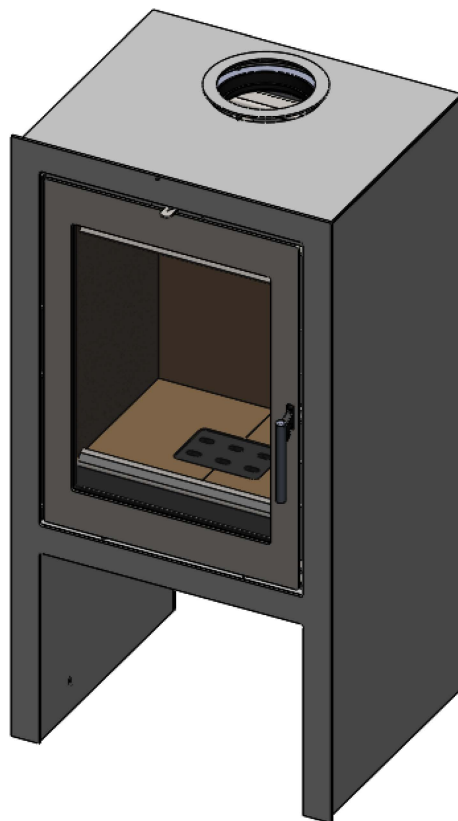


# **Meteor wood stoves**



## **Installation and operating instructions**

**Edition 2020**



## **Models covered by this usage and installations guide**



**Meteor 470  
vertical**



**Meteor 470  
vertical  
with wood box**



**Meteor 550  
vertical**



**Meteor 550  
vertical  
with wood box**



**Meteor 550**



**Meteor 550  
with wood box**



**Meteor 550 XL**



**Meteor 550 XL  
with wood box**



**Meteor 550  
vertical  
see through  
with wood box**



**Meteor 550  
vertical  
see through  
with soapstone  
with wood box**



**Meteor 550  
vertical  
with soapstone  
with wood box**

## **Congratulations on your new Meteor wood stove**

We hope and believe that it will give you many warm hours. But before you can really enjoy your wood stove, you should read this guide carefully. It provides some good advice on how to make the most of the wood stoves. Therefore, it is always a good idea to save it as any other user manual.

### **Contents:**

#### **1.0 Mounting of a Meteor wood stove**

- 1.1 EN-approval 13240:2001 & A2:2003
- 1.2 The base
- 1.3 Distance to non-flammable material

#### **2.0 Supply of Combustion air**

#### **3.0 The chimney**

- 3.1 Chimney sweeper

#### **4.0 Description of wood stoves**

- 4.1 Air intake
- 4.2 Air intake see through wood stove
- 4.3 Smoke inverter plate
- 4.4 Smoke inverter plate see through wood stove
- 4.5 Concerning ash drawer
- 4.6 Use of wood stove

#### **5.0 Lighting and continuous firing in a Meteor wood stove**

- 5.1 Wood types
- 5.2 Lighting up
- 5.3 Lighting up see through wood stove
- 5.4 Firing
- 5.5 Firing see through wood stove
- 5.6 Combustion
- 5.7 Fast or strong heat
- 5.8 Long burning time
- 5.9 Firing weakly

#### **6.0 Maintenance of the wood stove**

- 6.1 Exterior cleaning
- 6.2 Service inspection

#### **7.0 Operational disturbances**

- 7.1 Smoke in the living room
- 7.2 Soot

#### **8.0 Useful information**

- 8.1 Type approval
- 8.2 Serial number
- 8.3 Vermiculite
- 8.4 Guarantee

## 1.0 Mounting of a Meteor wood stove

When setting up and installing, always pay attention to compliance with European, national and local regulations regarding the wood stoves. Ask if necessary your chimney sweeper for advice. However, it is your responsibility that installation is in compliance with national and local regulations.

### 1.1 EN-approval 13240:2001 & A2:2003

The EN-approval gives you a guarantee, that your woodstove is approved according to European standard.

Which means that the woodstove meets a number of requirements for among other safety, environment and efficiency. The heating economy.

### 1.2 The base

Before placing the woodstove, make sure that the base can support the woodstove and the weight of the chimney.

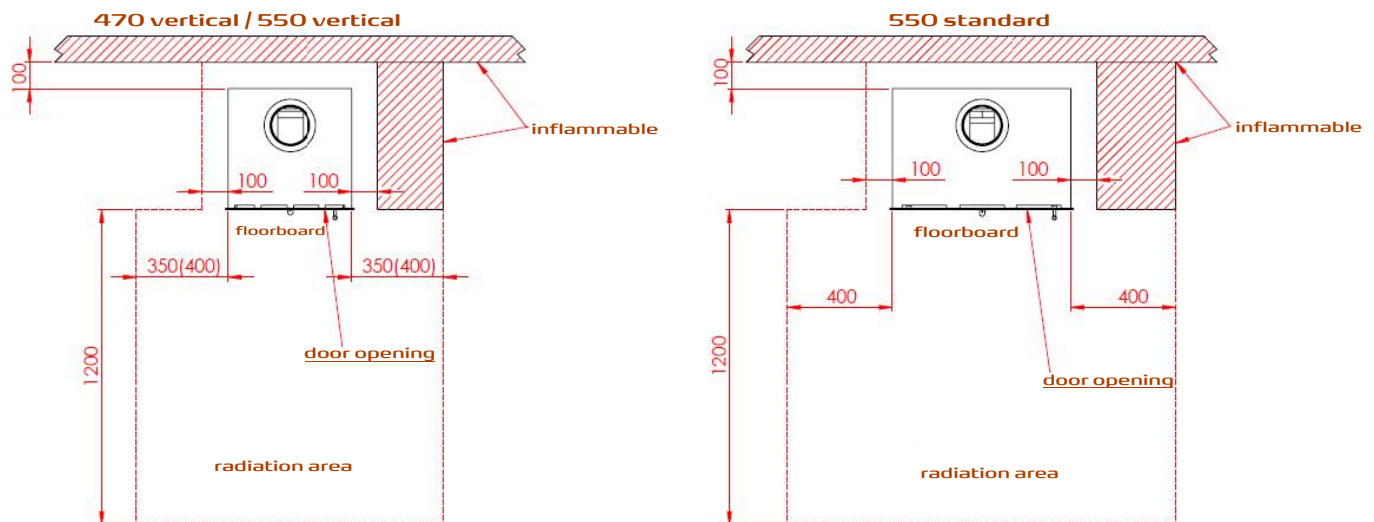
The weight of the chimney must be calculated according to dimension and height.

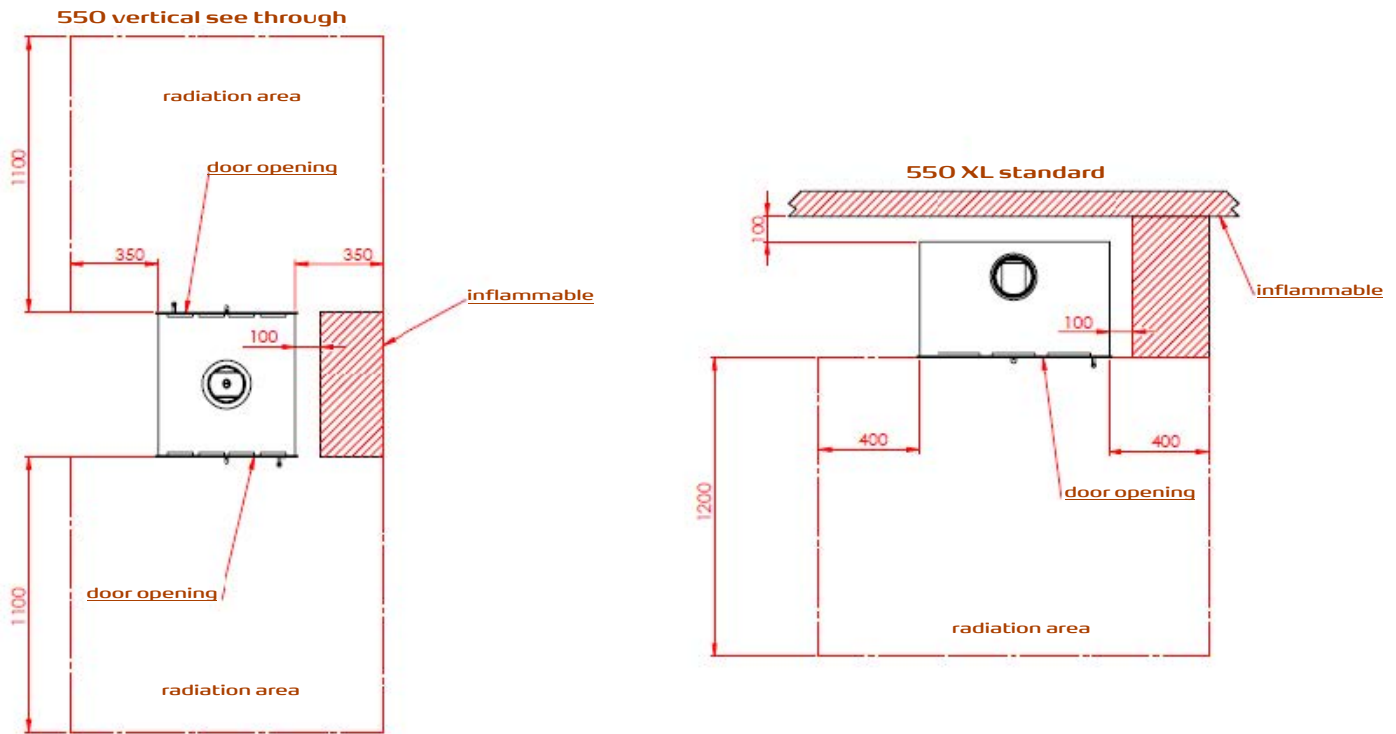
The base must of course be firm and stable.

See the weight of the woodstove in 8.0 Useful information.

### 1.3 Distance to non-flammable material

See sketch:





## 2.0 Supply of Combustion air

It is important for a good and clean combustion that sufficient air is supplied to the fire. For this to be possible, however it is a prerequisite that air is supplied to the room where the woodstove is installed.

In the vast majority of rooms there will be sufficient air, not least if some of the doors between the rooms in the house are open. In special cases, it may be necessary to place an air valve / grate in the outer wall of the room where the woodstove is installed. This air valve / grate must not be blocked. If the stove is equipped with fresh air studs, it is important that the piping is with a maximum of 2-3 bends and leads unobstructed in the open air. For new construction, we always recommend to equip the stove with fresh air studs. See also paragraph 8.1.

## 3.0 The chimney

For the energy classification of the oven, Meteor 550 and Meteor XXL must start with a minimum of 20 cm of flue pipe.

A good circulation of your chimney is crucial to how well your woodstove will burn. Note that there must be a cleaning option necessary for access to cleaning doors. The effective height of the chimney should typically be approx. 4 meters. The chimney's clearance must be min. Ø150mm. All joints and connections must be

tight. The chimney draft should be no less than 1,2 mm water volume (12 Pa).

To prevent the risk of chimney fire, the chimney must be cleaned annually. The flue pipe and the smoke chamber must be cleaned simultaneously with the chimney. If the height of the chimney makes it impossible to clean from above, a cleaning element must be fitted.

In the case of a chimney fire, all dampers are closed and the fire service is contacted. Before further commissioning, the chimney is controlled by the chimney sweeper. Always remember to check for blockages before restarting and / or longer downtime. It is recommended to supply the chimney or flue pipe with a regulating damper, so that the chimney draft can be regulated on days with strong wind. However, the damper must be able to close the flue pipe at maximum 80%.

### 3.1 Chimney sweeper

When your new woodstove is mounted, remember to report the installation to the chimney sweep. In part the installation must be checked and the chimney must be cleaned by the chimney sweep in the future. The chimney sweep must see and endorse the test certificate that comes with the stove. The test certificate must be kept for the entire life of the oven.

## 4.0 Description of wood stoves

### 4.1 Air intake

There is 1 adjustable air damper on the Meteor wood stove . It sits in the middle over the door. And when the door is closed it can be pulled out towards it for maximum air supply. This damper regulates the preheated air in the width of the entire door.

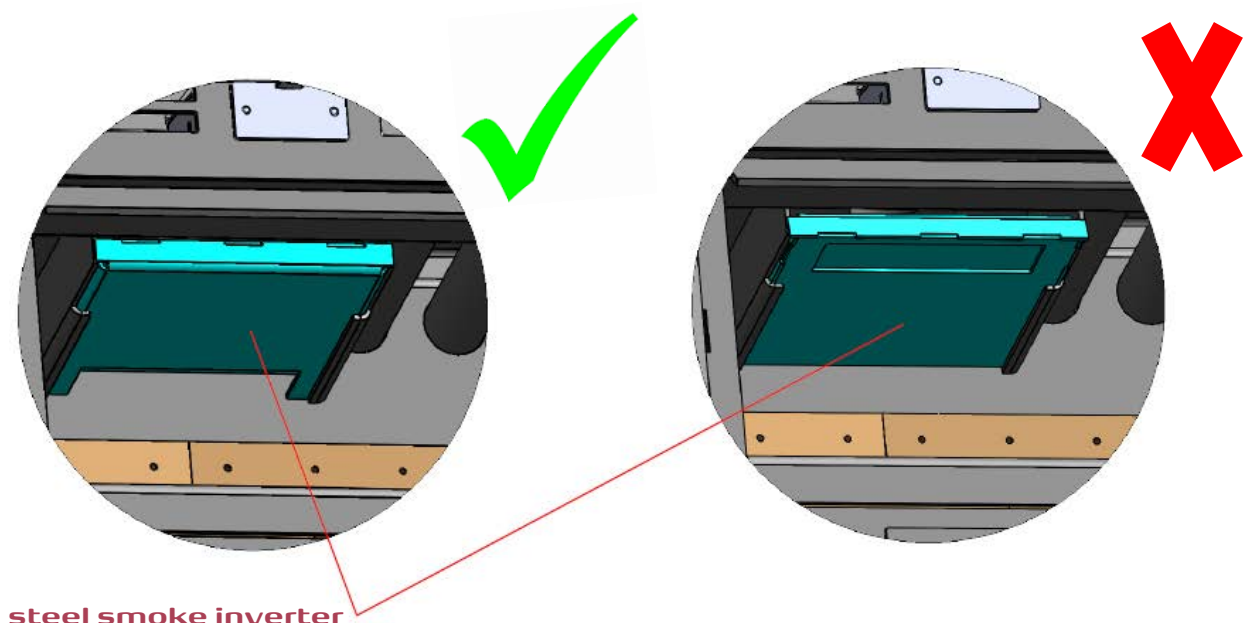
### 4.2 Air intake see through woodstove

There are 2 adjustable air dampers on the Meteor see through wood stoves. They sit in the middle over each door. And when the doors are closed, they can be pulled out against them for maximum air supply. These dampers regulate the preheated air throughout the width of the covers.

### 5.3 Smoke inverter plate

The woodstove is equipped with 1 smoke plate in vermiculite, as well as 1 steel smoke plate. When dismantling, the vermiculite plate is lifted up over the stop on one side and pulled over to the other side. Gently with both hands tilt it to the opposite side. Then the steel plate can be pulled forward and lifted down.

When installing, first place the steel plate with the slanted edge backwards and the cut-off down. Be aware that the plate comes all the way back to the back of the oven. The vermiculite plate can then be placed in place by holding it over the side stop on one side and then lifting it up to the opposite side. Then pull it slightly to the side, so that it will lie down on top of the side vermiculite plates and between the side stops.



#### **4.4 Smoke inverter plate see through wood stove**

The stove is equipped with 2 smoke plates in vermiculite. Pull them forward towards the doors if you want to remove them. When mounting, gently slide them back over the side guides. Make sure the plates touch each other in the middle of the stove.

#### **4.5 Concerning ash drawer**

The fireplace insert is equipped with an ash drawer and a fixed bottom grate standard.

#### **4.6 Use of fireplace insert**

Subsequently, a guide on ignition and firing in the wood stove has been reviewed. The amount of burner and damper setting can be varied according to individual heating requirements and the specific chimney draft. The wood stove can be used in a flue gas conduit.

### **5.0 Lighting and continuous firing in a Meteor wood stove**

#### **5.1 Wood types**

The woodstove is only EN-approved for wood firing.

It is recommended to use split birch or beech wood that has been stored for at least 1 year, preferably 2 years, outdoors under the roof. Wood stored indoors tends to become too dry and burn too fast. However, it is always a good idea to take the wood in 2-3 days before use. Oak and pine must be stored for 2 years before being put into use, as the tree may contain substances that may be harmful to the wood stove.

**It is forbidden to fire with chipboard, lacquered, painted or impregnated wood, plastic, liquid fuels and rubber. Milk cartons and newspapers contain substances that can damage the glass.**

#### **5.2 Lighting up**

When lighting up the woodstove, we recommend that it be done according to the "top down" method, start by placing 2-3 pieces of wood at the bottom of the combustion chamber. On top, approx. 1 kg dry split sticks layed criss cross like a log house, with 2-3 firestarter tablets, or the like.

It is important that the air damper is fully open. The glass door can possibly be slightly open by using the outermost notch on the handle. Allow the air damper and door to stand for another 10-20 minutes so as not to get the glass soaked, and at the same time create a good glow layer for the right firing to begin. The fire must be burned down to the glow (there are no more flames). The door is opened carefully so that smoke and ash are not pulled out, then distribute the glows in a smooth layer and pull them all the way to the glass door.

### **5.3 Lighting up see through wood stove**

When lighting up the see through wood stove, we recommend that it be done according to the "top down" method, start by placing 2-3 pieces of wood at the bottom of the combustion chamber.

On top, approx. 1 kg dry split sticks layed criss cross like a log house, with 2-3 firestarter tablets, or the like.

It is important that the air damper is fully open. The glass door can possibly be slightly open by using the outermost notch on the handle. Allow the air damper and door to stand for another 10-20 minutes so as not to get the glass soaked, and at the same time create a good glow layer for the right firing to begin. The fire must be burned down to the glow (there are no more flames). The door is opened carefully so that smoke and ash are not pulled out, then distribute the glows in a smooth layer and pull them all the way to the glass doors.

### **5.4 Firing**

When firing, place 2-3 pieces of wood, about 10 cm inside in 2 layers, parallel to the front of the stove on the glows, about 1.6 kg.

The door are clamped in the outer notch, the air intake above the door must be completely open, as it is the damper for the preheated air. When the fire has a good hold, close the door again and after approx. 3 minutes or until there are permanent clear flames, the damper can be gradually adjusted. When the fire is burned down to glow after approx. 45 min. repeat process.

The amount of heat is regulated by entering the amount of wood in the boiler. Feed the fire with less wood and more often. It is important that the wood is dry and well-cut so that the surface of the wood pieces is large. This gives you the best degassing and thus the best combustion.

**NOTE max filling up to bottom row of holes in the back plate.**

### **5.5 Firing see through wood stove**

When firing, place 2-3 pieces of wood, into the middle of the wood stove, parallel to the front of the stove on the glows, about 1.8 kg.

The door are clamped in the outer notch, the air intake above the door must be completely open, as it is the damper for the preheated air. When the fire has a good hold, close the door again and after approx. 3 minutes or until there are permanent clear flames, the damper can be gradually adjusted. Always fire with clear flames. When the fire is burned down to glow after approx. 45 min. repeat process.

The amount of heat is regulated by entering the amount of wood in the boiler. Feed the fire with less wood and more often. It is important that the wood is dry and well-cut so that the surface of the wood pieces is large. This gives you the best degassing and thus the best combustion.

### **5.6 Combustion**

It is always a matter of firing so it is clear when you look into the oven, otherwise more air must be supplied. It is always sensible to have an ash layer lying in the oven, it facilitates the ignition, and at the same time insulates downwards. The ash is removed as needed.

Warning: The ash can contain embers and therefore must be transported and stored in suitable containers 2-3 days prior to disposal via domestic waste.



### **5.7 Fast or strong heat**

Fast or strong heat is achieved if many small pieces of wood are burned.

### **5.8 Long burning time**

Long burn time is achieved if few, larger pieces of wood are burned. The wood stove is not designed to burn at night, as it gives a bad combustion to keep the wood stove at too low a temperature. Much soot will be formed, since all the gases in the wood cannot be burned. Therefore, sufficient air must always be supplied for the combustion, so that clear flames are obtained.

### **5.9 Firing weakly**

If the Vermaculite in the combustion chamber is black after a firing, it is a sign that you do not have an environmentally correct combustion, ie. that the fireplace pollutes. Therefore, the fire must be fed more oxygen so that a higher temperature is achieved in the combustion chamber. This releases all the gases of the tree. Soot formation can also be due to wet wood, poor draft in the chimney or incorrect firing.

Warning! Parts of the wood stove, especially the exterior surfaces, will become hot during operation. Therefore, caution should be exercised. Do not place furniture or other inflammable material in the radiation zone of the wood stoves. Do not leave children unattended near the stove during operation.

## **6.0 Maintenance of the wood stove**

### **6.1 Exterior cleaning**

Cleaning should only be done when the wood stove is cold. Daily maintenance is limited to a minimum. The easiest thing is to vacuum the fireplace outside with a small nozzle with soft brushes. You can also use a dry cloth or a soft dust brush. But only on a cold wood stove.

### **6.2 Service inspection**

At least every two years, the wood stove should receive a thorough preventive service check. The inspection includes: Thorough cleaning of the fireplace, lubrication of hinges with copper grease, control of air seals, adjustment of handle / door, control of heat-insulating material and control of gaskets and possible replacement. Inspection must be carried out by a qualified fitter. Use only original spare parts. Always remember to provide access to the fireplace, flue connector and chimney pipe.

### **NOTE!**

Relating to firing in a new furnace, one must expect some smoke and odour during the first firing, as the steel plates on Meteor's wood stoves are painted with a special heat-resistant paint. Therefore, properly air out the room after the first performances. When the paint is hardened, keep the door closed, except during ignition, fuel filling and removal of residual materials, to prevent the release of flue gas. It is pointed out that there is no guarantee on glass and ceramic plates (also in the case of cracks) and glass cords.

## **7.0 Operational disturbances**

The Meteor wood stove are approved according to the EN standard, which means, that the stove's design and combustion method meet the requirements of approval. However, it is important to be aware that the combustion itself in a wood stove is very individual and dependent on both chimney, fuel, operation and firing technology. It is also important to be aware that a stove can thicken during firing and cooling. This is due to the movements of the steel and does not affect the function of the wood stove.

If you experience problems with your meteor oven you may be able to find the cause below. If not, then you are always welcome to contact your Meteor dealer.

### **The wood stove burns too fast, is hard to control.**

If the wood stove is new check the instructions as followed. If the oven is more than 1 year old, the packages may need to be replaced.

During days of high winds, if mounted, the damper in the chimney may be regulated.

### **The oven pulls poorly after installation**

Make sure the installation instructions are followed. Check that the chimney connection is tight and that the diameter is in order. The chimney sweep may be contacted to correct the problem, as the chimney may be clogged.

**We warn against any unauthorized alteration of the fireplace insert and the use of non-original spare parts.**

## **7.1 Smoke in the living room**

If the smoke does not go out into the chimney, but comes out into the living room instead, it may be due to: poor chimney draft and / or that the smoke panel is not positioned correctly. Likewise, it may be because if the chimney is cold, after prolonged standstill, in foggy/hot/stagnant weather, here it may help to ignite a crumpled newspaper in the chimneys cleaning door. When lighting up, it may help to pull out the ash tray slightly and place the door in the notch. Likewise, it is important to wait for firing until there are only embers and no flames. Please be aware of pressure in the living room due to the use of the extractor hood and dryer. Pressure may also result from incorrect adjustment of the ventilation system.

## **7.2 Sod**

If a lot of sod is formed, it may be because: the temperature in the combustion chamber does not reach high enough, ex. because of the climbing fires, the wood is wet, fire up only with firewood stored min. 12 months under the roof and with a maximum of 18% moisture.

**Sod on the glass can be removed with glass cleaner or a piece of damp kitchen cloth dipped in ash.**

## 8.0 Useful information

Technical informations	Min./max. effect	Nominal	Recommended chimney	weight	Smoke departure	Distance to inflammable	Efficiency	Smokegas mass flow	Smokegas mass temperature	Dust emission	Co-emission	OGC	NOX	Temperature un smoke spout (for Germany)
	KW	KW	Pa	Kg	Ø150	side / rear / front	%	G/S	°C	mg/Nm <sup>3</sup>	%	mgC/Nm <sup>3</sup>	mg/Nm <sup>3</sup>	°C
Meteor 470 vertical	3-9	6,7	12	122	x	350 / 100 / 1200 mm	83	4,9	242	3	0,082	58	82	290
Meteor 505 vertical	3-9	6,7	12	130	x	400 / 100 / 1200 mm	83	4,9	242	3	0,082	58	82	290
Meteor 550 vertical with soapstone	3-9	6,7	12	188	x	400 / 100 / 1200 mm	83	4,9	242	3	0,082	58	82	290
Meteor 550	4-10	6,2	12	130	x	400 / 100 / 1200 mm	80	5,7	264	12	0,097	93	105	317
Meteor 550XL	5-11	6,7	12	136	x	400 / 100 / 1200 mm	80	6,1	264	30	0,095	109	97	317
Meteor 550 vertical see through	5-10	7,6	12	142	x	350 / --- / 1100 mm	75	8,3	275	19	0,082	64	98	330
Meteor 550 vertical see through with soapstone	5-10	7,6	12	192	x	350 / --- / 1100 mm	75	8,3	275	19	0,082	64	98	330

### 8.1 Type approval

The type approval is included in this installation and user guide, which specifies the required distances according to legal requirements etc. for the EN approval.

### 8.2 Serial number

The serial number is located on the top of the wood stove in the upper left or right corner.

### 8.3 Vermiculite

Vermiculite has an insulation value that is 8 times higher than the chamot stone. Thereby, high temperatures are achieved in the combustion chamber, and all gases in the wood are released. Over time, vermiculite can become worn, be aware of any, needing replacements.

### 8.4 Guarantee

The Meteor wood stove review thorough quality control during production before leaving the factory to the dealer.

**Therefore, a 10-year warranty on manufacturing defects is provided.**

**The warranty does not cover:**

- Wear parts / fragile parts such as: refractory stones in the combustion chamber, glass, sealing strip
- The appearance of the surface structure, etc. texture of natural stones
- The appearance and color changes of the stainless steel surfaces, as well as patina
- Expansion sounds
- Transportation costs in connection with warranty repair of service and care
- Mounting / dismounting by warranty repair

**The guarantee lapses in case of:**

- Damage caused by wrong use
- Damage due to over firing
- Damage due to external influences and use of unsuitable fuels
- Failure to comply with statutory or recommended installation regulations, and in case of own changes to the stove
- Lack of service and care

Please contact your dealer in case of damages, In the event of a warranty claim, we will determine the manner in which the damage is rectified.

In case of repair, we provide professional execution. If an item is returned to Meteor A / S, and it subsequently turns out that the damage is not covered by the guarantee, the accrued costs fall on the customer.

Warranty claims do not result in extended warranty period for either delivered or repaired parts, and they do not entitle to renewed warranty periods.

Enjoy

**Meteor A/S**  
**Drejervej 1**  
**7451 Sunds**  
**CVR nr. 27337945**  
**[www.meteor.dk](http://www.meteor.dk)**