
Smålandsspisen 28 Miljö

Installation and
maintenance instructions



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FOUNDED IN 1882

JOSEF DAVIDSSONS EFTR.

WOOD-BURNING COOKERS, STOVES & ACCESSORIES

Dear Customer,

Congratulations on your excellent choice of Smålandsspisen 28, a newly manufactured wood-burning cooker, made in Sweden.

Your new wood-burning cooker with its timeless design is an efficient source of heat with more and 100 years of experience and history to rely upon. It is equipped with the latest techniques of combustion to provide a maximum of heating capacity and a minimum of environmental impact.

We rest assured that you will enjoy many warm and good days with Smålandsspisen 28.

Please study these instructions carefully before starting the installation and before lighting a fire for the first time.

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In order to make the most out of your stove, please see to it that it is:

1. Properly installed
2. Properly fired
3. Properly maintained

Preparations

Manufacturer's declaration

This product has been manufactured in accordance with the documents that constitute the basis for product certification wherein the installation- and maintenance instructions are integrated.

General information

The Smålandsspis 28 is manufactured of sturdy cast iron. The housing of the fireplace is protected by internal cast iron side walls. The recessed grate forms the bottom of the fireplace. Smålandsspis 28 is equipped with an oven and on the top of the stove there are 3 removable cooking plates. Thanks to the heat storing materials, the heat retention lasts for hours after the fire has gone out. The stove is tightened with soapstone cement and is being kept together by 4 threaded bars, one in each corner, fastened with a screw cap at the top and with a nut under the base plate of the stove. The fireplace door is covered with a protection against overheating. The fact that the fireplace door is tightened with a fire fast sealing strip and that preheated secondary air is being added to the fireplace through the holes in the internal side walls to speed up the combustion, a maximum of heating effect and a minimum of wood consumption are achieved. To make sure that primary air is being added to the fire, keep the fireplace door slightly open during the lighting process and stoking process. It may be necessary for you to apply for building permission from your local planning authority before installing a stove or erecting a chimney. Before starting installation work, make sure that you check which regulations apply. *We would advise you to get in touch with your local chimney sweeper already at the planning stage of the installation.*

Before the stove is used, it must be inspected by an authorized chimney sweeper or relevant authority to verify that the installation is proper made according to the installation instructions and that the connection to the chimney is tight.

This inspection must be carried out before using the stove disrespectful of if it refers to a connection to an existing or to a new chimney.

Please, be aware that no kitchen ventilator or similar device should be used in the same room during the firing in the stove.

Warning!

When the stove is in use certain surfaces become very hot, more than 90°C. Physical contact with these surfaces can cause skin burns.

Please be aware that the fireplace door and the ash-pan are to be kept closed with the exception of the lighting and stoking processes. Modification of the stove is not allowed.

Chimney

The diameter of the chimney flue must be minimum 125mm, and have a draught of at least 0,12mbar. The shortest recommended length of the chimney flue is minimum 3,5m, measured from the connection point at the stove. There are two different designs of Smålandsspisen28, rear or top connection to the chimney flue.

The stove designed for rear connection is equipped with an oval fabric mounted flue connection tube. Enclosed with the delivery there is an oval tube connection made of cast iron intended to be connected to the brick-lined chimney. Use the enclosed cement inside this connection and also inside the fabric mounted connection. The stove is now ready to be connected to the bricked chimney.

The stove designed for top connection has a top with a round flue connection tube to which a flue pipe with a diameter of 125 mm is to be connected. Round flue pipes for top connection are to be ordered separately and are to be sealed with stove cement.

Structural support

Normally, a kitchen stove and a (light-weight) chimney can be located on standard wooden floor joists in a single-family house. Smålandsspisen Mod. 28 requires a floor plate under, in front off and at the two sides of the stove. Minimum protection in front of the stove is 0,3m and 0.1 mm at both sides. Floor plates are available as accessories.

Air of combustion & Fresh air

The air consumed for the combustion, approximately 10-20m³ per hour, is considered to be negligible. In houses with mechanical ventilation and in good isolated houses, however, it is recommended to place the stove close to a valve placed in an external wall. The combustion air can also be supplied from outside by connecting fresh air supply under the stove.

Please study these instructions carefully before starting to use your stove and remember that the installation has to be approved by the chimney sweeper before you are allowed to use the stove.

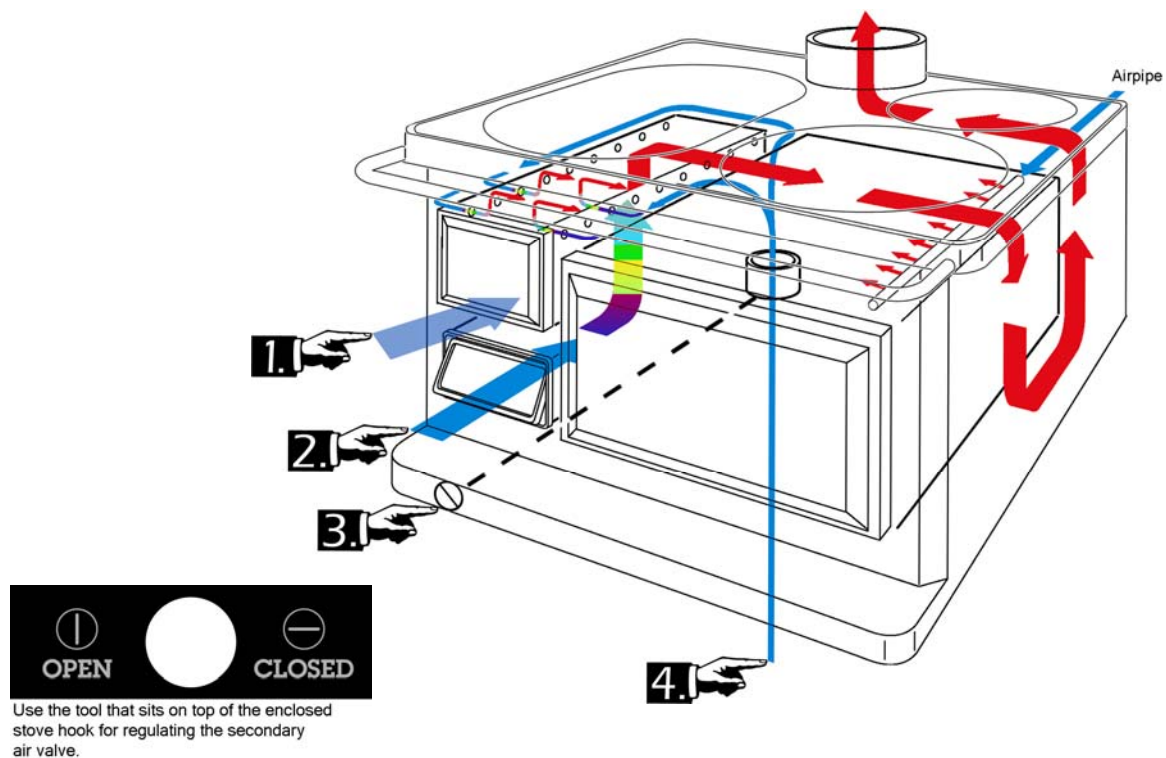
The supply of air for the combustion is carried out in 2 different ways.

1.

Keep the fireplace door slightly open (primary air) during the lighting and stoking processes.

2, 3.

Secondary (pre-warmed) air is being supplied through the holes in the side walls of the fireplace through the air inlet at the base plate. (Adjustable through the screw at the front of the base plate.)



Distance to combustible material

The distance to a wall made of combustible material must not be below 50 cm. If you are planning to install your stove against a wall made of combustible material, for instance wood, first leave an air gap of minimum 0.5-1 cm and then build a separating wall made of full bricks (bricks without any holes) in half-stone size, normally with a width of 10 cm.

Contact your chimney sweeper before you start the installation for further guidance and to be informed about further local regulations.

Important! All local regulations, including those referring to national or European norms must be fulfilled when installing this device.

Instructions for use and Lighting instructions

When lighting the fire in your new Smålandsspis 28 for the first couple of times, it is recommended to heat cautiously. The heat-resisting paint will be more durable (it may produce a distinctive smell at the beginning) and also the soap stone slab on top of the oven gets dry.

NBI The stove must not be used as a combustion furnace. Other kind of fuel than what is recommended must not be used!

Fuel

The best heating value is achieved from chopped birch wood (generally from hardwood) that burns smoother than softwood. If you burn oak- or beech wood or another kind of wood with a high heating value you have to mix in some other kind of wood or you will risk to harm your fireplace. Peat pellets are also suitable.

The wood must be dry, with a moisture content of about 15-20%, and have the right size with a length of about 250 – 300mm and a diameter of 50 – 80mm. For a normal fire-burning a quantity of about 1,0 kg/wood an hour would be appropriate. The stoking amount should not exceed 1,2kg.

Lighting & Baking

If the chimney is cold and the draught is poor, you can try lighting some newspapers/fire starting cubes in the flue soot door or in the soot door of the wood stove placed under the oven.

How to start a fire:

Stoke No.1:

1. Place 3-4 pieces of smaller wood logs at the bottom of the fireplace. Put some newspapers or preferably fire starting cubes (do not soot) on the top of the logs. Then place another 6-7 logs on top but see to it that the maximum quantity does not exceed 1.3 kg.
2. Keep the fireplace door slightly open and set the screw at the base plate in vertical position (open).
3. After about 5-6 minutes, close the primary air supply (the fireplace door) and let it lean just 1 mm.
4. Set the screw at the base plate (secondary air supply) in the proper position to let the fire burn with a yellowish flame.

Stoke No.2:

5. Use the poker to distribute the glowing embers over the grates.
6. Stoke with 3 logs weighing about 1.0 kg
7. Keep the fireplace door slightly open to let the logs catch the fire and then close the door.
8. Set the screw at the base plate in its vertical position (open). Open the change-over damper of the ash-pan and the sliding valve in the ash-pan to get the best draught.
9. After about 5-6 minutes reduce the opening of the primary air supply (the sliding air valve in the ash-pan) to about 1 mm and then after about further 2 minutes totally choke the primary air supply.
10. Set the screw at the base plate (secondary air) in the proper position to let the fire burn with a yellowish flame.

Stoking the fire

Open the fireplace door slowly to avoid smoke to come out in the room. Then repeat the steps 5-10 from chapter "Lighting and Baking".

NBI Never stoke with logs as long as there is a good fire in the wood stove.

Testing the oven heat (baking test)

When testing this kitchen wood stove according to EN 12815, the following baking test recipe for shortcrust pastry was carried out and approved:

Ingredients:

- 300 gram Wheat flour.
- 200 gram margarine, taken out of the fridge 1 h before use.
- 100 gram Castor sugar.
- 1 egg (approx. 60 gr.)
- 1 pinch of salt.

How to do it:

Mix the ingredients to a paste and put it in the fridge for 12 h. Then take it out of the fridge 20 min before moulding it into long-shaped buns and place it on a baking-plate. After 10-15 min it gets golden brown and is ready.



Maintenance instructions

At the cleaning procedure special attention must be paid to the underside of the cooking plates. Shake and clean the grates from ashes regularly. Clean the top and the front of the stove by using a brass brush or a Scotsbrite sponge. It is to be carried out when the stove is cold. Then apply the enclosed stove blacking by using a sponge. After the blacking has dried, the stove can be polished to have a bright finish.

As soon as the protection irons in the fireplace starts to crack/warp they require replacement by original spare parts.

The soapstone slab on top of the oven should also be replaced as it gradually pulverizes (It can also be replaced by fireclay.)

NB! Should salted water boil over, this could cause corrosion which can make the top of the stove rusty and porous. In this case the guarantee is void.

Soot- and ash removal

Soot removal can easily be carried out through the soot door, which is placed under the oven. Use the enclosed soot scratcher.

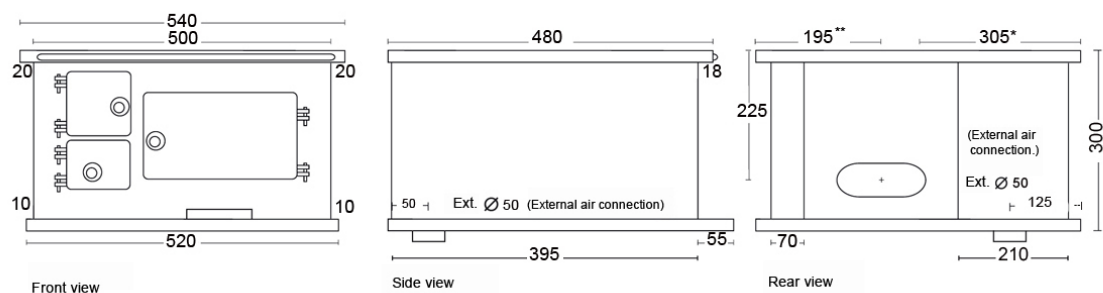
Scrape the ashes in the fireplace (with the soot scratcher) through the grate. The ashes fall down in the ash-pan which is easy to remove and to empty. Never empty the ashes earlier than 24 hours after terminated firing.

Good to know

- When you light a fire for the first time, a distinctive smell may be produced. This smell comes from oily coatings and from the paint. This smell will disappear once the wood stove has been used a couple of times.
- Check at regular intervals the sealing strip at the fireplace door. Replace when necessary.
- Keep the fireplace, all air intakes and flue pipes clean. If you frequently light a fire, it may be appropriate to have the chimney swept also in between the regular visits of the chimney sweeper.
- If deposits of soot catch fire or if there is a risk that they will do so, close the combustion air intake and the doors. If necessary, contact the fire brigade to put out the fire. After a soot or chimney fire, the chimney should **always** be inspected by a chimney sweeper.

Dimensioned sketch (mm)

Smålandsspis 28 Miljö



- * Top connection
- ** Rear connection

Technical data

Triple values	4,1g/sec , 156 °C , 10-12 Pa	
Flue gas temp (average)	°C	156
Required flue gas pressure in the chimney	Pa	10-12
Qty of flue gas flue	g/s	4,1
Emission of CO	%	0,1
Heated area	Ca m ²	20-50
Weight	Kg	94
Size	Height mm	300
	Width mm	500
	Depth mm	475
Stove hob	Width mm	540
	Depth mm	480
Fireplace dimensions	Height mm	220
	Width mm	155
	Depth mm	340
Fireplace opening	Height	105
	Width mm	105
Connection options	Rear & top*	155x78, ø125*
See enclosed dimensioned sketches (page 7)		
<p><i>Approved to be connected to a chimney with ½ stones thickness (350°). Multiple allocation (at a shared chimney) is possible provided that local regulations are taken into consideration.</i></p>		

Structure

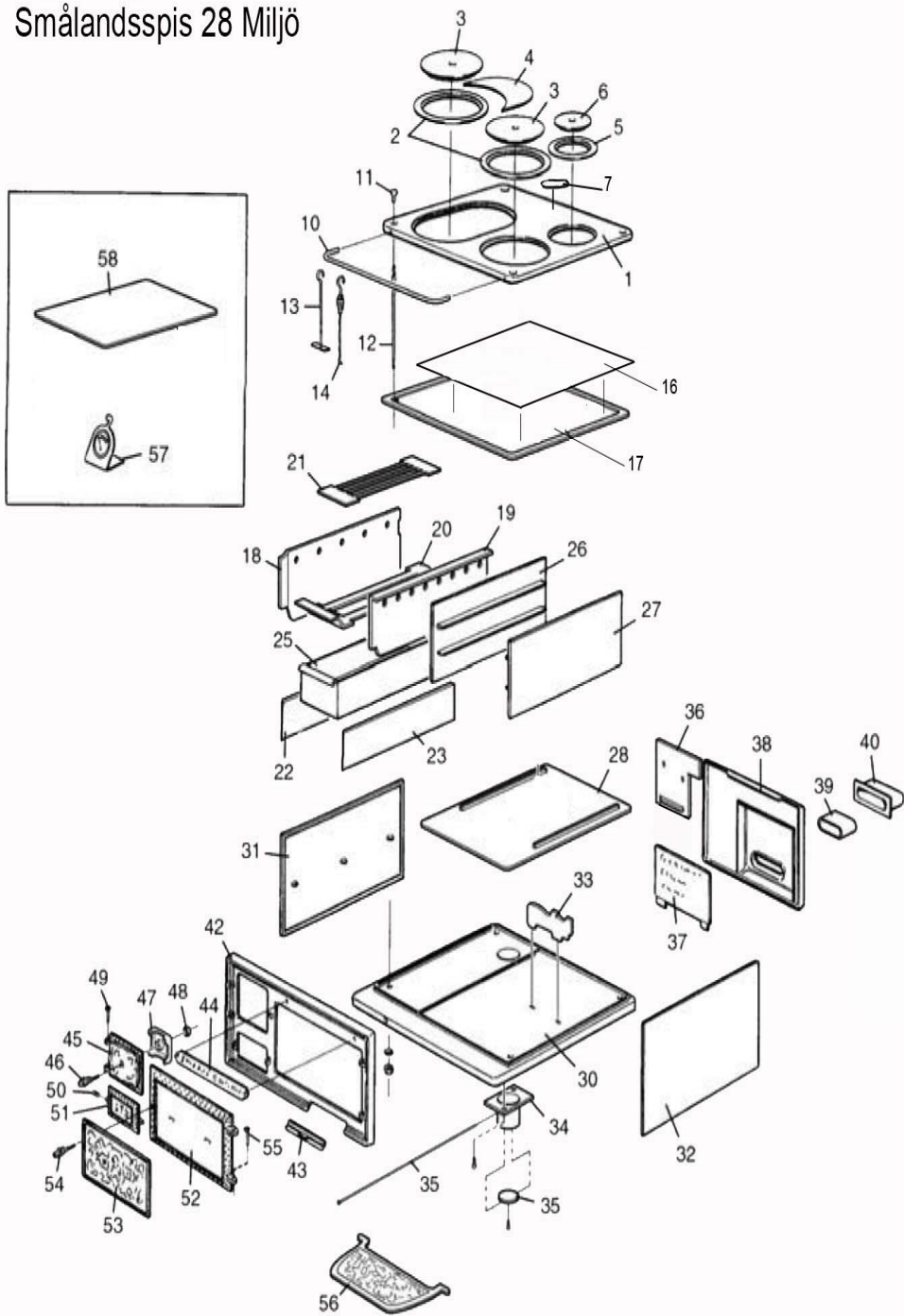
Combustion chamber	Cast iron
Colour	Thermal black

Option

Cooking plate made of glass, ceramic hardened glass gives a view over the fire in the fireplace. It is placed inside an oval, sealed ring. (The cooking plate, the round ring and the half moon are to be removed.), Can be supplementary installed.

Exploded diagrams

Smålandsspis 28 Miljö

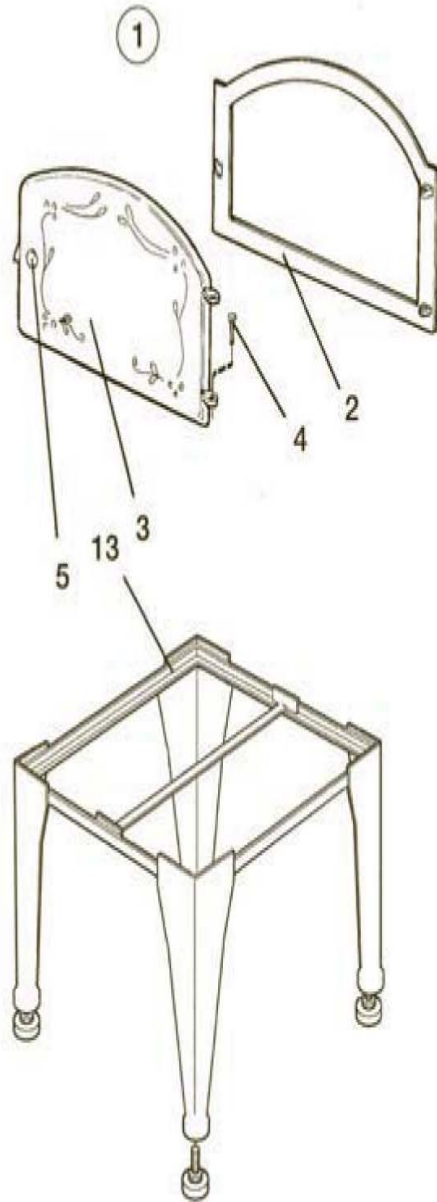
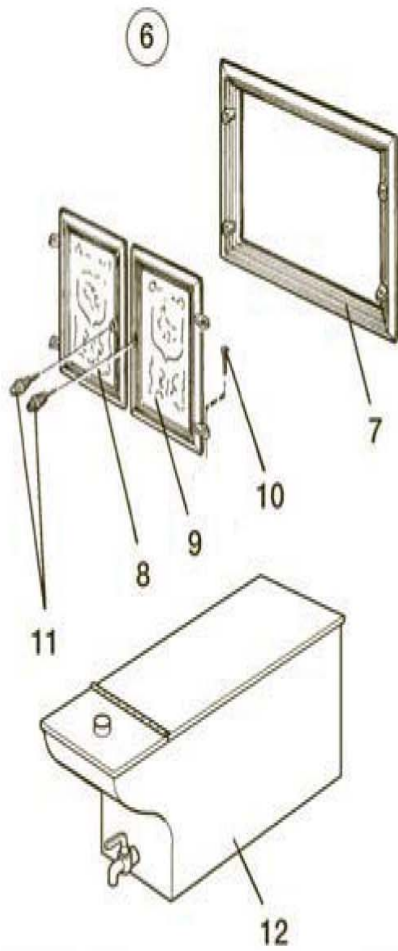


Spare Parts Lists related to "Exploded diagrams Smålandspis 28"

Pos.No	Description	Part No.	Quantity
1	Stove hob, rear connection	100028501	1
2	Ring, Ø 270-220	990000208	2
3	Cooking plate, Ø 270	990000204	1
4	Half moon	100028311	1
5	Ring, Ø 220-165	990000209	1
6	Cooking plate, Ø 165	990000201	2
7	Stove hob, top connection	100028601	1
10	Front bar	98475	1
11	Threaded bar Nr.28, complete	990001002	4
13	Soot scratcher	990000809	1
14	Poker	990000810	1
16	Smoke separator, right	100028503	1
17	Interior oven top, top connection	100028507	1
17	Interior oven top, rear conn.	100028604	1
18	Fireplace internal side wall, left	100028101/1	1
19	Fireplace internal side wall, right	100028102/1	1
20	Frame for grate	100028302/1	1
21	Grate	100028303/1	1
22, 23	External walls, ash-pan space	100028280/1	2
25	Ash-pan	100028305/1	1
26	Oven side, left	100028318	1
27	Oven side, right	100028317	1
28	Internal bottom, oven	100028319	1
30	Base plate	100028314	1
31, 32	External side oven, left+right	100028316	2
33	Base plate support, top conn.	100028505	1
33	Base plate support, rear conn.	100028605	1
34,35	Outdoor connection	100028855	1
36	Rear iron	100028301/1	1
37	Rear oven filler	100028607	1
38	Back piece, rear connection	100028606	1
39	Flue connection tube	100028306	1
40	Cast iron connection tube	100028308	1
41	Back, top connection	100028506	1
42	Front piece	100028320	1
43	Soot door	100028321	1
44	Sign "Smålandspis 28"	100028701	1
45	Fireplace door (Stoking door))	100028324	1
46	Spiral knob No 1, Ø 30	990000806	1
47	Door protection	100028312	1
48	Nut, M6	-	
51	Ash-pan door (change-over damper)	100028327	1
52	Oven door	100028322	1
53	Decoration, oven door	100028323	1
54	Spiral knob No.2, Ø 35	990000805	1
55	Hinge-pin door, black	990001005	4
56	Oven grate (support)	100028328	1
57	Oven thermometer	990000804	1
58,59	Baking-plate, Teflon	100028802	1
X	Oval-round adapter, Ø 125	100028514	1
X	Burn Iron air leaders	100028105/1	

Accessories

Smålandsspis 28 Miljö



Spare Parts List Accessories " Smålandspis 28"			
Pos.No	Description	Part No.	Quantity
1.	Door to baking oven model 1910, Dimensions for brick lining Width: 480mm, Height (centre): 290mm, Height (sides): 220mm	990000904	1
2.	-> Frame		1
3.	-> Door		1
4.	-> Hinge-pin door	990001005	2
5.	-> Spiral knob No 2	990000805	1
6.	Water tank, copper, 12l, complete Length (top): 510mm, Length (base): 390mm, Width: 125mm, Height: 210mm	990000901	1
	-> Brass crane		1
	-> Rubber seal		2
	-> Copper washer		1
	-> Chrome washer		1
	-> Brass nut		1
7.	Heating oven, Width: 390mm, Height 440 mm	100028710	1
8.	-> Frame		1
9.	-> Door, left		1
10.	-> Door, right		1
11.	-> Hinge-pin, black	990001005	4
12.	-> Spiral knob No. 1	990000806	1
13.	Stand, 4 legs	100028111	1
	-> Adjustment screw		4
	-> Frame for the legs		1
	-> Legs		4

Other accessories for Smålandsspis 28

Set of soapstones for the oven	With 28kg placed in the oven the wood consumption can be reduced by 30 % with a heat retaining capacity of up to 10-12h.
Floor plate, enamelled	W: 850 mm, D: 850 mm. To be placed under the stand.
	W: 800 mm, D: 400 mm. To be placed in front of the base of the stove.
Corner posts	7 designs available. Post of forged cast iron e.g. for a fan hood.
Flue pipe	Contact your dealer or visit www.j-davidssons.se
	Available in many sizes and designs. For a perfect connection.
	Contact your dealer or visit www.j-davidssons.se
NEW!	An oval ring replaces the half moon and the round ring 270
Cooking plate of glass	Ø mm round cooking plate of cast iron. The glass cooking plate is to be placed in this oval ring and gives you a good view of the fire.

Produkt: Smålandsspis 28	Josef Davidsson´s Eftr. AB Box 42 330 21 REFTELE Sweden	 BimschV. 1+2
Typ/Type/Type: Raumheizer/Radiator/ Radiateur	Brennstoff/Fuel/Combustible: Scheitholz/Log wood/ Bois de chauffage	Nennwärmeleistung/ Nominal heating capacity/ Puissance calorifique: 3,0 kW
Mindestabstände/ Least distances/ Distances minimales	Seitenwand/Side wall/ Panneau lateral: 500mm	Rückwand/Back wall/ Panneau arrière: 500mm
CO-Emission/ CO emissions/ Émissions de CO: 0,1%	Wirkungsgrad/ Efficiency/ Rendement énergétique: 83%	Abgastemperatur/ Flue gas temperature/ Température des gaz de Combustion: 156°C
Staub/Dust/ Poussière: 26,3mg/m³	Serienr./Jahr/Year/Année	Zeitbrandfeuerstätte/ Time fire heat/ Foyer d`incendie de temps
Ausschließlich empfohlene Brennstoffe verwenden/Exclusively recommended fuels use/Les combustibles exclusivement recommandés utilisent	Mehrfachbelegung des Schornsteins ist Zulässig/Multiple allocation of the chimney is allowed/L`occupation multiple de la cheminée est admissible	
Prüfstellen-Kennziffer/ Testing centres-identity figure/ Numéro de lieux d`identification Dèssai: E-xx-xxxx-xx	Lesen und Befolgen Sie die Bedienungsanleitung/Reading and obeying the operating instructions/Lecture et le fait d`executer vous le mode d`employ	
 JOSEF DAVIDSSONS EFTR. <small>FOUNDED IN 1882</small> WOOD-BURNING COOKERS, STOVES & ACCESSORIES		

Trouble Shooting

Problem	Reason	How to solve the problem
Poor draught.	The connection to the brick-lined chimney is not properly tightened	Ask the chimney sweeper to check that the connection between stove and chimney is quite tight.
	The flue tube is full of soot or the space under the oven is full of soot.	Clean flue tube and fireplace. Remove the soot door on the stove and scratch out the soot with the scratcher.
	The chimney is blocked, e.g. a bird nest or similar. The chimney is too short or the cross-sectional area is too large.	Contact the chimney sweeper or your dealer for further guidance.
	The stove was not fired up for a long time and the doors have been shut.	When not using the stove for a long time, keep the change-over damper (ash-pan door) open.
	Negative pressure in the room.	Open a window or fix an external wall valve close to the stove. Check that the ventilation is properly set.
	Moisture content is too high in the wood or the wood is too cold.	Only dry wood with a maximum moisture content of 20 % is to be used. Keep the wood indoors for 24 hours to have room temperature before lighting it.
Too strong draught.	If oven dried wood is being used, it requires less air supply than normal wood fuel.	Reduce the air supply by adjusting the screw at the base plate (vertical position = open, horizontal position = closed) and also adjust the change-over damper at the ash-pan door.
	The chimney is too long.	Contact the chimney sweeper or your dealer for further guidance.
	The induced draft fan, if any, may be too strong.	Adjust it to a lower number of revolutions or switch it off.
Soot deposit on the cooking plate of glass	The moisture content of the wood is too high.	Only dry wood with a maximum moisture content of 20% is to be used.
	The ash-pan door and/or the screw at the base plate are closed. -	Open the dampers to supply more air for the combustion.
Glass turns white	Poor combustion (too low temperature in the oven).	Follow the instructions for proper lighting in this manual.
	Incorrect firing (Use of waste wood, chipboard, pressure-impregnated, laminated plastic, Plywood or similar)	Always use clean and dry wood.
Smoke comes out in the room when opening the door	Pressure equalizing in the fireplace..	First open the ash-pan door and 1 minute later the fireplace door. Avoid opening the door too quickly, but always slowly.
	Poor chimney draught.	Check that the height of the chimney is not too short relative to required minimum draught for the stove.
	The door was opened when the fire is still burning in the fireplace.	Only open the door when the wood has turned to glowing embers.
White smoke	The combustion temperature is too low.	Increase the air supply by opening the ash-pan door and setting the screw at the base plate.
	The wood is too damp and contains water vapour.	Always use clean and dry wood.
Black or greyish black smoke	Insufficient combustion.	Increase the air supply by opening the ash-pan door and setting the screw at the base plate.

Difficulties in starting the fire in most cases are the result of using wood with too high humidity content, too poor draught or untight chimney connections.

Guarantee Certificate

Guarantee conditions

J Davidssons Eftr. AB is responsible for delivering a product free of defects in material and workmanship and any damage related to storing at the factory.

The time of guarantee starts from the date of delivery to the customer.

J. Davidssons Eftr AB will accept no liabilities for costs or expenses that may occur for dismantling or mounting by replacement of the stove.

J Davidssons Eftr. AB will accept no liabilities for costs occurred subsequent to a standstill or other direct or indirect costs and damages.

The guarantee conditions are not applicable to glass parts or to the replaceable fireplace parts. The time of guarantee for grates, internal cast iron side walls, etc is 1 year.

3 Years	5 Years	10 Years
Viking 60, 75	Oden 110	Smålandsspisen 28, Smålandsspisen 1896, Idun Nr. 1, Viking 30, Royal Viking, Barnspis Oden 6318.

Markus & Mikael Andersson, partners.

Markus Andersson *Mikael Andersson*

Warning!

When the stove is in use certain surfaces become very hot, more than 90°C. Physical contact with these surfaces can cause skin burns.

Requirements related to the flue.

For both rear flue connections and top flue connections the chimney must be able to withstand temperatures of at least 350°C.

NB!

Always contact your local authority planning office before installing a wood-burning stove. The owner of the house is personally responsible for ensuring compliance with the mandatory safety requirements and must have the installation improved by a qualified inspector.

Your local chimney sweeper must also be informed about the installation as this will affect the routines for regular chimney-sweeping services.



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