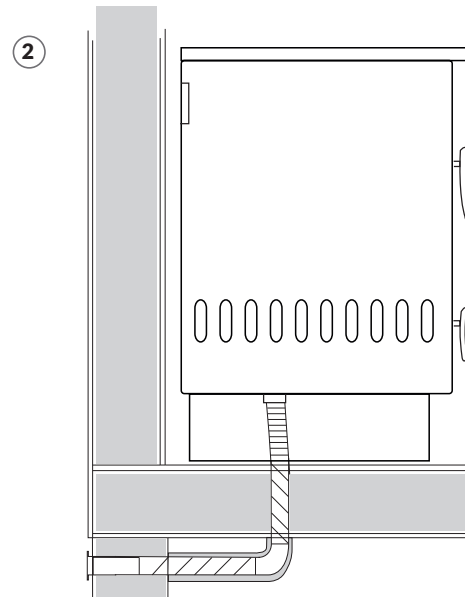
## CONNECTING OUTDOOR AIR TO THE WOOD STOVE

For optimum performance, the firebox needs around 20 m<sup>3</sup> of air per hour. If you have mechanical ventilation in your house, you should connect outdoor air to your wood stove. Otherwise the wood stove could disrupt the air flows to the air valves for the mechanical ventilation. There are various ways of connecting

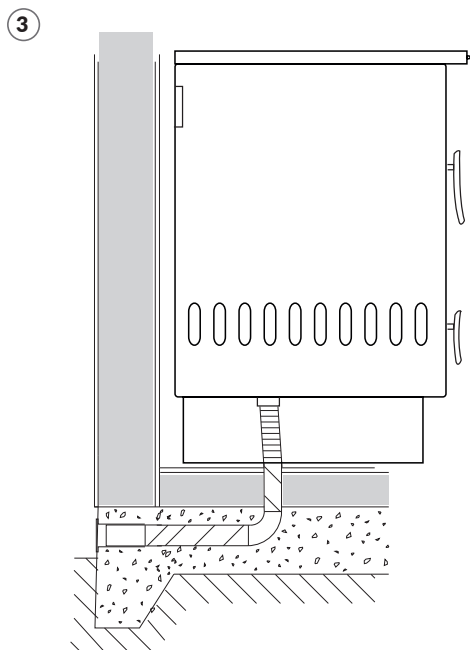
outdoor air to your wood stove depending on the type of house that you have. Some take air directly via the outside walls, others go down into the floor and then out through the foundations. If you go down into the floor, it is important for the supply pipe to be insulated to counter condensation. Contact your dealer if you are unsure which connection suits your house best. Which-ever solution you need, you should also get help from a professional to do the job.



Connecting outdoor air via outside wall.



Connecting outdoor air via foundations.



Connecting outdoor air via base. Used mainly in new builds.

**Our connection set for outdoor air can be obtained from your dealer or from [josefdavidssons.se](http://josefdavidssons.se)**

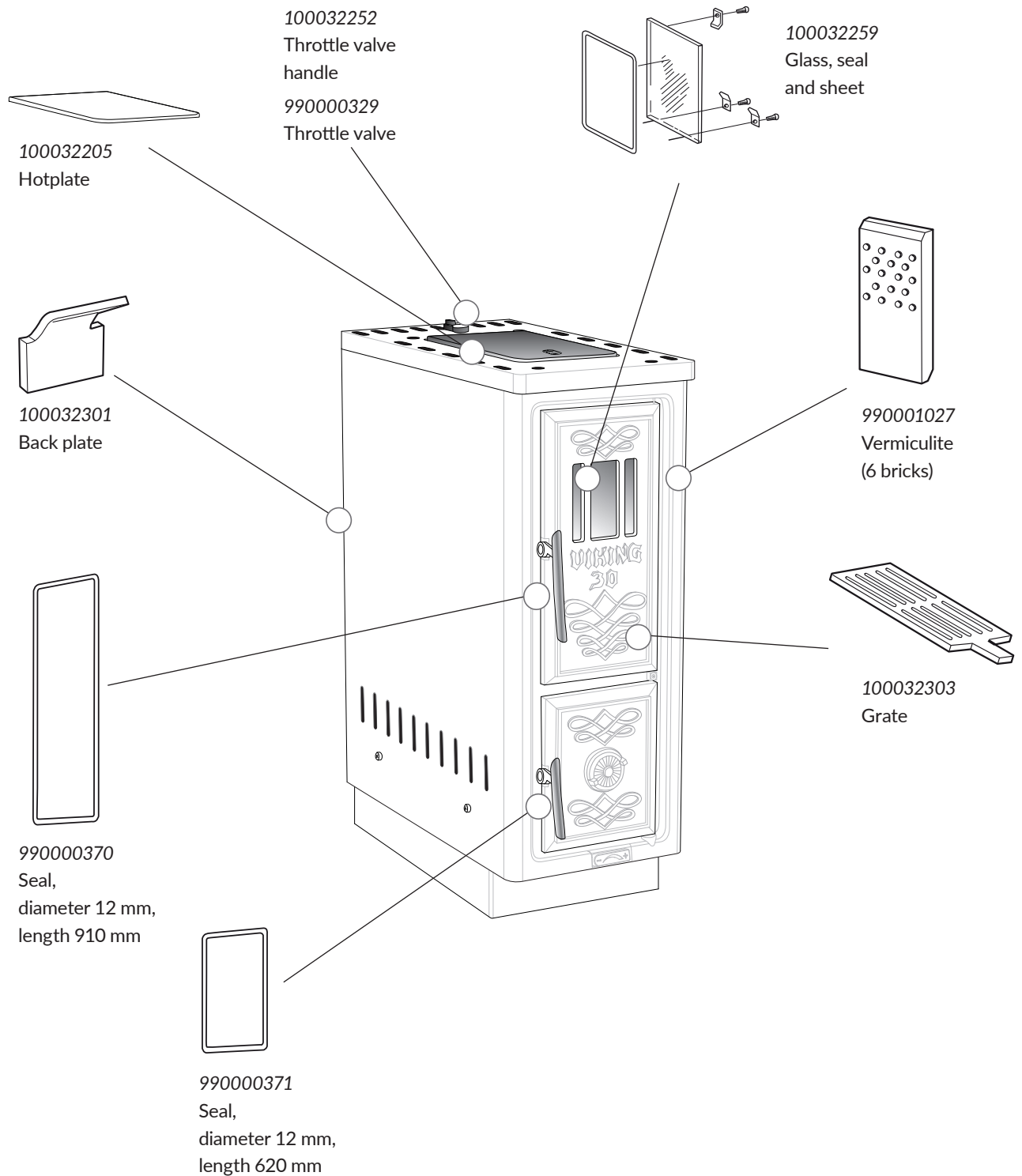
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Connection set for outdoor air

- Flexible hose (1 m)
- Hose clips (2)
- Adapter from hose to 100 mm

## REPLACEABLE PARTS

The JD 320/Viking 30 has been built for use several decades into the future, but do not forget to replace wear parts when necessary. Keep an eye on vermiculite firebricks, grate and seals, and replace the parts when they get worn.





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## HOW TO REPLACE VERMICULITE AND BACK PLATE

**NOTE:** Never unscrew the top of the stove.  
This will invalidate the warranty.

1. Remove the hotplate
2. Open the fire door and insert a thin tool (such as a screwdriver) into one of the holes in the centre firebrick.  
NB: Always start with the centre brick.
3. Raise the brick approx. 5–7 mm with the screwdriver. Lower the brick carefully and turn the bottom edge in towards the firebox. Then lay the brick down completely.
4. Continue with the brick closest to the fire door and repeat step 3.
5. Pull the rear brick to the middle and repeat step 3.
6. Remove the bricks on the opposite side in the same way. Now you can remove the back plate.
7. Always start from the rear when you fit the new firebricks. Then fit the front brick. The centre brick should be fitted last.
8. Check that the holes are facing upwards and that the recessed holes do not point into the firebox.

## MAINTENANCE

Take good care of your stove and apply stove black when necessary.

The grate should be regularly shaken and cleared of ash.

Empty the ash pan as soon as it is full.

After a time, a coating of soot may have formed on the glass. It is easy to keep the glass clean with the 'Sotrent' sponge.

Keep the firebox and the flue clean. If you use the stove a lot, you should brush the chimney a few times between visits from the sweep.

You can order maintenance products from our website [josefdavidssons.se](http://josefdavidssons.se)



### Cleaning with a rear connection

Remove the loose back part of the top by turning it towards you. Release the cover which is fixed with two wing nuts. Take out the plate which extends the flue gas path. Clean all the way into the flue then fit the parts back.

### Cleaning with a top connection

With a top connection, you can clean via the access hatch in the first flue pipe. Remove the throttle valve and handle from the top of the stove. The throttle valve is fixed with two M6 hexagonal nuts. Then clean the whole rear part of the stove and fit the parts back when you have finished.

## HOW TO RUN THE STOVE

### First firing

A new JD 320/Viking 30 should be fired carefully the first few times. Then the heat-resistant paint will last longer. There may also be a slightly unpleasant smell the first time you light the stove. This is entirely normal and comes from the film of oil or surplus paint left on the cast iron. The smell will disappear quite quickly and will not come back.

### Fuel

The best calorific value can be obtained from split birch wood. Hardwood generally burns more slowly than softwood, giving a more even heat. If you burn oak, beech or other types of wood with a high calorific value, you should always mix them with other types. Otherwise you could risk damaging your firebox. The wood must be dry, ideally with 15–20% moisture content. With normal firing, around 1.5–2 kg wood/hour should be sufficient. 1 kg of birch wood produces about 4 kW of output.

### Lighting

Open the supply air valve fully. The throttle valve on top of the stove should also be opened to begin with. Place firelighter briquettes in the middle of the firebox. Stack around 1.5 kg of kindling crosswise, like a log house, on top of the firelighters. Start by lighting the briquettes. These will in turn ignite the wood. Leave the fire door ajar for the first few minutes until the wood has caught fire properly. Depending on the draught from the chimney, you may need to keep the door open slightly longer to build up heat in the firebox and produce a satisfactory draught. Then close the door and adjust the throttle valve according to the intensity of fire you want. The stove should be heated through before you start to throttle the supply air valve.

NB: The second time you add wood, the grate and the primary air throttle valve should be closed for optimum combustion.

### Adding wood

When the intensity of the fire has decreased, it is time to add more wood. Open the door carefully. This will prevent smoke inhalation. Use a poker or a piece of wood to spread ash and embers. Add 2–4 logs and only close the door when the wood has caught fire (1.5–2 kg of wood).

### Continuous firing

To fire properly, you should try to achieve the highest possible temperature in the firebox. Then the wood will burn cleanly and you will get the maximum benefit from the stove and the wood. Clean combustion will prevent soot building up in the firebox and on the glass. If you fire correctly, you should not see any smoke.

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## **FIRING PROBLEMS AND SOLUTIONS**

### **Poor draught**

- The connection to the chimney stack has not been sealed properly. Ask the sweep to check that the joint between the stove and the chimney is completely tight.
- The flue is sooted up. Clean the flue and firebox.
- The chimney is too short, has too large a cross-section or is blocked with a bird's nest. Contact your chimneysweep or dealer for guidance.
- Negative pressure in the building. Open a window or fit a valve in the outside wall close to the stove. The wood has excessive moisture content or is too cold. Use only dry wood with a moisture content of 20%.

### **Too much draught**

- The seal on the door is worn. Check the seal and replace if worn.
- The chimney is too tall. Contact your chimneysweep or dealer for guidance.

### **The glass is sooted up**

- The wood is too damp. Use only dry wood with a moisture content of 20%.
- The throttle valve is closed too far. Open the throttle valve to let in more air for combustion.

### **The glass turns white**

- Poor combustion. Follow the instructions on correct firing in this manual.
- Poor quality fuel. Do not use scrap, milled or impregnated wood, plastic laminate, plywood etc. Always use clean and dry fuel.

### **Smoke build-up in the room when you open the fire door**

- Opening the fire door too quickly will cause pressure equalisation in the firebox. Open the door slowly.
- Poor draught in the chimney. Contact your chimneysweep or dealer to check the height of the chimney relative to the draught that it needs.
- Excessive negative pressure in the building. Open the supply valve or a window to bring oxygen into the building.

### **White smoke**

- Combustion temperature is too low. Increase the air supply.
- The wood is damp and contains water vapour. Always use clean and dry fuel.

### **Black or dark grey smoke**

- Incomplete combustion. Increase the air supply.



JD 320/Viking 30

# WARRANTY CERTIFICATE

## WARRANTY CONDITIONS

Josef Davidssons Efr AB is responsible for ensuring that the products have no defects attributable to production or storage at the factory. The warranty applies from the date of delivery to the customer.

Josef Davidssons Efr AB accepts no liability for removal and installation costs for replacing a stove.

Josef Davidssons Efr AB accepts no liability for costs arising from downtime or other direct or indirect costs and damages.

The warranty conditions do not apply to glass or replaceable firebox parts.

The warranty period for the grate, fire irons, vermiculite and glass is one year.

## 3 YEARS

Viking 40, 60, 75

## 10 YEARS

Smålandsspisen 28, Smålandsspisen 1896, Idun No 1, JD 320/Viking 30,  
Royal Viking, Toy stove, Oden 6300,

Markus Andersson 

Markus and Mikael Andersson, Owners

### NOTE:

Installation of a fireplace must be notified to the local planning authority. The building-owner is responsible for ensuring that the specified safety requirements are met and that the installation is inspected by a qualified inspector.

The chimneysweep should be informed of the installation because it will raise different sweeping needs.



JOSEF DAVIDSSONS

since 1882

J. DAVIDSSONS  
EFTR.AB

REFTELE  
0371-20001









## **CUSTOMER SERVICE AND CONTACT DETAILS**

Our customer service desk will give you personal assistance and answer your questions.

Contact us by post, telephone, fax or e-mail.

Josef Davidssons Eftr AB, Jättevägen 1, 333 75 Reftele, Sweden

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**JOSEF DAVIDSSONS**

since 1882