**Installation** Manual

# BKH 5.0 Tunnel
# 50-162

green

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BRUNNER®

# INHALT


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# 1 BASIC INFORMATIONS

All instructions delivered with products must be observed. We do not accept any warranty claim or liability for damage resulting from failure to observe these installation instructions!
Improper installation can cause injury and material damage!

The floor space of the room must have a suitable structure and sufficient dimensions to ensure proper functioning of the fireplace.

Please note that other installation and assembly instructions are included in other packaging units!

Dimensioning of downstream heat accumulator must be according to valid stove-setting rules.

During installation of the fireplace, all dimensions and minimal clearances of the fireplace casing must be held as specified by the manufacturer.

All binding national or EU standards and local regulations for the installation of fireplaces must be observed.

All valid stove fitting rules and regulations of local construction law must be observed and followed.

Please follow the relevant regulations of your country.

When these instructions are followed and all works are done properly, this will ensure a safe, energy-saving and environmentally friendly operation of the stove. Pictures shown are not to be considered as complete representations of any kind.

Subject to technical and assortment changes.

Please notify your supplier of any damage which might have occurred during transport.

Please keep these instructions.

Please also take note of the online product documentation provided by:

**General instructions of the Brunner products installation for the stove construction.**

(https://www.brunner.de/produktdownloads/kacheloefen-kamine/allgemeine-hinweise-fuer-den-aufbau_de.pdf) laden können.

## 1.1 SPECIFIED SYMBOLS

In this documentation, a distinction is made between:

Operating personnel as the **User of the system**, i.e. the end user, which has received instructions from the Contractor and does not necessarily have additional qualifications.

Operating personnel as the **Contractor**, i.e. the qualified professionals, which are entitled to perform the indicated specialist works.

In this document, the following symbols are used:



**DANGER**
A danger of high risk persists, which leads to severe injury or death, if this endangering situation is not avoided.

**WARNING**
A danger of medium risk persists, which can lead to severe injury or death, if this endangering situation is not avoided.

**CAUTION**
A danger of low risk persists, which can lead to minor or moderate injury, if this endangering situation is not avoided.



**ATTENTION**
There is a certain risk, which can lead to a malfunction or damage of the related system and all devices connected with it, if the indicated notifications are not followed.



**NOTE**

Additional helpful information

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# 2 SAFETY

## 2.1 SAFETY PRECAUTIONS

Fireplaces may be set up only in rooms or areas with no risk of danger due to their location, structure or intended use.

| | |
|---|---|
| Working on the stove | Installation, commissioning, servicing and maintenance works on the product may be carried out only by an authorized stove-fitter. Safety and efficiency of the system depend on this! |
| Working with electronics | Switch off the emergency switch or circuit breaker, and secure them against switching on again. |



Fireplaces with external air supply are not independent from room air supply and must be considered and designed as roomsealed fireplaces. In connection with a ventilation or extraction system, we recommend the use of a negative pressure safety device (Art.No.: 11600.1).

Installation must be carried out by an authorized stove-fitter, because safety and efficiency of the system depend mostly on proper installation of the product. All valid stove fitting rules and regulations of building law must be observed and followed. Make sure to instruct the owner or user about the functions and controls of the system and possibly installed safety devices.

Fireplaces must be built to ensure safe operation and fire safety in order to eliminate possible risks and unacceptable loads. They have to be ready for use over an adequate period of time.

Make sure to instruct the owner or user about the functions and controls of the system and possibly installed safety devices.

Remember to use only genuine replacement parts.

## 2.2 FIRE PROTECTION

The thermal insulation listed in the fire protection information is implemented with substitute insulation material in the form of calcium silicate boards (e.g. brands: Promasil, Silka, Skamol).

If a different insulating material is used (e.g. vermiculite), the manufacturer's specifications must be used for conversion to the installed insulating material.

The thermal insulation for non-combustible add-on walls and ceilings is based on the requirements of TROL (Germany).

For extension walls made of combustible building materials, fire protection can also be provided in a version with active rear ventilation. This variant has been tested and is created with an insulation thickness of 5 cm. It is important to ensure that air flows across the entire width and height.

The room air must be able to flow in at the bottom and out at the top. The air inlet and outlet openings (cross-section 75 $^{cm2}$) must not be sealable. In normal operation, the temperatures at the air outlet are below 85°C.

For thermally insulated add-on walls with a U-value < 0.4 $^{W/m2K}$, the fire protection must be designed with active rear ventilation.

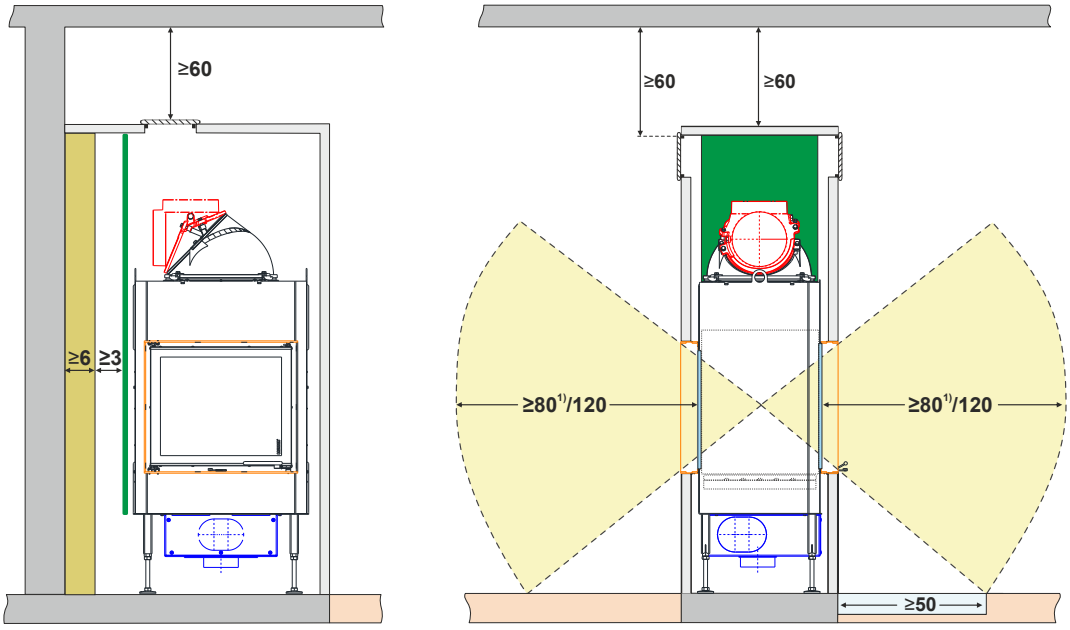
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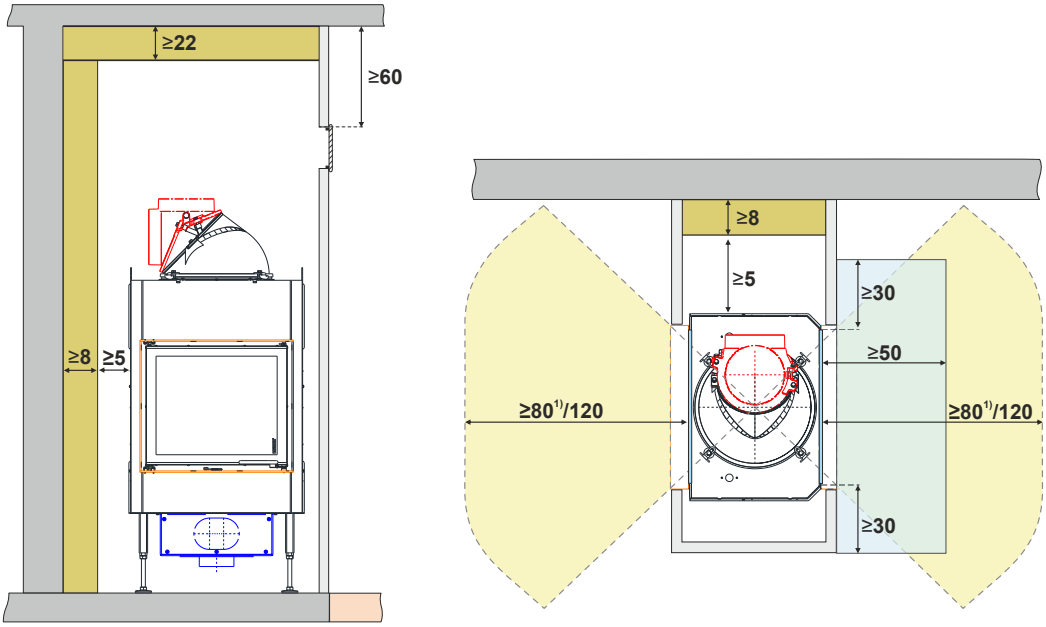
## 2.2.1 MOUNTING WALL / CEILING NON-COMBUSTIBLE

### Structure: Substitute insulation material I Mounting wall / Ceiling non-combustible

**Half-height version**

with: heat protection panel




**Floor-to-ceiling version**

- floor/wall/ceiling non-combustible
- fireplace cladding
- wall/ceiling/floor/attachments combustible/to be protected
- convection opening (fireplace cladding)
- substitute insulation material calcium silicate
- radiation range
- heat protection panel
- non-combustible flooring / floor protection pane
- convection opening (active rear ventilation)

[1)] Glass ceramic coated (GKB)

All figures in cm

When designing the exhaust system and exhaust pipe, national standards and fire protection regulations must be observed

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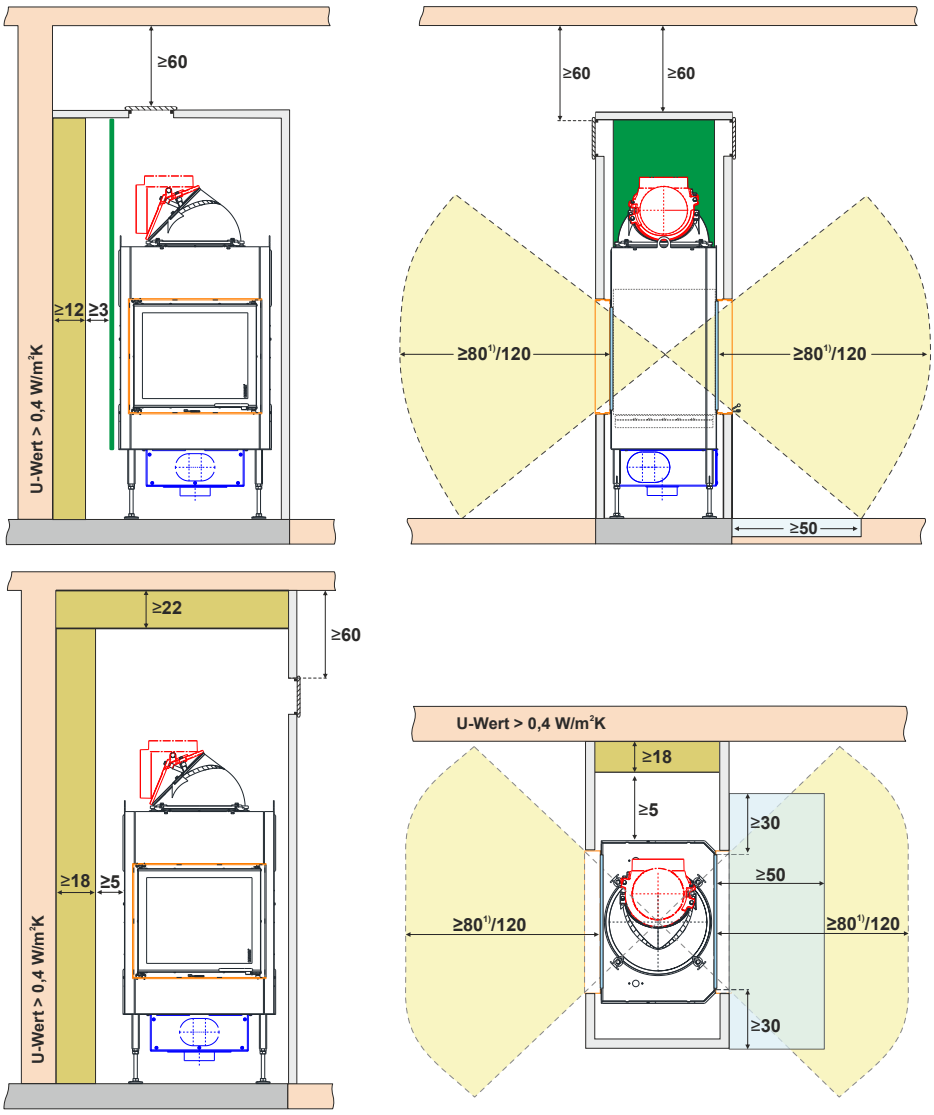
## 2.2.2 MOUNTING WALL / CEILING COMBUSTIBLE (U-VALUE > 0,4 W/M²K)

### Structure: Substitute insulation material I Mounting wall / Ceiling combustible

**Half-height version**

with: heat protection panel

U-value Mounting wall> 0,4 W/m²K




**Floor-to-ceiling version**

without: heat protection panel

U-value Mounting wall > 0,4 W/m²K

floor/wall/ceiling non-combustible

fireplace cladding

wall/ceiling/floor/attachments combustible/to be protected

convection opening (fireplace cladding)

substitute insulation material calcium silicate

radiation range

heat protection panel

non-combustible flooring / floor protection pane

convection opening (active rear ventilation)

¹⁾ Glass ceramic coated (GKB)

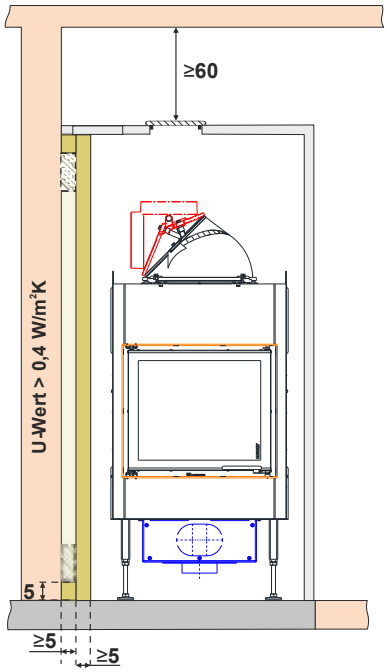
All figures in cm

When designing the exhaust system and exhaust pipe, national standards and fire protection regulations must be observed

## Structure: Substitute insulation material I active rear ventilation I Mounting wall/ Ceiling combustible

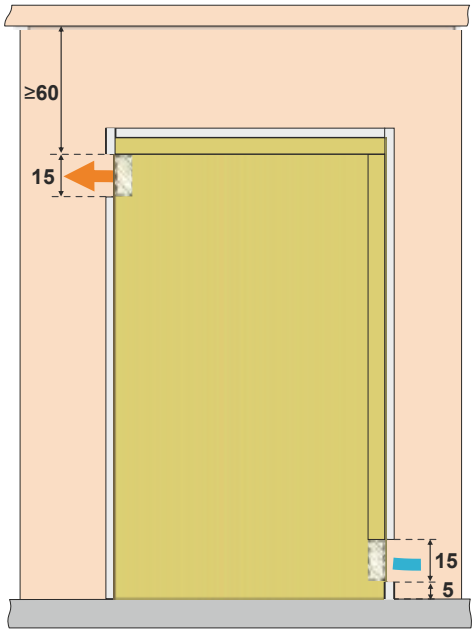
**Half-height version**

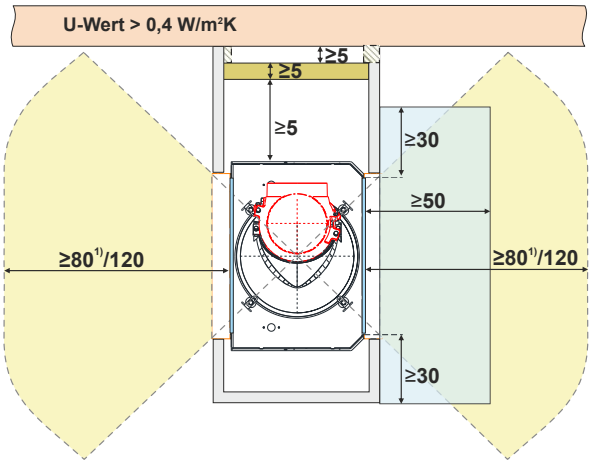
with: active rear ventilation
U-value Mounting wall> 0,4 W/m²K

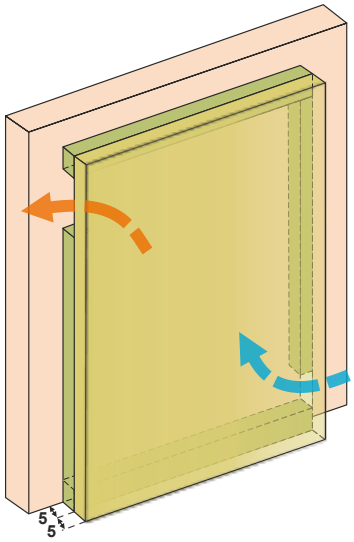



Detail:

active rear ventilation (2x75 cm²)




| | | |
|---|---|---|
| floor/wall/ceiling non-combustible | fireplace cladding | wall/ceiling/floor/attach-ments combustible/to be protected |
| convection opening (fire-place cladding) | substitute insulation material calcium silicate | radiation range |
| heat protection panel | non-combustible flooring / floor protection pane | convection opening (active rear ventilation) |

1) Glass ceramic coated (GKB)

All figures in cm

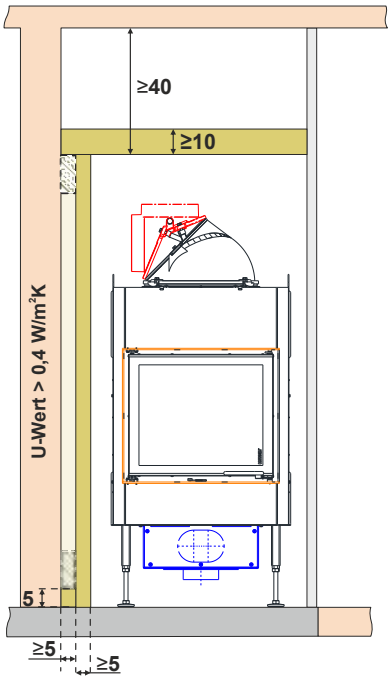
When designing the exhaust system and exhaust pipe, national standards and fire protection regulations must be observed

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## Structure: Substitute insulation material I aktive Hinterlüftung I Mounting wall/ Ceiling combustible

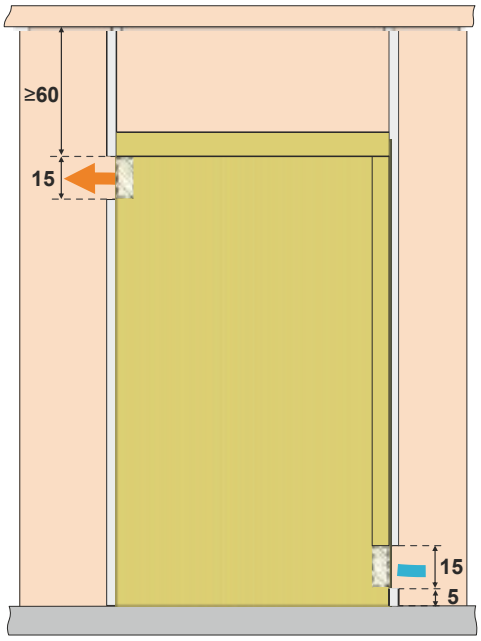
**Floor-to-ceiling version**

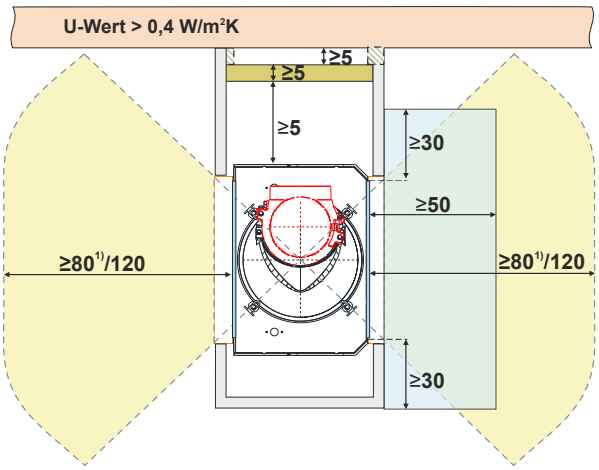
with: active rear ventilation
U-value Mounting wall> 0,4 W/m²K

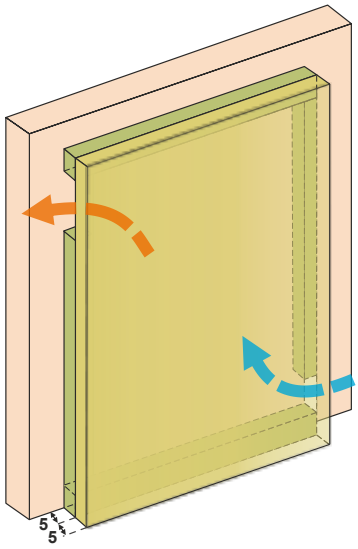



Detail:

active rear ventilation (2x75 cm²)




floor/wall/ceiling non-combustible

fireplace cladding

wall/ceiling/floor/attachments combustible/to be protected

convection opening (fireplace cladding)

substitute insulation material calcium silicate

radiation range

heat protection panel

non-combustible flooring / floor protection pane

convection opening (active rear ventilation)

1) Glass ceramic coated (GKB)

All figures in cm

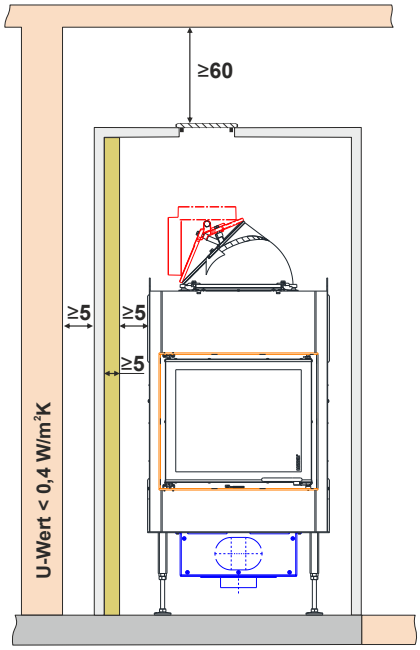
When designing the exhaust system and exhaust pipe, national standards and fire protection regulations must be observed

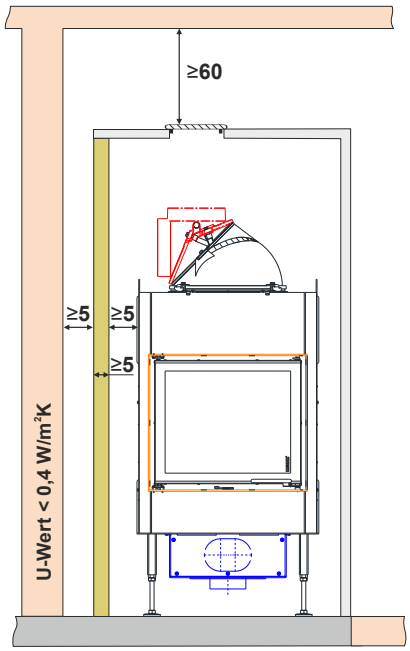
## 2.2.3 MOUNTING WALL / CEILING COMBUSTIBLE (U-VALUE < 0,4 W/M²K)

### Structure: Substitute insulation material I aktive Hinterlüftung I Mounting wall/ Ceiling combustible

**Half-height version**

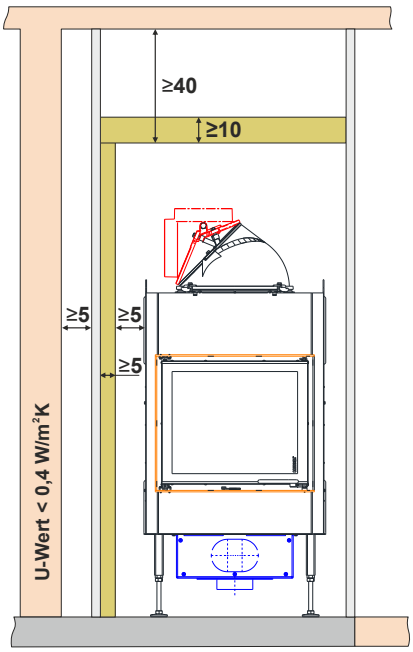
with: active rear ventilation
U-value Mounting wall< 0,4 W/m²K

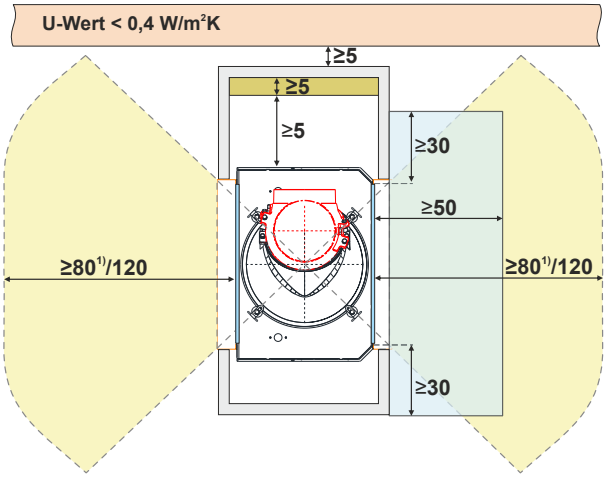



**Floor-to-ceiling version**

with: active rear ventilation
U-value Mounting wall< 0,4 W/m²K




floor/wall/ceiling non-combustible

fireplace cladding

wall/ceiling/floor/attach-ments combustible/to be protected

convection opening (fire-place cladding)

substitute insulation material calcium silicate

radiation range

heat protection panel

non-combustible flooring / floor protection pane

convection opening( active rear ventilation)

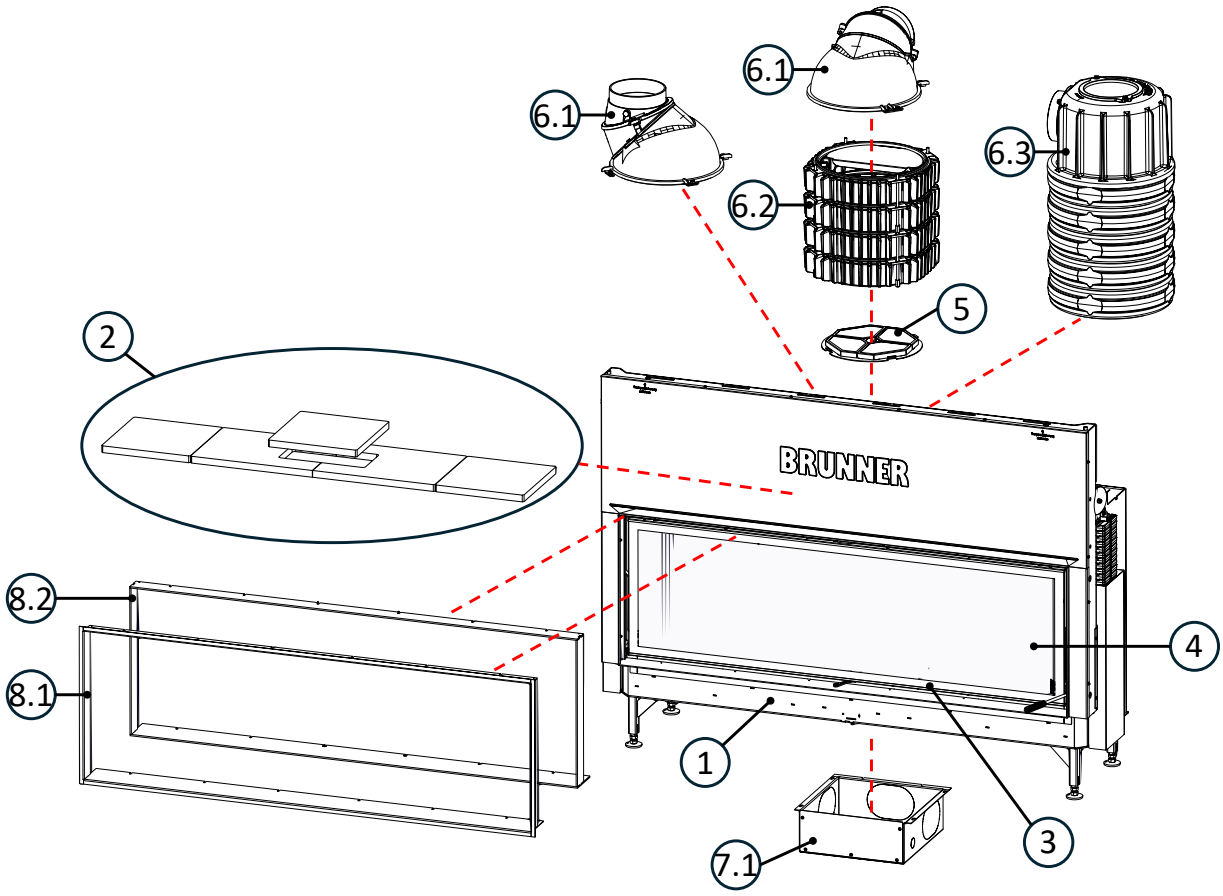
1) Glass ceramic coated (GKB)

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All figures in cm
When designing the exhaust system and exhaust pipe, national standards and fire protection regulations must be observed

# 3 DELIVERY CONTENTS BKH 50-162 TUNNEL

BKH 50-162 Tunnel with lifting door - tilting door (ST-KT)



| Pos. | Designation | Art. No. |
|---|---|---|
| 1 | BKH variants: | |
| | BKH 5.0 Tunnel 50-162 ST-KT with manual operation, Ceramic glass (GK),Chamotte inner lining set (FR) | HK020002-01 |
| | BKH 5.0 Tunnel50-162 ST-KT for EAS/EOS, Ceramic glass (GK), Chamotte inner lining set (FR) | HK020002-02 |
| | BKH 5.0 Tunnel50-162 ST-KT with manual operation Ceramic glass (GK), Combustion chamber inner lining cast iron (FR/Guss) | HK020002-03 |
| | BKH 5.0 Tunnel50-162 ST-KT for EAS/EOS, Ceramic glass (GK), Combustion chamber inner lining cast iron (FR/Guss) | HK020002-04 |
| | BKH 5.0 Tunnel 50-162 ST-KT with manual operation, Glass ceramic coated (GK-B),Chamotte inner lining set (FR) | HK020002-05 |
| | BKH 5.0 Tunnel50-162 ST-KT for EAS/EOS, Glass ceramic coated (GKB),Chamotte inner lining set (FR) | HK020002-06 |
| | BKH 5.0 Tunnel50-162 ST-KT with manual operation Glass ceramic coated (GKB), Combustion chamber inner lining cast iron (FR/Guss) | HK020002-07 |
| | BKH 5.0 Tunnel50-162 ST-KT for EAS/EOS, Glass ceramic coated (GKB), Combustion chamber inner lining cast iron (FR/Guss) | HK020002-08 |
| 2 | The non-installed parts (e.g. deflection plates, control levers, etc.) and any accessories ordered (e.g. catalytic converter, packaging with EOS, etc.), including the instructions box, are packed in the combustion chamber | |
| 3 | Combustion chamber lining: | |
| | - made of Chamotte | |
| | - made of Cast iron | |
| 4 | Ceramic glass (GK) / Glass ceramic coated (GKB) | |
| 5 | Catalyst module BKH 5.0 | HK000210 |
| Smoke hood variants | | |
| 6.1 | Rotating cast iron dome with adjustable connecting piece ⌀ 180 mm | D004186 |
| | Rotating cast iron dome with connecting piece d=200 mm | 10087 |
| 6.2 | with heat exchanger rings (4) | R015006-04 |
| 6.3 | Connection variant MAS SET440 | SET211444 |
| Additional options | | |
| 7.1 | Supply air connection box ⌀ 125 mm | HK000135 |
| | Supply air connection box ⌀ 150 mm | HK000136 |
| 7.2 | Supply air connection box ⌀ 125 mm with EOS / EAS | HK000080 |
| 8.1 | Door frame, black | HK010152-01 |
| 8.2 | Mounting frame, black | HK010150-01 |

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## 3.1 CATALYTIC CONVERTER (OPTIONAL)



The catalytic converters are coated with a catalytically active layer. This coating can consist of mixed metal oxides or also of precious metals. In order not to limit the effect of this catalytically active layer, the catalysts may only be handled with gloves, preferably with disposable gloves.



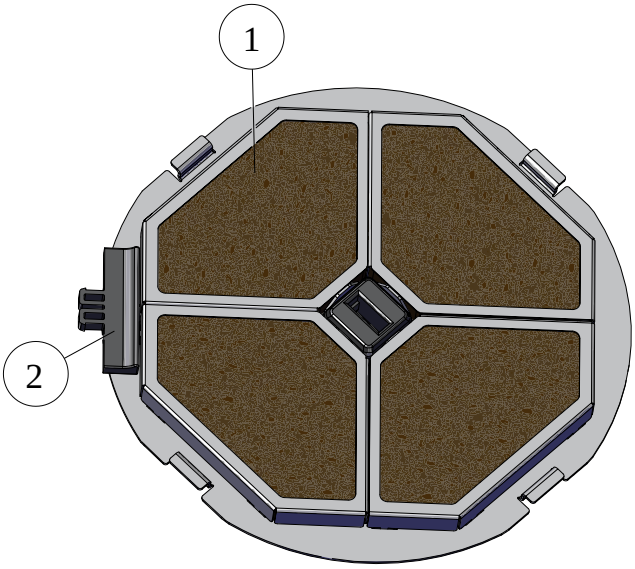


In order not to limit the effect of this catalytically active layer, the catalysts may only be handled with gloves, preferably with disposable gloves.

.



ATTENTION
The catalysts are fragile and must only be handled with care. Avoid bumping and do not drop the catalytic converter. This could destroy the catalytic converter!




| | |
|---|---|
| 1 | catalytic converter |
| 2 | assembly tool |

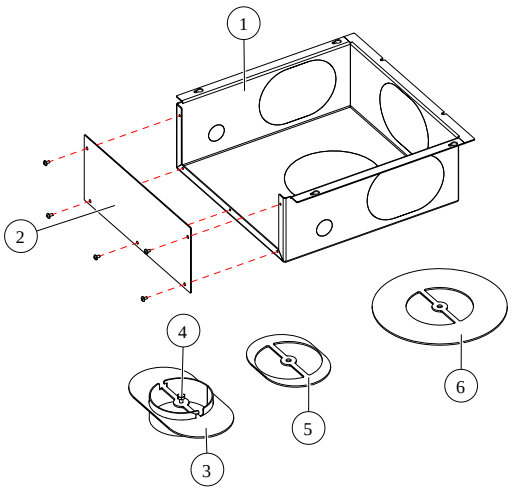


Note

This catalytic converter is suitable for all BKH units (with lifting door, with side opening door, tunnel, with cast dome, with heat exchanger cast rings and MAS).

This catalytic converter can also be retrofitted.

## 3.2 AIR CONNECTION BOX (OPTIONAL)

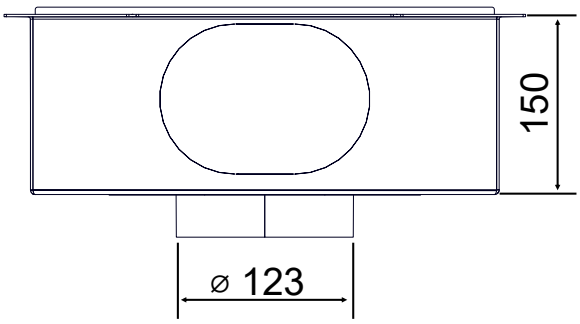



| Pos. | Description of use |
|---|---|
| 1 | Air connection box - allows the connection of an external combustion line |
| 2 | Cover for air connection box |
| 3 | Air connection is welded, connection point for combustion air line |
| 4 | Screw for fixing the respective clamping plate |
| 5* | Clamping plate for fixing the external combustion air line on the side |
| 6* | Floor clamping plate for fixing the external combustion air line to the floor |
| *both clamp plates are supplied, but only the appropriate one is used. | |

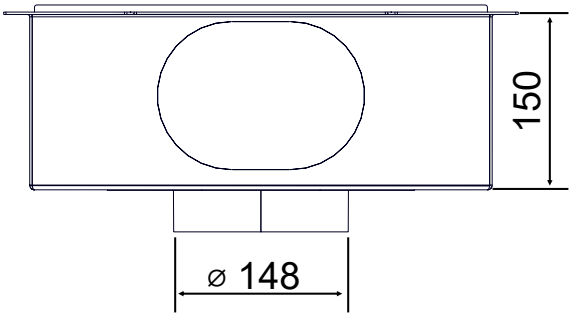
The perforation of the cut-outs for the connection piece can optionally be masked with aluminum adhesive tape.

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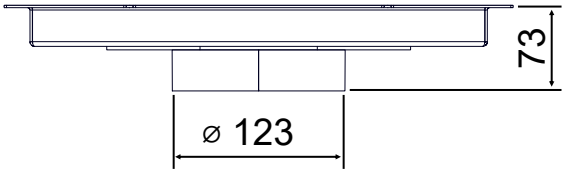
Supply air connection box ⌀ 125 mm



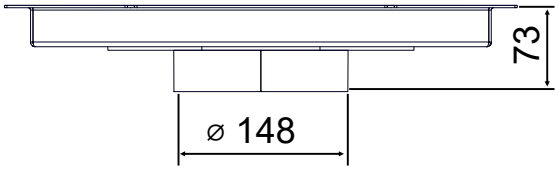

Supply air connection box ⌀ 150 mm




Suply air connection box low ⌀ 125 mm




Supply air connection box low ⌀ 150 mm




The air connection box low/**not** suitable for heating inserts:

- with electronic combustion control (with a low air connection box, controls **cannot** be retrofitted
- with an integrated secondary air supply

# 4 INSTALLATION

## 4.1 INSTRUCTIONS BKH ACCESSORIES & ADDITIONAL OPTIONS

The instructions for installing the respective accessories and additional options are available via the following QR codes.

**Heat exchanger rings** **for:**



BKH flat

BKH corner

BKH Tunnel

https://www.brunner.com/23617

**Connection piece eccentric** **for:**



BKH flat

BKH corner

BKH Tunnel

https://www.brunner.com/23652

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**Cast iron dome ⌀ 180 mm low** **for:**



BKH flat 42-42

BKH flat 42-50

BKH flat 42-66

BKH Tunnel 42-50

BKH Tunnel 42-66

BKH corner 42-42-42

BKH corner 42-66-42
(DTL & DTR)

https://www.brunner.com/23653

**Modular Accumulator MAS** **for:**



BKH flat
(without 50-162)

BKH corner

BKH Tunnel
(without 50-162)

BKH Panorama

https://www.brunner.com/23633

**Boiler module**



**for:**

BKH flat
(without 50-162)

BKH corner

BKH Tunnel
(without 50-162)

https://www.brunner.com/23650

**Integrated secondary air device**

**for:**

BKH flat

BKH corner

BKH Tunnel

https://www.brunner.com/23651

**Carrier unit suspended**

**for:**

BKH Panorama

https://www.brunner.com/23654

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## 4.2 SETTING UP



**DANGER**
**Possible personal injury and/or property damage caused by improper installation**

Assembly and installation of BKH requires extensive specialist knowledge.

- Assembly and installation works must be performed by authorized professionals.




**Danger**
**Risk of injury caused by heavy loads**

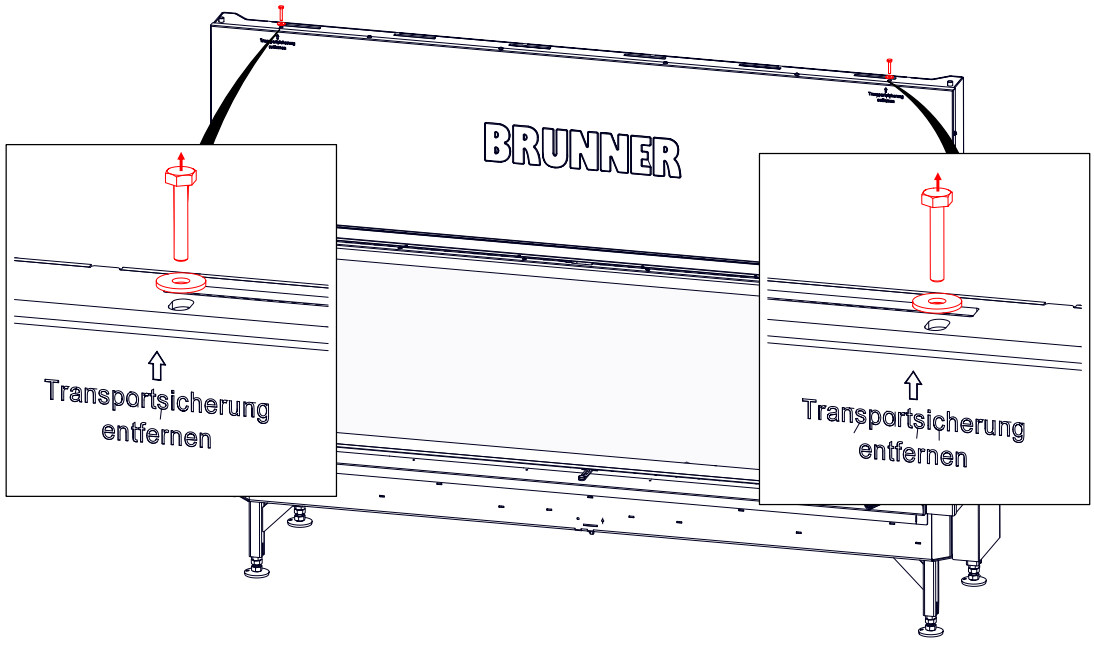
Carrying of heavy loads can lead to injuries.
- The equipment should be carried by at least two people.
- Use appropriate carrying aids.
- Keep the transport weight in mind.

As long as the device is on the wooden pallet, it can be transported with a hand truck or forklift as usual.

### 4.2.1 REMOVE THE TRANSPORT LOCKS

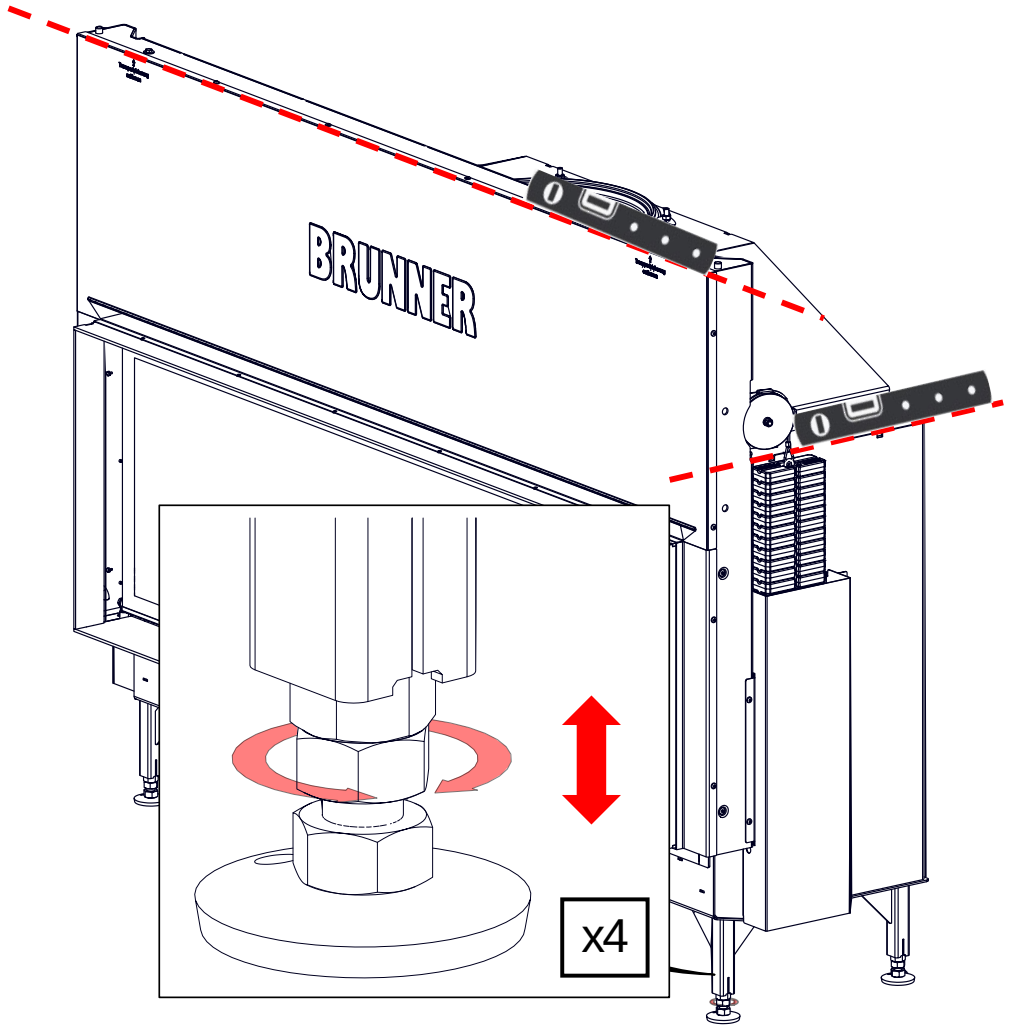
**Version with lifting door**


Remove the transport lock




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### 4.2.2 SET UP THE FIREPLACE

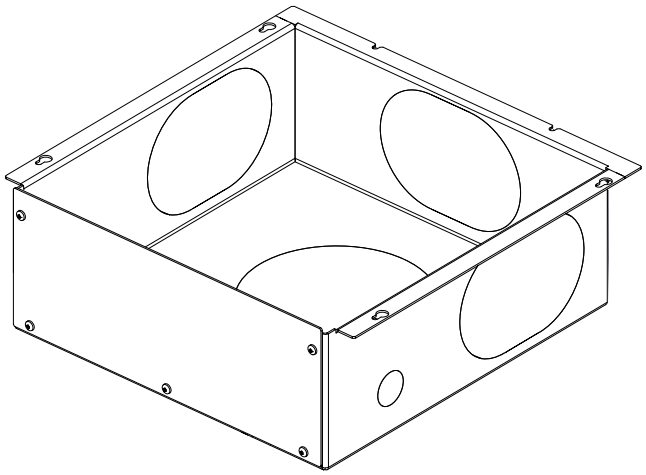


## 4.2.3 VARIANT WITH EXTERNAL COMBUSTION AIR CONNECTION

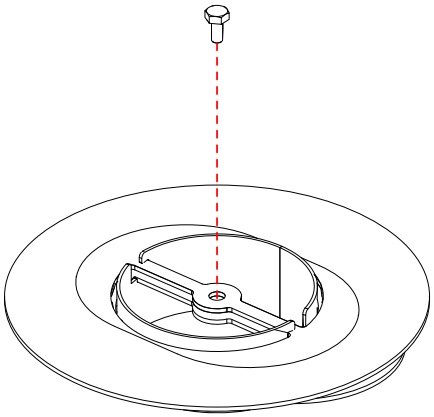
**Preparatory work**

*Workflow:*

1

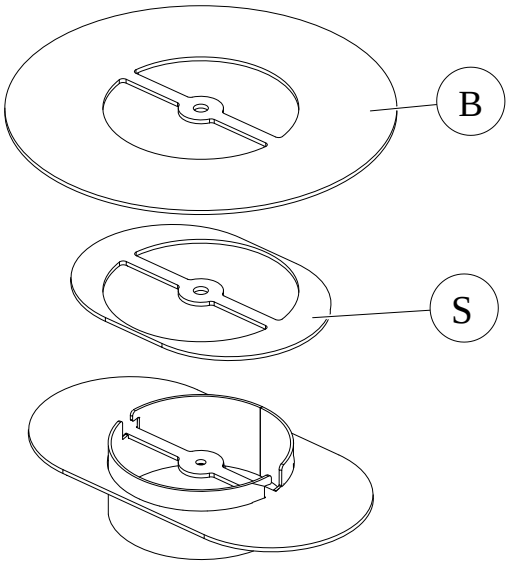


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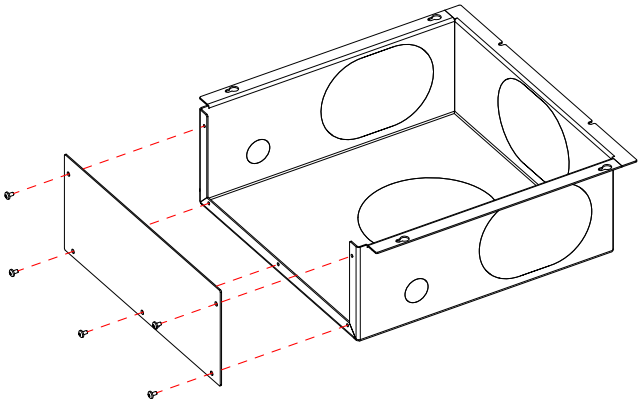


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3



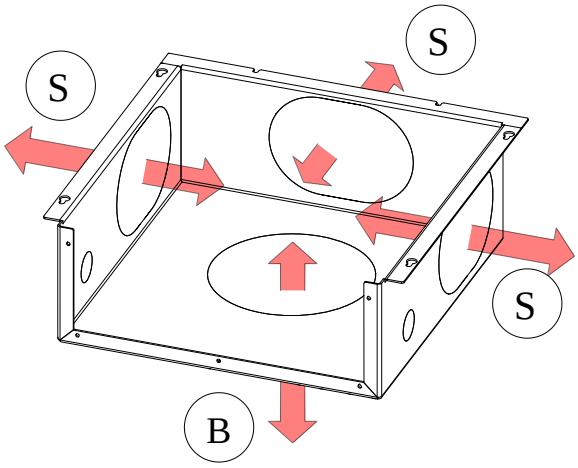

4



*Im. 1: Recommended for easier handling*

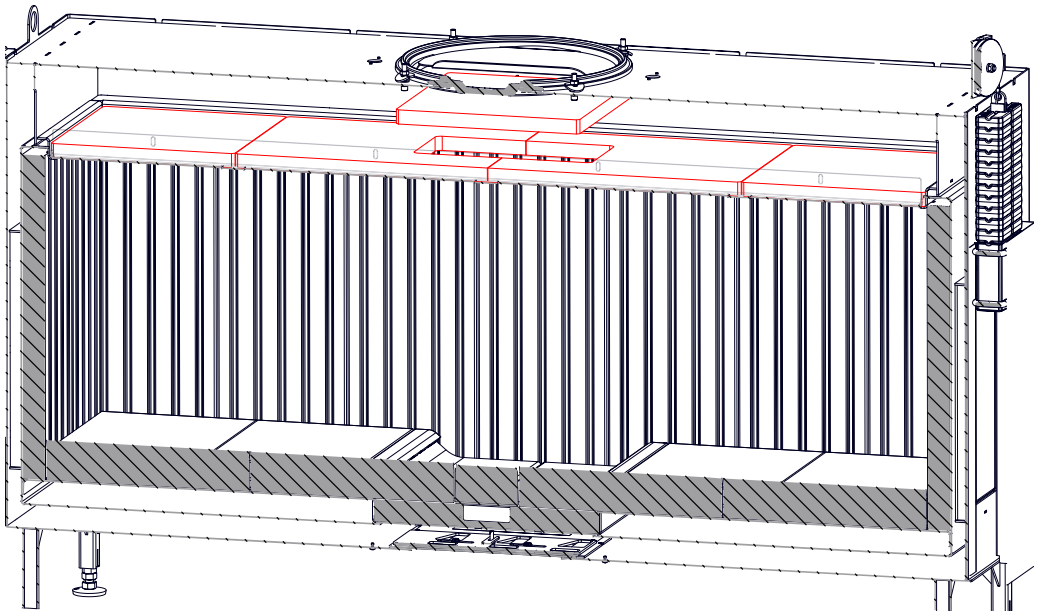
Depending on the planning, the air connection is possible - using aluxflex on 3 lateral parts (S) and also from the bottom (B).

Once you have made a decision, break out the appropriate part and make the connections for the air supply.



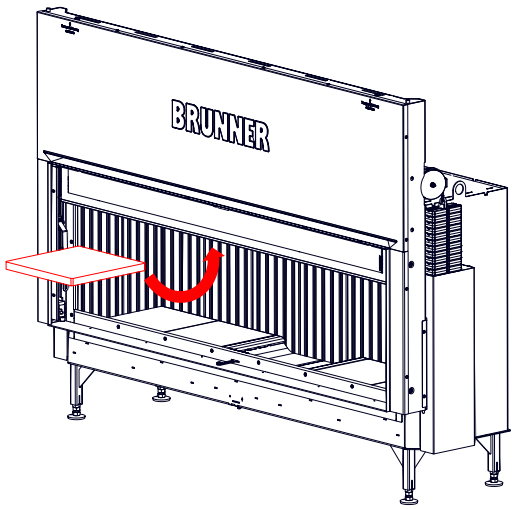
## 4.3 FITTING: DEFLECTION

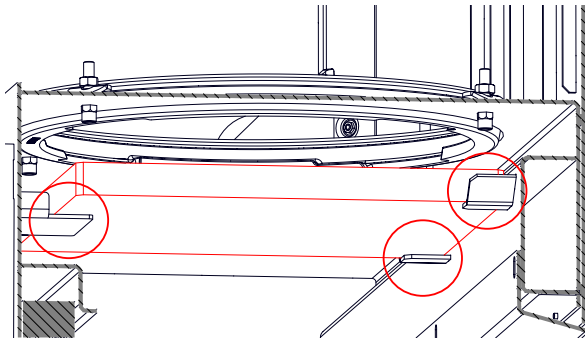
Position



Workflow

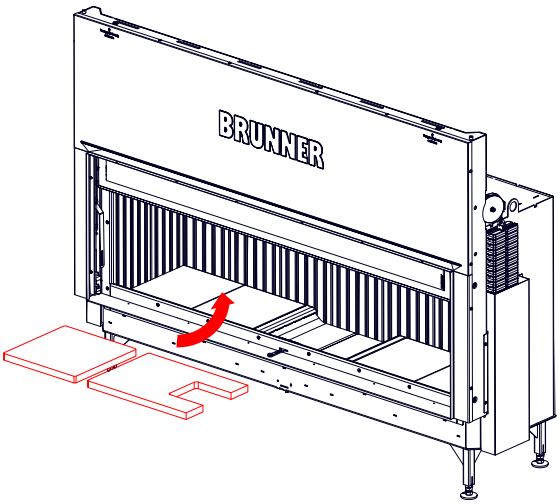
1

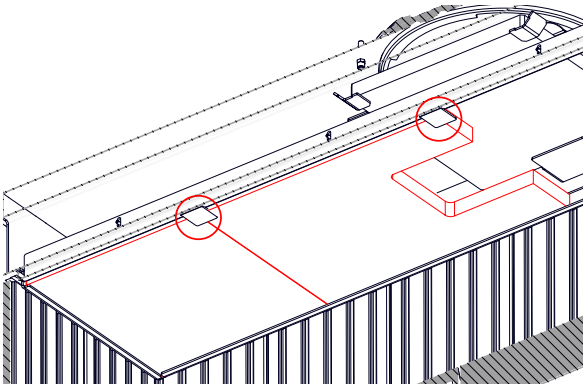


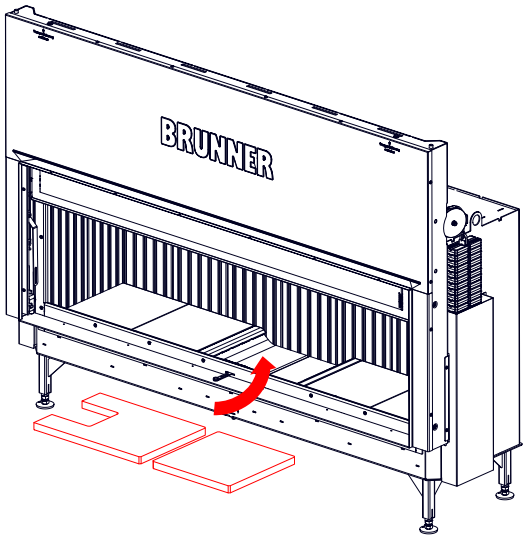
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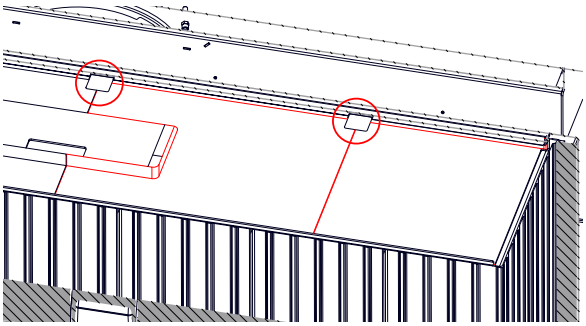
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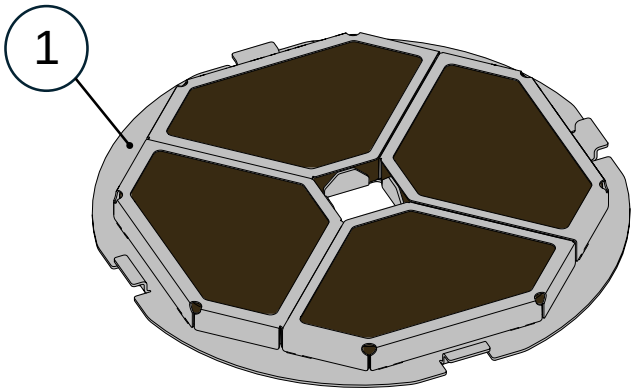



3



## 4.4 CATALYTIC CONVERTER



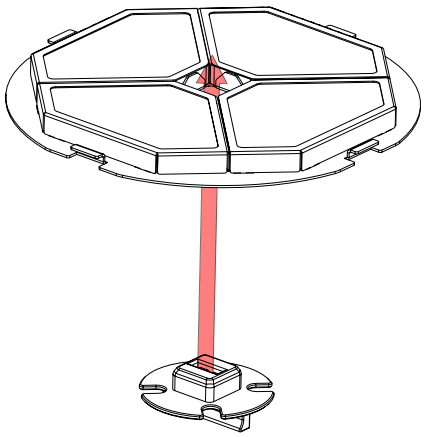

| Position | Designation | Art.-Nr. | Pcs. |
|---|---|---|---|
| 1 | Catalytic converter BKH 5.0 | HK000210 | 1 |

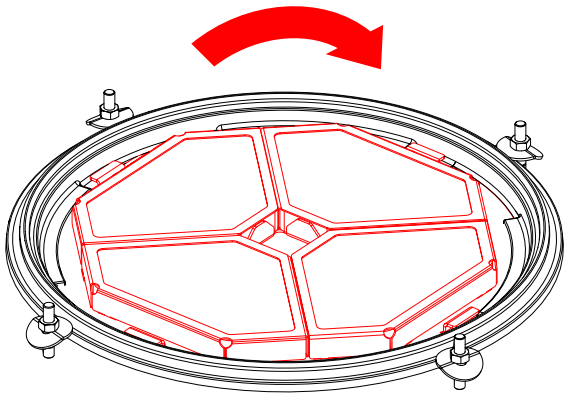
**Fitting:**

► Insert the catalytic converter through the combustion chamber into the catalytic converter retaining ring.

Pick up the catalytic converter with the assembly tool.

► Turn the catalytic converter to secure it. Then remove the assembly tool.

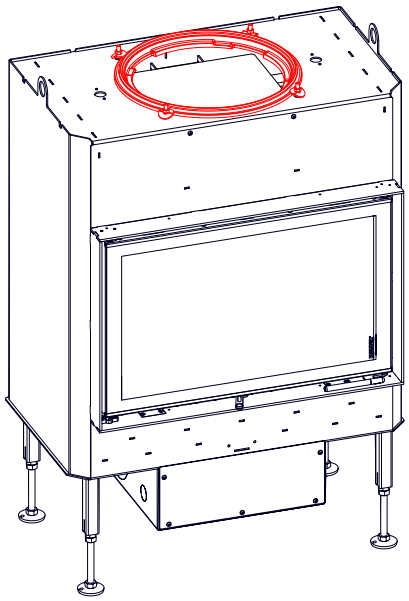




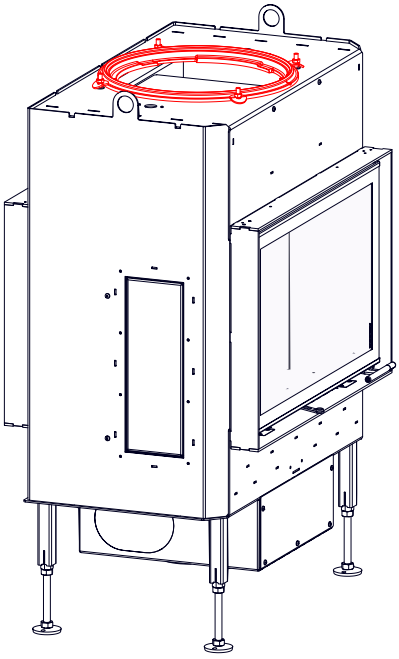
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## Position catalytic converter retaining ring BKH

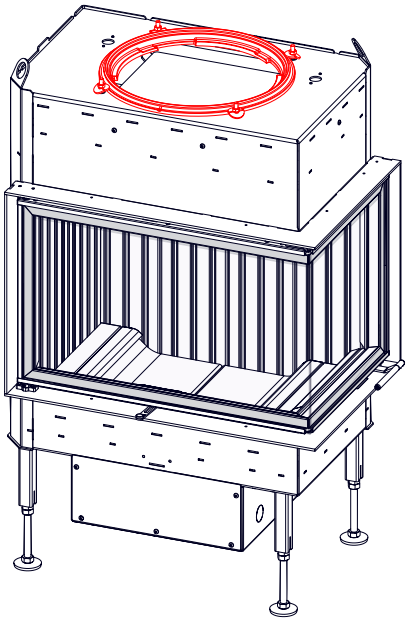
**flat**



**Tunnel**



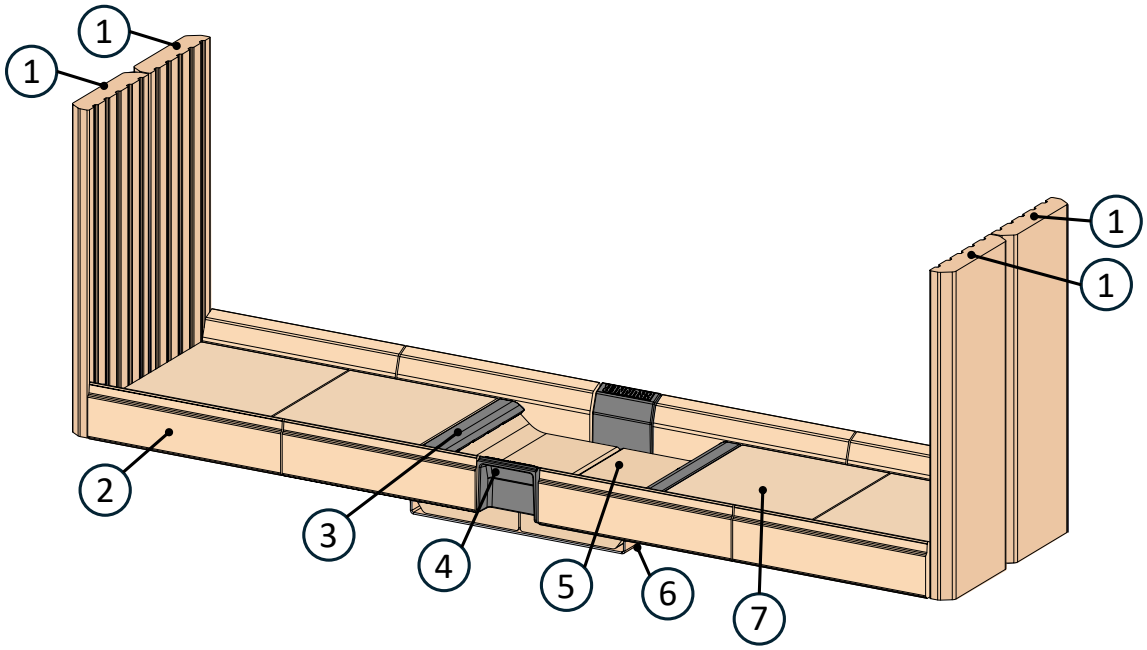
**corner**



# 4.5 VARIANTS COMBUSTION CHAMBER LINING

## 4.5.1 CHAMOTTE INNER LINING

**Tunnel 50-162 (HK020200-01)**



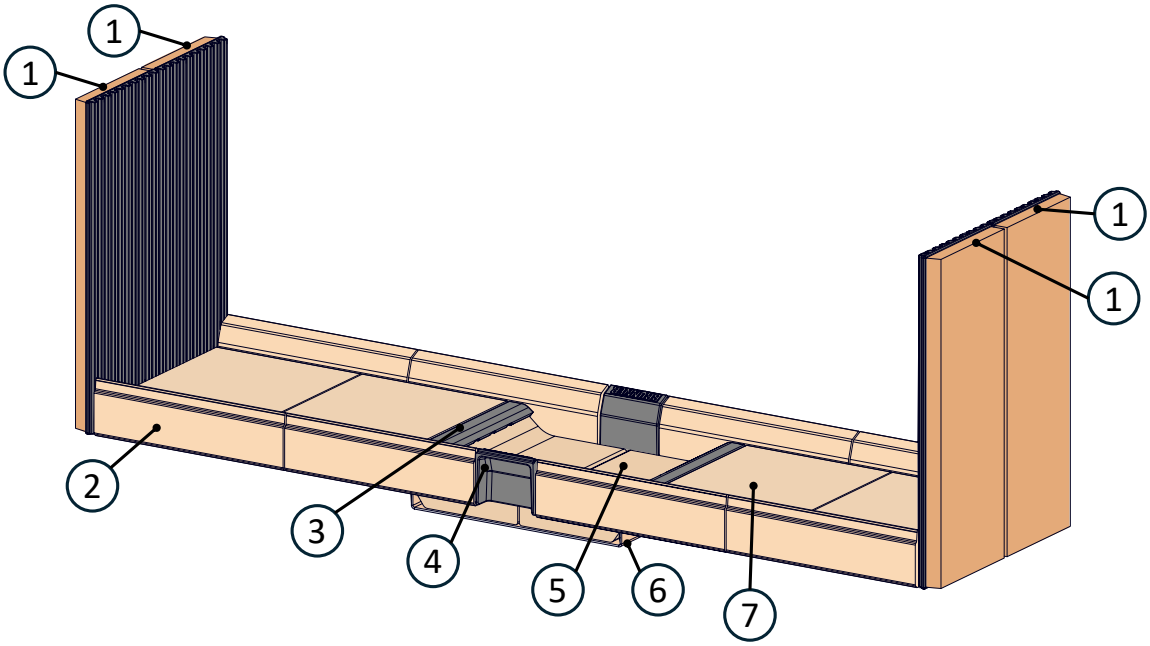

| Position | Designation | Art.-Nr. | Pcs. |
|---|---|---|---|
| 1 | Stone 572x203x40 | HK000012 | 4 |
| 2 | Wedge stone 364x99x40 | HK000270 | 8 |
| 3 | Cast air distributor | HK000006 | 2 |
| 4 | Cast inlay front | HK000007 | 2 |
| 5 | Bottom stone | HK000014 | 2 |
| 6 | Bottom insulation | HK000017 | 1 |
| 7 | Bottom stone extension 4 | HK000269 | 4 |

Chamotte inner lining to be installed dry

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## 4.5.2 COMBUSTION CHAMBER INNER LINING CAST IRON

**Tunnel 50-162 (HK020200-02)**



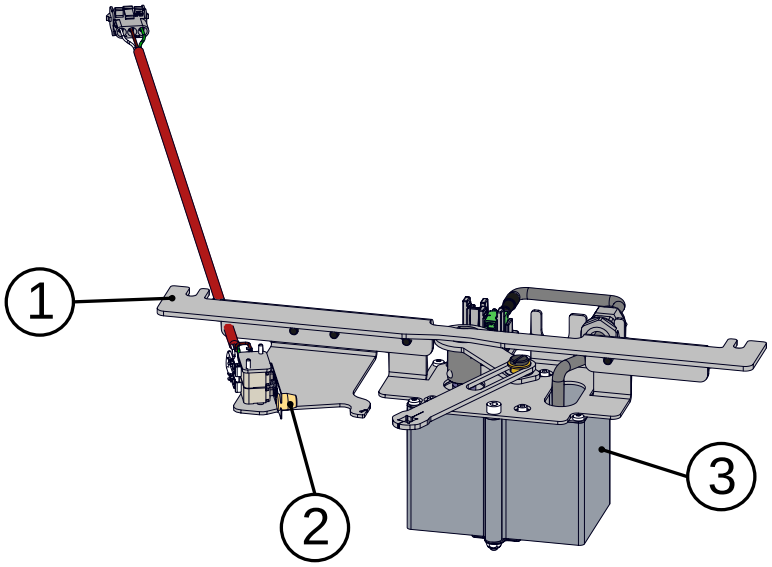

| Position | Designation | Art.-Nr. | Pcs. |
|---|---|---|---|
| 1 | Cast iron plate 572x210x40 | HK000173 | 4 |
| 2 | Wedge stone 364x99x40 | HK000270 | 8 |
| 3 | Cast air distributor | HK000006 | 2 |
| 4 | Cast inlay front | HK000007 | 2 |
| 5 | Bottom stone | HK000014 | 2 |
| 6 | Bottom insulation | HK000017 | 1 |
| 7 | Bottom stone extension 4 | HK000269 | 4 |

## 4.6 VARIANT: EOS

### 4.6.1 DIFFERENTIATION BETWEEN EOS VARIANT 1 AND VARIANT 2

Depending on the components, follow the instructions for EOS variant 1 or EOS variant 2:

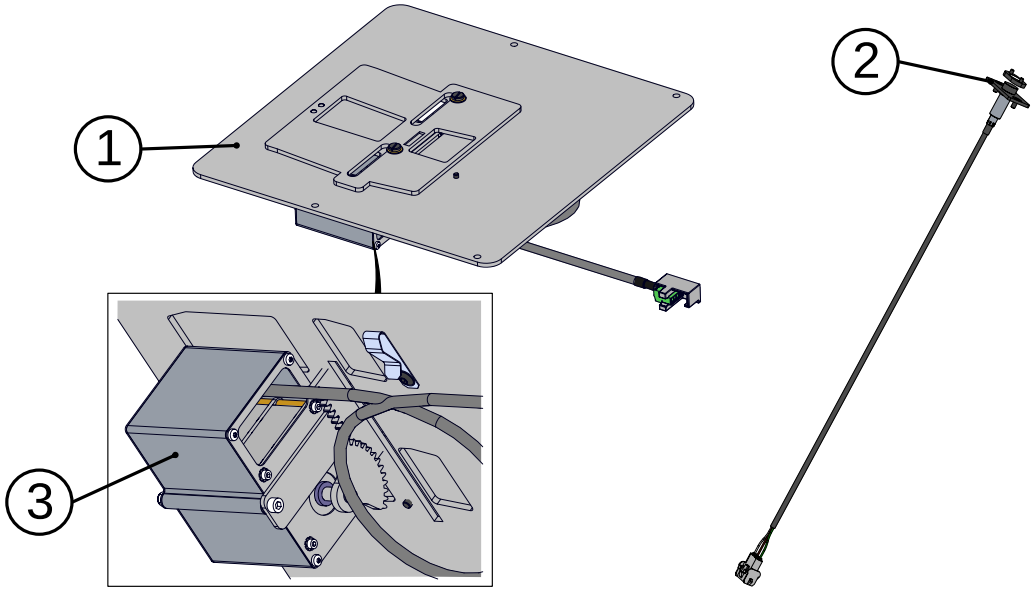
**EOS variant 1**




| Position | Designation | Item no. | Pcs. |
|---|---|---|---|
| 1 | Carrier plate | HK000085 | 1 |
| 2 | Door contact switch | HK000082 | 1 |
| 3 | Servomotor | HK000081 | 1 |

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**EOS variant 2**



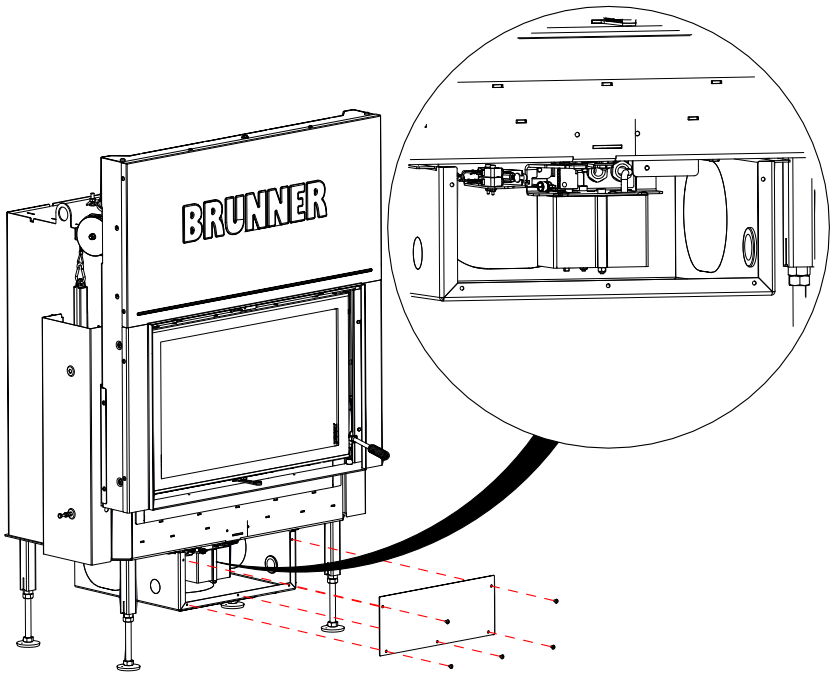

| Position | Designation | Item no. | Pcs. |
|---|---|---|---|
| 1 | BG Bottom cover Air box small EOS | HK000219 | 1 |
| 2 | BG Servomotor EOS with Gear wheel | N003157 | 1 |
| 3 | BG Door contact switch with Magnet | E011001 | 1 |

## 4.6.2 EOS VARIANT 1

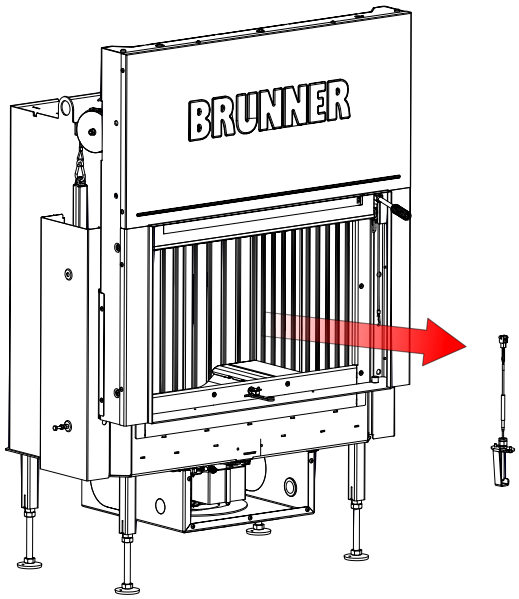
### 4.6.2.1 FITTING: EOS

*Workflow:*

1



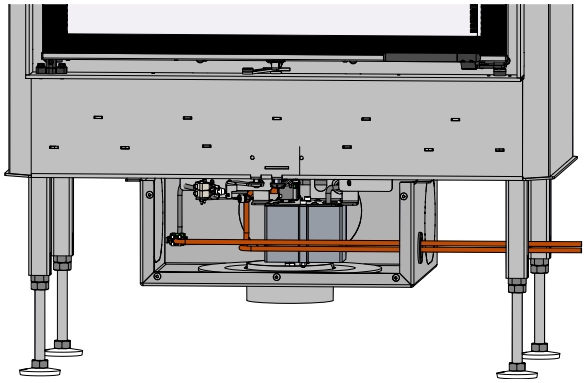

2



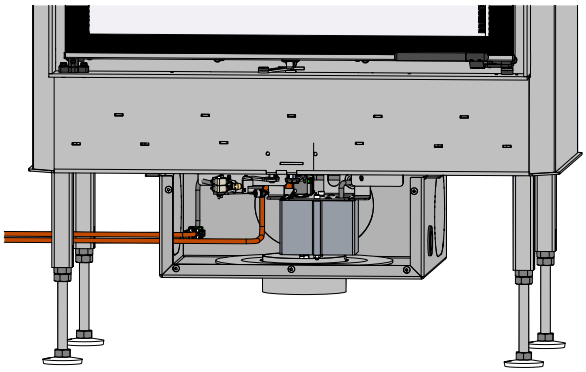

Make the electrical connection

Variants:
cable routing right side or left side

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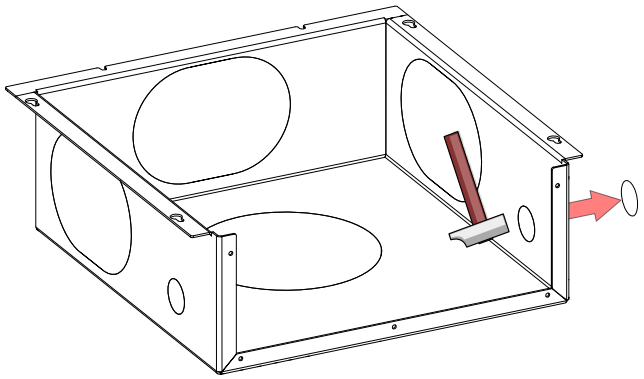


*Im. 2: cable routing right side*

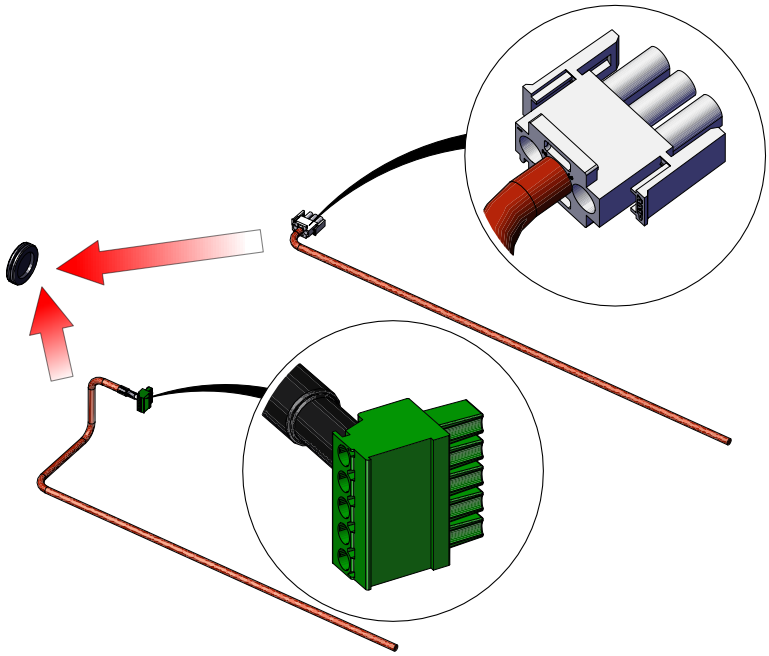


*Im. 3: cable routing left side*

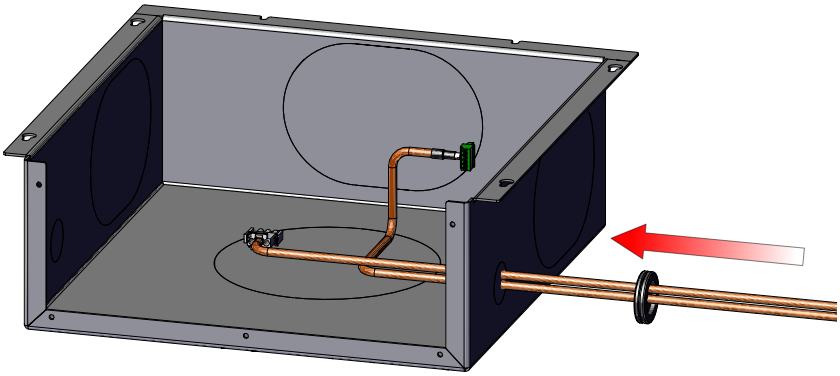
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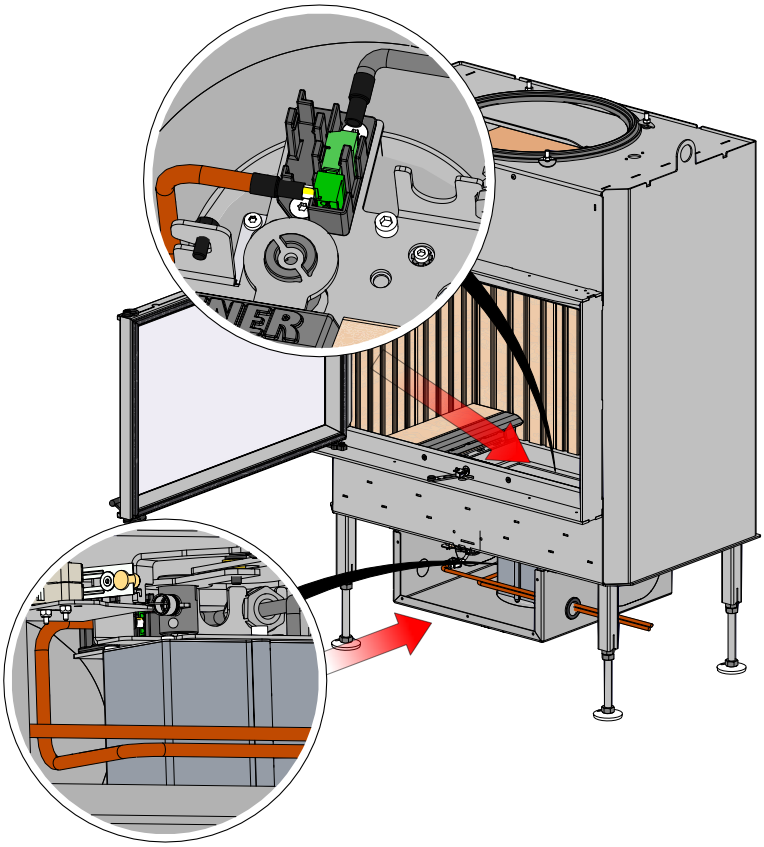
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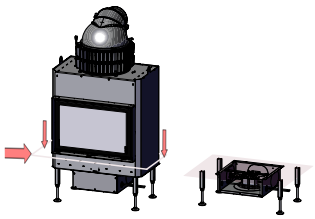
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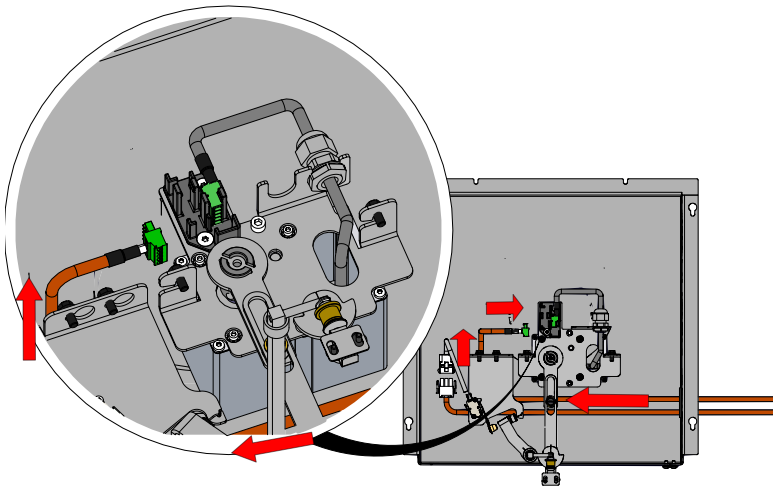
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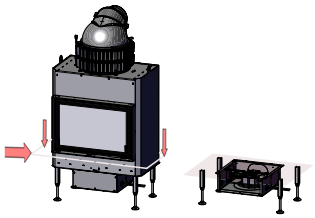


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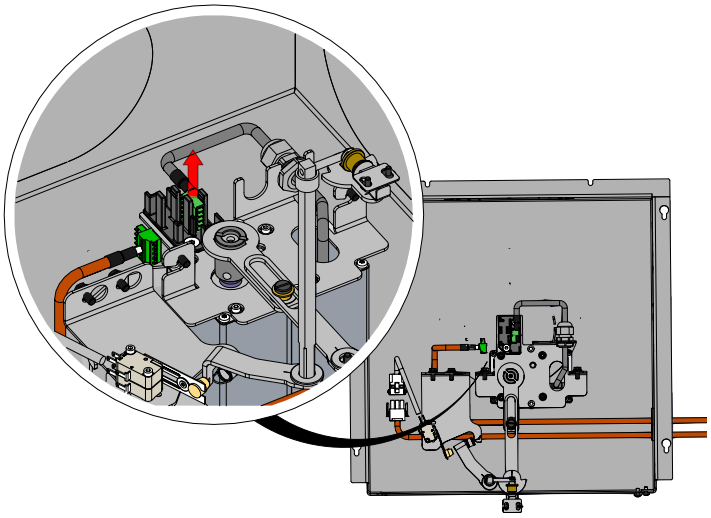


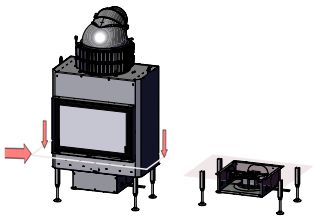
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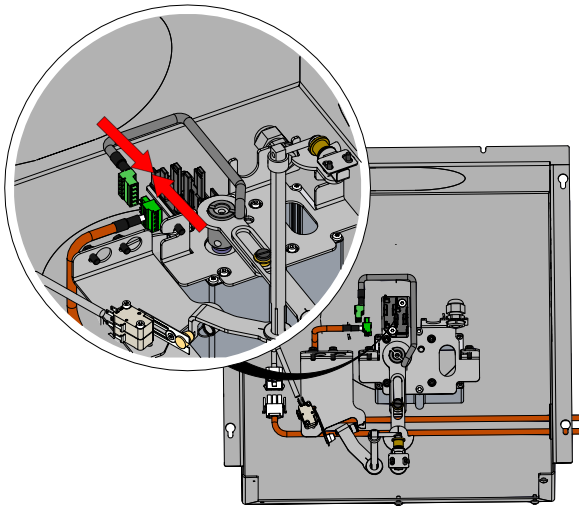


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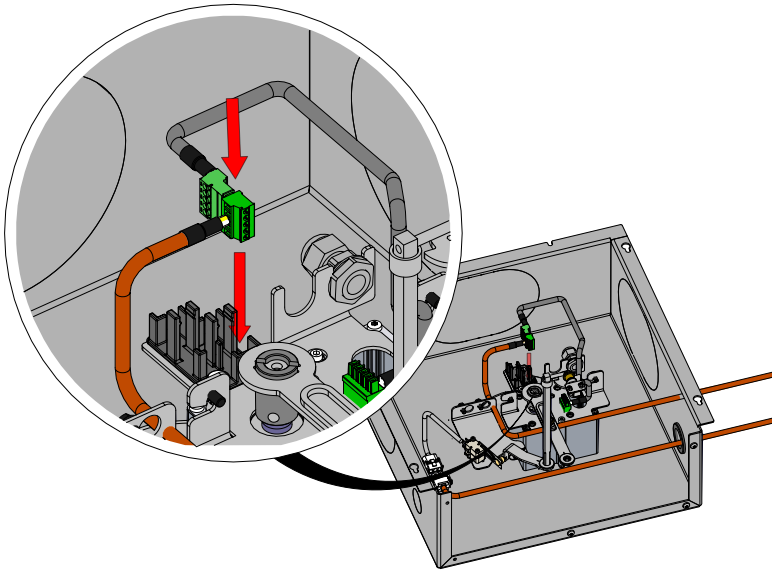




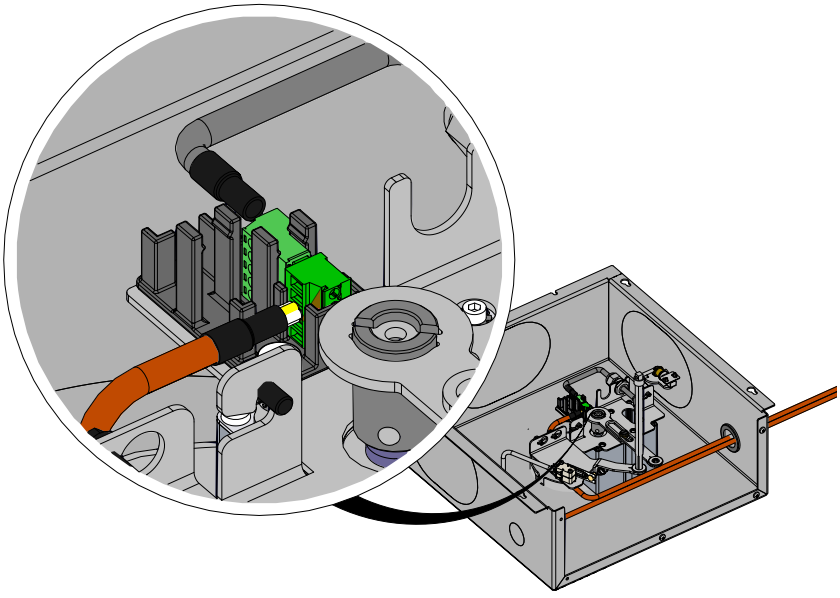
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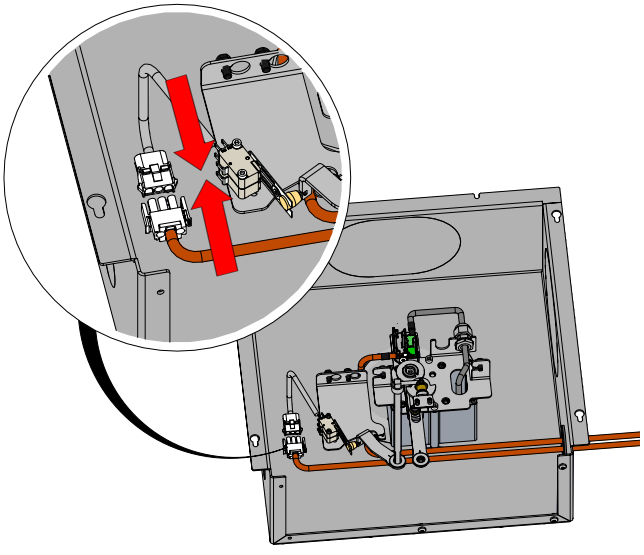
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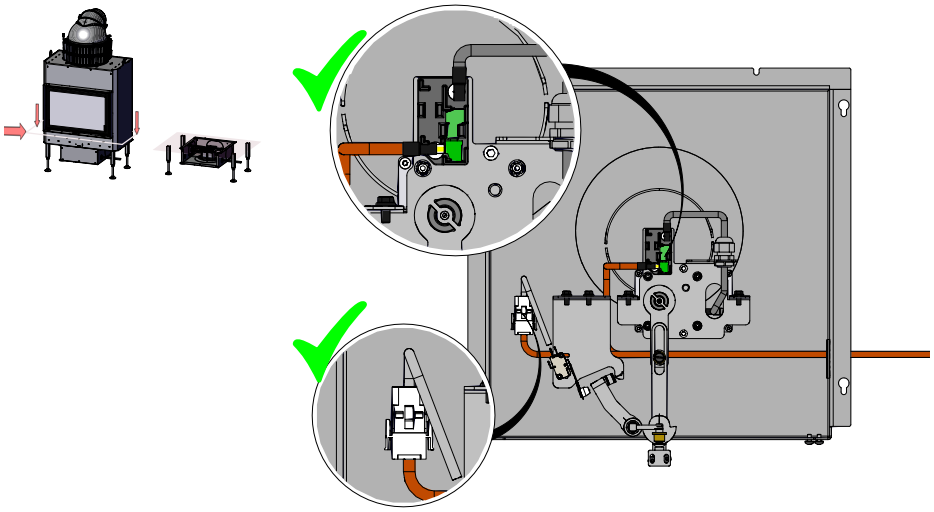
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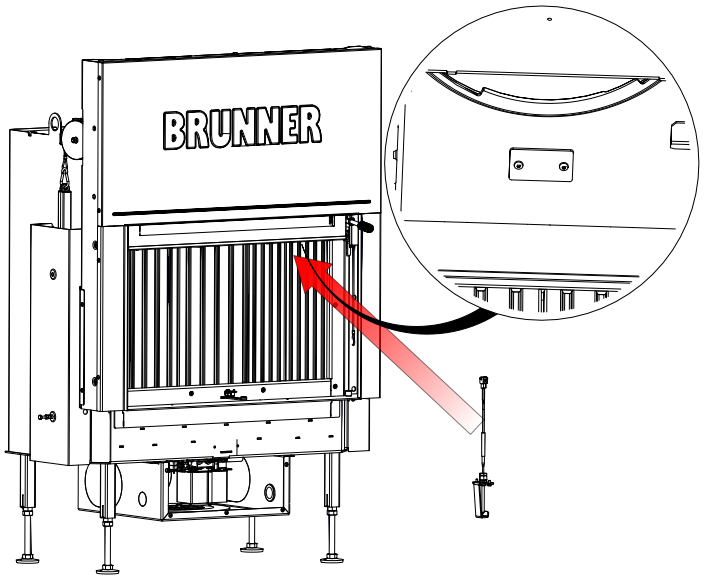
11



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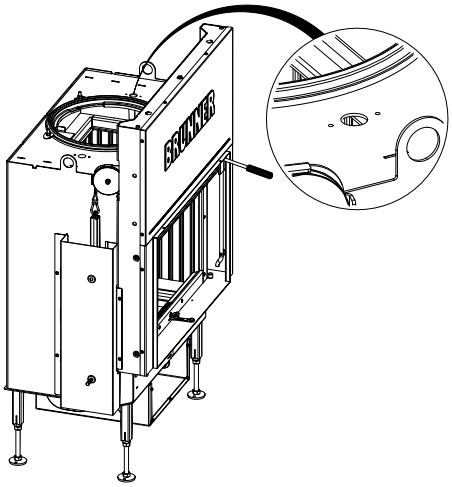


12

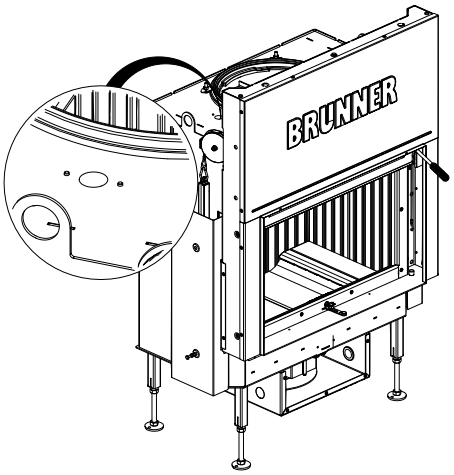



Variants cable routing - Thermocouple: right side or left side

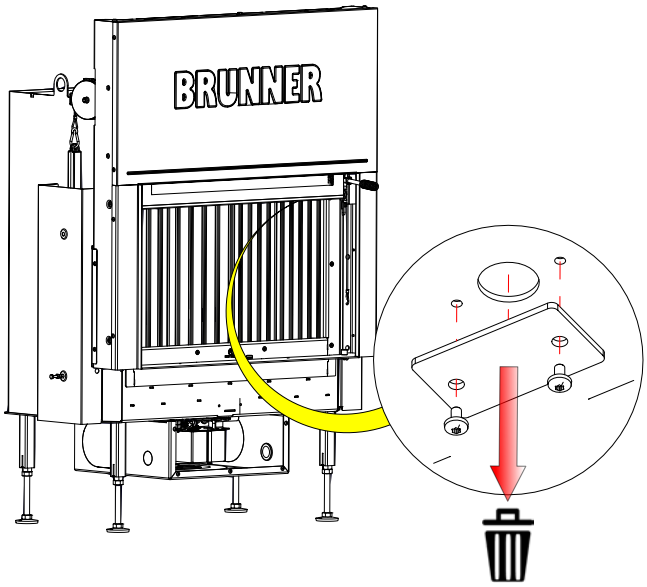
right side:



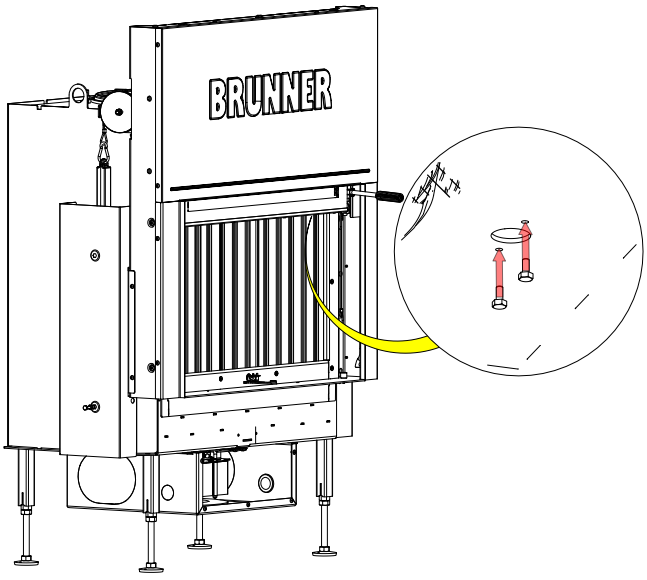

left side:




13

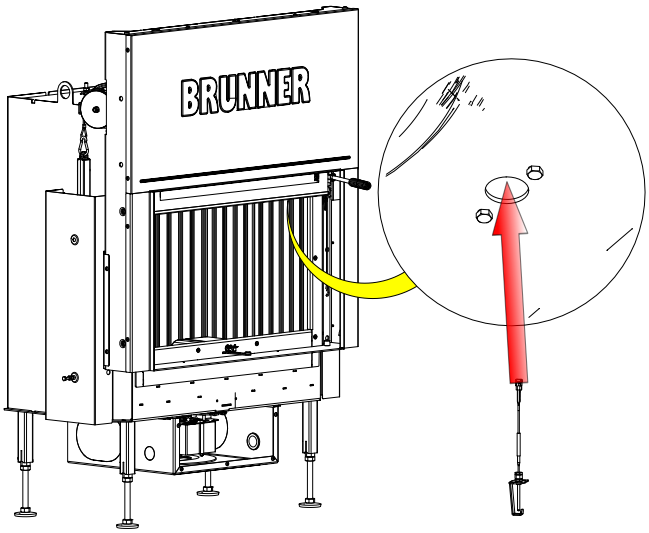



14



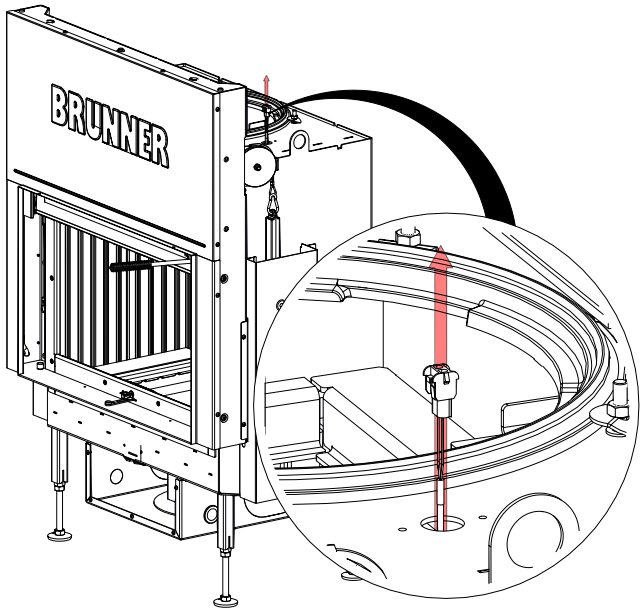

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15



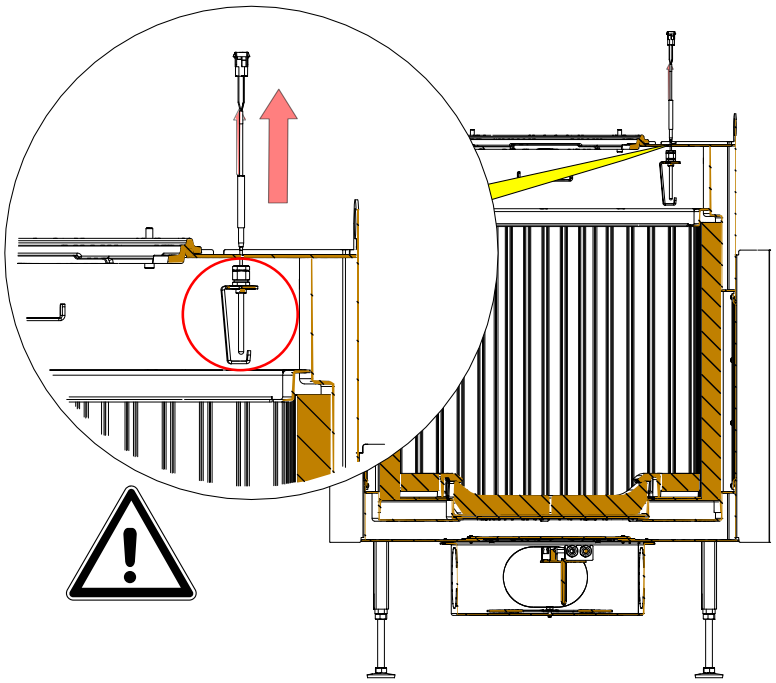

Do not overtighten the screws!

16

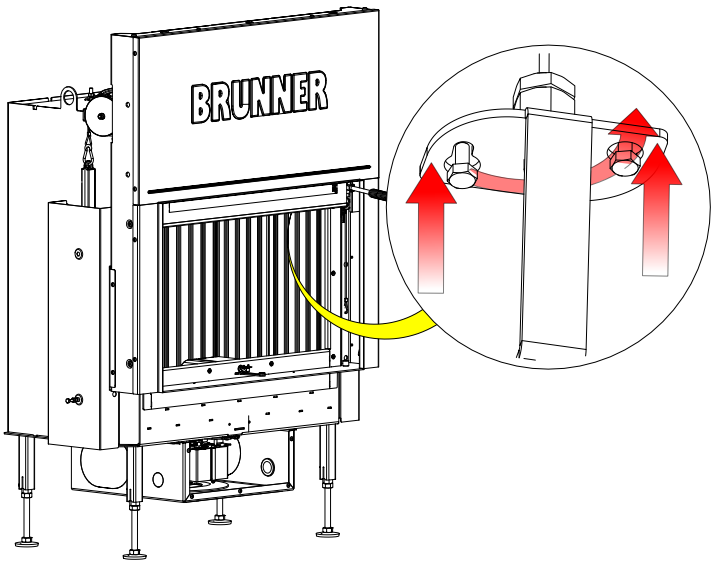


17





18

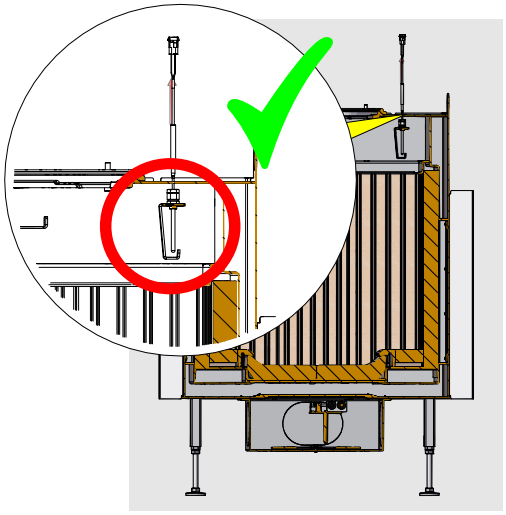


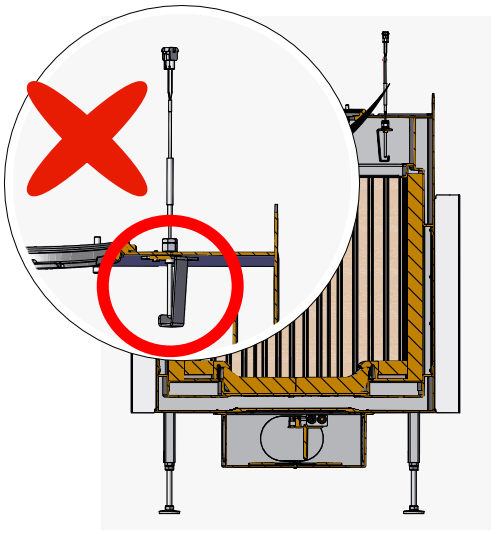

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**Variant: Thermocouple right side**





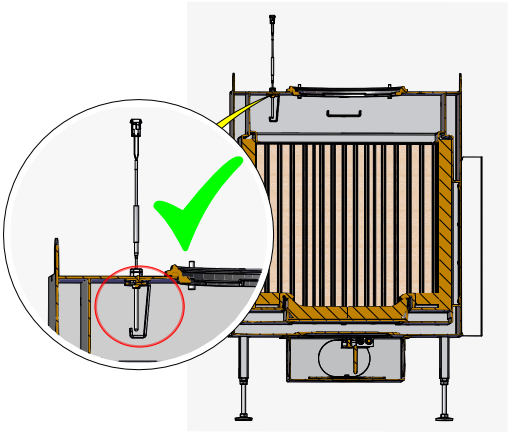


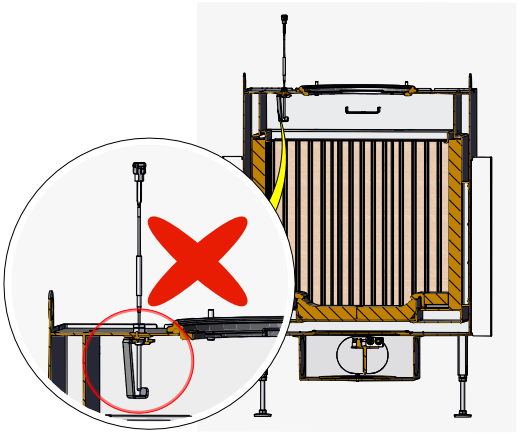


**Variant: Thermocouple left side**

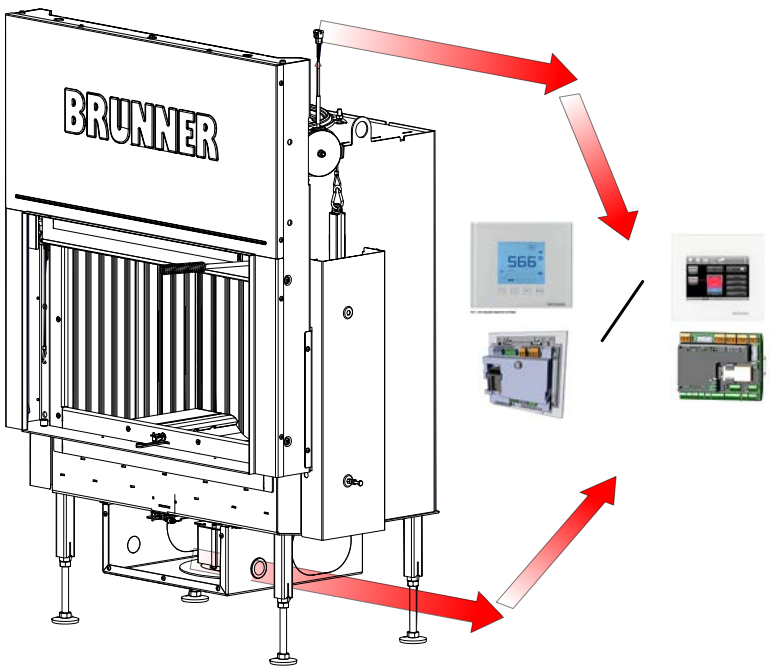








19



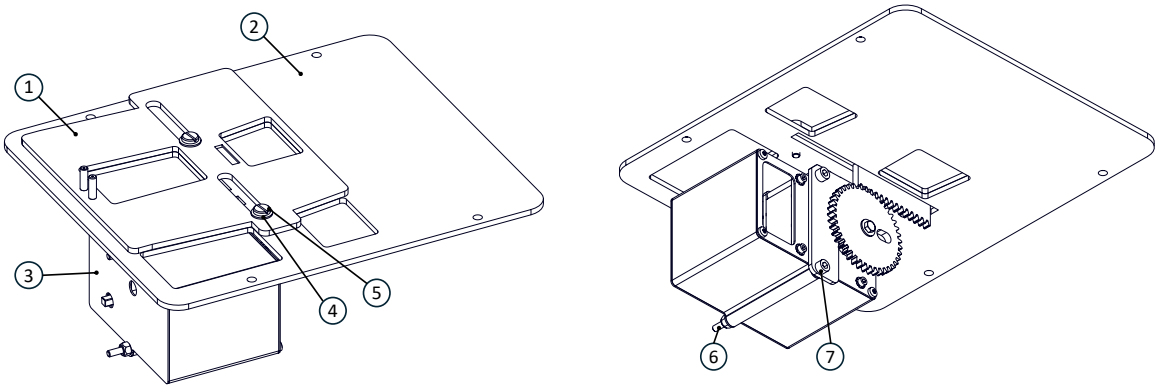

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## 4.6.3 EOS VARIANT 2

### 4.6.3.1 BOTTOM COVER AIR BOX EOS

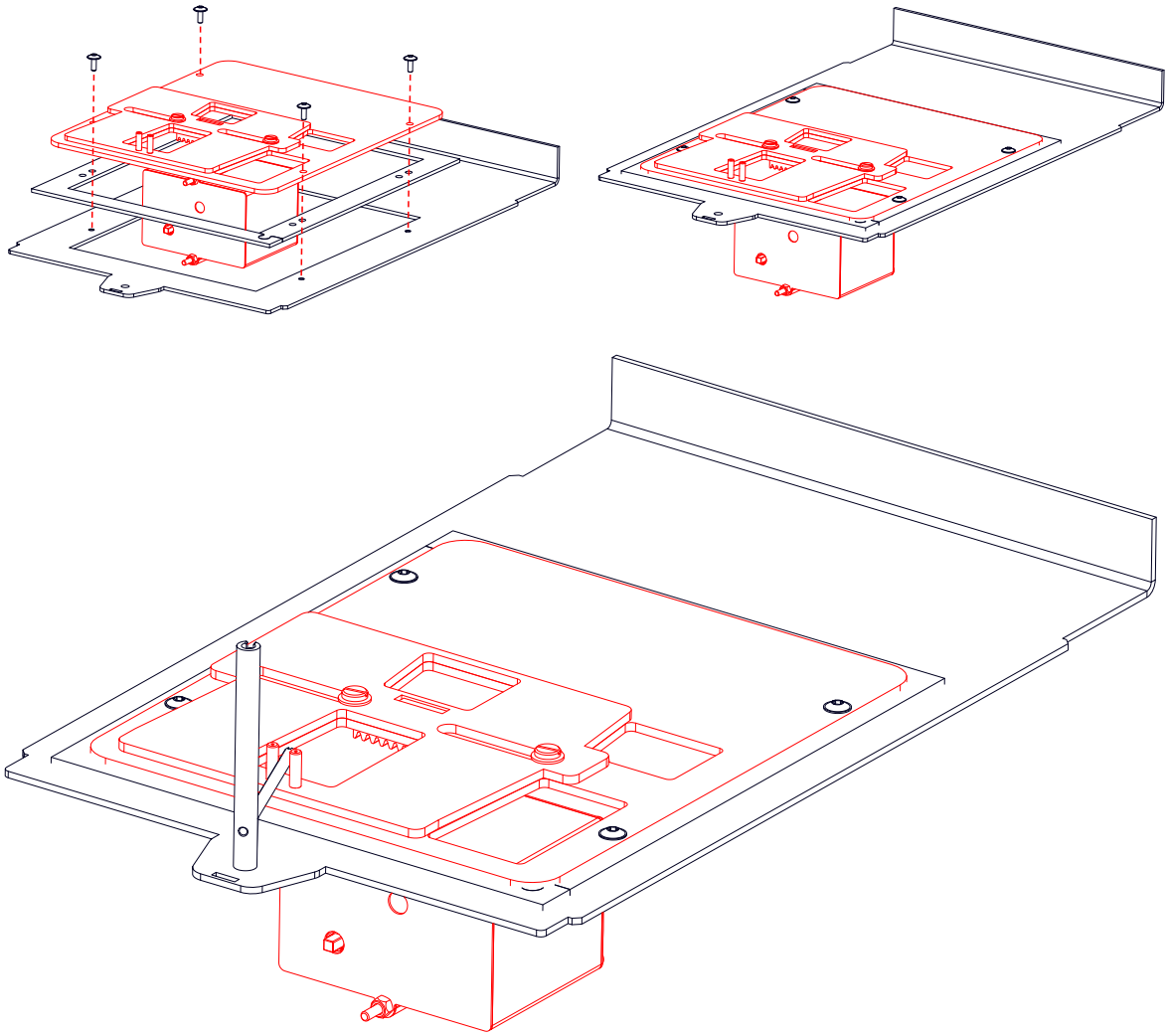
#### 4.6.3.1.1 COMPONENTS EOS

**BG Bottom cover Air box EOS (HK000305)**

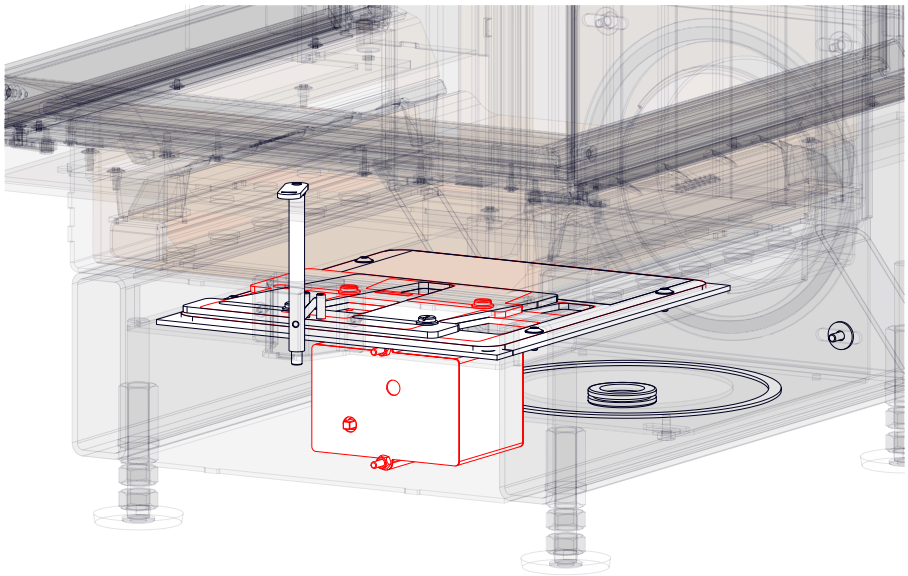



| Position | Designation | Art.-Nr. | Stk. |
|---|---|---|---|
| 1 | Air slider plate small EOS | HK000232 | 1 |
| 2 | Bottom cover Air box EOS | HK0000306 | 1 |
| 3 | Servomotor EOS with Gear wheel | N003157 | 1 |
| 4 | Collar bushing | I007337 | 2 |
| 5 | Flat head screw (M5x6) | 800461 | 2 |
| 6 | hexagon nut with Clamping part | 800155 | 2 |
| 7 | Cylinder head screw (M5x100) | 800035 | 2 |

### 4.6.3.1.2 FITTING: EOS



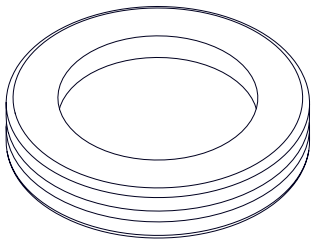
1



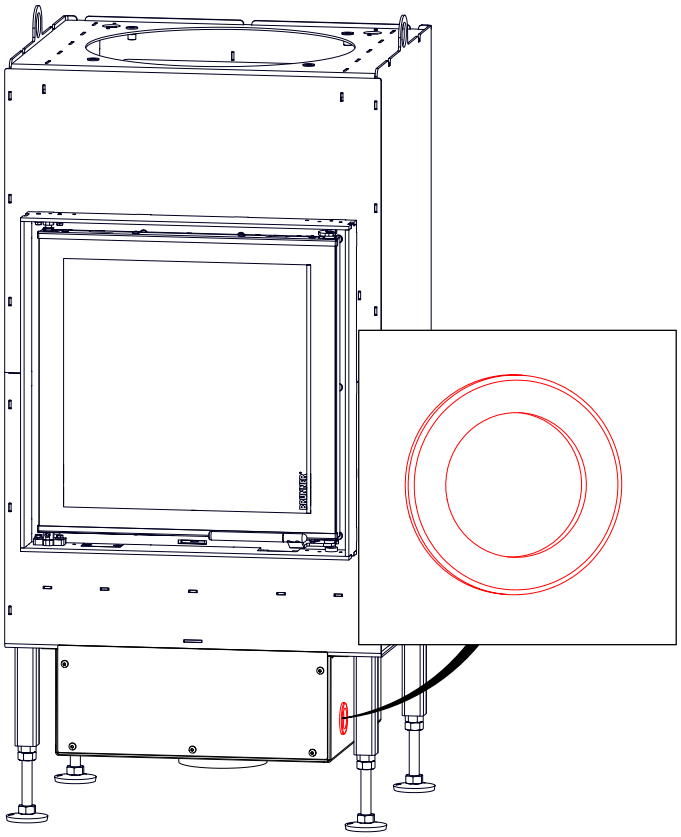

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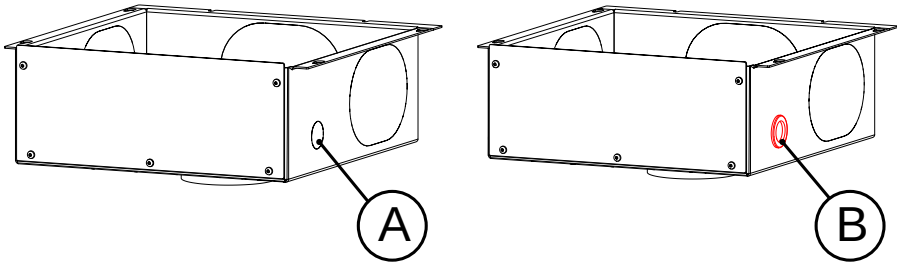
## 4.6.3.1.3 MEMBRANE FEED-THROUGH

**Membrane feed-through (901248-01)**



Position



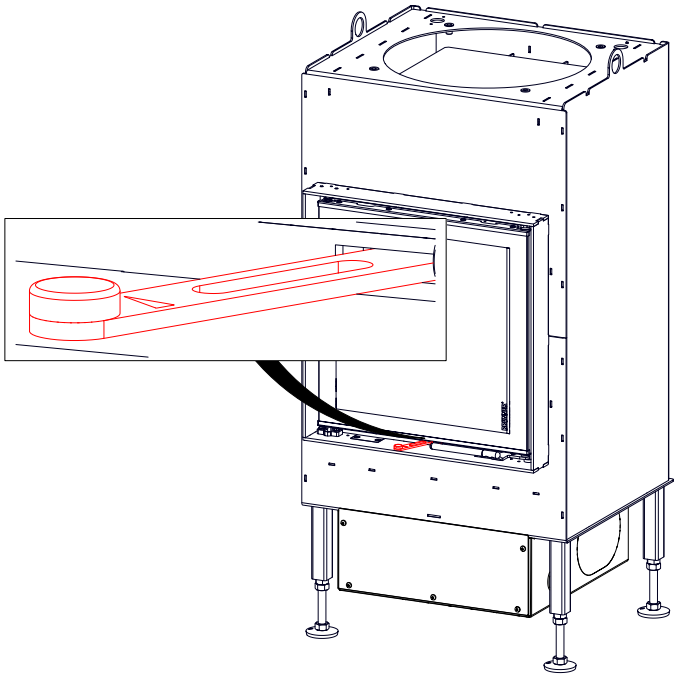


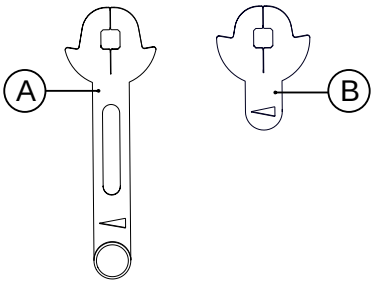

A = BKH

B = BKH with EOS

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### 4.6.3.1.4 AIR POSITION INDICATOR BKH FLAT





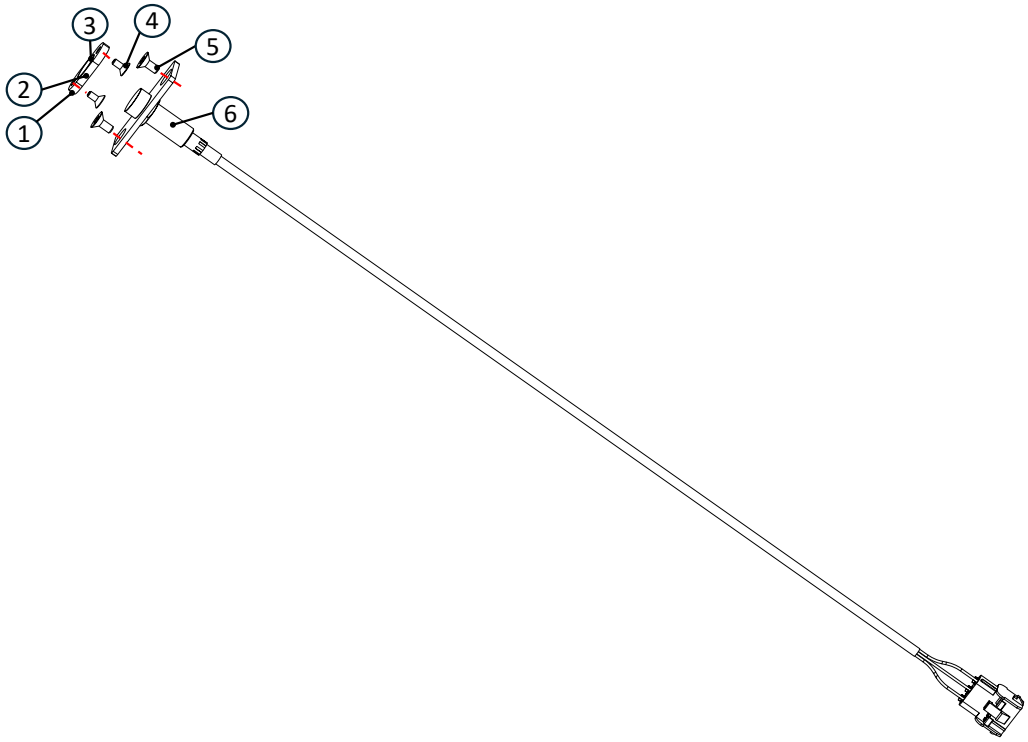

A = BKH flat

B = BKH flat with EOS

## 4.6.3.2 DOOR CONTACT SWITCH

### 4.6.3.2.1 COMPONENTS DOOR CONTACT SWITCH

**Door contact switch (E011001)**

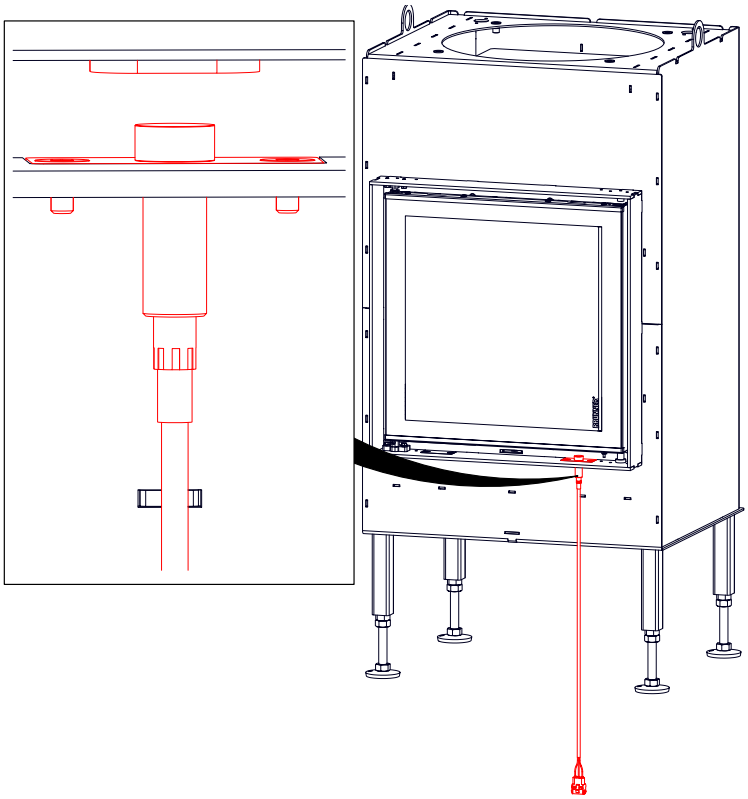



| Position | Designation | Art.-Nr. | Pcs. |
|---|---|---|---|
| 1 | Retaining plate Magnet | E011011 | 1 |
| 2 | Magnet | 903324 | 1 |
| 3 | Insulation | E011013 | 1 |
| 4 | Countersunk screw (M4x8) | 800063 | 2 |
| 5 | Countersunk screw (M5x10) | 800184 | 2 |
| 6 | Door contact switch | E011003 | 1 |

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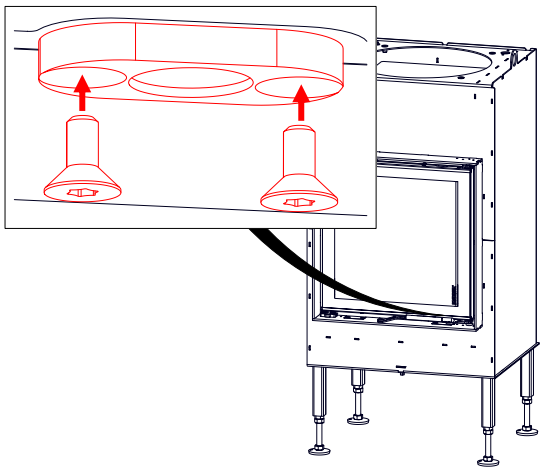
## 4.6.3.2.2 FITTING: DOOR CONTACT SWITCH

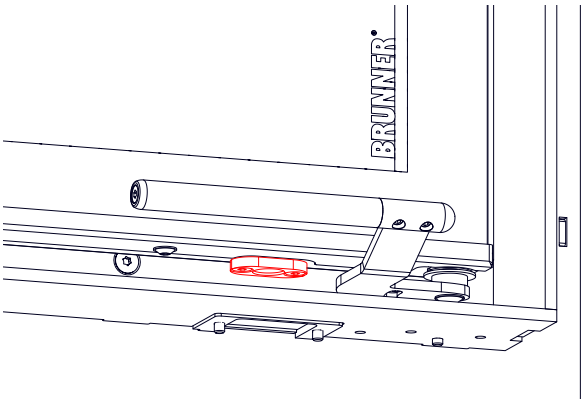
Position



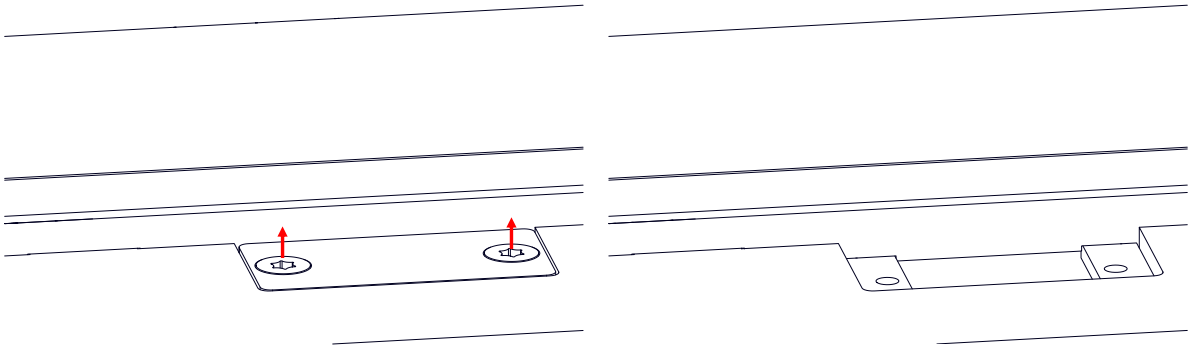
Workflow

1

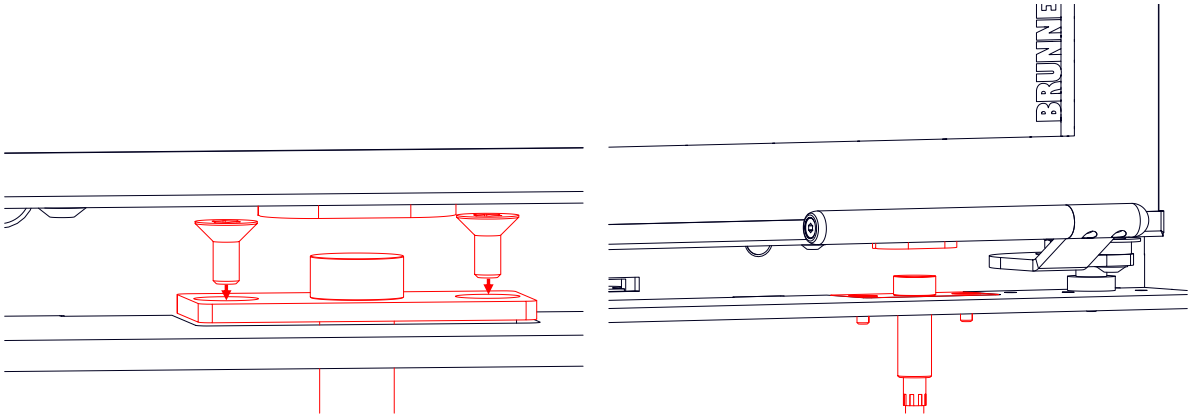




2



3

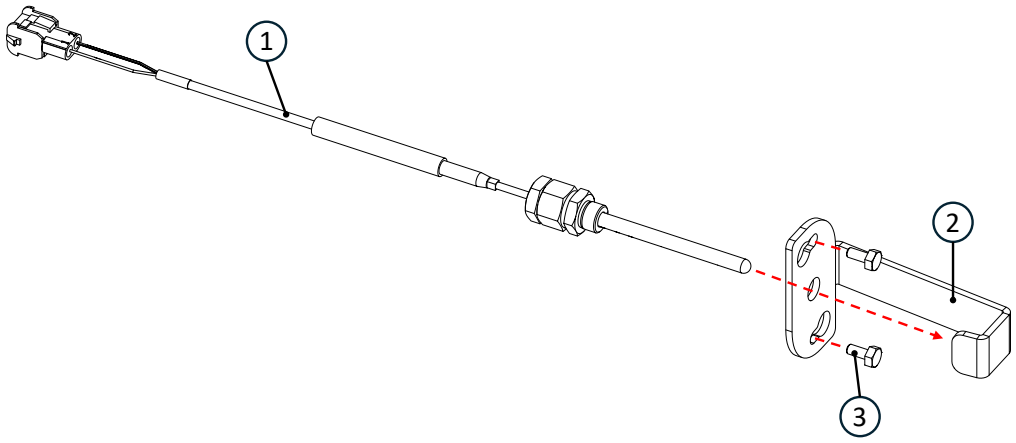



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### 4.6.3.3 THERMOCOUPLE

#### 4.6.3.3.1 COMPONENTS THERMOCOUPLE

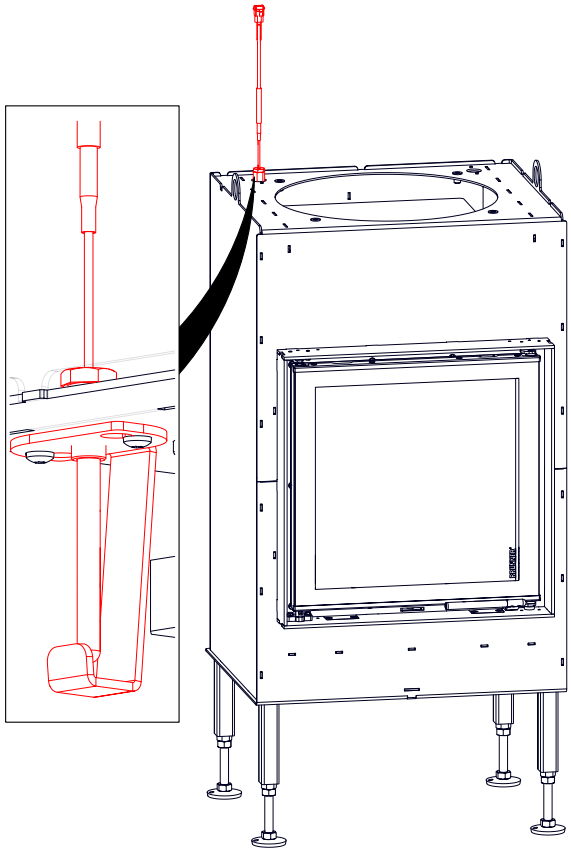
**BG Thermocouple with Retaining plate (HK000095)**




| Position | Designation | Art.-Nr. | Pcs. |
|---|---|---|---|
| 1 | BG Thermocouple | 10992.1 | 1 |
| 2 | Thermocouple Retaining plate | HK000216 | 1 |
| 3 | Hexagon head screw (M5x10) | 02531 | 2 |

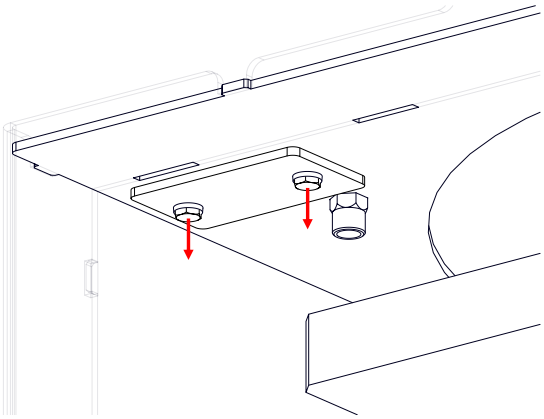
## 4.6.3.3.2 FITTING: THERMOCOUPLE

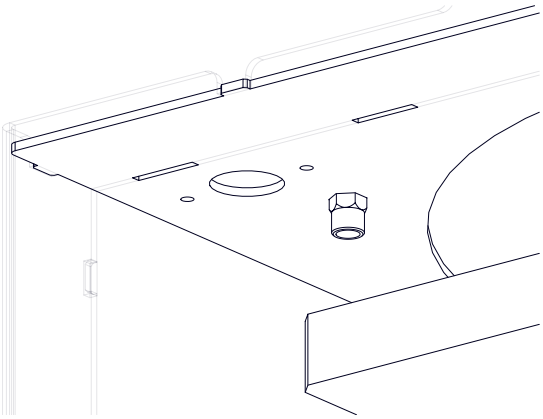
Position



Workflow

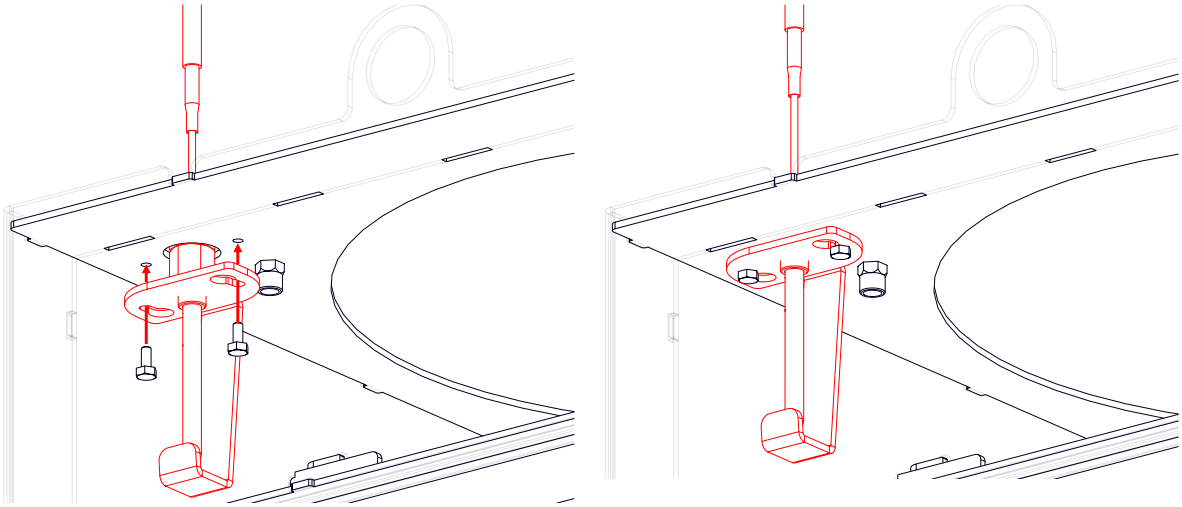
1



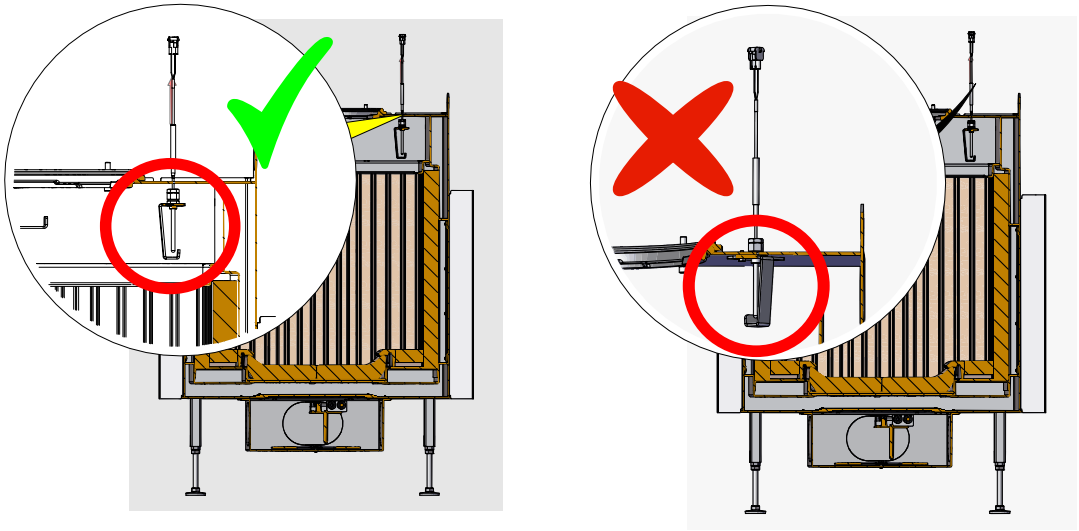


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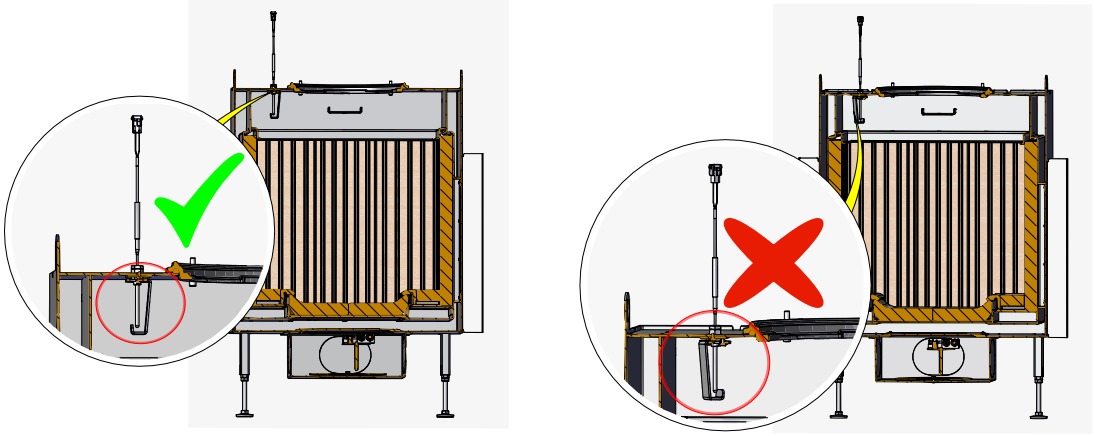
2



**Variant: Thermocouple right side**



**Variant: Thermocouple left side**



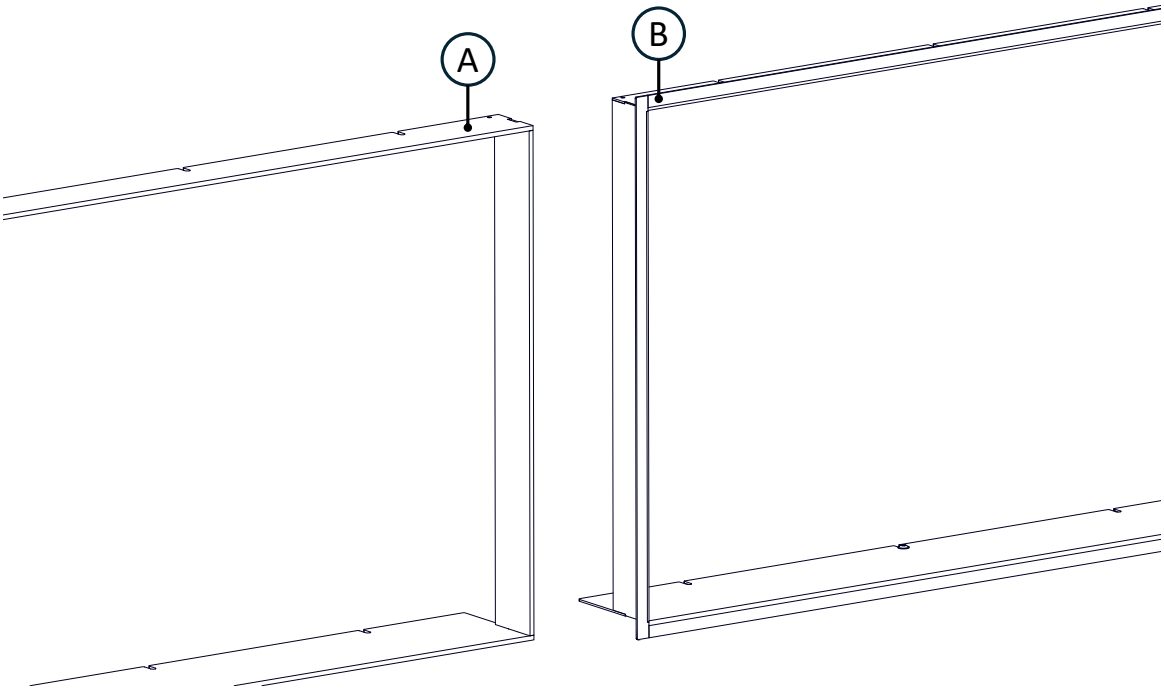
## 4.7 FRAME VARIANTS

**NOTICE**

**The frame and side panels must remain revisable!**

► Ensure that the frame and side parts such as panels can still be inspected after complete assembly and installation! Do not brick in these parts.

### 4.7.1 VARIANT: MOUNTING FRAME - DOOR FRAME

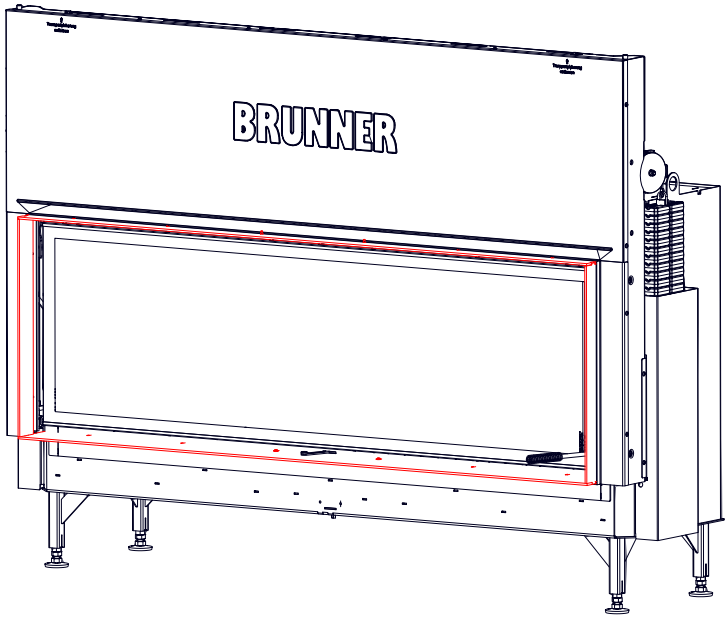



A: mounting frame

B: door frame

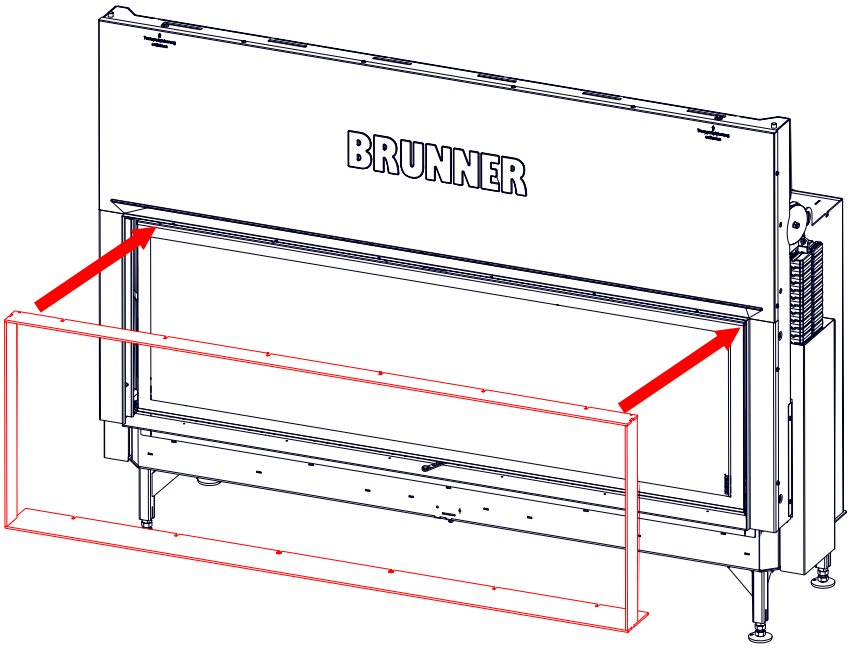
Position

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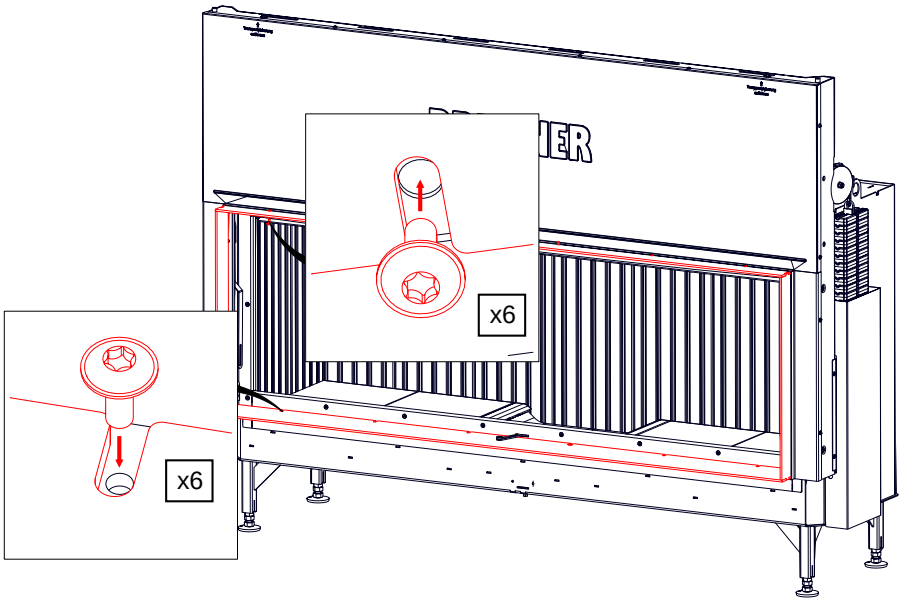



Workflow

1



2




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# 5 DISPOSAL

Old equipment contains valuable materials that must be recycled. Observe the applicable national legal regulations for disposal.



Danger of electrocution.

Electrical connections of the furnace system are under mains voltage. This can lead to electric shock.

Switch off the power supply

Secure power supply against restart.

Old metal parts can be disposed of as metal recycling.

Electrical and electronic components must be disposed of as electronic waste. Fireclay linings can be disposed of as rubble.

Fireclay linings can be disposed of as rubble.

Dispose of insulating and insulating materials of the heating or fireplace insert in a closed container on a suitable waste disposal site.

Do not put the glass ceramic discs in the waste glass collection container! The glass panes can be disposed of as normal household waste.

**Recycling of catalytic converters containing precious metals**

Oxidative catalytic converters, as installed in modern wood stoves, are very effective at reducing emissions of carbon monoxide and hydrocarbons. This is possible, because precious metals like platinum, palladium and rhodium are used on the surface of catalytic converters. These precious metals are distributed very evenly in very small amounts on the surface of catalytic converters. Over the years, the abrasive effect of particles streaming through the catalytic converter will cause the partial diminishing of the coating containing precious metals. Continuous overheating of catalytic converters (T > 700 °C) will damage the coating. In certain cases, the catalytic converter should be replaced and a new converter must be installed to ensure the catalytic effect.

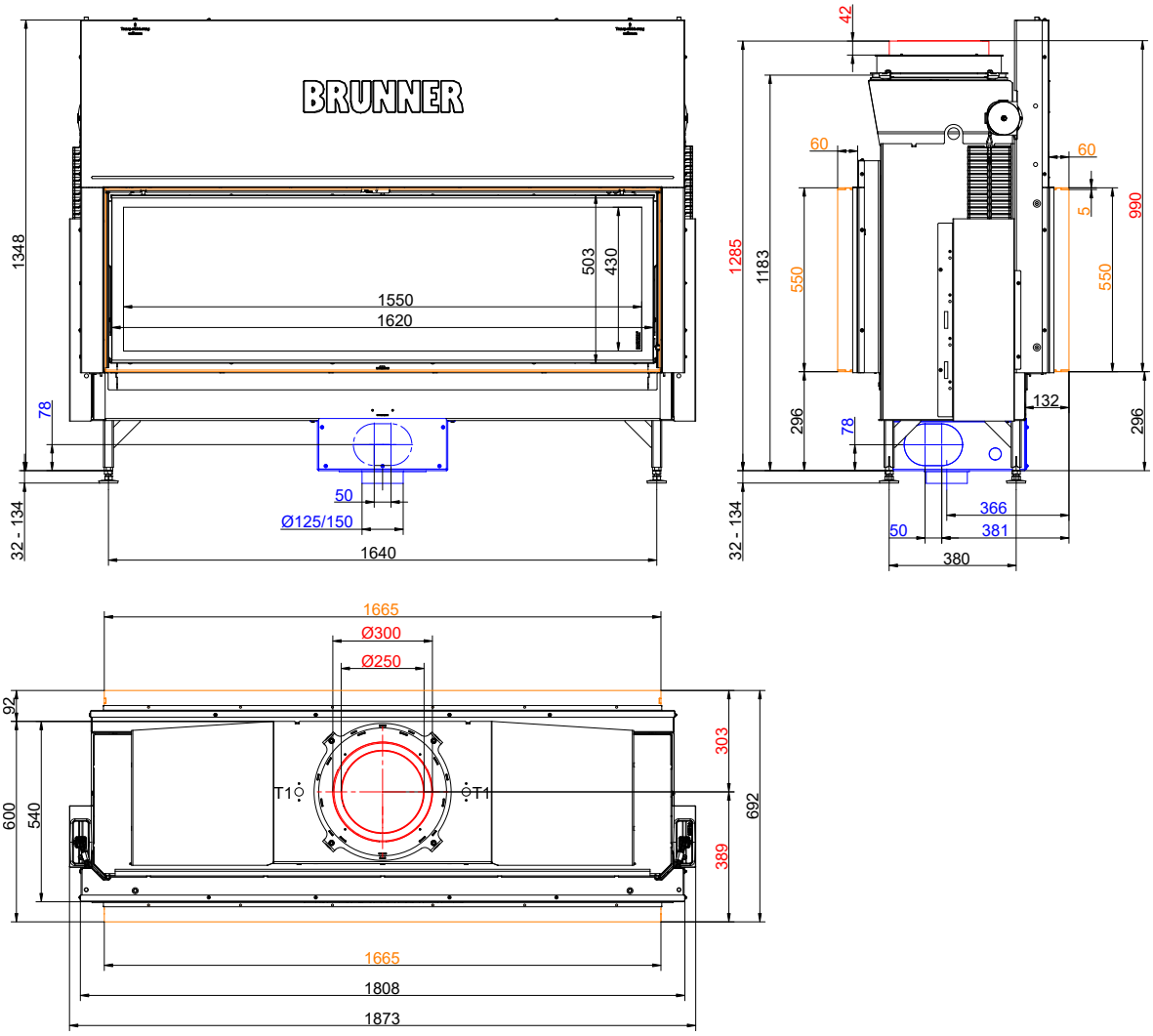
Used catalytic converters are suitable for re-use. Even if they are broken or damaged, they are suitable for recycling.

Contained precious metals can be recovered by thermal or chemical separation techniques to almost 90%, and then used again in the manufacturing process.

Please bring the used cacatalytic converter to a recycling center.

Thank you very much for your efforts in supporting the protection of environment and sustainable use of resources.

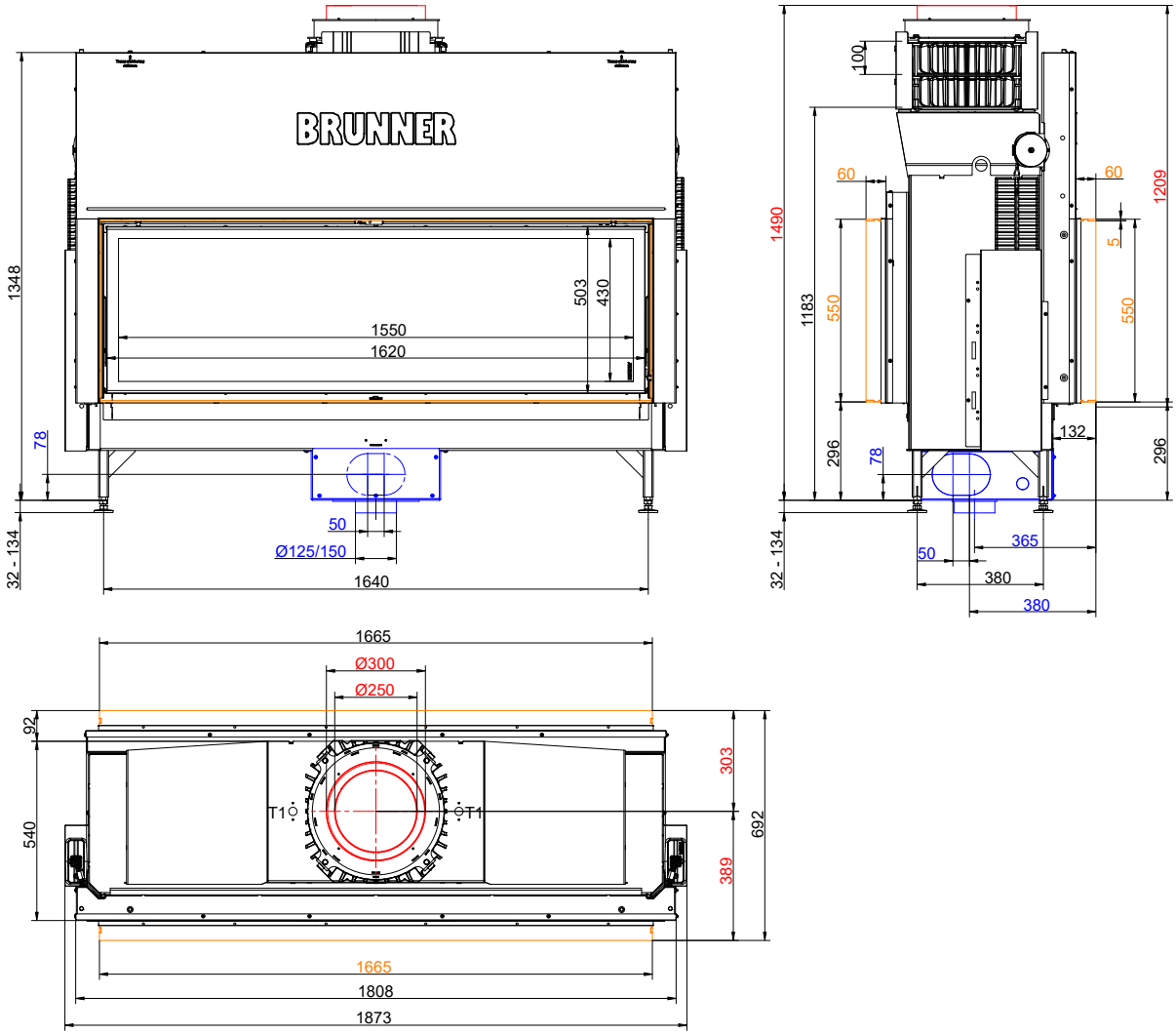
# Dimension sheets - BKH Tunnel 50-162




**… with mounting frame**

Stand: 2025-07-23

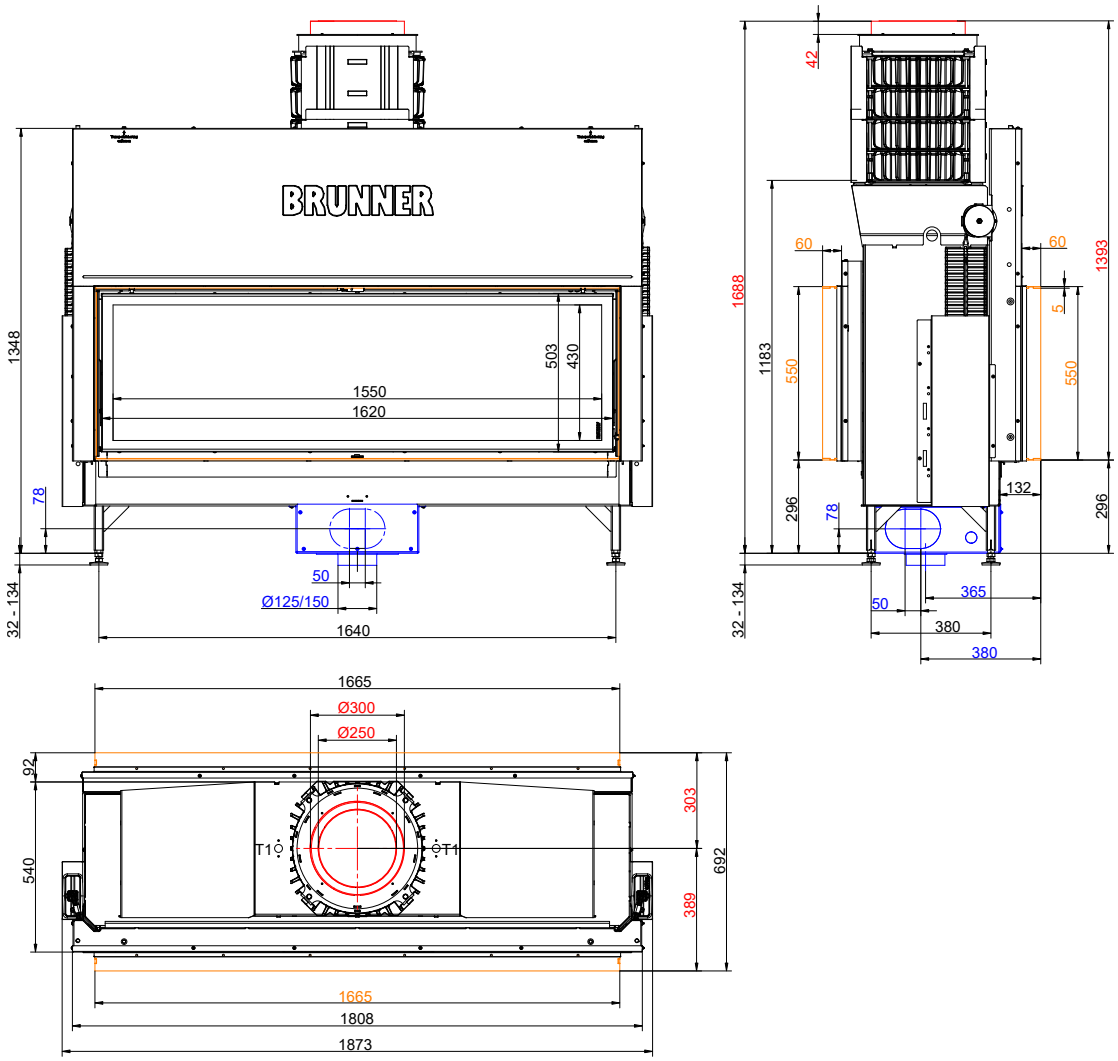
# Dimension sheets - BKH Tunnel 50-162




**… with mounting frame and 2x cast iron heat exchanger rings**

Stand: 2025-07-23

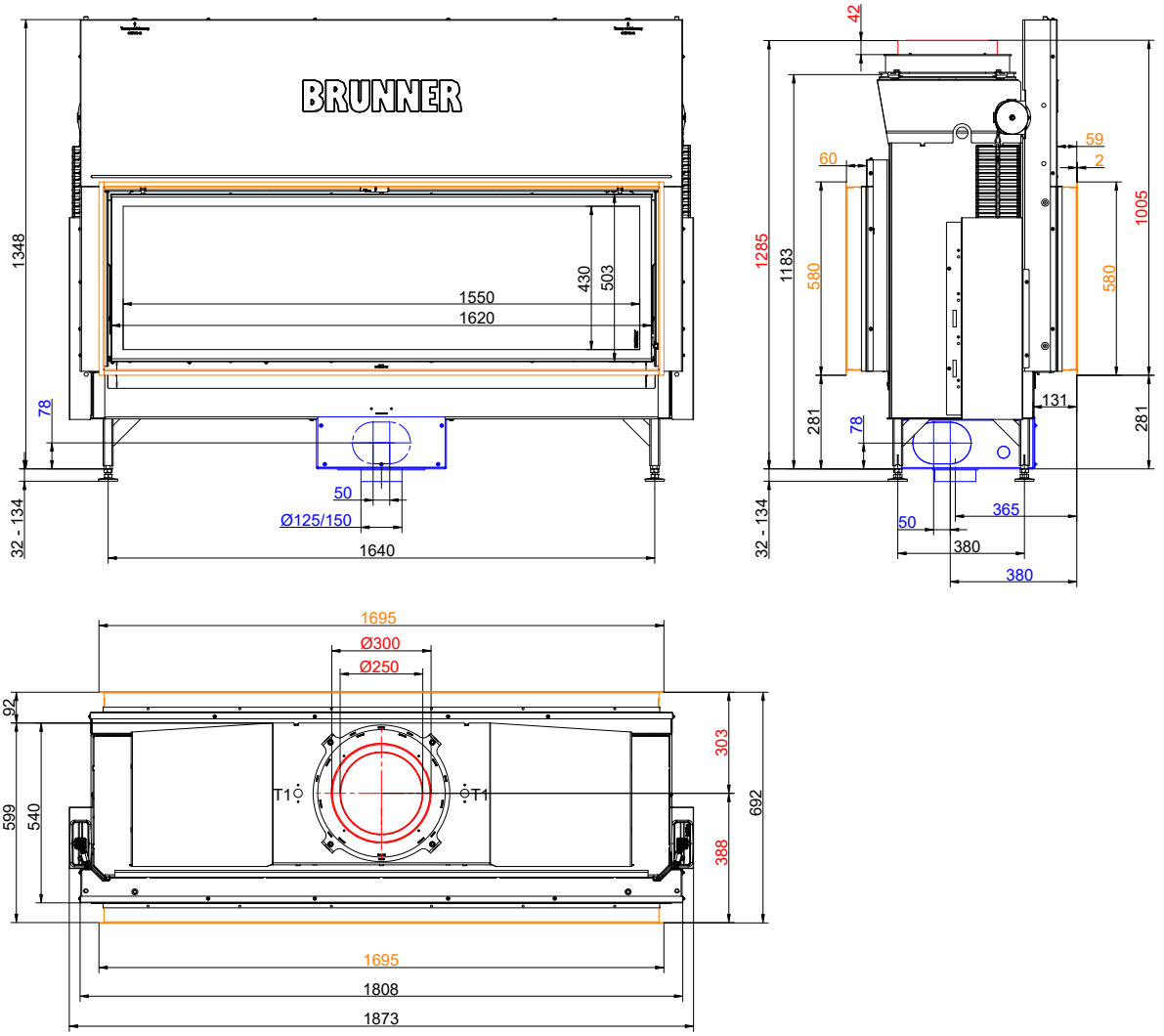
# Dimension sheets - BKH Tunnel 50-162




**… with mounting frame and 4x cast iron heat exchanger rings**

Stand: 2025-07-23

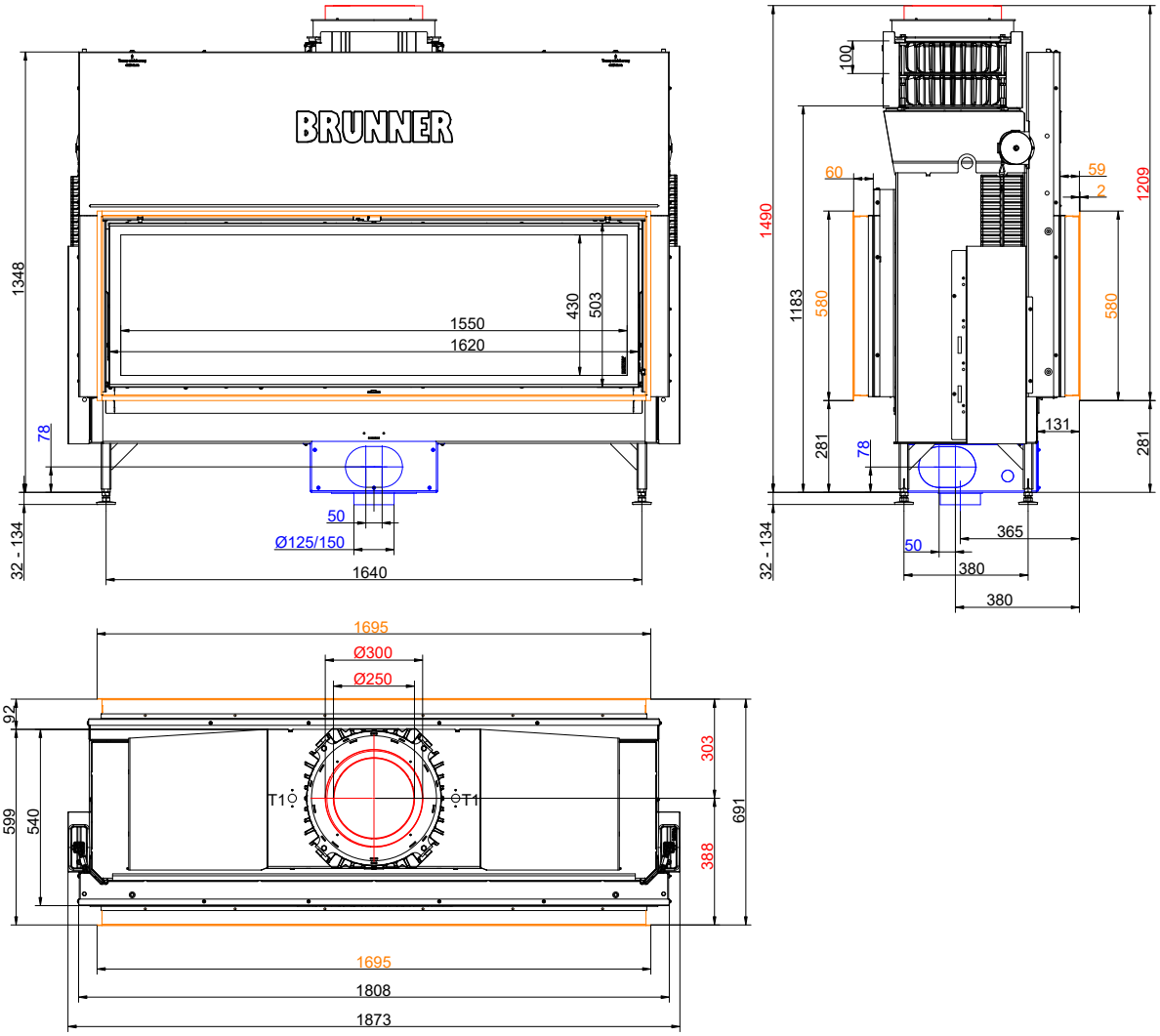
# Dimension sheets - BKH Tunnel 50-162




**… with door frame**

Stand: 2025-07-23

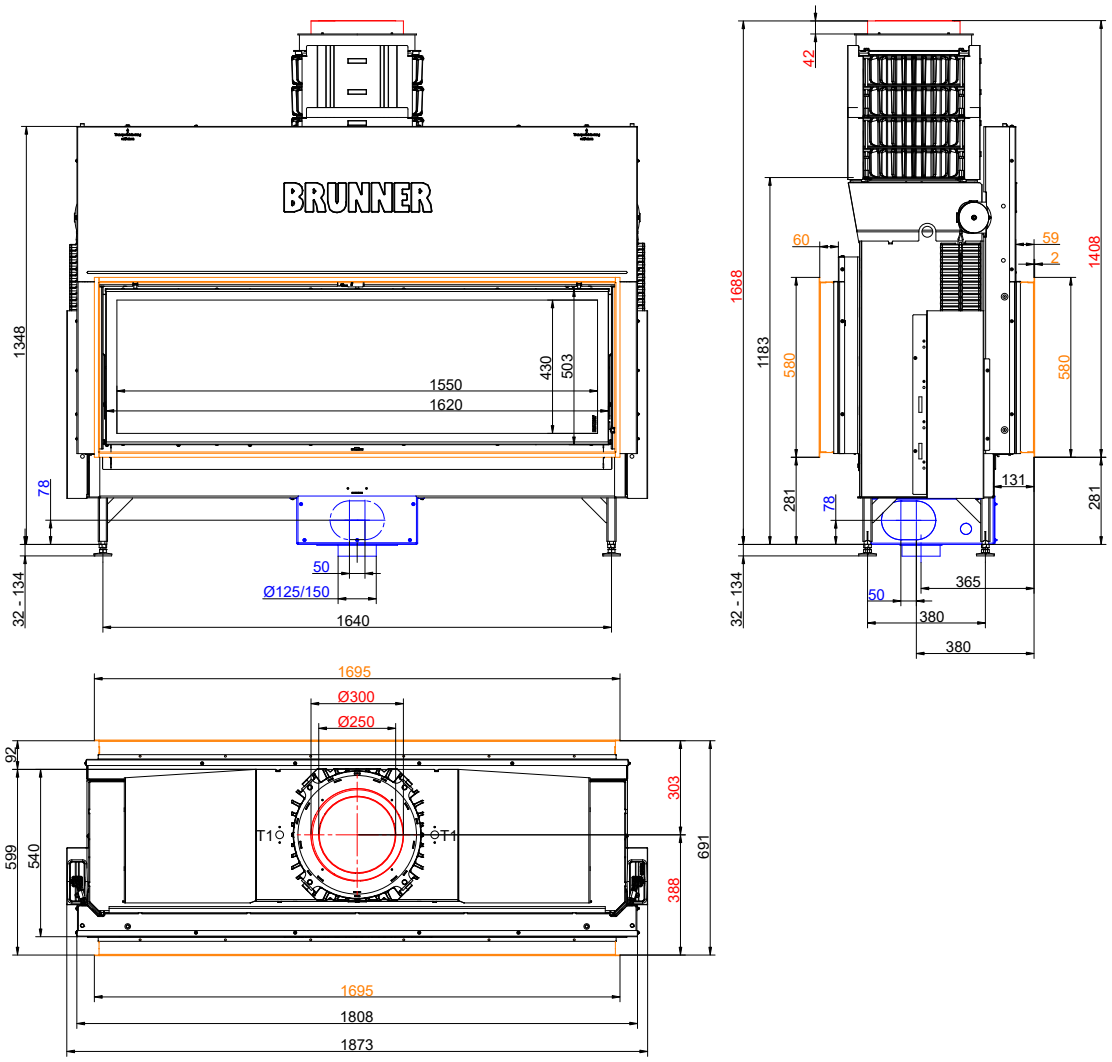
# Dimension sheets - BKH Tunnel 50-162




**… with door frame and 2x cast iron heat exchanger rings**

Stand: 2025-07-23

# Dimension sheets - BKH Tunnel 50-162




**… with door frame and 4x cast iron heat exchanger rings**

We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de
Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

Stand: 2025-07-23

# Planning and installation - BKH Tunnel 50-162

| Tested according to | | EN 13229 W | EN 13229 WA |
|---|---|---|---|
| Values measured at | | Rated power [1] | Storage operation [2] |
| **Data for functional demonstration** | | | |
| Rated heat power | kW | 14.5 | - |
| Fire wood volume | kg/h | 4.1 | 5.3 |
| Combustion performance | kW | 17 | 23 |
| Flue gas mass flow | g/s | 12 | 19 |
| Flue gas temperature after: | | | |
| Flue outlet nozzle Ø | °C | 250 | 290 |
| 2 x / 4 x cast iron heat exchanger rings + dome | °C | 190 / 160 | 230 / 180 |
| Necessary supply pressure | Pa | 13 | 13 |
| Fuel amount | kg | 4.9 | 6.3 |
| Combustion air consumption | m³/h | 42 | 54 |
| Combustion air connection Ø | mm | 150 | 150 |
| **Heat distribution** | | | |
| Insert / reheating surface | % | 30 / 30 | 30 / 30 |
| glass ceramic / glass ceramic coated (GKB) | % | 40 / 30 | 40 / 30 |
| **Cross-section of gratings [3]** | | | |
| exhaust warm air | cm² | 1000 | 1000 |
| Recirculation air | cm² | 1000 | 1000 |
| **Minimal oven surface for closed construction type** | | | |
| Heat dissipating surface | m² | 5.1 | 5.1 |
| **Minimal distances of the fireplace** | | | |
| Heat protection panel for cladding, insulation layer | cm | - | - |
| to cladding, insulation layer | cm | 5 | 5 |
| to the floor (non-combustible) | cm | 3 | 3 |
| **Fire protection with active rear ventilation, intermediate space** | | | |
| Minimum insulation thickness for construction : insulation material I 5 cm rear active ventilation I wall [4] | | | |
| for mounting wall (combustible/non-combustible) | cm | 5 | 5 |
| Minimum insulation thickness for construction: insulation material I 30 cm closed gap I ceiling [5] | | | |
| for ceiling (combustible) | cm | 10 | 10 |
| **Fire protection with adequate insulation material** | | | |
| Minimum insulation thickness for construction: insulation material I mounting wall, ceiling, floor [5] | | | |
| with heat protection panel, mounting wall (non-combustible) [6] | cm | 6 | 6 |
| with heat protection panel, mounting wall (combustible) [6] | cm | 12 | 12 |
| Mounting wall (non-combustible) | cm | 8 | 8 |
| Mounting wall (combustible) | cm | 18 | 18 |
| Ceiling (non-combustible) | cm | 8 | 8 |
| Ceiling (combustible) | cm | 22 | 22 |
| Floor (non-combustible) | cm | 0 | 0 |
| **Minimum distances in front of the combustion chamber, glass ceramic / glass ceramic coated (GKB)** | | | |
| for combustible parts | cm | ≥ 120 / ≥ 80 | ≥ 120 / ≥ 80 |
| **Weight** | | | |
| Fireplace insert + combustion chamber inner lining chamotte/cast iron | kg | 431 + 102 / 112 | |
| **Meets requirement/limit values for:** | | | |
| EU / Germany | | Ecodesign / 1. BImSchV (Stufe 2) | |

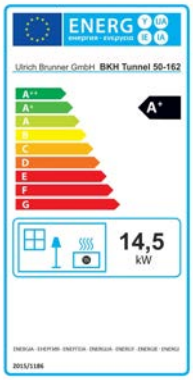
1) Indications to "Rated power" determined with 4 heat exchanger rings made of cast iron and Ø200 dome.
2) Indications to "Storage operation" for the manual execution of the reheating surface (guide values).

# Planning and installation - BKH Tunnel 50-162

3) Air cross-sections if the specified nominal heat output is desired as the heat output.
4) Fire safety: Values determined with air cross-sections recorded for testing purposes; active rear ventilation, stove shell is heat emitting.
   Insulation thickness 5 cm calcium silicate board (brands: Promasil, Silka, Skamol) and 5 cm active rear ventilation with diagonally positioned air circulation and supply air openings of 75 cm $^2$ (5x15 cm) each. For detailed design, see assembly instructions.
5) Fire safety: values determined in safety test with air cross-sections recorded for testing purposes; stove shell is heat emitting.
   Information on replacement insulation material with calcium silicate boards (brands: Promasil, Silka, Skamol).
   The specifications for non-combustible walls/ceilings and the structure with a closed gap (30 cm) correspond to the specifications of TROL (Germany), see assembly instructions.
6) Heat protection plate: accessory for BKH flat/tunnel/corner versions; factory-fitted for BKH panoramic fireplaces.

## Product data sheet according to (EU) 2015/1186:

| | |
|---|---|
| Supplier's name or trademark | Ulrich Brunner GmbH |
| Model identifier: | BKH 5.0 Tunnel 50-162 |
| Energy efficiency class: | A+ |
| Direct heat output: | 14,5 kW |
| Indirect heat output: | N.A. kW |
| Energy efficiency index: | 115,8 |
| Fuel energy efficiency (at nominal heat output): | 84,0 % |
| Fuel energy efficiency (at minimum load): | N.A. % |
| Special precautions: see supplied product documentation | |




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E-Mail: info@brunner.de

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