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# Varde Thurø 11

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## **Installations- And user guide**

1. edition 01.06.2012 FOR-1141 GB



**VARDE OVNE**



## **Congratulations on purchasing your new stove.**

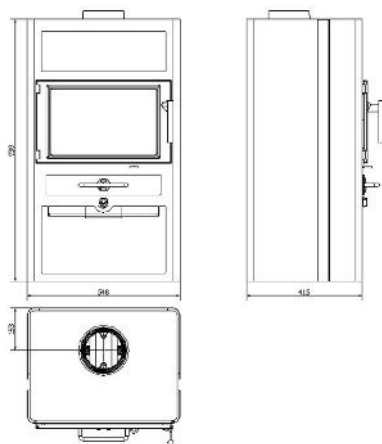
Varde Ovne A/S is a Danish company specializing in functional, environmentally friendly and designed quality stoves.

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## Technical Specifications

### Thurø 11



### Model Thurø 11

Height (mm)	939
Wide (mm)	548
Depth (mm)	415
Weight (kg)	101 kg
Effect	4-8 w
Nominal Output	6 Kw
Heated area	50-120m <sup>2</sup>
Efficiency	78%

Flue gas data: 4,9 g/sek., 265°C ved 20°C, 12 pa.

Combustion chamber: (H x W x D):

240x400x260mm

Flue outlet Ø 15 cm (Mounting hight top: 93cm)

Distance to non-inflammable: 5-10cm  
(recom mended)

Distance to inflammable wall and materials:

Rear = 20cm, Sides = 32,5cm, In front = 100cm

**Important!**

**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.

**Inspection of installation**

It is very important that the installation be inspected by a qualified chimney sweeper before the stove is in used for the first time.

**This Varde Stove**

Has passed the Danish /European Standard DS/EN 13240 and the German (DINplus) test , and have thereby proved to be a environmentally friendly product.

**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.

The 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.

**Professional installation**

We recommend that you consult with the dealer where you purchased the stove or an other competent installer, as there may be specific things to consider during the installation. You should also reseive the applicable rules for installing the stove and follow them.

**Please Note!**

You are by law required to register your stove at the local chimney-sweeper.

Until installation keep the stove dry and not to cold. The stove cannot stand moisture.

That an existing chimney, not necessarily is effective enough for a new modern stove. Vermiculite is a very porous material, therefore handle with care. When refilling the stove, put the wood carefully, use the glove.

**EC declaration of confirmaty.****MANUFACTURER**

Name: **Varde Ovne A/S**  
Adress: Kongevej 246, DK-6510 Gram, Danmark

**Product**

Product type: Varde Thurø 11  
Type code: Thurø  
Standard: Heating stove, suitable for intermittent combustion  
Application: Costruction products (89/106/EC/) standard used EN 13240  
Fuel: Residential Heating  
Special conditions: Wood  
Non

**CE-Markning**

Issued: 2012  
Nominal Output: 6 kW  
Fuel type: Wood  
Fluegas temperature: 270 °C  
Efficiency: 78 %  
Co-release: 0,2 %

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Jan Meldgaard  
CEO  
Varde Ovne

**Flooring:**

If the floor on which the stove is to be placed is inflammable, the floor must be covered with non-flammable material, such as 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. Regarding the front, however, we recommend 50 cm. Also, the Floor construction must be capable of carrying the combined weight of stove and chimney.

Steel  
Stove

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101 kg

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**Installation distance:**

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).

According to existing regulations, stoves must be placed with the following minimum distances in mm to inflammable walls and materials. The distance from the outer edge of the flue pipe to inflammable material is described as for horizontal Flue 300mm and the distance for vertical flue is 225mm

The stove must in accordance with applicable rules comply with the following minimum distances from inflammable walls and materials:

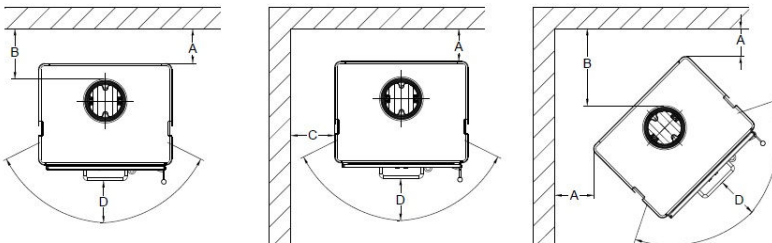
Varde Thurø

A	200mm	C	325mm
B	225mm	D	1000mm

**Sides : 32,5cm**

**Rear : 20cm**

**Distance to furniture : 100cm**



**The chimney:**

Always use a chimney with a diameter of at least 15 cm. This corresponds to a clear of 175 cm<sup>2</sup>. 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 cm<sup>2</sup> free passage through the chimney.

With nominal usage the stove has tested a flue gas flow of 4,9 g/second and with a flue gas temperature of 265 °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.

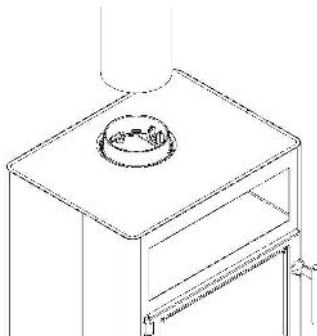
**Draught conditions**

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

**Hight of chimney**

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

**Connection of Flue pipe:**



**Information about the new cast iron adapter, Part no.: 134**

Your stove is equipped with the new cast iron adapter from Varde Ovne. The adapter is suitable for smoke pipes with inner diameter on 150 mm.

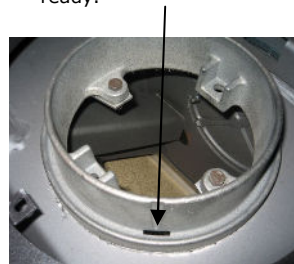
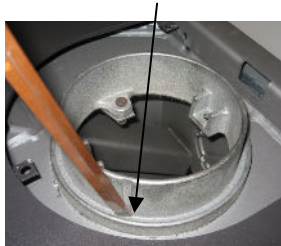
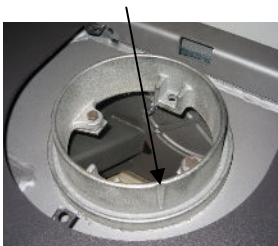
If you need it, it's now possible for you to make a condensate drain-hole in the adapter.

- ◆ Carefully punch a chisel or the like through the adapter in the outer groove, at the arrow mark. This way you can establish a condensate drain hole in the adapter.

Arrow mark for the hole.

Carefully punch a hole with a chisel or the like.

Now the condensate – hole is ready.

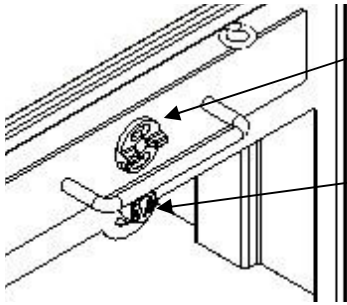


### Combustion/Secondary air

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.

### Primary air

Also known as 'sub-air', the air which is drawn into the combustion chamber through the air valve on the ash pan.



### Air valve

Air valve for primary air.

### Combustion/secondary air

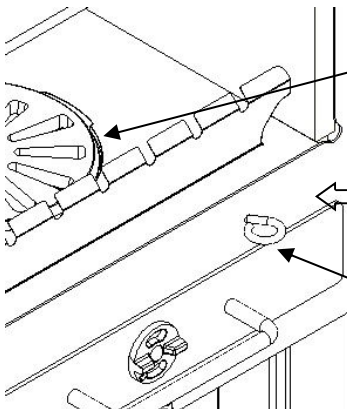
Valve for combustion/secondary air.

### 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 quantity of air used for burning, is approx. 15,5 m<sup>3</sup> / h.

### Overheating

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



### The Shake grate

The shaking grate is situated at the bottom of the combustions chamber. The ashes will be shaken into the ashpan by pulling and pushing of the lever.

### Shake grate

Pull and push the lever.



## **Spare parts**

If Spare parts at any time should be needed, please check the list below.

**Vermiculit fire bricks, Item no.: 2100505**

**Glass, Item no.: 1130503**

**Sealings i set, Item no.: 1101**

**Handel, Item no.: 11306124**

**Door, Item no.: 1130526**

**Shake grate pole, Vare nr.: 800000069**

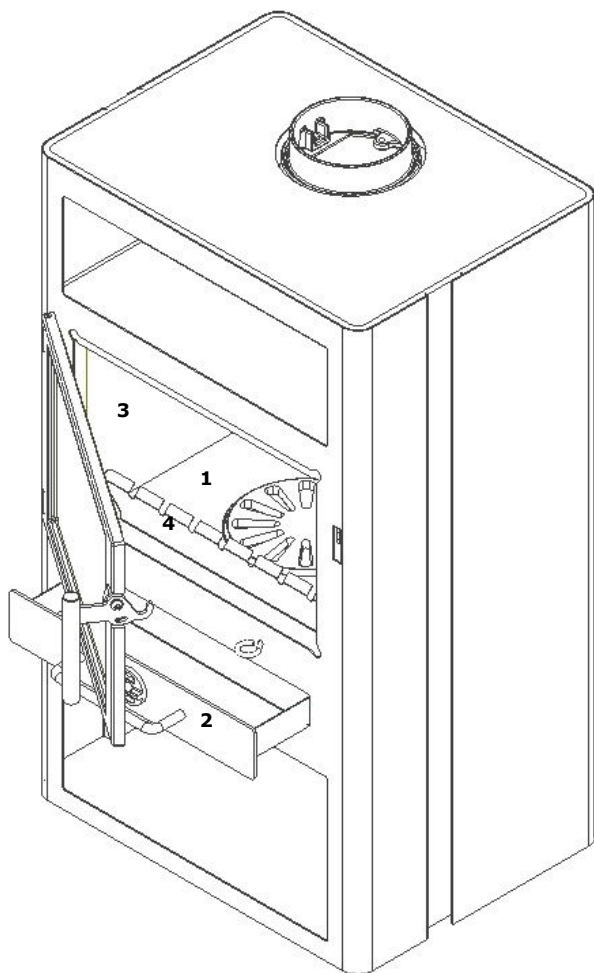
**Shake grate, Item no.: 66**

**Ashtray, Item no.: 1130555**

**Glass springs, Item no.: 10013**

**Wood Catch, Item no.: 81**

## Thurø 11



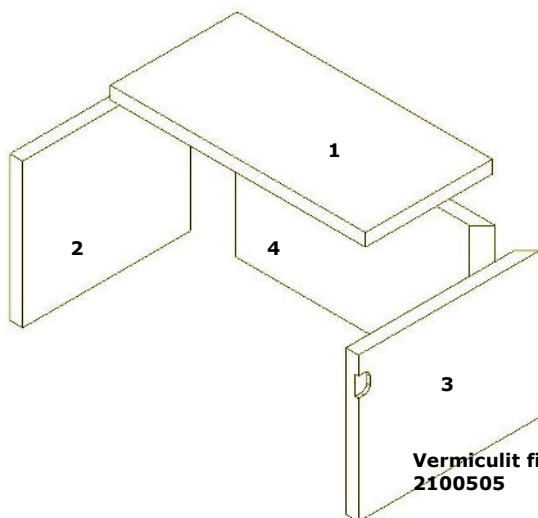
1. Shake grate
2. Ash pan
3. Vermiculite fire brick Item no.: 2100505, see next page
4. Wood catch

## Vermiculite

**The plates in the combustion chamber are Vermiculite plates** and will eventually be worn, - as will the smoke plate. Should you accidentally break the plate, for instance by hitting it hard with a piece of wood, this does not affect the quality of the combustion. You need not replace the plate until the gap is 5 mm wide.

### Vermiculite

A special non-flammable material. The vermiculite fire plates both isolate and protect the stove from attrition. Vermiculite plates and deflector not covered by the warranty. Vermiculite is a very porous material, therefore handle with care. When refilling the stove, put the wood carefully, use the glove.



**Vermiculit fire brick, Item no.:  
2100505**

- 1. Smoke guide**
- 2. Side plate, left**
- 3. Side plate, right**
- 4. Rear**

## How to replace the Vermiculite

- 1.** Deflector, lift easily, bottom bag end are tilted forward, take down.
- 2.** The left side plate can be easily lifted up and rotated out.
- 3.** Right side plate can be easily lifted up and rotated out.
- 4.** The back cover is lifted up and out of the stove.

Mounting of new Vermiculite plates follow point 4 towards point 1.

### 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 ashes are clean and take up little space. Ash, birch and maple wood are fine alternatives.



### How big the firewood?

Split firewood with a diameter larger than 10 cm. Use firewood with a length on 20-25 cm. The use of larger quantities of fuel than recommended in the tabel below will overtax the stove and resulte 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.

### Lightnings sticks

Length: 20 -25 cm

Wide 3x3 cm

Normal amounth: 10-15 sticks (approx. 1 kg)

### Firewood

Length: 25-30 cm

Diameter: max. 10 cm

Normal amounth: 3-4 firwood (approx. 2 kg)

### The new stove

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 insulations rope from sticking to the enamel.

### 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 chooped firewood to dry in a open shed for a couple of years before using it in the stove.

### Do not use! - Consider the environment

Also, never use toxic materials such as chipboard, painted or impregnated wood.

The use of larger quantities of fuel than recommended in the tabel below will overtax the stove and resulte 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.

### Topdown Lightning of the fire



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

Fuel Quantity [kg]	Primary Air [%]	Combustion Air [%]	Nominal Output [kW]	Chimney Draught [PA]	Efficiency [ $\geq$ i %]	Refill interval at nominal output [minuts]
2,0	10	80	6	12	78	ca. 73

### **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 insulations rope from sticking to the enamel.

Never use highly inflammable fluids such as sprit and petrol for lighting up!

We recommend a "Top-Down" lightning, where you light the wood in the upper area of the combustions chamber and not in the ground. This method is the most environmental metod to light a fire. The metod will keep the glass clean. In the combustion chamber you make a cross (⊕) of 4 small pieces of wood with a small distance between each one of them. On top you of them you make another cross (⊕) of 8-12 smaller sticks (0,5-1 kg.), on top of this firewood and in between use 2-3 kildning blocks. A thin layer of ashes at the bottom of the stove makes lighting up a fire easier.

Before lighting up the stove, open the **Shake grate** by pulling the lever all the way out.

Then open the valve on the ash-pan for access of **primary air** and open the valve under the ash-pan for combustion air (alternatively, shortly leave the door a little bit 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, otherwise the stove can be overhated, and this is not covered by the warranty. When the fire burns steady, then remember to close the valve on the ash-pan again, until its approx. 10 % open.

In most instances, however, you will have to achieve the **best combustion air settings** yourself, as the height and draught of your chimney, as well as the quality of the firewood are decisive factors in determining how your particular stove is best set.

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 slip into the room instead of up the chimney.

## **Maintenance:**

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

The stoves 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 Deflector should be removed for cleaning as the reverse side will be covered in dirt and soot. Finally check that the smoke pathway through the smoke pipe and chimney is completely clear. You should also inspect the gaskets in the door and the ash-pan 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 clean your stove, contact the dealer from whom you bought your stove, 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.

**The plates in the combustion chamber** are **Vermiculite plates** and will eventually be worn, - as will the smoke plate. Should you accidentally break the plate, for instance by hitting it hard with a piece of wood, this does not affect the quality of the combustion. You do not need to replace the plate until the gap is 5 mm wide.

**Only use original parts from Varde Ovne A/S**

**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.**

## **IMPORTANT!!**

### **Chimney Fires**

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

## **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 (Deflector) plate.
- Make sure the height of the chimney is correct.

### **The glass or the chimney soot up:**

- The wood is too moist.
- Not enough secondary air is applied to the combustion process.
- You may have shut off the supply of ignition air too early when lighting up the stove.
- There always have to be clear flames in the combustion chamber.

### **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.
- The amount of combustion(secondary air) air is not enough.

### **Combustion is too intense:**

- Gaskets in the door or the ash-pan are no longer tight and need replacement.
- The chimney draught is too strong—apply a valve in the chimney.
- Inspect that the ignition air is closed.

### **The Shake grate is stuck:**

- Inspect the grate for jammed wood, nails or the like.
- Make sure the lever is placed correctly.

## **Recycling**

### **Packing**

The packing is 100% recyclable.



### **Ceramic Glass**

Ceramic glass to be deposited at the local recycling center and sorted together with pottery and porcelain.

### **Vermiculite**

Vermiculite plates from the stove must be returned to the local recycling center.



DANAK

TEST Reg.nr. 300



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## TEKNOLOGISK INSTITUT

Akkrediteret prøvningsorgan, DANAK-akkreditering nr. 300

# PRØVNINGSATTEST

Uddrag af rapport nr. 300-ELAB-1095-EN-Til-1, samt bedømmelse af Thurø 10 og 11.

**Emne:** Brændeovn, Type Varde Thurø 1, Thurø 10, Thurø 11

**Rekvisit:** Varde Ovne A/S, Kongevej 246, Tiset, 6510 Gram (DK)

**Procedure:**

X	Prøvning efter DS/EN13240/A2:2004
	Prøvning efter NS3058-1, NS 3058-2 og NS3059 (partikelmåling)
X	Støvmåling efter DIN plus Zertificeringsprogram

## PRØVNINGSRESULTATER

**Nominel ydelse:** 6 kW

**CO-emission henført til 13% O<sub>2</sub>:** 0,2 %

**Virkningsgrad:** 78 %

**Røggastemperatur:** 265°C

Sikkerhedsprøvning er foretaget iht. EN 132240 afsnit A4.9.2.2. Ved følgende afstande til brændbart materiale er temperaturen mindre end 65°C over rumtemperaturen:

**Afstand til sidevæg:** Se vejledningen      **Afstand til bagvæg:** Se vejledningen

Partikelmåling iht. NS 3058 og/eller støvmåling iht. metode DIN plus:

**Partikelemission efter NS 3058:** - g/kg (tørstof) middelværdi (maks. 10)

**Partikelemission efter NS 3058:** - g/kg (tørstof) maksimalt (maks. 20)

**Støvemission efter metode DIN plus:** 51 mg/Nm<sup>3</sup> ved 13% O<sub>2</sub> (maks. 75)

Bemærk venligst, at de oplyste værdier er et uddrag af prøvningsrapporten. For yderligere oplysninger henvises til prøvningsrapporten, se nummer ovenfor.

Teknologisk Institut er notificeret prøvningsorgan med ID-nr. 1235.

<p>Århus, den 6. juli 2012</p>  <p>Morten Gottlieb Jespersen Civilingeniør</p>	<p>Skorstensfejerpåtegning</p>
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På baggrund af ovennævnte partikelemission attesteres det hermed, at fyringsanlægget opfylder emissionskravene i bilag 1 til Bekendtgørelse nr. 1432 af 11/12/2007 vedr. regulering af luftforurening fra brændeovne og brændekedler samt visse andre faste anlæg til energiproduktion.

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## Warranty

All **Varde** stoves go through a close quality inspection, and we take pride in always delivering products of a consistent quality. This being said, 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 plates in the combustions chamber, the smoke plate, glass, gaskets, cast iron bottom and Shake 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 influence 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 proff of warranty. The warranty will not take effect until vendor's stamp, information about model, registration numer and date of purchase (invoice if possible) have been applid below. In case of claims, please bring this proof of warranty to your local vendor.

Model: \_\_\_\_\_

Reg.no.: \_\_\_\_\_

Date of  
purchase: \_\_\_\_\_

Vendor's stamp and signature



**VARDE OVNE**



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