Installation Manual

BKH 5.0 Panorama 45-45-45-45

green

©2024

BRUNNER®

CONTENTS

1 Basic informations 3
2 Safety precautions 3
3 Specified symbols 4
4 Delivery contents BKH Panorama 45-45-45-45 6
4.1 BKH Panorama: Heat protection panel = standard 8
4.2 Catalytic converter (optional) 8
5 Safety distances BKH Panorama 10
6 Installation 12
6.1 Setting up 12
6.1.1 Remove the transport locks 13
6.1.1.1 BKH Panorama ST (lifting door) 13
6.2 Fitting: catalytic converter 13
6.3 Fitting: deflection 16
6.4 Variants Combustion chamber lining 19
6.4.1 Chamotte inner lining 19
6.5 Variants heat exchanger 20
6.5.1 MAS 20
6.5.1.1 Components MAS modular top-mount storage SET 440 20
6.5.1.2 Fitting: MAS modular top-mount storage SET 440 21
6.6 Variant: Mounting bracket - wide frame 24
6.7 Variant: EOS 25
6.7.1 Bottom cover Air box EOS 25
6.7.1.1 Components EOS 25
6.7.1.2 Fitting: EOS 26
6.7.1.3 Air position indicator Panorama 27
6.7.2 Thermocouple 28
6.7.2.1 Components Thermocouple 28
6.7.2.2 Fitting: Thermocouple 28
6.7.2.3 Membrane feed-through 30
6.7.3 Door contact switch 31
6.7.3.1 Components Door contact switch 31
6.7.3.2 Fitting: Door contact switch 32
7 Disposal 35
8 Technical data 36

 © 2024 Brunner GmbH

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.

2 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.

3 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.

 © 2024 Brunner GmbH

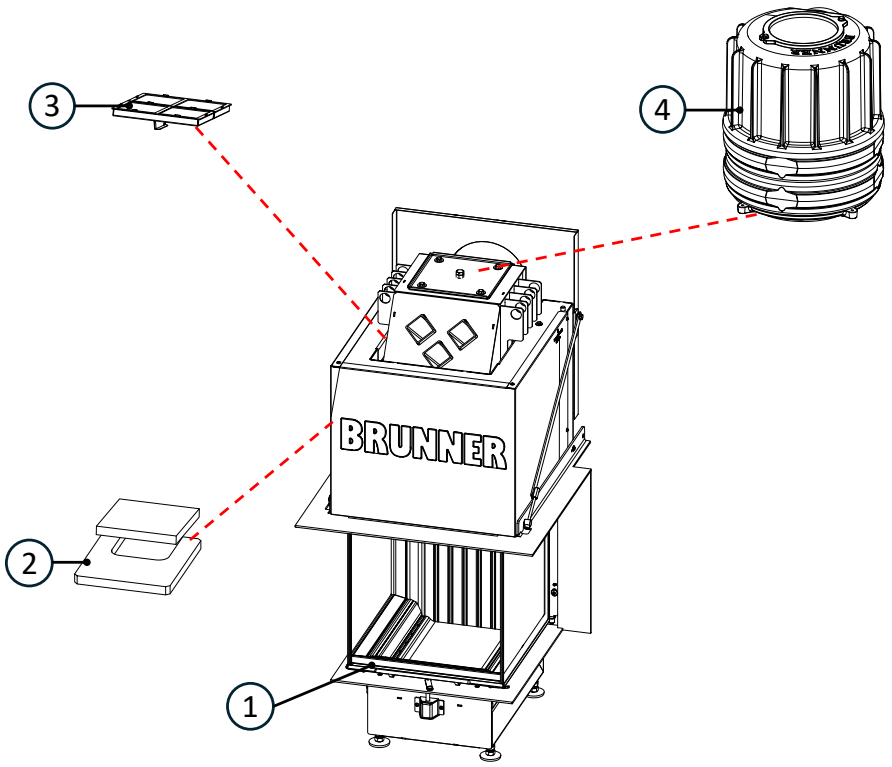


NOTE

Additional helpful information

4 DELIVERY CONTENTS BKH PANORAMA 45-45-45-45

BKH Panorama 45-45-45-45 with lifting door

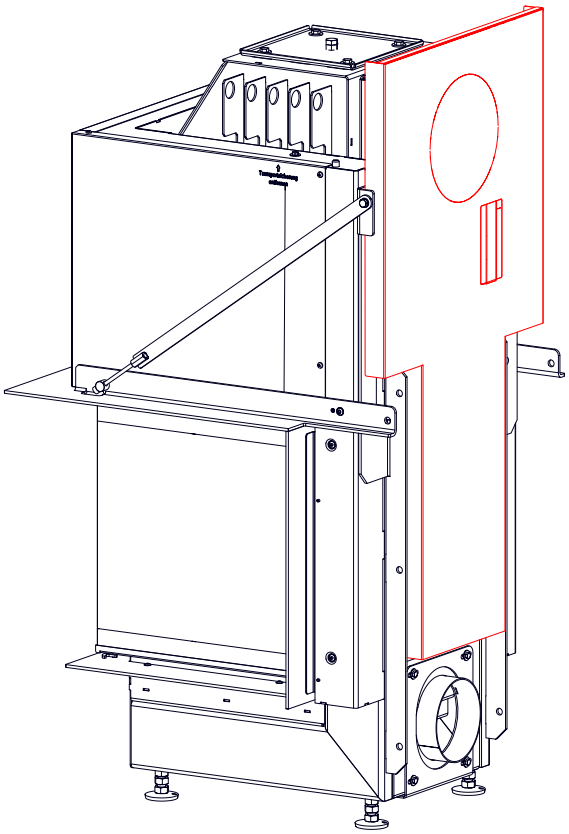


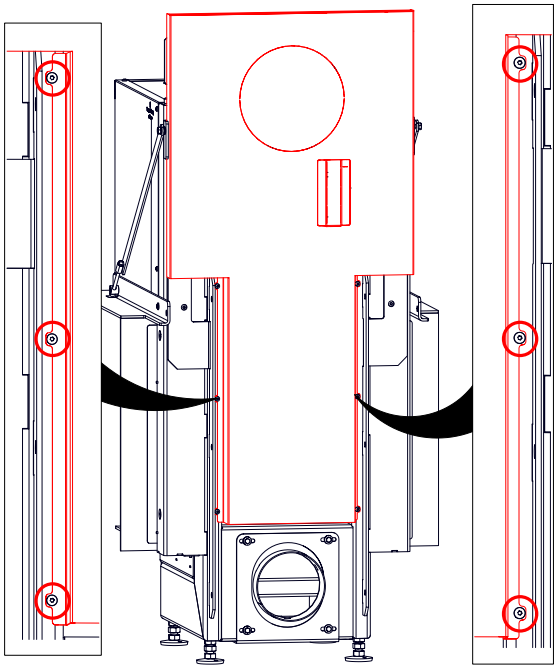
 © 2024 Brunner GmbH

Pos.	Designation	Art. No.
1	BKH - variants:	
	BKH 5.0 Panorama 45-45-45-45 with manual operation, with Ceramic glass (GK), Chamotte inner linging (FR) with Mounting bracket	HK050002-01
	BKH 5.0 Panorama 45-45-45-45 with manual operation, with Ceramic glass (GK), Chamotte inner linging (FR) with wide frame	HK050002-05
	BKH 5.0 Panorama 45-45-45-45 with manual operation, with Glass ceramic coated (GKB), Chamotte inner linging (FR) with Mounting bracket	HK050002-03
	BKH 5.0 Panorama 45-45-45-45 with manual operation, with Glass ceramic coated (GKB), Chamotte inner linging (FR) with wide frame	HK050002-07
	BKH 5.0 Panorama 45-45-45-45 for EAS/EOS with Ceramic glass (GK), Chamotte inner linging (FR) with Mounting bracket	HK050002-02
	BKH 5.0 Panorama 45-45-45-45 for EAS/EOS with Ceramic glass (GK), Chamotte inner linging (FR) with wide frame	HK050002-06
	BKH 5.0 Panorama 45-45-45-45 for EAS/EOS with Glass ceramic coated (GKB), Chamotte inner linging (FR) with Mounting bracket	HK050002-04
	BKH 5.0 Panorama 45-45-45-45 for EAS/EOS with Glass ceramic coated (GKB), Chamotte inner linging (FR) with wide frame	HK050002-08
	BKH 5.0 Panorama 45-45-45-45 with manual operation, with Ceramic glass (GK), Combustion chamber inner lining cast iron (FR/Guss) with Mounting bracket	HK050002-09
	BKH 5.0 Panorama 45-45-45-45 with manual operation, with Ceramic glass (GK), Combustion chamber inner lining cast iron (FR/Guss) with wide frame	HK050002-13
	BKH 5.0 Panorama 45-45-45-45 with manual operation, with Glass ceramic coated (GKB), Combustion chamber inner lining cast iron (FR/Guss) with Anbaukante	HK050002-11
	BKH 5.0 Panorama 45-45-45-45 with manual operation, with Glass ceramic coated (GKB), Combustion chamber inner lining cast iron (FR/Guss) with wide frame	HK050002-15
	BKH 5.0 Panorama 45-45-45-45 for EAS/EOS with Ceramic glass (GK), Combustion chamber inner lining cast iron (FR/Guss) with Mounting bracket	HK050002-10
	BKH 5.0 Panorama 45-45-45-45 for EAS/EOS with Ceramic glass (GK), Combustion chamber inner lining cast iron (FR/Guss) with wide frame	HK050002-14
	BKH 5.0 Panorama 45-45-45-45 for EAS/EOS with Glass ceramic coated (GKB), Combustion chamber inner lining cast iron (FR/Guss) with Anbaukante	HK050002-12
	BKH 5.0 Panorama 45-45-45-45 for EAS/EOS with Glass ceramic coated (GKB), Combustion chamber inner lining cast iron (FR/Guss) with wide frame	HK050002-16
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	Catalyst module BKH 5.0Panorama	HK000233
Smoke hood variants		
4	Connection variant MAS SET440	SET213446

4.1 BKH PANORAMA: HEAT PROTECTION PANEL = STANDARD

Position





4.2 CATALYTIC CONVERTER (OPTIONAL)



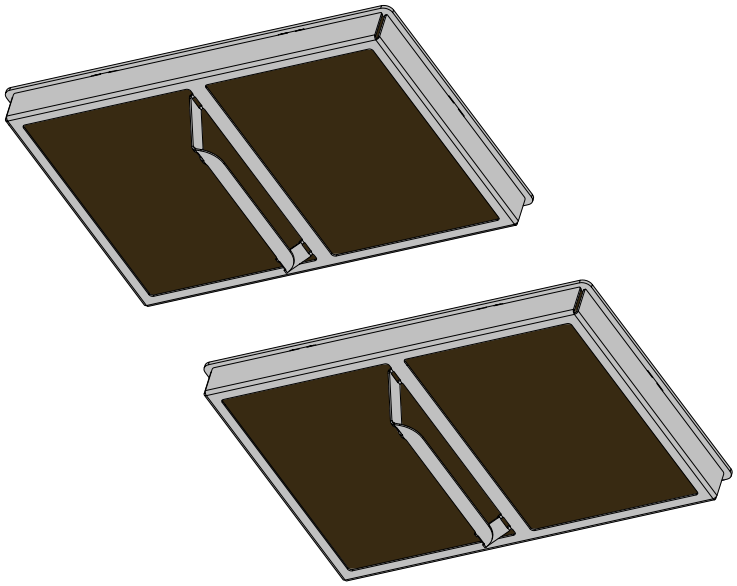
The catalytic converters are coated with a catalytically active layer. This coating can consist of mixed metal oxides or also of precious metals.



 © 2024 Brunner GmbH



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!



Note

This catalytic converter is suitable for all BKH Panorama.

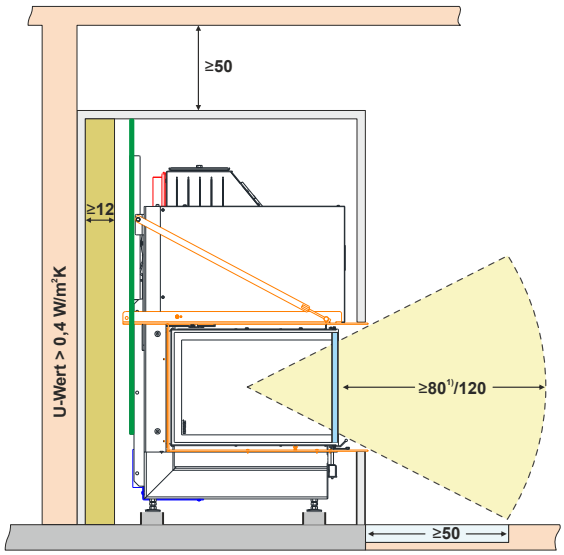
This catalytic converter can also be retrofitted.

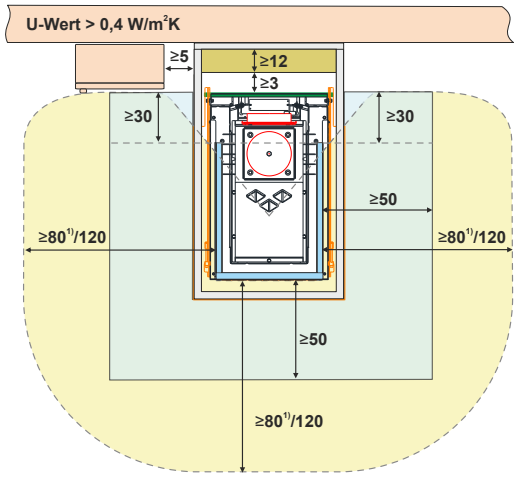
5 SAFETY DISTANCES BKH PANORAMA

Mounting wall combustible

Half-height version

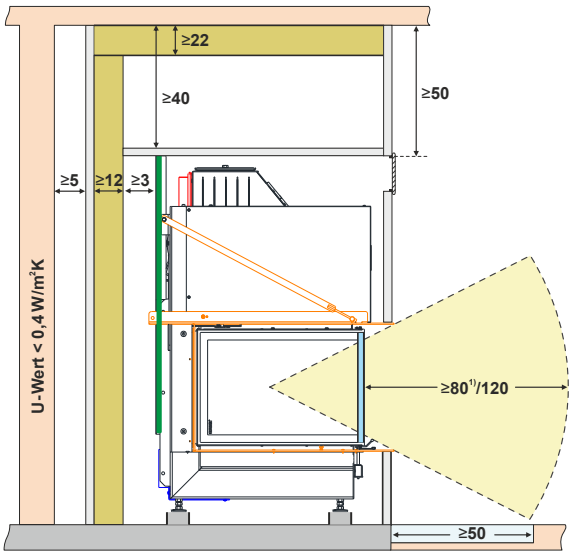
with heat protection panel

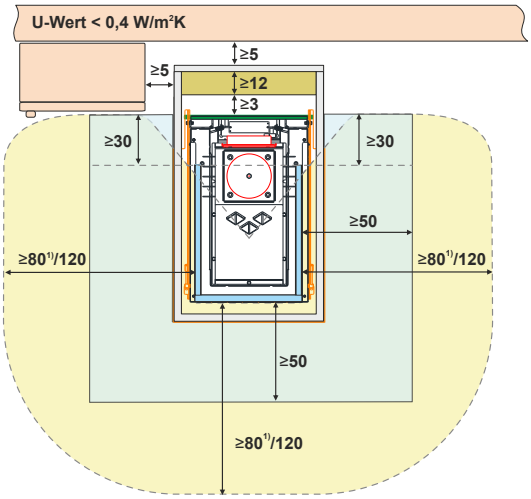




Floor-to-ceiling version

with heat protection panel





floor/wall/ceiling **non-combustible**	fireplace cladding
wall/ceiling/floor/attachments **combustible/to be protected**	convection opening
substitute insulation material calcium silicate (Promasil 950-KS)	radiation range
heat protection panel (accessories)	non-combustible flooring /floor protection pane

1) Glass ceramic coated (GKB)

All figures in cm

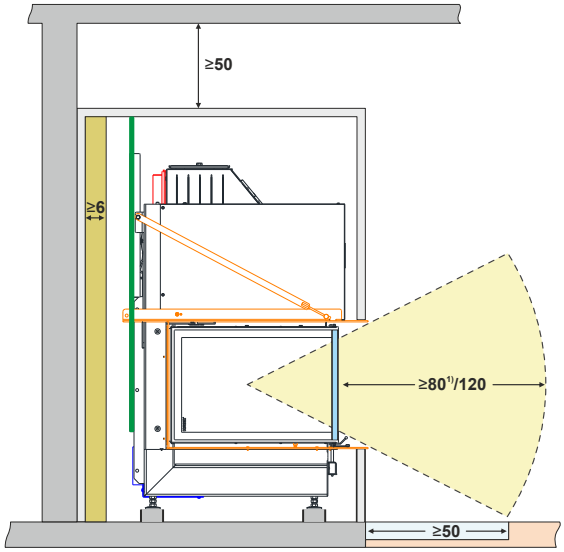
When designing the exhaust system and exhaust pipe, national standards and fire protection regulations must be observed

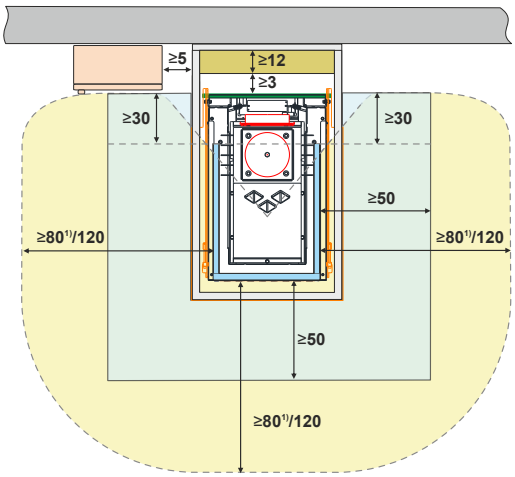
© 2024 Brunner GmbH

Mounting wallnon-combustible

Half-height version

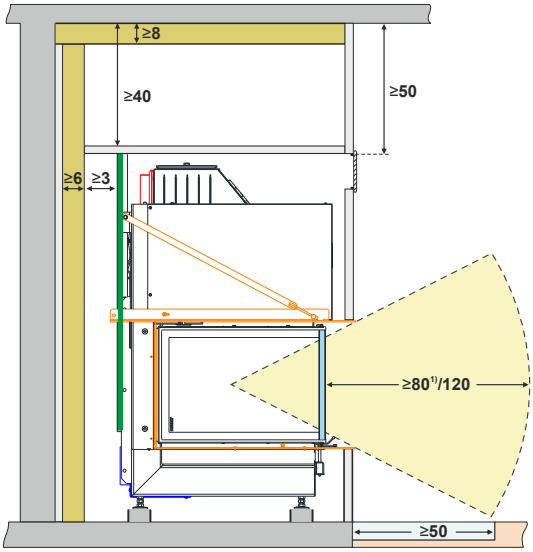
with heat protection panel





Floor-to-ceiling version

with heat protection panel



floor/wall/ceiling **non-combustible**	fireplace cladding
wall/ceiling/floor/attachments **combustible/to be protected**	convection opening
substitute insulation material calcium silicate (Promasil 950-KS)	radiation range
heat protection panel (accessories)	non-combustible flooring /floor protection pane

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

6 INSTALLATION

6.1 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.

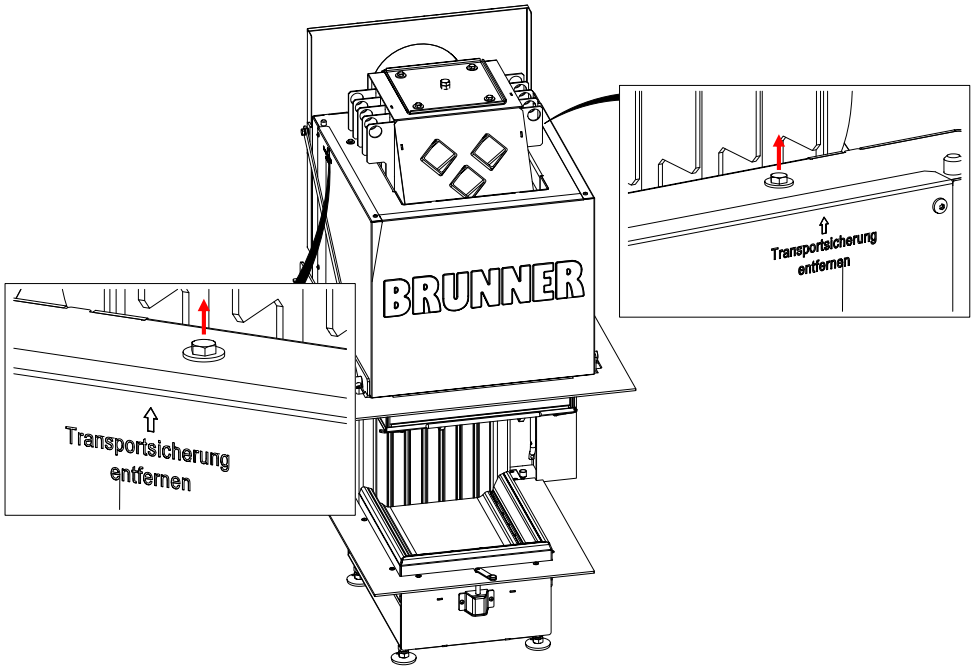
As long as the device is on the wooden pallet, it can be transported with a hand truck or forklift as usual.

 © 2024 Brunner GmbH

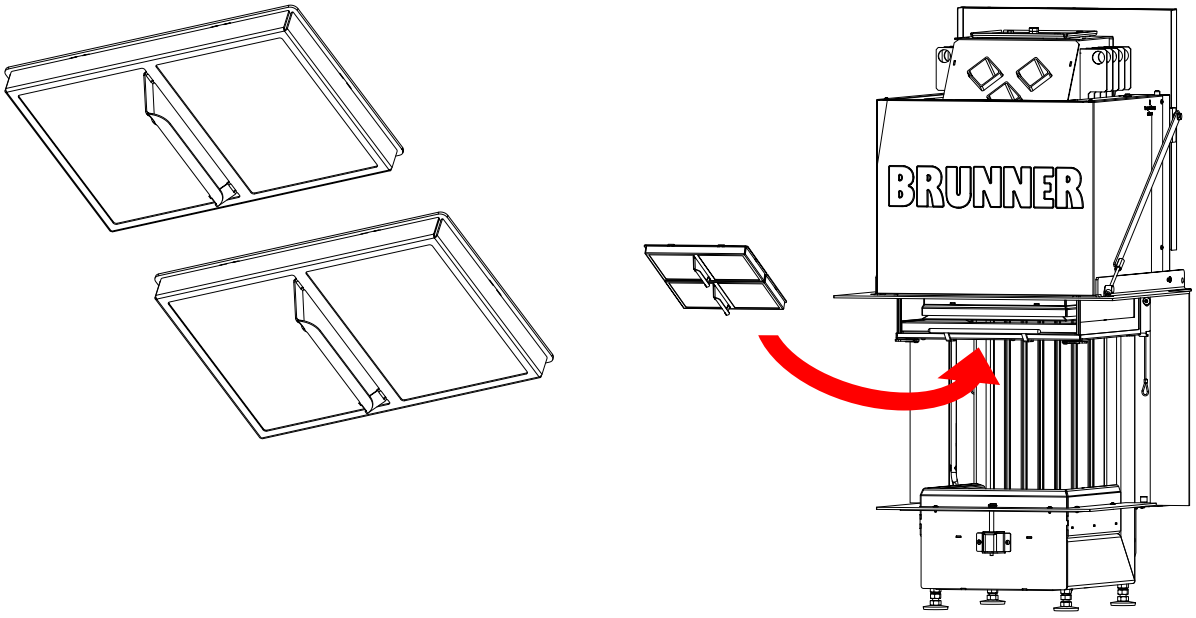
6.1.1 REMOVE THE TRANSPORT LOCKS

6.1.1.1 BKH PANORAMA ST (LIFTING DOOR)

Remove the transport lock!



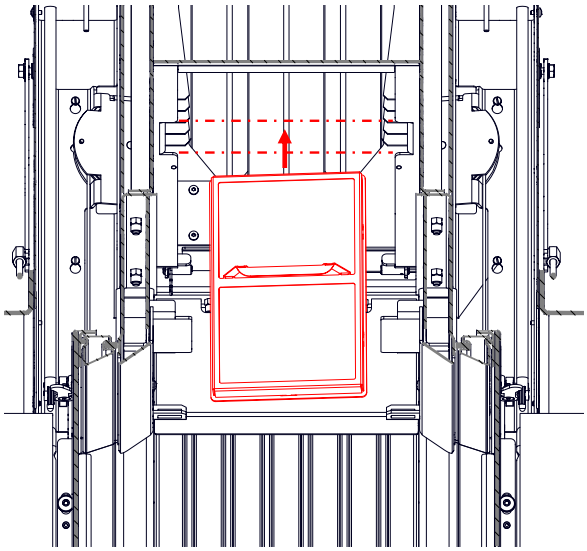
6.2 FITTING: CATALYTIC CONVERTER

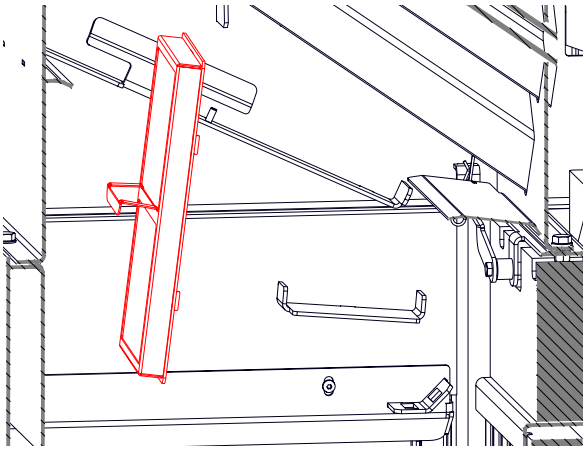


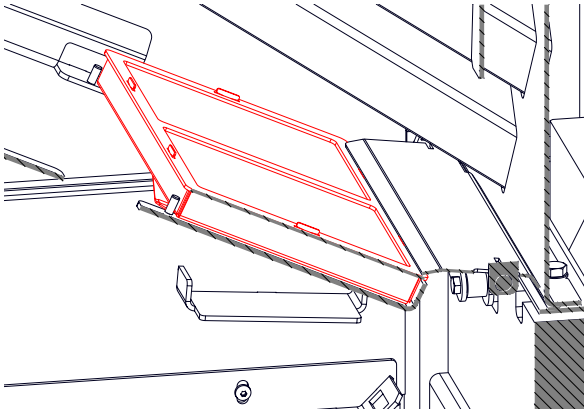
Summarised information

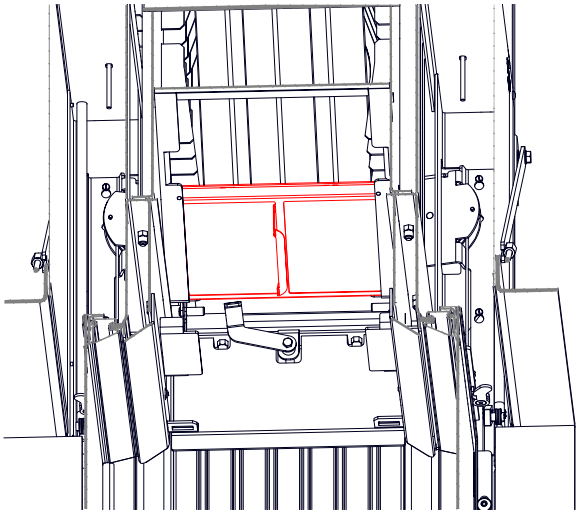
Workflow:

1



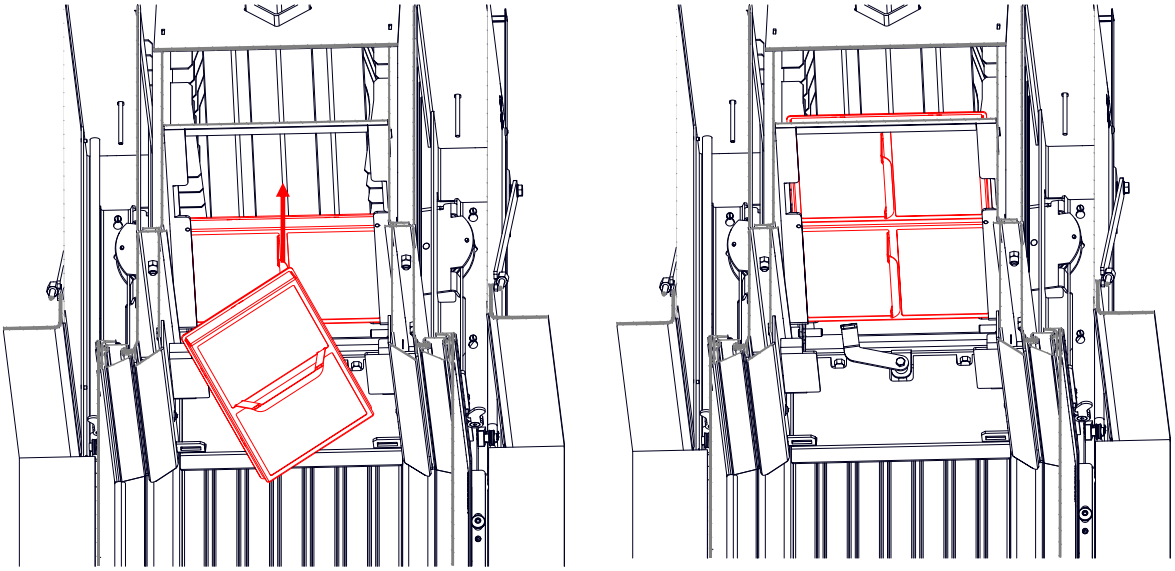


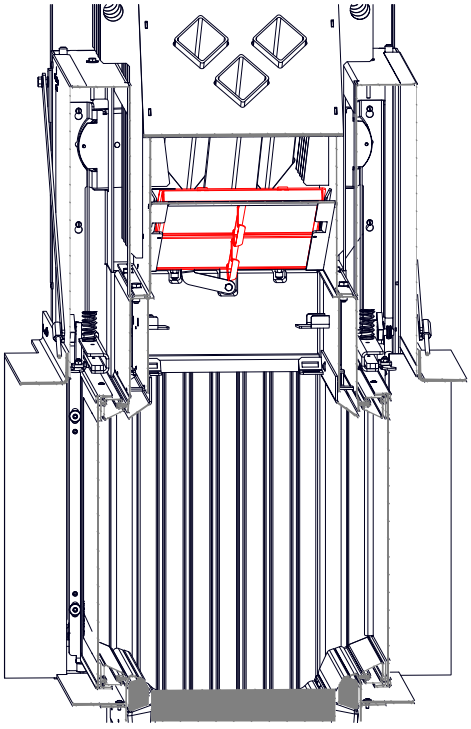




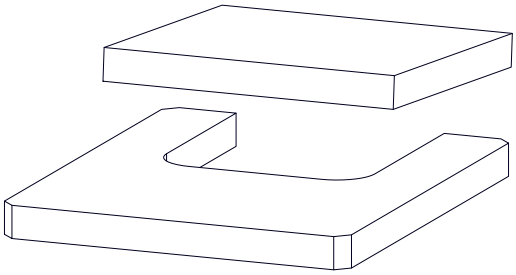
 © 2024 Brunner GmbH

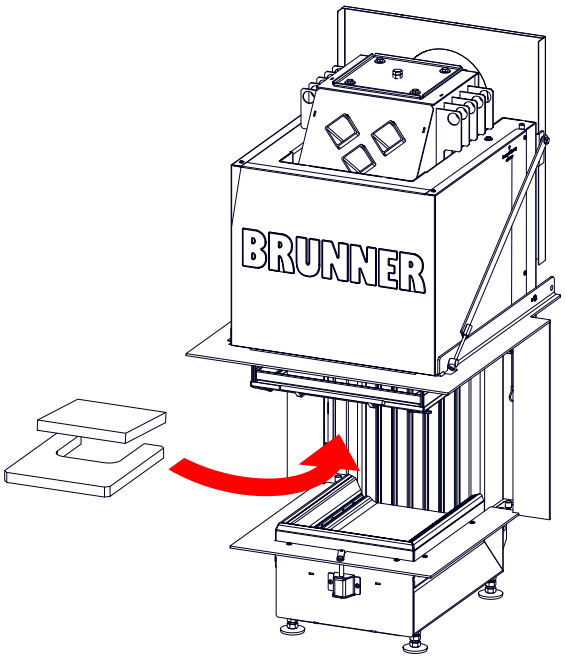
2





6.3 FITTING: DEFLECTION



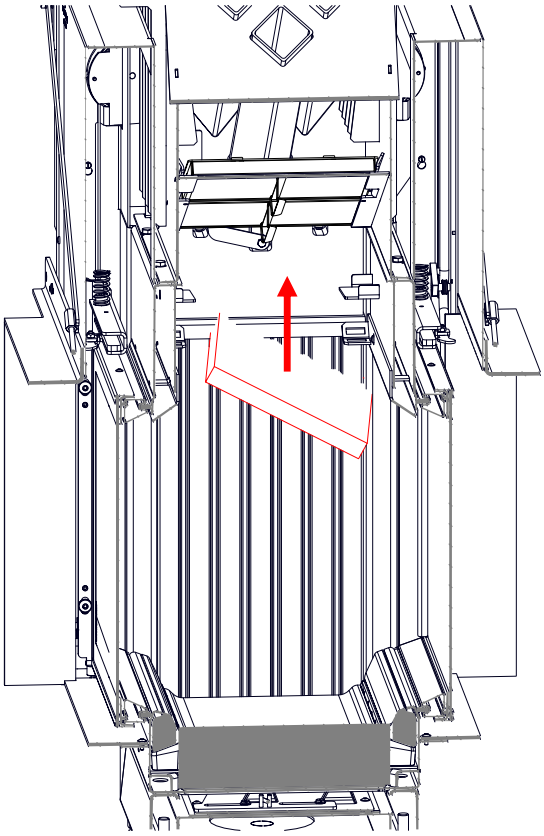


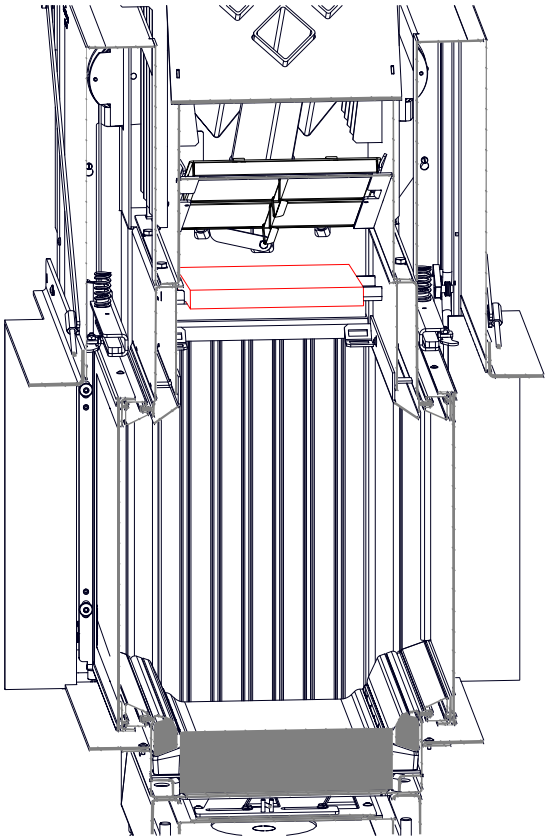
Summarised information

 © 2024 Brunner GmbH

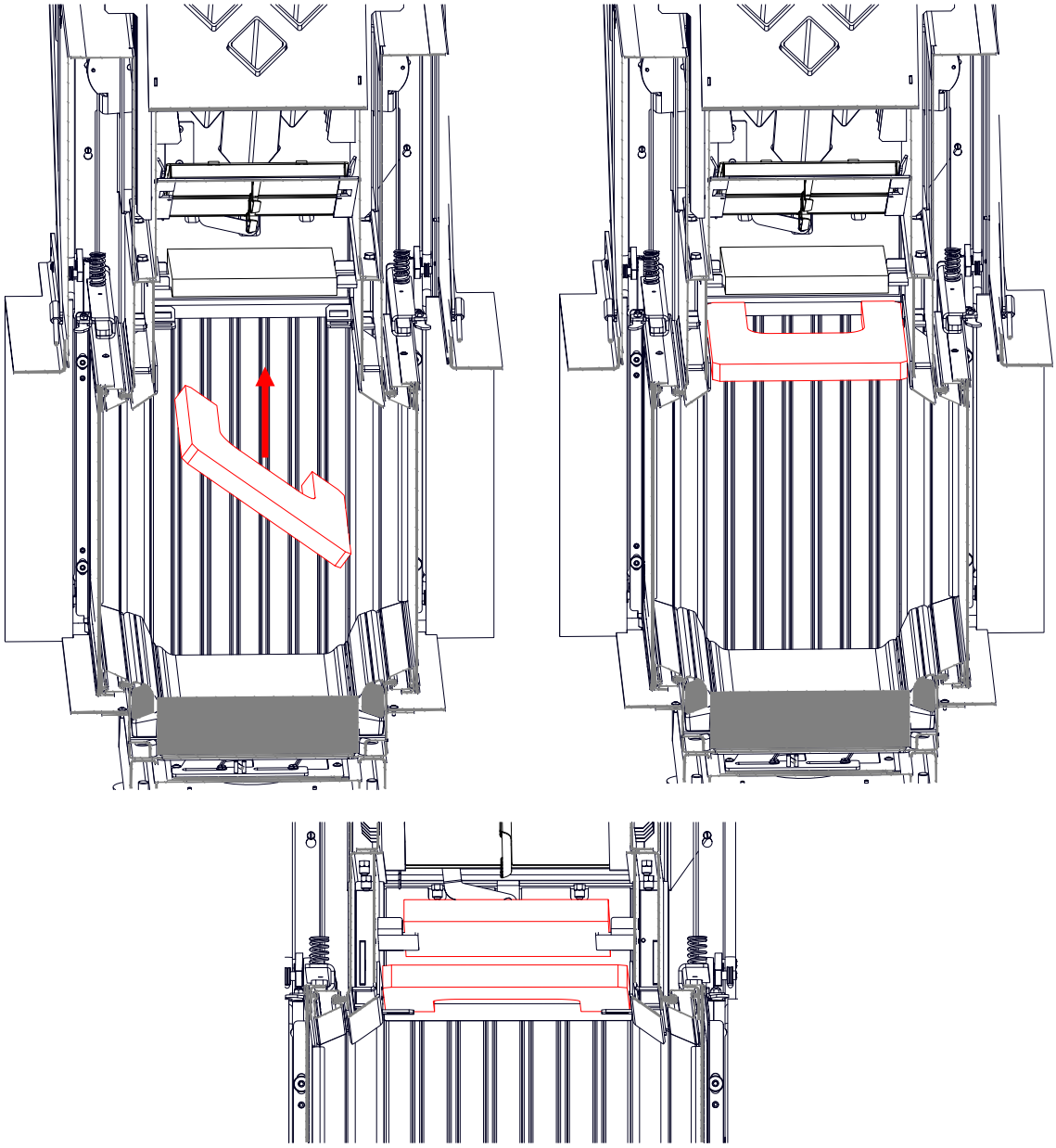
Workflow:

1





2

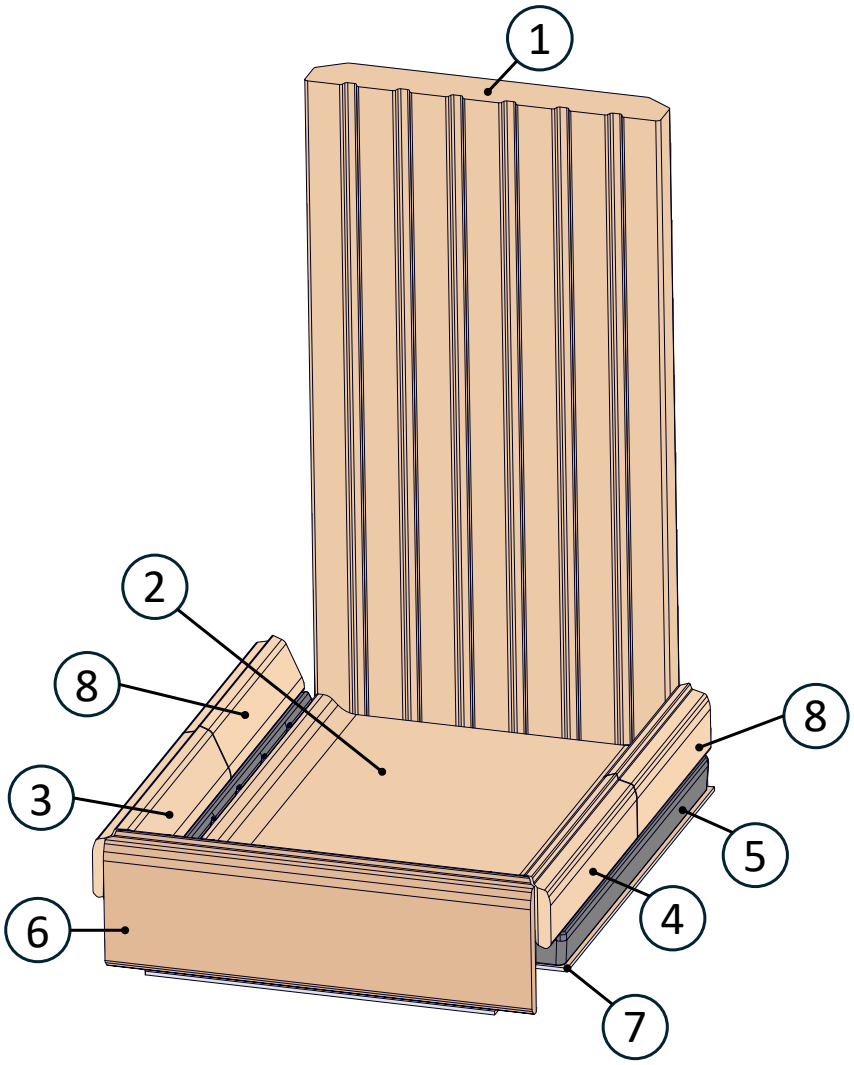


 © 2024 Brunner GmbH

6.4 VARIANTS COMBUSTION CHAMBER LINING

6.4.1 CHAMOTTE INNER LINING

Panorama 45-45-45-45 (HK050200-01)



Position	Designation	Art. No.	Pcs.
1	Stone 542x275x40	HK000263	1
2	Bottom stone 368x270x40	HK000261-01	1
3	Wedge stone left side 205x53x40	HK000262-01	1
4	Wedge stone right side 205x53x40	HK000274-01	1
5	Cast air distributor Pano 1	HK000098	2
6	Wedge stone 330x105x40	HK000267-01	1
7	Bottom insulation 1 Pano	HK050211	1
8	Wedge stone 175x53x40	HK000277-01	2

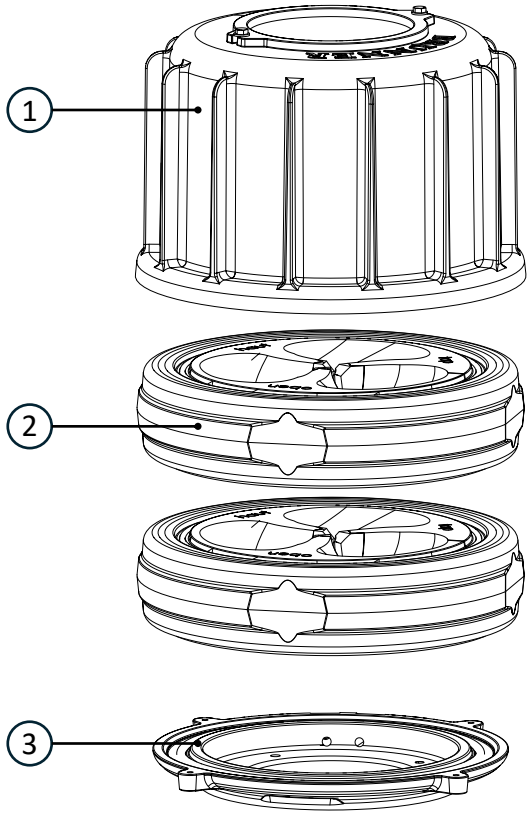
Chamotte inner lining to be installed dry

6.5 VARIANTS HEAT EXCHANGER

6.5.1 MAS

6.5.1.1 COMPONENTS MAS MODULAR TOP-MOUNT STORAGE SET 440

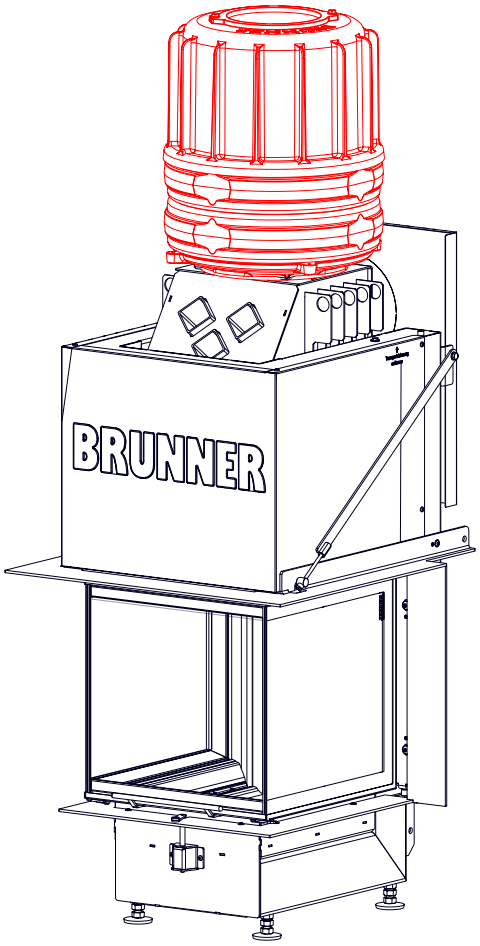
MAS modular top-mount storage SET 440 (SET213446)



Position	Designation	Art.-Nr.	Pcs.
1	Cast iron dome ⌀ 180 mm	R009095-01	1
2	MAS 440 accumulation stone double-layered	R009042	2
3	Mounting ring	10085.1	1

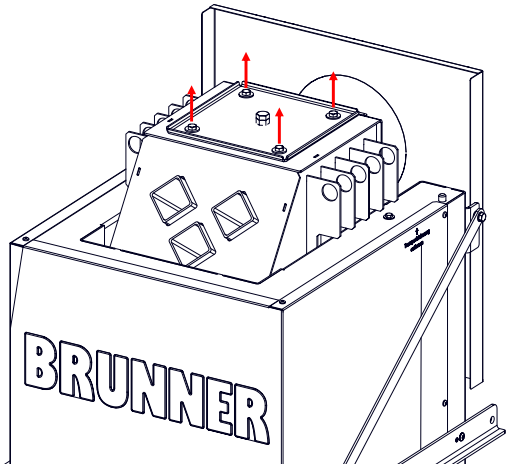
 © 2024 Brunner GmbH

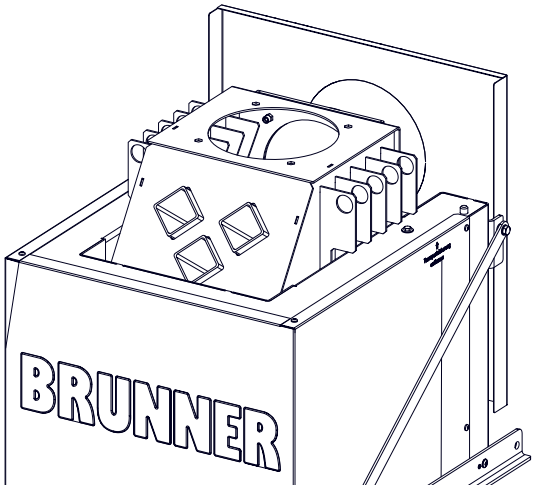
6.5.1.2 FITTING: MAS MODULAR TOP-MOUNT STORAGE SET 440



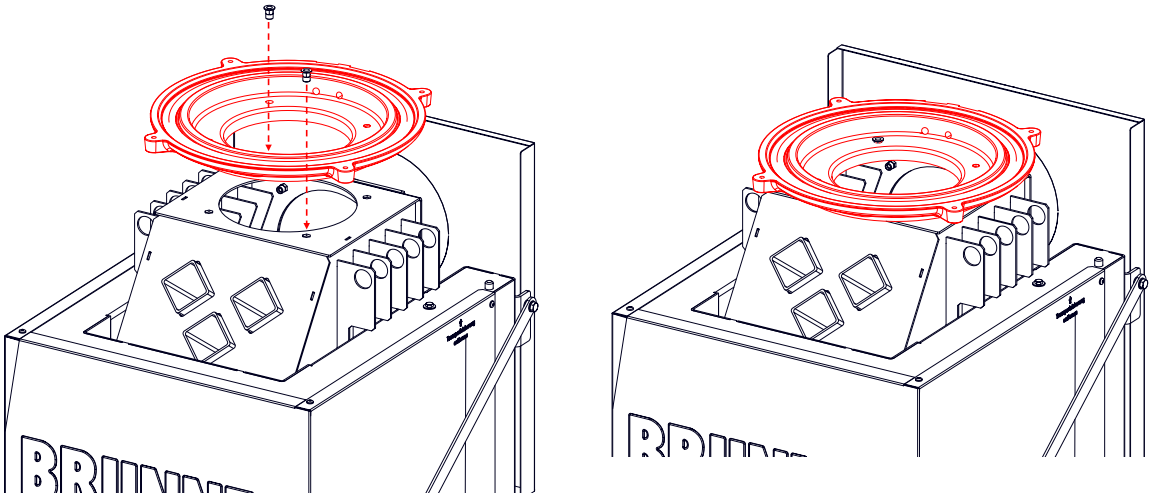
Workflow

1

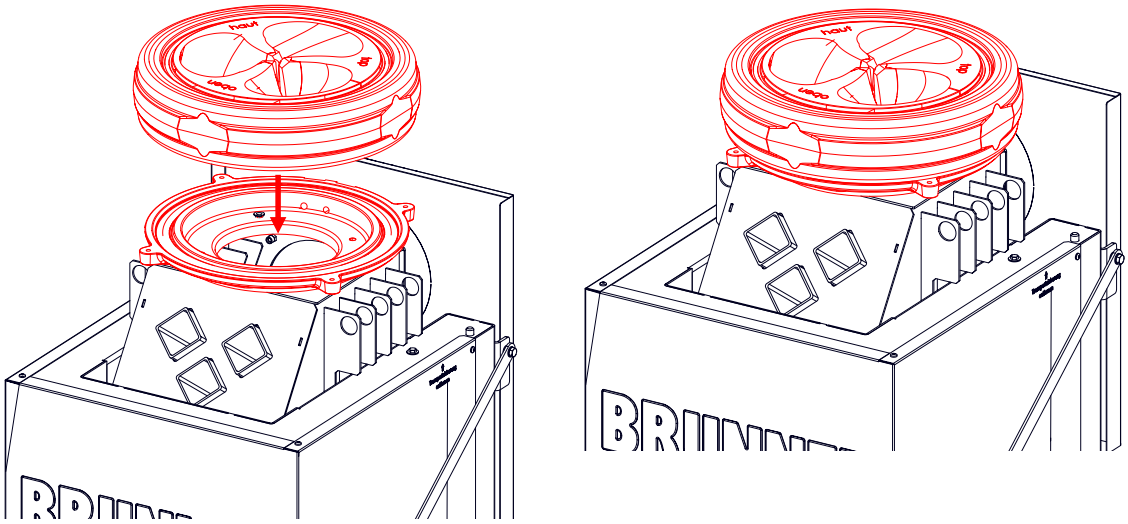




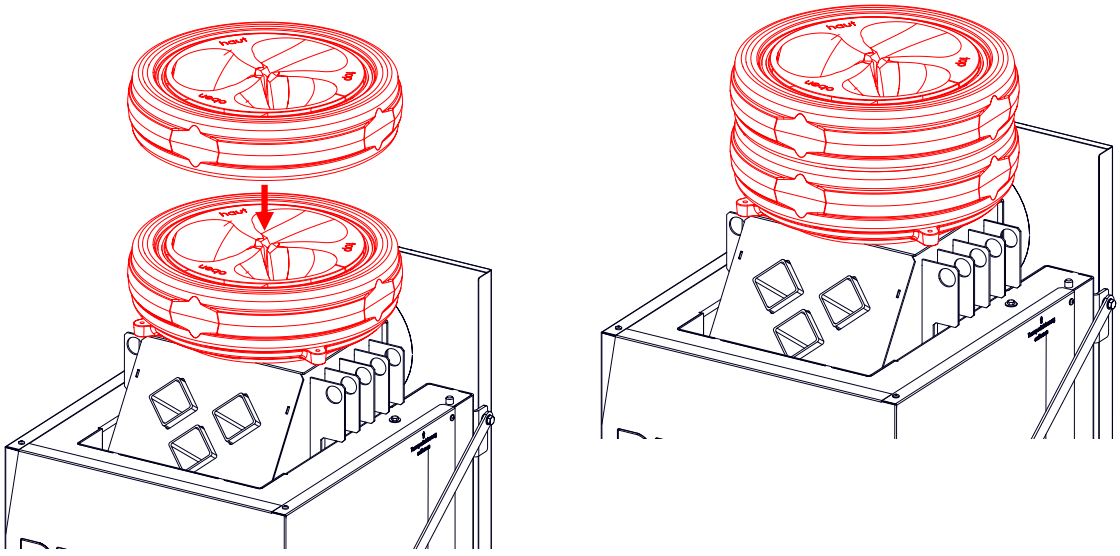
2



3

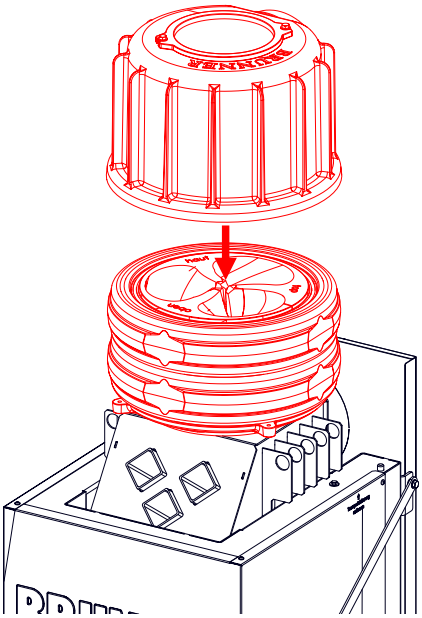


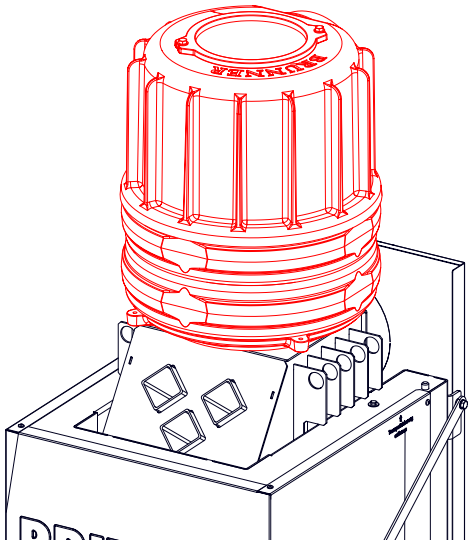
4

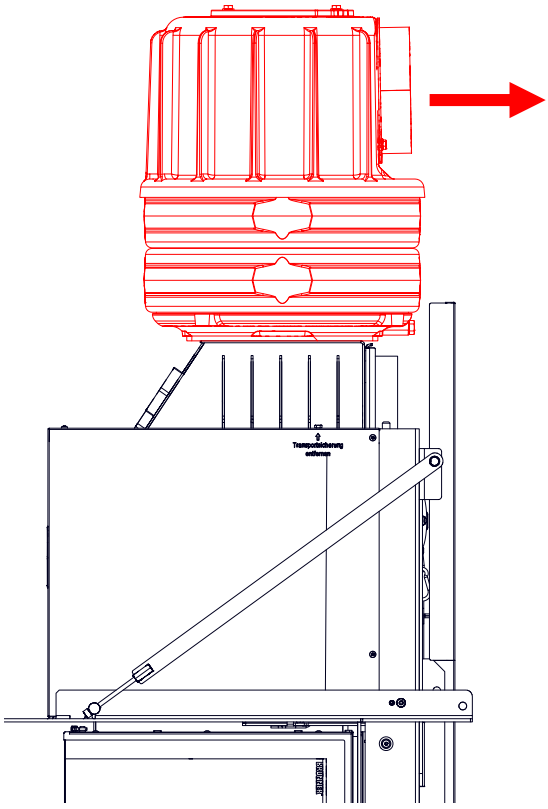


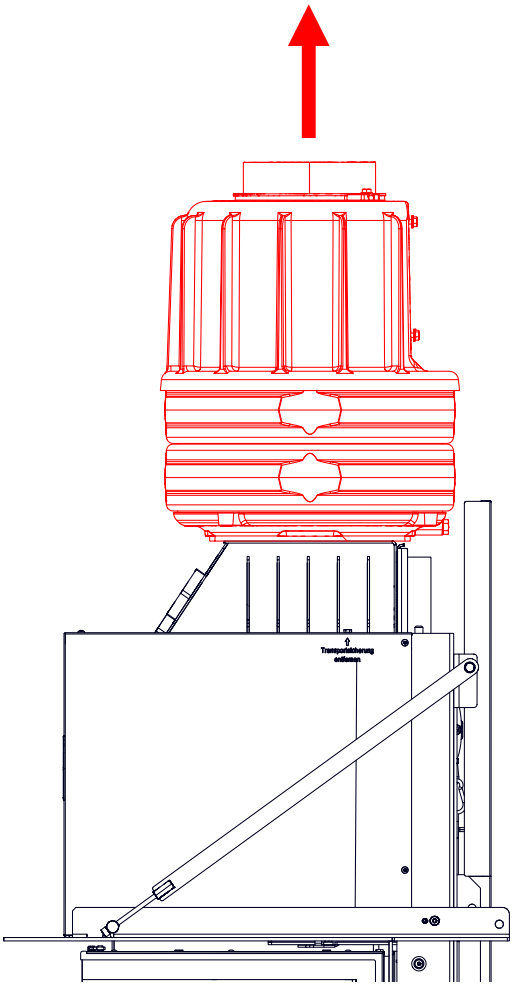
 © 2024 Brunner GmbH

5









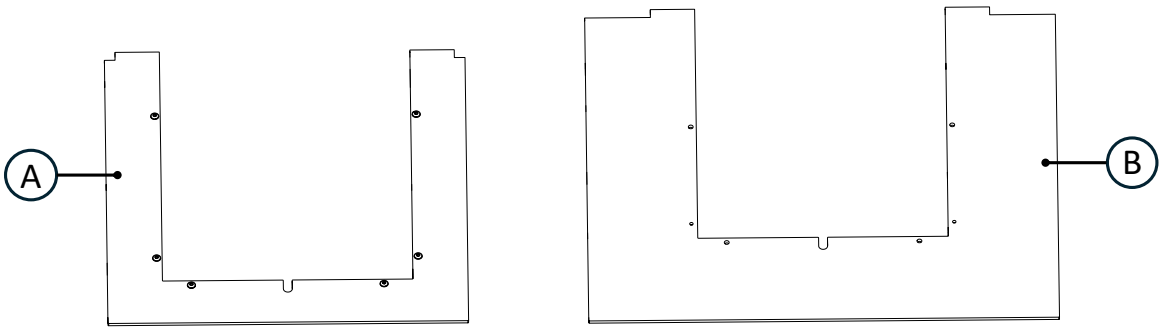
NOTICE

Ensure correct position after fitting the cast iron dome!

During installation, the cast dome can shift so that it no longer sits correctly aligned on the mounting ring.

► Check with light test: Illuminate the combustion chamber to make any gaps between the mounting ring and the cast iron dome visible.

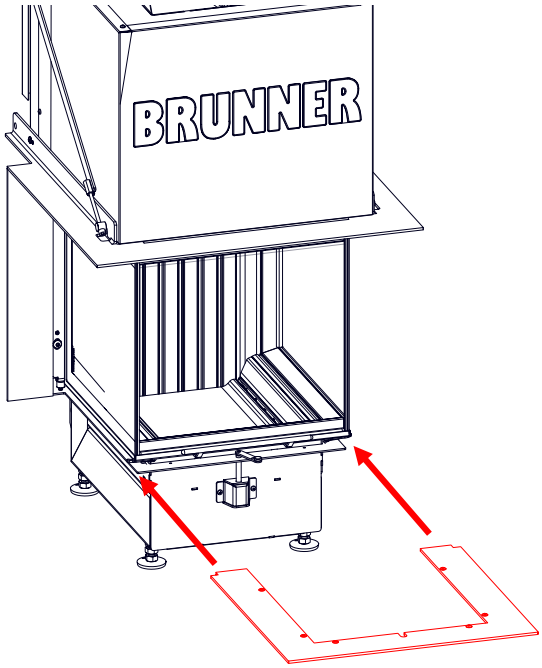
6.6 VARIANT: MOUNTING BRACKET - WIDE FRAME

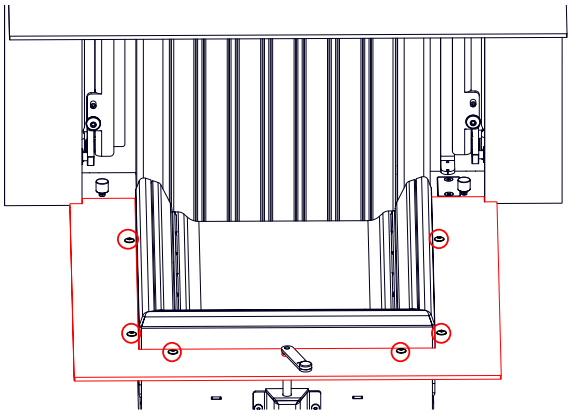


A: Mounting bracket

B: wide frame

 © 2024 Brunner GmbH





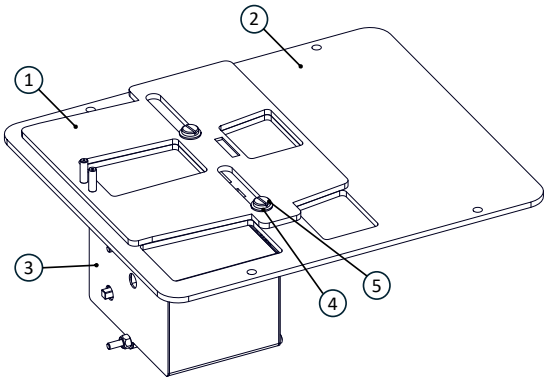
Summarised information

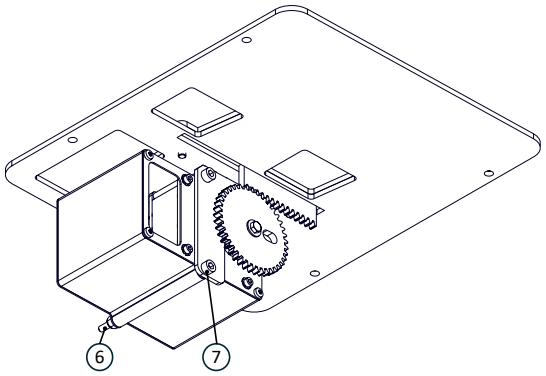
6.7 VARIANT: EOS

6.7.1 BOTTOM COVER AIR BOX EOS

6.7.1.1 COMPONENTS EOS

BG Bottom cover Air box small EOS (HK000064)

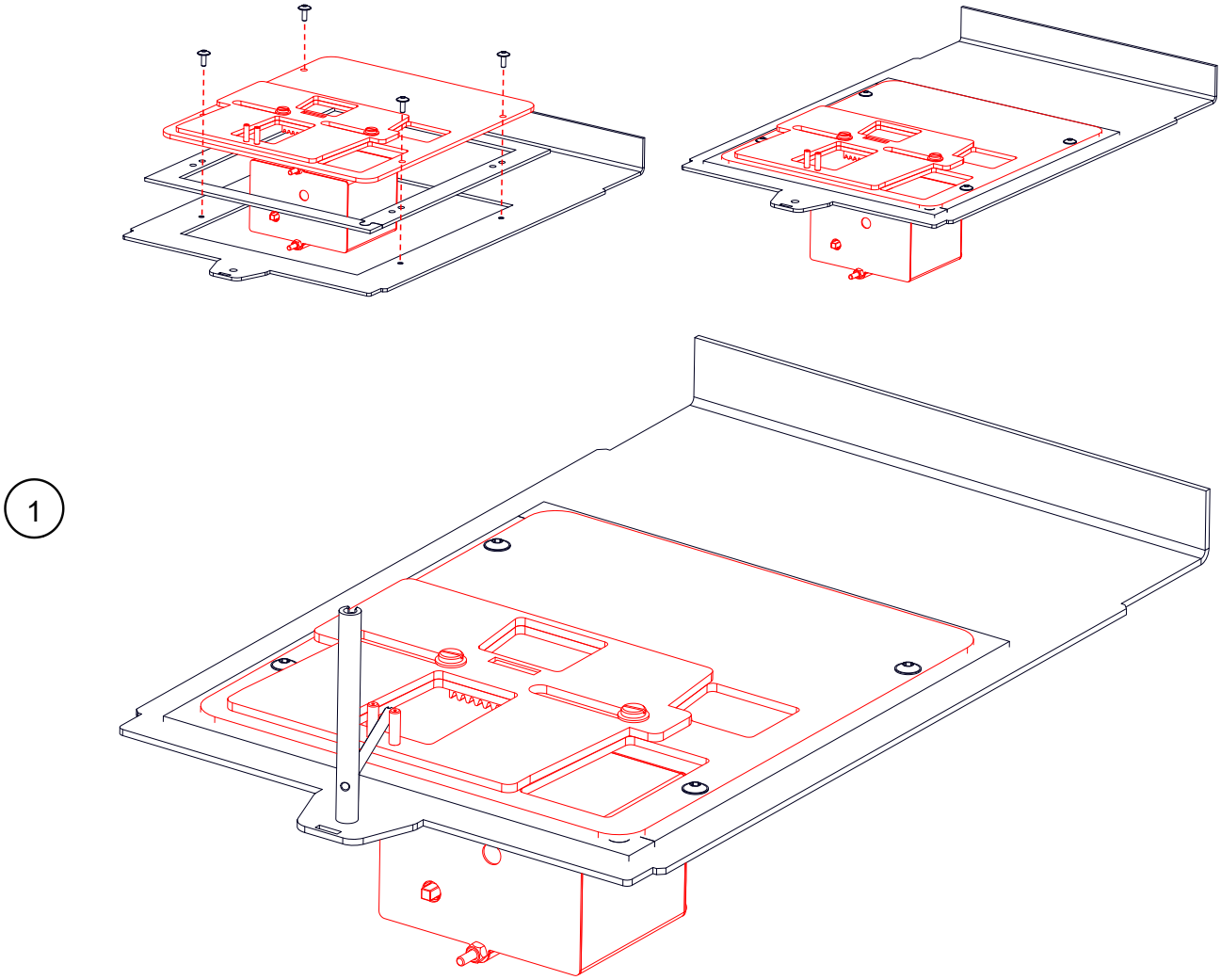




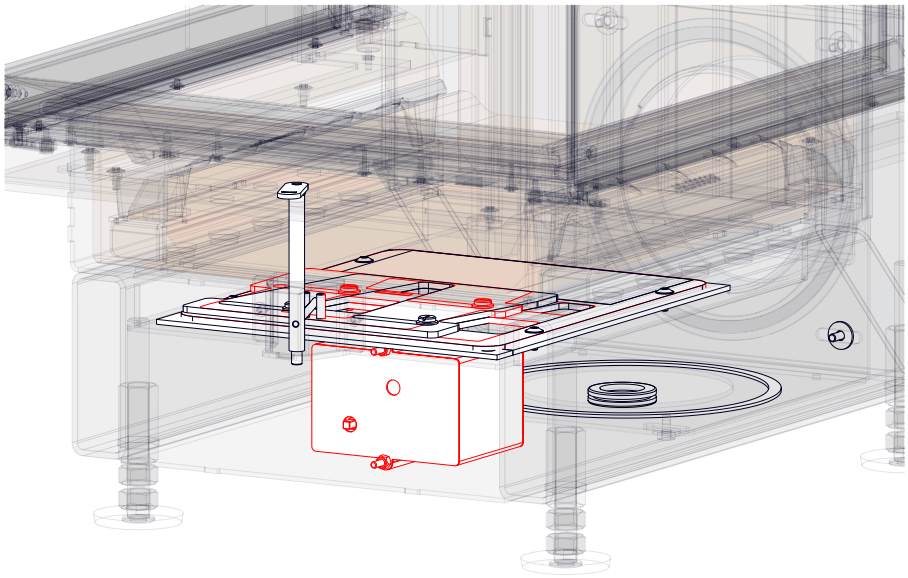
Position	Designation	Art.-Nr.	pcs
1	Air slide plate small EOS	HK000232	1
2	BG Bottom cover Air box small EOS	HK000219	1
3	BG Servomotor EOS with Gear wheel	N003157	1

Position	Designation	Art.-Nr.	pcs
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

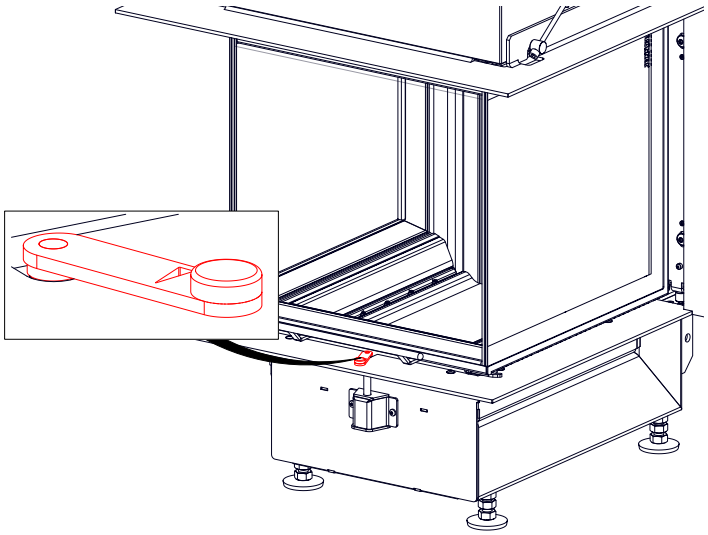
6.7.1.2 FITTING: EOS

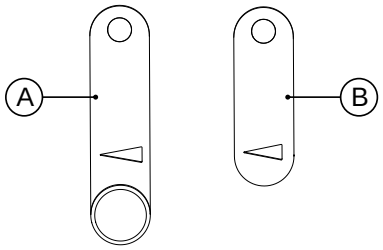


 © 2024 Brunner GmbH



6.7.1.3 AIR POSITION INDICATOR PANORAMA





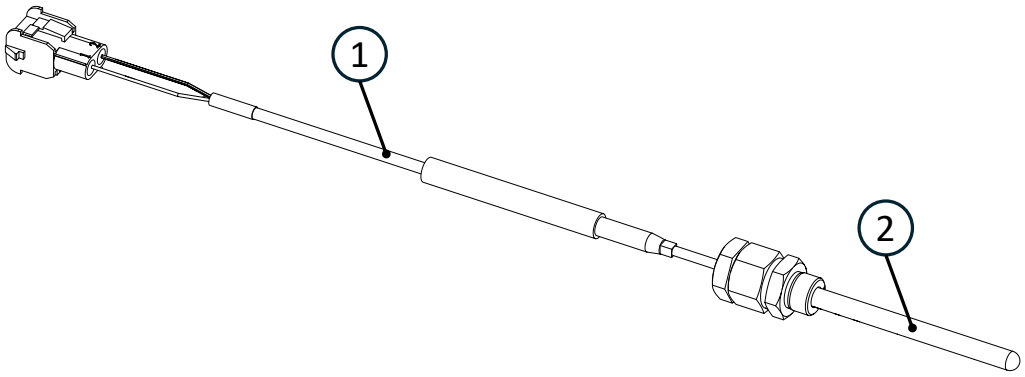
A = BKH Panorama

B = BKH Panorama with EOS

6.7.2 THERMOCOUPLE

6.7.2.1 COMPONENTS THERMOCOUPLE

Thermocouple (10994.1)

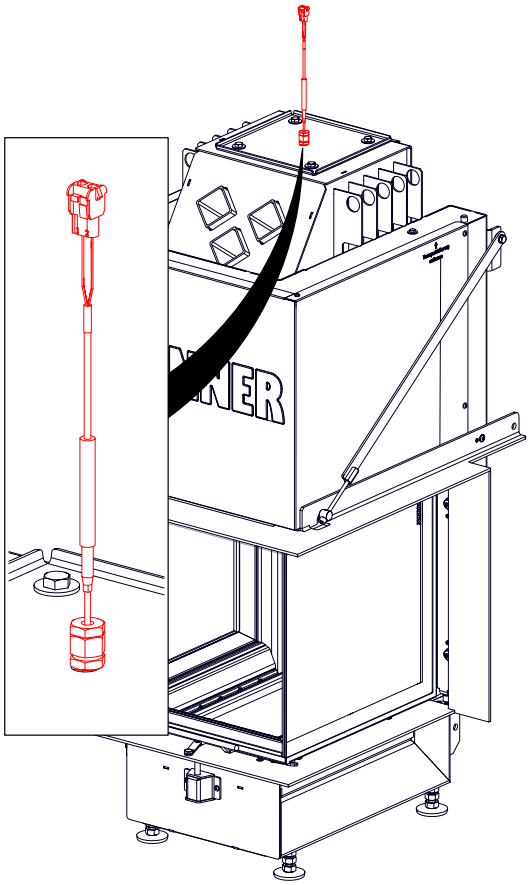


Position	Designation	Art.-Nr.	Pcs.
1	Thermocouple	Z020020-01	1
2	Thermowell	00017.1	1

6.7.2.2 FITTING: THERMOCOUPLE

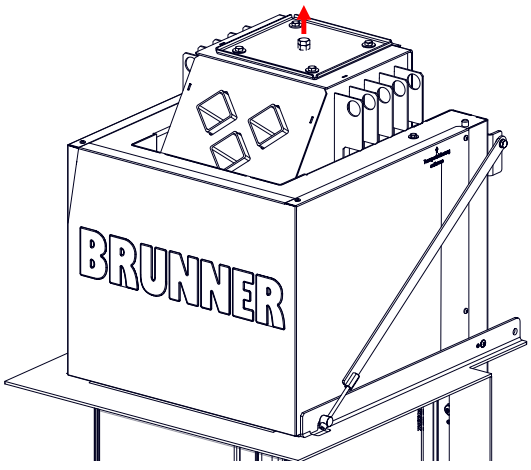
Position

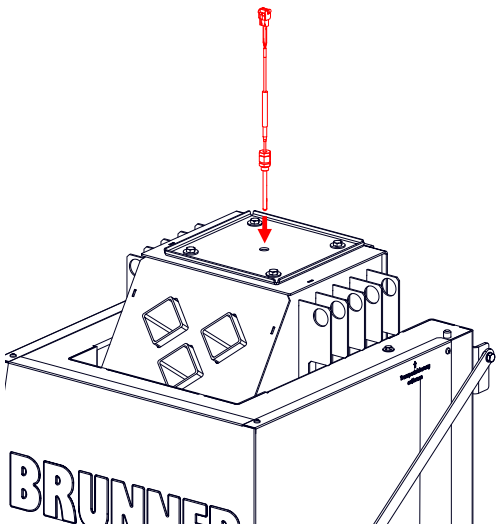
 © 2024 Brunner GmbH



Workflow

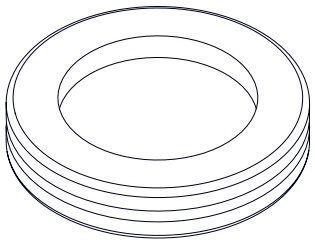
1



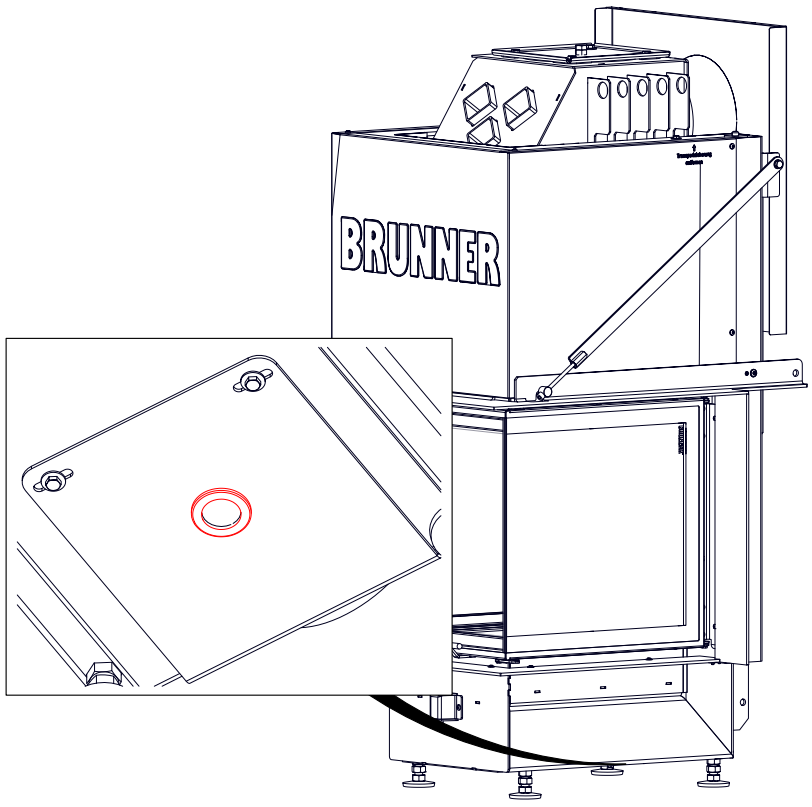


6.7.2.3 MEMBRANE FEED-THROUGH

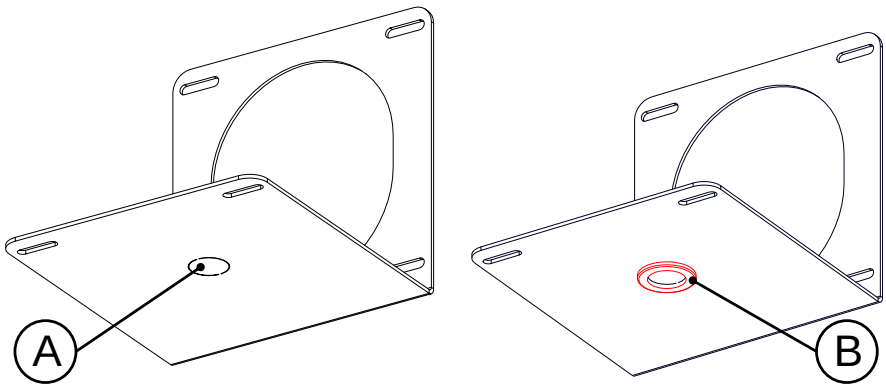
Membrane feed-through (901248)



Position



 © 2024 Brunner GmbH



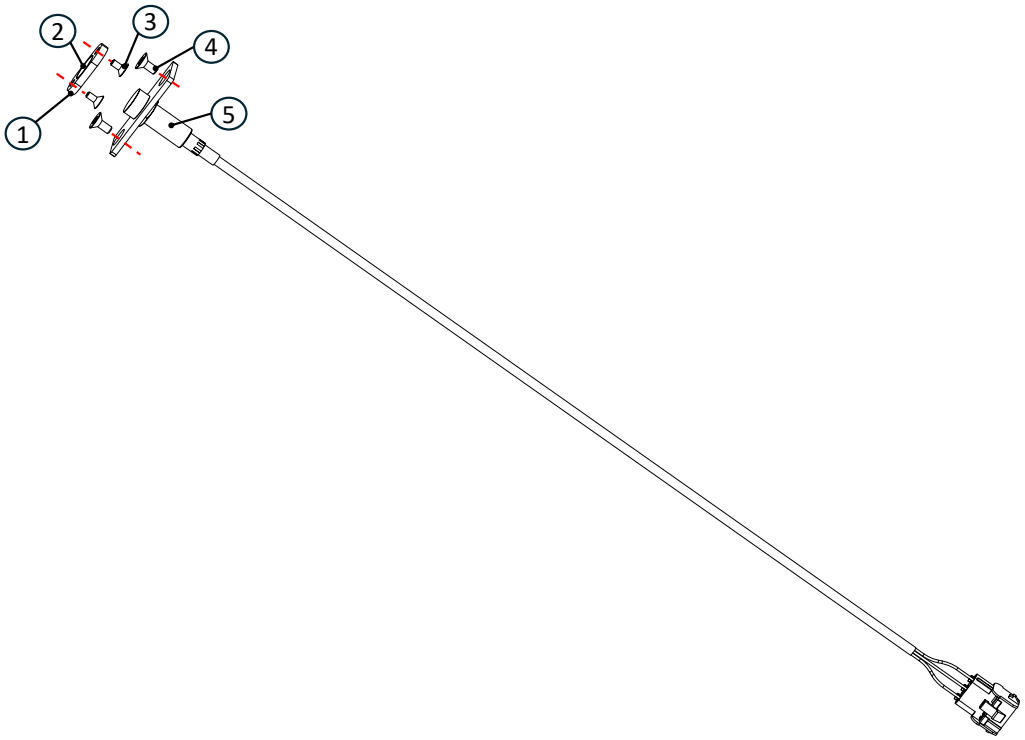
A = BKH Panorama

B = BKH Panorama with EOS

6.7.3 DOOR CONTACT SWITCH

6.7.3.1 COMPONENTS DOOR CONTACT SWITCH

BG Door contact switch ges. (E011001)

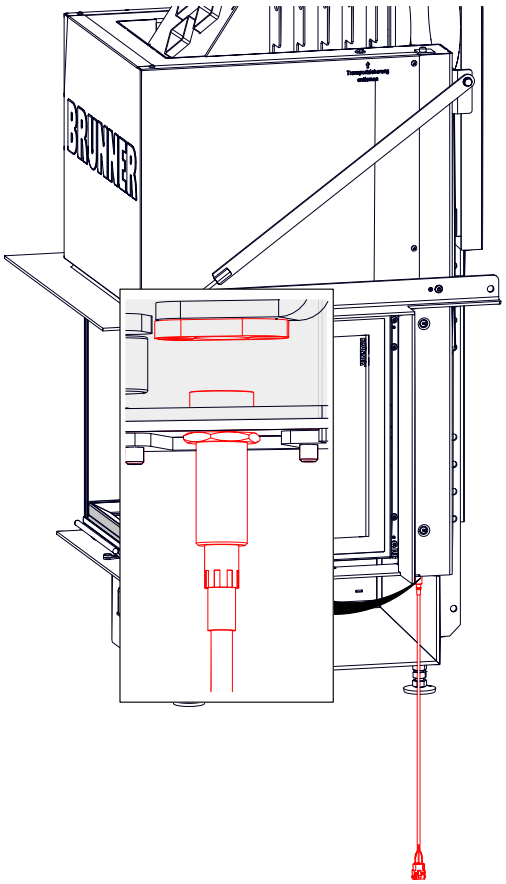


Position	Designation	Art.-Nr.	Pcs.
1	Retaining plate Magnet	E011011	1

Position	Designation	Art.-Nr.	Pcs.
2	Magnet	903324	1
3	Countersunk screw (M4x8)	800063	2
4	Countersunk screw (M5x10)	800184	2
5	BG Door contact switch	E011003	1

6.7.3.2 FITTING: DOOR CONTACT SWITCH

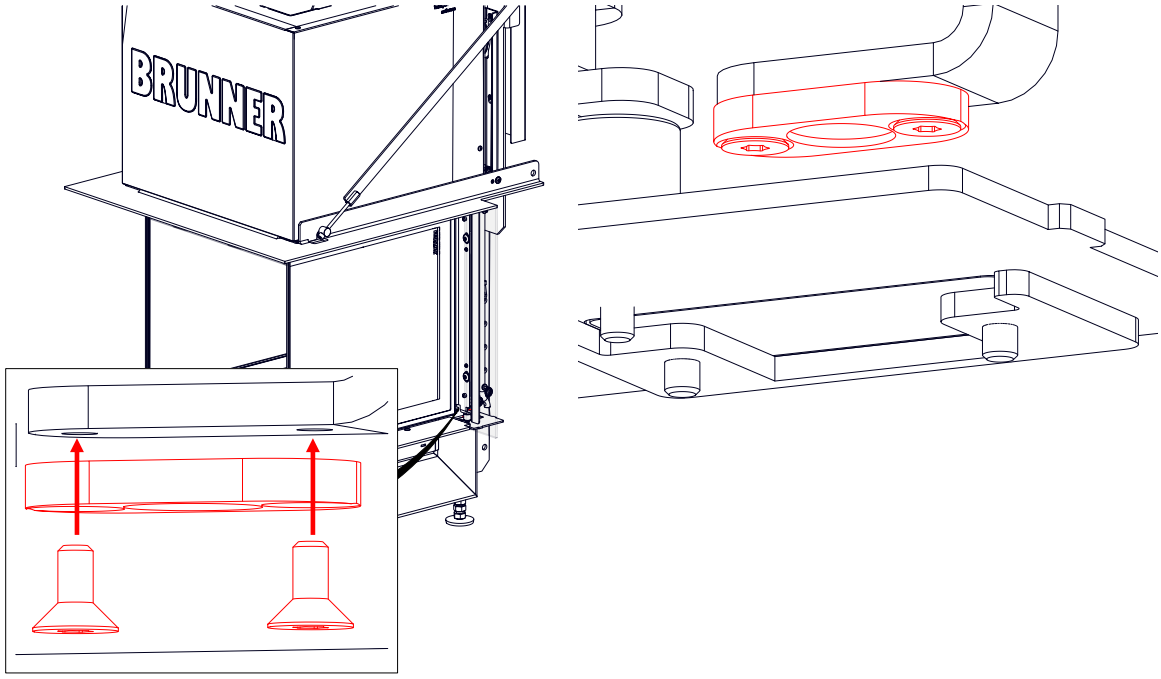
Position



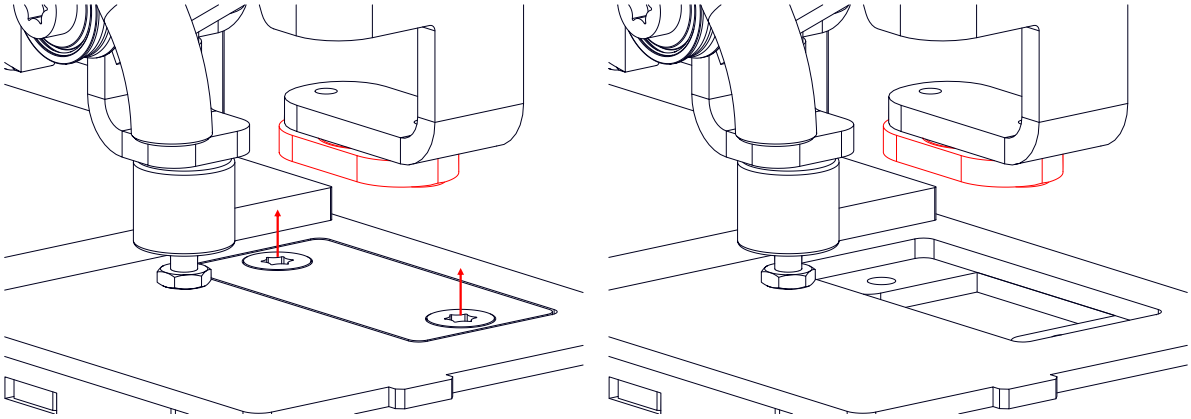
 © 2024 Brunner GmbH

Workflow

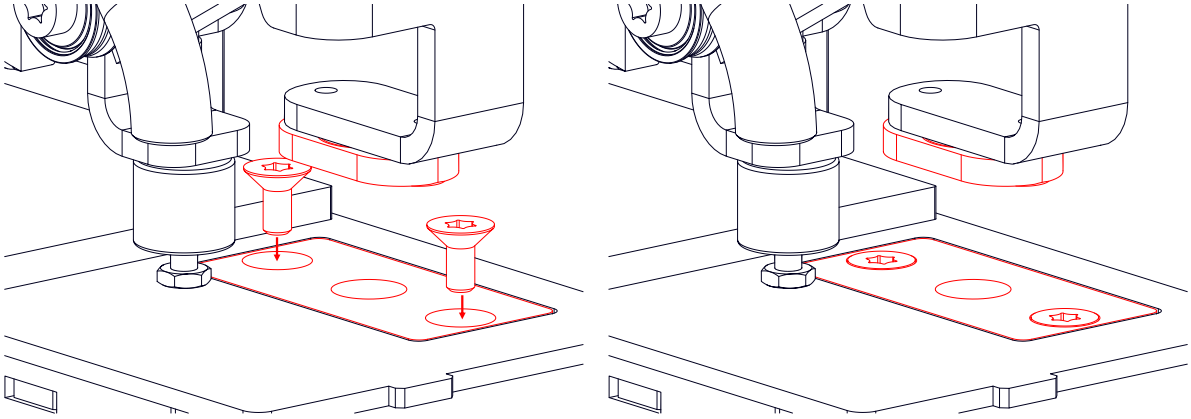
1

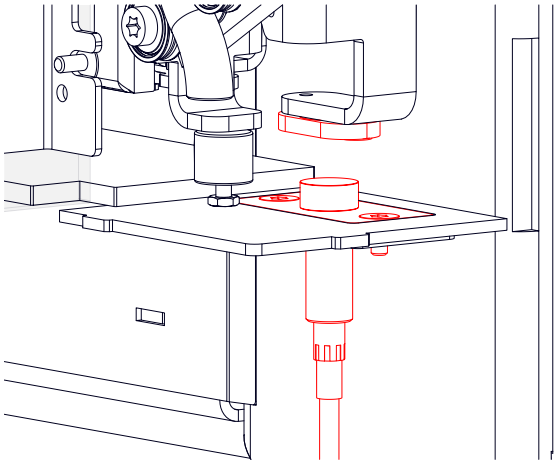


2



3





 © 2024 Brunner GmbH

7 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.

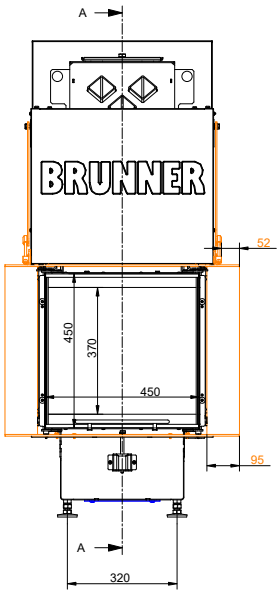
Used catalytic converters are suitable for re-use. Even if they are broken or damaged, they are suitable for recycling.

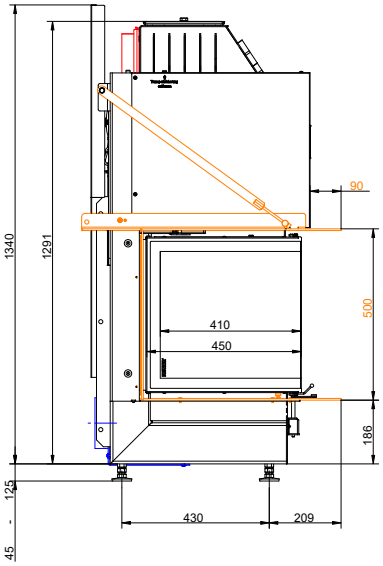
Contained precious metals can be recovered by thermal or chemical separation techniques to almost 90%, and then used again in the manufacturing process.

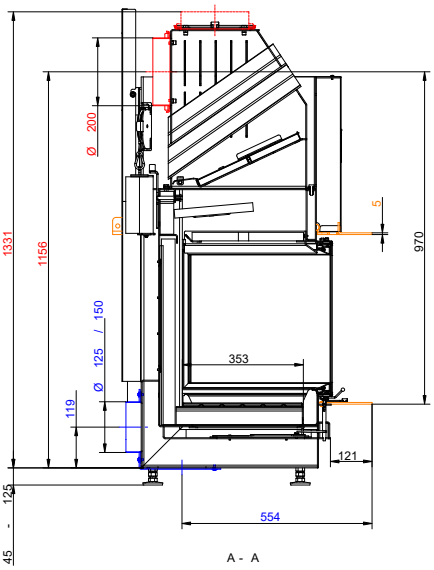
Please bring the used cacatalytic converter to a recycling center.

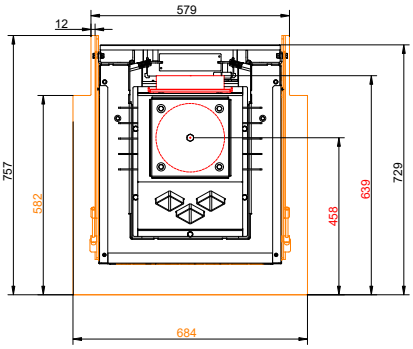
Thank you very much for your efforts in supporting the protection of environment and sustainable use of resources.

Dimension sheets - BKH Panorama 45-45-45-45 green









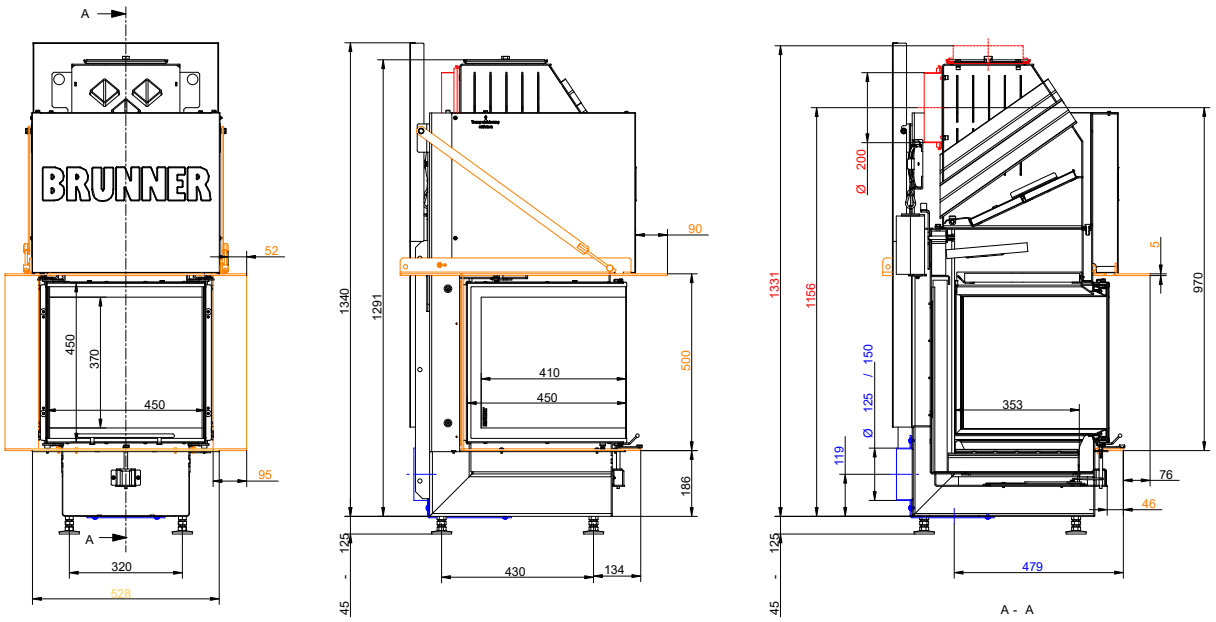
… with steel smoke hood and wide frame

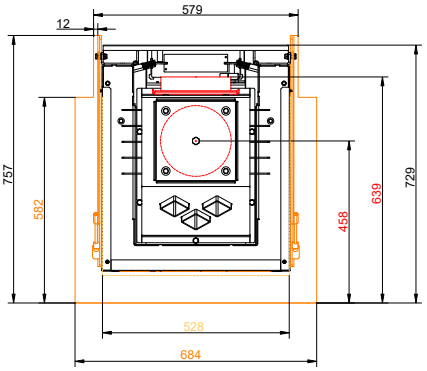


... Wide frame shown in red

Stand: 2024-12-03

Dimension sheets - BKH Panorama 45-45-45-45 green





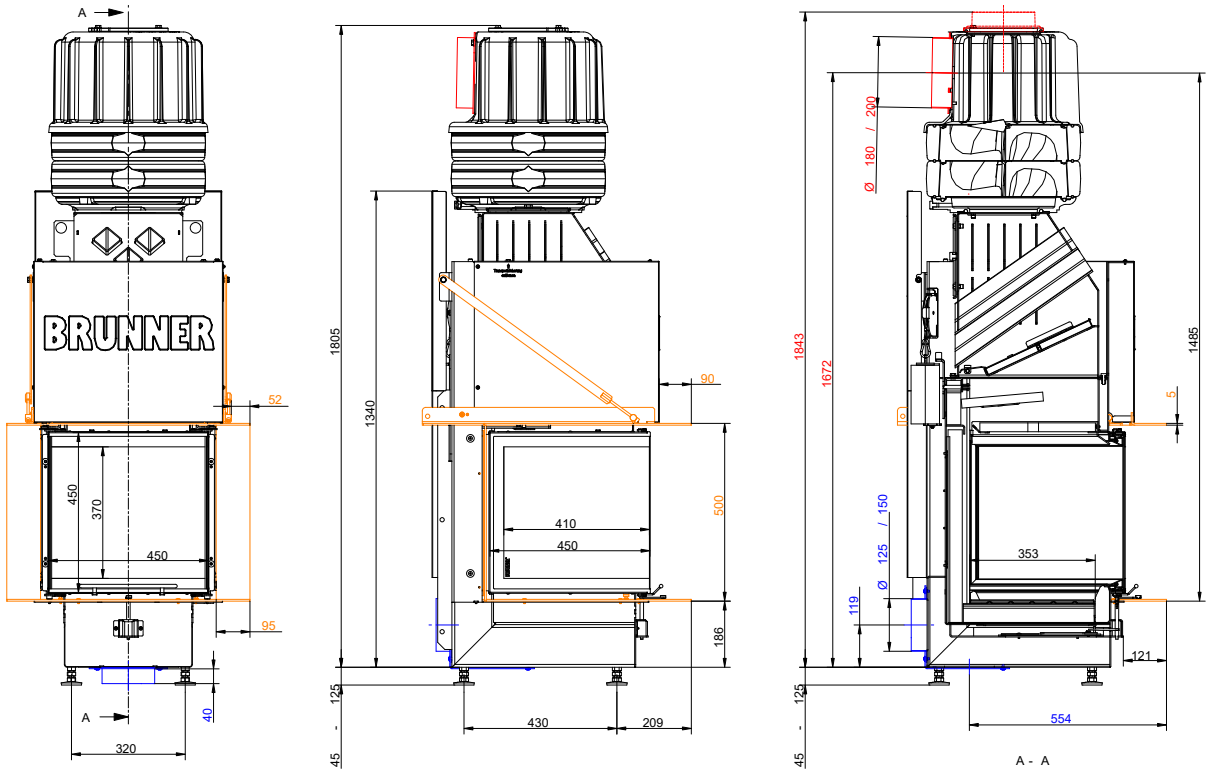
… with steel smoke hood and Mounting bracket

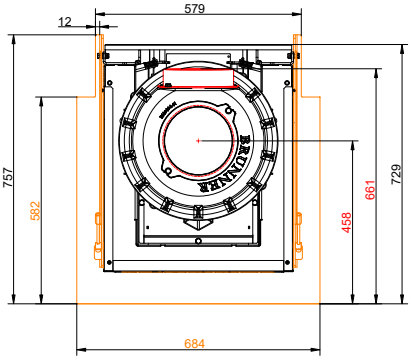


... Narrow frame shown in red

Stand: 2024-12-03

Dimension sheets - BKH Panorama 45-45-45-45 green





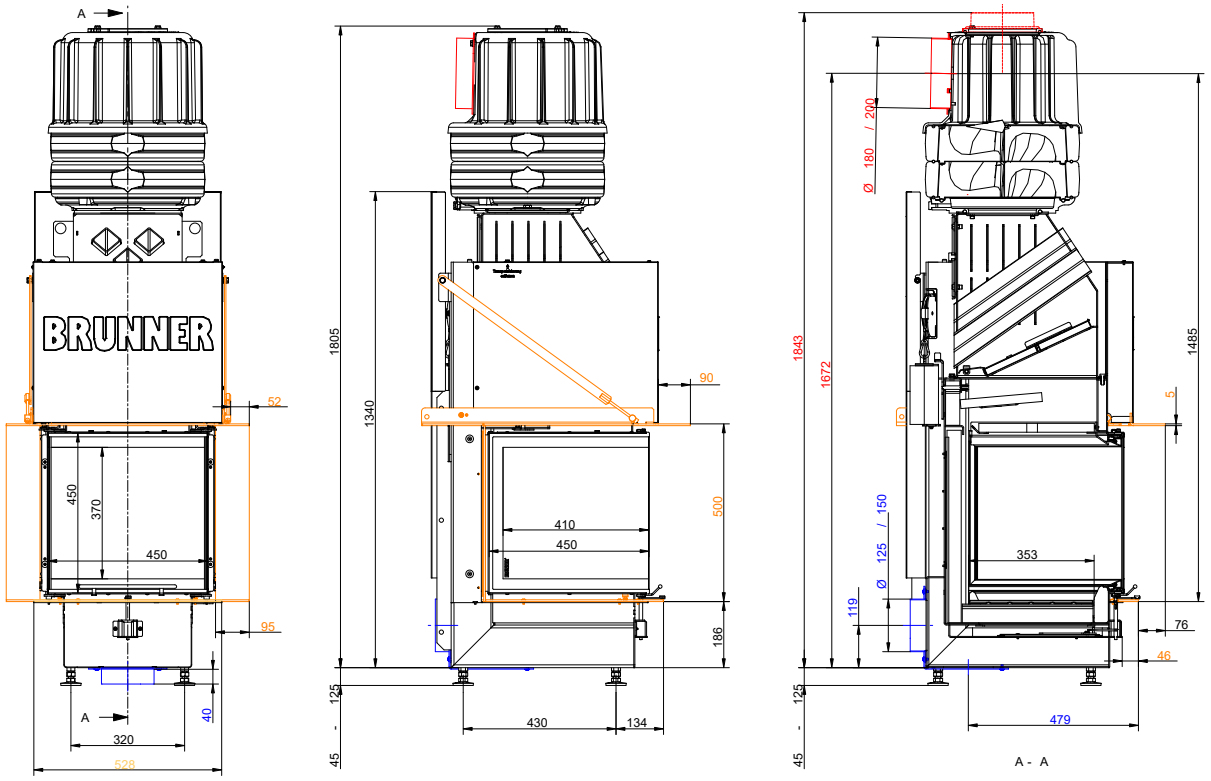
… with steel smoke hood + MAS and wide frame

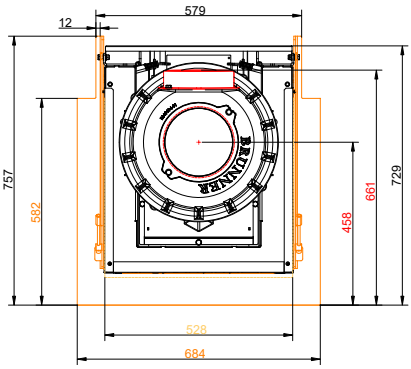


... Wide frame shown in red

Stand: 2024-12-03

Dimension sheets - BKH Panorama 45-45-45-45 green





… with steel smoke hood + MAS and Mounting bracket



... Narrow frame shown in red

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.

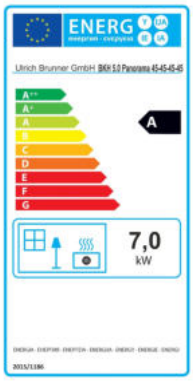
Stand: 2024-12-03

Planning and installation - BKH Panorama 45-45-45-45 green

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	7	-
Fire wood volume	kg/h	1.8	3.3
Combustion performance	kW	9	10
Flue gas mass flow	g/s	9	10
Flue gas temperature after:			
steel smoke hood	°C	210	260
2 x accumulation rings incl. MAS casted cover [3]	°C	-	180
Necessary supply pressure	Pa	12	12
Fuel amount	kg	1.5	3.0
Combustion air consumption	m³/h	20	36
Combustion air connection Ø	mm	125	125
Heat distribution			
Insert / reheating surface	%	25 / 30	25 / 30
glass ceramic / glass ceramic coated (GKB)	%	45 / 35	45 / 35
Cross-section of gratings [4]			
exhaust warm air	cm²	500	500
Recirculation air	cm²	500	500
Minimal oven surface for closed construction type			
Heat dissipating surface	m²	3.5	3.5
Minimal distances of the fireplace			
Heat protection panel for cladding, insulation layer	cm	3	3
to cladding, insulation layer	cm	5	5
to the floor (non-combustible)	cm	3	3
Minimum insulation thicknesses of substitute insulation material / reference insulation material + facing wall [5]			
with heat protection panel for mounting wall (non-combustible) [6]	cm	6 / 8	6 / 8
with heat protection panel for mounting wall (combustible) [6]	cm	12 / 13 + 10	12 / 13 + 10
to mounting wall (non-combustible)	cm	8 / 10	8 / 10
to mounting wall (combustible)	cm	18 / 20 + 10	18 / 20 + 10
to the ceiling (non-combustible)	cm	8 / 10	8 / 10
to the ceiling (combustible)	cm	22 / 25 + 10	22 / 25 + 10
to the floor (non-combustible)	cm	0 / 0	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	213 + 26 / 29	
Meets requirement/limit values for:			
EU / Germany		Ecodesign / 1. BImSchV (Stufe 2)	

1) Data on ‘nominal output’ determined with steel smoke hood 180 mm and installed catalytic converter
2) Information on "Storage operation" for the version with top-mount accumulator MAS.
3) Damper flap recommended
4) Air cross-sections if the specified nominal heat output is desired as the heat output.
5) Fire safety: values determined with air cross-sections evaluated by safety testing; stove cladding is heat emitting. Insulation material data with calcium silicate (Promasil 950KS)/10 cm wall lining + reference insulation material (mineral wool according to AGI Q 132).The specifications for walls/ceilings that do not require protection and are non-combustible correspond to the specifications of TROL (Germany).
6) Heat protection panels (accessories) only available for selected fireplace inserts. For assembly and design of the heat protection panel see assembly instructions. Distance between mounted heat protection panel and fireplace insert: rear wall 2 cm.

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



Supplier's name or trademark	Ulrich Brunner GmbH
Model identifier:	BKH 5.0 Panorama 45-45-45-45 green
Energy efficiency class:	A
Direct heat output:	7,0 kW
Indirect heat output:	N.A. kW
Energy efficiency index:	112
Fuel energy efficiency (at nominal heat output):	85,0 %
Fuel energy efficiency (at minimum load):	N.A. %
Special precautions: see supplied product documentation	

Ulrich Brunner GmbH

Zellhuber Ring 17-18

D-84307 Eggenfelden

Phone: +49 (0) 8721/771-800

E-Mail: info@brunner.de

Copyright
All information, drawings and technical descriptions contained in this documentation are our property and may not be reproduced without prior written permission.

® **BRUNNER** is a registered trademark.
Subject to technical changes and errors.
© by Ulrich Brunner GmbH

Art.-Nr.: 203041