



INSTALLATION INSTRUCTIONS



# Fireplace insert

EKKO 34 - 100

EKKO U 45 - 100

Camina  Schmid

## Ekko models

- Ekko 34(34)51 s
- Ekko 34(34)57 s



- Ekko 34(34)51 h
- Ekko 34(34)57 h



- Ekko 45(45)45 s
- Ekko 45(45)51 s
- Ekko 45(45)57 s



- Ekko 45(45)45 h
- Ekko 45(45)51 h
- Ekko 45(45)57 h
- Ekko 45(45)80 h



- Ekko L 55(34)45 s
- Ekko L 55(34)51 s
- Ekko L 55(34)57 s



- Ekko R 55(34)45 s
- Ekko R 55(34)51 s
- Ekko R 55(34)57 s



- Ekko L 55(34)45 h
- Ekko L 55(34)51 h
- Ekko L 55(34)57 h



- Ekko R 55(34)45 h
- Ekko R 55(34)51 h
- Ekko R 55(34)57 h



- Ekko L 67(45)45 s
  - Ekko L 67(45)51 s
  - Ekko L 67(45)57 s
- (with frame doors)



- Ekko R 67(45)45 s
  - Ekko R 67(45)51 s
  - Ekko R 67(45)57 s
- (with frame doors)



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The contents of the installation instructions are assessed as being factually correct at the time of publication, but are subject to updates and modifications to rectify faults or reflect design changes.

- Ekko L 67(45)45 s
- Ekko L 67(45)51 s
- Ekko L 67(45)57 s



- Ekko R 67(45)45 s
- Ekko R 67(45)51 s
- Ekko R 67(45)57 s



- Ekko L 67(45)45 h
- Ekko L 67(45)51 h
- Ekko L 67(45)57 h



- Ekko R 67(45)45 h
- Ekko R 67(45)51 h
- Ekko R 67(45)57 h



- Ekko L 84(34)45 h
- Ekko L 84(34)51 h
- Ekko L 84(34)57 h



- Ekko R 84(34)45 h
- Ekko R 84(34)51 h
- Ekko R 84(34)57 h



- Ekko L 100(45)45 h
- Ekko L 100(45)51 h
- Ekko L 100(45)57 h



- Ekko R 100(45)45 h
- Ekko R 100(45)51 h
- Ekko R 100(45)57 h



## Ekko U models

- Ekko U 45(34)45 h
- Ekko U 45(34)51 h
- Ekko U 45(34)57 h



- Ekko U 55(45)45 h
- Ekko U 55(45)51 h
- Ekko U 55(45)57 h



- Ekko U 55(67)45 h
- Ekko U 55(67)51 h
- Ekko U 55(67)57 h



- Ekko U 60(90)51 h



- Ekko U 67(45)45 s
- Ekko U 67(45)51 s
- Ekko U 67(45)57 s



- Ekko U 67(45)45 h
- Ekko U 67(45)51 h
- Ekko U 67(45)57 h



- Ekko U 84(34)45 h
- Ekko U 84(34)51 h
- Ekko U 84(34)57 h



- Ekko U 100(45)51 h
- Ekko U 100(45)57 h



## Scope of delivery

- Service box with operating and installation instructions, heat protective glove, tensioning key (depending on model front), fireplace glass cleaner, stove paint, long adjustable feet (depending on model)

## Optional accessories

- SMR combustion control, SMR safety controller, frame (BR)/frame system (BRS), support frame (TR)/support frame system (TRS), horizontal flue gas connector, combustion air connector (VLS), external fuel-door (ABF)

## Table of Contents

<b>1. Safety</b>	<b>6</b>	3.3.3.3 Cast-iron dome, 90° position	15
1.1 About these instructions	6	3.4 Assembly of the fireplace insert	16
1.2 Warnings	7	3.4.1 Setting up the fireplace insert	16
1.2.1 Symbols	7	3.5 Levelling the fireplace insert	16
1.2.2 Personal injury	7	3.5.1 Assembly of the adjustable feet	16
1.2.3 Material damage	7	3.5.2 Adjusting the height of the adjustable feet	16
1.3 Safety instruction	7	3.6 Disabling the combustion air lever	17
1.4 Important information	7	3.7 Conversion of the guillotine door to a self-closing model	17
1.5 Target groups	7	3.7.1 Prior to installation	17
1.5.1 Operator	7	3.7.2 Installed fireplace insert	18
1.5.2 Technician	7	3.7.3 Removing the baffle plate bracket	20
1.6 Standards and regulations	8	3.7.3.1 Ekko models	20
1.7 Correct and proper use	8	3.7.3.2 Ekko U models	20
1.7.1 Fireplace inserts	8		
1.7.2 Fuels	8	<b>4. Construction of a fireplace</b>	<b>21</b>
1.7.3 Combustion air supply	8	4.1 Heating chamber	21
1.7.4 Closed operation	8	4.1.1 Surrounding	21
1.7.5 Multiple flue connections	8	4.1.2 Connection pipe	21
1.7.6 Cleaning, maintenance and troubleshooting	9	4.1.3 Combustion air conduit	21
1.8 Installation	9	4.2 Installation example – hot air system	21
1.9 Acceptance	9	4.3 Closed systems/hypocaust heating systems	22
1.10 CE marking and serial plate	9	4.4 Heat exchanger surfaces	22
1.11 For your safety!	9	4.4.1 Heat exchangers	23
1.12 Personal protective equipment	10	4.4.2 Ceramic heating gas flues	23
1.13 Building and structural stability	10		
1.14 Fire and heat protection	10	<b>5. Fire and heat protection</b>	<b>23</b>
1.15 Chimney design	11	5.1 Floor in front of the fire box opening	23
1.16 Materials and components	11	5.2 Parts made of combustible materials	24
		5.2.1 Within the radiation range	24
<b>2. Product information</b>	<b>12</b>	5.2.2 Outside the radiation range	24
2.1 Installation of Ekko, hinged door	12	5.3 Thermal insulation	25
2.2 Installation of Ekko, guillotine door	12	5.3.1 Thermal insulation levels according to TROL 2006:2017-01	25
2.3 Weight and dimensions	13	5.3.2 Fire and heat protection table	25
<b>3. Prior to operation</b>	<b>13</b>		
3.1 Transport	13	<b>6. Initial start-up</b>	<b>26</b>
3.1.1 Delivery	13	6.1 Before heating up for the first time	26
3.1.2 At the installation site	13	6.2 Dry heating	26
3.2 Storage	13		
3.3 Pre-assembly	13	<b>7. Handover to the operator</b>	<b>26</b>
3.3.1 Transport restraint counterweight	13		
3.3.2 External combustion air	14	<b>8. Documentation</b>	<b>26</b>
3.3.3 Cast-iron dome	15		
3.3.3.1 Cast-iron dome, top position	15		
3.3.3.2 Cast-iron dome, 45° position	15		

- 9.     Faults.....26**
- 10.    Inspection and maintenance.....27**
  - 10.1   Safety inspection.....27
  - 10.2   Maintenance.....27
- 11.    Dismantling.....27**
- 12.    Disassembly and disposal.....27**
  - 12.1   Overview of disassembly and disposal.....28
- 13.    Table of dimensions.....30**
- 14.    Technical data.....32**

## 1.     Safety

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### 1.1    About these instructions

These are original installation instructions in English. Fireplace inserts have been designed in line with the state of the art and recognised safety regulations. These installation instructions are intended to help you use this heating technology safely and properly. Compliance with these installation instructions will ensure your safety and is the prerequisite for correct functionality and environmentally-friendly operation. Only use the product if it is in a perfectly safe state and in a correct and proper way. Never use fuels other than the fuels specified in the separate operating instructions.

Only use the original spare parts we recommend and offer, and only have them fitted by a technician!

The manufacturer's warranty and any warranty claims will be invalidated by improper and incorrect handling – from transport to disposal.

These installation instructions only apply in conjunction with the separate operating instructions. Please note the information and instructions in the operating instructions!

## 1.2 Warnings

### 1.2.1 Symbols



The "CAUTION" symbol indicates potential hazards for people.



The "i" symbol indicates important information.



The "Prohibited" symbol indicates things you must refrain from doing. Failure to comply with these instructions may result in all the manufacturer's warranties and liability claims being invalidated.



The "Refer to the instructions" symbol indicates that operating regulations must be complied with.

### 1.2.2 Personal injury

Warning notes signalled by the "CAUTION" symbol provide information about possible residual hazards to people that can arise when working with this appliance. Signal words also highlight the nature and severity of the hazard.

#### **⚠ DANGER**

**DANGER – signals an imminent danger that could lead to severe injuries or even fatal injury.**

#### **⚠ WARNING**

**WARNING – signals a possible hazardous situation that could lead to severe injuries or even fatal injury.**

#### **⚠ CAUTION**

**CAUTION – signals a possible hazardous situation that could lead to minor injuries.**

### 1.2.3 Material damage

Warnings signal possible residual dangers that could lead to material damage to the fireplace inserts or the environment when handling fireplace inserts.

#### **NOTICE**

**NOTICE – signals a possible hazardous situation that could lead to material damage and damage to the environment.**

## 1.3 Safety instruction

### **⚠ SAFETY INSTRUCTION**

**SAFETY INSTRUCTION – provides important information relating to the safe use of this product and indicates possible dangers. It provides information on how dangers can be avoided.**

## 1.4 Important information



Information indicated by the "i" symbol provides useful information that could simplify your handling of the fireplace inserts.

## 1.5 Target groups

### 1.5.1 Operator

The operator is the owner and user of the heating technology or the person to whom the technical operation of this appliance has been transferred. The operator has an obligation to find out about the safe and proper operation and maintenance of the fireplace insert and use the product in a safe and proper condition.

### 1.5.2 Technician

A person is referred to as a technician who is suitable to plan and build a fireplace on account of his technical and safety-related training and practical experience. Their tasks also include maintenance, repair and inspection of the fireplace insert.

## 1.6 Standards and regulations

National and local regulations need to be adhered to when connecting and operating the fireplace. Local, fire and construction regulations and VDE regulations apply.

<b>Europe:</b>	
EN 12828	Central heating systems in buildings – Design for water-based heating systems
EN 12831-1	Method for calculation of the design heat load
EN 13229	Fireplace inserts including open fires fired by solid fuels
EN 13384	Chimneys – thermal and fluid dynamic calculation methods
EN 14597	Temperature control devices and temperature limiters for heat generating systems
EN 15287-1	Chimneys / Part 1: Chimneys for room air-dependent fireplaces
EN 1717	Protection against pollution of potable water installations and general requirements of devices to prevent pollution by backflow

<b>Germany:</b>	
FeuVO	Firing Equipment Directive
TROL 2010 Issue 2017	Technical rules (technical regulations) for fireplace and air heating construction
1. Federal Emissions Control Ordinance	1. German Federal Immission Protection Ordinance
EnEV	Energy Saving Regulation
LBO	State Building Ordinance
DIN 4102	Fire behaviour of building materials and elements
DIN V 18160-1	Chimneys / Part 1 Design, performance, identification
DIN VDE 0100	VDE guidelines for electrical installation

<b>Switzerland:</b>	
LRV	Ordinance on Air Pollution Control
STP	STATE-OF-THE-ART PAPER – STOVE AND CHIMNEY CONSTRUCTION Association for home fireplaces, panel coverings and flue gas systems

<b>Austria:</b>	
15a B-VG	Agreement in accordance with Art. 15a B-VG about the marketing and sale of small fireplaces and the inspection of combustion plants and combined heat and power plants
ÖNORM B 8311	Installation and construction of domestic fireplaces

## 1.7 Correct and proper use

### 1.7.1 Fireplace inserts

The fireplace inserts are part-time operation fireplaces in compliance with EN 13229. They may only be operated as individual room heaters (stoves). Other uses – such as their use as the sole heating system for all rooms – are not permitted.

The fireplace inserts are used to heat the room air. They are primarily used for the heating of single rooms and may only be operated within these rooms.

### 1.7.2 Fuels

The fireplace inserts may only be operated with natural, air-dried wood with a residual moisture content of up to 20 % or pellets made of natural wood according to ISO 17225-3. The use of other fuels is not permitted.

### 1.7.3 Combustion air supply

The presence of oxygen is required for the combustion process. The fireplace inserts are designed and constructed as room air-dependent fireplaces. Supply air is fed to the unit through openings in the lower part of the appliance. Ensure an adequate combustion air supply to ensure an optimum combustion process when designing, installing and operating the fireplace inserts.

Refer to chapter 14 "Technical data" for information on the combustion air requirement of the individual appliance types.

### 1.7.4 Closed operation

Only operate fireplace inserts with the door closed. When in operation, only open the door briefly to load and insert fuel. Keep all doors and adjustment devices closed when fireplace inserts are not in operation.

### 1.7.5 Multiple flue connections

Refer to chapter 14 "Technical data" regarding the suitability of the fireplace inserts if more than one fireplace is connected to the same chimney. The information regarding closed operation specifically applies in this case.

If all the doors and adjustment devices are open, it can lead to functional faults on other fireplaces connected to the chimney.



### 1.7.6 Cleaning, maintenance and troubleshooting

Comply with cleaning and maintenance intervals and immediately rectify faults. These measures are part of correct and proper use!

### 1.8 Installation

#### **⚠ SAFETY INSTRUCTION**

##### **Only permit a technician to install your fireplace!**

The fireplace must be professionally installed by a recognised technician. Refer to the details in these installation instructions for the design, installation and start-up of these appliances.



#### **For technicians:**

The installer is responsible for the operation and safety of the fireplace in its entirety!

### 1.9 Acceptance

#### **⚠ SAFETY INSTRUCTION**

**If the fireplace needs to be handed over/accepted in accordance with national and local regulations, then the operator or the technician has an obligation to obtain acceptance by the specified organisation/institution!**

### 1.10 CE marking and serial plate

Fireplace inserts conform to European directives and supplementary national requirements. The CE marking on the serial plate of the appliance indicates that the manufacturer Camina & Schmid Feuerdesign und Technik GmbH & Co. KG, confirms that the product conforms to its declared performance.

You can request a copy of the Declaration of Performance for the product in accordance with (EU) 305/2011:

From your dealer/importer or

E-mail: [info@camina-schmid.de](mailto:info@camina-schmid.de)

Website: [www.camina-schmid.de/leistungserklaerungen](http://www.camina-schmid.de/leistungserklaerungen)

The serial plate includes important information – such as the serial number – for identifying the appliance.



#### **Follow the instructions**

More information can be found in the attached operating instructions.

### 1.11 For your safety!

#### **⚠ DANGER**

**Failure to observe the safety instructions may result in serious personal injury as well as damage to property and the environment.**



#### **Follow the instructions**

Carefully read through these installation instructions before designing and installing the fireplace! Keep them in a safe place!



Keep these instructions for later reference!



#### **For technicians:**

The attached operating instructions include information on the safe and proper use of the product!

Fireplace inserts have been designed in line with the state of the art and recognised safety regulations.

In spite of this, there are still dangers associated with the installation of the appliance and the complete system.

The following information is provided for your safety:

### **⚠ DANGER**

#### **Falling appliances!**

Fireplace inserts are inherently heavy.

Pay attention to the centre of gravity when transporting and storing the appliance!

Secure the appliance from toppling over and falling when transporting and storing it!

Use appropriate equipment, fixings and fastenings – such as tensioning straps!

Pay attention to the manufacturer's weight information!

### **⚠ SAFETY INSTRUCTION**

#### **Risk of injury when lifting and carrying the fireplace inserts!**

Fireplace inserts are inherently heavy.

Use appropriate equipment when transporting or assembling the appliance! Use a sufficient number of people to lift or transport the appliance!

Pay attention to the manufacturer's weight information!



#### **Never modify the appliance!**

Modifications to the appliance can cause significant disruptions to the safety of the fireplace!

Only fit genuine parts and genuine fastening elements!

## **1.12 Personal protective equipment**

Technicians need to wear appropriate personal protective equipment in line with the possible risks and accident prevention regulations with all work:

- Suitable safety gloves,
- Suitable safety shoes,
- Goggles.

It is also incumbent upon the technician to select and wear personal protective equipment appropriate for the installation of the complete fireplace.

## **1.13 Building and structural stability**

Only install the fireplace on sufficiently load-bearing floors.

## **1.14 Fire and heat protection**

The following are affected:

- Adjacent surfaces made of or with combustible materials (parts need to be protected),
- Adjacent surfaces with no combustible materials and without fitted furniture at the rear (parts do not need to be protected).

Do not expose surrounding areas to be protected to temperatures higher than 85 °C. They need to be adequately protected or insulated.

These areas include:

- Walls, floors and ceilings,
- Attached components and the chimney of the building.

Comply with all related regulations.



Refer to chapter 5 "Fire and heat protection" for further information on the following topics:

- Floor in front of the fire box opening,
- Parts made of combustible materials.



Refer to chapter 5.3 "Thermal insulation" or more information on the thermal insulation of adjacent surfaces and thermal insulation levels.



Further information on the appliance types can be found in chapter 14 "Technical data".

## 1.15 Chimney design

### ⚠ WARNING

#### Hazardous gases!

Toxic smoke and heating gas can escape when the stove door is opened due to the strong degassing process with solid fuels and in conjunction with an inadequate flue liner. The operating pressure of the chimney needs to be considered when designing and installing the fireplace. Too high a required draught can have a negative effect on the operation of the appliance.

The correct operation of the fireplace is especially dependent on the effective chimney height and the cross-section of the chimney.

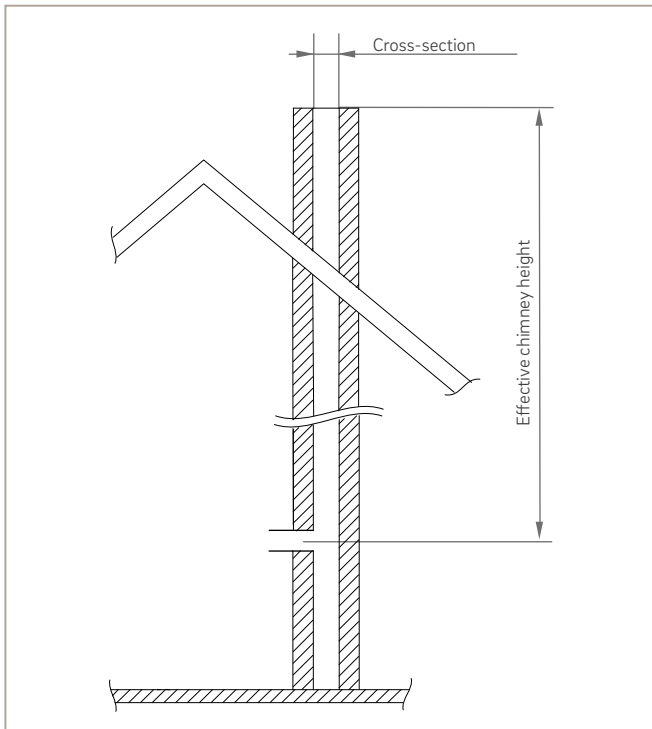


Fig. 1: Example: effective chimney height

The chimney needs to be capable of safely discharging the flue gases and building up the required draught. EN 13384 can be used to calculate that the chimney is functioning properly. Use one of the usual calculation programmes for the calculation.



Operating pressure of the chimney  $\geq$  necessary total required draught for all parts of the system.

The chimney needs to be designed for the flue gases from solid fuels (minimum temperature resistance T400, soot fire resistance class G, corrosion resistance class 3). All the openings leading into the chimney (including cleaning doors and condensate drains) need to close.

The chimney needs to be inspected in compliance with local regulations.

With concentric flue systems, check with your chimney manufacturer about approval for the operation of room air dependent fireplaces.

## 1.16 Materials and components

Materials and components (construction products) need to be suitable for the intended purpose. Comply with all requirements and the relevant EN standards. Materials and components that require statutory approval need to be officially approved and comply with the approval regulations. Insulation materials need to comply with Building material class A1 with an upper usage temperature of at least 700 °C (tested according to EN 14303).

## 2. Product information

### 2.1 Installation of Ekko, hinged door

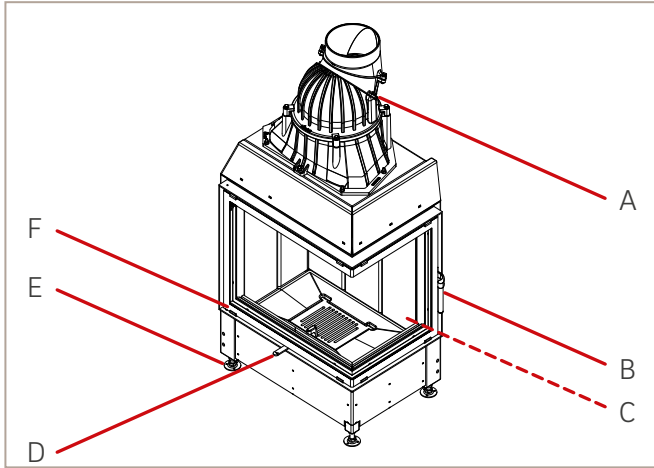


Fig.2: Figure Ekko R 6751 s

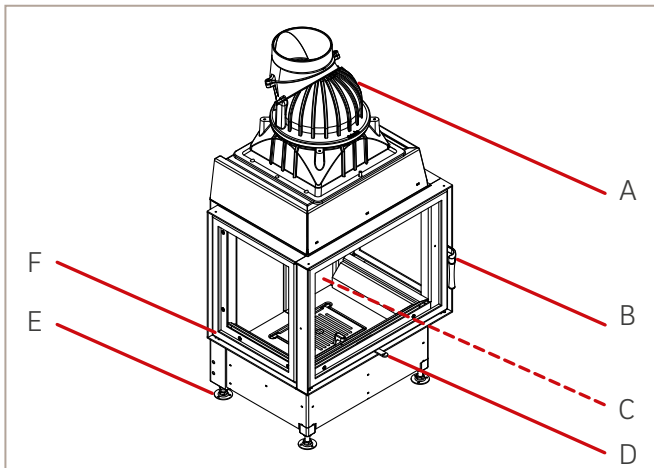


Fig.3: Figure Ekko U 6745 s

**Components:**

- A = Cast-iron dome
- B = Door handle, hinged door
- C = Fire box inner lining
- D = Combustion air lever
- E = Adjustable foot M16
- F = Hinged door with vitroceramic window



Further information on the types of system can be found in chapter 14 "Technical data".



Example of construction – other types are similar.

### 2.2 Installation of Ekko, guillotine door

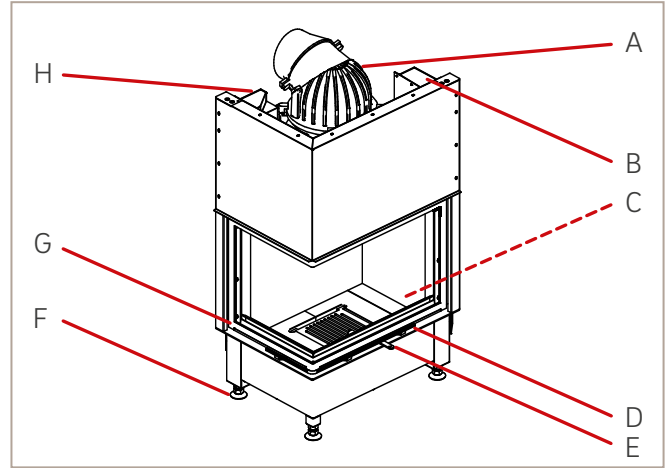


Fig.4: Figure Ekko L 6745 h

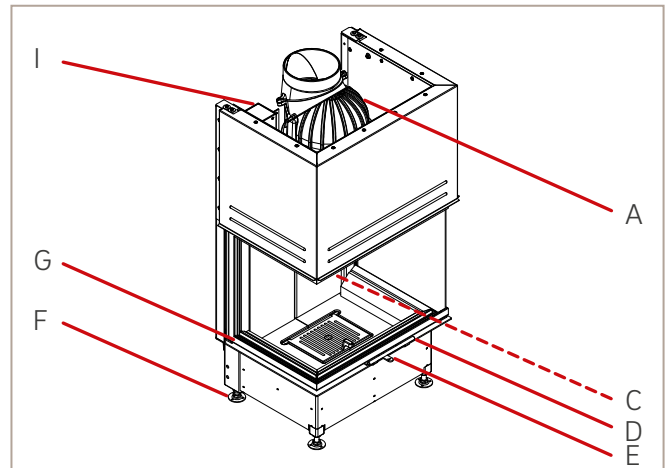


Fig.5: Figure Ekko U 6745 h

**Components:**

- A = Cast-iron dome
- B = Weight manhole cover, side
- C = Fire box inner lining
- D = Door handle, guillotine door
- E = Combustion air lever
- F = Adjustable foot M16
- G = Guillotine door with vitroceramic window
- H = Weight manhole cover, rear
- I = Weight manhole cover

### 2.3 Weight and dimensions

The weight and dimensions of the product vary depending on the type and model. The serial plate includes important information – such as the serial number – for identifying the appliance.

## 3. Prior to operation

### 3.1 Transport

#### 3.1.1 Delivery

The appliance is delivered as standard on a pallet. The appliance is protected by wrapping film. Immediately report any damage in transit to the delivery company!

#### 3.1.2 At the installation site

Fireplace inserts and their accessories are very heavy. Transport fireplace inserts to the installation site standing on the pallet and secured to prevent them from toppling over or falling. Make sure that the transport equipment, transport routes and number of people are available are appropriate for risk-free transport.

The doors and fire box inner lining can also be dismantled to reduce the transport weight.

Position the fireplace insert on a flat and suitable base at the installation site.

The fireplace insert is delivered screwed down to a wooden pallet. Use a torx-screwdriver to loosen the screws before removing the appliance.

### 3.2 Storage

#### NOTICE

**Store the appliance in a dry place!**  
**The appliance is designed and constructed for use in dry indoor areas.**

### 3.3 Pre-assembly

#### NOTICE

**All dismantled components and fixing elements must be kept in a safe place and refitted in full!**

Make sure that all components are in a perfect state and are fitted in full to ensure the safe operation of the appliance!

#### 3.3.1 Transport restraint counterweight

The fireplace insert with “guillotine door” has counterweights under weight shaft covers on both sides of the appliance. The counterweights are tightened with locking screws to provide restraint during transport. Remove these screws and their washers before installing the appliance.

**Tool:**

4 mm Allen key



Fig. 6: Example of locking screw

**Components:**

- A = Weight shaft cover counterweight
- B = Transport restraint (locking screw with washer)

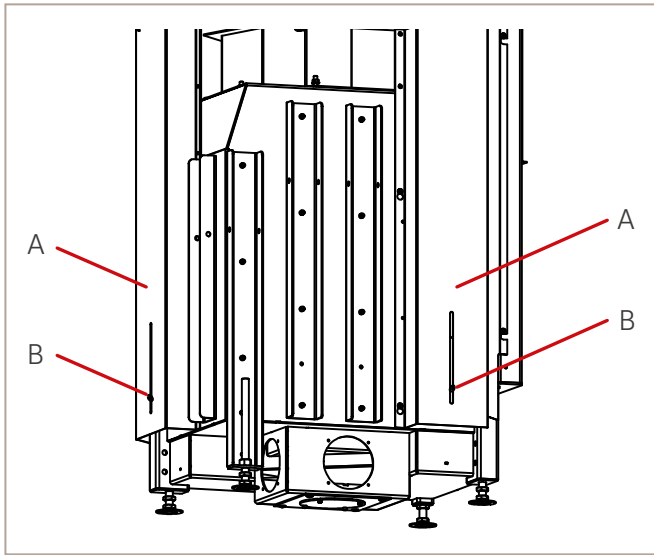


Fig. 7: Position of locking screw on Ekko L 6751 h

**Components:**

- A = Weight shaft cover counterweight
- B = Transport restraint (locking screw with washer)

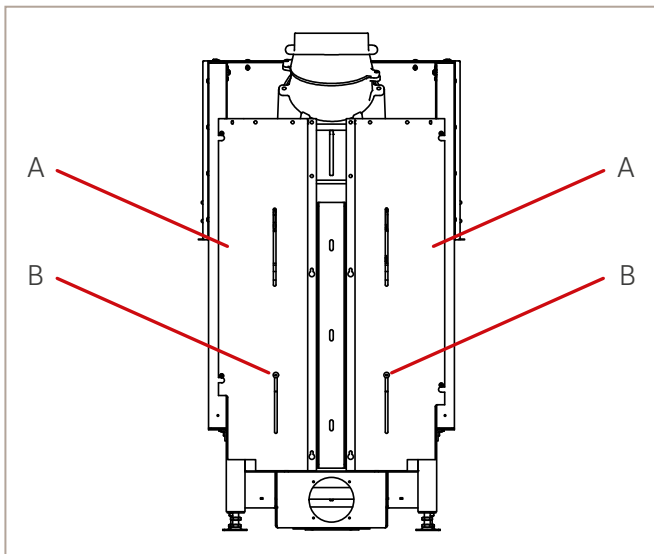


Fig. 8: Position of locking screw on Ekko U 67h

**Components:**

- A = Weight shaft cover counterweight
- B = Transport restraint (locking screw with washer)

### 3.3.2 External combustion air

If possible, operate the room air-dependent fireplace insert with external combustion air by connecting a combustion air conduit.

The use of the lower combustion air supply is always preferential to the rear or side combustion air supply. If the use of the lower combustion air supply is impossible for structural reasons, it is possible to revert to the use of the rear or side combustion air supply. The use of a combustion air supply with a larger diameter is always preferable to the use of one with a small diameter.

Combustion air connector designs:

Fireplace insert:	rear	side	bottom
Ekko 34	125 mm	---	---
Ekko 45-84	125 mm	125 mm	125 mm/ 150 mm*
Ekko 100	2 x 125 mm	2 x 125 mm	2 x 125 mm/ 2 x 150 mm*
Ekko U 45-84	125 mm	---	125 mm/ 150 mm*
Ekko U 60	150 mm	---	150 mm*
Ekko U 100	2 x 125 mm	---	150 mm*

\*optional accessories

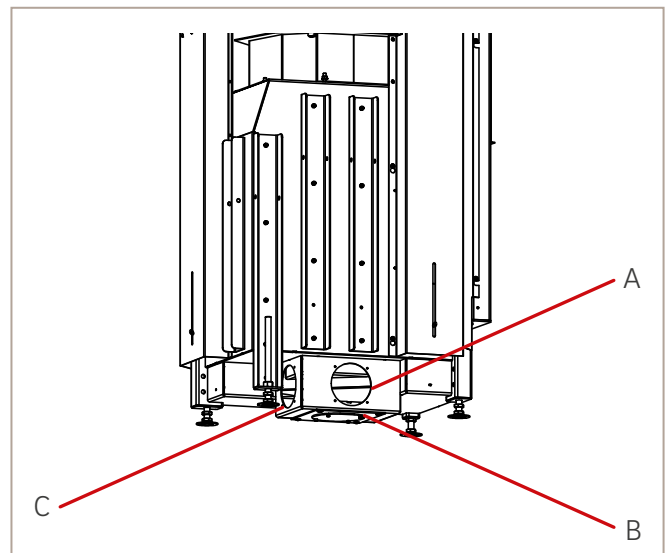


Fig. 9: Combustion supply air connection openings

**Components:**

- A = Rear combustion supply air connection opening
- B = Lower combustion supply air connection opening
- C = Side combustion supply air connection opening

### 3.3.3 Cast-iron dome

#### NOTICE

##### Material breakage!

The components can crack as they are made of grey cast iron. When fitting, tighten the screws to max. 12 Nm.

Before installing the fireplace insert, the connection of the cast-iron dome on top of the fireplace insert can be adapted to the connections on site.

The Ekko/Ekko U fireplace insert is equipped with a three-section rotating cast-iron dome that can be adjusted to an angle.

**i** The Ekko 34(34)51, Ekko U 60(90) h and Ekko U 100(45) h models are equipped with a flue gas connector instead of a cast-iron dome.

##### Tool:

Torque wrench (12 Nm)

##### Components:

Fixing screws

Seals

#### 3.3.3.1 Cast-iron dome, top position



Fig. 10: Example of cast-iron dome, top

##### Components:

A = Connection top part

B = Dome top part

C = Connection base

#### 3.3.3.2 Cast-iron dome, 45° position

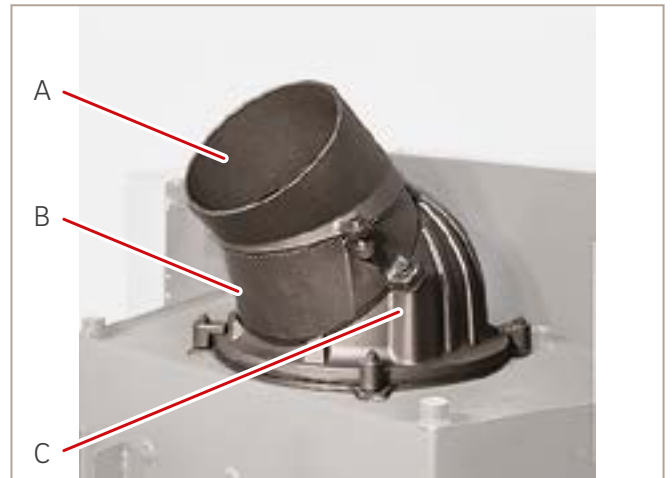


Fig. 11: Example of cast-iron dome, 45° position

##### Components:

A = Connection top part

B = Dome top part

C = Connection base

#### 3.3.3.3 Cast-iron dome, 90° position

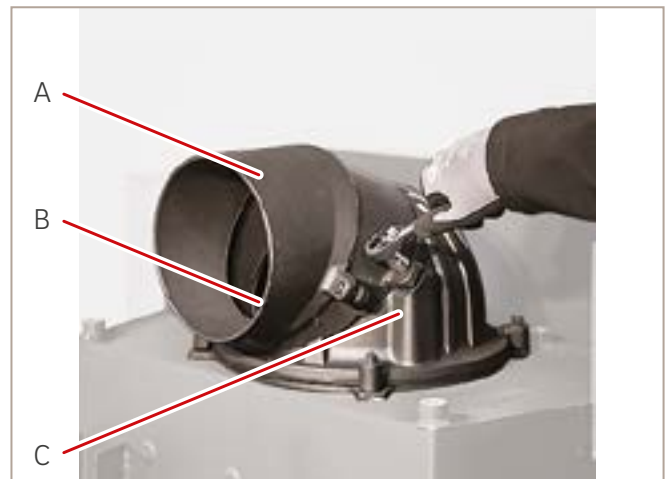


Fig. 12: Example of cast-iron dome, 90° position

##### Components:

A = Connection top part

B = Dome top part

C = Connection base

### 3.4 Assembly of the fireplace insert

#### 3.4.1 Setting up the fireplace insert

#### **⚠ DANGER**

##### **Fatally dangerous gases!**

Pay attention to an adequate combustion air supply, adjusted exhaust air volume of exhaust gases and gas-tight connections when designing and constructing the fireplace!

Assembly and/or installation errors can lead to personal injury and material damage. Only allow a technician to assemble, install and commission the appliance. Take all fire and heat protection measures in line with the details stipulated in these instructions or the state of the art!

### 3.5 Levelling the fireplace insert

#### **NOTICE**

##### **The fireplace insert needs to be fitted horizontally!**

Make sure that the fireplace insert is horizontal for the optimum function of the fireplace insert and its mechanical components!

The fireplace insert has four adjustable feet, which can be used to adjust the height. Use a spirit level to check the horizontal position of the appliance.



Fig. 13: Levelling the fireplace insert

#### 3.5.1 Assembly of the adjustable feet

The threaded rods of the adjustable feet (C) are screwed into weld nuts on the housing of the appliance and are locked with a nut (A).

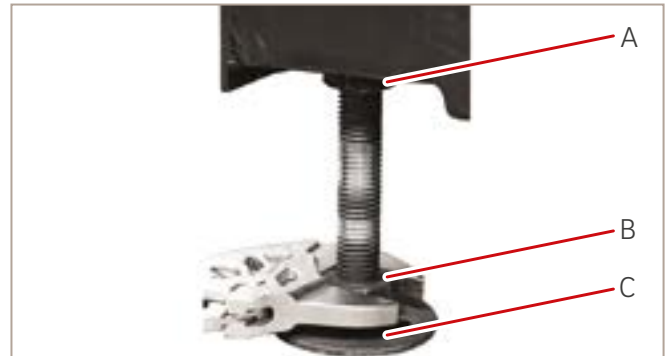


Fig. 14: Adjustable foot with nuts

##### **Components:**

- A = Locknut
- B = Adjustment nut (base)
- C = Adjustable foot

##### **Tool:**

- Spirit level
- Jaw spanner AF24/Pliers (2x)

#### 3.5.2 Adjusting the height of the adjustable feet

The adjustment nut is used to adjust the height of the adjustable feet (C). Make sure that the end of the threaded rod projects a minimum of three threads above the weld nut. Pay attention to the installation height in the dimensional drawings.

To adjust, loosen the locknut (A) and adjust the required height of the body by turning the adjustment nut (B). Then secure it again with the locknut (A).

Combustion air connector versions	Distance of the combustion supply air connection opening to the floor installation area
With no combustion air connector*	min. 50 mm (adjustable foot height)
Combustion air connector* 125 mm	min. 150 mm (to be guaranteed on site)
Combustion air connector* 150 mm	min. 180 mm (to be guaranteed on site)

Combustion air connector\*



The Ekko U 60 and Ekko U 100 models are equipped with short adjustment feet (135 mm).



### 3.6 Disabling the combustion air lever

The combustion air lever can be disabled if the SMR combustion control for automatic combustion control of the air supply is installed.

**Tool:**

Jaw spanner AF10

1. Open the door and remove the bottom stones of the fire box inner lining, sealing mat and base.
2. Using a jaw spanner to loosen the fixing screw (A) from the air control segment (B).

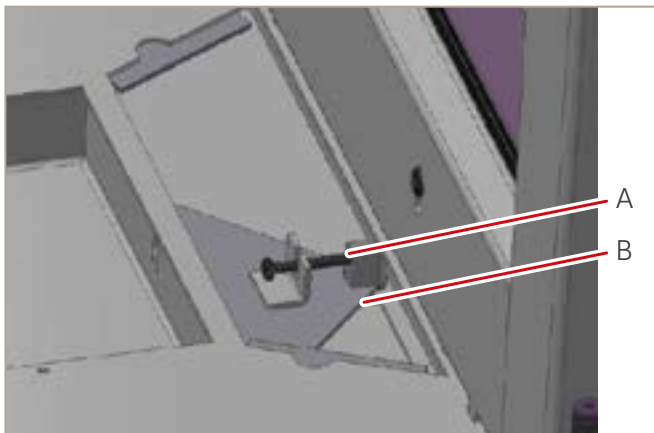


Fig. 15: Loosening the fixing screw

**Components:**

- A = Fixing screw
- B = Air control segment

### 3.7 Conversion of the guillotine door to a self-closing model

**i** The procedure below applies to the Lina model and as an example for other models.

#### 3.7.1 Prior to installation

Remove some of the balancing weights by dismantling the two weight shaft covers.

**Tool:**

- 4 mm Allen key
- Phillips screwdriver

1. Use a screwdriver to loosen 4 × fixing screws (B) on the weight shaft covers (A).



Fig. 16: Dismantling the weight shaft covers

**Components:**

- A = Weight shaft cover
- B = Fixing screw

2. If you have not yet done so, use an Allen key to loosen and remove the screws (A) for the transport restraints.



Fig. 17: Dismantling the transport restraints

**Components:**

- A = 4 mm Allen key
- B = Weight shaft cover

3. Remove both weight shaft covers (A) upwards.

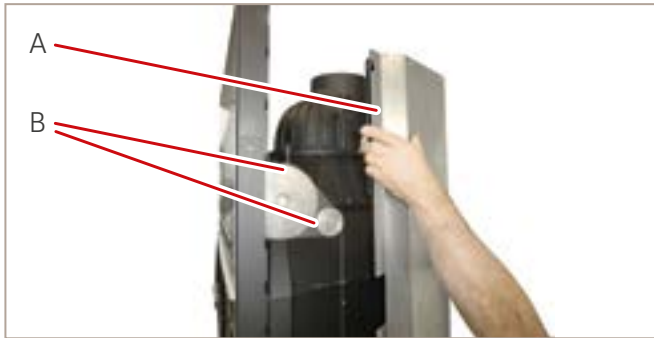


Fig. 18: Dismantling the weight shaft covers

**Components:**

- A = Weight shaft cover
- B = Guide rollers

4. Raise the balancing weights (A) on both sides and remove via the side slot. Then refit the components in reverse order, with the exception of the transport restraint locking screws.



Fig. 19: Removing the balancing weights

**Components:**

- A = Balancing weight
- B = Primary weight

### 3.7.2 Installed fireplace insert

Once the fireplace insert has been installed, the balancing weights need to be removed from both sides of the firebox.

**Tool:**

- Box wrench, AF 19
- 3 mm Allen key

1. Use the box wrench to loosen the 3 x fixing screws (A) of the bracket for the fire box inner lining.



Fig. 20: Loosening the fixing screws

**Components:**

- A = Fixing screws
- B = Bracket for fire box inner lining

2. Remove the bracket for the fire box inner lining (A).



Fig. 21: Removing the bracket

**Components:**

- A = Bracket for fire box inner lining

3. Remove the fire box inner linings (A) on the left and right.



Fig. 22: Removing the fire box inner lining

**Components:**

- A = Side fire box inner lining

- Use the Allen key to loosen the 4 x fixing screws (A) of the two revision covers (B).



Fig. 23: Dismantling the revision cover

**Components:**

- A = Fixing screws
- B = Revision cover

- Remove the revision cover (A) on both sides.



Fig. 24: Removing the revision cover

**Components:**

- A = Revision cover

- The balancing weights (A) sit on the primary weights (B).



Fig. 25: Primary and balancing weight

**Components:**

- A = Balancing weight
- B = Primary weight

- Raise the balancing weights (A) on both sides and remove via the side slot. Then reinstall the components in reverse order.



Fig. 26: Removing the balancing weight

**Components:**

- A = Balancing weight
- B = Primary weight

### 3.7.3 Removing the baffle plate bracket

#### NOTICE

##### Breakage of the baffle plate components!

The baffle plate components can crack. Carefully remove or insert the baffle plate components from the baffle plate bracket and do not hit them against the interior of the fireplace insert or drop them.

The baffle plate components and baffle plate bracket are located above the firebox of the fireplace insert and need to be removed to be replaced.

**i** Suggested installation, although deviations between the models are possible.

#### 3.7.3.1 Ekko models

##### Tool:

10 mm Allen key

- Carefully push up the baffle plate components (A) and remove from the baffle plate bracket (B).



Fig. 27: Baffle plate components with baffle plate bracket

##### Components:

- A = Baffle plate components (2-part)
- B = Baffle plate bracket

- The baffle plate bracket (A) is fixed to the bracket of the fire box inner lining (B). Loosen the side cylinder screw 1-2 turns to remove the baffle plate bracket. Raise the baffle plate bracket and rotate it to remove it from the interior of the fireplace insert. Then refit in reverse order.



Fig. 28: Removing the baffle plate bracket

##### Components:

- A = Baffle plate bracket
- B = Cylinder screw
- C = Bracket for fire box inner lining

#### 3.7.3.2 Ekko U models

- When removing them, the baffle plate components (B) can remain in the baffle plate bracket (A). When removing, push the baffle plate bracket on the rear wall of the appliance upwards and then remove to the front.

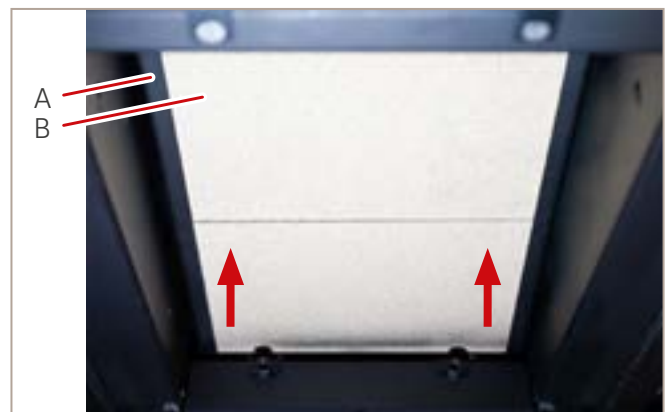


Fig. 29: Baffle plate components with baffle plate bracket

##### Components:

- A = Baffle plate bracket
- B = Baffle plate components (3-part)

## 4. Construction of a fireplace

### 4.1 Heating chamber

#### ⚠ SAFETY INSTRUCTION

**Only use sufficiently heat-resistant materials within the heating chamber!**

Air grilles need to be made of non-combustible materials.

#### ⚠ SAFETY INSTRUCTION

**The fireplace needs to be constructed in line with local regulations.**

The following sections are based on these regulations and, in places, only serve as an example.

#### ⚠ SAFETY INSTRUCTION

**Fireplace inserts can be used in different designs of fireplaces, which is why precise planning by a technician is essential.**

Sufficient heat distribution needs to be ensured. This can be provided by convection air openings in the lining, convection air routing through heat-emitting lining parts or a combination of both.

#### 4.1.1 Surrounding

There needs to be an expansion joint fitted between the fireplace insert and surrounding to ensure sufficient space between the appliance and the surrounding when the fireplace is in operation. This needs to be sealed by a sealing strip.

Ensure that there is no direct connection between the fireplace insert and the surrounding.

The weight of the apron construction may not rest on the fireplace insert, door frame or frame. The apron construction needs to be self-supporting. Use appropriate support frames, support frame systems or assembly aids should that not be possible. Take appropriate measures, such as using sealing tape, to prevent the formation of cracks.

#### 4.1.2 Connection pipe

The connection pipe needs to be made of at least 2 mm thick sheet steel or be made of chamotte mouldings for chimneys. Do not allow the connection pipe to project into the chimney. The connection to the chimney needs to be made of a masonry wall lining or in accordance with the chimney manufacturer's specification. When using throttle flaps, make sure that the position of the throttle flap can be seen on the operating handle. They need to have circular or circular segment openings, the total of which cannot be less than 3 % of the cross-section, but needs to be at least 20 cm<sup>2</sup> in size.

#### 4.1.3 Combustion air conduit

The fireplace inserts are room air dependent fireplaces, but have the option of connection of an external combustion air supply. The combustion air conduit should be tightly connected to the combustion air connector. Put in place appropriate measures to avoid the formation of condensate when designing the combustion air conduit. Calculate to make sure that there is an adequate combustion air supply.

### 4.2 Installation example – hot air system

#### ⚠ SAFETY INSTRUCTION

**Recirculation air and supply air:**

**Never close off 25 % of the required free recirculation air and supply air cross-section!**

All closing devices need to be easily operable and the position easily recognisable.

Refer to chapter 14 "Technical data" for the air grille cross-section and heating chamber distances. Design any differing cross-sections in line with technical regulations. Make supply air openings in the top of the heating chamber or directly underneath it. Ensure that the distance between the ceiling of the location of the fireplace to be protected and the supply air openings is a minimum of 600 mm.

Use all connections when using a hot air convection chamber. Air lines need to be made of non-combustible dimensionally stable material.

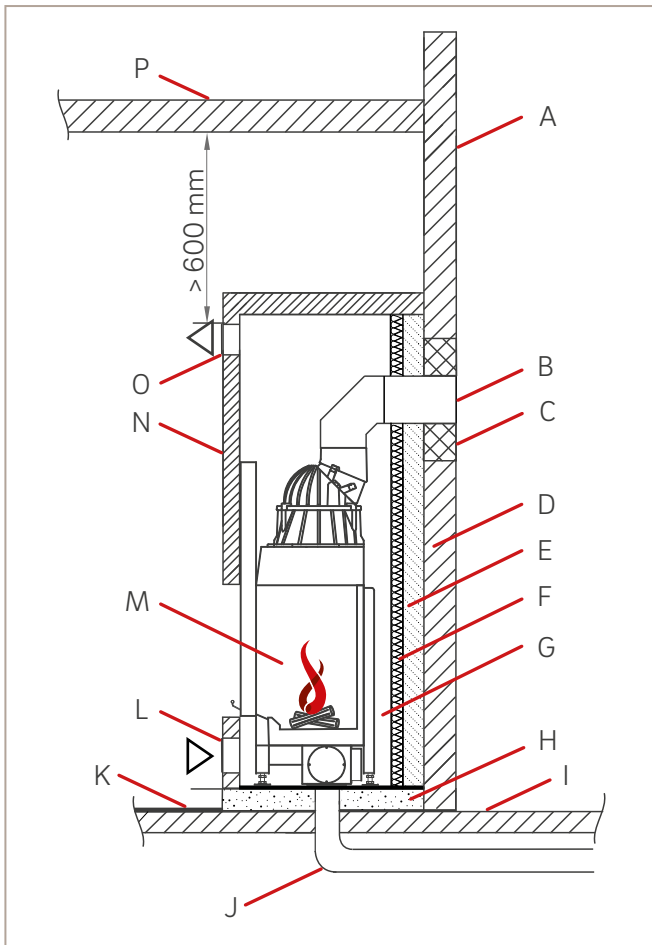


Fig. 30: Installation example of a fireplace insert in front of walls, floors, ceilings to be protected

No.	Type
A	Wall to be protected
B	Connection pipe
C	Mineral thermal insulation materials
D	Wall to be protected
E	Primary walling
F	Thermal insulation layer
G	Heating chamber distance
H	Concrete base
I	Floor installation area
J	Combustion air conduit
K	Floor protecting plate
L	Cold air inlet (recirculation air)
M	Fireplace insert
N	Surrounding
O	Hot air outlet (supply air)
P	Ceiling to be protected

### 4.3 Closed systems/hypocaust heating systems

Design and install the fireplace in line with technical regulations. Consider inspection openings for flue pipe connections etc. with closed systems. Also note the requirements caused by the effects of the higher temperatures on the surrounding and components and accessories within the heating chamber. With guillotine doors, ensure that the temperature at the cable rollers does not exceed 270°C.

Due to its sealed design, there may also be further requirements relating to fire protection.

The operators of the system need to be made aware in writing of the peculiarities of using a sealed system, such as the maximum quantity of wood, heating intervals etc.

### 4.4 Heat exchanger surfaces

Fireplace inserts can also be equipped with heat exchanger surfaces. Refer to chapter 14 "Technical data" to determine for which type of heat exchanger surface the fireplace insert is suitable. This maximises the potential heat and ensures the maximum effectiveness of the heating system. The heating gases are diverted by the heat exchanger surfaces and their heat is stored in the surfaces. Heat exchanger surfaces can be individual ceramic flues or industrially produced heat exchangers.

The resistance on the exhaust gas side can be increased by heat exchanger surfaces. The required draught figures given with the nominal heat output incorporate the resistance of the fireplace insert including the heat exchanger and double bend. The figures for ceramic flues include allowances for the resistance of the fireplace insert.

Note the following when sizing the system:

**Working pressure of the chimney ≥ Total required draught of the system**

**Total required draught of the system = Sum of the required draughts of the individual components**

#### 4.4.1 Heat exchangers

Heat exchangers are industrially produced from cast iron and sheet steel. Once they have been installed, the cleaning opening on the underside of the heat exchanger needs to be easily accessible.

#### 4.4.2 Ceramic heating gas flues

**i** We recommend the use of a heat-up flap with ceramic heating gas flues!

Our fireplace or masonry inserts tested to DIN EN 13229 are suitable for use with ceramic flues. Chapter 14 "Technical data" provides the calculation data under "Triple values for the calculation of ceramic flues". The calculation and design must be in compliance with the applicable technical regulations (e.g. TROL). Note the manufacturer's data when using industrially manufactured flue/storage systems.

### 5. Fire and heat protection

Comply with all state building regulations, fire regulations, administrative and insurance-related regulations applicable at the installation site. National and local regulations need to be complied with. Should there not be fire protection regulations in the country of installation, then we would recommend adhering to the "Regulations governing fireplace and air heating construction" (TROL).

#### 5.1 Floor in front of the fire box opening

Floors made of combustible materials need to be protected by a covering of non-combustible material in front of all fire box openings. The covering needs to extend a minimum of 500 mm to the front and a minimum of 300 mm beyond the fire box opening. There is no need for floor protection in front of fire box openings that are only opened for cleaning and maintenance, when operated as intended.

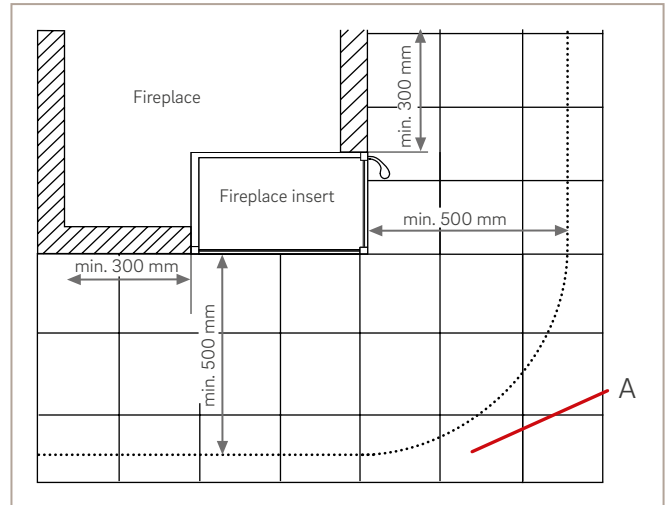


Fig. 31: Floor protection in front of fire box opening, Ekko

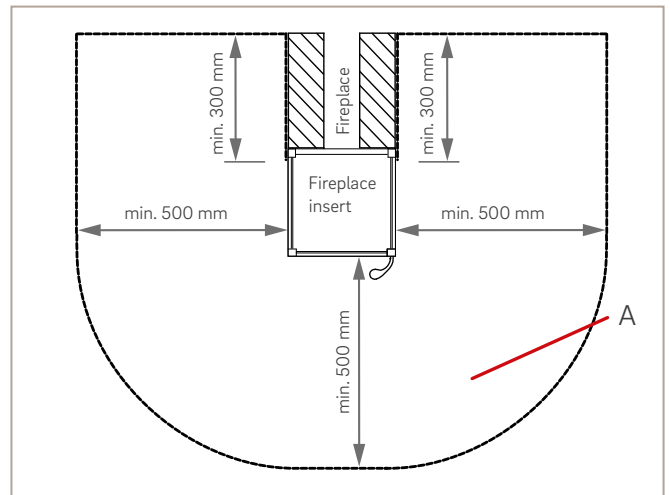


Fig. 32: Floor protection in front of fire box opening, Ekko

**Description:**

A = Non-combustible floor covering

## 5.2 Parts made of combustible materials

### 5.2.1 Within the radiation range

Adhere to the following safety distances with regard to parts made of combustible materials or combustible parts, including fitted furniture, installed close to fireplaces: There needs to be a spacing of at least 800 mm from the front/top and sides of the fire box opening to combustible components. a distance of 400 mm is enough if a radiation shield is fitted, vented on both sides. The distance of the ventilated radiation protection needs to be at least 20 mm.

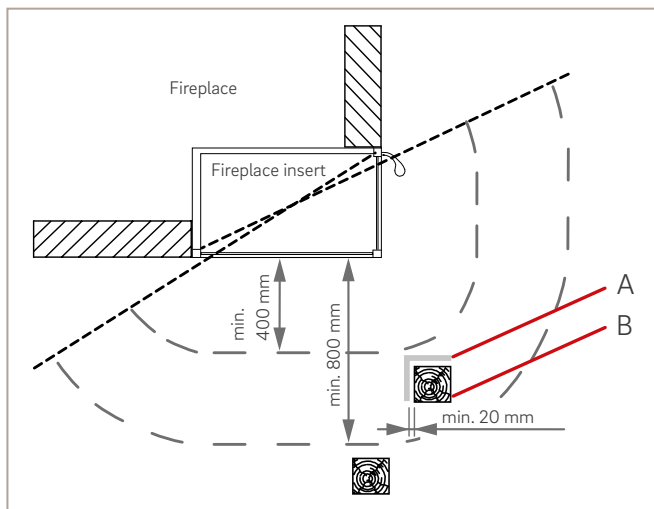


Fig. 33: Protection of combustible components in the radiation range of the fire box opening: Ekko

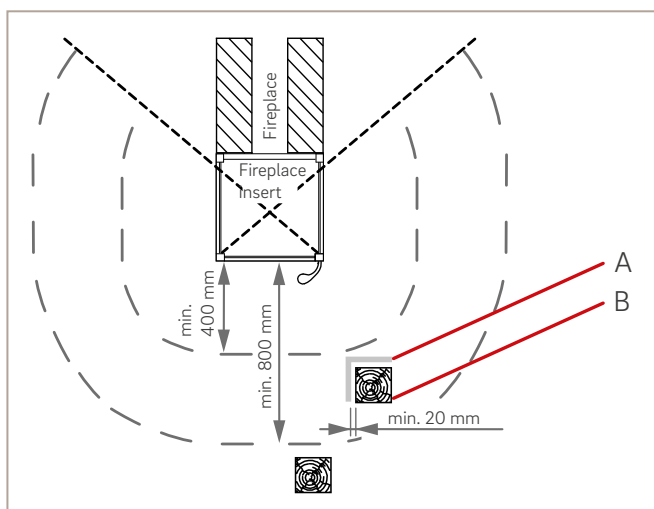


Fig. 34: Protection of combustible components in the radiation range of the fire box opening: Ekko

**Description:**

- A = Ventilated radiation protection
- B = Parts made of combustible materials, furniture, fabrics

### 5.2.2 Outside the radiation range

Ensure the following safety distances with regard to parts made of combustible materials or combustible parts, including fitted furniture:

There needs to be a minimum distance of 50 mm from the free outside surfaces of the surrounding facing the location of the fireplace to combustible materials or combustible components and fitted furniture.

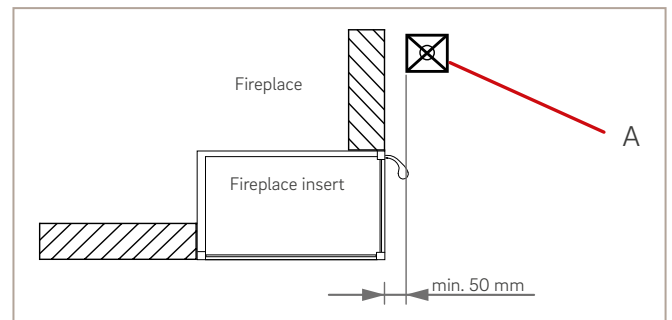


Fig. 35: Protection and distances with heated surfaces: Ekko

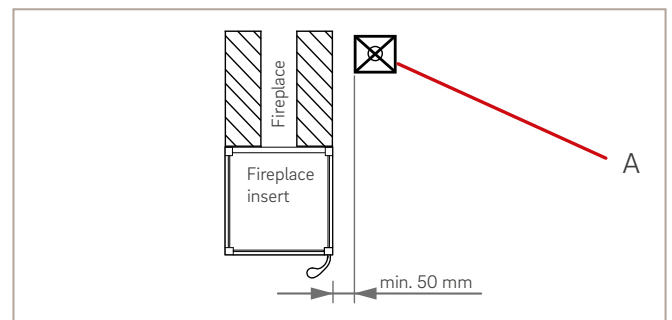


Fig. 36: Protection and distances with heated surfaces: Ekko U

**Description:**

- A = Parts made of combustible materials, furniture, fabrics



### 5.3 Thermal insulation

#### 5.3.1 Thermal insulation levels according to TROL 2006:2017-01

The following details are minimum protection measures! The thermal insulation must not be lower than the indicated values. Special conditions at the place of installation, such as intended continuous heating (several combustion cycles one after the other) or electrical installations in the primary walling etc., may require more extensive fire protection.

**Minimum protection of adjacent surfaces:**

Fire and heat protection of adjacent surfaces needs to comply with the requirements of the "Fire and heat protection table" for the appliance types with consideration of the installation situation.

#### 5.3.2 Fire and heat protection table

Refer to the following table and the required insulation layer thicknesses in chapter 14 "Technical data" for the relevant thermal insulation levels.

Installation situation	Required minimum protection	Primary walling	Rear wall ventilation	Insulation layer		
				Rear	page	Floor
Adjacent surfaces with no combustible materials and no fitted furniture at rear*	Thermal insulation level 1	✗	✗	✓	✓	✗
Direct installation on non-combustible floors on which a floor construction with combustible materials has been laid	Thermal insulation level 2	✗	✗	✓	✓	✗
Adjacent surfaces without combustible materials of more than 10 cm thick with fitted furniture at the rear* without vented spacing						
Adjacent surfaces without combustible materials of less than 10 cm thick with fitted furniture fitted at rear* without vented spacing	Thermal insulation level 3 or Thermal insulation level 3H	✓	✗	✓	✓	✓
No vented spacing to fitted furniture adjacent to fireplace*						
Adjacent surfaces have no combustible materials of more than 24 cm thick with combustible materials on the side of the adjacent surface facing the fireplace (U-value ≤ 0.4 W/m²K)						
Adjacent surfaces with or made of combustible materials, (U-value > 0.4 W/m²K)						
Thermally insulated floors with or made of combustible materials (U-value ≤ 0.4 W/m²K)	Thermal insulation level 4 or Thermal insulation level 4H**	✓	✓	✓	✓	✓
Thermally insulated adjacent surfaces with or made of combustible materials (U-value ≤ 0.4 W/m²K)						
Masonry heat storage inserts, heating and fireplace inserts with ceramic heating gas flues with lasting exposure to temperature (see section 6.4.3.ZVSHK TROL) on adjacent surfaces and ceilings with or made of combustible materials						

\*Fitted furniture with or made of combustible materials.

\*\*Make sure that inlet openings and hot air grilles cannot be closed and do not allow air to escape from the heating chamber or out of convection air openings. Any guide walls, baffles, spacers etc. must not impede the free flow of air and must be capable of being removed for cleaning. Make sure that the hot air grilles are sufficiently far from combustible materials that they do not reach temperatures higher than 85°C.

The primary walling needs to have a minimum thickness of 100 mm and be made of non-combustible material. Ensure that the spacing from the active rear wall ventilation to the adjacent wall, insulation or insulation layers is at least 50 mm.

## 6. Initial start-up

### ⚠ SAFETY INSTRUCTION

The requirements governing safe and proper use need to be fulfilled and guaranteed by your technician prior to initial start-up!

### ⚠ SAFETY INSTRUCTION

Initial start-up by a technician is mandatory before the fireplace can be used for heating.

### ⚠ SAFETY INSTRUCTION

Gases can be released from the paintwork when the appliance is heated up for the first time.

Provide adequate ventilation of the location of the fireplace during this phase! The paintwork on the fireplace gains its special strength when exposed to temperature during initial start-up. This can result in slight temporary odours. Avoid direct inhalation.

### NOTICE

Incorrect initial start-up can lead to damage to the fireplace.

### 6.1 Before heating up for the first time

Allow the fireplace, ceramic parts of the stove and, if required, the chimney to dry out slowly.

### 6.2 Dry heating

The fireplace can be heated up after a short period of drying (approx. 1 week drying period). Use and light very little fuel (max. 1-2 small wood logs) when dry heating the fireplace. Add more wood when the fuel has almost burned down. Use the maximum combustion air setting (cold start/heat up). Immediately and carefully wipe off any condensate formation on the fireplace insert or on the surrounding before any residue burns into the paintwork. Provide adequate ventilation of the location of the fireplace during this phase.

**i** The separate operating instructions provide important information on start-up of the appliance. You may need to read other manufacturers' documentation for start-up.

## 7. Handover to the operator

The technician can then hand over the fireplace to the operator after initial start-up.

The technician is obliged to

- provide detailed instruction to the operator to demonstrate the operation of the fireplace, its safe and correct operation and correct and environmentally-friendly heating.
- point out special features to the operator when using a fireplace with simultaneous operation of appliances, such as air extraction systems (e.g. ventilation system or extractor fan hood).
- instruct the operator in the use, maintenance, service and inspection of the fireplace.
- hand over all technical documents, as well as operating and installation instructions for the appliance, and all accessories and fittings to the operator.

**i** The operator has a duty to find out about the safe and correct operation of the fireplace!

## 8. Documentation

Initial start-up must be carried out by an authorised technician and documented in writing. All start-up reports need to be handed over to the operator. The technician must also prepare a handover report and hand it to the operator. This lists all documents that have been handed over as well as confirmation of instruction.

**i** A template for the start-up report can be found at the end of the separate operating instructions.

## 9. Faults

### ⚠ SAFETY INSTRUCTION

In the event of a fault, immediately shut down your fireplace and only operate it once the faulty components have been replaced and/or the fault has been rectified!



**Follow the instructions**

More information can be found in the attached operating instructions.

## 10. Inspection and maintenance

### 10.1 Safety inspection

You will obtain optimum, environmentally-friendly heating results with regular inspection of the fireplace and the chimney by a technician. The technically correct function of all safety parts will guarantee your safety. We therefore recommend an annual inspection by a specialist firm or a chimney sweep.

### 10.2 Maintenance

The fireplace needs to be maintained regularly by a specialist company and/or by a chimney sweep. The ACTUAL condition of the fireplace needs to be compared with the INTENDED state. Essentially this is a visual inspection. The results need to be recorded in writing. Replace or repair faulty parts immediately.

## 11. Dismantling

### **⚠ CAUTION**

**Risk of burning from hot parts of the system or residual wood!**

Allow the fireplace insert to cool down before working on it!

### **⚠ CAUTION**

**Fire hazard from embers!**

For safety reasons, once removed, store the ash in a fireproof container and leave to cool down completely.

1. Dispose of the cooled ash before dismantling the fireplace insert.
2. If a combustion air connection is fitted separately, this also needs to be disconnected from the fireplace insert.
3. Dismantle the flue pipe connection.



Further information on the external combustion air can be found in chapter 3.3.2.

## 12. Disassembly and disposal

All the packaging materials used are environmentally-friendly and recyclable:

Waste disposal key	Type of waste
15 01 01	Paper and cardboard packaging
15 01 02	Plastic packaging
15 01 03	Wood packaging
15 01 04	Metal packaging

A specialist needs to professionally dismantle and break apart the fireplace. Wear parts and old equipment contain valuable materials. These components need to be sorted according to different materials (see 12.1 "Overview of disassembly and disposal") and taken away for recycling in line with your country's system, or for disposal.

Old electrical and electronic devices need to be collected separately in accordance with the German Waste Electrical and Electronic Equipment Directive (WEEE). In Germany, the manufacturer has a duty to take back and dispose of old equipment. This is possible through registered collection points, such as recycling centres.



Please note local disposal options and contact your local disposal company to determine to what extent the fireplace can be disposed of as "registered" bulk waste.



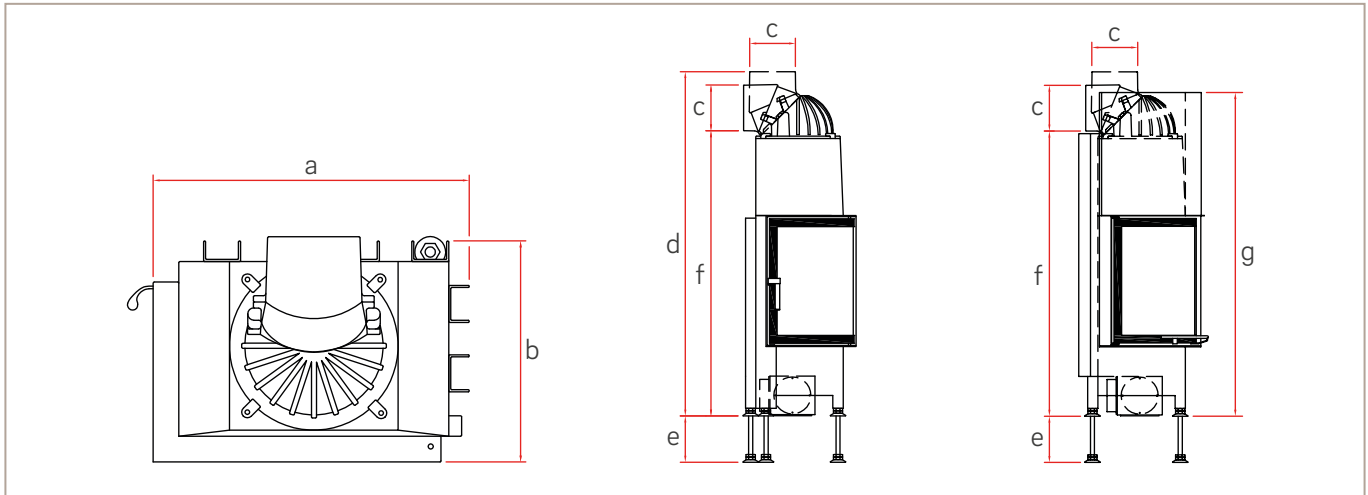
Very small quantities (1 or 2 pieces) of components that have come into contact with the fire (firebox inner lining) can be disposed of with normal household waste, usually this is if they are broken and the appropriate replacement of single plates.

## 12.1 Overview of disassembly and disposal

System component	Material	Disassembly	Re-use/disposal	Waste disposal key	Type of waste
System body	Cast iron heating insert / Sheet steel fireplace insert	Use an angle grinder to cut apart the body.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Ceramic glass window of the door	Ceramic	Move fireplace inserts with guillotine door into their cleaning position. Kristall glass: Use a screwdriver to loosen the fixing screws of the glass retaining bar from the outside and remove the ceramic glass. Anthracite glazing: Use a screwdriver to loosen the fixing screws of the glass retaining bar from the inside and remove the ceramic glass.	Transparent ceramic glass can essentially be recycled, but it needs to be sorted into decorated and undecorated panes of glass. The pane of ceramic glass can be disposed of as construction waste.	17 01 03	Tiles and ceramic
Door seals	Synthetic fibreglass	Mechanically remove the seals from the fireplace insert.	These components may not be disposed of with residual waste as synthetic mineral fibres cannot be destroyed by combustion. Dispose of seals as fibreglass and ceramic fibre (synthetic mineral fibres).	10 11 03	Fibreglass waste
Firebox inner lining	Chamotte	Remove any chamotte components installed in the firebox.	Any chamotte components that have come into contact with the fire or flue gas need to be disposed of, as they cannot be reused or recycled.	17 09 04	Construction waste
Firebox inner lining	Vermiculite	Remove any vermiculite components installed in the firebox from the fireplace insert.	Any vermiculite components that have come into contact with the fire or flue gas need to be disposed of, as they cannot be reused or recycled.	17 09 04	Construction waste
Firebox inner lining	Caloceram (heat-resistant concrete)	Remove Caloceram components installed in the firebox from the fireplace insert.	Any Caloceram components that have come into contact with the fire or flue gas need to be disposed of, as they cannot be reused or recycled.	17 09 04	Construction waste
Deflector plates	Vermiculite	Remove any vermiculite components installed in the firebox from the fireplace insert.	Any vermiculite components that have come into contact with the fire or flue gas need to be disposed of, as they cannot be reused or recycled.	17 09 04	Construction waste
Deflector plates	Steel	Remove any steel components installed in the firebox from the fireplace insert.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Ceramic felt	Ceramic	Remove components between the firebox inner lining and the floor panel.	The ceramic components can be disposed of as construction waste.	17 01 03	Tiles and ceramic
Spring clamps	Stainless steel	Mechanically remove components between the firebox inner lining and the floor group from the fireplace insert.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Universal support base	Sheet steel	No need to disassemble.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Universal support base adjustable feet	Iron	Unscrew the components from the universal support base.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Ash grate	Cast iron	No need to disassemble.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Ash box	Iron	Remove component from the fireplace insert.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Cast-iron dome	Cast iron	No need to disassemble. Use a jaw spanner to dismantle the cast-iron dome from the fireplace insert.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Combustion air connector	Sheet steel	Use a screwdriver (3 mm Allen key) to loosen the fixing screws of the spigots and remove the component.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel

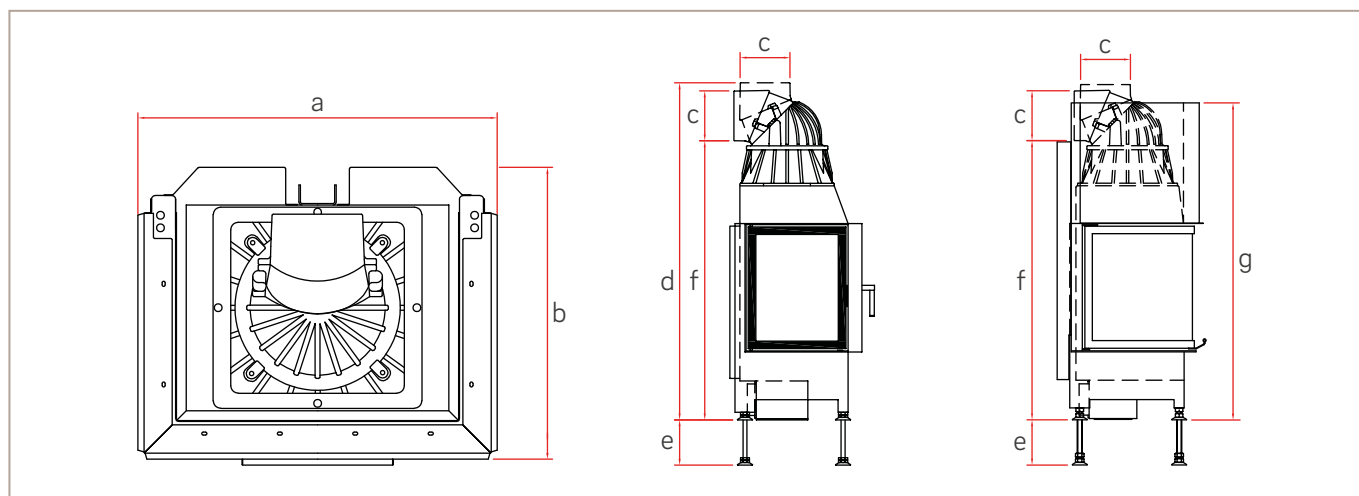
System component	Material	Disassembly	Re-use/disposal	Waste disposal key	Type of waste
Hood (guillotine door fireplace insert)	Sheet steel	Use a screwdriver (3 mm Allen key) to loosen the fixing screws of the hood and remove the component.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Weight manhole cover (guillotine door fireplace insert)	Sheet steel	Use a screwdriver (3 mm Allen key) to remove the fixing screws of the weight manhole cover and remove the component upwards.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Balancing weights (guillotine door fireplace insert)	Cast iron	Remove components from the fireplace insert.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Balancing weights (guillotine door fireplace insert)	Sheet steel	Remove components from the fireplace insert.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Deflection rollers	Iron	Use a 17 mm jaw spanner to dismantle the components.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
Cord	Steel	Loosen the carabiner hook and remove the cord.	Take waste metal to a municipal recycling centre.	17 04 05	Iron and steel
SMR Schmid multi-control	Electrical or electronic components	Remove the electrical or electronic components by dismantling them from the storage stone system.	Do not dispose of these components with residual waste. These components need to be properly disposed of through the electrical waste return system.	16 02 14	Electrical and electronic equipment and their components – used equipment with the exception of components between type numbers 16 02 09 to 16 02 13.

### 13. Table of dimensions



	a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	g [mm]
Ekko 34(34)51 s	425*	429*	Ø 158a	1050**	0-180	---	---
Ekko 34(34)57 s	425*	429*	Ø 158a	1110**	0-180	---	---
Ekko 34(34)51 h	489	489	Ø 158a	1050**	0-180	---	1260***
Ekko 34(34)57 h	489	489	Ø 158a	1110**	0-180	---	1380***
Ekko 45(45)45 s	550*	520*	Ø 178a	1130	0-180	915	---
Ekko 45(45)51 s	550*	520*	Ø 178a	1190	0-180	975	---
Ekko 45(45)57 s	550*	520*	Ø 178a	1250	0-180	1035	---
Ekko 45(45)45 h	583	578	Ø 178a	1130	0-180	915	1140***
Ekko 45(45)51 h	583	578	Ø 178a	1190	0-180	975	1260***
Ekko 45(45)57 h	583	578	Ø 178a	1250	0-180	1035	1380***
Ekko 45(45)80 h	583	578	Ø 178a	1630	0-180	1415	1565
Ekko L/R 55(34)45 s	615*	430*	Ø 178a	1280	0-180	1065	---
Ekko L/R 55(34)57 s	615*	430*	Ø 178a	1340	0-180	1125	---
Ekko L/R 55(34)51 s	615*	430*	Ø 178a	1400	0-180	1185	---
Ekko L/R 55(34)45 h	678	488	Ø 178a	1280	0-180	1065	1140
Ekko L/R 55(34)51 h	678	488	Ø 178a	1340	0-180	1125	1260
Ekko L/R 55(34)57 h	678	488	Ø 178a	1400	0-180	1185	1380
Ekko L/R 67(34)45 s (with frame doors/one-piece frame)	745/740*	525/520*	Ø 178a	1280	0-180	1065	---
Ekko L/R 67(34)51 s (with frame doors/one-piece frame)	745/740*	525/520*	Ø 178a	1340	0-180	1125	---
Ekko L/R 67(34)57 s (with frame doors/one-piece frame)	745/740*	525/520*	Ø 178a	1400	0-180	1185	---
Ekko L/R 67(34)45 h	798	578	Ø 178a	1280	0-180	1065	1140
Ekko L/R 67(34)51 h	798	578	Ø 178a	1340	0-180	1125	1260
Ekko L/R 67(34)57 h	798	578	Ø 178a	1400	0-180	1185	1380
Ekko L/R 84(34)45 h	968	578	Ø 198a	1280	0-180	1055	1140
Ekko L/R 84(34)51 h	968	578	Ø 198a	1340	0-180	1115	1260
Ekko L/R 84(34)57 h	968	578	Ø 198a	1400	0-180	1175	1380
Ekko L 100(45)45 h	1128	578	Ø 198a	1280	0-180	1055	1140
Ekko L 100(45)51 h	1128	578	Ø 198a	1340	0-180	1115	1260
Ekko L 100(45)57 h	1128	578	Ø 198a	1400	0-180	1175	1380

\*Dimension includes cooling rib. \*\*Dimension excludes cast-iron dome. \*\*\*Hood for guillotine door is higher than the connection upper part of the cast-iron dome/flue gas connector.



	a [mm]	b [mm]	c [mm]	d [mm]	e [mm]	f [mm]	g [mm]
Ekko U 45(34)45 h	504	475	Ø 178a	1247	0-180	1057	1140
Ekko U 45(34)51 h	504	475	Ø 178a	1307	0-180	1117	1260
Ekko U 45(34)57 h	504	475	Ø 178a	1367	0-180	1177	1380
Ekko U 55(45)45 h	604	580	Ø 198a	1280	0-180	1055	1140
Ekko U 55(45)51 h	604	580	Ø 198a	1340	0-180	1115	1260
Ekko U 55(45)57 h	604	580	Ø 198a	1400	0-180	1175	1380
Ekko U 55(67)45 h	599	800	Ø 198a	1280	0-180	1055	1140
Ekko U 55(67)51 h	599	800	Ø 198a	1340	0-180	1115	1260
Ekko U 55(67)57 h	599	800	Ø 198a	1400	0-180	1175	1380
Ekko U 60(90)51 h	654	1047	Ø 248a	1251**	0-135	---	1395***
Ekko U 67(45)45 s	674	525*	Ø 198a	1280	0-180	1055	---
Ekko U 67(45)51 s	674	525*	Ø 198a	1340	0-180	1115	---
Ekko U 67(45)57 s	674	525*	Ø 198a	1400	0-180	1175	---
Ekko U 67(45)45 h	714	580	Ø 198a	1280	0-180	1055	1140
Ekko U 67(45)51 h	714	580	Ø 198a	1340	0-180	1115	1260
Ekko U 67(45)57 h	714	580	Ø 198a	1400	0-180	1175	1380
Ekko U 84(34)45 h	884	580	Ø 198a	1280	0-180	1055	1140
Ekko U 84(34)51 h	884	580	Ø 198a	1340	0-180	1115	1260
Ekko U 84(34)57 h	884	580	Ø 198a	1400	0-180	1175	1380
Ekko U 100(45)51 h	1078	595	Ø 248a	1186**	0-180	---	1260***
Ekko U 100(45)57 h	1078	595	Ø 248a	1386**	0-180	---	1380

\*Dimension includes cooling rib. \*\*Dimension excludes cast-iron dome. \*\*\*Hood for guillotine door is higher than the connection upper part of the cast-iron dome/flue gas connector.

## 14. Technical data

Operation with closed fire box in accordance with EN 13229		Ekko	Ekko	Ekko	Ekko L/R	Ekko L/R	Ekko L/R	Ekko L/R	
		34(34)51 s/h 34(34)57 s/h	45(45)45 s/h 45(45)51 s/h 45(45)57 s/h	45(45)80 h	55(34)45 s/h 55(34)51 s/h 55(34)57 s/h	67(45)45 s/h 67(45)51 s/h 67(45)57 s/h	84(34)45 h 84(34)51 h 84(34)57 h	100(45)45 h 100(45)51 h 100(45)57 h	
Nominal heat output	kW	7	7	7	5	9	9	9	
Thermal output range	kW	---	3.2–7.1	3.2–7.1	2.4–5.3	3.4–9.8	4.2–9.2	4.1–9.4	
Room heat output	kW	7	7	7	5	9	9	9	
Heat distribution: through the viewing window	%	50	50	50	50	50	50	50	
Heat distribution: convective output	%	50	50	50	50	50	50	50	
Suitable for multiple flue connections to the chimney		✓	✓	✓	✓	✓	✓	✓	
Flue gas connector	Ø in mm	160	180	180	180	180	200	200	
Combustion air connector	Ø in mm	125	125	125	125	125	125	2 × 125	
SMR combustion control		---	✓	✓	✓	✓	✓	✓	
recommended free cross-section <sup>1</sup>	Supply air (cm <sup>2</sup> )	840	840	840	600	1080	1080	1080	
	Recirculation air (cm <sup>2</sup> )	700	700	700	500	900	900	900	
Combustion air requirement	m <sup>3</sup> /h	28	28	28	20	36	36	36	
Recommended quantity of wood, approx.	kg	1.8	3.0	3.5	3.0	4.0	4.5	5.0	
Recommended quantity of wood with NHK, approx.	kg	---	5.5	---	---	7.0	---	---	
Recommended quantity of wood with heat storage system, approx.	kg	---	5.5	---	5.5	6.0	---	---	
Recommended length of logs	cm	33 (standing)	33 (standing)	33 (standing)	33	33	33	33	
Fuel conversion	kg/h	---	4.8	---	4.8	6.0	---	---	
Minimum distance to the fire box (in accordance with TR OL 2006, version 2010)	mm	800*	800	800	800*	800*	800	800	
Minimum distance to the insulation (in accordance with TR OL 2006, version 2010)	mm	70*	70	70	50*	90*	90	90	
Insulation thickness (with a wall that does not need to be protected) (based on SILCA® 250KM)	mm	100*	60	60	60*	60*	60	60	
Weight	kg	90-110	190-230	250	190-270	220-260	280-320	310-350	
Fuel	Type	Wood	Wood	Wood	Wood	Wood	Wood	Wood	
Triple values with nominal heat output	Flue gas mass flow	g/s	6.4	6.8	6.8	5.0	9.5	8.6	9.5
	Flue gas temperature	°C	275	310	310	275	330	302	310
	Required delivery pressure	Pa	12	12	12	12	12	12	12
Triple values for calculating ceramic flues (wood used as fuel)	Firing power	kW	---	18.2	---	18.2	19.8	---	---
	Flue gas mass flow	g/s	---	13.7	---	14.6	25.5	---	---
	Flue gas temperature upstream of the connecting surface	°C	---	350	---	378	347	---	---
	Required delivery pressure at the flue gas connector	Pa	---	15	---	15	15	---	---
	Combustion air requirement	m <sup>3</sup> /h	---	60.9	---	60.9	75.4	---	---
Recommended flue length <sup>2</sup>	m	1.7	1.7	---	1.7	3.5	1.7	1.7	
Emission values Wood fuel	CO - based on 13% O <sub>2</sub>	mg/Nm <sup>3</sup>	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	
	Dust - based on 13% O <sub>2</sub>	mg/Nm <sup>3</sup>	< 40	< 40	< 40	< 40	< 40	< 40	
	Efficiency	%	> 80	> 78	> 78	> 78	> 78	> 78	> 78
Minimum heat-emitting surface <sup>3</sup> (based on closed design)	m <sup>2</sup>	3.3	3.0	3.0	2.3	3.7	3.7	3.5	
Ecodesign Regulation in accordance with (EU) 2015/1185		✓	✓	✓	✓	✓	✓	✓	
Energy efficiency class in accordance with (EU) 2015/1186		A*	A	A	A	A	A	A	
Energy efficiency index (EEI)		110.4	104.6	104.6	106.3	103.2	103.4	103.5	
Declaration of Performance	No.	LE29154502	LE29061077	LE29061077	LE29133265	LE26061076-1	LE29102339	LE29061077	
possible connected equipment	Top mounted heat exchanger		---	✓	---	---	✓	---	
	Hot air top-mounted element		---	✓	---	---	✓	---	
	Heat exchanger		---	✓	---	---	✓	---	
Efficiency with connected equipment	%	---	> 80	---	---	> 80	---	---	
Hot water top-mounted element (HWAR R)		---	---	---	---	---	---	---	

s = hinged door, h = guillotine door

The specified waterside output was determined under test conditions. The achievable output can vary depending on the flue liner, quantity of wood and pump assembly used.

<sup>2</sup> The information regarding flue lengths is a recommendation and based on the calculation in accordance with TR OL 2022 chapter 15. The calculation is based on a medium-heavy design and a flue ratio of 360 cm<sup>2</sup>.

<sup>3</sup> Average value based on the storage time. Depending on the material properties and the construction thickness.  
Mean specific heat distribution = approx. 500 W/m<sup>2</sup>

<sup>1</sup> The calculation was based on "TR OL 2006, edition 2010 – Table 17: Free cross-section in cm<sup>2</sup> for grille or opening tile based on the thermal output for air heating" with the preferred air velocity of 0.75 m/s. Supply air grille 240 cm<sup>2</sup>/kW, recirculation air grille 200 cm<sup>2</sup>/kW.



Operation with closed fire box in accordance with EN 13229		Ekko U	Ekko U	Ekko U	Ekko U	Ekko U	Ekko U	Ekko U	
		45(34)45 h 45(34)51 h 45(34)57 h	55(45)45 h 55(45)51 h 55(45)57 h	55(67)45 h 55(67)51 h 55(67)57 h	60(90)51 h	67(45)45 s 67(45)51 s 67(45)57 s	67(45)45 h 67(45)51 h 67(45)57 h	84(34)45 h 84(34)51 h 84(34)57 h	
Nominal heat output	kW	4	9	9	14	9	9	10.5	
Thermal output range	kW	---	---	4.3–9.1	---	3.4–9.8	3.0–9.0	---	
Room heat output	kW	4	9	9	14	9	9	10.5	
Heat distribution: through the viewing window	%	70	70	70	40	60	65	60	
Heat distribution: convective output	%	30	30	30	60	40	35	40	
Suitable for multiple flue connections to the chimney		✓	✓	✓	✓	✓	✓	✓	
Flue gas connector	Ø in mm	180	200	200	250	200	200	200	
Combustion air connector	Ø in mm	125	125	125	150	125	125	125	
SMR combustion control		✓	✓	✓	---	✓	✓	✓	
recommended free cross-section <sup>1</sup>	Supply air (cm <sup>2</sup> )	480	1080	1080	2184	1080	1080	1260	
	Recirculation air (cm <sup>2</sup> )	400	900	900	1820	900	900	1050	
Combustion air requirement	m <sup>3</sup> /h	16	32	36	54	36	36	42	
Recommended quantity of wood, approx.	kg	1.8	3.0	4.0	4.0	4.0	4.0	4.5	
Recommended quantity of wood with NHK, approx.	kg	---	---	---	---	7.0	---	---	
Recommended quantity of wood with heat storage system, approx.	kg	---	6.0	6.5	---	6.5	6.5	---	
Recommended length of logs	cm	25 (33 standing)	33	33	33	33	33	33	
Fuel conversion	kg/h	---	---	---	---	---	---	---	
Minimum distance to the fire box (in accordance with TR OL 2006, version 2010)	mm	800	800	800	800	800	800	800	
Minimum distance to the insulation (in accordance with TR OL 2006, version 2010)	mm	50	90	90	60	90	90	100	
Insulation thickness (with a wall that does not need to be protected) (based on SILCA® 250KM)	mm	60	60	60	60	60	60	60	
Weight	kg	150-170	210-230	240-260	370	190-210	240-260	280-320	
Fuel	Type	Wood	Wood	Wood	Wood	Wood	Wood	Wood	
Triple values with nominal heat output	Flue gas mass flow	g/s	4.7	12.6	8.6	11.9	9.5	8.2	14.9
	Flue gas temperature	°C	255	228.5	310	310	330	345	259
	Required delivery pressure	Pa	11	12	11.5	12	12	12	12
Triple values for connecting ceramic flues (wood used as fuel)	Firing power	kW	---	19.8	21.5	---	21.5	21.5	---
	Flue gas mass flow	g/s	---	33.7	29.7	---	30.6	29.3	---
	Flue gas temperature upstream of the connecting surface	°C	---	280	361	---	361	361	---
	Required delivery pressure at the flue gas connector	Pa	---	15	15	---	15	15	---
	Combustion air requirement	m <sup>3</sup> /h	---	75.4	75.6	---	75.6	75.6	---
	Recommended flue length <sup>2</sup>	m	1.7	1.7	1.7	---	3.5	3.5	---
Emission values Wood fuel	CO - based on 13% O <sub>2</sub>	mg/Nm <sup>3</sup>	< 1250	< 1250	< 1250	< 1250	< 1250	< 1250	
	Dust - based on 13% O <sub>2</sub>	mg/Nm <sup>3</sup>	< 40	< 40	< 40	< 40	< 40	< 40	
	Efficiency	%	> 80	> 78	> 78	> 80	> 78	> 78	> 80
Minimum heat-emitting surface <sup>3</sup> (based on closed design)	m <sup>2</sup>	1.8	3.7	3.5	4.1	3.5	3.5	4.0	
Ecodesign Regulation in accordance with (EU) 2015/1185		✓	✓	✓	✓	✓	✓	✓	
Energy efficiency class in accordance with (EU) 2015/1186		A <sup>+</sup>	A	A	A	A	A	A	
Energy efficiency index (EEI)		107.5	105.0	104.1	106.1	103.2	103.4	106.4	
Declaration of Performance	No.	LE29143528	LE11080165	LE29102336	LE1459631-1	LE29061076-2	LE29102335	LE12030194	
possible connected equipment	Top mounted heat exchanger		---	---	---	---	---	---	
	Hot air top-mounted element		---	---	---	✓	---	---	
	Heat exchanger		---	---	---	✓	---	---	
Efficiency with connected equipment	%	---	---	---	---	> 80	---	---	
Hot water top-mounted element (HWAR R)		☑	---	---	---	---	---	---	

s = hinged door, h = guillotine door  
The specified waterside output was determined under test conditions. The achievable output can vary depending on the flue liner, quantity of wood and pump assembly used.

<sup>2</sup> The information regarding flue lengths is a recommendation and based on the calculation in accordance with TR OL 2022 chapter 15. The calculation is based on a medium-heavy design and a flue ratio of 360cm<sup>2</sup>.

<sup>3</sup> Average value based on the storage time. Depending on the material properties and the construction thickness.  
Mean specific heat distribution = approx. 500 W / m<sup>2</sup>

<sup>1</sup> The calculation was based on \*TR OL 2006, edition 2010 – Table 17: Free cross-section in cm<sup>2</sup> for grille or opening tile based on the thermal output for air heating\* with the preferred air velocity of 0.75 m/s. Supply air grille 240 cm<sup>2</sup>/kW, recirculation air grille 200 cm<sup>2</sup>/kW.

Operation with closed fire box in accordance with EN 13229		Ekko U 100(45)51 h 100(45)57 h	
		EN	Export
Nominal heat output	kW	15.0	20.0
Thermal output range	kW	8.0–16.7	8.0–20.6
Room heat output	kW	15.0	20.0
Heat distribution: through the viewing window	%	60	
Heat distribution: convective output	%	40	
Suitable for multiple flue connections to the chimney		✓	
Flue gas connector	Ø in mm	250	
Combustion air connector	Ø in mm	2 x 125	
SMR combustion control		✓	
recommended free cross-section <sup>1</sup>	Supply air (cm <sup>2</sup> )	1440	1920
	Recirculation air (cm <sup>2</sup> )	1200	1600
Combustion air requirement	m <sup>3</sup> /h	60	80
Recommended quantity of wood, approx.	kg	7.0	8.5
Recommended quantity of wood with NHK, approx.	kg	---	
Recommended quantity of wood with heat storage system, approx.	kg	---	
Recommended length of logs	cm	33	
Fuel conversion	kg/h	---	
Minimum distance to the fire box (in accordance with TR OL 2006, version 2010)	mm	800	
Minimum distance to the insulation (in accordance with TR OL 2006, version 2010)	mm	100	
Insulation thickness (with a wall that does not need to be protected) (based on SILCA® 250KM)	mm	60	
Weight	kg	350-370	
Fuel	Type	Wood	
Triple values with nominal heat output	Flue gas mass flow	g/s	17.2   18.3
	Flue gas temperature	°C	221   232
	Required delivery pressure	Pa	12-15
Triple values for calculating ceramic flues (wood used as fuel)	Firing power	kW	---
	Flue gas mass flow	g/s	---
	Flue gas temperature upstream of the connecting surface	°C	---
	Required delivery pressure at the flue gas connector	Pa	---
	Combustion air requirement	m <sup>3</sup> /h	---
Emission values Wood fuel	Recommended flue length <sup>2</sup>	m	---
	CO - based on 13% O <sub>2</sub>	mg/Nm <sup>3</sup>	< 1250
	Dust - based on 13% O <sub>2</sub>	mg/Nm <sup>3</sup>	< 40
Efficiency	%	> 80	
Minimum heat-emitting surface <sup>3</sup> (based on closed design)	m <sup>2</sup>	5.6	
Ecodesign Regulation in accordance with (EU) 2015/1185		✓	
Energy efficiency class in accordance with (EU) 2015/1186			
Energy efficiency index (EEI)		106.0	107.5
Declaration of Performance	No.	LE971812-1	
possible connected equipment	Top mounted heat exchanger	---	
	Hot air top-mounted element	---	
	Heat exchanger	---	
Efficiency with connected equipment	%	---	
Hot water top-mounted element (HWAR R)		---	

s = hinged door, h = guillotine door  
The specified waterside output was determined under test conditions. The achievable output can vary depending on the flue liner, quantity of wood and pump assembly used.

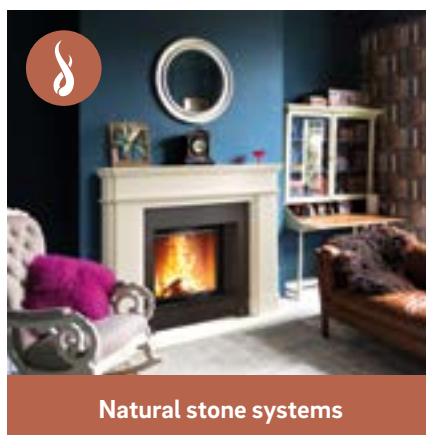
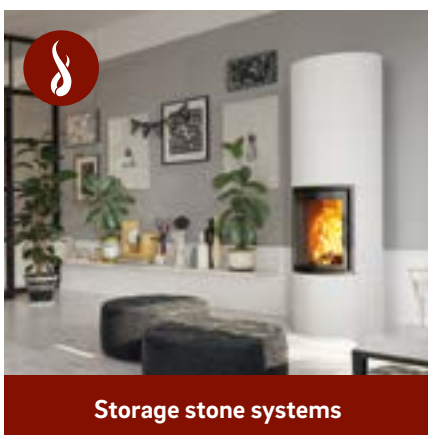
<sup>2</sup> The information regarding flue lengths is a recommendation and based on the calculation in accordance with TR OL 2022 chapter 15. The calculation is based on a medium-heavy design and a flue ratio of 360 cm<sup>2</sup>.

<sup>3</sup> Average value based on the storage time. Depending on the material properties and the construction thickness.  
Mean specific heat distribution = approx. 500 W / m<sup>2</sup>

<sup>1</sup> The calculation was based on "TR OL 2006, edition 2010 – Table 17: Free cross-section in cm<sup>2</sup> for grille or opening tile based on the thermal output for air heating" with the preferred air velocity of 0.75 m/s. Supply air grille 240 cm<sup>2</sup>/kW, recirculation air grille 200 cm<sup>2</sup>/kW.



# Our product range



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