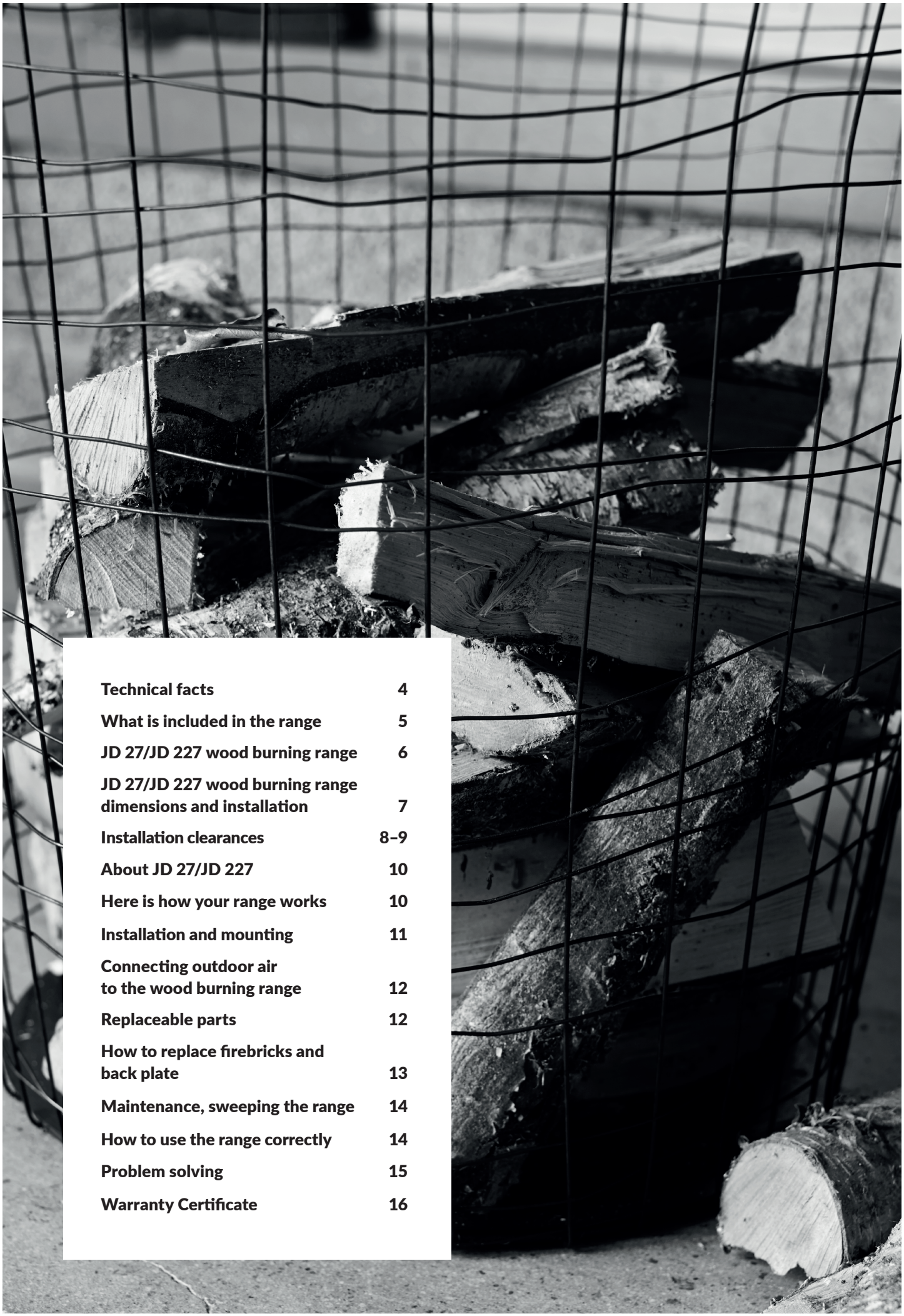
JD 27/JD 227

Installation and Maintenance Manual

A+

JOSEF DAVIDSSONS

since 1882



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It will soon be time for the first fire.

Congratulations on your new JD 27/JD 227! All of us at Josef Davidssons hope that, like many others around the country, you will have many happy hours in the kitchen.
The JD 27/JD 227 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 27/JD 227.

TECHNICAL FACTS

Efficiency (%)	83
Nominal power (kW)	4,5
Heating surface (approx. m²)	30–60
Weight (kg)	120
Oven Size (WxHxD mm)	270x155x400
Firebox size (WxH mm)	107x129
Log length (mm)	Max 330
Flue pipe dimensions (Ø, mm)	125
Distance to combustible material	See page 8–9
CE Standard EN12815	

IMPORTANT BEFORE YOU GET STARTED!

Professional mounting
The manual contains instructions on how to mount and install the JD 27 / JD 227. To ensure the function and safety of the range, 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 ground floor in your home has sufficient bearing capacity for a wood burning range with a chimney. Normally, a wood burning range and chimney can be placed on a standard wooden frame 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 wood burning range, it must be protected by a hearthstone 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 wood burning range is installed in another country, the local regulations must be met.

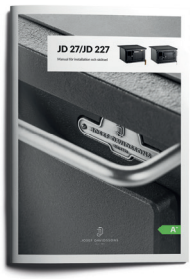
NOTE!
The installation must be inspected by a competent chimney sweeper before using the range.

WARNING! THE WOOD BURNING RANGE GETS VERY HOT
When burning, some areas of the wood burning range become very hot and can cause burns when touched. Also, be careful with heat radiating through the door glass. If combustible 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 IN THE WOOD BURNING RANGE?

Make sure all parts are included in the package.

1



2

3

4

5

6

7

1. Installation manual
Guide to installation and maintenance of your wood burning range.

2. Stove black
Black polish for maintenance and care of the stove.

3. Ash pan
Collects ashes left after burning.

4. CE mark
Ensures that the product meets all basic health and safety requirements defined in the Construction Products Directive. Is located behind the cover plate under the fireplace door.

5. Baking Sheet
Used for baking in the oven.

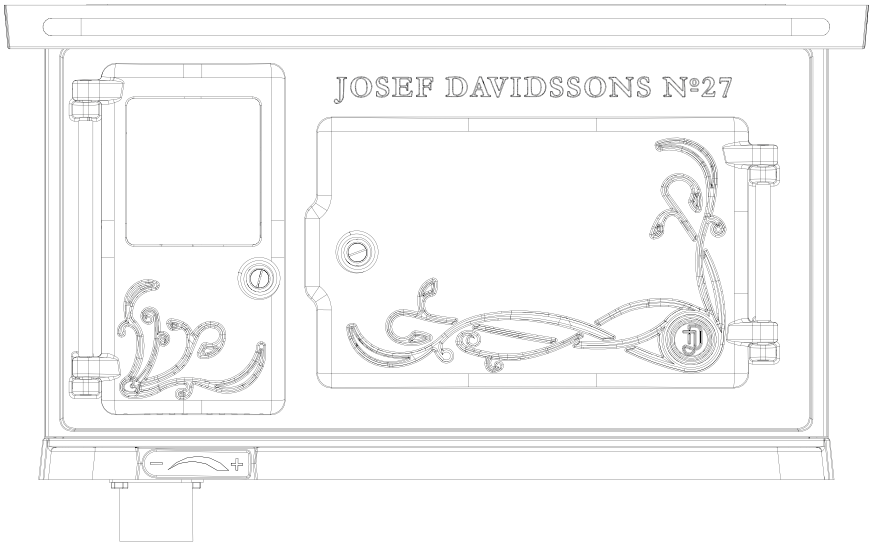
6. Sooting tool
Used for sooting inside the stove and chimney.

7. Poker
Practical poker included.

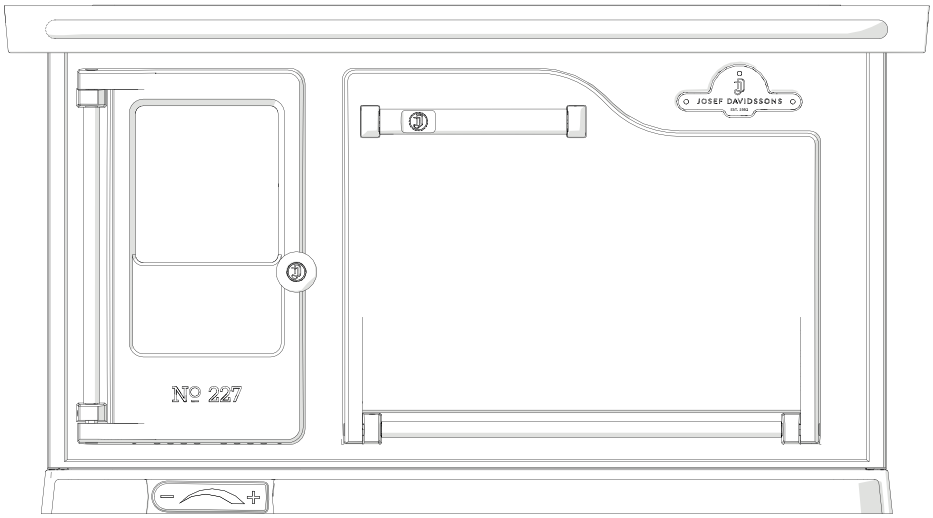
TIP!
The pallet is recycled as untreated wood. Corrugated cardboard is sorted as corrugated cardboard, and plastic tapes go into the “flammable” containers at the recycling centre.

JD 27/JD 227 WOOD BURNING RANGE

This manual contains information about installation of JD 20 and JD 227. The difference between these to models is their front.



Josef Davidssons 27

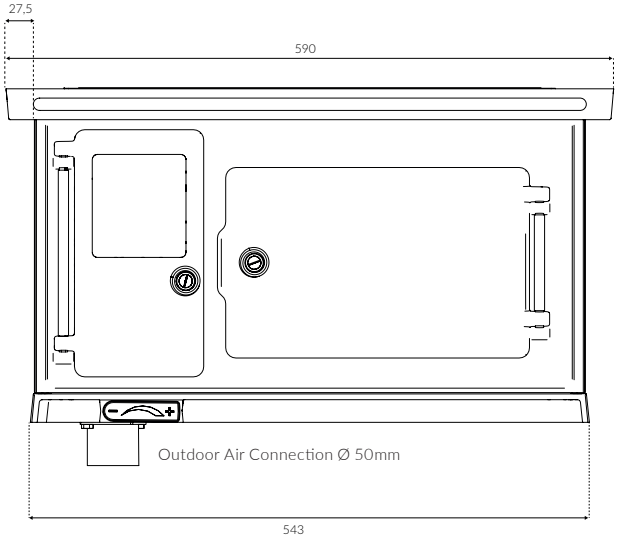


Josef Davidssons 227

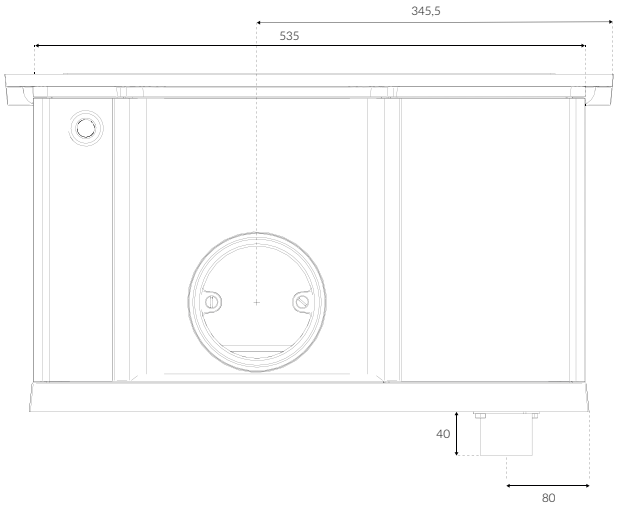
JD 27/JD 227 WOOD BURNING RANGE DIMENSIONS AND INSTALLATION

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

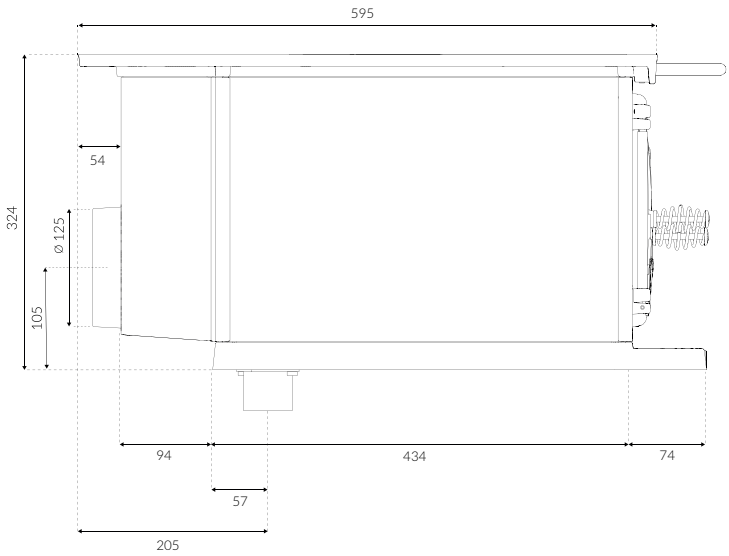
All measurements are indicated in millimetres.



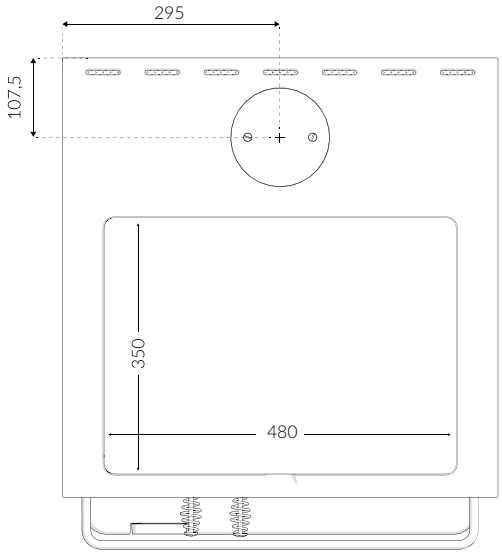
Front view



Back view



Side view, rear connection



Top view

NOTE!
Keep in mind that the floor cover should be at least 300 mm in front and at least 100 mm on the sides of the fireplace opening.

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.

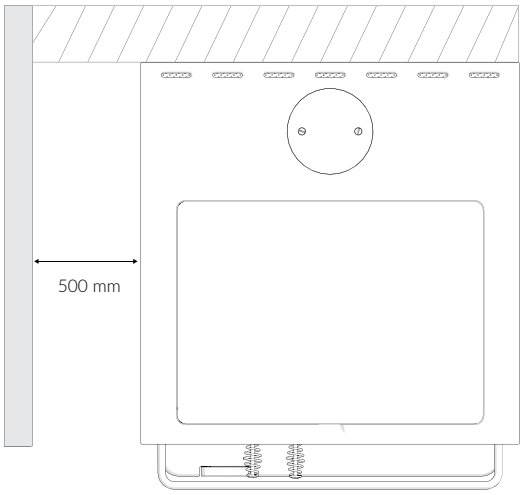
Uninsulated outlet pipes must have a clearance of at least 500 mm to flammable material.

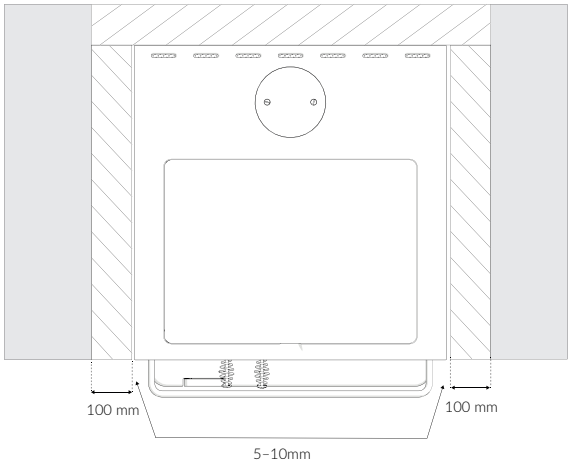
The stove has been tested and approved with 100 mm of lightweight concrete or similar material as a firewall.

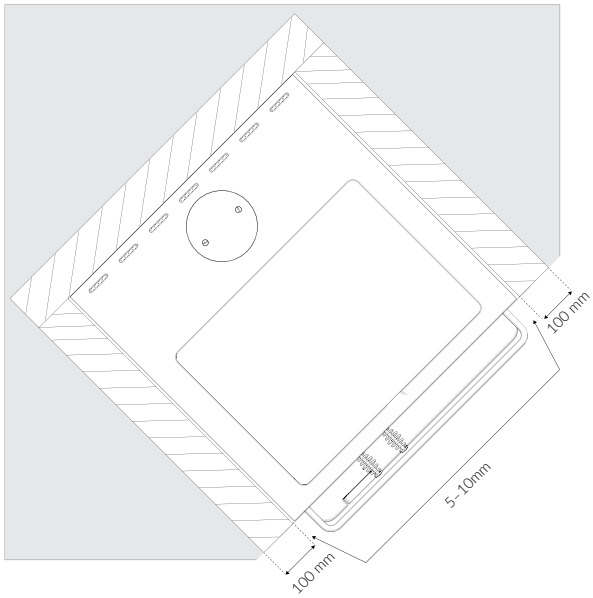
In a diagonal position, remember that the dimensions are always taken from the centre of the outlet pipe.

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.

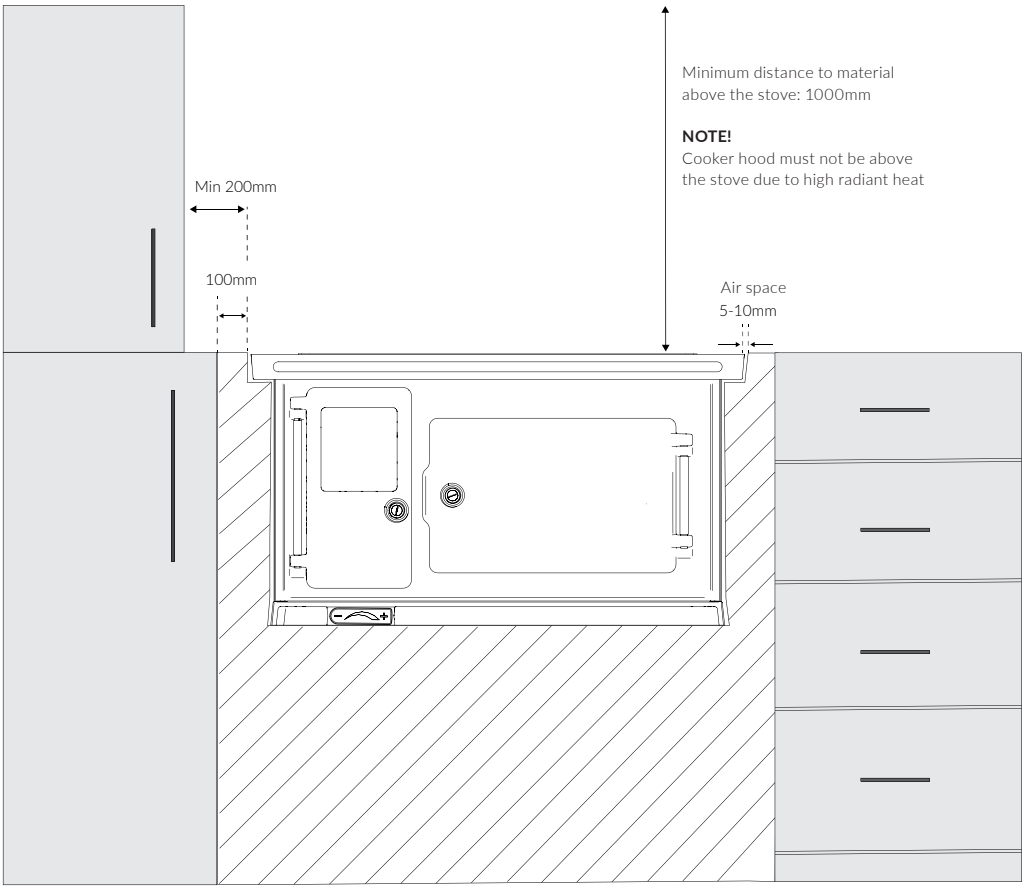
Always contact your chimneysweep if you are unsure of how to position and install your stove.

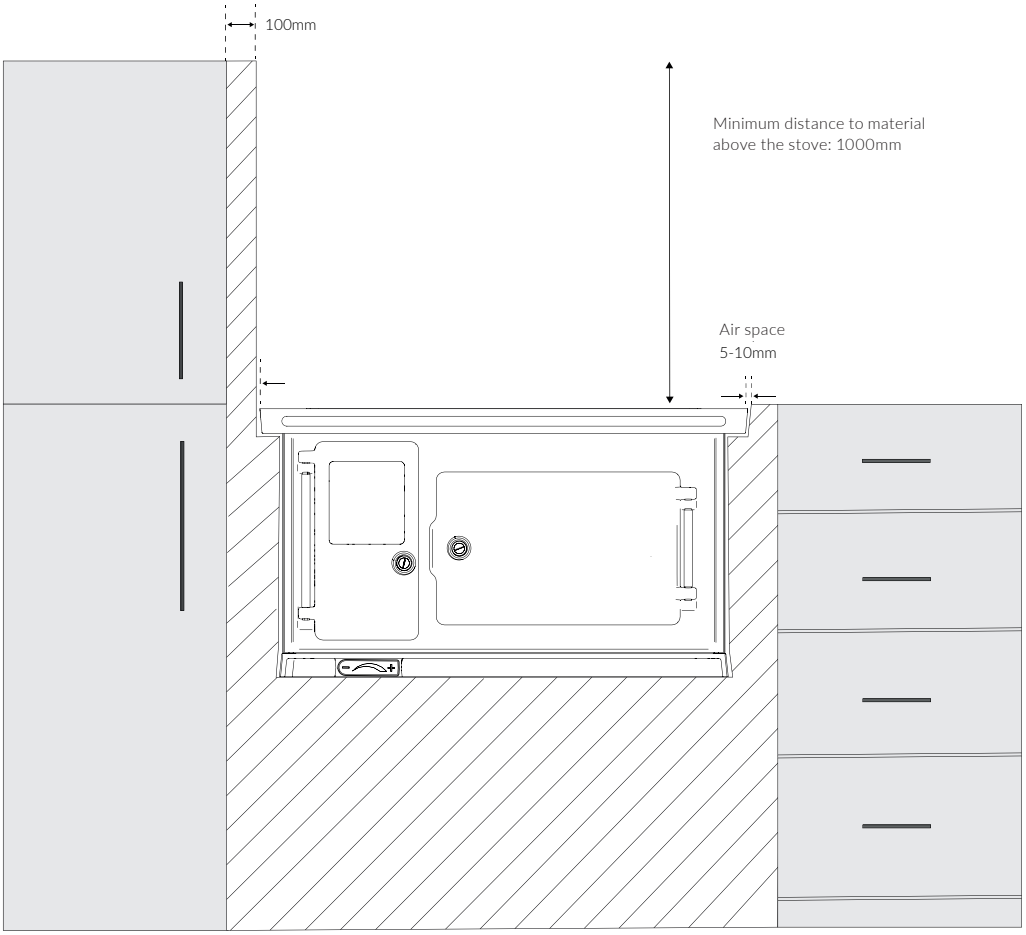






IMPORTANT:
Between the stove and any insulating material (lightweight concrete etc.) there must be an air gap of 5–10 mm.


Minimum distance to material
above the stove: 1000mm
NOTE!
Cooker hood must not be above
the stove due to high radiant heat
Min 200mm
100mm
Air space
5-10mm


100mm
Minimum distance to material
above the stove: 1000mm
Air space
5-10mm

ABOUT JD 27/JD 227

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 27/JD 227 is made of heavy cast iron and the firebox is lined with protective cast iron. 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.

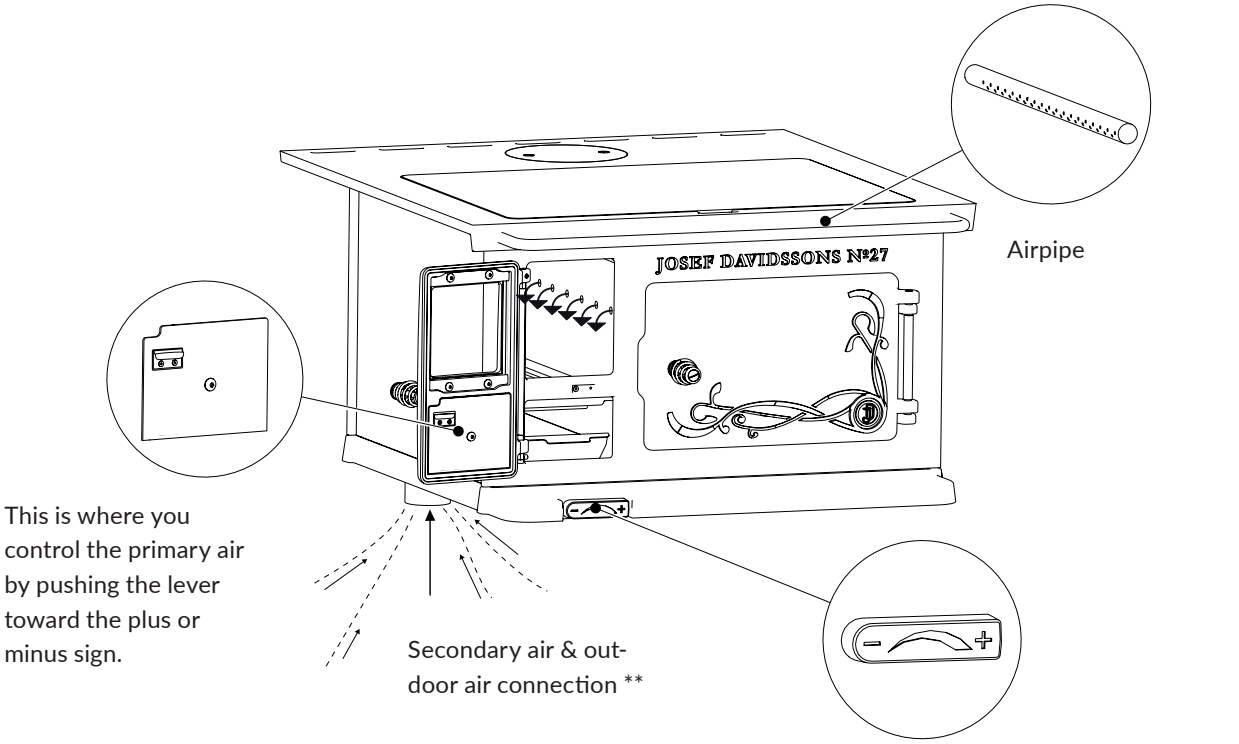
The fire door is provided with a window of ceramic-hardened glass to view the fire. Thanks to the tight covers and the special supply of air to the fire, the stove maintains a maximum heat output and low wood consumption. The wood burns when the supply of secondary air flows through the holes in the vermiculite sides and through primary air supplied when the fire door is ajar in the lighting-up phase. The JD 27/JD 227 is fitted with a throttle valve and a removable hotplate.

HERE IS HOW YOUR JD 27/JD 227 WORKS

Combustion air
Primary air is supplied when the fireplace door is slightly open during refill and during the firing phase. There is also a primary air damper that is regulated on the lower part of the fireplace door. This damper is used if you need to get a little more speed on the fire when the fireplace door is completely closed.

Secondary air is supplied by a fresh air intake under the stove. Secondary air is then warmed up into the stove and finds it's way into the fire through the holes on the cautery in the fireplace.

The flames leave the fireplace by crossing the oven ceeling and the flames are once again oxygenated through the airpipe for optimal incineration. Then the flames travel down on the right side of the stove. Then towards the back of the stove and leave the stove at the back or alternatively at the top due to connection to the chimney.



** Connection pad is an option and is included in the outdoor air connection kit.

INSTALLATION AND MOUNTING

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

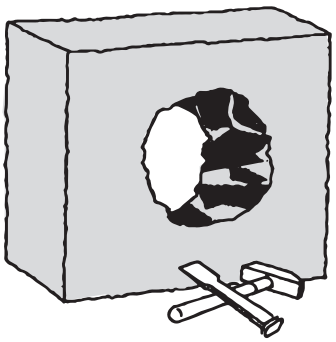
The connecting sleeve measures 125 mm on the outside, and can used for both rear and top connection.

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 cm² (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.

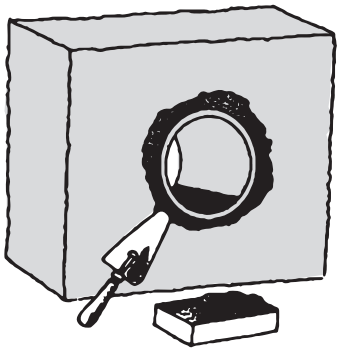
CONNECTING THE WOOD RANGE TO AN EXISTING CHIMNEY

1



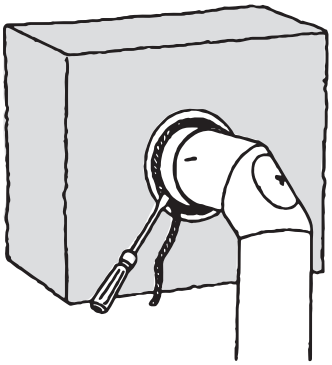
Carefully cut a hole where you want to connect your stove to the chimney stack.

2



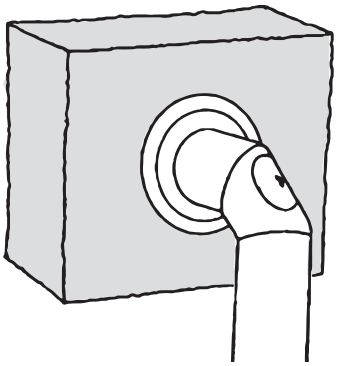
Cement in the lining sleeve.

3



Plug with oakum between the flue and the lining sleeve.

4



Close with a flue ring to cover the installation.

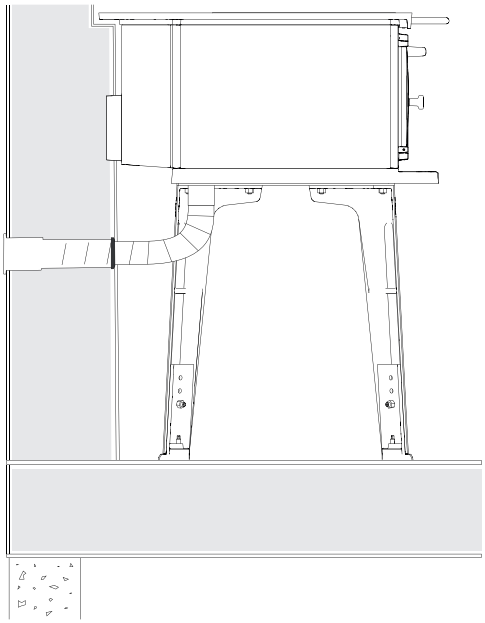
NOTE:
Steps 3 and 4 apply to top connection to an existing chimney. To connect straight back to an existing chimney, do not use oakum but use the fire cement supplied instead.

All chimney accessories can be obtained from your nearest dealer.

CONNECTING OUTDOOR AIR TO THE WOOD BURNING RANGE

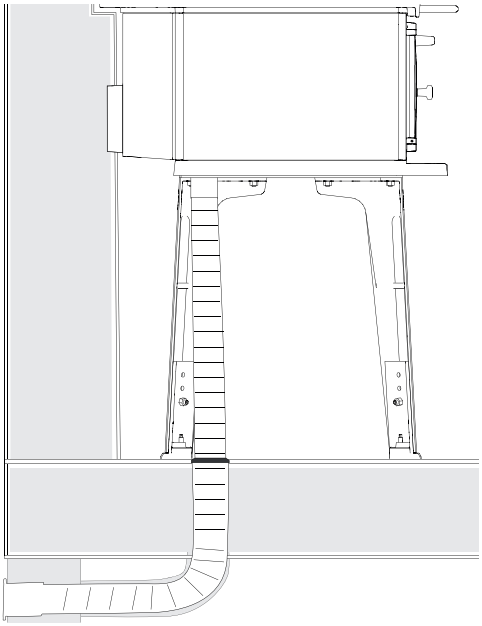
For optimum performance, the firebox needs around 20 m³ of air per hour. If you have mechanical ventilation in your house, you should connect outdoor air to your wood stove. Otherwise the wood stove could disrupt the air flows to the air valves for the mechanical ventilation. There are various ways of 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.

1



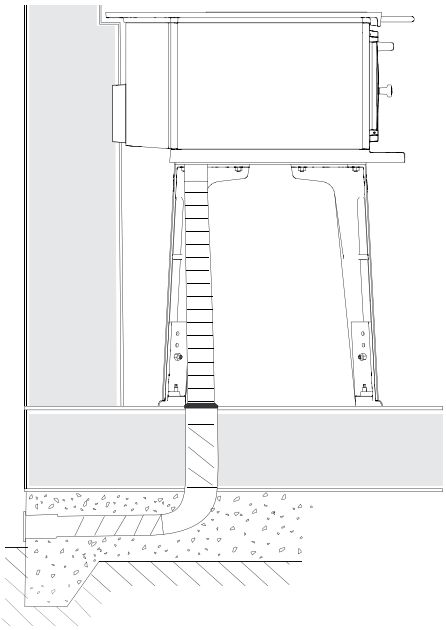
Connecting outdoor air via outside wall.

2



Connecting outdoor air via foundations.

3



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

NOTE! IMPORTANT!

If you do not connect outdoor air, there should still be free space under the stove at the supply air duct. This is because the combustion air will come along this path, regardless of whether you connect external supply air or when using the room air.

For example, if the stove is walled, there must be free passage for the air to reach the outlet channel under the stove. Otherwise, the fireplace can not get any oxygen supply.

Our connection set for outdoor air can be obtained from your dealer or from josefdavidssons.se

990000932
Connection set for outdoor air
– Connection piece - Stove
– Flexible hose (1 m)
– Hose clips (2)
– Adapter from hose to 100 mm

REPLACEABLE PARTS

The JD 27/JD 227 has been built for use several decades into the future, but do not forget to replace wear parts when necessary. Keep an eye on firebricks, grate and seals, and replace the parts when they get worn.

1	100227101	Firebrick
2	100227102	Firebrick
3	100227301	Back plate
4	100227302	Grate frame
5	100227303	Grate
6	100227259	Glass
7	100227201	Seal for glass
8	100227202	Seal for oven door
9	100227203	Seal for fire door
10	100227602	Hot plate
11	100227204	Seal for hot plate
12	990000732	Soapstone Ceeling
13	100227724	Airpipe

HOW TO REPLACE FIREBRICK AND BACK PLATE

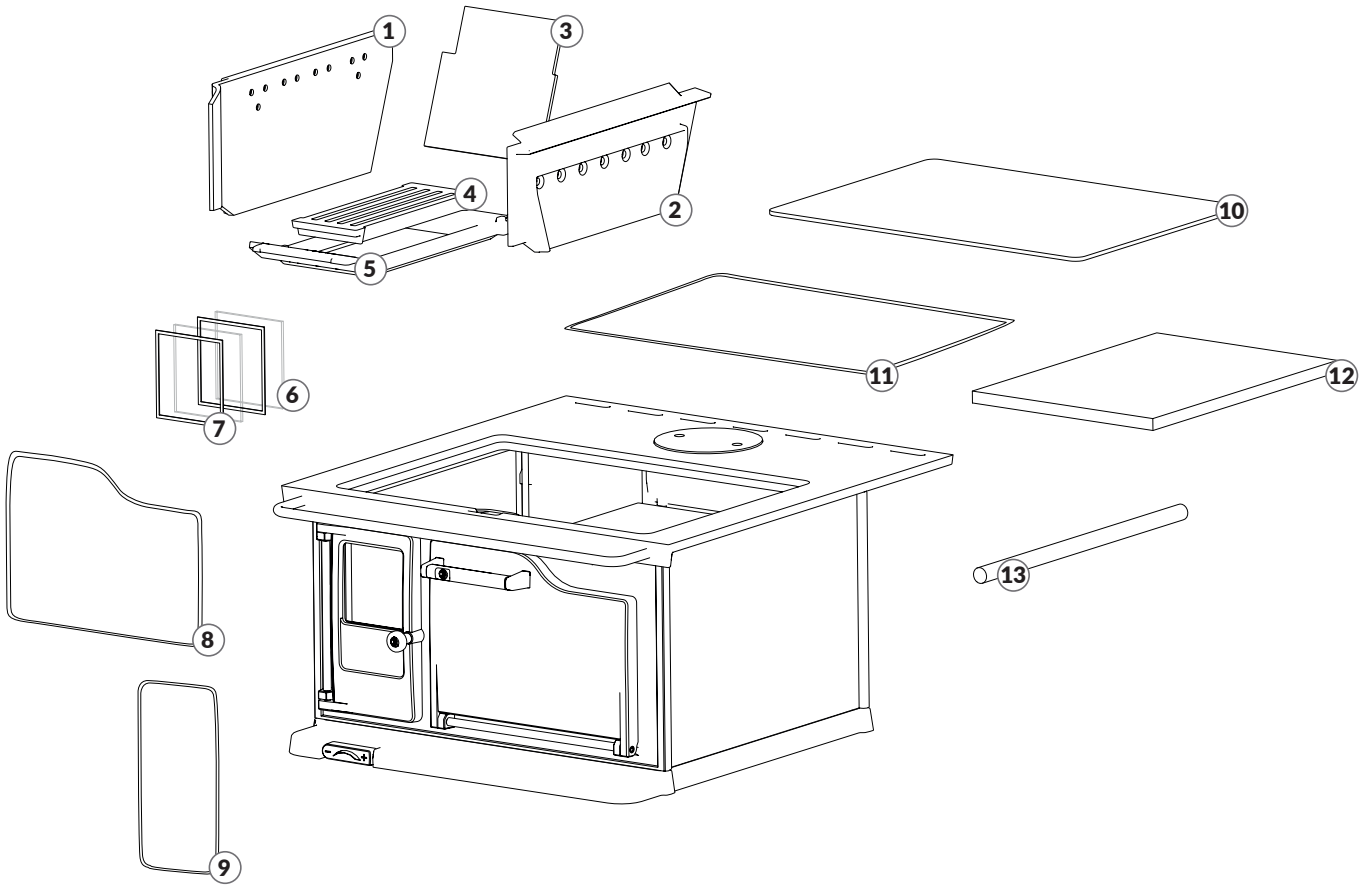
NOTE: Never unscrew the top of the stove. This will invalidate the warranty.

1. Remove the hotplate

2. Start winding the right iron at the back and then wrap it upwards to lift it out. Then do the same with the left iron. The rear iron is now loose and easy to lift.

3. When installing the new parts, start with the rear iron. Then it left and finally the right iron.

4. The stove grate is loose. You can easily bend the grate with a screwdriver.



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

Cleaning of JD 27/JD 227
The stove is most easily cleaned/soaked by lifting the steel/ceramic hob. From there you will clean the entire fireplace and the oven ceeling.

The supplied tool for sweeping is used to access the right side of the oven and the inside on the right outer side. Through the soot lid located in the oven bottom, you will reach the underside of the oven and into the smoke duct (applicable at back connection).

When there is a top connection, the chimney soot will fall and land in the back under the oven. This soot is also accessed through the soot lid located in the oven bottom.

HOW TO USE THE RANGE CORRECTLY

First firing
A new JD 27/JD 227 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 1–1.5 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.

NOTE! If the flames seem to stop too much when closing the fire door completely, you can help with a bit of primary air. This damper is located at the bottom of the fireplace door. Once the stove has reached temperature and a satisfactory chimney draft has been reached, the primary air damper can be closed for a cleaner 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 (1–1.5 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.

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 27/JD 227

WARRANTY CERTIFICATE

WARRANTY CONDITIONS

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

Josef Davidssons Eftr 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.

10 YEARS JD 27 & JD 227

Mikael Andersson, Owner

NOTE!
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.

JOSEF DAVIDSSONS
since 1882

CE	22 NB1015 JD 27, JD 227 DoP Nr. JD_27_227_220401 EN 12815:2001/A1:2004 www.josefdavidssons.se/prestandadeklaration **SWE / EN / DE**
PRODUKT / PRODUCT / PRODUKT	
Produkttyp / Product type / Produkttyp	Vedspis / Wood stove / Holzofen
Typbeteckning / Product name / Produkt name	JD 27, JD 227
Avsedd användning / Intended use / Verwendung	Rumsvärmare / Space heater / Raumheizung
Bränsle / Fuel / Brennstoff	Ved / Wood / Holz
VÄSENTLIGA EGENSKAPER / ESSENTIAL PROPERTIES / WESENTLICHE EIGENSCHAFTEN	**PRESTANDA / PERFORMANCE / LEISTUNG**
Brandsäkerhet / Fire safety / Brandschutz	Klarar / Pass / Zugelassen
Rökgastempetratur / Flue gas temperature / Rauchgastemperatur	170°C
Rökgaskanal / Flue gas duct / Rauchgaskanal	30mm
Rökgasstos / Diameter of the flue gas connector / Rauchgasschluss	Ø125 mm
Minsta avstånd till brännbart material / Minimum distance to flammable material / Mindestabstand zu brennbarem Material	Baktill / Back / Hinter: 500 mm Sidan / Side / Seitlich: 500 mm Framför / Front / Vor: 1000 mm Ovan / Above / Oben: 1000 mm
Emissioner från förbränning / Emissions of flue gases / Rauchgasemissionen	CO = 0,09%
Angivning av farliga ämnen / Release of dangerous substance / Freisetzung von gefährlichen Stoffen	Klarar / Pass / Zugelassen
Elektrisk säkerhet / Electrical safety / Elektrische Sicherheit	NPD
Maximalt arbetstryck / Max. operating pressure / Maximaler Arbeitsdruck	NPD
Mekanisk hållfasthet / Mechanical resistance / Mechanische Festigkeit	Klarar / Pass / Zugelassen
Nominell effekt / Nominal heat output / Nennleistung	4,5kW
Verkningsgrad / Efficiency / Wirkungsgrad	82,8 %
Yttertemperaturer / Surface temperatures / Oberflächentemperatur	Klarar med hjälpmedel / Pass with instrument / Mit Hilfsmittel zugelassen
JOSEF DAVIDSSONS since 1882	Josef Davidssons Eftr. AB Jättevägen 1 33375 Reftele +46 371-200 01 info@josefdavidssons.se
Tillverkningsår / Year of manufacture / Herstellungsjahr Serienummer / Serial number / Seriennummer	

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