










*TRADITIONAL FIREPLACE INSERTS*

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*User Manual and Warranty Card (EN)*

-  Rated Output
-  Heating Output Range (kW)
-  Flue Pipe Diameter
-  Heat Efficiency (%)
-  CO - Emission (at 13% O<sub>2</sub>) ≤ given in %
-  PM Pollen Emission
-  Weight

Keep this Manual for future reference!

# !!! Important

The most important point in manual/manufacture's warranty is the correct usage of the fireplace - its loading.

Wood quality - deciduous wood with a moisture content of maximum 16 % (+/- ) 4 %.

The fireplaces have energy consumption values for the amount of fuel (wood) in operation.

Depending on the size of the fireplace, its capacity will vary, which means the amount of fuel you can fit in it will be different.

## **Important 1 kg of wood provides ~3 kW**

### Example:

to obtain the rated kW power of the fireplace stove of 10 kW, the wood load will be ~ 3.5 kg

10 kW : 3KW = 3.5 kg of wood

for a 16 kW fireplace, the load will be ~ 5 kg.

16 kW : 3 kW = 5 kg of wood

The next batches of wood should be added successively on the ignition layer of the embers, after the wood has burned out.

Failure to meet the proper wood load in the fireplace=will lead to overheating of the fireplace and its components and thus void the fireplace's warranty.

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Thank you for your trust and for choosing our insert to heat your house. We have produced our fireplace with your safety and comfort in mind. We can be confident that our commitment to designing and manufacturing fireplaces will be matched by your satisfaction in making this excellent choice. Please read all the sections in this Manual carefully before starting any installation work and use. Please contact our technical-support department if you have any queries or doubts. For any further information go to [www.fram-gmbh.de](http://www.fram-gmbh.de)

#### Foreword

FRAM GmbH is a renowned and appreciated heating appliance manufacturer, on both the Polish and European markets. Our products are made in compliance with stringent standards. Each of the fireplace fireboxes (inserts) we have manufactured undergoes internal quality inspection during which it is assessed in rigorous safety tests. The prime-quality materials we use in the production ensures that the final user will benefit from a functional and reliable heating unit. This manual provides all the necessary information for the correct connection, operation and maintenance of the firebox.

#### Caution!

Please make sure that the fireplace is operated in the correct way: use suitable wood and clean regularly to be rewarded with many wonderful and warm autumns and winters. Please find below a few guidelines for the correct maintenance of the fireplace fireboxes by FRAM GmbH

1. The firebox must be installed and adapted by qualified persons
2. Check the chimney flue at least once a year
3. Use dry hardwood with a humidity of up to 20%
4. Replace the sealing before every heating season (backing strip in the door and under the glass)
5. Remove ash from the ash trap regularly
6. Do not overheat the firebox: maximum load must not exceed 1/3 of the combustion chamber volume
7. Clean the glass with agents intended for such use, keeping in mind not to apply them directly onto the glass, but on a cloth

## INTRODUCTION

### CAUTION!

The requirements on the conditions and rules of installing hearths such as fireplace fireboxes or free-standing wood-burning space heaters can be found in the applicable standards and national and local regulations in every country. Adhere to the provisions contained there!

To avoid the risk of fire, the appliance must be installed in compliance with the valid standards and technical practice referred to in this Manual. Its installation must be carried out by a professional or qualified person. The appliance conforms to EN 13229 and is CE certified. Any applicable laws at the site where the appliance is installed must be adhered to at all times. Firstly, make sure that the chimney flue is suitable. The appliance must be installed in compliance with the applicable construction law standards. The firebox must be placed within a safe distance from any inflammable materials. Protect walls and materials surrounding the firebox, if necessary. Place the appliance on a rigid, non-flammable base; the chimney must be air-tight with smooth walls. Prior to being connected, it must be cleaned

of soot and any contaminants; the connection between the chimney and the firebox must be air-tight and made of non-flammable materials and protected against oxidation (enamel or steel flue liner). If the chimney generates a poor draught, consider installing new ducts. It is also important that the chimney does not generate too much draught, but, if so, install a chimney draught stabiliser. Alternatively, install special chimney terminations for the draught control. The inspection of the chimney flue must be contracted to a master chimney sweep, and any conversions are obliged to be made by an authorised service only, so that all the requirements stipulated by the respective national law in force are met.

## APPLICATIONS

The fireplace insert by FRAM GmbH belongs to the group of solid-fuel fireboxes with manual fuel load and closable firebox door. They can be installed in a housing or inset into an opening in an existing wall. They are designed to burn hardwood, specifically, hornbeam, oak, beech, acacia, elm, maple, or birch, with a humidity of <20% (charcoal briquettes are also allowed). They are used as auxiliary heat sources in rooms they are installed in.

The housing structure design must be detachable from the fireplace insert to allow for assembly and disassembly without needing to destroy or damage the structure. It also should provide air supply needed for burning, as well as ventilation by means of suitable grilles, and an easy access to operate the flue damper or a chimney draught controller (if installed).

## INTRODUCTORY INFORMATION

### CAUTION!

To prevent the risk of fire, the fireplace insert must be installed in compliance with the rules and regulations of good building practice and with the technical guidelines provided in this Installation and Operation Manual. The design of the chimney system must be by a qualified specialist. Prior to commissioning, a recorded technical acceptance must be conducted and the chimney sweep and fire specialist reports attached.

## GENERAL REMARKS

- Prior to the fireplace insert installation, the chimney flue must be assessed by an expert and accepted for its technical specifications, as well as technical functionality of leak tightness and flow capacity.
- The installation and startup of the fireplace insert must be carried out by an installation company with satisfactory qualification and experience.
- The fireplace insert must be located as close to the chimney flue as possible. The room it will be installed in must be fitted with a functional ventilation system and the required amount of air for correct insert operation.
- When handling the fireplace insert, do not carry it by the handle, as it may result in its damage.
- Before you start using the insert, remove the stickers from the glass.
- The insert's technical specifications apply to the fuel defined herein.
- The chimney flues must be inspected in the due time (min. twice a year).
- Pursuant to the applicable law, a stove may not be the only source of heat, but a supplementary one to the existing heating system only. The purpose of such a regulation is the necessity to provide heating for buildings during a prolonged absence of residents.

The fireplace insert installation must be performed with adherence to the provisions in force within this standard scope, the construction law requirements and fire safety standards in force in this regard. The particular provisions on design safety, fire safety and safety of use are laid down in the construction regulations and codes in force in the respective countries.

## FUEL CHOICE

### Recommended Fuel

the manufacturer recommends hardwood billets like beech, hornbeam, oak, alder, birch, ash, etc., with billet or split log dimensions 30cm long and circumferences between 30 and 50cm; the humidity of the fuel wood for the appliance should not exceed 20%, which is characteristic of wood seasoned 2 years after felling and stored under cover.

### Not Recommended Fuel

You should avoid burning billets of split logs with a humidity of over 20% as it can prevent the appliance from achieving its declared technical specifications, and can reduce the heat output.

Burning softwood billets and high-resin wood in the appliance is not recommended, as they result in heavy smoking and frequent cleaning of the appliance and chimney flue.

### Prohibited Fuel

The following is not allowed to be burned in the inserts: minerals, e.g. coal, tropical wood (like mahogany), chemical products and fluids (like oil, alcohol, petrol, naphthalene), laminated boards, adhesive-bonded impregnated or pressed wood chips and litter. If any other fuel is allowed, it will be notified on the rating plate.

## FIREPLACE INSERT EXTERNAL HOUSING

The housing should ensure air supply needed for ventilation and air circulation inside the housing with the use of fireplace grilles selected to match the insert output (in the lower section of the housing - under the insert) and an exhaust grille (at the top of the housing - above the insert).

### Choosing Grilles

Supply and exhaust grilles. Make a supply opening(s) in the lower section of the fireplace firebox housing to let the air needed for heating enter the housing (air inlet; lower air grilles). To provide proper discharge of the hot air from the fireplace hood, fit it with exhaust openings terminated with air grilles (air outlet; upper air grilles). The openings are finished with grilles with their face areas depending on the fireplace firebox output from 40 to 60 sq cm/kW of the firebox output.

**Caution: Due to high temperature in the firebox housing, both the grilles in the hood and those ones at the end of the air distribution system in the house must be made of metal. Only the grilles without louvres may be mounted in the fireplace hood.**

The grilles active area. The recommended effective areas of the inlet/outlet grilles for the fireplace fireboxes (steel or cast-iron) of up to 10 kW are: air inlet (lower air grilles)/air outlet (upper air grilles) area  $\geq 500$  cm<sup>2</sup> (total active area of the grille(s)); for fireplace fireboxes of max. 15 kW: air inlet (lower air grilles)/air outlet (upper air grilles) area  $\geq 700$  cm<sup>2</sup> (total active area of the grille(s)); and for the fireplace fireboxes of max. 15 kW: lower air grilles/air outlet (upper air grilles) area  $\geq 800 - 1200$  cm<sup>2</sup> and higher (total active area of the grille(s)).

The grilles in the decompression area. Since a very high temperature is reached inside the hood, mount a shelf for decompression area (i.e. a ceiling over the firebox) inside the hood, approx. 40 cm from the ceiling of the room. This prevents the ceiling in the room from getting hot and minimises heat loss. At a suitable height underneath, mount outlet grilles which discharge heat from the chamber above the fireplace. The (decompression) grilles are mounted on both sides of the housing, one above, and the other below the decompression shelf. They let the air flow with force to circulate and cool the surface of the ceiling. As for the size of these grilles, their effective cross-section is not relevant.

## FIREPLACE FIREBOX ASSEMBLY AND INSTALLATION

The installation of the fireplace insert must be carried out by a person who is sufficiently qualified to conduct assembly and installation work of this kind. This is a prerequisite for safe fireplace firebox use. The installer must confirm correct assembly and installation execution in the guarantee certificate by signing and sealing it. Failure to comply with this requirement will void all the Buyer's warranty claims

against the fireplace insert manufacturer.

### PREPARATION FOR INSTALLATION

The fireplace insert is delivered in a ready-to-be-installed state. Remove the packaging and check the appliance for completeness according to this Operation Manual. You should also ensure that the following are operational

- The control of the air supply for the combustion chamber (ash drawer);
- The correct functioning of closing the front door (hinges, handle);
- The flue and smoke pipe durability must have a fire resistance rating of a min. of 1 hr;
- The fireplace insert may be installed only after the smoke duct chimney sweep report has been completed;

### FIREPLACE INSERT INSTALLATION

The fireplace insert installation must be carried out in compliance with the construction law provisions, fire safety provisions, and general regulations, in particular:

- Before you choose the site for the insert installation, consider all aspects related to its location as far as the construction practice and fire safety are concerned
- Ensure that the mechanical strength of the floor base on which the insert is to be placed is suitable, calculating the total weight of the fireplace firebox together with its housing
- The fireplace insert must be installed on a non-flammable floor base with a min. thickness of 300 mm, and the floor has to be separated from the insert door with at least 300-mm area of non-flammable material
- The smoke duct must meet some basic criteria, which are the following:
  - It must be made of materials characterised by low heat conduction
  - For a fireplace insert with a flue pipe dia. of 200 mm, the min. cross-section must be 4 dm<sup>2</sup>;
  - The flue cannot have more than two 45° inclinations for the duct height of up to 5-m, and 20° inclinations, for the duct height of more than 5 m;
- the chimney draught values:
  - Minimum draught: 6 ± 1 Pa
  - Medium, recommended draught: 12 ± 2 Pa
  - Minimum draught: 15 ± 1 Pa
- The structure and housing of the fireplace firebox must be made with the use of non-flammable and insulating materials, such as, aluminium foil faced mineral wool, ceramic fibres, glass-fibre heat-resistant panels, aluminium covers
- Ensure the correct air circulation and balance in the room in which the fireplace firebox is to be installed:
  - The distance of the insulation from the insert walls between 8 and 12 cm
  - Use separate air supply to the insert combustion chamber in the rooms with mechanical ventilation or with air-tight window joinery; the manufacturer recommends to fit an air intake
  - If there is a system in use which distributes air to other rooms, in order to provide free air circulation, ensure that after cooling down the air returns to the room in which the fireplace insert is installed. Failing to follow this rule may lead to disturbing the cycle run of the chimney liner and preventing the thermal distribution process of the air.

The volume of the room in which the stove is installed should be min. 30 m<sup>3</sup> and have a sufficient air supply to the stove firebox.

Approx. 8 m<sup>3</sup> of air is assumed to burn 1 kg of wood in a fireplace with the enclosed combustion chamber.

It is therefore of great importance that you supply fresh air for burning, with the external air intake being the best solution for this purpose. Such an arrangement allows for feeding cold air for the bur-

ning process. Install an air damper in the supplying system as well to prevent the room temperature from falling while the stove is not being used. There are two methods to distribute hot air to rooms: natural and forced.

### **NATURAL HOT AIR DISTRIBUTION**

If you need to heat the space which is not larger than the room in which the stove is installed and the adjoining rooms, choose the natural method. In this case, the hot air will travel up to the heating conduits thanks to the so-called thermal buoyancy. If you apply this method, please remember to design well-insulated and quite short (max. 3 m) distributing conduits. The warm air must not be distributed to too many rooms at a time. If the distance from the flue pipe is higher than 3 metres, the hot air is not able to overcome the resistance of flow and does not reach the outlets, or its velocity is too low, and as a result the natural flow proves ineffective.

A relatively low cost of installing such a system is one of the advantages of it. However, the accompanying high temperature is a disadvantage as, when no correct filtration occurs, it produces the extremely harmful process of dust pyrolysis, and for this reason the number of followers of this method is on the decrease.

### **FORCED HOT AIR DISTRIBUTION**

The forced method requires a supplying device, a chimney fan, to be mounted to draw the hot air warmed up by the fireplace firebox and to pump it to all the branches of the system. This is why a pipe which connects the insert's flue pipe to the supplying device has as large cross-section as possible, while being of a minimum length for this application.

To install the hot air distribution (DGP) system you will need:

- Conduits, pipes, adapters, reducing adapters, distribution cabinets and filters, all made of galvanised sheet in most of cases
- Air grilles or valves
- Flexible insulated liners with a resistance of min. 250°C (non-flammable);
- A supplying device, e.g. a chimney fan

You can find all of the components listed above in our range of products.

The DGP system installation should be performed by expert fitters who will design the connection system and distribution of all the sections properly. Before you begin installing the fireplace firebox and the DGP system, analyse the heating load for the space you intend to warm, and consider the ventilation devices needed for this purpose.

The forced draw systems provide obviously greater possibilities than the natural ones.

A more sophisticated assembly is their drawback, as well as their operation costs related to power consumption by the fan. Such expenses are compensated, however, by savings from the overall lower heating bills for the building.

The figure shows a sample installation and connection to the chimney. (Figure 1.)

### **SPARE PARTS**

FRAM GmbH guarantees the spare parts supply throughout the period of the appliance use. Contact our sales department or our local distribution centre to order the spare parts.

### **IRREGULARITIES DURING THE FIREPLACE INSERT USE**

During the operation of the fireplace insert there can occur some irregularities which indicate that the stove is working improperly. This may be caused either by the incorrect installation of the fireplace insert, that is, without adhering to the valid provisions of law or instructions in this Manual, or for reasons beyond one's control, e.g. the natural environment. The next section shows the most frequent reasons for the incorrect operation of the insert and how to rectify such occurrences.

- a) Back-puffing when the stove door is open:



- too abrupt opening of the door (open the door slowly);
  - Insufficient air supply to the room in which the fireplace insert is installed (provide adequate ventilation in the room or supply air to the combustion chamber in accordance with the instruction in the Manual);
  - weather conditions;
  - insufficient chimney draught (have the chimney flue inspected by a chimney sweep).
- b) Not sufficient heating, or the firebox goes out:
- too little fuel in the hearth (load the hearth according to the Manual);
  - too high humidity of the wood used for burning (use wood with a humidity of up to 20%);
  - insufficient chimney draught (have the chimney flue inspected by a chimney sweep).
- c) Insufficient heating in spite of the proper burning in the combustion chamber:
- low-calorific softwood (use wood which meets the guidelines in the Manual);
  - too high humidity of the wood used for burning (use wood with a humidity of up to 20%);
  - wood which is overly fragmented.
- d) Excessive dirt accumulation on the fireplace insert glass:
- low-intensity burning (do not operate the insert with a very low flame, use dry wood fuel only);
  - the use of high-resin softwood as fuel (use dry hardwood fuel in compliance with the firebox operation manual).
- e) The insert operation can be affected by weather conditions (air humidity, fog, wind, air pressure), and sometimes by surrounding tall buildings. If problems persist, have a chimney sweep company carry out a study and issue a report or use a draught cowl (e.g. the Stražak model).

**CAUTION!** As a result of slow burning, an excessive amount of organic combustion products is produced (soot and water vapour), which forms the ignitable creosote in the smoke duct.

This leads to violent combustion in the chimney flue (large flame and high temperature) referred to as a chimney fire.

If such a phenomenon occurs, do the following

- close the cold air intake to the combustion chamber;
- ensure that the insert front door is closed correctly;
- call your local Fire Service.

## FIREPLACE FIREBOX STARTUP AND OPERATION

### GENERAL REMARKS

#### STARTING A FREE-STANDING FIREPLACE/STOVE

The so-called top-down lighting is the only correct and recommended method of starting fireplaces and free-standing stoves.

#### STEP-BY-STEP PROCEDURE

##### 1. MATERIAL NEEDED

- A few larger wooden billets (split; max. humidity 20%; approx. 10-13 cm) - a handful of splints for kindling (dia. approx. 2-5 cm ; max. humidity 20%),
- Tinder of choice
- Matches/Lighter

##### 2. FIREPLACE AND HEARTH PREPARATION

- Open all air supplies/dampers in the fireplace
- Stack the larger billets in alternate directions on the bottom of the hearth
- Put a layer of smaller splints on the top of the thick billets for kindling (not more than 3 layers). Arrange the splints so that there is some space between them to let the air flow freely
- Place the tinder on the top layer



#### LIGHTING

Strike a light and close the fireplace door. Depending on how long the chimney flue is and how strong its draught is, lighting may take from a few to dozen plus minutes. If the chimney draught is not sufficient, let some air in by opening the fireplace door slightly. It might be a good idea to open a window slightly in the room in which the fireplace is installed to supply larger amount of air to the appliance (the appliances without integrated external air intake only)

The fireplace insert is designed to burn wood with a humidity of up to 20%. Using coal, coke, coal-based products, plastic, litter, cloths and other flammable materials is not allowed.

Burning approved wood briquettes made of wood dust or pellet is temporarily allowed, but in small quantities only.

The following is practical guidance for assessing the wood used as fuel. The wood which is to have a humidity of 18-20% must be seasoned for 18-24 months or kiln-dried. As the humidity of wood decreases, its net calorific value rises, which brings financial savings of even up to 30% of the total wood weight needed to run the appliance during one heating season. If the wood used for burning is of too high humidity, then, too much energy needed for evaporation and condensation in the flue pipe or

combustion chamber can be consumed, which affects the heating process of a room. Another negative process occurring when the high-humidity wood is used is the emission of creosote, a deposit which damages the chimney flue and, in extreme cases, can result in ignition and a chimney fire.

It is therefore recommended to use hardwood like oak, beech, hornbeam or birch. Lower calorific values are typical of the coniferous trees and burning their wood produces heavy soot accumulation on the glass.

**CAUTION! It is allowed to run the fireplace insert without a housing during a trial startup only.**

### **FIREPLACE INSERT STARTUP**

Before fitting a housing for the fireplace firebox, carry out a few trial startups, during which you verify the functioning of the flue damper and other moving parts of the insert. During first two weeks of use, run a newly-installed fireplace firebox at approx. 30% of the rated output, and raise the temperature gradually. Such use of the insert allows for gradual elimination of the internal stress, which prevents thermal shocks. This is a major factor for the subsequent durability of the insert.

At a few first startups, the insert can produce an odour of enamel, silicone sealant and other materials used for the casing. It is a typical event, which will cease after several runs. When you have been using the insert for the first month, gently tighten the screws in the brackets that secure the glass pane.

### **FIREPLACE INSERT OPERATION**

In order to light the fire in the fireplace firebox, use the handle to open the door of the insert, put some tinder on the grate (dry paper is recommended), then, some fragmented wood and wooden billets. The use of synthetic tinder is not advised due to emitting characteristic unpleasant smells by its chemical compounds.

Move on to opening all inlets in the front cover of the ash trap and lighting the tinder, and then close the front door of the stove.

**CAUTION! Lighting other materials than these stipulated by this Operation Manual is forbidden. Do not use inflammable chemical products for lighting the stove, such as oil, petrol, solvents, etc.**

After you light the fire, make sure you replenish the wood in the insert combustion chamber by putting fuel inside so that the chamber is filled in a reasonable way for the intended burning time determined by the user, based on his/her individual experience. When the stove is running, close the front door of the fireplace insert. Maintaining maximum burning temperatures for a prolonged time can lead to overheating and damaging the cast-iron parts of the insert. Use the revolving flue damper control in the flue pipe of the fireplace to adjust the intensity of the fuel combustion process in the fireplace firebox, and choose the right setting of the cover in the ash trap casing. Make sure that the level of ash accumulating in the ash pan is not too high to prevent the weakening of the grate cooling process and inhibition of the air supply for burning. To empty the ash drawer, close the cold air supply to the combustion chamber, slowly open the front door of the insert, remove the fire grate, and then take the ash drawer out of the fireplace insert body and remove the ash from it, paying attention to follow the fire safety regulations.

**CAUTION!** Remember that during all insert operation and maintenance work the temperature of the insert's parts might be high, so wear heat-resistant gloves for the insert's operation. Follow the rules which ensure the basic safety conditions for all operation and use of the fireplace insert

- Read the fireplace insert's Operation Manual and adhere to its instructions at all times
- The insert must be installed and started by an installer with relevant qualifications
- Do not leave any heat sensitive items near the firebox glass, do not put out the fire in the hearth with water, do not operate the firebox when its glass is fractured, do not allow any flammable items near the firebox
- Do not let your children near the stove

- Follow the rule of opening the front door slowly while simultaneously closing the cold air supply to the combustion chamber
- Have all repairs done by a licensed installer and use spare parts from the manufacturer of the insert only Any structural, installation or operational changes are not allowed without the written consent of the manufacturer

### **CHIMNEY LINER MAINTENANCE**

The fireplace firebox and smoke duct maintenance activities consist of ensuring that the guidelines below are followed.

The regular or scheduled maintenance work for the insert involve:

- ash removal, front glass cleaning, combustion chamber cleaning, chimney flue cleaning
- leaving the ash in the ash drawer for an extended period of time will result in chemical corrosion of the ash drawer
- regular cleaning of the insert combustion chamber must be performed (how often it needs to be done depends on the variety and humidity of the wood used)
- use a poker, scrapers and a brush to clean the cast-iron parts
- clean the front glass with agents intended for such use (do not use them for cleaning the cast-iron parts of the insert) do not use abrasive agents for cleaning as it will leave scratches on the glass
- Have the chimney flue cleaned by a chimney sweep company and record this fact in the firebox log (clean the flue twice a year).

CAUTION! Perform any maintenance work only after the fireplace firebox has cooled down, and wear safety gloves.

### **WARRANTY TERMS**

The use of the fireplace insert, method of connection to the chimney and the conditions of use must comply with this Operation Manual. Any conversions of or changes to the structure of the fireplace insert are forbidden.

The manufacturer grants a 5-year guarantee for the efficient operation of the insert since its purchase. The Buyer of the fireplace insert must read the Operation Manual of the fireplace insert together with these Warranty Terms, which the Buyer confirms with an entry in the guarantee certificate at the moment of purchase.

In the event of making a complaint, the User of the fireplace insert is obliged to submit a signed complaint report, the completed guarantee certificate and the proof of purchase. Submitting the above-mentioned documents is necessary for considering any claims. The complaint will be considered within 14 days of the date of its submitting in writing. Any conversions, modifications or changes as to the design of the insert will void the manufacturer's guarantee immediately.

The guarantee covers:

- Cast-iron parts
- The moving parts of the devices used for controlling the flue pipe cover and the ash trap cover
- The fire grate and sealing of the stove for the period of 1 year since the moment of purchase
- The ceramic panels for the period of 2 years since the moment of purchase

The guarantee does not cover:

- The vermiculite panels
- Heat-resistant ceramic parts (resistant to the temperature of max. 800°C)
- Any defects resulting from failing to comply with the provisions of the Operation Manual, and, in particular, those referring to the fuel and tinder used
- Any defects resulted during transport from a distributor to the Buyer
- Any defects resulted during installation, fitting the housing and starting the fireplace insert
- Any damage resulted from overheating the chimney liner (related to non-compliance with the provisions of the Operation Manual on the use of the insert)

The guarantee is subject to prolongation over a period from submitting the complaint to notifying the Buyer of the completion of a repair. Such period must be verified in the guarantee certificate.

Any damage resulting from undue operation or storage and unprofessional maintenance, non-compliant with the conditions set forth in the Operation and Use Manual, and arising from other causes not attributable to the manufacturer, will void the guarantee, if such damage affects the insert's quality.

**CAUTION!** Using coal as the fuel for any insert of our make is prohibited. Burning coal will void the guarantee on the firebox in all cases. The customer who makes a formal complaint about a fault under the guarantee will have to sign a declaration that they did not use coal or any other prohibited fuel for burning in our insert. If any doubt arises as for the use of the above-mentioned fuels, the stove will be evaluated for the presence of the prohibited substances by an expert. If the evaluation shows that they were used, the customer will lose all the rights under this guarantee and will be obliged to cover all costs of the complaint (including the evaluation costs).

This Guarantee Certificate entitles the Buyer to have the repairs under the guarantee performed free of charge.

The Guarantee Certificate bearing no date, stamp or signatures, or with any corrections made by unauthorised persons is invalid.

#### **Copies of the guarantee will not be provided!!!**

Serial number of the appliance .....

Type of the appliance .....

The above terms of guarantee shall not suspend, limit or exclude any consumer's rights related to the non-compliant goods, arising from the provisions of the Act of 27 July 2002 on specific conditions of consumer sales. In aiming at the continual improvement of its products, FRAM GmbH reserves the right to make changes to its appliances without notice.

made with the external air intake connector with a diameter of  $\phi = 125$  mm (13), fitted with a control device (7).

The ZIBI model has no fire grate. The combustion is effected on the plate (9) as the so-called ash burn-out. The Acumotte floor panel is a part of the combustion chamber lining (12) on which the fuel burns, and which is the base of the combustion chamber.

The burnt waste: remove the ash and residual unburnt wood with a dustpan and brush, a chimney vacuum or an adapter for an industrial vacuum cleaner.

There is a vermiculite baffle over the combustion chamber. The baffle provides a natural convection conduit for flue gas flow to enhance heat exchange.

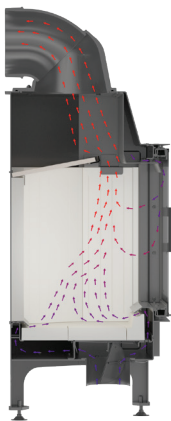
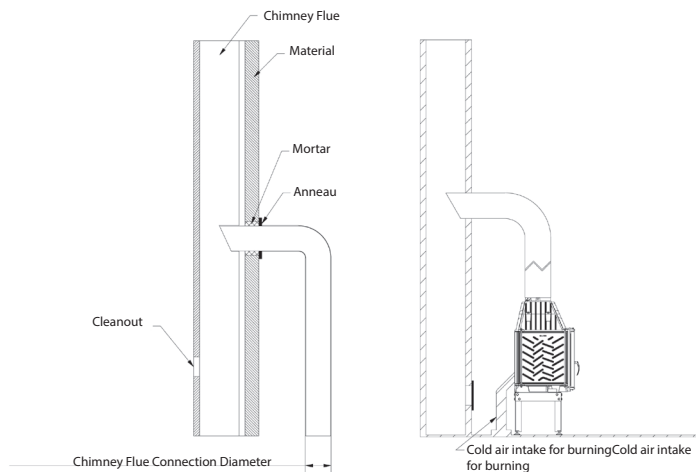
The air is controlled with a lever (8). Open the primary air supply by moving the control lever to the leftmost position, and close the air intake by moving the lever to the rightmost position.

During the firebox's operation, the flue gases ascend the walls of the combustion chamber (1), then they move under the baffle and continue up to the flue pipe (10), to get to the chimney via the smoke duct.








The air damper is fitted in the air intake duct outside the building, and it controls the amount of air taken in by the fireplace to ensure the optimal burning process.




## FIGURES

1. Example of the stack connection








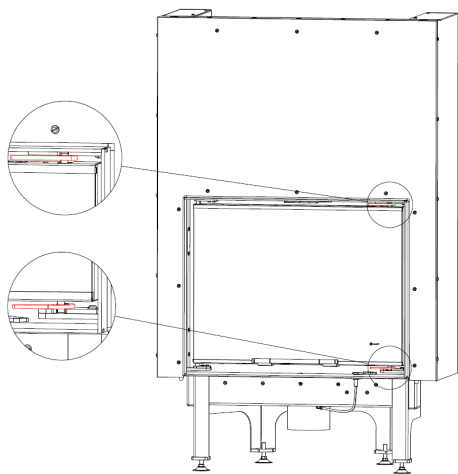
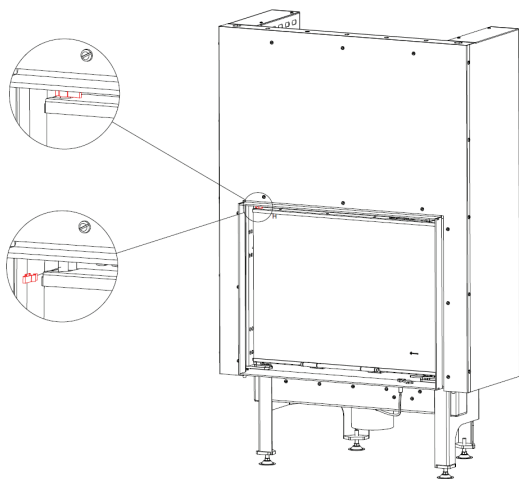
2. The air circulation overview inside the inserts from the NADIA Series.

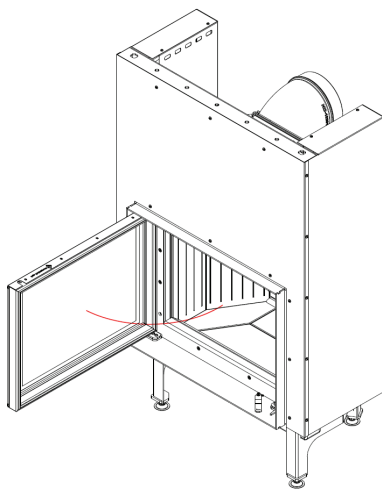
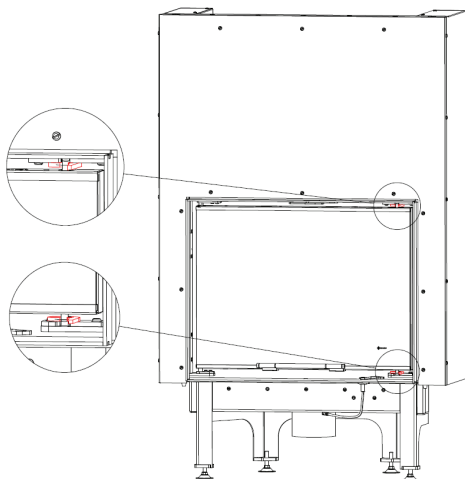
kW	Power rating (kW)		Front glass
<kW<	Range of power rating (kW)		Temperature (°C)
	Efficiency (%)		
CO	CO - Emission (with 13% O2) ≤ Given in percent		
PM	Pollen emission (mg/Nm <sup>3</sup> )		
	Lift up system - joined glass without holding iron brackets - right/left		
A++	Efficiency class devices		
Eco design	Complies with the eco design 2022 requirements		
	Dimensions of the glass (cm)		
≥m <sup>2</sup> ↑	Recommended ventilation area of the air outlet grid (cm <sup>2</sup> )		
≥m <sup>2</sup> ↓	Recommended ventilation area of the air intake grid (cm <sup>2</sup> )		
	Joined glass without holding iron brackets - left		
	Joined glass without holding iron brackets - right		
BlmSchV 2	Fireplace insert meets BlmschV 2 norms and regulations		

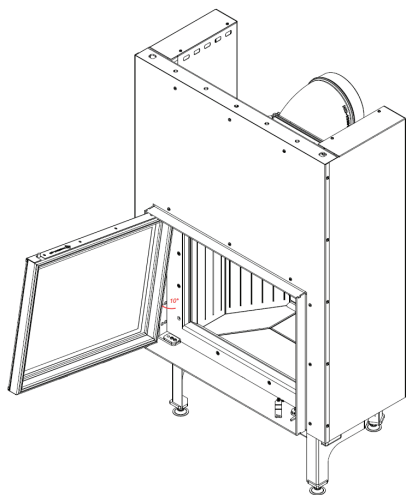
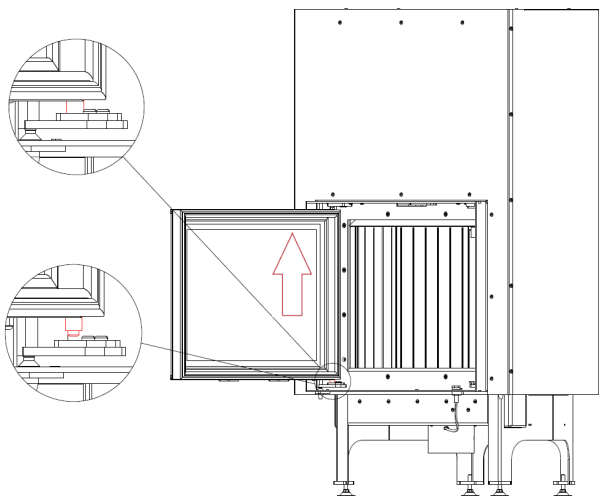
	kW	<kW<		CO	PM	 °C		A++
R1/60	10	4,5-12,5	81	0,10	28	235	200	A
R1/68	10	5-12,5	80	0,10	32	255	200	A+
R1/80	12	8-16	80	0,08	36	245	200	A
R1/100	14	6-17	82	0,10	27	220	200	A
R2/48/48/L	8	3,5-10	84	0,10	26	230	200	A+
R2/48/48/P	8	3,5-10	84	0,10	26	230	200	A
R2/61/43/L	9	3,5-11	81	0,09	23	220	200	A
R2/61/43/P	9	3,5-11	81	0,09	23	220	200	A
R2/70/48/L	12	5-15	82	0,10	27	240	200	A
R2/70/48/P	12	5-15	82	0,10	27	240	200	C
R2/81/41/L	14	6-17	82	0,10	13	245	200	A
R2/81/41/P	14	6-17	82	0,10	13	245	200	A
R3/50/50	8	3,5-10	83	0,09	38	198	200	A
R3/60/40	9	4-11	84	0,09	22	192	200	A
R3/80/40	10	5-13	83	0,06	27	191	200	A
R3/70/50	11	4,5-14	83	0,09	17	180	200	A+

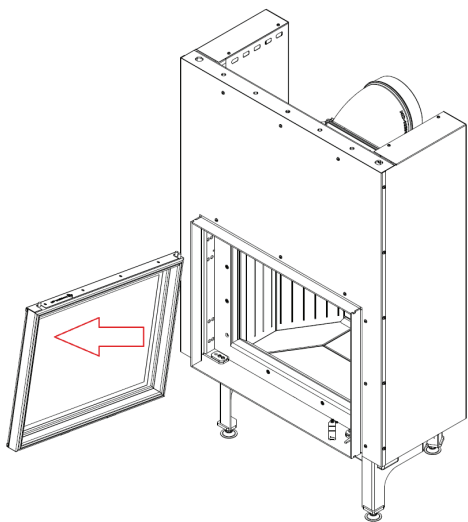


	BImSchV 2	Eco design			≥m <sup>2</sup> †	≥m <sup>2</sup> ‡	—			
+	✓	✓	252	560x378	700	500	✓	✓	✓	
-	✓	✓	219	610x435	900	700	✓	✓	✓	
	✓	✓	249	757x435	900	700	✓	✓	✓	
	✓	✓	327	955x296	900	700	✓			
-	✓	✓	195	483x430	700	500		✓		
	✓	✓	195	483x430	700	500			✓	
	✓	✓	223	613x430	700	500		✓		
	✓	✓	223	613x430	700	500			✓	
	✓	✓	250	672x490	900	700		✓		
	✓	✓	250	672x490	900	700			✓	
	✓	✓	261	782x490	900	700		✓		
	✓	✓	261	782x490	900	700			✓	
	✓	✓	238	494x464	700	500				✓
	✓	✓	235	594x464	700	500				✓
	✓	✓	275	794x464	700	500				✓
-	✓	✓	299	711x464	900	700				✓

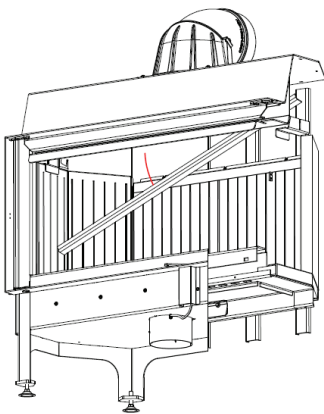
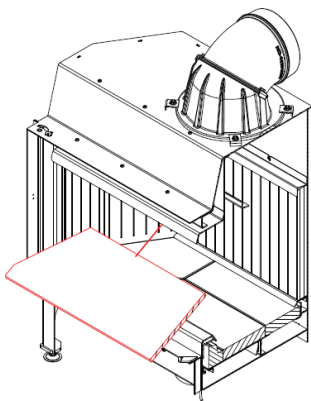
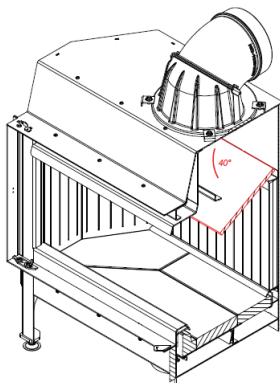
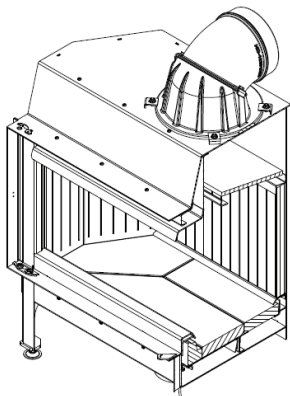


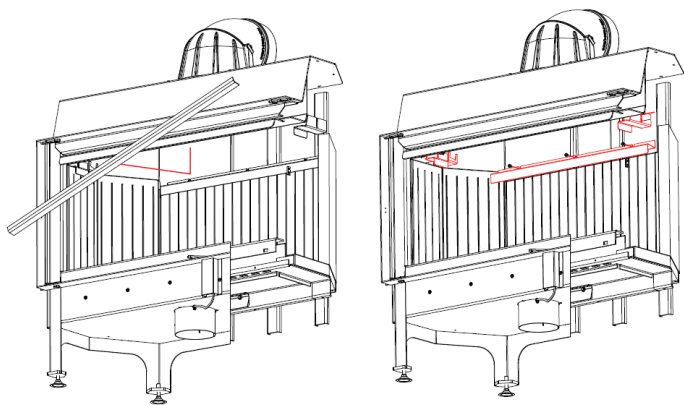




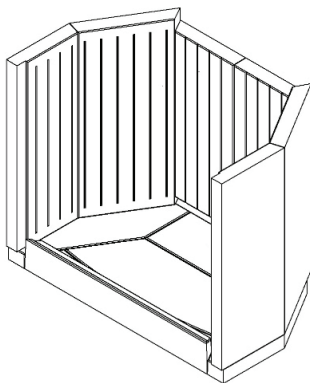


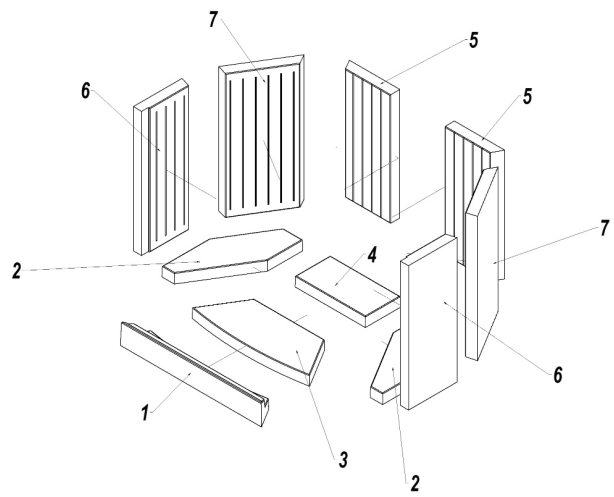
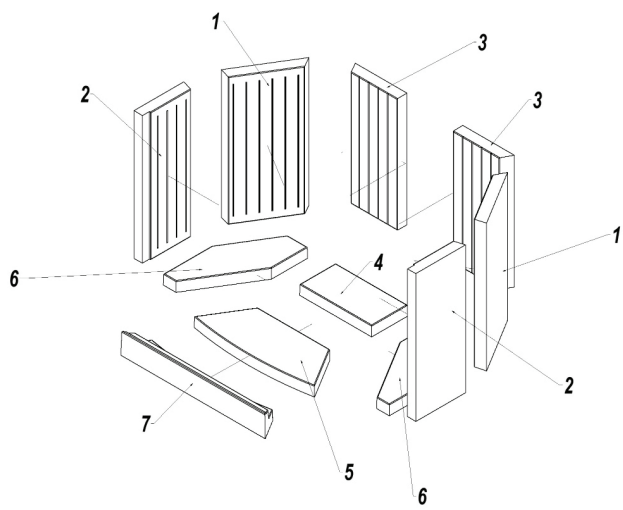
The procedure for the baffle and Accumote disassembly and replacement – the R1 Series.





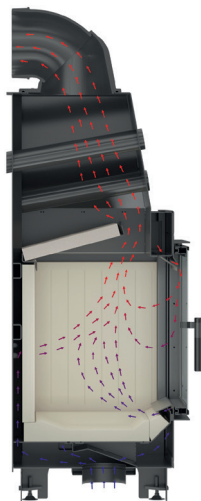
The order of Accumote components removal

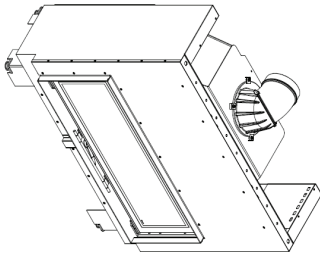
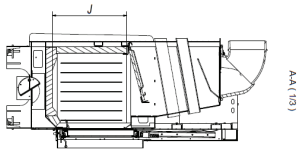
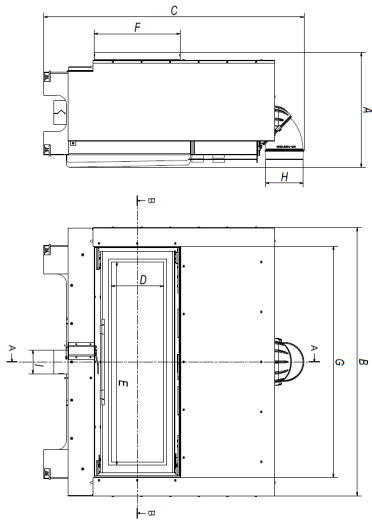
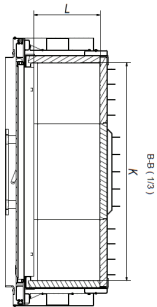


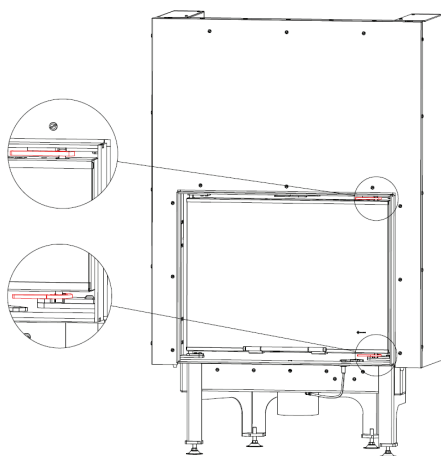
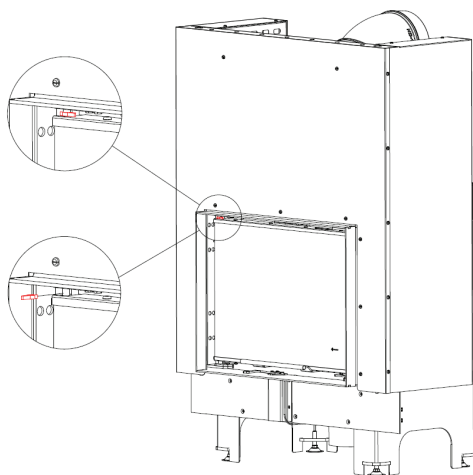


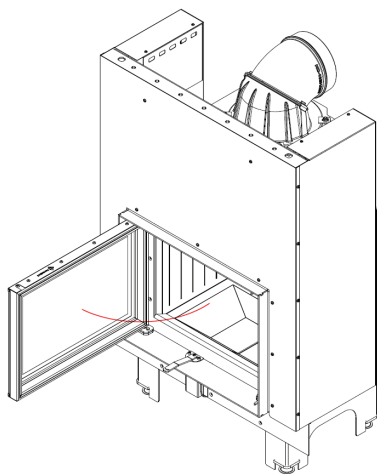
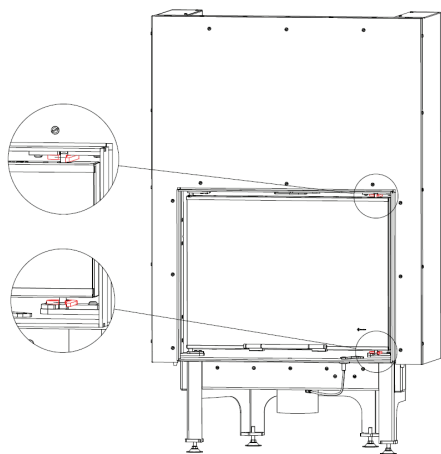


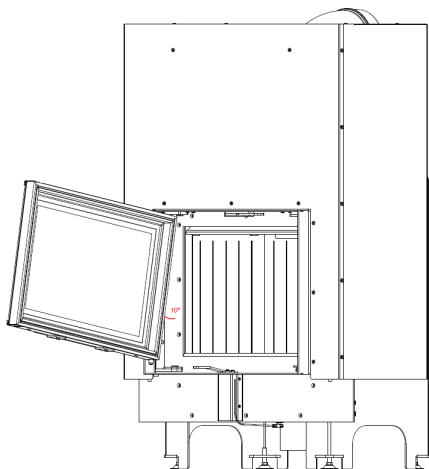
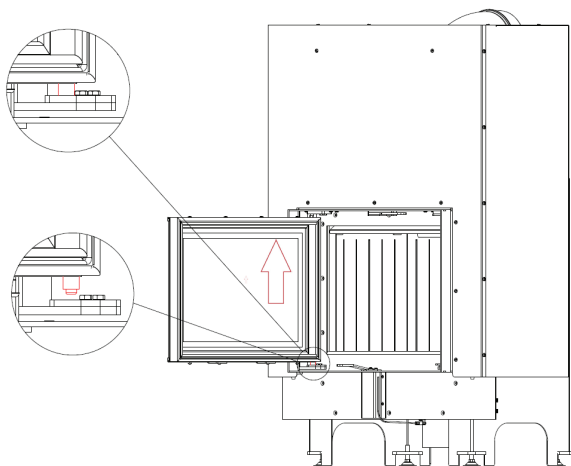
The air circulation overview inside the inserts from the **R1/100**, **R1/60** Series.

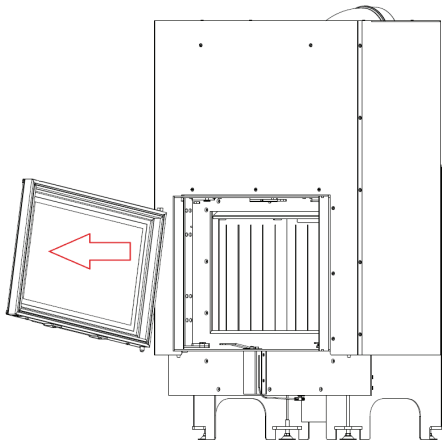




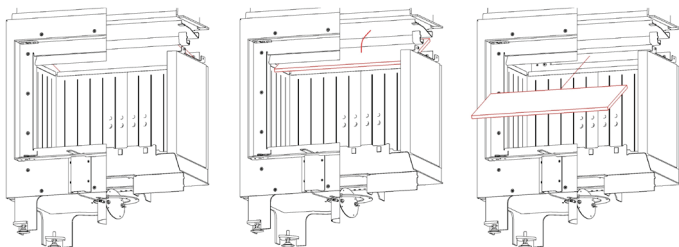


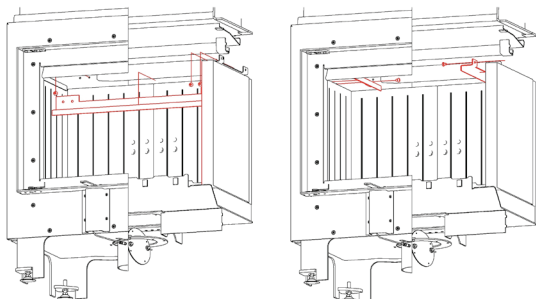




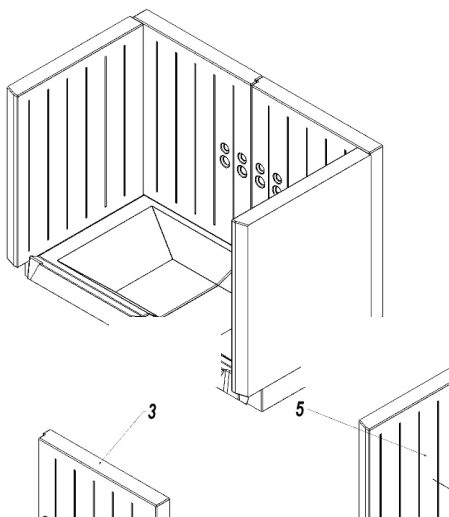


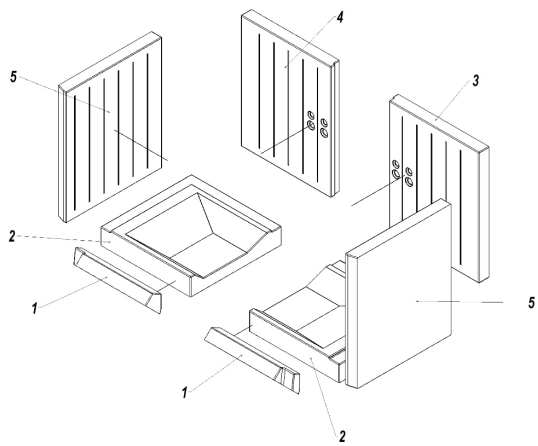
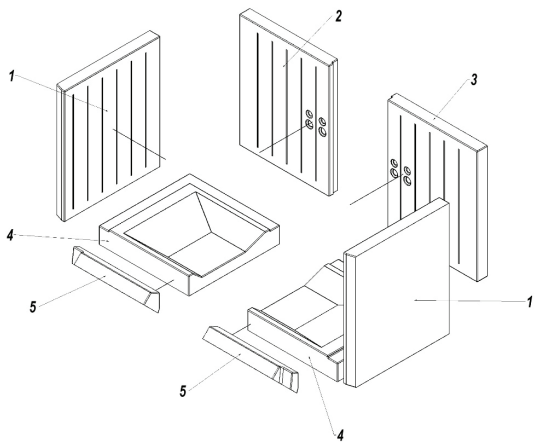
The procedure for the baffle and Accumote disassembly and replacement – the **R1/100, R1/60** Series



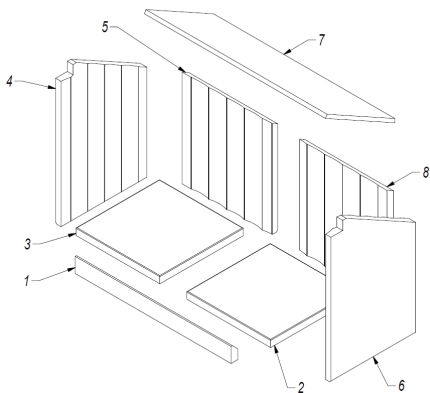


The order of Accumote components removal





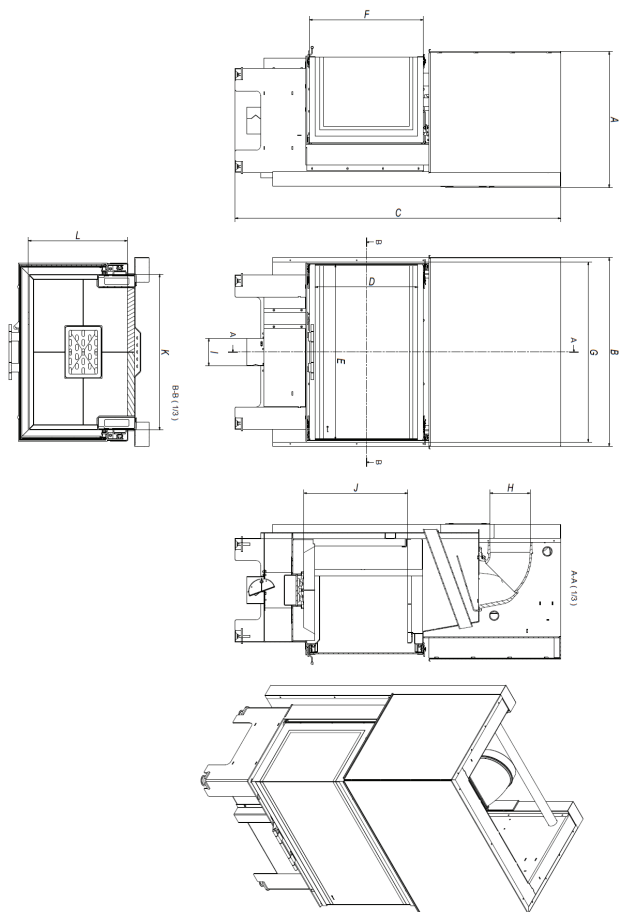




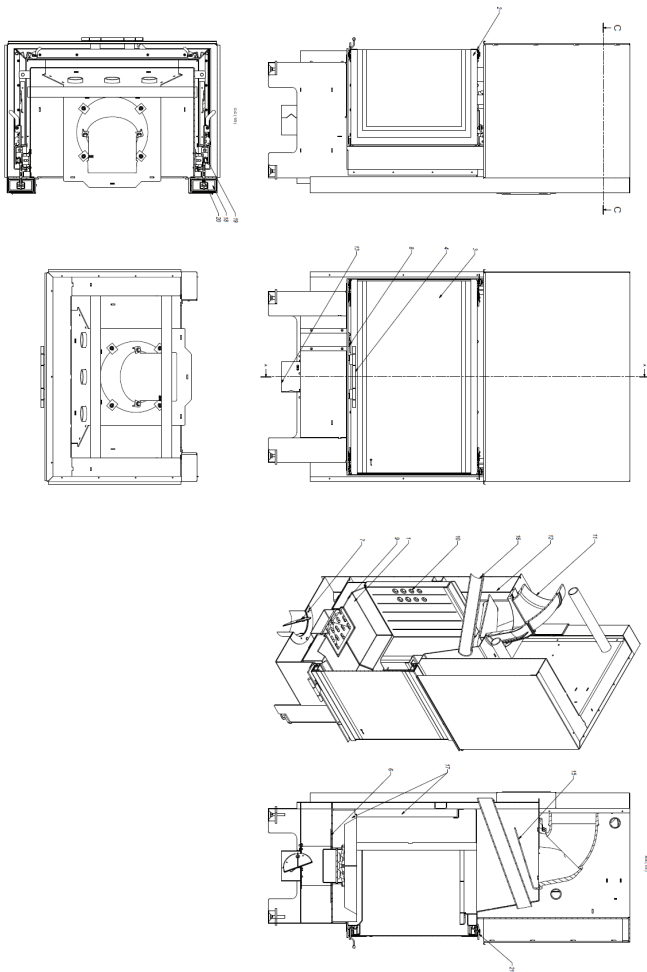
The air circulation overview inside the inserts from the R3 Series.



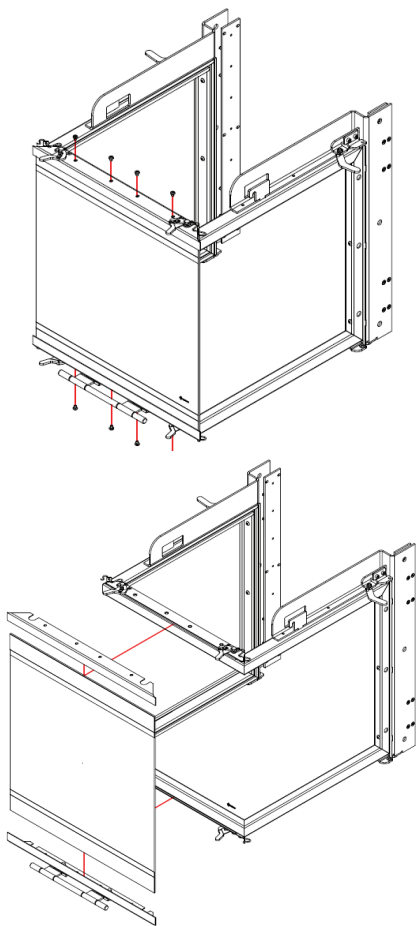
The dimension overview of the inserts from the R3 Series

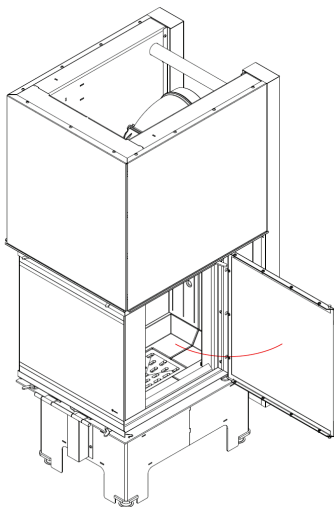
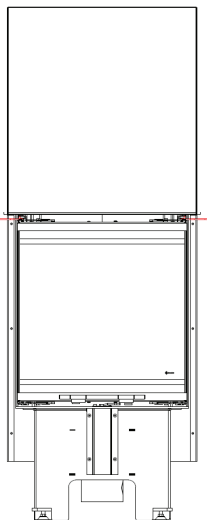
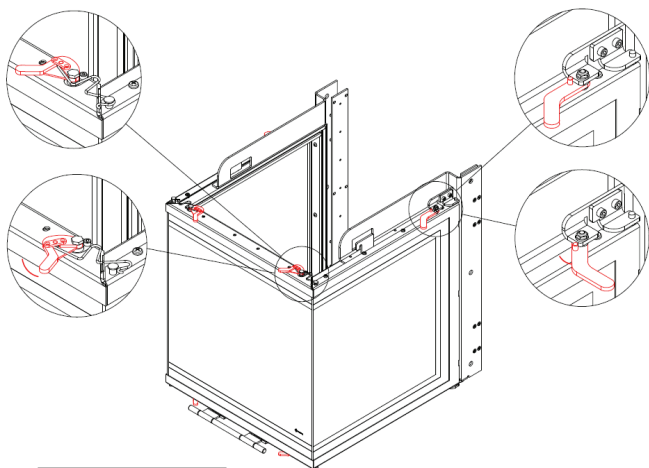


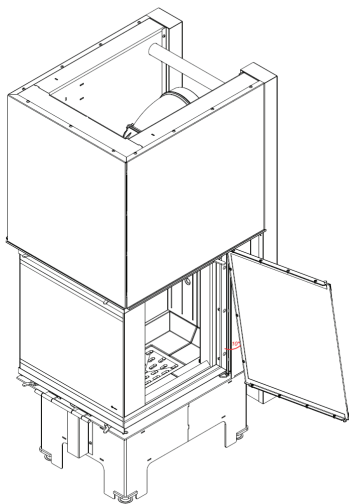
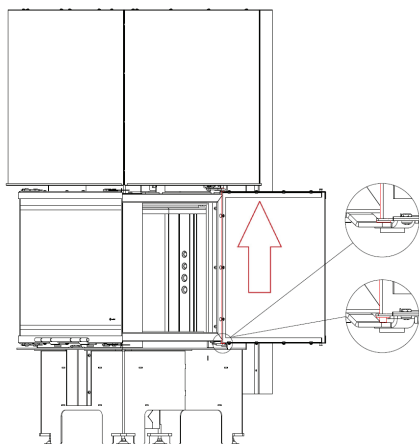
The design of the inserts from the R3 Series.

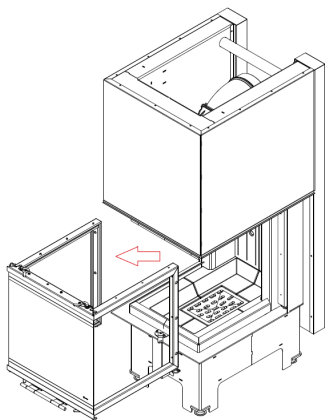
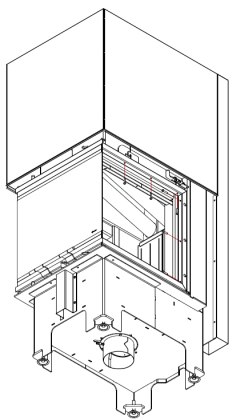
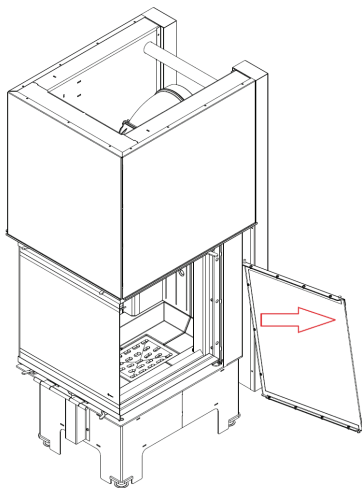


The R3 series door disassembly and replacement.

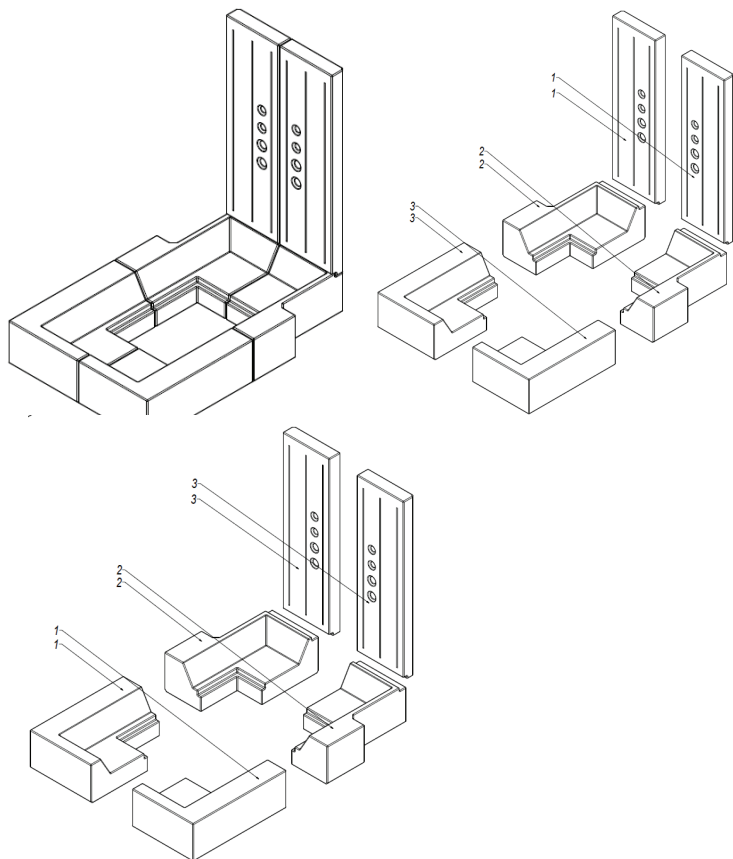








The procedure for the baffle and Accumote disassembly and replacement – the R3 Series.







(EN) SELLER	
Name:	Seller's seal and signature;
Address:	
Tel/fax:	
Date of sale:	
INSERT BUYER	
<p>The fireplace insert should be installed in accordance with the rules and regulations valid in the country, the manual provisions by the installer having required qualifications.</p> <p>I hereby declare that having read the operating manual and the guarantee conditions in case of failure to observe the provisions included there the producer bears no liability for guarantee.</p>	Date and legible signature of the Buyer;
INSERT INSTALLER	
Name of the installer's company:	
Installer's address:	
Tel/fax:	
Date of commissioning:	
I hereby declare that the fireplace insert installed by my company meets the requirements of the operating manual is installed in compliance with the appropriate relative standards.	Installer's seal and signature;

SUPPORT SERVICES	

(EN) REGISTER OF SMOKE DUCT INSPECTIONS

Inspection during the insert installation	Date, signature and seal of the chimney sweeper
Date, signature and seal of the chimney sweeper	Date, signature and seal of the chimney sweeper
Date, signature and seal of the chimney sweeper	Date, signature and seal of the chimney sweeper
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