



**BRUGERMANUAL  
BEDIENUNGSANLEITUNG  
USER MANUAL  
MANUEL D'UTILISATEUR  
BRUKERVEILEDNING  
BRUKSANVISNING  
KÄYTTÖOHJE  
GEBRUIKERSHANDLEIDING**

**attika**<sup>®</sup> **VISIO**  
**2-1**  
FEUERKULTUR

**RAIS**<sup>®</sup>  
ART  OF FIRE

# RAIS/attika VISIO 2-1

Mærkeplade/CE Zeichen/Manufacturer's plate/Plaque signalétique/Merkeplate/Märkplät  
Norge, England

16

EN 13229:2001+A1:2003+A2:2004,  
EC.NO: 225

Notified Body: 1235



Produced at:

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

## Visio 2-1 NS

**Anordningen må kun installeres i forbindelse med ubrændbart materiale.**

AFSTAND TIL BRÆNDBART, BAGVÆG	DK: mm SE BRUGERVEJLEDNING
ABSTAND ZU BRENNBAREN BAUTEILEN, HINTEN	DE: mm SIEHE BEDIENUNGSANLEITUNG
DISTANCE TO COMBUSTIBLE BACK WALL	UK: mm SEE USER MANUAL
DIST. ENTRE COMPOSANTS COMBUSTIBLES, ARRIÈRE	FR: mm CONSULTEZ LE GUIDE DE L'UTILISATEUR
AFSTAND TIL BRÆNDBART, SIDEVÆG	DK: mm SE BRUGERVEJLEDNING
ABSTAND ZU BRENNBAREN BAUTEILEN, SEITE	DE: mm SIEHE BEDIENUNGSANLEITUNG
DISTANCE TO COMBUSTIBLE SIDE WALL	UK: mm SEE USER MANUAL
DISTANCE ENTRE COMPOSANTS COMBUSTIBLES, COTÉ	FR: mm CONSULTEZ LE GUIDE DE L'UTILISATEUR
AFSTAND TIL BRÆNDBART, MØBLERING	DK: 1200mm SE BRUGERVEJLEDNING
ABSTAND VORNE ZU BRENNBAREN MÖBELN	DE: 1200mm SIEHE BEDIENUNGSANLEITUNG
DISTANCE TO FURNITURE AT THE FRONT	UK: 1200mm SEE USER MANUAL
DISTANCE ENTRE COMPOSANTS COMBUSTIBLES, DEVANT	FR: 1200mm CONSULTEZ LE GUIDE DE L'UTILISATEUR
CO EMISSION (REL. 13% O <sub>2</sub> )	
CO EMISSION IN DEN VERBRENNUNGSPRODUKTEN (BEI 13%O <sub>2</sub> )	0,2203 % / 2754 mg/Nm <sup>3</sup>
EMISSION OF CO IN COMBUSTION PRODUCTS (AT 13%O <sub>2</sub> )	
EMISSION CO DANS LES PRODUITS COMBUSTIBLES (À 13%O <sub>2</sub> )	
PARTIKLER / PARTIKELN /	3,59 g/kg
PARTICLES / PARTICULES:	
STØV / STAUB / DUST / POUSSIÈRES:	26 mg/Nm <sup>3</sup>
RØGGASTEMPERATUR / ABGASTEMPERATUR /	207 °C
FLUE GAS TEMPERATURE / TEMPÉRATURE DES GAZ DE FUMÉE:	
NOMINEL EFFEKT / HEIZLEISTUNG /	5,8 kW
THERMAL OUTPUT / PUISSANCE CALORIFIQUE:	
VIRKNINGSGRAD / ENERGIEFFIZIENZ /	79 %
ENERGY EFFICIENCY / EFFICACITÉ ÉNERGÉTIQUE:	
DK: Brug kun anbefalede brændsler. Følg instrukserne i bruger manualen. Anordningen er egnet til røggassamledning og intervalfyring.	DK: BRÆNDE
DE: Lesen und befolgen Sie die Bedienungsanleitung. Zeitbrandfeuerstätte. Nur empfohlene Brennstoffe einsetzen.	DE: HOLZ
UK: Fuel types (only recommended). Follow the installation and operating instruction manual. Intermittent operation.	UK: WOOD
F: Veuillez lire et observer les instructions du mode d'emploi. Foyer à durée de combustion limitée, homologué pour cheminée à connexions multiples. Utiliser seulement les combustibles recommandés.	FR: BOIS

**Not to be used in a shared flue**

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

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

Reference / DTI test report:  
300-ELAB-2241-EN  
300-ELAB-2241-NS  
300-ELAB-2241-AEA

# RAIS/attika VISIO 2-1

Mærkeplade/CE Zeichen/Manufacturer's plate/Plaque signalétique/Merkeplate/Märkplät  
Danmark, Deutschland, France



Produced at:

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

EN 13229:2001+A1:2003+A2:2004

16

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

EC.NO: 226

**VISIO 2-1 DIN +**

**Anordningen må kun installeres i forbindelse med ubrændbart materiale.**

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  
CO EMISSION IN DEN VERBRENNINGSPRODUKTEN  
EMISSION OF CO IN COMBUSTION PRODUCTS  
EMISSION CO DANS LES PRODUITS COMBUSTIBLES

STØV / STAUB /  
DUST / POUSSIÈRES:

RØGGASTEMPERATUR / ABGASTEMPERATUR /  
FLUE GAS TEMPERATURE / TEMPÉRATURE DES GAZ DE FUMÉE:

NOMINEL EFFEKT / HEIZLEISTUNG /  
THERMAL OUTPUT / PUISSANCE CALORIFIQUE:

VIRKNINGSGRAD / ENERGIEFFIZIENZ /  
ENERGY EFFICIENCY / EFFICACITÉ ÉNERGÉTIQUE:

DK: Brug kun anbefalede brændsler. Følg instrukserne i bruger-  
manualen. 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 durée de combustion limitée, homologué pour cheminée à  
connexions multiples. Utiliser seulement les combustibles recommandés.

Hergestellt für /Produced for:

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

DK: SE BRUGERVEJLEDNING  
DE: SIEHE BEDIENUNGSANLEITUNG  
UK: SEE USER MANUAL  
FR: CONSULTEZ LE GUIDE DE L'UTILISATEUR  
DK: SE BRUGERVEJLEDNING  
DE: SIEHE BEDIENUNGSANLEITUNG  
UK: SEE USER MANUAL  
FR: CONSULTEZ LE GUIDE DE L'UTILISATEUR

DK: Visio 2-1: 1200mm  
DE: Visio 2-1: 1200mm  
UK: Visio 2-1: 1200mm  
FR: Visio 2-1: 1200mm

DK: 0,071%  
DE: 0,071% / 888 mg/Nm3  
UK: 0,071%  
FR: 0,071%  
DK: 24 mg/Nm3 / DE: 24 mg/Nm3  
UK: 24 mg/Nm3 / FR: 24 mg/Nm3

DK: 256 °C / DE: 256 °C  
UK: 256 °C / FR: 256 °C

DK: 8,6 kW / DE: 8,6 kW  
UK: 8,6 kW / FR: 8,6 kW

DK: 80% / DE: 80%  
UK: 80% / FR: 80%

DK: BRÆNDE

DE: HOLZ

UK: WOOD

FR: BOIS

15a B-VG

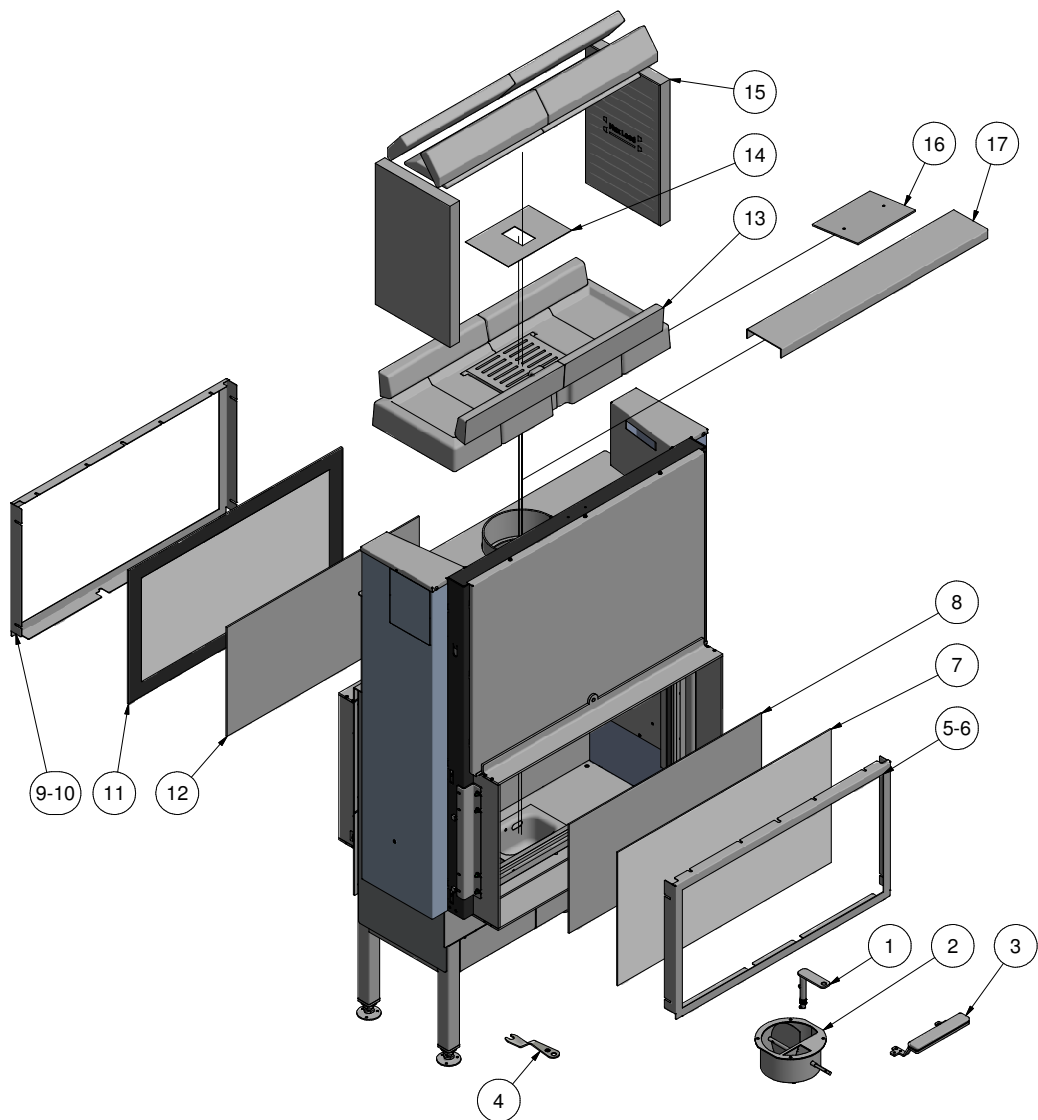
Typ FCxxxFCxxx

Reference / DTI test report:

300-ELAB-2241-EN  
300-ELAB-2241-DIN +  
300-ELAB-2241-AUS

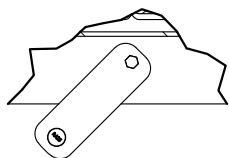
# VISIO 2-1

Reservedelstegning / Ersatzteilzeichnung / Spare parts drawing /  
Dessin des pièces de rechange / Reservdelstening

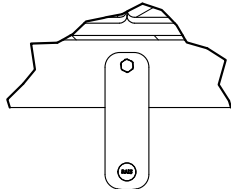


Indstilling af spjæld / Einstellung der Luftklappe / Adjustment of the air damper /  
Réglage du volet d'air / Innstilling av spjeldet / Inställning av spjället

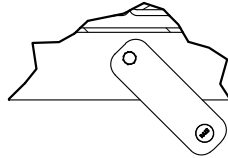
Position 1 - Posisjon 1



Position 2 - Posisjon 2



Position 3 - Posisjon 3



Optænding og påfyldning / Anzünden und Nachlegen / Lighting and fuelling /  
Allumage et remplissage / Opptenning og påfylling / Upptänding och påfyllning

1



2



3



4



5



6



7



8



## 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/saw-dust. 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 not 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.

**VISIO 2-1**

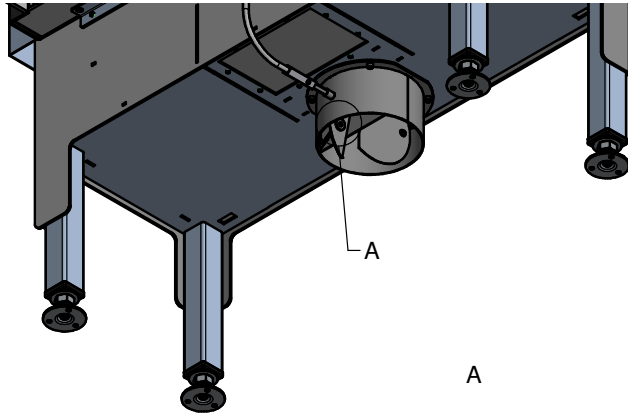
Revision: 10  
Date: 27-06-2023

INTRODUCTION.....	8
GUARANTEE.....	9
TRANSPORT SAFETY.....	9
SPECIFICATIONS.....	10
DISTANCES/MEASUREMENTS.....	11
CONVECTION.....	12
INSTALLATION.....	13
SELECTION OF INSTALLATION MATERIALS.....	14
CHIMNEY.....	14
INNER DIMENSIONS.....	15
HOLE MEASUREMENTS.....	16
MINIMUM DISTANCES TO FLAMMABLE MATERIALS.....	17
CONVECTION.....	19
AIR SYSTEM.....	20
FUEL.....	20
DRYING AND STORAGE.....	21
REGULATION OF THE COMBUSTION AIR.....	21
VENTILATION.....	22
USE OF STOVE.....	22
FIRST USAGE.....	23
LIGHTING AND FILLING.....	23
CONTROL.....	24
WARNING.....	25
CLEANING AND CARE.....	26
MAINTENANCE / REPLACEMENT PARTS.....	26
CLEANING THE GLASS DOOR PANELS.....	27
CLEANING THE COMBUSTION CHAMBER.....	28
CLEANING OF THE FLUE.....	29
INTERRUPTION OF OPERATIONS.....	30
Conversion to self-closing door.....	32
ACCESSORIES.....	34
SPARE PARTS.....	35
TEST CERTIFICATE NS.....	36
TEST CERTIFICATE DIN +.....	37

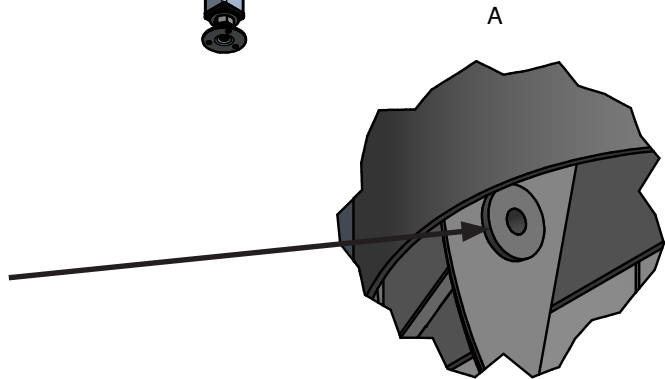
N.B. The stove is always delivered as an NS model. (Only to Norway and United Kingdom) To change the stove into a DIN + model, two things need to be done.

- Remove the rubber Air restrictor in the Primary airdamper. by pulling it out.
- Remove the Air concentrator plate laying under the grill.

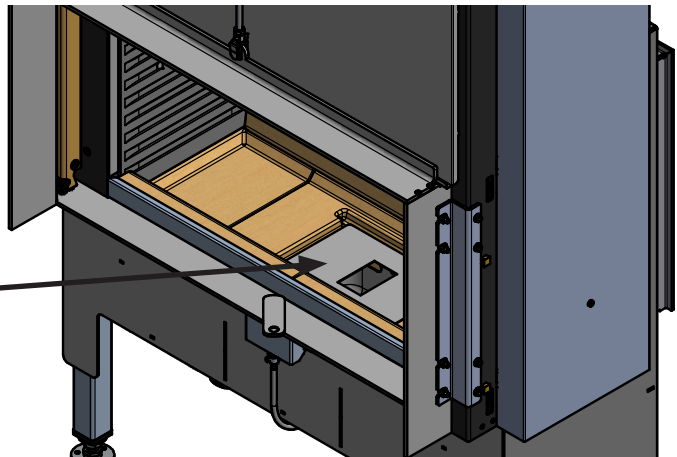
Rubber Air restrictor



Rubber Air restrictor



Air concentrator plate







## Introduction

Congratulations on your new RAIS /attika stove.

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

To get the most pleasure and benefit from your new stove, it is important that the manual is read through carefully before the stove is installed up and used.

For warranty and all inquiries regarding the stove, it is also important that you know the stove production number. We recommend therefore that you note down the number in the table below.

The production number is at the bottom of the stove side.

**Production number:**

**Produced by:**

**RAIS A/S**

**9900 Frederikshavn, DK**

Date:      Dealer:

## Warranty

RAIS/attika stoves have been repeatedly tested in terms of the safety and the quality of materials and manufacturing. All models are guaranteed from the date of installation.

### The warranty covers:

- documented malfunction due to faulty processing
- proven material defects

### The warranty does not cover:

- door and glass gaskets
- 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 sounds

### The warranty becomes void in cases of:

- damage due to overfiring
- damage due to external influences and use of unsuitable fuels
- failure to comply with statutory or recommended installation requirements, and in the case of modifications to the stove.
- lack of service and care

Please contact your dealer in the event of damage. In case of warranty claims, we will determine the most appropriate damage repair procedure. In case of repair, we provide professional implementation.

For warranty claims on supplied or repaired parts refer to national/ EU laws/regulations in connection with renewed warranty periods.

The current warranty conditions can be obtained from RAIS A/S.

## Transport safety

Before you install the stove remove the transport safety. There are two screws, one on each side of the stove.



**VISIO 2-1 is an inset stove with vertically operated door.**

## Specifications

*DTI ref.: 300-ELAB-2241-EN / 300-ELAB-2241-NS / 300-ELAB-2241/300-ELAB-2241- DIN+*

	<b>225 VISIO 2-1 NS</b>	<b>226 VISIO 2-1 DIN+</b>
Rated power (kW):	<b>5.8</b>	<b>8.6</b>
Min./Max. output (kW):	<b>5.0-5.8</b>	<b>7.5 - 8.6</b>
Heating area (m <sup>2</sup> ):	<b>100</b>	<b>150</b>
Stove width/depth/height (mm):	<b>962-552*-1480</b> *including frame	<b>962-552*-1480</b> *including frame
Combustion chamber width/depth/height (mm):	<b>694-222-210 *</b> *MAX LOAD	<b>694-222-210 *</b> *MAX LOAD
Recommended amount of wood when fuelling (kg): (Distributed between 2-4 logs of wood of approx. 30 cm)	<b>2.1</b>	<b>2.25</b>
Min. uptake (Pascal):	<b>-12</b>	<b>-12</b>
Weight (kg):	<b>235</b>	<b>235</b>
Efficiency (%):	<b>79</b>	<b>80</b>
CO-emission at 13% O <sub>2</sub> (%)	<b>0.2203</b>	<b>0.071</b>
NOx-emission at 13% O <sub>2</sub> (mg/Nm <sup>3</sup> ):	<b>95</b>	<b>99</b>
Particles emission acc. to NS3058/3059 (g/kg):	<b>3.47</b>	<b>-</b>
Dust measured acc. to Din+ (mg/Nm <sup>3</sup> ):	<b>26</b>	<b>24</b>
Flue gas mass flow (g/sec):	<b>6.7</b>	<b>7.7</b>
Flue gas temperature (° C):	<b>207</b>	<b>256</b>
Flue gas temperature (° C) at flue collar	<b>248°</b>	<b>307°</b>
Intermittent operation:	<b>yes</b>	<b>yes</b>

DTI

Danish Technological Institute

Teknologiparken Kongsvang Allé 29, DK-8000 Aarhus C

Danmark

www.dti.dk

Telefon: +45 72 20 20 00

1 Fax: +45 72 20 10 19

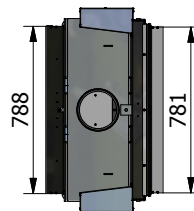
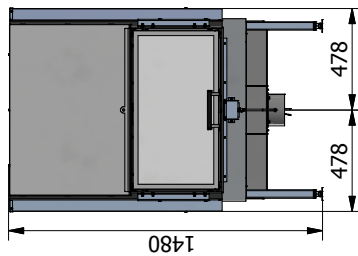
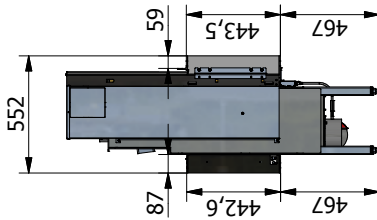
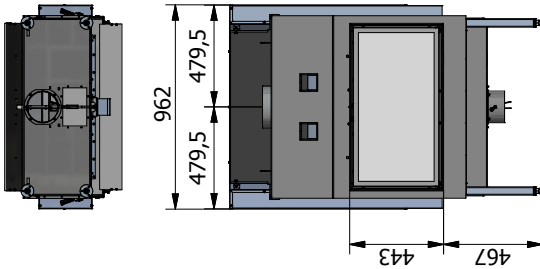
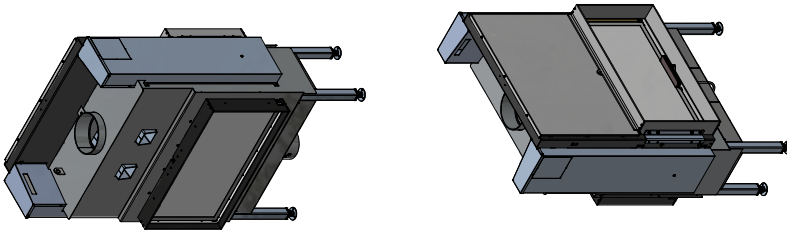
**Distances/Measurements**

Note that the exhaust branch can rotate continuously.

**I:** Distance from floor to centre smoke top outlet

**K:** Distance from back side to air intake bottom (Air System)

**N:** Distance from side to air intake bottom (Air System)



## Convection

RAIS/attika stoves are convection stoves. Convection means that the air is circulated so the heat is more evenly distributed throughout the entire room. The **cold air** is sucked in at the base of the stove, and runs along the stove's combustion chamber, whereby air is heated.

The **heated air** flows out along the sides and out of the top ensuring air circulation

Note that all outer surfaces become hot during the stove's use - extreme care needs to be taken.

Use the insert optimally

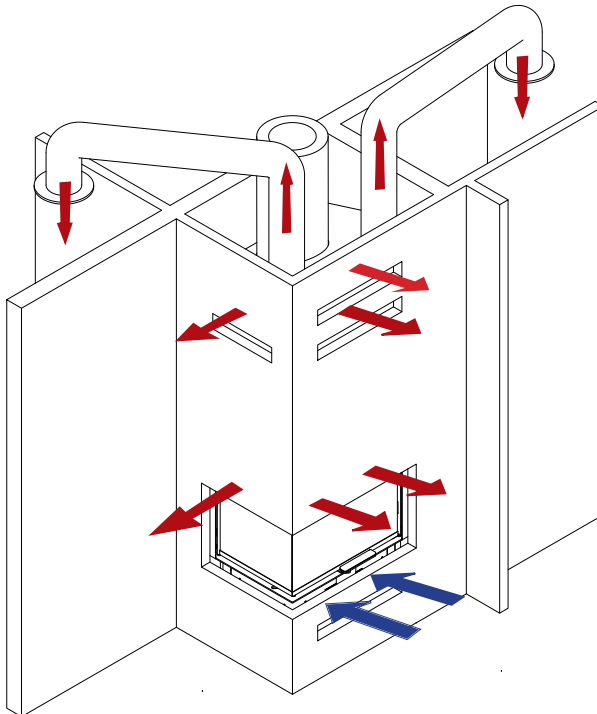
By mounting the hot air nozzles and flexible hoses (or similar) on top of the stove, it is possible to "move" the heat to other rooms.

Decisions must be made concerning the positioning of the inlets and outlets of the convection system.

Make sure that the area requirements are respected, and that holes are not blocked from the outside.

Discolouration of the stove walls, doors and convection outlets may occur. This is caused by the rising hot air.

RAIS assumes no responsibility for any installation or consequential damages.



## Installation

It is important that the stove is installed properly for the sake of both the environment and safety.

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

The stove may only be installed by a qualified / competent RAIS dealer / installer or the warranty will be invalid.

It is prohibited to carry out unauthorised alterations to the stove

### **NOTE!**

Before the stove can be used, the local chimney sweep must be notified.

There should be an ample supply of fresh air in the installation room to ensure good combustion- if necessary through an airbox connection . Note that any mechanical exhaust ventilation e.g. an extraction hood may reduce the air supply. Any air vents must be placed in such a manner that the air supply is not blocked.

Alternatively, the stove can be supplied with fresh air directly from the outside through a flexible piping fitted to the damper (see Air system section).

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

The floor must be able to carry the weight of the stove and the chimney. If the existing floor construction doesn't meet this requirement, suitable measures (e.g. load distributing plate) shall be taken to achieve it.

Consult with a construction expert.

The stove should be placed on non-flammable material.

The stove must be placed at a safe distance from flammable materials.

It must be ensured that flammable objects (e.g. furniture) are not placed closer than the distances indicated in the following section concerning installation (fire risk).

If the stove is installed on a flammable floor, the size of the non-flammable surface underneath the stove must be in accordance with national / local regulations.

When you choose where you want to place your RAIS /attika stove, you should think of the heat distribution to other rooms. Then you will get the most pleasure from your stove.

See the manufacturer's plate on the stove.

Upon receiving, the stove must be inspected for defects.

For non-flammable materials select panels/brick with a thermal resistance greater than 0.03 m<sup>2</sup>·K/W. Thermal resistance is defined as the wall thickness (in m) divided by the wall lambda value.

Consult your installer/chimney sweep.

During the test the stove was installed in a cabinet made of non-flammable building panels 50 mm Calcium silicate (Super Isol).

NB!!

The stove may only be installed by a qualified/competent RAIS dealer/installer.  
See [www.rais.com](http://www.rais.com) for list of dealers

## Chimney

The chimney is the driving force which makes the stove function. In order for the stove to perform satisfactorily the chimney height must be sufficient to ensure the correct draught of 14 to 18 Pa so as to clear the products of combustion and prevent problems of smoke emanating into the room when firing.

NOTE: A chimney height of not less than 4.5 metres measured vertically from the outlet of the stove to the top of the chimney should be satisfactory. Alternatively the calculation procedure given in BS 5854:1980 may be used as the basis for deciding whether a particular chimney design will provide sufficient draught.

The outlet from the chimney should be above the roof of the building in accordance with the provisions of Building Regulations Approved Document J.

If installation is into an existing chimney then it must be sound and have no cracks or other faults which might allow fumes into the house. Older properties, especially, may have chimney faults or the cross section may be too large i.e. more than 230 mm x 230 mm. Remedial action should be taken, if required, seeking expert advice, if necessary. If it is found necessary to line the chimney then a flue liner suitable for solid fuel must be used in accordance with Building Regulations Approved Document J.

Any existing chimney must be clear of obstruction and have been swept clean immediately before installation of the stove. If the stove is fitted in place of an open fire then the chimney should be swept one month after installation to clear any soot falls which may have occurred due to the difference in combustion between the stove and the open fire.

If there is no existing chimney then either a prefabricated block chimney in accordance with Building Regulations Approved Document J or a twin walled insulated stainless steel flue to BS 1856-1 can be used. These chimneys must be fitted in accordance with the manufacturer's instructions and Building Regulations.

A single wall metal fluepipe is suitable for connecting the stove to the chimney but is not suitable for using for the complete chimney. The chimney and connecting fluepipe must have a minimum diameter of 180 mm. Any bend in the chimney or connecting fluepipe should not exceed 45°. 90°bends should not be used.

Combustible material should not be located where the heat dissipating through the walls of fireplaces or flues could ignite it. Therefore when installing the stove in the presence of combustible materials due account must be taken of the guidance on the separation of combustible material given in Building Regulations Approved Document J and also in these stove instructions.

If it is found that there is excessive draught in the chimney then either an adjustable flue damper or alternatively a draught stabiliser should be fitted. The adjustable flue damper should not close off the flue entirely but should in its closed position leave a minimum continuous opening free area of at least 20 % of the total cross sectional area of the flue or fluepipe.

Adequate provision e.g. easily accessible soot door or doors must be provided for sweeping the chimney and connecting fluepipe.

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

The stove is supplied with a  $\varnothing$ 200 mm flue outlet spigot.

The stove is approved with a  $\varnothing$ 180 mm flue outlet spigot, which can be retrofitted.



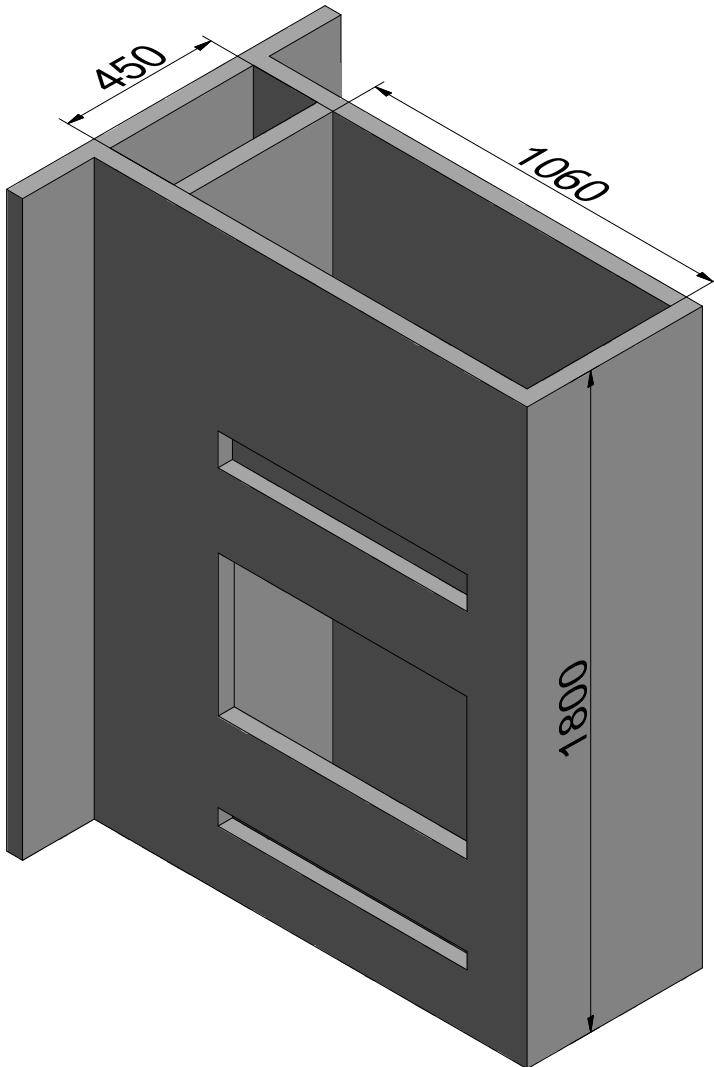
## Installation measurements for VISIO 2-1

**Valid for installation in non-flammable panels (e.g. 50 mm Super Isol), or in brick.**

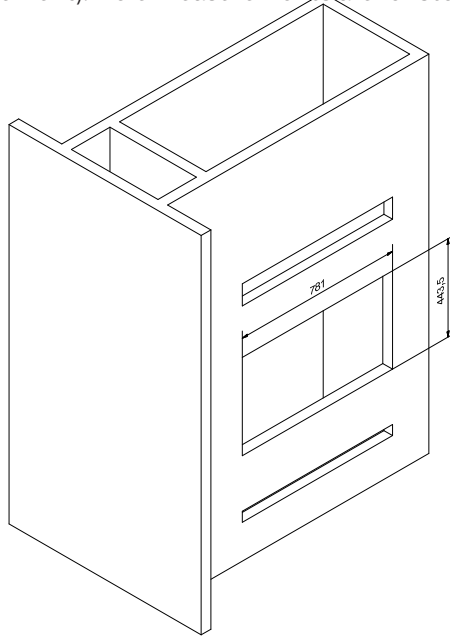
If other materials are used, they must have the same or better properties than 50mm Super Isol.

To obtain the necessary distances from the stove to the panel/brickwork, the interior measurements of should be min. 450mm X 1060mm. If these are observed, the exterior can be adjacent to a flammable wall. There must be a top plate in the cabinet which is at least 1800 mm inside from the floor to the underside of the top plate.

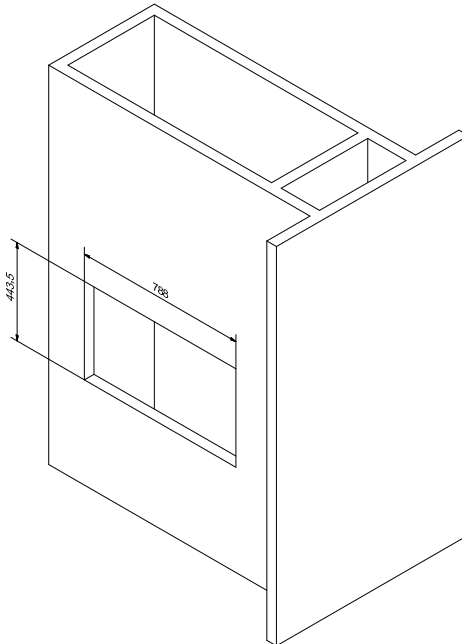
A fireplace insert must never be installed too tightly as steel expands during heating.



Hole measurements in the side with elevating gate (height x width) min. 443.5mm x 781mm (int. measurement). *Hole measurements are for stove with inset frame.*

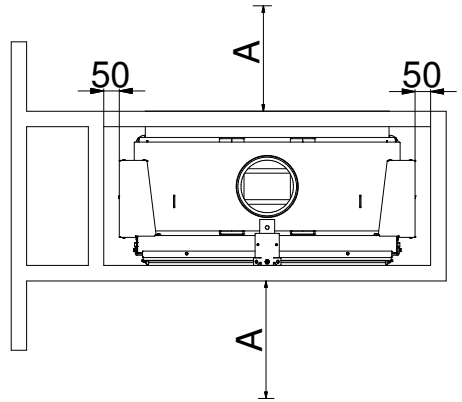
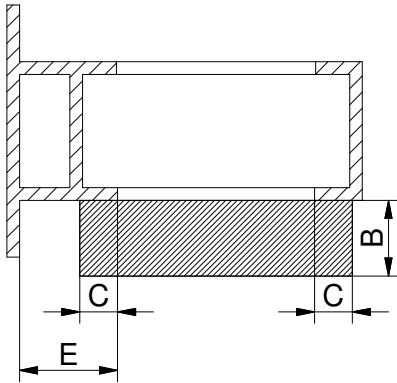


Hole measurements in the side of the locked door (height x width) min. 443.5mm x 788mm (int. measurement).  
*Hole measurements are for stove with inset frame.*



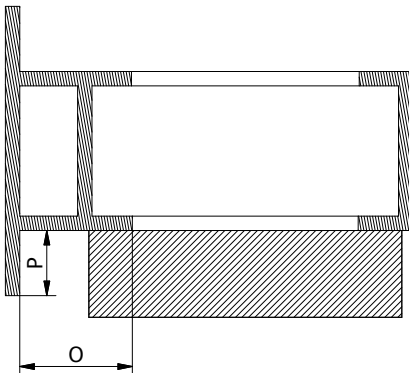
## Minimum distance to flammable materials

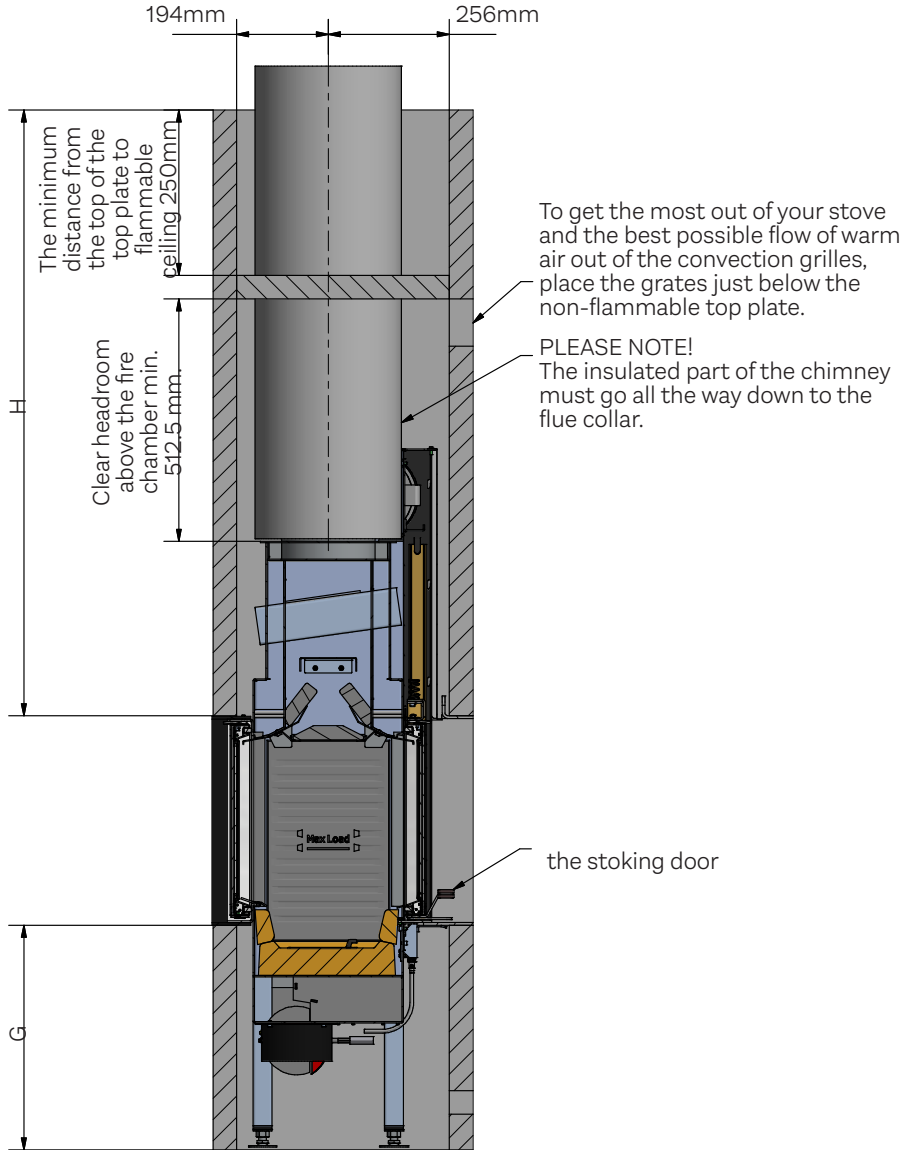
A - Distance to furniture	1200mm
B - Distance to flammable floor in front of the oven	300mm
C - Distance to flammable floor next to the oven	150mm
E - Distance to flammable side wall	350mm
G - Distance to the floor	475mm
H - Distance to ceiling	1182mm



## Minimum distance to firewall

O - Distance to firewall next to stove	200mm
P - Extension of firewall forward	600mm

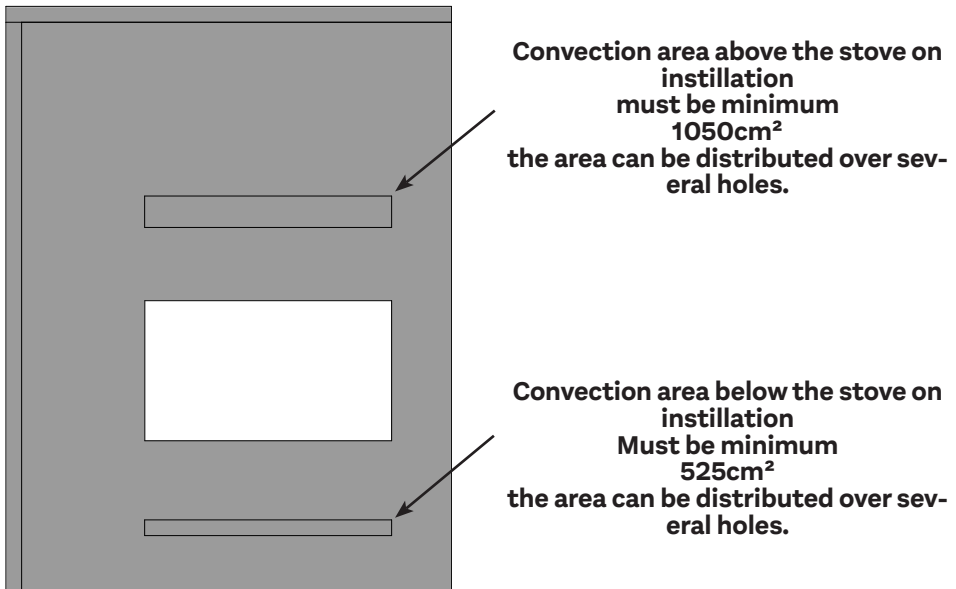




## Convection

There is a minimum requirement for the convection area. This area must be observed due to danger of overheating and due to distance to flammable materials. Make sure that the stove can pull convection air in under the stove. And lead it back out of the stove.

When installed in a completely non-flammable construction, there are no requirements for convection area but it is recommended to transfer the area from the panel construction as the brick work may crack at high temperatures.



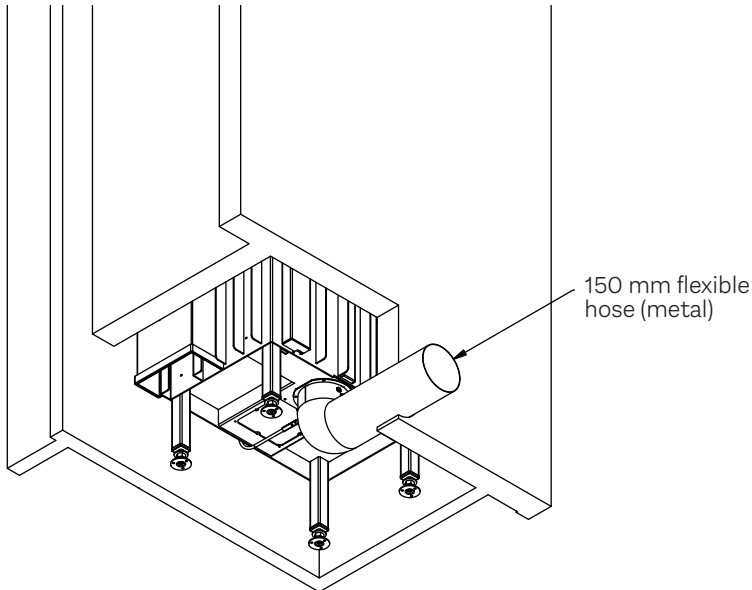
## Air system

Mounting the Air-system ensures that the air control system receives fresh air from outside.

To ensure that the Air- system work you have to build it, in such a way, to ensure that there cannot develop low pressure in the home.

If convection grilles are installed, they must not be blocked.

Air connection (optional) can be installed underneath the stove.



## Fuel

The stove has been tested in accordance with DS/EN 13229: 2001, DS/EN 13229: 2001/A1: 2003 DS/EN 13229: 2001/A2: 2004 and NS 3058/3059 for the stoking of split dry birch and approved for hardwood/softwood. The firewood must have a water content of 15-20 % and its maximum length should not exceed 30 cm.

Stoking with wet firewood causes both soot, environmental pollution and bad fuel economy. Freshly cut wood contains approx. 60-70% water, and is completely unsuitable for stoking.

You should allow for, that newly cut wood must be stacked for drying for 2 years.

Wood with a diameter of more than 100 mm should be split. Regardless of the size of the wood, it should always have at least one surface area without bark.

**It is not allowed to burn lacquered, laminated or impregnated wood, wood with a synthetic surface, painted refuse wood, chipboard, plywood, domestic waste, paper briquettes and pit coal, because it knows malodorous fumes that can be poisonous.**

The burning of the above and of amounts larger than those recommended, the stove is subjected to a larger amount of heat, resulting in a higher chimney temperature and lower efficiency. This can result in the stove and chimney becoming damaged and

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 is used to evaporate it and this energy is wasted.

### ONLY USE RECOMMENDED FUELS

The following table shows the calorific value of different types of wood which have been stored for 2 years and have a residual moisture content 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%

1 kg of wood yields the same heat energy irrespective of wood type.  
1 kg beech merely takes up less space than 1 kg of fir.

## Drying and storage

Drying wood takes time. Proper air drying takes approx. 2 years.

Here are some tips:

- Store the wood sawn, split and stacked in an airy, sunny place, which is protected against rain (the south side of the house is particularly suitable).
- Store 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.

## Regulating the combustion air

All RAIS/attika stoves are equipped with a one-handed operating lever for regulating the damper.

The stove-specific regulating mechanisms can be seen in the diagrams at the front of the manual.

The primary air is combustion air that is added to the primary combustion zone at the bottom of the burning chamber, i.e. the bed of glowing embers. This cold air is only used in the lighting stage.

Secondary air is the air that is added in the gas combustion zone, i.e. air that contributes to the combustion of the pyrolysis gasses (preheated air used for cleaning the glass and combustion). This air is sucked through the damper and preheated via channels in the side/back of the stove and then emitted as hot scavenging air onto the glass. The hot air rinses the glass and keeps it soot-free.

Tertiary air at the back of the burning chamber at the top (row of holes) ensures combustion of the final gas residues/particles before leaving through the chimney.

By setting the interval between position 1 and 2 (see next section) ensures optimum utilisation of the energy content of the wood, as there is oxygen for combustion and for the burning of the pyrolysis gases. When the flames are a clear yellow the damper has been set correctly. Finding the correct position comes with time after regular use of the stove.

We do not recommend to turn it down completely, because it feels too hot. Too little air supply gives poor combustion, which can cause high and dangerous flue gases, emissions and poor efficiency. This results in dark smoke emanating from the chimney, and the calorific value of the wood not used to its fullest.

## Ventilation

There must not be an extraction/range hood (kitchen) in the same room as the stove as this may cause the oven to emit fumes into the room.

The stove requires a permanent and adequate air supply to operate safely and efficiently. There can be fitted a permanent air supply vent to the room to the stove's combustion air (see section on Air System).

This air vent should not be shut off or sealed under any circumstances.

## Use of the stove

Adjustment of the air dampers - the damper has 3 settings  
**See diagrams at the front of the manual.**

### Position 1

Push the lever fully to the left.  
The damper is closed; there is a minimal air intake.  
This option should be avoided during normal operation.  
See warning note after next section.

### Position 2

Pull the lever to the right up to the first notch (center position).  
This position gives only secondary air.  
During ordinary stoking the lever is set between position 1 and 2.  
When the flames are clear and yellow, the damper is set correctly - resulting in a slow / optimal burning.

### Position 3

Pull the lever to the right.  
The damper is fully open and provides full ignition air (primary) and full secondary air.  
This position is for the lighting stage and refuelling and is not used during normal operation.



## First usage

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 the first time you fire up. This is because the paint and materials need to harden, but the smell disappears quickly - check for good ventilation and draft, if possible.

During this process you must be careful not to touch the exposed surfaces / glass (very hot!). It is recommended that you regularly open and close the door to prevent the door seal from sticking.

In addition, the stove can produce "clicking noises" during heating and cooling, caused by the large temperature differences which the material is exposed to.

Never use any type of liquid fuel for kindling or maintaining the fire. There is a risk 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 air system is connected, the valve must be open.

### **"Top-Down " lighting (see photos at the front of the manual).**

- Open the door completely until it is locked in the open position.
- Start by placing approx. 1kg wood - eg. 2 pieces split wood knot - (Photo 1) in the bottom of the burning chamber. Add approx. 1.2kg dry firewood (Photo 2), split to kindling sticks, loosely on top and 2-3 firelighters or similar.
- Light the fire (photo 3 + 4).
- Set the air damper to pos. 3 (for approx. 15 min.), Then in pos. 2.
- Close the door completely and lift the door handle (air gap of 1-2 cm).
- When the fire has caught the kindling wood, shut the door completely (photo 5) (after approx. 3-10 minutes, depending on the draft conditions in the chimney).
- When the last flames are extinguished and there is a good layer of embers (photo 6), can be filled up to 3-4 pieces of wood - approx. 2-2½ kg (photo 7).
- Shut the door completely.
- If necessary set the air damper to position 3 (far right) for 2-5 min to start the fire (photo 8).
- Adjust the damper between pos. 1 and pos. 2 (see 'Adjustment the air damper').

**PLEASE NOTE!**

If the fire has burned down too low (too small an ember), it may take longer to get going again. It is recommended to use small pieces of wood to ignite the fire.

When firing the smoke out of the chimney should be almost invisible, just a 'flicker' in the air is observed.

When refuelling, open the door carefully to avoid smoke escaping. Never add wood while there are still visible flames in the oven.

RAIS recommend to refill with 2-4 pieces of wood - approx. 1 ½ - 2 ½ kg - within 49 minutes (intermittent operation).

**PLEASE NOTE!**

Keep an eye on the stove when lighting.

Keep the door closed during operation.

Be careful, as all exterior surfaces become very hot during operation.

**Control**

Check the stove for signs of proper firing:

- Ashes appear white
- The walls of the combustion chamber are free of soot

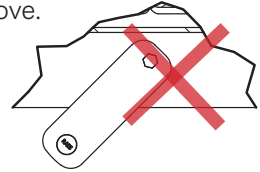
Conclusion: The wood is sufficiently dry.

## Warning!!

If the firewood is only burning slowly without flames or smoking, and too little air is added, unburnt exhaust gases are developed . Exhaust gases may ignite and explode. It can cause damage to equipment and possible human injury.

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

Sample Images



**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, unburnt exhaust gasses will develop.



Here, firewood has been added to an ember layer that is too small and the air supply is insufficient - smoke is produced.



**Avoid heavy smoke emission - danger of exhaust gas explosion.**

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

## Cleaning and care

Wood stove and chimney must be inspected by a chimney sweep annually. During cleaning and care, the stove must be cold.

If the glass is sooty:

- Clean the glass regularly and only when the stove is cold, otherwise the soot will burn solid.
- Dampen a piece of paper or newspaper, dip it in the ashes and rub the sooty glass.
- Rub with a piece of paper and glass becomes clean.
- Alternatively use glass polish, which can buy from you RAIS distributor.

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

Prior to a new heating season, it should always be checked that the chimney and smoke gas connector are not blocked. Inspect the stove interior and exterior for damage, especially seals and the heat insulating plates (vermiculite).

## Maintenance/spare parts

Especially moveable parts are worn down by frequent use. Door seals also become worn. 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 body of the wood burning stove against the heat from the fire. The large temperature fluctuations may result in cracks in the plates of the combustion chamber lining, which, however do not affect the functional capacity of the stove. They do not need to be replaced unless long-term use causes them to crumble.

The plates of the combustion chamber lining are 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 when needed. We recommend to use only our lubricating spray, as the use of other products can lead to the formation of odours and residues. Contact your dealer to obtain the lubricant.

## Cleaning the glass door panels - VISIO 2-1

The door is locked in position before cleaning.  
With the special key supplied with the stove, turn the latch located above the door.



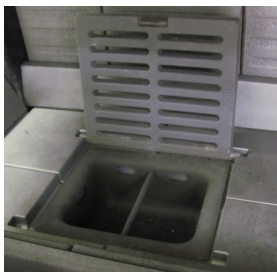
Lightly tap the handle and the door lifts out



After cleaning, close the door and turn the lock back.

## Cleaning the combustion chamber

Scrape/shovel the ashes down into the grate in center of stove. The ash tray under the grill can be removed and emptied into a non-flammable container until it has cooled. You can dispose of ash together with your regular household waste.

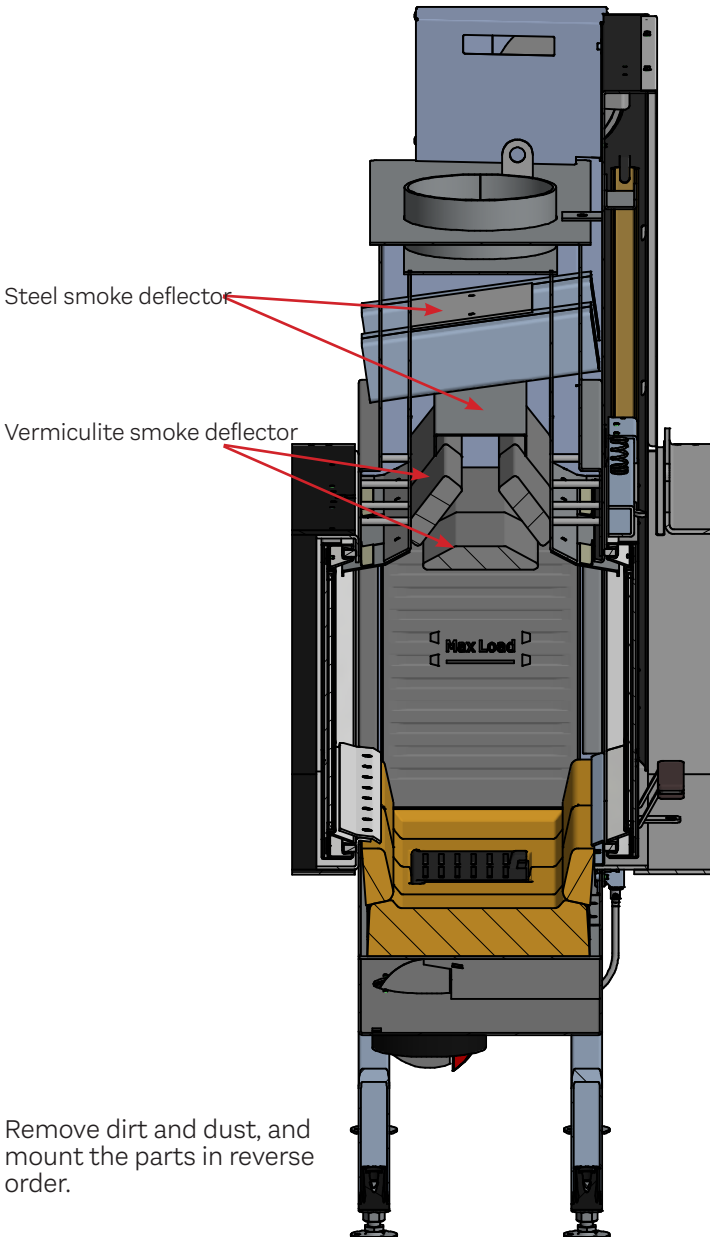


### REMEMBER!

- Never remove all the ashes from the combustion chamber
- wood burns best on a layer of ash approx. 20 mm.

## Cleaning the flue

In order to gain access the smoke flue, remove the 6 baffle plates made of vermiculite and the 2 smoke chikanes made of sheet steel.



Remove dirt and dust, and mount the parts in reverse order.

### **PLEASE NOTE!**

Be careful when replacing the baffle plates and the smoke chicanes.

### 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 extraction 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 the proper heating of the stove when firing up, prior to closing the door

### Stove is burning too strong

Possible causes

- leak around the door seal
- chimney draft too large > 22 Pa, draft control regulator should be installed.

### Stove is burning too weakly

Possible causes

- insufficient amount of wood
- insufficient air supply for room ventilation
- unclean smoke channels
- leaky chimney
- leakage between chimney and flue

### Low draught in the chimney

Possible causes

- temperature difference too small, e.g. due to poorly insulated chimney
- outside temperature is high, e.g. in the summer
- no wind
- the chimney is too low and sheltered
- false air draught in the chimney
- chimney and flue pipe is blocked
- the house is too dense (lack of fresh air intake).
- negative smoke extraction (poor draft conditions)

In the case of a cold chimney or difficult weather conditions you can compensate by adding more air to the stove than usual.

If your stove continues to malfunction, we recommend that you contact your RAIS distributor or chimney sweep.



**WARNING!**

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

- In this case, shut off for all air supply to the stove. If the system has a valve connection - air connection from the outside, it must also be closed.
- call the fire department
- never **use** water to put out the fire!
- Afterwards, you should ask your chimney sweep to check the stove and chimney

**IMPORTANT!**

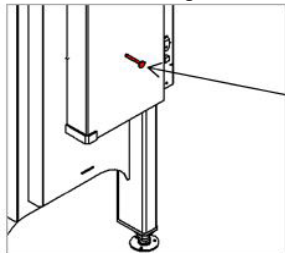
- to ensure safe burning, there must be clear yellow flames or clear embers
- the firewood should not be smouldering.

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. It can cause damage to equipment and possible human injury.

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

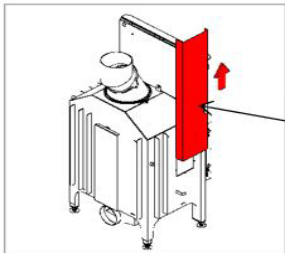
## Conversion to a self-closing door before the oven is built in.

The door is made self-closing by dismantling some of the door's counterweights. On VISIO 1 & 3, the counterweight is changed on both sides.



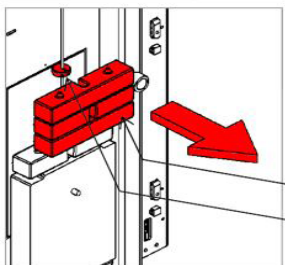
**1.** Remove the transport safety and tighten the screws to the counterweight cover

Transport safety.



**2.** Remove the counterweight cover by pulling it up.

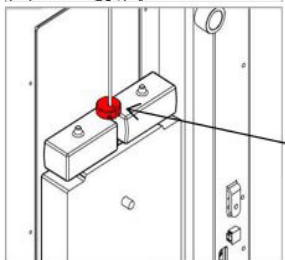
Counterweight cover.



**3.** Unscrew the retaining ring (Allen key 2.5mm). Remove the required number of counterweights, so that the door closes slowly and at a constant speed. Check its operation.

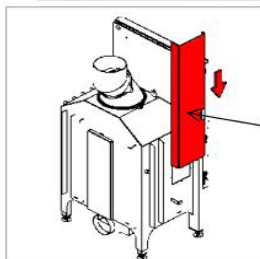
Counterweights

Retaining ring



**4.** Tighten the retaining ring (Allen key 2.5mm)

Retaining ring



**5.** Attach the counterweight cover and screw in the screw(s).

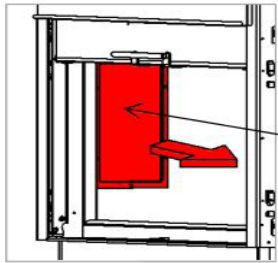
Counterweight cover.

## Conversion to self-closing door after the stove has been fitted.

The door is made self-closing by dismantling some of the door's counterweights. On VISIO 1 & 3, the counterweight is changed on both sides.

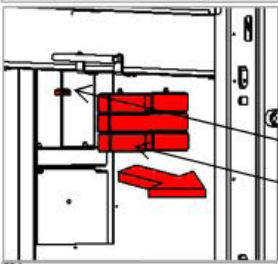


**1.** Remove the Side Skamol sheet.



**2.** Remove the access panel.

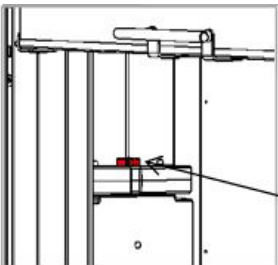
Access panel.



**3.** Unscrew the retaining ring (Allen key 2.5mm). Remove the required number of counterweights, so that the door closes slowly and at a constant speed. Check its operation.

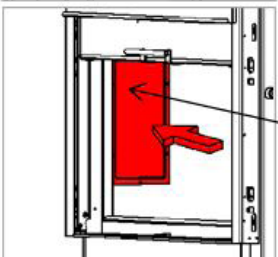
Retaining ring.

Counterweights.



**4.** Tighten the retaining ring (Allen key 2.5mm)

Retaining ring.



**5.** Refit the access panel and side Skamol sheet.

Access panel.

## Accessories

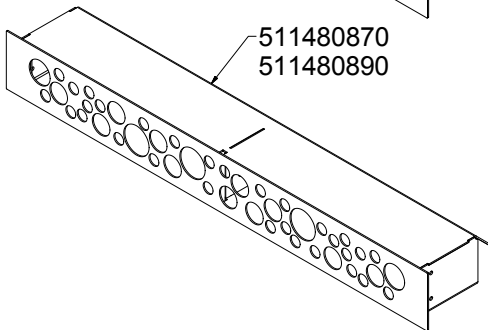
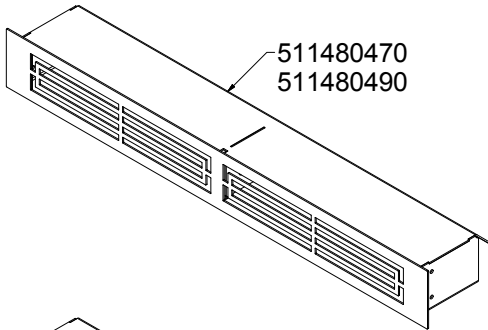
**Airkit No. 31**  
air supply via floor

00065173190

### Convection grille - front

511480470 - white  
511480490 - black

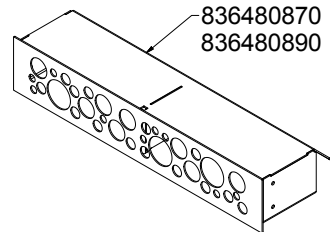
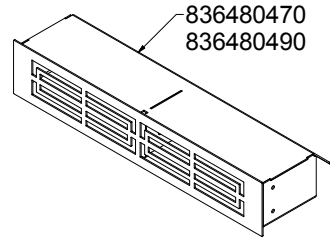
511480870 - white  
511480890 - black



### Convection grates - side

836480470 - white  
836480490 - black

836480870 - white  
836480890 - black



## Spare parts VISIO 2-1

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

All replaceable parts can be purchased as spare parts from your RAIS distributor.

See the parts drawing (in front of the manual).

<b>Pos.</b>	<b>Description.</b>
1	Handle for damper - complete
2	Damper - complete
3	Door Handle
4	Cold handle - complete
5	List stoking door - Painted
6	List stoking door - Stainless
7	Outer door glass
8	Inner door glass
9	List solid door - Painted
10	List solid door - Stainless
11	Solid door glass - outer
12	Solid door glass - interior
13	Schamotte Visio 2-1
14	barrier plate
15	Wall skamol Visio 2-1
16	Smoke chikane - upper
17	Smoke chikane - lower

**UK DECLARATION OF PERFORMANCE**  
**Regulation (EU) 305/2011 No. 0001 — CPR-2013/07/01**



**No.: 226**

- |  |   |
|--|---|
| 1. <b>Unique identification code of the product-type</b> | RAIS Visio 2-1<br>Attika Visio 2-1  |
| 2. <b>Type</b>   | Inset appliance burning solid fuel without hot water supply   |
| 3. <b>Intended use</b>                                   | Domestic room heater  |
| 4. <b>Manufacturer</b>                                   | Spartherm Feuerungstechnik GmbH, Maschweg 38, D-49324 Melle, <a href="http://www.spartherm.com">www.spartherm.com</a>   |
| 5. <b>Authorised representative</b>                      | RAIS A/S, Industrivej 20, Vangen, DK-9900 Frederikshavn, <u>Dänemark</u> , <a href="http://www.rais.com/">www.rais.com/</a><br><a href="http://www.attika.ch">www.attika.ch</a> |
| 6. <b>System of assessment AVCP</b>                      | System 3<br>The notified <i>Danish Technological Institute - Identification no. 1235 Teknologiparken,</i><br>laboratory <i>Kongsvang Allé 29, DK-8000 Aarhus C</i>              |
| 7. <b>Notified body</b>                                  | performed the determination of the product type on the basis of type testing under system 3 and issued test report<br>a. 300-ELAB-2241-EN-B-DIN_P15                             |
| 8. <b>Declared performance</b>                           | Harmonized technical specification: EN 13229:2001/A2:2004/AC:2007   |

Essential characteristics		Performance
Fire safety		<ul style="list-style-type: none"> <li>Insulated flue</li> <li>50 mm Skamotec 225 non-combustible panel board</li> </ul> Distances are measured externally on the built-in box
Reaction to fire	A1	<b>Visio 2-1</b>
Distance to combustible materials	rear	-
Minimum distances [mm]	sides	350
<i>For other installation or wall settings see instruction manual</i>	ceiling	1182
	Front	1200
	Floor	475
Risk of burning fuel falling out	Pass	
OGC (mg/Nm <sup>3</sup> rel. 13 Vol-% O <sub>2</sub> )	44	
CO-emission of combustion products	0,071 % / 887 mg/Nm <sup>3</sup>	
NO <sub>x</sub> (mg/Nm <sup>3</sup> rel. 13 Vol-% O <sub>2</sub> )	99	
Dust mg/Nm <sup>3</sup> at (rel. 13 Vol-% O <sub>2</sub> )	24	
Surface temperature	Pass	
Electrical safety	NPD	
Cleanability	Pass	
Maximum operating pressure	- bar	
Flue gas temperature T at nominal heat output	256 °C	
Mechanical resistance (to carry a chimney/flue)	NPD	
<b>Thermal output</b>		
Nominal heat output	8,6 kW	
Room heating output	8,6 kW	
Water heating output	- kW	
Energy efficiency <sup>17</sup>	80 %	
Seasonal Efficiency $\eta_{s,on}$	70 %	

9. 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.

Signed for and on behalf of the manufacturer by:

John Engell Nielsen, R&D Manager

Place FREDERIKSHAVN, DENMARK

Date 14-09-2022

  
 Signature



## Installation specifically for the UK

### Installation instructions

The following pages give instructions for the safe and proper installation of this heating appliance in the UK. These instructions cover the basic principles of installation, although detail may need slight modification to suit particular local site conditions. In all cases the installation must comply with current UK Building Regulations, Local Authority Byelaws and other specifications or regulations as they affect the installation of the stove. Please note that it is a legal requirement under England and Wales Building Regulations that the installation of the stove is either carried out under Local Authority Building Control approval or is installed by a Competent Person registered with a Government approved Competent Persons Scheme. HETAS Ltd operate such a Scheme and a listing of their Registered Competent Persons can be found on their website at [www.hetas.co.uk](http://www.hetas.co.uk).

It should be noted that the current Building Regulations requirements are given in Approved Document J. These requirements may also be met by adopting the relevant recommendations given in British Standards BS 8303 and BS EN 15287-1.

### **WARNING: Health and Safety Advice Notice**

The installation of this heating appliance is governed by the Health and Safety at Work Act 1974. It is the responsibility of the installer to ensure that all requirements of this Act are met during the installation works. Attention is drawn in particular to the following:

#### Handling

The appliance is a heavy item and adequate facilities must be available for loading, unloading and site handling.

#### Fire Cement

Some types of fire cement are caustic and should not be allowed to come into contact with the skin. Protective gloves should be worn when handling fire cement. In case of contact with the skin wash immediately with plenty of water.

#### Asbestos

This stove contains no asbestos. If there is a possibility of disturbing any asbestos in the course of installation then please seek specialist guidance and use appropriate protective equipment.

#### Metal Parts

When installing or servicing this stove care should be taken to avoid the possibility of personal injury.

### **Important Warning – Preparatory Work and Safety Checks:**

- This stove must not be installed into a chimney that serves any other heating appliance.
- It's recommended not have an extractor fan fitted in the same room as the stove as this can cause the stove to emit fumes into the room.
- If this appliance is installed into an existing chimney, the chimney must first be swept and examined for soundness and suitability before the appliance is installed (see also section headed "Chimney").



## Installation

When installing the appliance, all local rules and regulations, including those referring to national standards need to be complied with. Local authorities and a chimney specialist should be contacted prior to set up.

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

There must be plenty of fresh air in the room where the stove is being installed, in order to ensure proper combustion. Note that any mechanical exhaust ventilation - e.g. an extraction hood - may reduce the air supply. Any air grates must be placed in such a manner, that the air supply is not blocked. Alternatively, the stove is supplied with fresh air directly from the outside through a flex tube fitted to the damper (see section 'Airsystem').

The floor structure must be able to carry the weight of the wood burning stove, as well as the weight of a chimney, if necessary. If the existing floor construction doesn't meet this requirement, suitable measures (e.g. load distributing plate) shall be taken to achieve it. RAIS recommends to consult a building expert.

The stove is placed on fireproof material.

The stove should be set up at a safe distance from inflammable materials.

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

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

Upon receiving the stove must be inspected for defects.

## Installation distances

To determine whether the wall next to where the stove is going to be installed is flammable, you should contact your building contractor or the local building authorities.

The hearth should be able to accommodate the weight of the stove. The chimney must be independently supported by wall brackets or a ceiling support plate. The weight of the stove is indicated in the brochure.

The stove should always be installed on a non-combustible hearth of a size and construction that is in accordance with the provisions of the current UK Building Regulations Approved Document J.

If the stove is to be installed on a wooden floor, it must be covered with a non-combustible material at least 12 mm thick, in accordance with UK Building Regulations Approved Document J, to at distance of 225 mm in front of the stove and 150 mm to each side measuring from the door of the combustion chamber.

The clearance distances to combustible material beneath, surrounding or upon the hearth and walls adjacent to the hearth should comply with the guidance on the separation of combustible material given in UK Building Regulations Approved Document J and also in these stove instructions.

It must be ensured that no combustible objects (eg. furniture) are placed closer than the distances given in the tables Minimum distance to flammable materials (risk of fire).



**attika**<sup>®</sup>  
FEUERKULTUR

**ATTIKA FEUER AG**

Brunnmatt 16  
CH-6330 Cham  
Switzerland  
[www.attika.ch](http://www.attika.ch)

**RAIS**<sup>®</sup>  
ART OF  FIRE

**RAIS A/S**

Industrivej 20  
DK-9900 Frederikshavn  
Denmark  
[www.rais.com](http://www.rais.com)