

# **USER MANUAL**

# Viva L



### Viva 100 L, Viva 120 L, Viva 140 L, Viva 160 L Viva 100 L Classic, Viva 120 L Classic, Viva 140 L Classic, Viva 160 L Classic

### **CE - LABEL**

16

EN 13240:2001+A2:2004, EC.NO: 171

Notified Body: 1235

CE

UK CA

DF: 75mm SIEHE BEDIENUNGSANLEITUNG

DK: 400mm SE BRUGERVEJLEDNING

DK: 850mm SF BRUGERVEJLEDNING

0,0602 % / 752 mg/Nm<sup>3</sup>

DE: 400mm SIEHE BEDIENUNGSANLEITUNG

DE: 850mm SIEHE BEDIENUNGSANLEITUNG

FR: 75mm CONSULTEZ LE GUIDE DE L'UTILISATEUR

FR: 400mm CONSULTEZ LE GUIDE DE L'UTILISATEUR

FR: 850mm CONSULTEZ LE GUIDE DE L'UTILISATEUR

UK: 75mm SEE USER MANUAL

UK: 400mm SFF USFR MANUAL

UK: 850mm SEE USER MANUAL

6 mg/Nm3

5,6 kW (UK 4,8KW)

282°C

80 %

DF: HOLZ

UK: WOOD

FR: BOIS

Produced at:

RAIS A/S, Industrivej 20, 9900 Frederikshavn, Danmark

VIVA 100 L / VIVA 100 L CA / VIVA 100 L Classic / VIVA 100 L CLASSIC CA VIVA 120 L / VIVA 120 L CA / VIVA 120 L Classic / VIVA 120 L CLASSIC CA VIVA 140 L / VIVA 140 L CA / VIVA 140 L Classic / VIVA 140 L CLASSIC CA VIVA 160 L / VIVA 160 L CA / VIVA 160 L Classic / VIVA 160 L CLASSIC CA

AFSTAND TIL BRÆNDBART, BAGVÆG

ABSTAND ZU BRENNBAREN BAUTEILEN, HINTEN

DISTANCE TO COMBUSTIBLE BACK WALL

DIST. ENTRE COMPOSANTS COMBUSTIBLES, ARRIÈRE

AFSTAND TIL BRÆNDBART, SIDEVÆG

ABSTAND ZU BRENNBAREN BAUTEILEN, SEITE

DISTANCE TO COMBUSTIBLE SIDE WALL

DISTANCE ENTRE COMPOSANTS COMBUSTIBLES, COTÉ

AFSTAND TIL BRÆNDBART, MØBLERING ABSTAND VORNE ZU BRENNBAREN MÖBELN

DISTANCE TO FURNITURE AT THE FRONT

DISTANCE ENTRE COMPOSANTS COMBUSTIBLES, DEVANT

CO EMISSION (REL. 13% O2)

CO EMISSION IN DEN VERBRENNUNGSPRODUKTEN (BEI 13%02) EMISSION OF CO IN COMBUSTION PRODUCTS (AT 13%02)

EMISSION CO DANS LES PRODUITS COMBUSTIBLES (À 13%O2)

STØV / STAUB / DUST / POUSSIÈRES:

RØGGASTEMPERATUR / ABGASTEMPERATUR /

FLUE GAS TEMPERATURE / TEMPÉRATURE DES GAZ DE FUMÉE:

NOMINEL EFFEKT / HEIZLEISTUNG /

THERMAL OUTPUT / PUISSANCE CALORIFIQUE:

VIRKNINGSGRAD / ENERGIEEFFIZIENZ /

ENERGY EFFIENCY / EFFICACITÉ ÉNERGÉTIQUE:

DK: Brug kun anbefalede brændsler. Følg instrukserne i bruger manualen. DK: BRÆNDE

Anordningen er egnet til røggassamleledning og intervalfyring.

DE: Lesen und befolgen Sie die Bedienungsanleitung.

Zeitbrandfeuerstätte. Nur empfohlene Brennstoffe einsetzen.

UK: Fuel types (only recommended). Follow the installation and

operating instruction manual. Intermittent operation.

F: Veuillez lire et observer les instructions du mode d'emploi.

Foyer à durèe de combustion limitèe, homologué pour

cheminée à connexions multiples. Utiliser seulement les

combustibles recommandés.

(UK) Not to be used in a shared flue

Raumheizer für feste Brennstoffe Appliance fired by wood Poèle pour combustibles solides

15a B-VG VKF-NR:22767 Typ FC41x FC51x Produced for:

ATTIKA FEUER AG, Brunnmatt 16, CH-6330 Cham / RAIS A/S. Industrivei 20. DK-9900 Frederikshavn

2

### Models with side windows Viva 100 L G\_Viva 120 L G\_Viva 140 L G\_Viva 160 L G Viva 100 L G Classic Viva 120 L G Classic Viva 140 L G Classic Viva 160 L G Classic

### **CE - LABEL**

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EN 13240:2001+A2:2004.

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Produced at:

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AESTAND TIL BRÆNDBART BAGVÆG ABSTAND ZU BRENNBAREN BAUTEILEN, HINTEN

DISTANCE TO COMBUSTIBLE BACK WALL DIST, ENTRE COMPOSANTS COMBUSTIBLES, ARRIÈRE

AFSTAND TIL BRÆNDBART, SIDEVÆG ABSTAND ZU BRENNBAREN BAUTEILEN, SEITE

DISTANCE TO COMBUSTIBLE SIDE WALL DISTANCE ENTRE COMPOSANTS COMBUSTIBLES, COTÉ

AESTAND TIL BRÆNDBART MØRLERING ABSTAND VORNE ZU BRENNBAREN MÖBELN

DISTANCE TO FURNITURE AT THE FRONT DISTANCE ENTRE COMPOSANTS COMBUSTIBLES, DEVANT

CO EMISSION (REL. 13% O2)

CO EMISSION IN DEN VERBRENNUNGSPRODUKTEN (BEI 13%O2) EMISSION OF CO IN COMBUSTION PRODUCTS (AT 13%O2) EMISSION CO DANS LES PRODUITS COMBUSTIBLES (À 13%O2)

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FLUE GAS TEMPERATURE / TEMPÉRATURE DES GAZ DE FUMÉE:

THERMAL OUTPUT / PUISSANCE CALORIFIQUE:

VIRKNINGSGRAD / ENERGIEEFFIZIENZ /

ENERGY EFFIENCY / EFFICACITÉ ÉNERGÉTIQUE:

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Foyer à durèe de combustion limitée, homologué pour cheminée à connexions multiples. Utiliser seulement les

(UK) Not to be used in a shared flue

Raumheizer für feste Brennstoffe Appliance fired by wood Poêle pour combustibles solides

15a B-VG VKF-NR:22767 Typ FC41x FC51x

ATTIKA FEUER AG, Brunnmatt 16, CH-6330 Cham / RAIS A/S, Industrivej 20, DK-9900 Frederikshavn

DK: 75mm SE BRUGERVE II EDNING

DE: 75mm SIEHE BEDIENUNGSANLEITUNG

UK: 75mm SEE USER MANUAL

FR: 75mm CONSULTEZ LE GUIDE DE L'UTILISATEUR

DK: 500mm SE BRUGERVEJLEDNING

DE: 500mm SIEHE BEDIENUNGSANLEITUNG

UK: 500mm SEE USER MANUAL

FR: 500mm CONSULTEZ LE GUIDE DE L'UTILISATEUR

DK: 800mm SF BRUGERVEJLEDNING DE: 800mm SIEHE BEDIENUNGSANLEITUNG

UK: 800mm SEE USER MANUAL

FR: 800mm CONSULTEZ LE GUIDE DE L'UTILISATEUR

0,0602 % / 752 mg/Nm<sup>3</sup>

6 mg/Nm3

282°C

5,6 kW (UK 4,8KW)

80 %

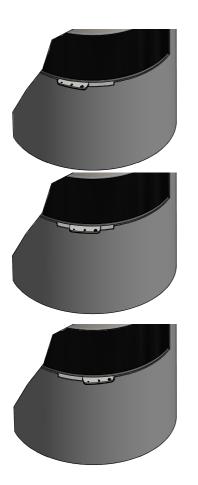
DE: HOLZ

UK: WOOD

FR- BOIS

Produced for:

# Adjustment of the air damper



Position 1 Closed

Position 2 Operating mode

Position 3 Kindling position

# We cannot be held responsible for any misprints.

### FIRE ENVIRONMENTALLY FRIENDLY!

5 Eco-friendly advices for sensible heating - common sense both environmentally and economically.

- 1. Effective lighting. Use small pieces of wood (fir tree) and a suitable fire lighter, for example paraffined wood wool/sawdust. Open the air damper, so plenty of air is fed to the stove and the gases from the heated wood can burn rapidly.
- 2. Light the fire with only little wood at a time this gives the best combustion. Remember plenty of air for every time new wood is added.
- 3. When the flames are diminished, adjust the air damper so that the air supply is reduced.
- 4. When only glowing embers remain, air flow can be reduced further, so heating demand is just covered. With a lower air supply the charcoal will burn slower and the heat loss through the chimney is reduced.
- 5. Use only dry wood ie. wood with a humidity of 15 to 20%.

# **RECYCLING:**

The oven is wrapped in packaging that is recyclable. This must be disposed of according to national rules regarding the disposal of waste.

The glass can <u>not</u> be reused.

The glass should be discarded along with the residual waste from ceramics and porcelain.

Pyrex glass has a higher melting temperature and therefore can not be reused.

If discarded you make an important positive contribution to the environment.

Revision: 17

Date: 16-06-2023

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### Introduction

Thank you for purchasing a RAIS wood burning stove. These appliances have been approved by SCA/HETAS Ltd as intermittent operating appliances for burning wood logs only.

A RAIS wood burning stove is more than just a heat source. It also shows that you care about design and quality in your home.

To make the most of your wood burning stove it is important that you read the manual thoroughly, before installing and using it.

In the case of warranty coverage, and for general queries regarding your wood burning stove, it is important that you know the stove's production number. We therefore recommend that you note down the number in the table below.

The production number is located on the back of the stove at the bottom.

Production number:
Produced by:
RAIS A/S
9900 Frederikshavn, DK

Date: Distributor:

### WARRANTY

RAIS wood-burning stoves are tested repeatedly in terms of safety, as well as material and manufacturing quality. We grant warranty on all models, starting with the date of installation.

The warranty refers to:

- documented malfunctions due to faulty manufacture
- · documented material defects

The warranty does not cover:

- · door and glass seals
- ceramic glass
- chamber lining
- appearance of the surface structure or natural stone texture
- appearance or changes of colour of the stainless steel or patina surfaces
- · expansion noise

The warranty is invalidated in case of:

- damages, caused by overfiring
- · damages, caused by external influence and the use of unsuitable fuels
- non-observance of statutory or recommended installation guidelines, and modifications to the wood-burning stove
- non-observance of service and care provisions

Please contact your retailer in the event of damage. We determine the way to repair the damage, in case of warranty claims. In the event of repair, we ensure proper and professional execution.

Warranty claims submitted for additionally delivered or repaired parts are subject to national/EU laws and regulations in terms of renewed warranty periods.

Please contact RAIS A/S for the applicable warranty provisions.

# Specifications

DTI Ref.: 300-ELAB-2605-UKCA 300-ELAB-2211-NS	Viva 100 L Viva 100 L G	Viva 120 L Viva 120 L G	Viva 140 L Viva 140 L G	Viva 160 L Viva 160 L G
Rated power (kW):	4,8	4,8	4,8	4,8
Min./Max. Output (kW):	3 - 7	3 - 7	3 - 7	3 - 7
Heating area (m²):	110	110	110	110
Stove: width/depth/height (mm):	Ø470-1000	Ø470-1200	Ø470-1400	Ø470-1600
Combustion chamber: width/depth/height (mm):	352-292-446	352-292-446	352-292-446	352-292-446
Recommended amount of wood when fuelling				
yky): (Distributed between 2-3 logs of wood of ap- proximately 33cm)	4,'	4,	4,'	4,
Min. Uptake (Pascal):	-12	-12	-12	-12
Weight (kg) min., depending on model:	ca.90	ca.100	ca.122	ca.135
Efficiency (%):	78	78	78	78
CO emissions attributed at 13% ${\rm O_2}$ (%)	0,0734	0,0734	0,0734	0,0734
NOx emissions attributed at 13% $O_2$ (mg/Nm <sup>3</sup> ):	73	73	73	73
Particles emission acc. to NS3058/3059 (g/kg):	Manuel 2,116 Cleaver 1,890	Manuel 2,116 Cleaver 1,890	Manuel 2,116 Cleaver 1,890	Manuel 2,116 Cleaver 1,890
Dust measuring acc. to Din+ (mg/Nm³):	10	10	10	10
Flue gas mass flow (g/sec):	4,6	4,6	4,6	4,6
Flue gas temperature (° C):	302	302	302	302
Calculated flue gas temperature (° C) at flue collar:	362	362	362	362
Intermittent operation:	Rei	fuelling should be c	Refuelling should be done within 50 minutes	Se
It is hereby certified that stove emissions meet emission requirements laid down in Annex 1 pursuant to Decree No. 46 of O7/12/2015 concerning regulation of air pollution from combustion plants for solid fuel under 1 MW.	nission requiremen rom combustion pl	ts laid down in Ann lants for solid fuel u	ex 1 pursuant to Decinder 1 MW.	ee No. 46 of

# English

DTI
Danish Technological Institute
Teknologiparken Kongsvang Allé 29, DK-8000 Aarhus C
Denmark
www.dti.dk

Telephone: +45 72 20 20 00 Fax: +45 72 20 10 19

# **Distances/Dimensions**

Please see dimensional drawings at the back of the manual.

- I: Distance from floor to top flue outlet
- J: Distance from floor to center flue outlet on back
- K: distance from rear to the air inlets at the bottom (Air System)
- L: Distance from floor to air inlet on back (Air System)
- M: Distance from center flue outlet top to the top plate trailing edge
- N: Distance from side air inlet at the bottom (Air System)

### Convection

RAIS stoves are convection stoves. Accordingly, the external stove panels will not become overheated. Convection means that the air is circulated in the room so that heat is evenly distributed.

The **cold** air is drawn at the base of the stove up through the convection channel and flows along the stove's combustion chamber.

The **heated** air flows out of the oven top, and ensures warm air circulation in the room.

Please note that you must use extreme care as all exterior surfaces become hot during the stove's use.

# Chimney

The chimney is the driving force which makes the stove function. However, not even the best stoves could function correctly without the necessary and proper draught in the chimney.

The chimney height must be sufficient to ensure the correct draught of 14 to 18 Pa. If the chimney draught is lower than recommended, smoke may leak into the room when the stove is lit. RAIS recommends to adjust the chimney height with the flue pipe neck. The chimney length, starting from the top of the stove, should not be shorter than 3 meters and be at least 80 cm above the ridging. For chimneys placed along the house sides, the chimney's top should never be lower than the roof ridge or roof's highest point.

Note that national and local regulations on houses often have provisions for thatched roofs.

You should also familiarise yourself with the draught conditions for chimneys with 2 flues.

While the stove is suitable for connection with the flue gas collector, we recommend to place inlets to ensure a minimum ground clearance between them of at least 250 mm.

The flue outlet socket should be 150 mm in diameter.

For strong draughts, the chimney should be fitted with a draught damper. In which case, it is important to ensure that there is a free flow-through area of minimum 20 cm² when the regulating damper is shut. Otherwise, the fuel energy may not be used optimally.

If you are in doubt about the condition of the chimney, please contact a chimney sweep.

Remember that access to the soot door on the chimney should be kept clear.

### NOTE!

This appliance may only be installed by a qualified RAIS dealer/installer. See www.rais.com for dealer list.

# Installation

It is important that the stove is installed properly in order to preserve both the environment and safety

The stove may only be installed by a qualified/competent RAIS dealer/installer, otherwise, the warranty will be voided.

When installing the stove, all local rules and regulations, including those referring to national and European standards, shall be observed. Local authorities and a chimney specialist should be consulted prior to installation.

It is prohibited to carry out unauthorised alterations to the stove.

### **NOTE!**

The local chimney sweep should be notified of the stove installation before its first usage.

There must be plenty of fresh air in the room where the stove is being installed to ensure proper combustion - possibly through an airbox connection. Note that any mechanical exhaust ventilation e.g., extraction hoods or air vents, may reduce the air supply. Any air vents must be placed in such a manner that the air supply is not blocked.

The stove consumes 10 to 20 m<sup>3</sup> of air per hour.

The floor structure must be able to carry the weight of the stove and the chimney. If the existing floor structure doesn't meet this requirement, suitable measures (e.g., load distributing plate) shall be taken to that end. Consult a building expert.

If the stove is installed on a flammable floor, the dimensions of the non-combustible surface under the stove shall comply with national/local regulations.

The stove should be set up at a safe distance from inflammable materials. Please make sure that objects made of combustible materials (such as furniture) are not placed closer than the distances indicated in the following sections concerning installation (fire risk).

When you choose where to set up your RAIS wood burning stove, you should consider the heat distribution to the other rooms. This will allow the optimal use of your stove.

See the manufacturer's plate on the wood burning stove.

Upon receiving, the stove must be inspected for defects.

### CO Alarm

An CO alarm must be fittet in the same room as the sppliance.

# **Installing Viva L with swivel base**

Available with and without a swivel base.

If supplied with a swivel base, the foot is mounted under the stove and secured with two wing nuts.

The foot can be set to:

turn 90° (45° to each side) - (set when delivered)
turn 360°

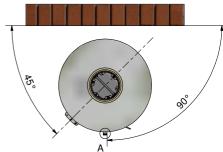
Start by removing the air inlet cover on the back of the stove.



To ease installation the stove has been angled 45°

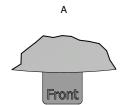
to the left at the factory.

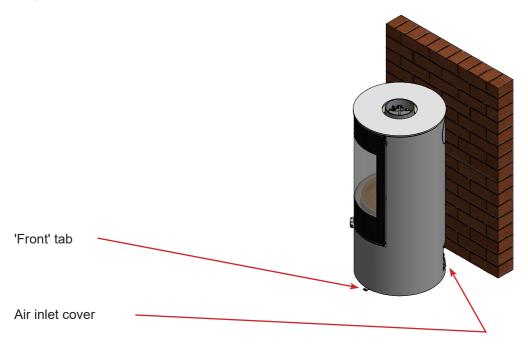
This ensures easy access to the wing nuts, which must be removed after installation.



The plastic tab marked "FRONT" marks the stove's actual centre point and is on the front of the swivel foot.

The tab must therefore be at 90° in relation to the wall when installing. Remove when installation is complete by pulling gently.



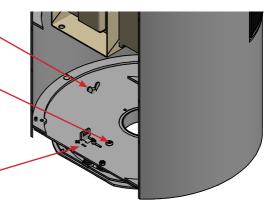


Once the stove is in place, remove the wing nuts to release the swivel base.

Remove the two wing nuts. Stove can now turn 45° in each direction.

Setting swivel base to 360°. Remove the stop screw. The stove can now rotate freely.

The swivel foot lock (spring) can be tightened by slackening the screw to adjust the bracket. Move the bracket towards the + mark. Remember to retighten the screw.



Replace the air inlet cover. Turn the stove to its centre position.



# **Change of chimney connection**

The stove is delivered ready for top outlet, but may be changed to back outlet in the following way:

### Sample photos



Strike out the knock out plate at the rear of stove.



Remove any top plate, baffle plate and smoke chikane. Remove the blanking plate (3 M6 nuts) and its sealing.



Mount the blanking plate on upper flue outlet hole - be sure to place the sealing correctly. It is all screwed together with the 3 M6 nuts.



Mount the flue collar on back flue outlet hole using three M6x20 cylinder screws and M6 nuts.

Mount the top plate, baffle plate and smoke chikane in reverse order.

# Installation distance in case of combustible wall

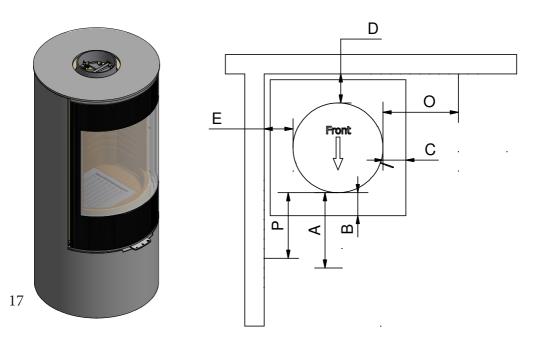
To clarify whether the stove installation wall is flammable or otherwise, contact your building architect or local building authorities.

Please make sure that objects made of combustible materials (such as furniture) are not placed closer than the distances indicated in the following tables (fire risk).

Normal installation - right angle	Viva L
	Uninsulated flue
A. Distance to furniture (min.)	850 mm

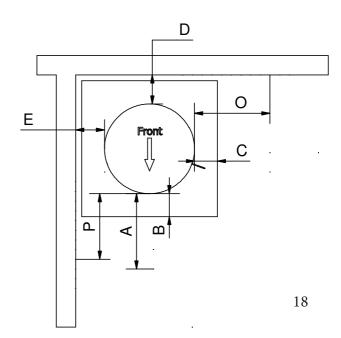
Distance to combustible material (min.)

Distance to combustible material (min.)	
B. Front (floor)	Follow the national / local regulations if measures are not specified
C. To the side (floor)	Follow the national / local regulations if measures are not specified
D. Rear (wall)	75 mm
E. To the side wall	400 mm.



Normal installation - right angle	Viva L G
	Uninsulated flue
A. Distance to furniture (min.)	800 mm.
Distance to combustible material (min.)	
B. Front (floor)	Follow national / local regulations if no distances are specified
C. To the side (floor)	Follow national / local regulations if no distances are specified
D. Rear (wall)	75 mm
E. To the side wall	500 mm.

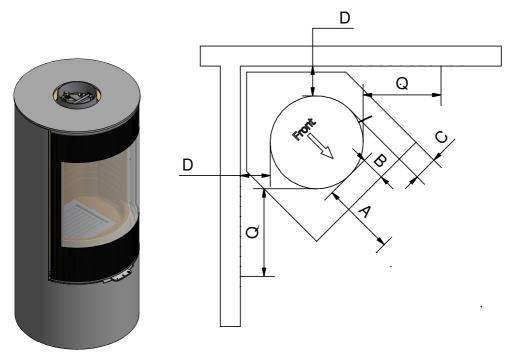




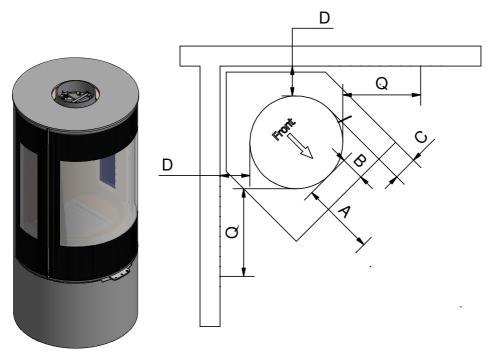
Corner installation 45 ° Viva L	
	Uninsulated flue
A. Distance to furniture (min.)	850 mm

Distance to combustible material (min.)

B. Front (floor)	Follow the national / local regulations if measures are not specified
C. To the side (floor)	Follow the national / local regulations if measures are not specified
D. Rear (wall)	75 mm



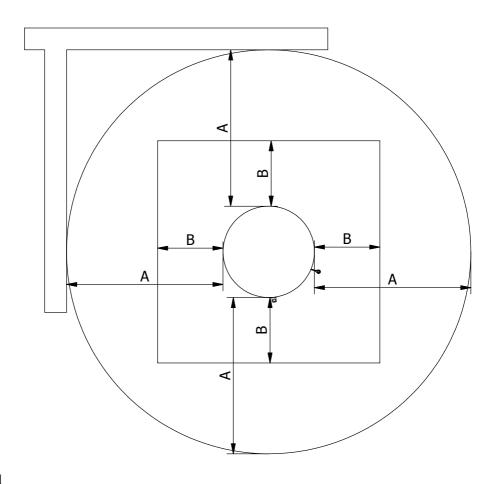
Corner installation 45°	Viva L G
	Uninsulated flue
A. Distance to furniture (min.)	800 mm.
Distance to combustible material (min.)	
B. Front (floor)	Follow national / local regulations if no distances are specified
C. To the side (floor)	Follow national / local regulations if no distances are specified
D. Rear (wall)	250 mm.



360° swivel base	Viva L	Viva L G
	Uninsu	lated flue
A. Distance to furniture (min.)	850 mm	800 mm.

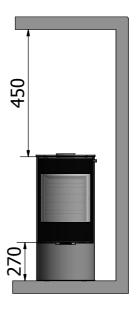
Distance to combustible material (min.)

B. Front (floor)	Follow national / local regulations if no dis-
, ,	tances are specified



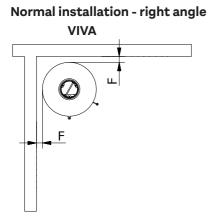
# Minimum distance for ceilings and floors

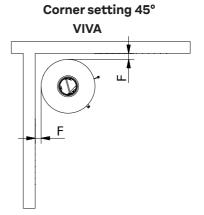
Distance to the ceiling from the top of the door minimum 450mm. Distance to the floor from the door bottom is minimum 270 mm.



# INSTALLATION DISTANCE IN NON-FLAMMABLE WALL

We recommend a minimum distance to non-combustible material of **50mm (F)** for easy cleaning. Remember that access to the soot door should be kept clear at all times.





# For the Installer

Finally before firing the stove for the first time a check should be made to ensure that the assembly and stove installation has been satisfactory and that there are no leaks in any seals in the appliance and appliance connections to the chimney.

Ensure that the appliance and chimney flue are functioning correctly before finally handing over to the user. If necessary read the later parts of this manual for guidance on care required when first lighting.

Inform the user that the appliance has been commissioned and ready to use and give instruction on the safe operation of the stove.

These Instructions must be left with the user and the user should be instructed to keep them in a safe place.

# **Operating instructions**

Please note that HETAS Ltd Appliance Approval only covers the use of dry seasoned wood logs on this appliance. HETAS Ltd Approval does not cover the use of other fuels either alone or mixed with the wood logs, nor does it cover instructions for the use of other fuels.

### **Fuel**

The stove has been tested in accordance with DS/EN 13240:2001, DS/EN 13240:2001/A2:2004 and NS 3058/3059 for stoking split, dried birchwood, and is approved for broad-leaved/coniferous tree wood. The firewood must have a water content of 15-20 % and its max. length should be 33 cm.

Stoking with wet firewood causes both soot, environmental pollution and bad fuel economy. Freshly cut wood contains approx. 60-70% water and is thoroughly unsuitable for stoking. Count min. 1-2 years of storage time for newly cut wood before using. Wood with a diameter of more than 100 mm should be split. Regardless of wood size, it should always have at least one surface area free of bark.

Do NOT burn painted, laminated or impregnated wood, wood with a synthetic surface, painted refuse wood, chipboard, plywood, domestic waste, paper briquettes and pit coal, as this will produce malodorous smoke, which could be poisonous.

When firing with the above-mentioned items and amounts larger than those recommended, the stove is subjected to a larger amount of heat, which results in a higher chimney temperature and lower efficiency. This can result in the stove and chimney becoming damaged and would void the warranty.

The calorific value of the firewood is closely connected to the moisture level of the firewood. Moist firewood has a low heat value. The more water the wood contains, the more energy it takes for this water to vaporise, resulting in this energy being lost.

### **ONLY USE RECOMMENDED FUELS**

The following table shows the calorific value of different types of wood, which have been stored for 2 years, and which have a residual moisture of 15-17%.

Wood	Kg dry wood pr. m <sup>3</sup>	compared to beech/oak
Hornbeam	640	110%
Beech and oak	580	100%
Ash	570	98%
Maple	540	93%
Birch	510	88%
Mountain pine	480	83%
Fir	390	67%
Poplar	380	65%

<sup>1</sup> kg of wood yields the same heat energy irrespective of wood type.

<sup>1</sup> kg beech merely takes up less space than 1 kg of fir.

# **Drying and storage**

Wood needs time to dry. Proper air drying takes approximately 2 years.

Here are some tips:

- Store the wood sawn, split and stacked in an airy, sunny place, which must be
  protected against rain (the south side of the house is particularly suitable).
- Store the firewood stacks at a hand's breadth apart, as this ensures that the air flowing through takes the moisture with it.
- Avoid covering the firewood stacks with plastic, as this prevents the moisture from escaping.
- It is a good idea to bring the firewood into the house 2-3 days before you need it.

# Regulation of combustion air

All stoves are equipped with a one-handed operating lever for regulating the damper. Alternatively, the stove can be equipped with a self-regulating, automatic CleverAIR  $^{\mathsf{TM}}$  air damper. Regulation of combustion air with the lever is described in the illustrations at the front of the manual.

Primary air is the combustion air that is added to the primary combustion zone, i.e., the glowing embers. This cold air is only used in the lighting stage.

Secondary air is the air added to the gas combustion zone, i.e. contributing to the combustion of pyrolysis gases (preheated air used for glass system and combustion). This air is sucked through the damper behind the combustion chamber and pre-heated before being emitted as hot scavenging air onto the glass. The hot air rinses the glass and keeps it soot-free.

Tertiary air on the back of the combustion chamber at the top (rows of holes) ensures the combustion of unburned fumes / particles before rising up through the chimney.

Pilot nozzles located at the bottom on the back of the combustion chamber ensure that the bed of glowing embers is fed with air and, therefore, holds a high temperature. This allows a quick start when fueling and reduces the risk of the fire extinguishing.

By setting the interval between position 1 and 2 (see section 'Adjusting the damper') ensures optimum utilisation of the energy content of the wood as there is oxygen for combustion and burning of the pyrolysis gases. The damper is deemed to be set correctly if flames appear clear yellow. Finding the correct position comes with the regular use of the stove.

We do not recommend closing the damper too early, for example, when you anticipate temperature rising too high. Insufficient air supply produces poor combustion, which can result in high and dangerous flue gas emissions and poor efficiency. As a result, dark smoke will rise up from the chimney, while the wood heating value will be partly wasted.

# **Ventilation**

Extractor fans may not be fitted in the same room as the stove, as this can cause the stove to emit smoke and fumes into the room.

The stove requires a permanent and adequate air supply to operate safely and effectively. The installer may have fitted a permanent air supply vent into the room in which the stove is installed to provide combustion. This air vent should not be shut off or sealed under any circumstances.

# Using the stove with a manual damper

# **Setting the damper**

There are three positions on the damper.

### Position 1

Push the lever fully to the left.

The damper is closed, which means minimal air supply. This option should be avoided during operation. See warning note after next section.

### Position 2

Push the lever to the right up to the first notch (center position). This position provides primary and secondary air. During ordinary combustion, the manual lever is set between position 1 and 2.

Clear and yellow flames indicate a correct damper setting, which results in a slow / optimal combustion.

### Position 3

Push the lever fully to the right.

The damper is fully open and provides full primary and secondary air.

This position is for the lighting stage and fuelling and is not used during normal operation.

# **Initial lighting**

A careful start pays off. Start with a small fire, so that the wood burning stove can get accustomed to the high temperature. This provides the best start and prevents any damage.

Be aware that a strange but harmless odour, as well as smoke from the surface, may appear during the first fuelling. This smell, which is due to the paint and materials hardening process, quickly vanishes - if possible, make sure there is ample ventilation and draft.

During this process, avoid touching any visible surfaces / glass (very hot!). Moreover, we recommend to regularly open and close the door to prevent the door seal from sticking.

In addition, the stove can emit "clicking noises" during heating and cooling, which arise from the large temperature differences to which the material is exposed.

Never use any type of liquid fuel for kindling or maintaining the fire. There is a danger of explosion.

If the stove has not been used for a while, follow the steps as if you were using it for the first time.

# **Lighting and fuelling**

### PLEASE NOTE!

If the air system is connected, the valve must remain open

".Top-down" lighting

- Start by placing 3-4 pieces of split wood approx. 1 ½-2 kg in the bottom of the combustion chamber. Place approx. 1kg of dry wood, split in to pieces, on top, and 2-3 fuel tablets or similar (pic. 1).

  Adjust the air damper so that it is completely open, i.e. position 3.
- The fire is lit and the door is closed ajar (Pic. 2-3). PLEASE NOTE! It is important to have a quick lighting of the wood.
- When the fire has caught the kindling wood, shut the door completely (after approx. 10-15 minutes, depending on the draft conditions in the chimney.
   The damper is set to position 2 see adjustment of air dampers.
- When the last flame is extinguished and there is a good layer of embers (Pic. 5), add 2-3 pieces of wood approx. 1½ kg wood (Pic. 6).
- Close the door ajar, and when the fire has taken hold, close the door completely.
- After approximately 5 min or until clear and stable flames appear (7) close the damper gradually (see "Setting the damper").

### **PLEASE NOTE!**

If the fire has burned down too low (too small an ember), it may take longer to get going. RAIS recommends using kindling wood to ignite the fire.

The smoke rising out of the chimney should be practically invisible during combustion; only a 'flicker' in the air should be observed.

When refuelling, open the door carefully to avoid smoke escaping. Stoke up with wood while the stove is burning.

RAIS recommends adding 2-3 wood logs - approx. 1-1½ kg within 58 minutes (intermittent operation).

# PLEASE NOTE!

Keep an eye on the stove when lighting. During operation, the door should always remain shut.

# **Control**

Check the stove for signs of proper burning:

Ashes appear white

• The walls of the combustion chamber are free of soot

Conclusion: The wood is sufficiently dry.



# Recommended amount of wood for stoking the fire

To find the recommended amount of wood for stoking the fire, please refer to the table below.

The recommended amount of wood to burn after lighting depends on your stove model. Based on the nominal output of your stove, you can read the recommended amount of wood to use for stoking.

The nominal output can be read on both your oven's CE marking plate and our website.

### STOKING TIME INTERVAL

The recommended fuel quantity should be stoked within 45–60 minutes from the last stoking.

The exact interval for when to stoke the volume of wood can be seen under "Specifications" in the stove's installation manual under "Intermittent operation".

### RECOMMENDED VOLUME OF WOOD FOR STOKING WOOD-BURNING STOVES

Find the nominal output of your wood-burning stove to determine the recommended volume (kg) of wood you can burn.

Nominal output, kW (according to the CE marking plate)	Recommended volume of wood (kg)*
4 - 4.9	1.3 - 1.5
5 - 5.9	1.3 - 1.5
6 - 6.9	1.8

<sup>\*</sup>The exact indication of the recommended volume of wood to be stoked (kg) is found in your stove's installation manual under "Specifications".

# EXAMPLE OF DETERMINING THE RECOMMENDED VOLUME OF WOOD

By reading the CE marking plate on the Viva L (or finding the nominal output on our website), you will see that the stove has a nominal output of 5.6 kW. See an example of a CE marking plate on the next page.

Based on the nominal output, the recommended volume of firewood for wood-burning stoves found in the table is 1.3–1.5 kg.



# Do not overfire

Do not overfire the stove. The maximum volume of wood that may be burned in your stove can be found in the table below. If you stoke more wood than the volume specified in the table, you will overfire your stove.

If you exceed the limits for the volume of wood specified in the table, the stove will be deemed overfired and will no longer be covered by the manufacturer's warranty, as excessive heat can irreparably damage your stove.

The nominal output is found on both the CE marking plate and our website.

Nominal output, kW (according to the CE marking plate)	Max. kg of wood per hour	Number of pieces of firewood
4 - 4.9	2	Max. 3
5 - 5.9	2.5	Max. 3
6 - 6.9	2.75	Max. 3
7 - 7.9	3	Max. 3
8 - 8.9	4	Max. 4
9 - 9.9	4	Max. 4
10 - 10.9	4.5	Max. 4
11 - 12	4.5	Max. 5

# EXAMPLE OF HOW TO READ THE MAXIMUM FIRING VOLUME

According to the 600 Max's CE marking plate, the stove's nominal output is 5.8 kW (see CE marking plate).

As the table shows, the maximum volume of wood that may be burned per hour is 2.5 kg, dispersed over three pieces of firewood (see table section below).

If the amount of wood burned exceeds this, the stove is deemed to have been overfired and the warranty will cease to apply.





READ THE NOMINAL OUTPUT ON THE CE MARKING PLATE

# Warning!!

If the firewood is only burning slowly without flames or is smoking, and too little air is added, unburned exhaust gasses are developed. Exhaust gasses can be ignited and explode, leading to damage to material and possi-

bly personal injury.

Never close the air supply completely when lighting a fire in the stove.

Sample photos



# If there are only a few embers remaining, you must rekindle the fire.

If you simply add firewood, the fire will not be lit, instead, unburned exhaust gasses will develop.



Here, firewood has been added to a too

ember layer, the air supply is insufficient smoke is produced.



# Avoid heavy smoke emission - danger of deflagration.

In case of very heavy smoke, open the damper in full, open any doors ajar, or light the fire again.

# Ridling grate and ash pan

The stove features a riddling grate to lead ashes into the ash pan.

The ridling grate moves back and forth with the handle.

### **PLEASE NOTE!**

Use gloves if the stove is hot.
Push the lever in until the door is closed.



The ash pan is located under the riddling grate and emptied as needed.

# **PLEASE NOTE!**

Use gloves if the stove is hot.



# **Cleaning and care**

Wood stove and chimney must be inspected by a chimney sweep annually. The stove must be cold during cleaning and care

If the glass is sooty:

- Clean the glass regularly and only when the stove is cold, otherwise the soot will stick.
- Moisten a piece of paper or newspaper, dip it in the ash, and rub the sooty glass.
- Afterwards, rub with a piece of paper and the glass will become clean.
- Alternatively, you can use glass polish, which you can obtain from your RAIS dealer.

Clean the exterior with a soft dry cloth or a soft brush.

Prior to a new heating season, check the chimney and smoke gas connector for blockage.

Inspect the furnace interior and exterior for damage, especially the gasket and the heat insulating plates (vermiculite).

# Maintenance/spare parts

Moving parts are particularly worn by frequent use. Door sealings are also wear parts. Only use original spare parts.

We recommend service performed by your dealer after completion of a heating period.

# Combustion chamber lining

The combustion chamber lining protects the stove body against the heat from the fire Temperature fluctuations may result in cracks in the lining plates, which, however, do not affect the stove's performance. They need not be replaced unless long-term use causes them to crumble.

Combustion chamber lining plates require only inserting into the stove, and can be easily replaced by your dealer or yourself.

# **Moving parts**

Door hinges and door lock should be lubricated as needed.

We recommend to use our lubricating spray exclusively, as the use of other products can lead to the formation of odours and residues.

Contact your dealer to obtain the lubricant.

# Cleaning the combustion chamber:

Pull the ash pan out of the stove as needed and empty ashes into a non-flammable container until they have cooled. You can dispose of ash together with your regular household waste.

# REMEMBER!

- Never remove all ashes from the combustion chamber
- · wood burns best on a layer of ash.

# **Cleaning the flue**

To access the smoke flue, remove the upper plate, baffle plate made of vermiculite, and the smoke chicane (steel plate). They should be treated gently. Remove the smoke converter plate by tilting it backwards and rotating it forward. Carefully lift the plate out.





Remove the smoke chicane by lifting it up and tilting it backwards. Pull the smoke chicane out.



Remove dirt and dust and insert in reverse order.

# **PLEASE NOTE!**

Be careful when replacing the smoke converter plate and the smoke chicane.

# **Malfunctions**

Smoke spillage around the door:

This may be due to insufficient draft in the chimney <12Pa

- · Check whether the flue or chimney is blocked
- Check whether the hood is switched on and, if so, switch it off and open a window / door near the stove for a short period.

# Soot on glass

May be caused by

- excessively wet firewood
- the damper regulation is too low

Ensure proper heating of the stove when lighting, prior to closing the door

# Stove is burning too strong

Possible cause:

- Leak around the door seal
- Chimney draft too large> 22 Pa, draft regulator should be installed.

# Stove is burning too weak

Possible cause:

- · Insufficient wood
- Insufficient air supply for room ventilation
- Unclean smoke flue
- · Leaky chimney
- · Leakage between chimney and flue

# Insufficient draught in the chimney

Possible cause:

- Insufficient temperature difference, e.g., due to poorly insulated chimney
- · high outside temperature, e.g., in the summer
- Absence of wind
- The chimney is too low and sheltered
- False air in the chimney
- Chimney and flue clogged
- The house lacks ventilation (lack of fresh air supply).
- Negative smoke extraction (poor draft conditions)

With a cold chimney or severe weather conditions, the poor draught can be compensated by supplying the stove with more air than usual.

If the interuptions persists, we recommend that you contact your RAIS dealer or chimneysweep.

# **WARNING!**

If the firewood is damp or used incorrectly, it can lead to excessive formation of soot in the chimney and cause a chimney fire:

- In this case, shut off all air supply from outside (if a valve connection is installed) to the stove
- · Contact the fire department
- Never use water!
- Afterwards, you should ask your chimney sweeper to check the stove and chimney

# **IMPORTANT!**

- To ensure safe burning, there must be clear yellow flames or clear embers
- Firewood should not lie there and "simmer".

If the firewood is only burning slowly without flames or is smoking, and too little air is added, unburned fumes will develop. Flue gasses can ignite and explode. This may result in damage to equipment and at worst to people.

**Never** close the air supply when lighting the stove.

# **Accessories**

2711590 - Swivel base - VIVA

8142390 - Swivel base connection

2796521 - 6KG heat accumulating stones for Viva 120 L 4-pcs. set.

2710611SV - Stainless classic top plate for rear outlet

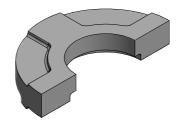
2710612SV - Stainless classic top plate for top outlet

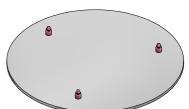


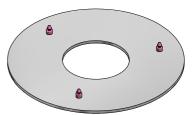
000651735xx - Air kit floor - Viva L (xx: optional color code)











## **Spare parts list for VIVA L**

The use of spare parts other than those recommended by RAIS results in the warranty becoming void.

All replaceable parts can be bought as spare parts from your RAIS dealer.

See spare parts drawing (back of the manual).

xx: optional color code

Ref. no.	Quantity	Part no.	Description
1	1	17120xx	Glass door with single glass
2	1	17121xx	Classic glass door with single glass
3	1	2710601xx	Top plate for back outlet
4	1	2710602xx	Top plate for top outlet
5	1	2720601xx	Top plate for back outlet - Deep-drawn
6	1	2720602xx	Top plate for back outlet - Deep-drawn
7	1	61-00	Flue outlet studs 6"
8	1	1313800	Ridling grate
9	1	1314001	Ash pan
10	1	1712200	Skamol set
11	1	1715500	Seal set for glass door
12	1	1711890	Clasp - Top
13	1	1711891	Clasp - Bottom
14	1	7301026	BA1 spring
15	1	1710924	Wire for airdamper
16	1	1710990	Airdamper - Clever air unit
17	1	1711790	Airdamper - Complete

## **Spare parts list for VIVA L G**

The use of spare parts other than those recommended by RAIS results in the warranty becoming void.

All replaceable parts can be bought as spare parts from your RAIS dealer.

See spare parts drawing (back of the manual).

xx: optional color code

Ref. r	no. Quantity	Part no.	Description	
1	1	17110xx	Glass door with double glass	
2	1	17111xx	Classic door with double glass	
3	1	2710601xx	Top plate for back outlet	
4	1	2710602xx	Top plate for top outlet	
5	1	2720601xx	Top plate for back outlet - Deep-drawn	
6	1	2720602xx	Top plate for back outlet - Deep-drawn	
7	1	61-00	Flue outlet studs 6"	
8	1	1313800	Ridling grate	
9	1	1314001	Ash pan	
10	1	1712200-1	Skamol set for side glass model	
11	1	1715500	Seal set for glass door	
12		1715501	Seal side glass	
13	1	1711890	Clasp - Top	
14	1	1711891	Clasp - Bottom	
15	1	7301026	BA1 spring	
16	2	1715002	Int. glass t / side (Energy Plus)	
17	1	1715003	Left side glass	
18	1	1715004	Right side glass	
19	1	1712701xx	Steel side - left	
20	1	1712702xx	Steel side - right	
21	1	1710924	Wire for airdamper	
22	1	1710990	Airdamper - Clever air unit	
23	1	1711790	Airdamper - Complete	

#### UK DECLARATION OF PERFORMANCE

#### CPR 2011 (Retained EU law 305/2011) as amended

#### No.: 171

Unique identification code of the product-type

Viva 100 L, Viva 100 L G, Viva 100 L CA, Viva 100 L G CA, Viva 100 L Classic CA, Viva 100 L Classic Viva 100 L Classic Viva 100 L G Classic CA, Viva 100 L G Classic CA, Viva 100 L G Classic CA, Viva 120 L, G Viva 120 L, G Classic CA, Viva 120 L Glassic CA, Viva 120 L G Classic CA, Viva 140 L, Viva 140 L,

2. Type

3. Intended use

Domestic mom heater

Telephone +45 98 47 90 33

4. Manufacturer

RAIS A/S Industrivej 20, Vangen DK-9900 Frederikshavn,

Telefax +45 98 47 92 91 Webmail kundeservice@rais.dk Homepage www.rais.com

5. Authorised representative

System 3

6. System of assessment AVCP 7. Approved Body

Surface temperature

Maximum operating pressure

(to carry a chimney/flue) Thermal output

Flue gas temperature T at nominal heat

Electrical safety

Cleanability

output Mechanical resistance Approved Body - Kiwa Ltd No. 0558 and Report Number 61589.

performed the determination of the product type based on type testing under system 3 and issued test report

Declared performance

a. Harmonized technical specification:

8. Essential characteristics		formance	EN 13240:2003/A2:2004	
Fire safety				
Reaction to fire		A1		
Distance to combustible materials		VIVA 100 L VIVA 120 L VIVA 140 L VIVA 160 L	VIVA 100 L G VIVA 120 L G VIVA 140 L G VIVA 160 L G	
Minimum distances [mm]	rear	75 mm	75 mm	
For other installation or wall	sides	400 mm	500 mm	
settings see instruction manual	ceiling	450 mm	450 mm	
	Front	850 mm	800 mm	
	Floor	270 mm	270 mm	
Risk of burning fuel falling out	Pass			
OGC (mg/Nm³ rel. 13 Vol-% O <sub>2</sub> )	43			
CO-emission of combustion products	0,0602 % / 752 mg/Nm³			
NO <sub>X</sub> (mg/Nm³ rel. 13 Vol-% O <sub>2</sub> )	80			
Dust at (rel. 13 Vol-% O <sub>2</sub> )	6 mg/Nm³			

Nominal heat output 4,8 kW Room heating output 4,8 kW Water heating output - kW Energy efficiency  $\eta$ 80 % Seaonal Efficiency Ns.on 70 % The performance of the product identified in points 1 and 2 is in conformity with the declared performance in point 8.
 This declaration of performance is issued under the sole responsibility of the manufacturer identified in point 4.

Pass

NPD

Pass

- bar

282° C

NPD

Signed for and on behalf of the manufacturer by:

John Engell Nielsen, R&D / Quality Manager

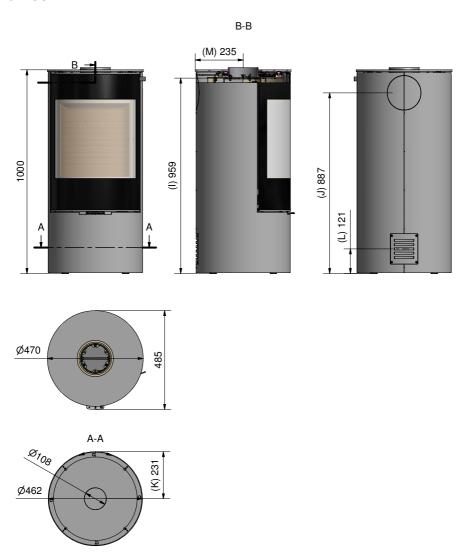
Place

FREDERIKSHAVN, DENMARK

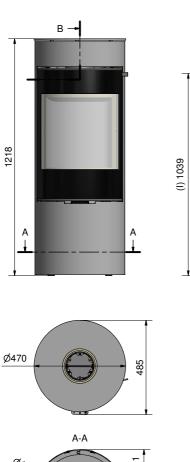
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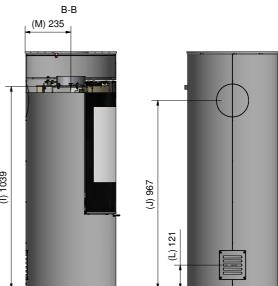
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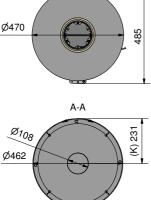
# Viva 100 L



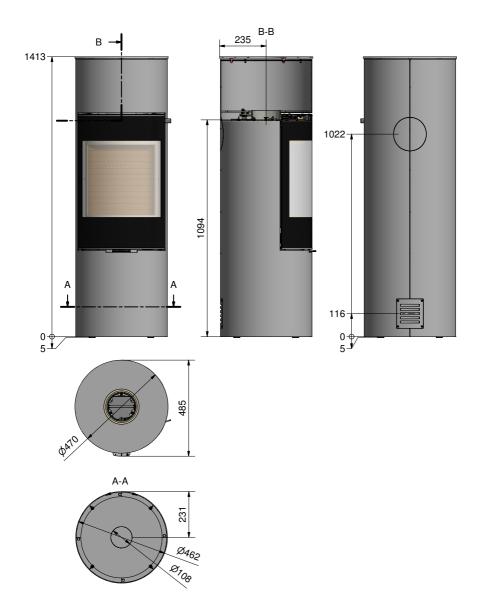
### Viva 120 L



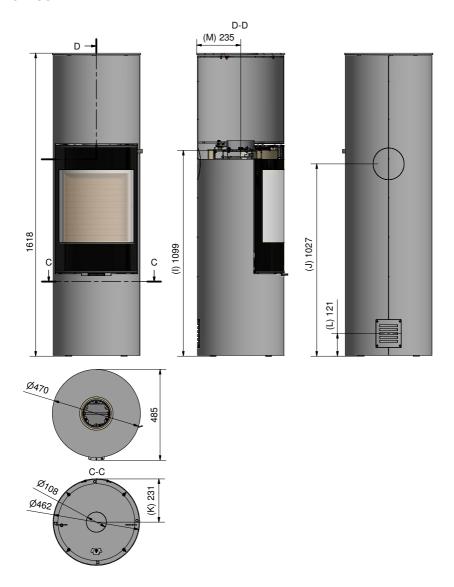




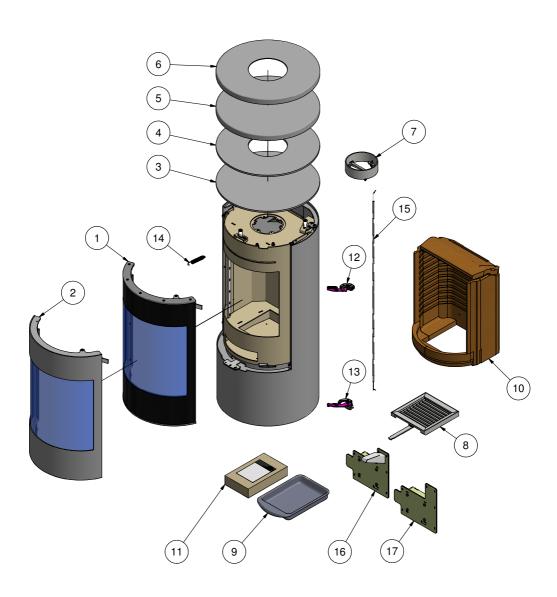
### Viva 140 L



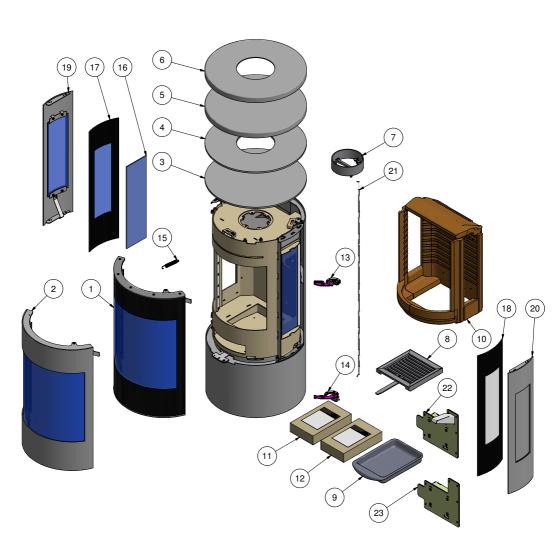
### Viva 160 L



## Viva L



### Viva L G







# RAIS A/S

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