

Installing the stove:

According to existing regulations, stoves must be placed with the following minimum distances (in centimetres) to inflammable walls and materials:

Sides: 30 cm Rear: 15 cm Distance to furniture in front of stove: 100 cm

If walls are non-inflammable, the stove can be placed closer to them. However, we recommend a minimum distance of 5-10 cm. to allow for cleaning behind the stove.

The cleanout gate must be accessible.

Optimal combustion can only be obtained if fresh air is constantly admitted. It is important, therefore, to ensure that this is the case.

The best way to provide a steady flow of fresh air is by installing 1-2 air vent(s) in the room where the stove is situated. (one in each side of the room).

Flooring:

If the stove Varde S1 is to be placed on a floor which is inflammable, the floor must be covered with non-inflammable material, such as a steel or glass plate, floor tiles or artificial slate, covering an area of at least 15 cm. from the sides of the stove and at least 30 cm. from the front of it. With regard to the front, however, we recommend 50 cm.

If the stove Varde S3 (low feet) is to be placed on a non-inflammable bench which min. is 27 cm. high, an inflammable floor around the bench has to be covered the same way as for Varde S1.

If the stove Varde S3 (low feet) is to be placed directly on the floor, the floor has to be made of non-inflammable materials under the stove, as well as 15 cm. on the sides and 50 cm. in front of the stove.

Also, the bearing construction must be capable of carrying the combined weight of stove and chimney. Read the table on page 4, to find out how much your stove weights.

The chimney:

Always use a chimney with a diameter of at least 15 cm. This corresponds to a clear of 175 square centimetres. Make sure the chimney is of a sufficient height, that it draws well and that smoke does not bother your neighbours.

We recommend that you fit your chimney with a damper, allowing for draft control. This may prove particularly important on windy days.

Note: the damper must never shut off draught completely – always allow at least 20 square centimetres free passage through the chimney.

With nominal usage the stove has tested a Smoke flow of 6,0 g/second and with a smoke temperature of 241 °C in a room of 20 °C.

Varde stoves are always fitted with a smoke plate which redirects smoke to make its way to the chimney as effectively as possible. This ensures that the heat from the smoke is emitted inside your home rather than outside it. The smoke plate is moveable and placed on top of the Vermiculite fire brick side plate. You should make sure that it is pushed all the way back against the back wall of the combustion chamber.

Lighting for the first time:

The first time that the stove is lit, lighting should be terminated after the initial fire has caught. This is so that the cement that is used as sealant is able to harden, after that the stove can be used according to the following instructions.

How to light and stoke a fire:

The first time you light up the stove the enamel will temper, and give off some smoke and a slight smell. We recommend that you leave doors and windows open, as airing the room will make the smell disappear. This tempering softens the enamel making it susceptible to damage. Therefore exercise caution and avoid touching the enamel. Likewise we recommend opening the door to the stove at regular intervals for the first hours to prevent the insulation rope from sticking to the enamel.

Never use highly inflammable fluids such as spirit and petrol for lighting up! Instead, use a crumpled up piece of newspaper or kindling blocks topped by 10-15 small sticks (c. 2 kg.). A thin layer of ashes at the bottom of the stove makes lighting up a fire a lot easier.

Before lighting up the stove, you have to open completely for the **combustion air (Secondary air)** by pushing the grip under the door to the right side, (alternatively, shortly leave the door a little open if there is no wind and no draught in the chimney), thus allowing the fire to catch on. Always remember to close the door again after some minutes, otherwise the stove and the chimney can be **overheated**, and this is not covered by the warranty. By lighting up we recommend to let the secondary air fully open all the time, this to warm up the stove and chimney to appropriate working temperature.

Once the wood has burnt to embers, you may refill the stove with the next lot of wood, once again having the damper fully open until the wood is burning well, then adjust it to the below described positions.

The following optimal register and fuel quantity settings are recommended (in case of similar chimney draught):

Fuel Quantity [kg]	Combustion Air open [%]	Nominal Output [kW]	Chimney Draught [PA]	Efficiency [η %]	Refill interval at nominal output [minutes]
1,4	50 (half open)	5,0	12	81	approx. 50

Regulations

All local regulations as well as National and European, should be adhered to when installing your stove. All Varde Ovne stoves are closed fireplaces.

Draught conditions

Consult your local stove dealer or chimney sweeper about how best to adjust the draught in your chimney.

Chimney Fires

Should your chimney catch fire, cut off the air supply to the stove's combustion chamber and contact the emergency services.

(The majority of fires die out after the oxygen supply is cut off).

Following this, the least you should do is to contact your chimney sweeper, who will check your stove and chimney for damage.

Continual fresh air

A continual supply of fresh air is required in the room in which the stove is situated.

This can be achieved by installing 1-2 vents, whilst also ensuring that these can not be blocked.

The shaking grate

The shaking grate is situated at the bottom of the combustion chamber. The ashes will be shaken into the ash -pan by the pulling and pushing of the lever.

Overheating

Occurs if too much wood is placed in the stove or if the combustion receives too much air.

Combustion / Secondary air

Pre-heated air for the combustion process, the amount of which can be altered according to the desired room temperature, and the effectiveness of the chimney. A high level of chimney draught requires a lesser intake of combustion air.

This combustion air is coming into the combustion chamber as an airflow down behind the glass in the door. A part of the combustion air is also coming through the oblong holes in back corners in the combustion chamber.

VARDE OVNE A/S

Is a Danish company specialising in functional, environmentally friendly and designed quality stoves.

As well as having passed the Danish (DS/EN 13240),

Swedish (SP) and Norwegian (Sintef) Kite marks, the stove are also awarded the coveted Svanemaerke for environmentally-friendly products. (CO value on 0,06 % and a smoke temperature of less than 250 °C).

Tertiary air

is constantly added air, which makes the stove burn even cleaner, and lowers the content of tar and soot in the combustion process to an absolute minimum. At optimal combustion settings, glass and combustion chamber will be burnt completely clean, and the remaining amount of ashes will be minimal.

"So when you light up your stove, consider the environment. We do."

What kind of wood to use?

Generally, beech wood is considered the best type of wood for burning. It burns evenly without producing much smoke and the ashes are clean and take up little space. Ash, birch and maple wood are fine alternatives.

Vermiculite fire bricks

A special non-inflammable material. The vermiculite fire bricks both isolate and protect the stove from attrition. Vermiculite fire bricks and smoke plate are not covered by the warranty. Vermiculite is a **very porous** material, therefore handle with care. When refilling the stove, put in the wood carefully, use the glove.

Automatic door-closing

Varde Cast Iron S1, S2 and S3 are equipped with our new-developed automatic door-closing system, which secures an correctly closing of the door, every time you've had it opened for putting new wood in the stove.

You just have to let go of the door from approx. half opened position, then the automatic system does the rest of the job for you.

When kindling the wood in the stove, you can shortly leave the door a little open, by leaving the door just in contact with the closing-mechanism, when the fire has caught fully, close the door by pushing it a bit.

In most instances, however, you will have to arrive at the **best combustion air settings** yourself, as the height and diameter of your chimney, as well as the quality of the firewood are decisive factors in determining how your particular stove is best set (see also the section on troubleshooting on next side).

The lowest output of 3-4 kW is usually obtained, when 2-4 small logs with a total weight of 1 - 1,2 kg. and the secondary air damper is set to 30-40% open. In this operation mode it is important that the secondary air damper is fully open for the first 3 - 5 minutes, to make sure that the fire has caught fully before the supply of secondary air is reduced.

Please be aware of, that there always must be flames, when there is wood in the combustion chamber. If there's not, you have reduced too much for the secondary air.

If you are wondering why your stove is fitted with an air beam with small holes in it, running through the rear of the combustion chamber, this is merely a consequence of our newly developed combustion system. We refer to these air ducts as the 'tertiary air', and will prove helpful as you install your new Varde stove.

When refilling the stove with wood, we recommend opening the stove door only once embers are left in the combustion chamber. Opening the door whilst the flames are still burning and producing smoke and gas, might cause smoke to slip into the room instead of up the chimney.

What to burn

This **Varde** stove is tested and approved for the burning of wood. Only dry wood with a moisture content of maximum 21 percent and the size to fit into the combustion chamber should be used. The burning of moist wood will result in an increased amount of tarry soot, pollution and uneconomic fuel consumption. Newly chopped wood contains about 60-70 percent moisture, which makes it completely unsuitable as fuel. Allow newly chopped firewood to dry in an open shed for a year before using it in the stove. Split firewood with a diameter larger than 10 cm. Use firewood with a length on 25-35 cm.

The use of larger quantities of fuel than recommended in the table page 2 will overtax the stove and result in increased temperatures in the chimney as well as a lowered efficiency. This may cause damage to both chimney and stove, and the annulment of the warranty. Also, never use toxic materials such as chipboard, painted or impregnated wood.

Maintenance and cleaning

As any piece of equipment in daily use, your stove needs maintenance.

The stove should only be cleaned when cold. Use a dry cloth for cleaning the exterior of the stove.

Clean the interior regularly by removing ashes, soot and tar from the combustion chamber. The smoke plate should be removed for cleaning as the reverse side will be covered in dirt and soot. Finally check that the smoke's pathway through the smoke pipe and chimney is completely clear. You should also inspect the gaskets in the door for signs of wear. Replace them if permeable. Also, remember to oil the hinges of the door as required.

Empty the ash pan regularly. It can be emptied into your dustbin, as long as you make sure it contains no hot embers.

When in doubt as how to maintain your stove, contact the dealer from whom you bought it, or your chimney sweeper. It is especially important to check the stove and its chimney for blockages after a long period of non-use.

The enamelled surface of the stove may wear down at certain places if the stove is **overheated**.

Worn surfaces, however, can be repaired with a special Senotherm® spray paint, available at your local vendor.

If you are in doubt, please contact your vendor.

The plates in the combustion chamber are **Vermiculite plates** and will eventually be worn – as will the smoke plate. Should you accidentally break a plate, for instance by hitting it hard with a piece of wood, this does not effect the quality of the combustion. You need not replace the plate until the gap is 5 mm. wide, or if the thickness of the plates, as a result of the daily use, is worn down to 2/3 of original thickness.

The door is constructed with a spring which automatically swings the door shut.

This spring is very easy to change, just open the door fully, and the spring is situated by the upper hinge. You can just dismantle it with a tong and mount the new spring instead. This spring is a part of the Automatic door-closing, and may never be removed.

Only use original spare parts from Varde Ovne.

Do not make any unauthorised changes.

All external parts of the stove become hot during use, too. Therefore exercise necessary caution when the stove is in use.

Troubleshooting.

Smoke enters the room:

- Not enough draught in the chimney.
- Inspect the smoke pipe or the chimney for blockage.
- Clean the inside of the stove removing soot from the upper vermiculite / smoke plate.
- Make sure the height of the chimney is correct.

The glass or the chimney soot up:

- The wood is too moist or of a poor quality.
- Try to change to way to place the wood in the combustion chamber.
- The supply of secondary air is not correct adjusted.
- There always have to be clear flames in the combustion chamber.
- The combustion is too intense, to much wood in the combustion chamber.
- Not enough draught in the chimney.

The heat is emitted from the stove:

- The wood is too moist (all energy goes into drying it) or of a poor quality.
- Inspect the position of the smoke plate and make sure there is free passage for the smoke.

Combustion is too intense:

- Gaskets in the door are no longer tight and need replacement.
- The chimney draught is too strong - apply a draught control.

The shaking grate is stuck:

- Inspect the grate for jammed wood, nails or the like.

Height of chimney

If in doubt, contact your local stove dealer. He will be able to inform you of the correct height.

The weight of the stoves:

Varde Cast Iron S1	162 kg
Varde Cast Iron S3	140 kg

Warranty

All **Varde** stoves go through a close quality inspection, and we take pride in always delivering products of a consistent quality. This being so, manufacturing faults may still occur, and on these we offer a **5 year warranty**.

The warranty does not include:

- Wearing parts, such as the Vermiculite fire bricks in the combustion chamber, the smoke plate, glass, gaskets, cast iron bottom and the shaking grate.
- Damages which occur as a consequence of misuse, such as overheating, incorrect installation, missing or wrong maintenance etc. (see instructions earlier).
- Damages caused by external influences of a physical character.
- Cost of transportation in connection with warranty repairs.
- Assembling/reassembling in connection with warranty repairs.
- Compensation for following damages, including damage on other objects.

Warranty conditions:

These instructions for use are also your proof of warranty. The warranty will not take effect until vendor's stamp, information about model, registration number and date of purchase (invoice if possible) have been applied below. In case of claims, please bring this proof of warranty to your local vendor.

Vendor's stamp and signature

Model:

Reg.no.:

Date of purchase:



English

*Congratulations on purchasing
your new stove from*



This instruction for use pertains to the following

DS / EN 13240

approved stoves:

Varde Cast Iron S1

Varde Cast Iron S3

This stove is designed for intermittent combustion and can be connected to a chimney used by other fireplaces, as long as the appropriate rules and regulations are adhered to.

Before lighting up your **Varde stove** for the first time, we recommend that you read these instructions carefully and contact your local stove vendor or building authorities to inquire about existing regulations regarding the installation of stoves. Please follow these regulations closely.
Please Note! You are by law required to register your stove at the local chimney-sweeper.
Until installation keep the stove dry and not too cold. The stove cannot stand moisture.
Please note, that an existing chimney, not necessarily is effective enough for a new modern stove.

 **VARDE OVNE A/S**
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