**Installation** Manual



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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:



### <u>General instructions of the Brunner products installation for the</u> <u>stove construction.</u>



(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.



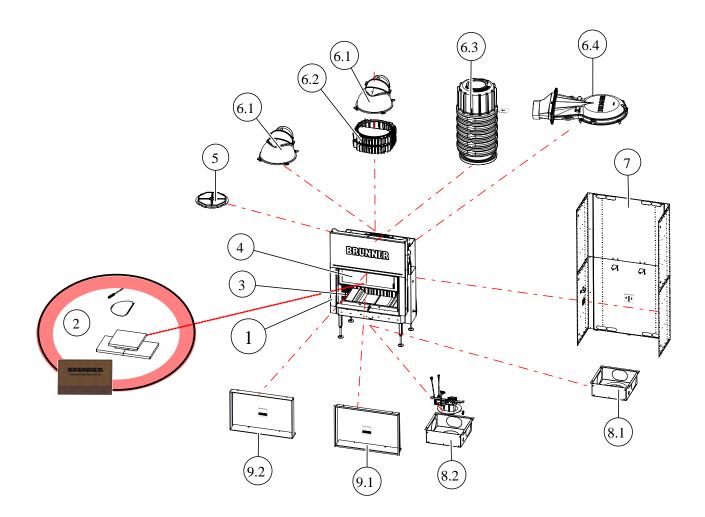


**NOTE** Additional helpful information

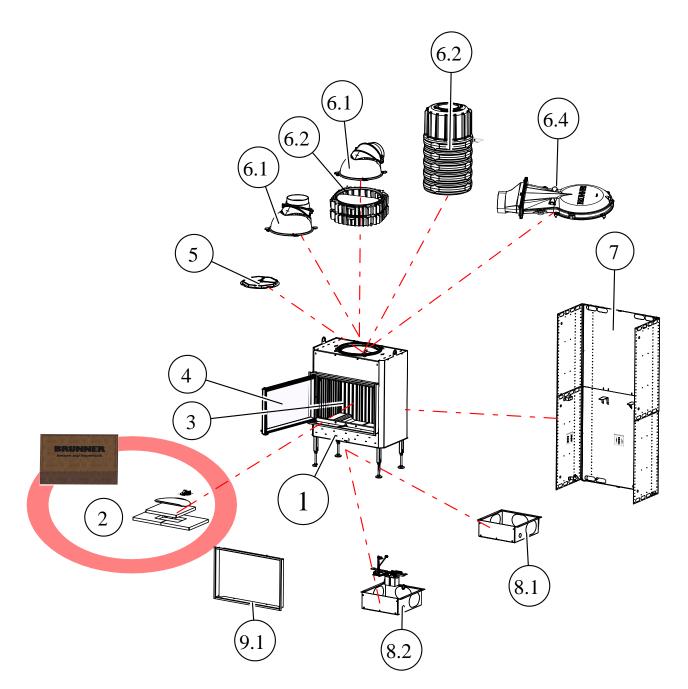
## 4 DELIVERY CONTENTS BKH 42-50 FLAT

Available variants with lifting door (ST):

BKH 42-50 flat with lifting door



Available variants with side-opening door (DT)



BKH 42-50 flat with side-opening door (DT)

-		ArtNr.	
Pos.	Designation	for ST	for DT
	BKH - variants:		
	BKH 5.0 Flach 42-50 ST with manual operation, with Ceram- ic glass (GK) chamotte inner linging (FR)	HK003002-01	-
	BKH 5.0 Flach 42-50 ST with manual operation, with Glass ceramic coated (GKB) chamotte inner linging (FR)	HK003002-05	-
	BKH 5.0 Flach 42-50 ST for EAS/EOS with Ceramic glass (GK) chamotte inner linging (FR)	HK003002-02	-
	BKH 5.0 Flach 42-50 ST for EAS/EOS with Glass ceramic coated (GKB) chamotte inner linging (FR)	HK003002-06	-
	BKH 5.0 Flach 42-50 ST with manual operation, with Ceram- ic glass (GK) Cast iron inner lining (FR/Guss)	HK003002-03	-
	BKH 5.0 Flach 42-50 ST with manual operation, with Glass ceramic coated (GKB) Cast iron inner lining (FR/Guss)	HK003002-07	-
	BKH 5.0 Flach 42-50 ST for EAS/EOS with Ceramic glass (GK) Cast iron inner lining (FR/Guss)	HK003002-04	-
1	BKH 5.0 Flach 42-50 ST for EAS/EOS with Glass ceramic coated (GKB) Cast iron inner lining (FR/Guss)	HK003002-08	-
	BKH 5.0 Flach 42-50 DT with manual operation, with Ceram- ic glass (GK) chamotte inner linging (FR)	-	HK002002-01
	BKH 5.0 Flach 42-50 DT with manual operation, with Glass ceramic coated (GKB) chamotte inner linging (FR)	-	HK002002-05
	BKH 5.0 Flach 42-50 DT for EAS/EOS with Ceramic glass (GK) chamotte inner linging (FR)	-	HK002002-02
	BKH 5.0 Flach 42-50 DT for EAS/EOS with Glass ceramic coated (GKB) chamotte inner linging (FR)	-	HK002002-06
	BKH 5.0 Flach 42-50 DT with manual operation, with Ceram- ic glass (GK) Cast iron inner lining (FR/Guss)	-	HK002002-03
	BKH 5.0 Flach 42-50 DT with manual operation, with Glass ceramic coated (GKB) Cast iron inner lining (FR/Guss)	-	HK002002-07
	BKH 5.0 Flach 42-50 DT for EAS/EOS with Ceramic glass (GK) Cast iron inner lining (FR/Guss)	-	HK002002-04
	BKH 5.0 Flach 42-50 DT for EAS/EOS with Glass ceramic coated (GKB) Cast iron inner lining (FR/Guss)	-	HK002002-08
2	The non-installed parts (e.g. deflection plates, control levers, etc.) and any accessories ordered (e.g. ca converter, packaging with EOS, etc.), including the instructions box, are packed in the combustion char		
	verbaute Combustion chamber lining:		
3	- aus Chamotte		
	- aus Cast iron		
4	Ceramic glass (GK)		
5	Catalyst module BKH 5.0	НКОС	00210
Smoke hood variants			

		ArtNr.		
Pos.	Designation	for ST	for DT	
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 R015006-		006-02		
6.3	Connection variant MAS SET440 SET211444		11444	
6.4	.4 Cast iron dome low D016042		6042	
Additio	Additional options			
7	7 Heat protection panel see Variants "Heat protection		t protection panel"	
	Supply air connection box ⌀ 125 mm	HK000135		
8.1	Supply air connection box ⌀ 150 mm	HK000136		
8.2	Supply air connection box ⌀ 125 mm with EOS / EAS	HK000080		
9.1	0.1 Door frame, black HK003152-01 HK0		HK002150-01	
9.2	Mounting frame, black	HK003150-01	-	

## 4.1 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.



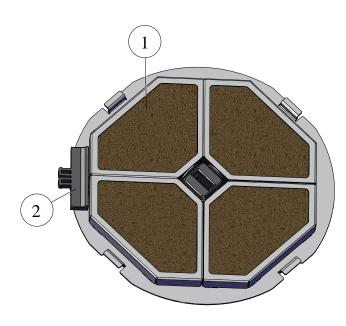
In order not to limit the effect of this catalytically active layer, the catalysts may only be handled with gloves, preferably with disposable gloves.





### 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!



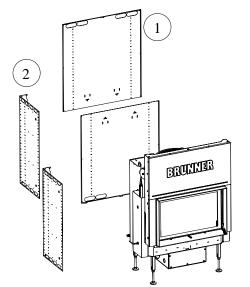
1	catalytic converter
2	assembly tool

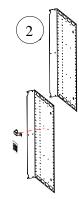
### Note

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.

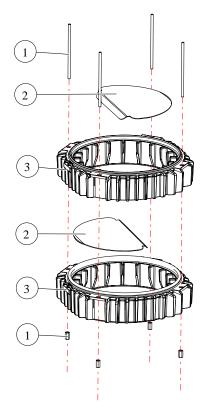
## 4.2 HEAT PROTECTION PANEL (OPTIONAL)





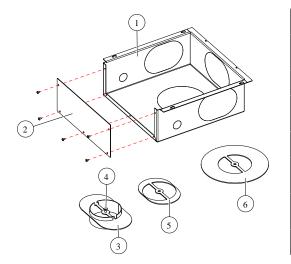
[	1	HK004450	Heat protection panel backwall, incl. screws
	2	HK00251	Heat protection panel, side, incl. mounting frame, screws
	HK004450-01 = HK004450(1) + 1x HK00251 (2)		
HK004450-02 = HK004450(1) + 2x HK002		HK004450(1) + 2x HK00251 (2)	

## 4.3 HEAT EXCHANGER RINGS (OPTIONAL)



1	separate package (4x threaded rod, 4x hexagon nut)	
2	deflection heat exchanger ( 2x)	
3	cast iron heat exchanger rings ( 2x)	

## 4.4 AIR CONNECTION BOX (OPTIONAL)

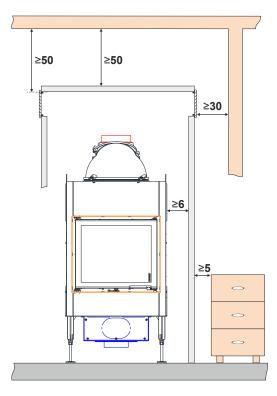


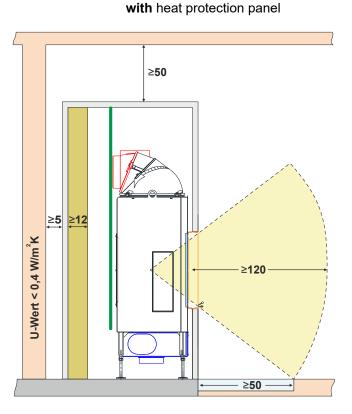
Pos.	Description of use	
1	1 Air connection box - allows the connection of an external combustion line	
2	Cover for air connection box	
3	Air connection is welded, connection point for combustion air line	
4	Screw for fixing the respective clamping plate	
5* Clamping plate for fixing the external combustion 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.		

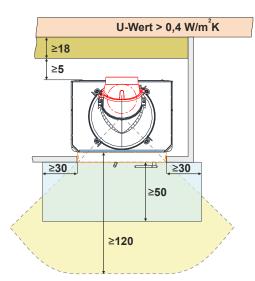
# 5 SAFETY DISTANCES BKH FLAT

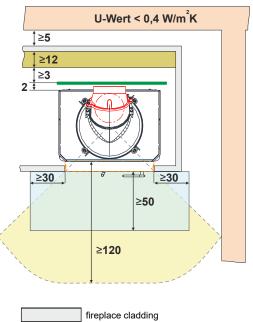
### Half-height version

#### without heat protection panel









convection opening

radiation range

floor/wall/ceiling non-combustible wall/ceiling/floor/attachments combustible/to be protected substitute insulation material calcium silicate (Promasil 950-KS)

heat protection panel (accessories)

non-combustible flooring /floor protection pane

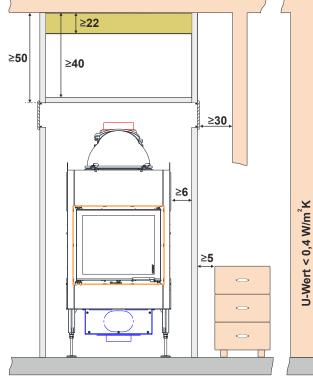
All figures in cm

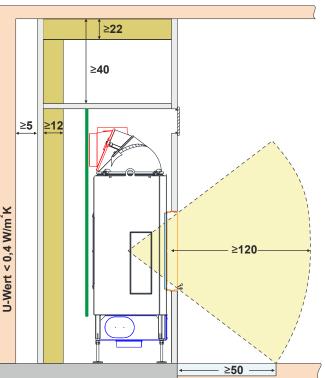
When designing the exhaust system and exhaust pipe, national standards and fire protection regulations must be observed

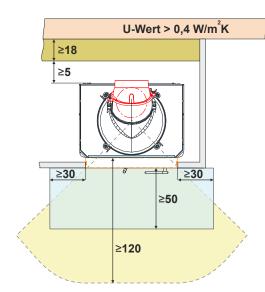
### Floor-to-ceiling version

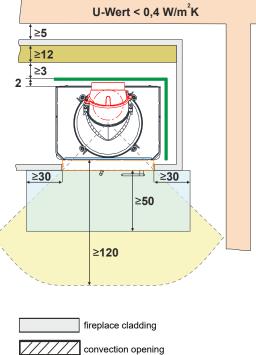
#### without heat protection panel

with heat protection panel











wall/ceiling/floor/attachments combustible/to be pro-

floor/wall/ceiling non-combustible

heat protection panel (accessories)

radiation range

non-combustible flooring /floor protection pane

All figures in cm

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

## 6 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.

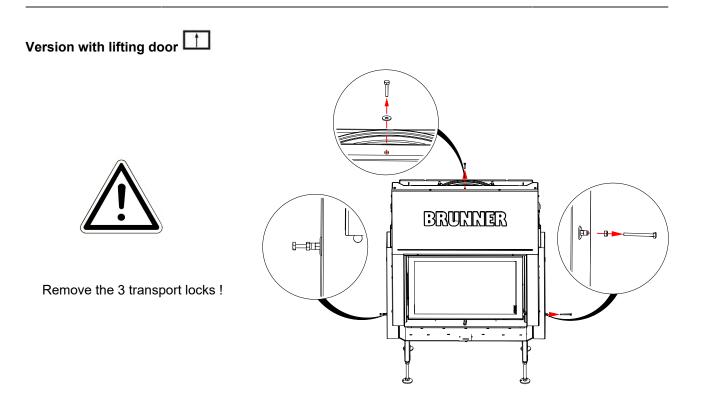
## 6.1 REMOVE THE TRANSPORT LOCKS

Version with side-opening door



**NO TRANSPORT LOCK !** 





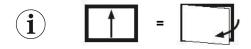
## 6.2 HEAT PROTECTION PANEL (OPTIONAL)

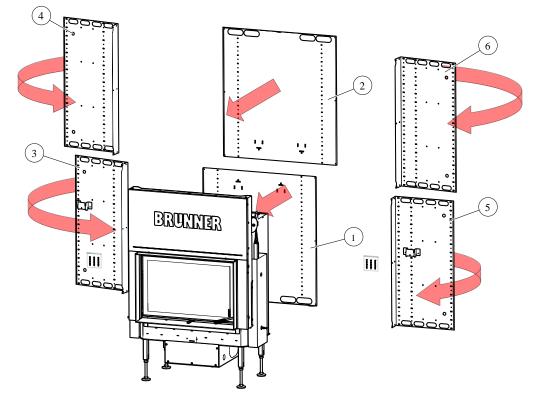


#### Hint

If you use heat protection panels, they should be mounted before positioning the fireplace insert. First mount the heat protection panels, then place the fireplace insert against the wall.

### Installation of the variant with all heat protection panels



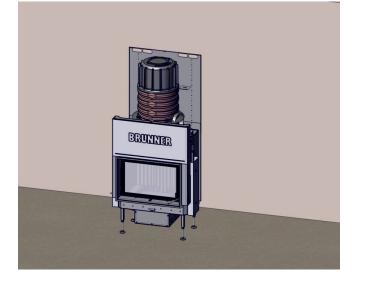


Im. 1: Summarised information



CAUTION Risk of injury from sharp edges! Wear protective gloves!!

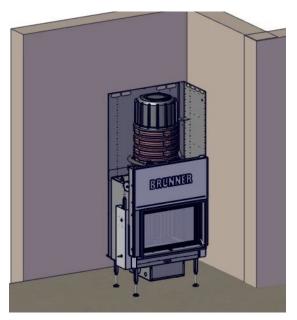
Variant **A**:



Required are: Art.Nr.HK004450

Assembly steps: 1 - 2

### Variant **B**:



Required are: Art.Nr.HK004450-01

> Assembly steps: 1 - 5 - 2 - 6

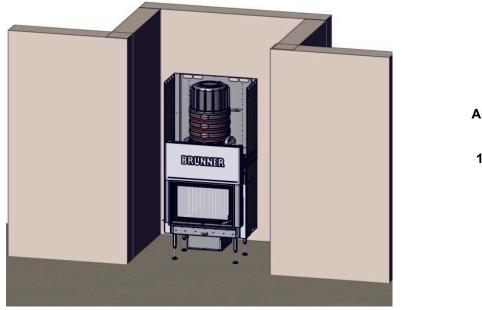
Variant C:



Required are: Art.Nr.HK004450-01

> Assembly steps: 1 – 3 – 2 - 4

### Variant D:



Required are: Art.Nr.HK004450-02

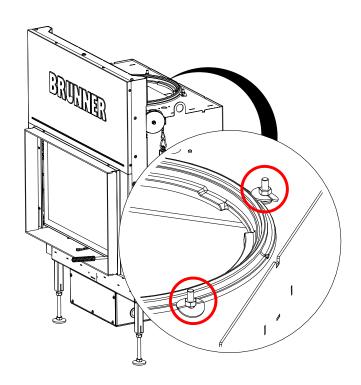
Assembly steps: 1 - 3 - 5 - 2 - 4 - 6

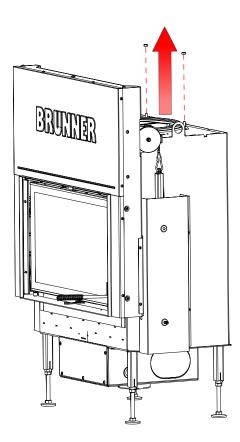
### Mounting: heat protection panel (ST)



### INFO

Assembly for complete set-up with heat protection panels. Depending on planning/needs, only carry out the specific work steps.

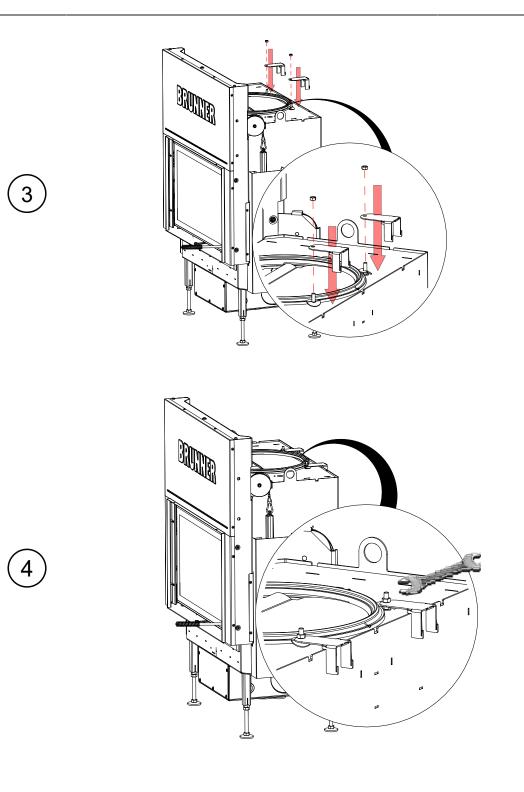


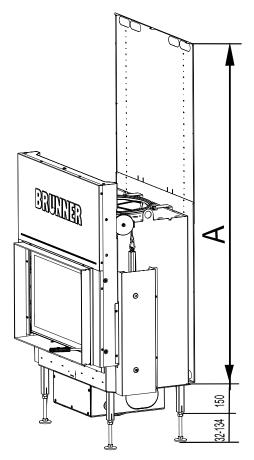


Workflow:

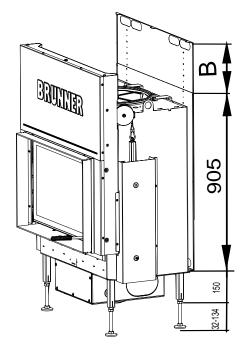
1



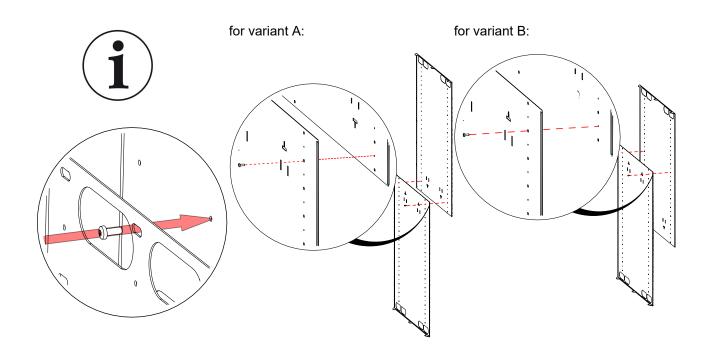


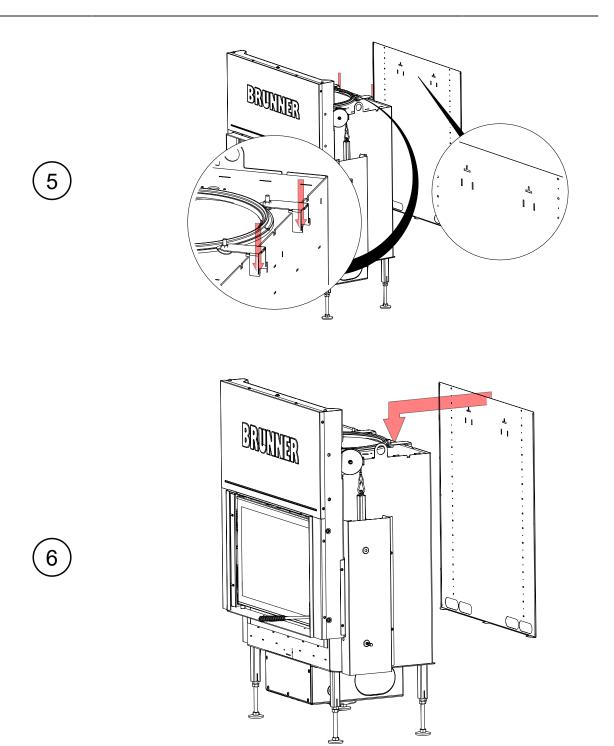


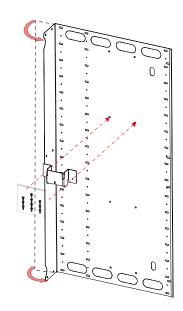
Variant A (A= max. 1665 mm)



Variant **B** (B=min.760mm)



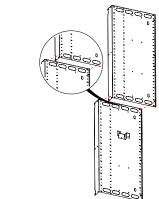




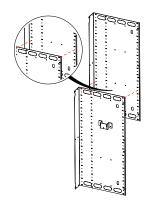
for variant A:

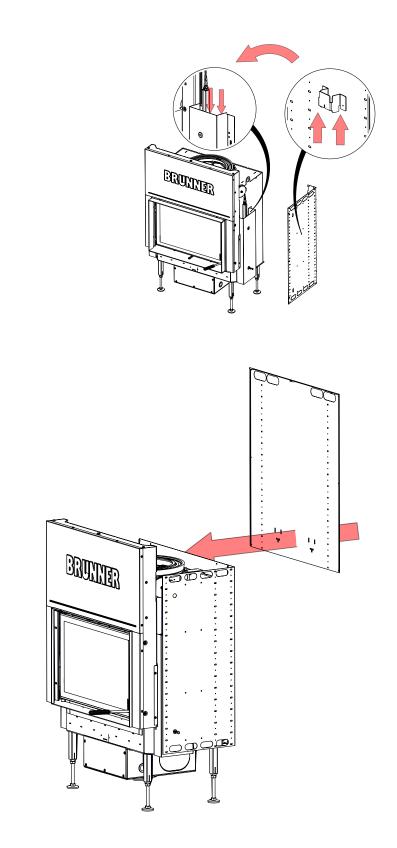
i

7



for variant B:

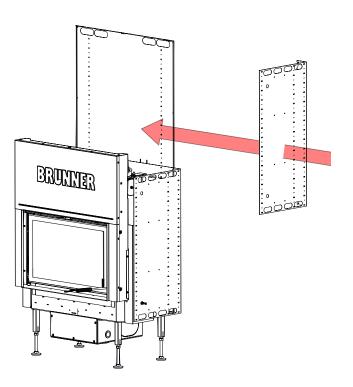


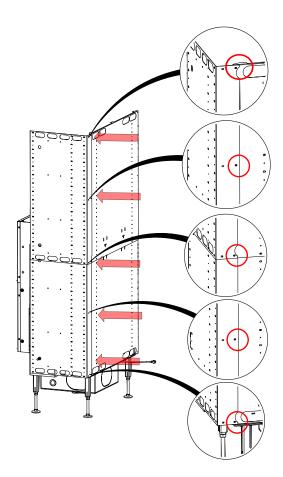


(9)

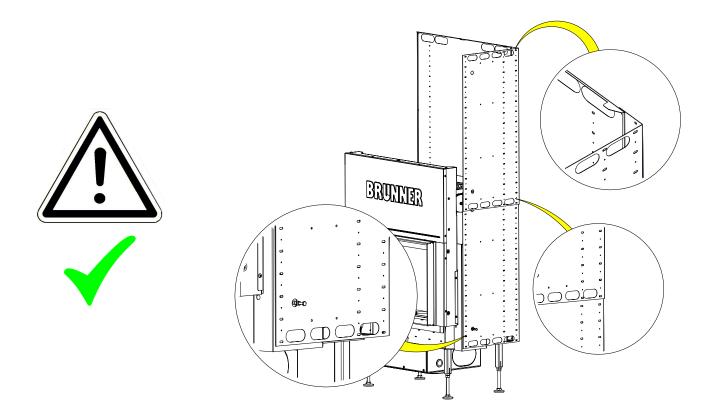
8





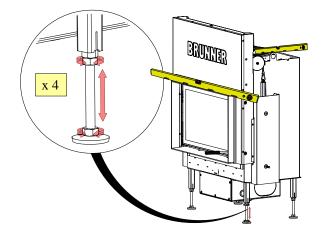


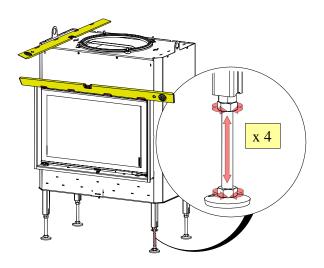
(11)



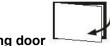
## 6.3 SET UP THE FIREPLACE

Summarised information:



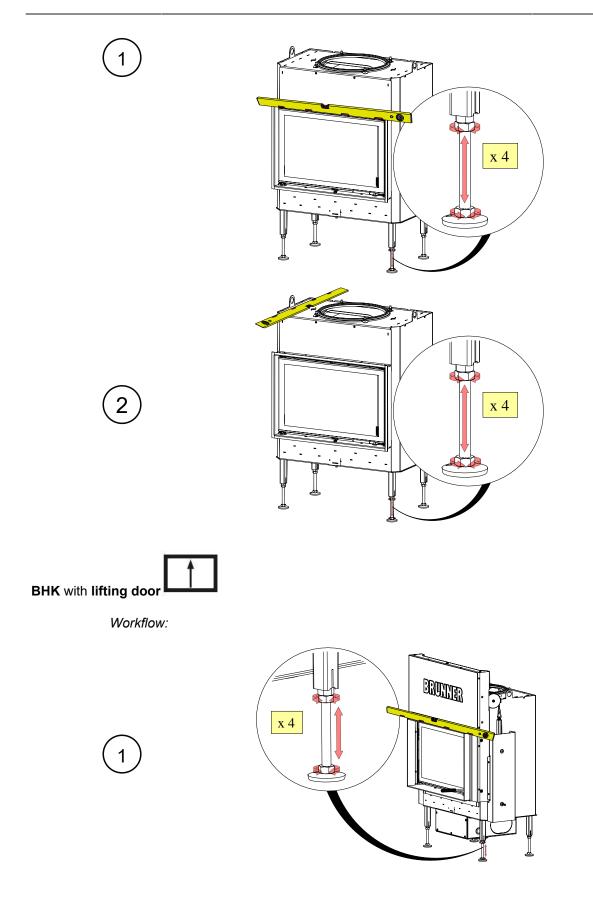


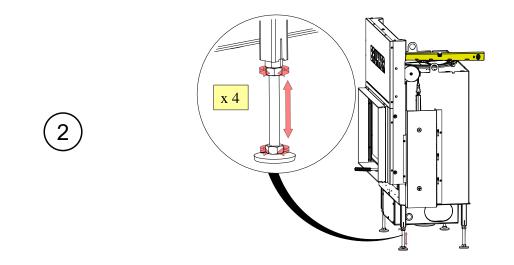
Version without outside air connection



BKH with side-opening door

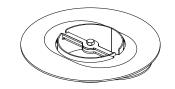
Workflow:





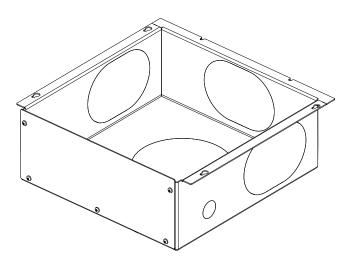
## 6.4 VARIANT WITH EXTERNAL COMBUSTION AIR CONNECTION

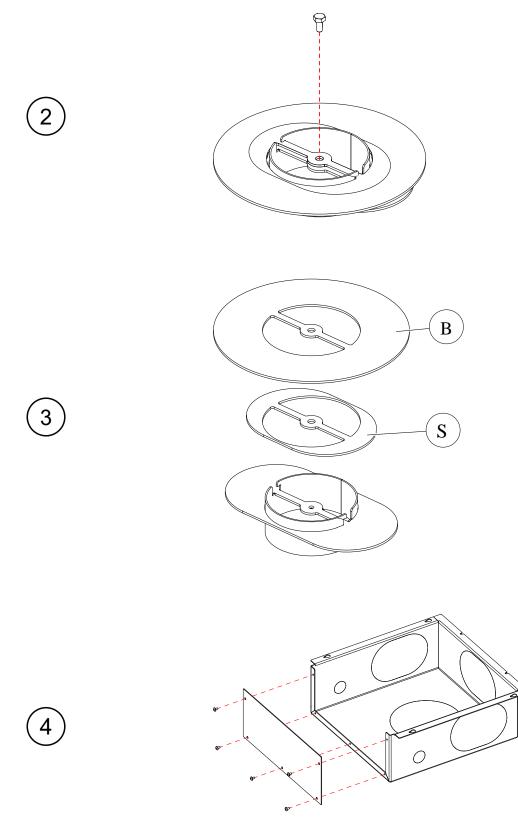
Preparatory work



Workflow:



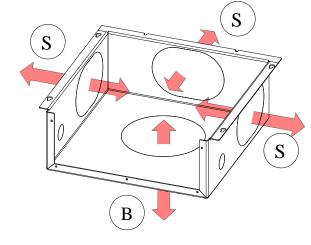




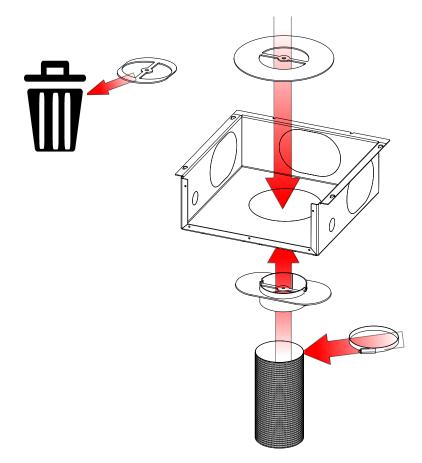
Im. 2: Recommended for easier handling

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

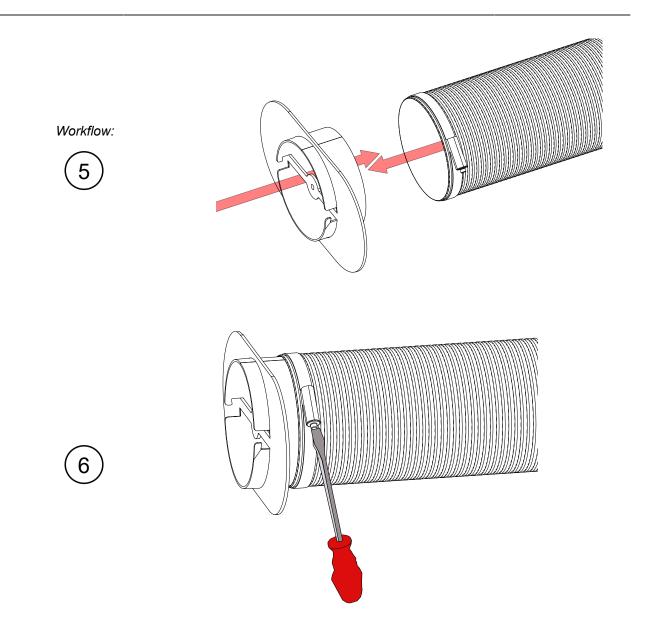
Once you have made a decision, break out the appropriate part and make the connections for the air supply.

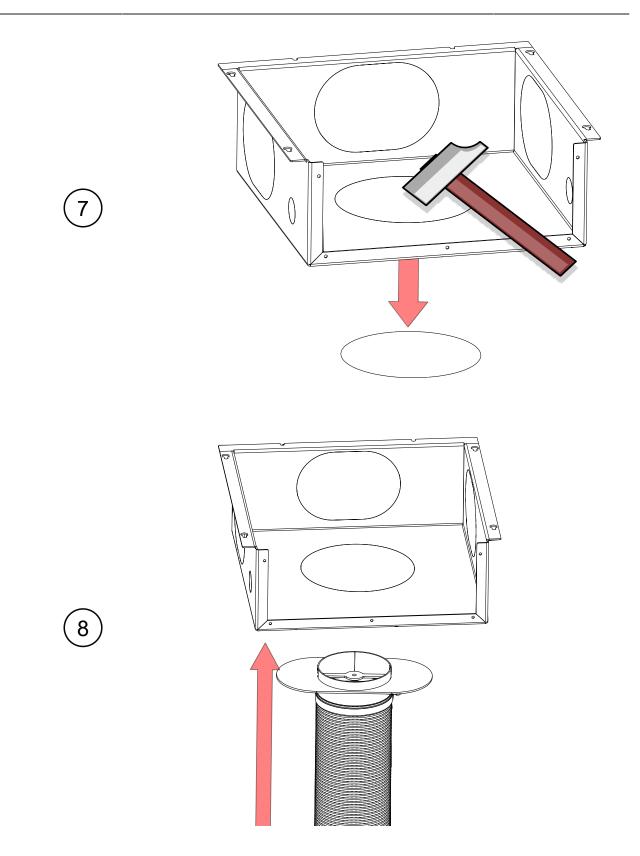


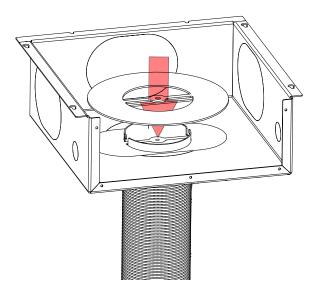
### 6.4.1 BOTTOM CONNECTION (B)



Im. 3: Summarised information

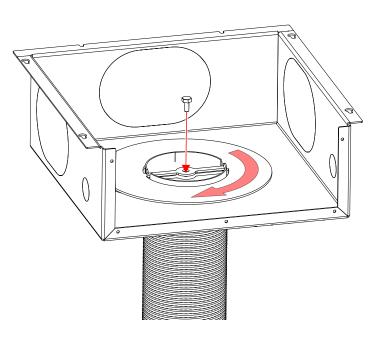


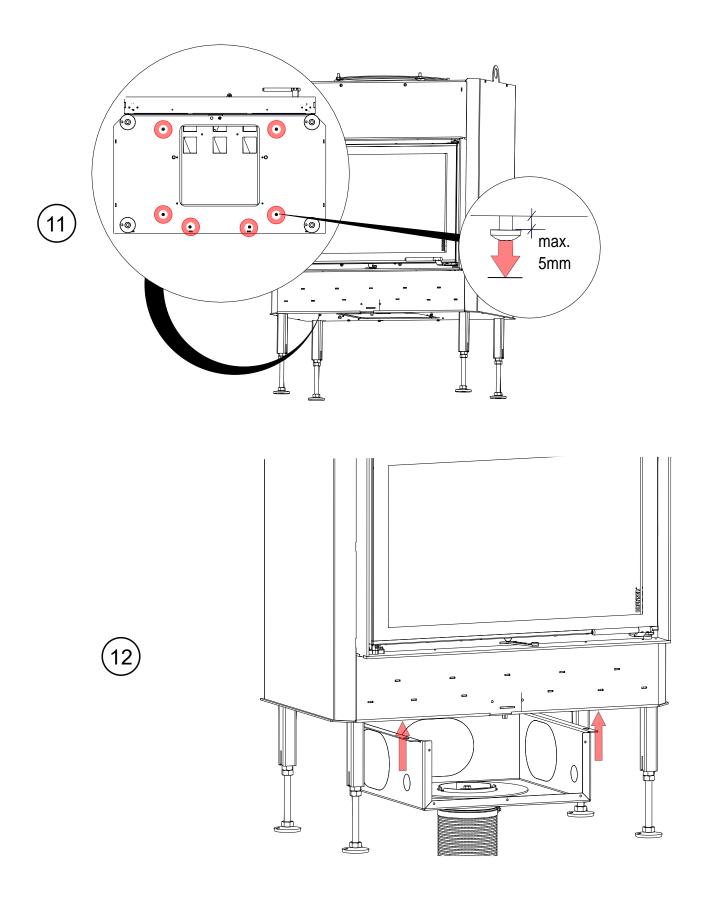


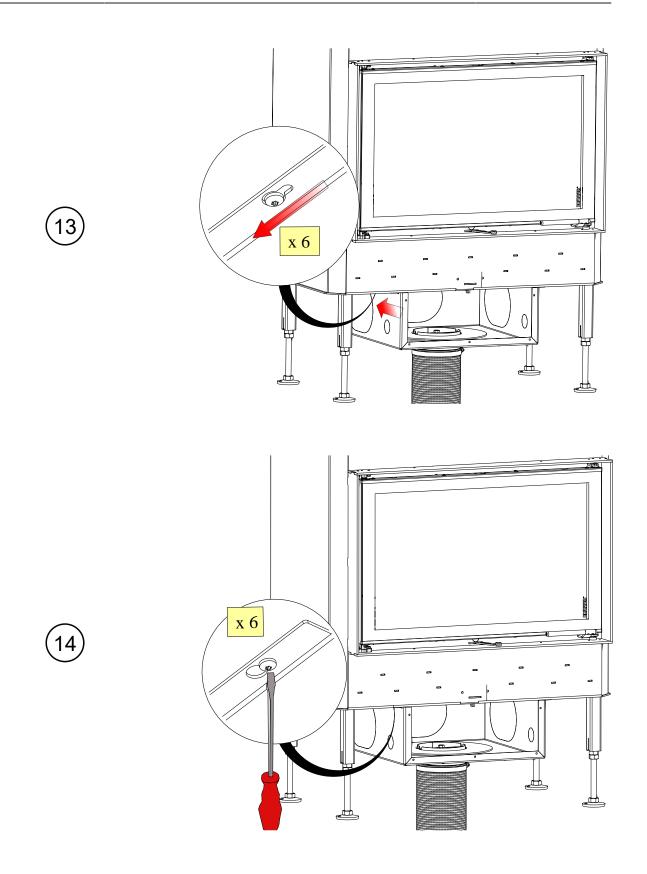


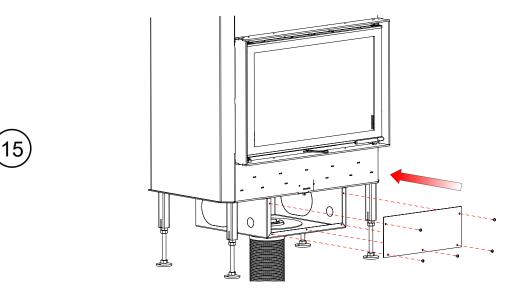


9

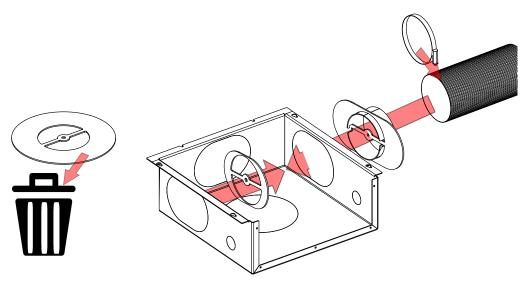




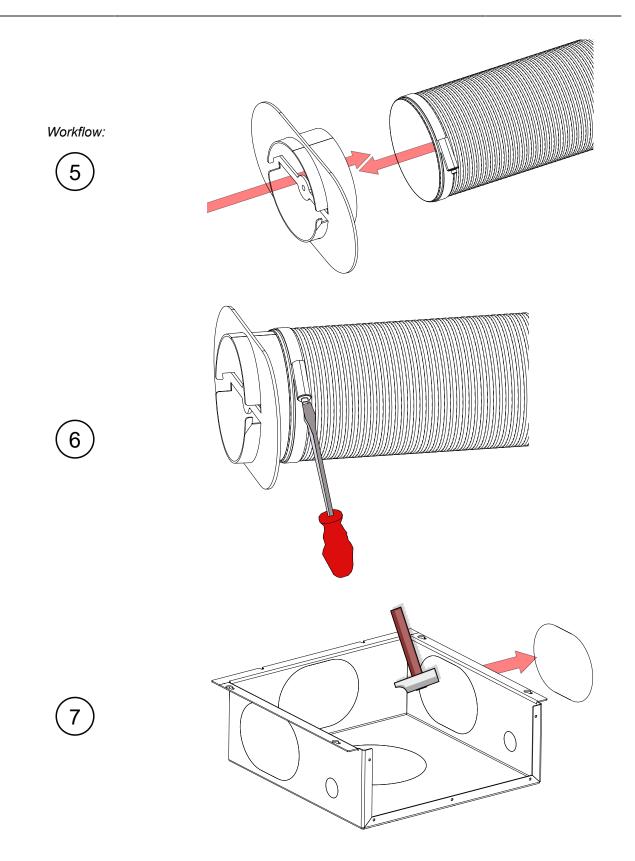


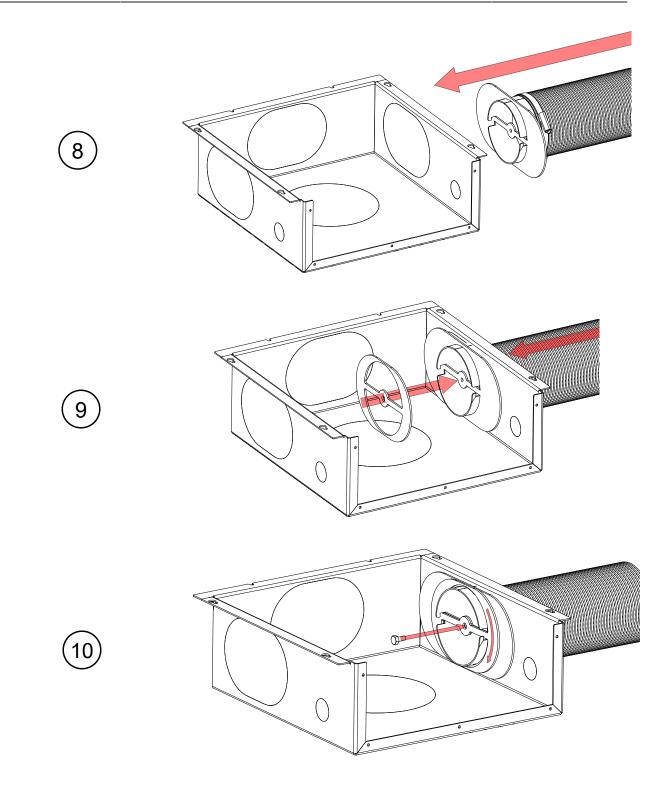


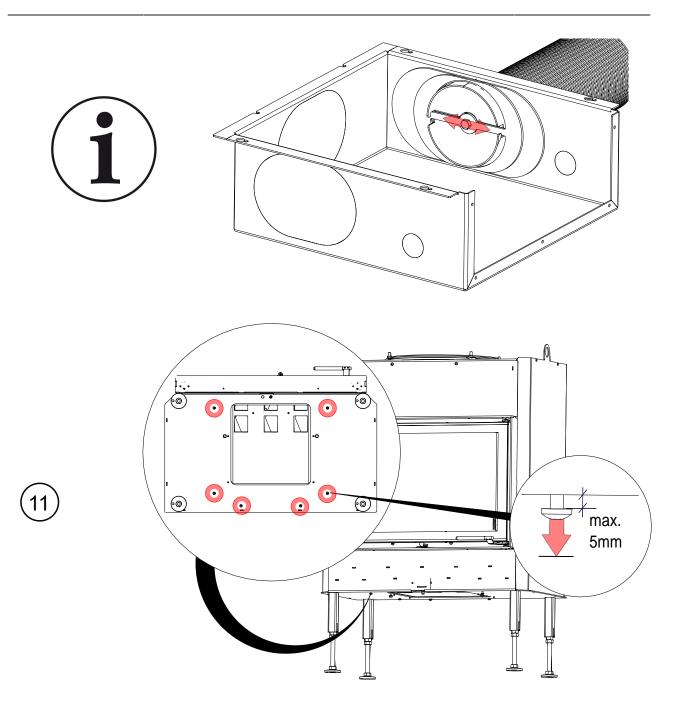
6.4.2 SIDE CONNECTION (S)

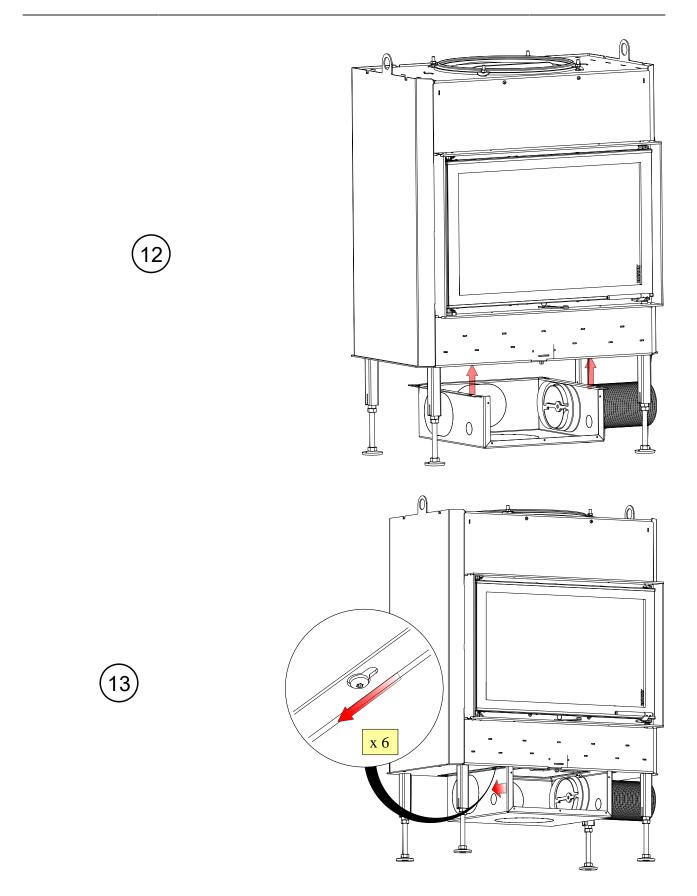


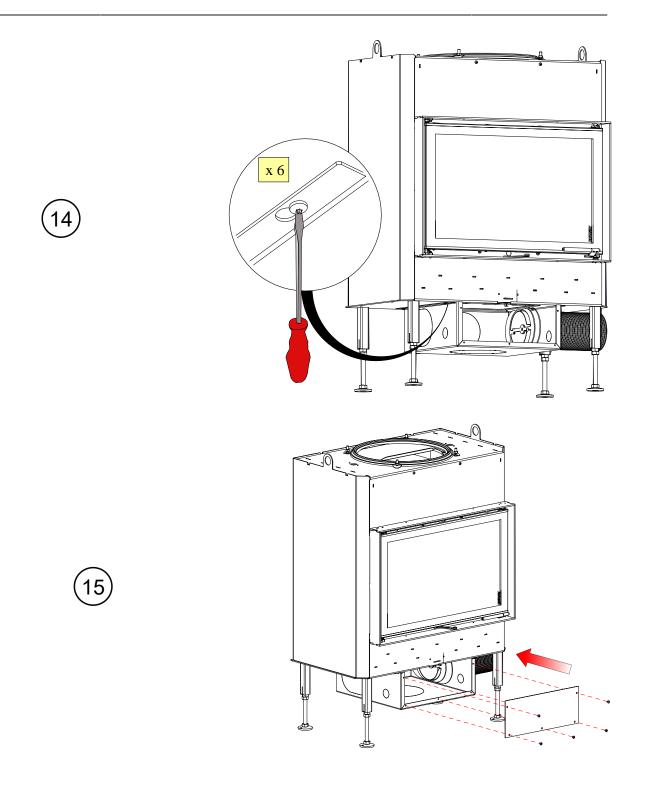
Im. 4: Summarised information



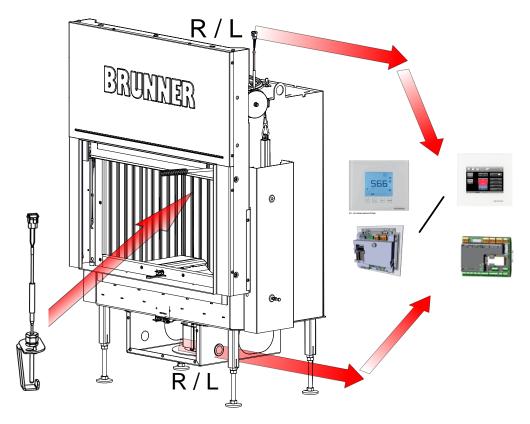








### 6.5 VARIANT WITH EAS OR EOS



Im. 5: Summarised information



### Software version:

EOS 8 - version > V1.35

**EAS 3** - version > V3.24



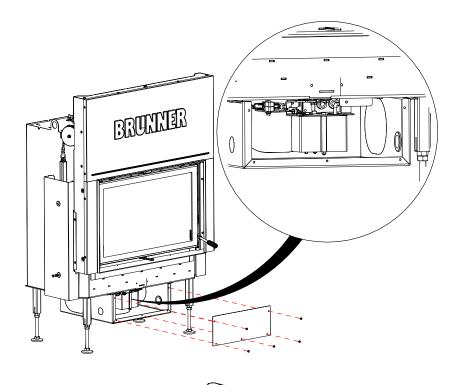
#### CAUTION! risk of crushing

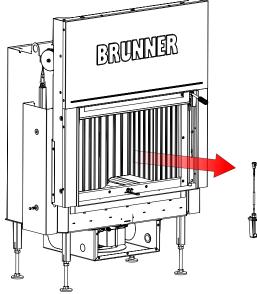
When working on the flap, on the turntable or sliding plate for supply / exhaust air regulation, as well as on their mechanics, the control unit (EAS / EOS) must be disconnected from the supply voltage (230VAC) before starting work. Wait until the drive has been fully powered up via the battery of the control unit (maximum running time 2 minutes).

Workflow:



2



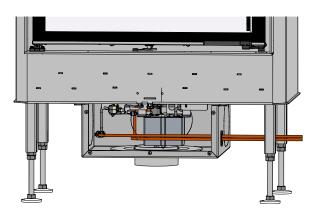




Make the electrical connection

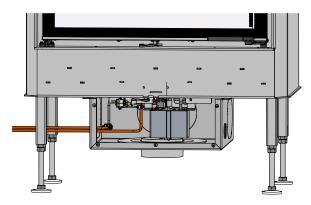
Variants:

cable routing right side or left side

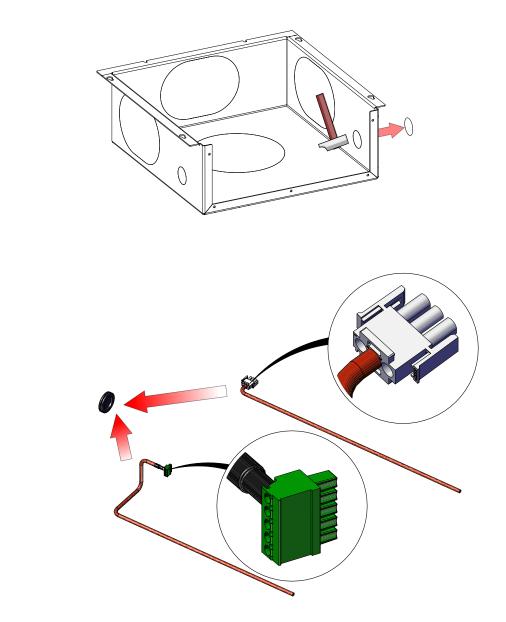


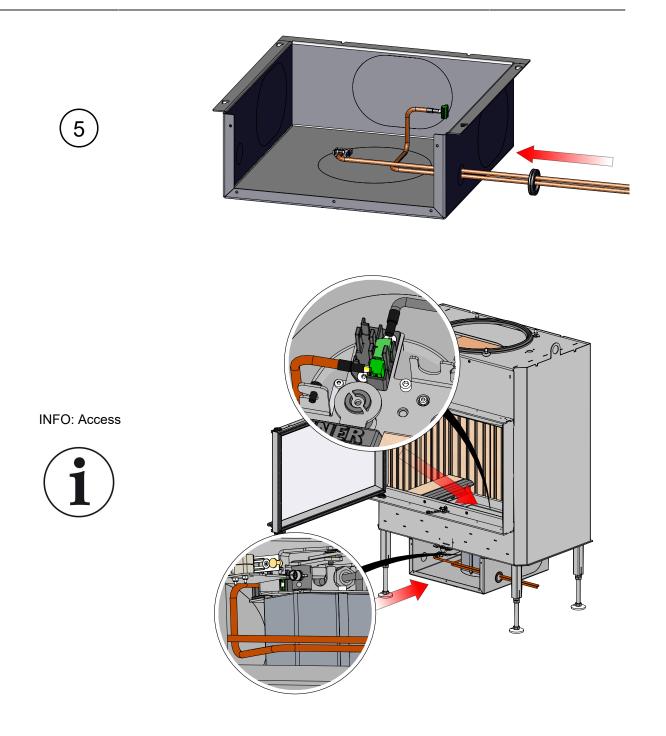
Im. 6: cable routing right side

3

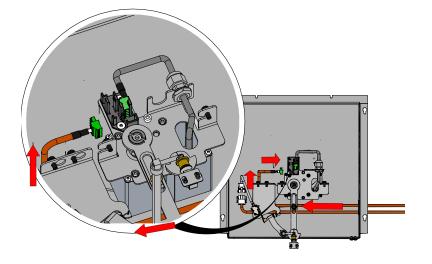


Im. 7: cable routing left side

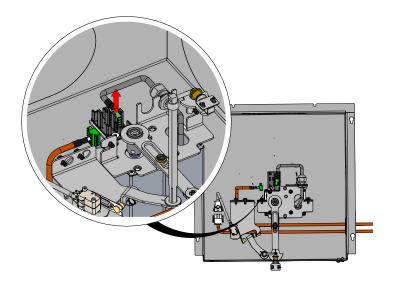




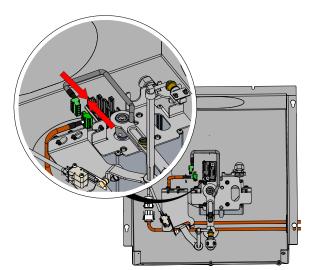


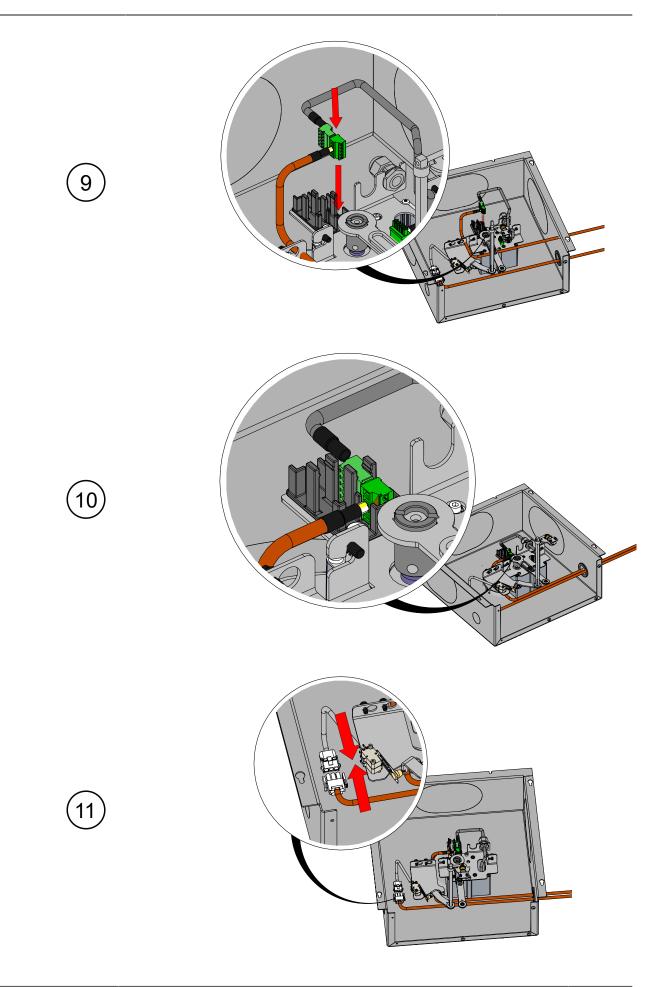


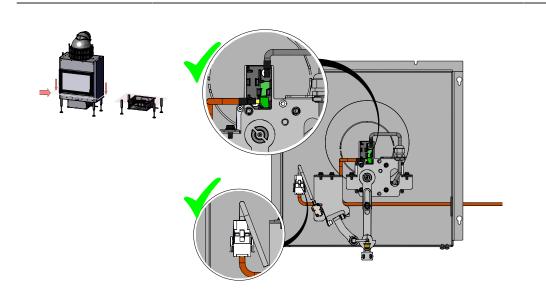


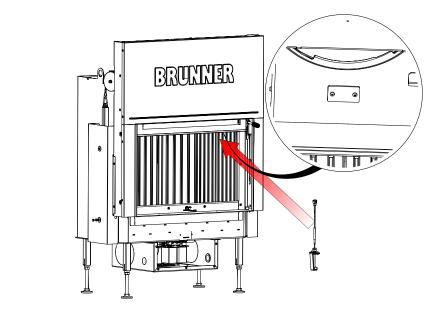






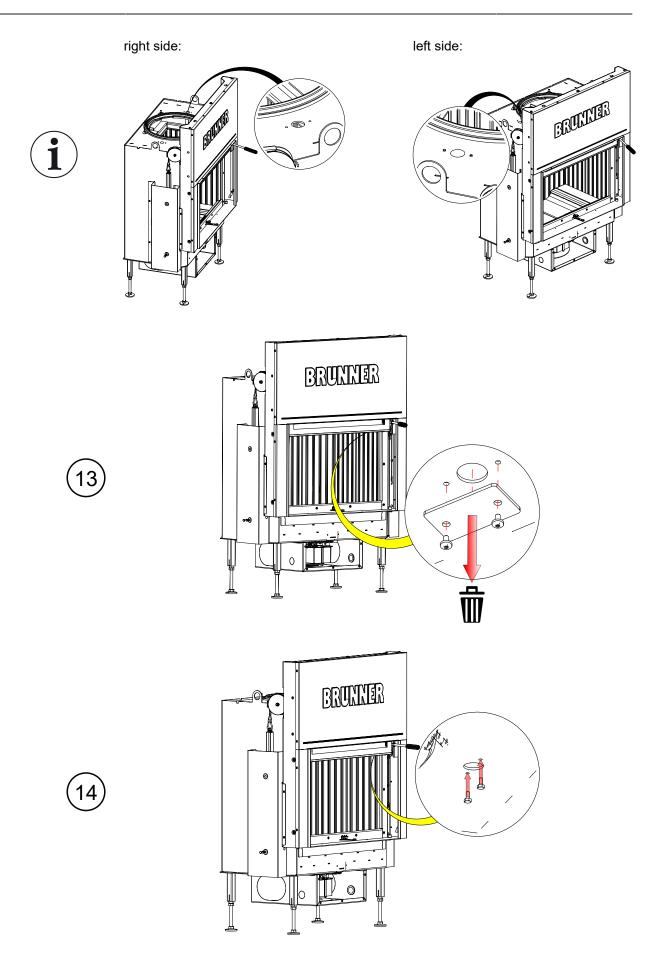


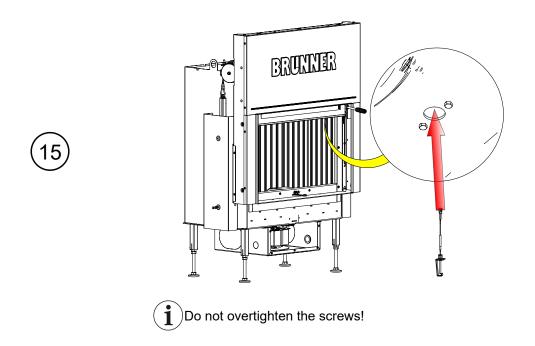




Variants cable routing - Thermocouple: right side or left side



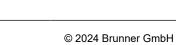




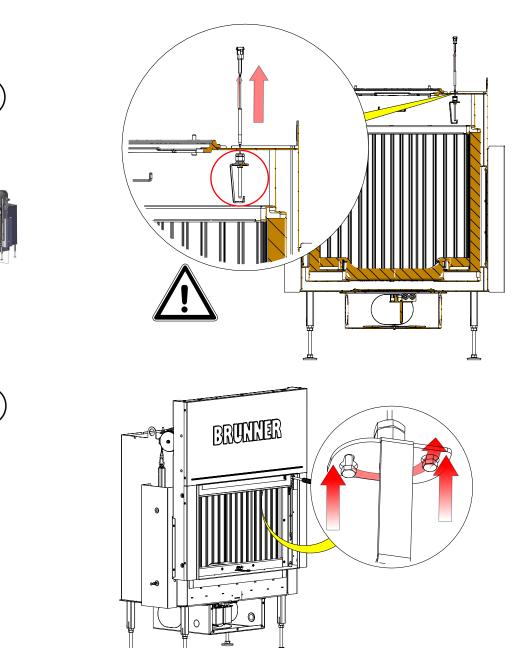
F

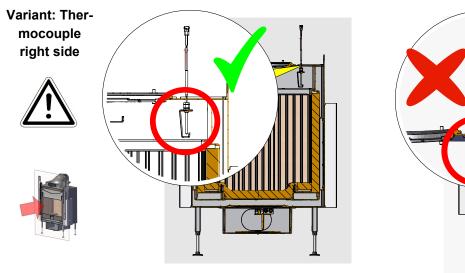
. 📣

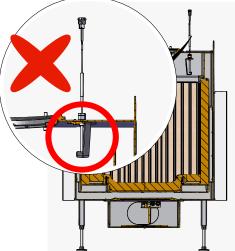


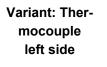


17

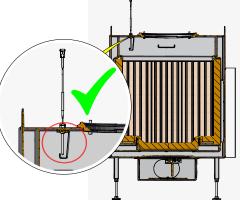


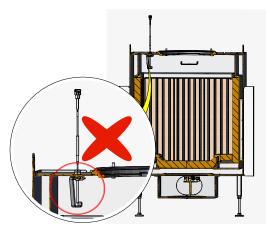






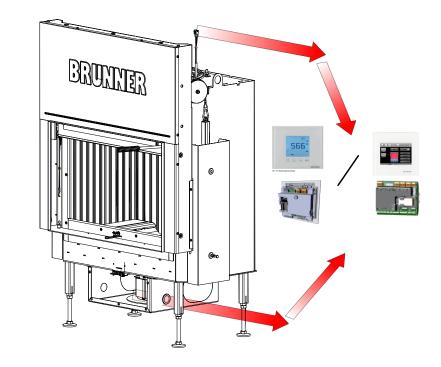




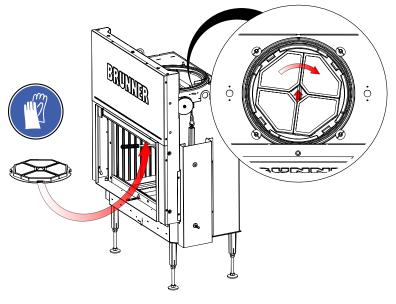




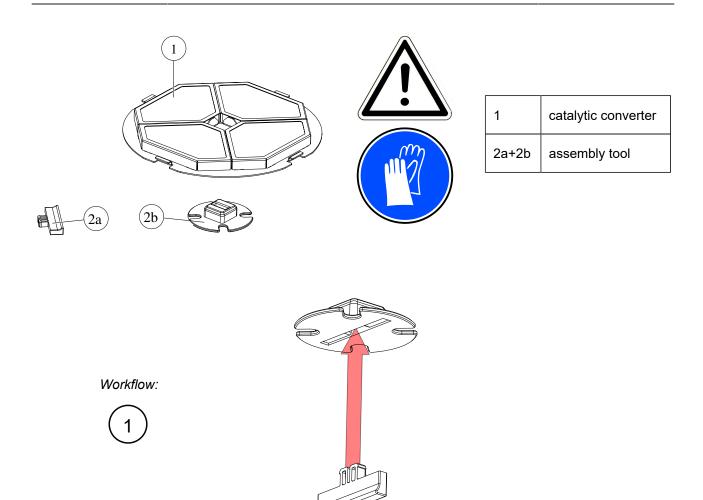
19



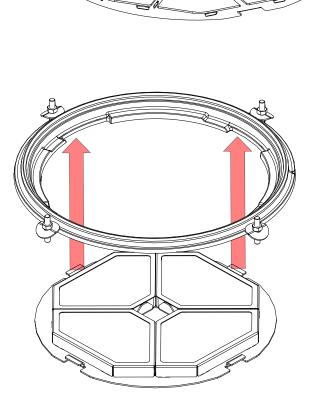
# 7 FITTING: CATALYTIC CONVERTER



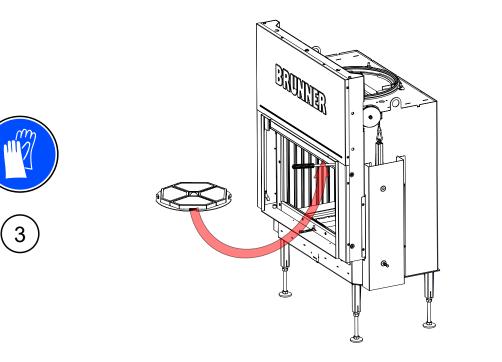
Im. 8: Summarised information



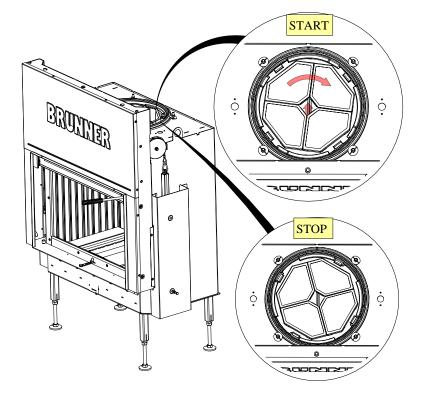


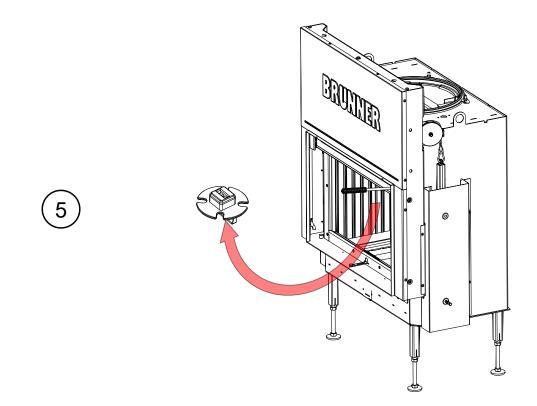




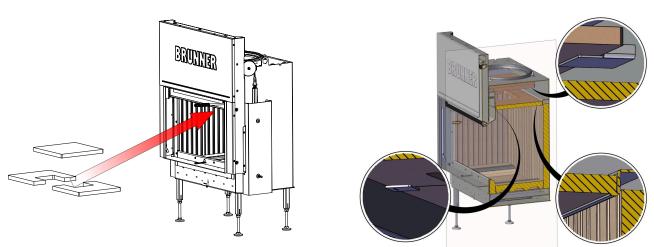






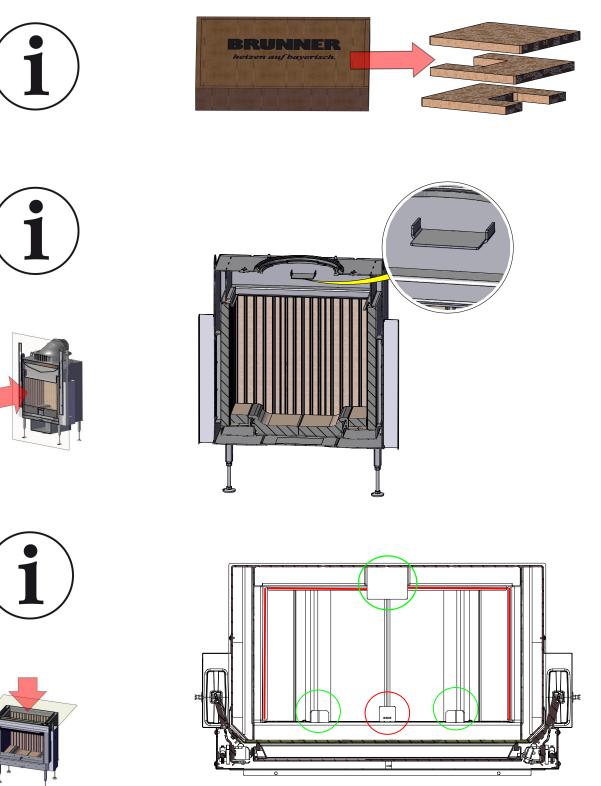


# 8 FITTING: DEFLECTION - COMBUSTION CHAMBER



Summarised information:

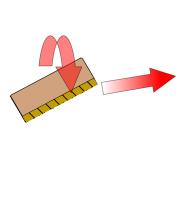
#### Montage

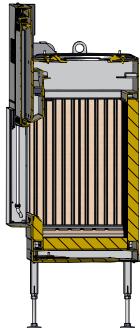


Im. 9: Support points for the deflection plates

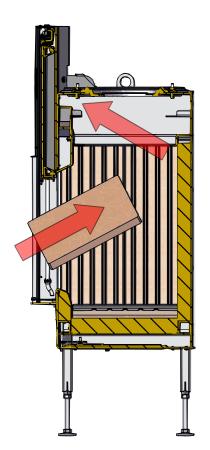
Workflow:



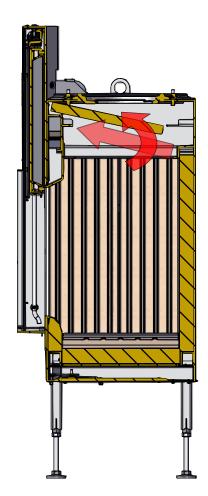




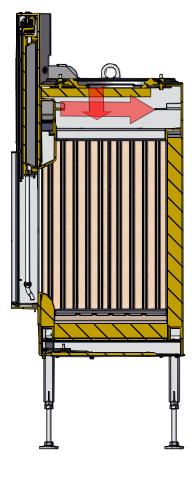




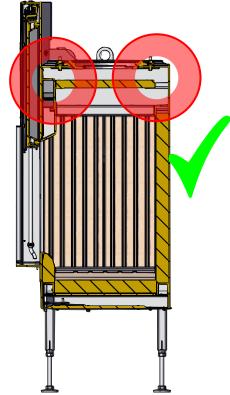


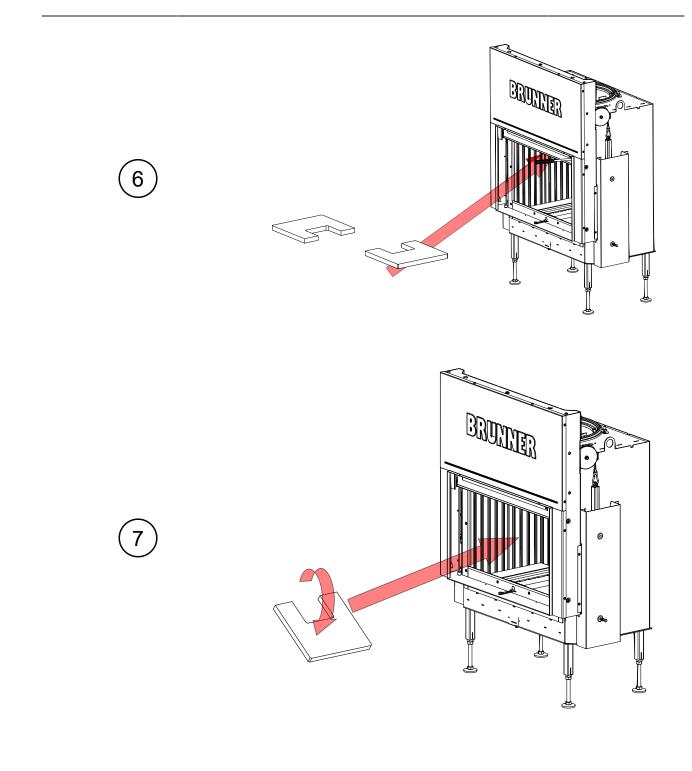


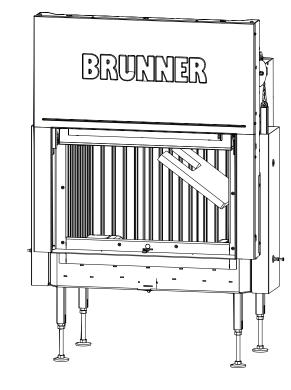




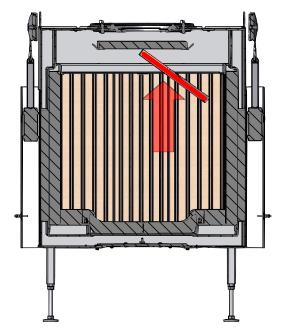




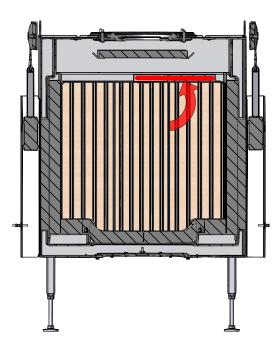


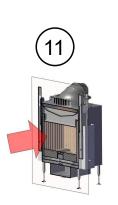


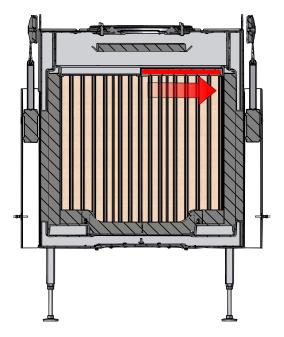




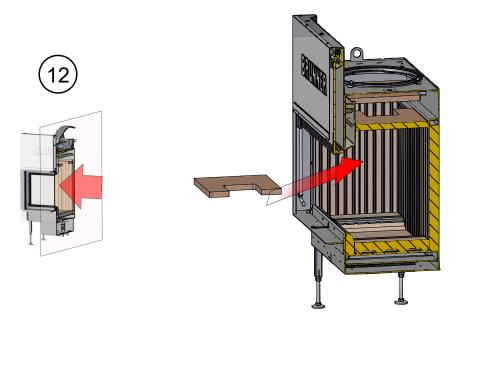


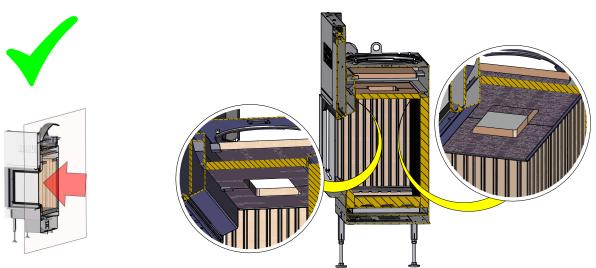






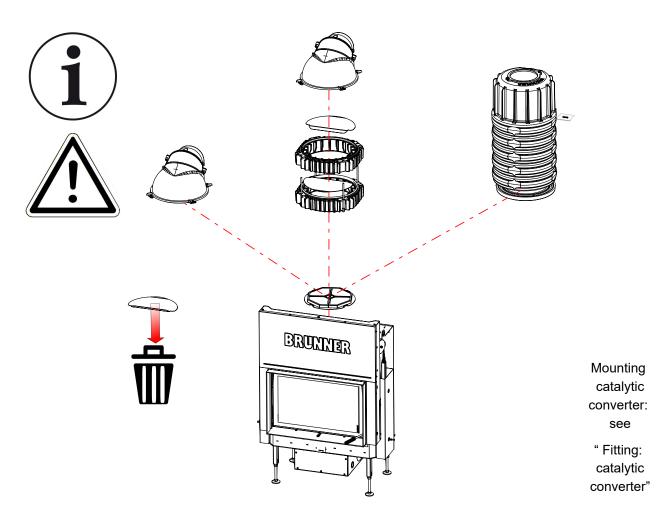
© 2024 Brunner GmbH



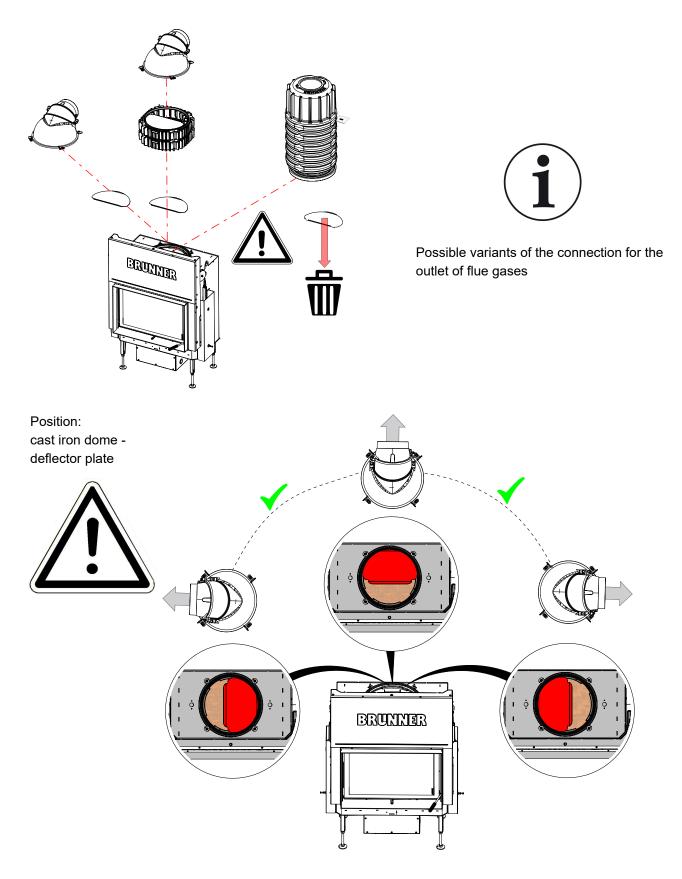


## 9 VARIANTS HEAT EXCHANGER

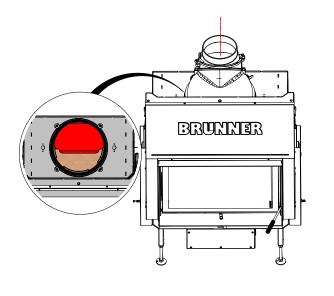
### 9.1 CONNECTION WITH CATALYTIC CONVERTER



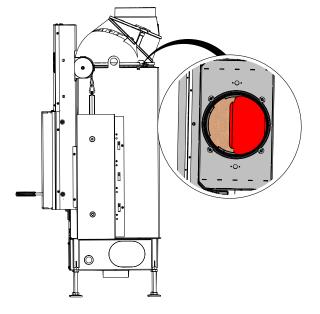
### 9.2 CONNECTION WITHOUT CATALYTIC CONVERTER



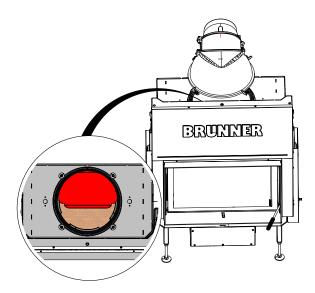


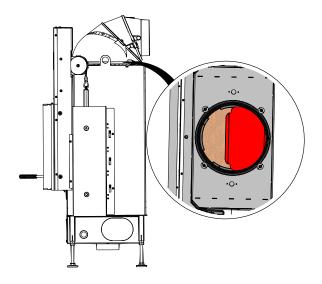


Examples for the position of the deflector plate: Connection variant for exhaust gases 1. Example A: with rotating cast iron dome - at rear - vertical

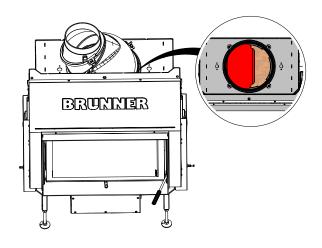


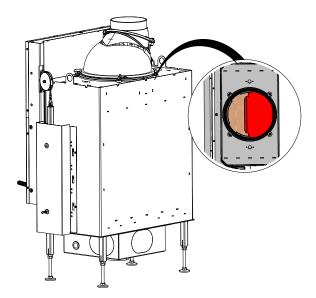
2. Example B: with rotating cast iron dome - at rear - horizontal

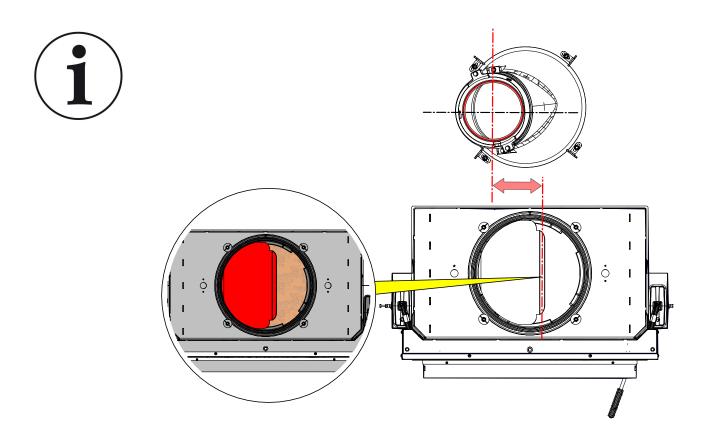




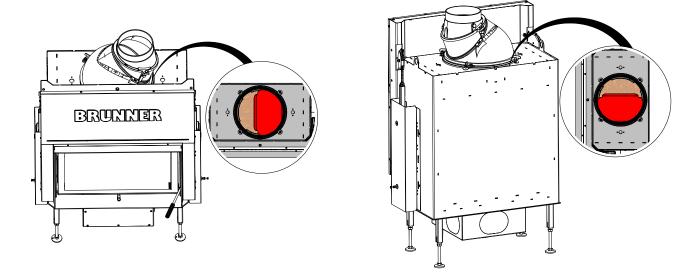
### Example C: with rotating cast iron dome - left side - vertical or horizontal





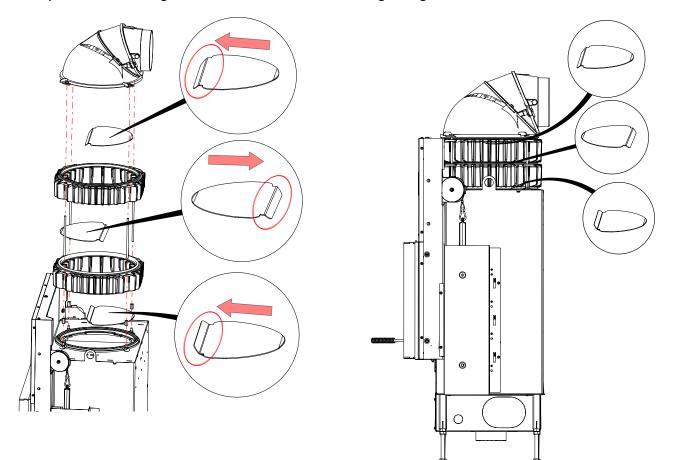




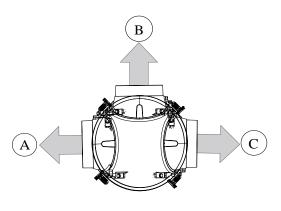


#### Example D: with rotating cast iron dome right side vertical or horizontal

Example E: with rotating cast iron dome with heat exchanger ring - at rear - vertical or horizontal



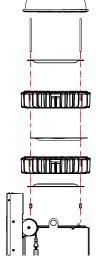
#### Principle of flue gas routing with heat exchanger rings









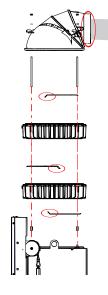


A

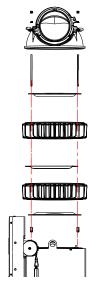
P

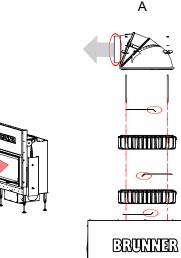
 $\bigcirc$ 

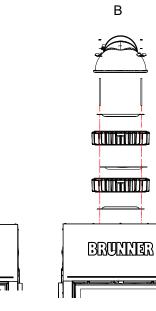
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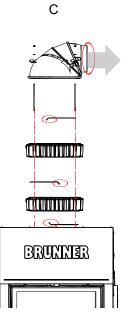


В

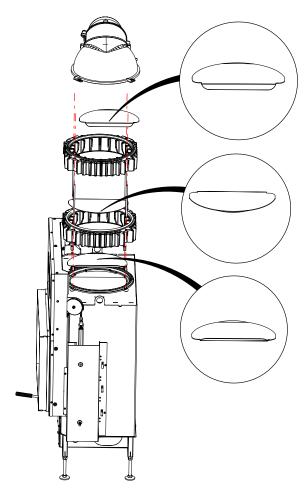


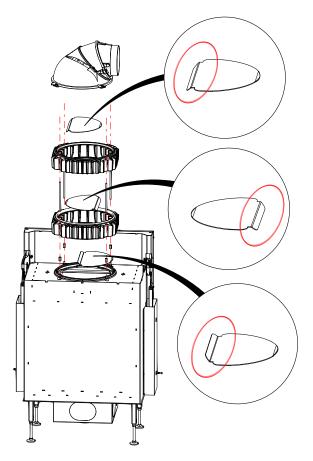




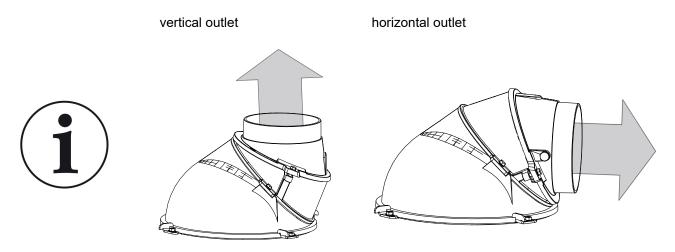


Example F: with rotating cast iron dome with cast iron heat exchanger rings - to the left vertical or horizontal

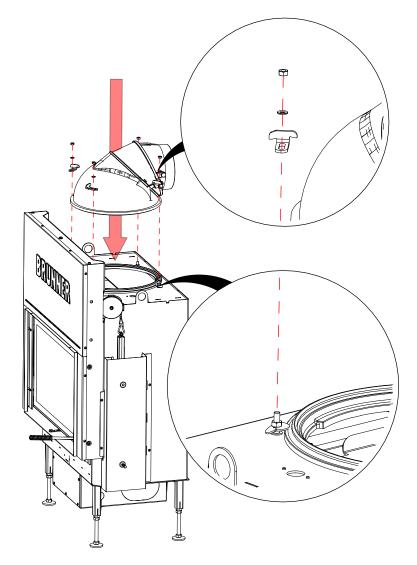




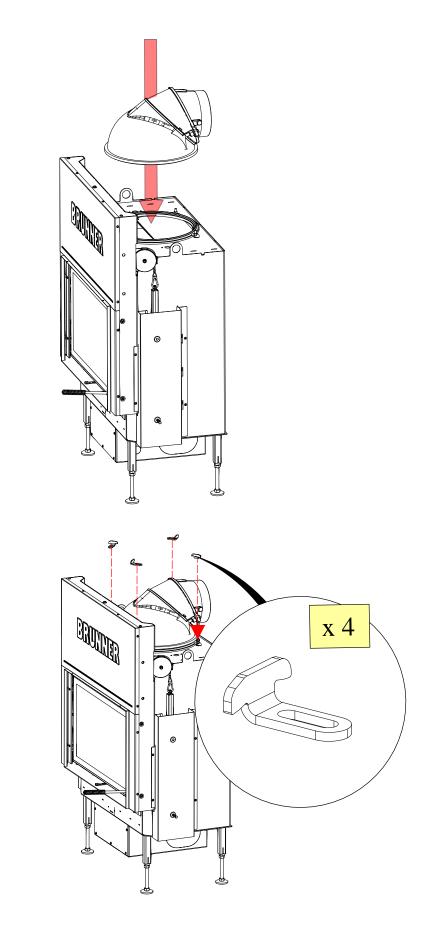
## 9.3 CAST IRON DOME



INFO modification: see enclosed sheet - cast iron dome



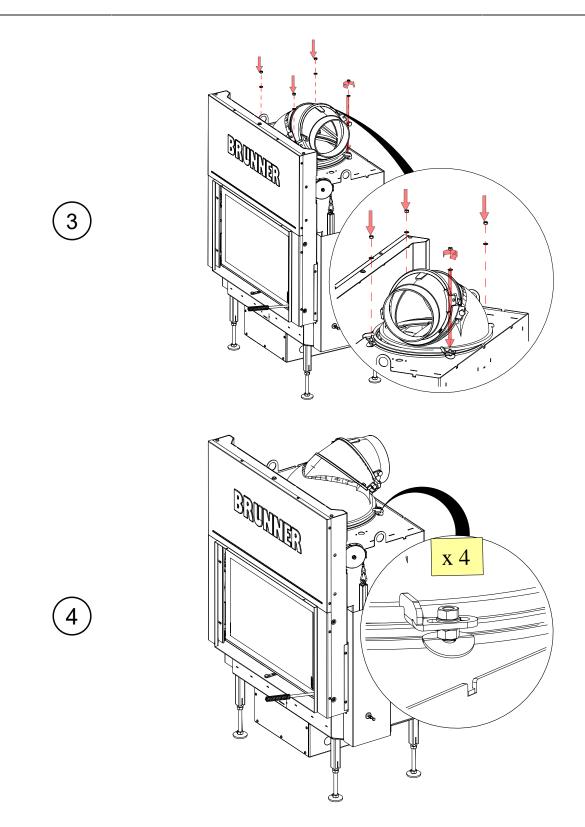
Im. 10: Summarised information



Workflow:

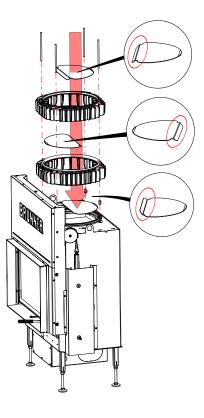


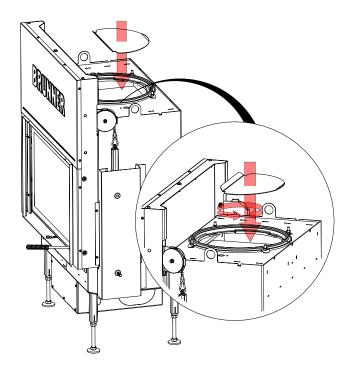




## 9.4 HEAT EXCHANGER RINGS

Summarised information:

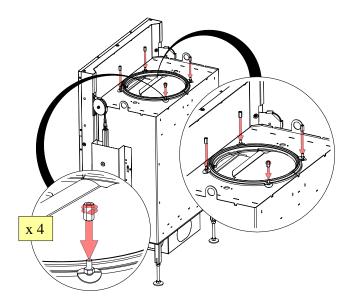


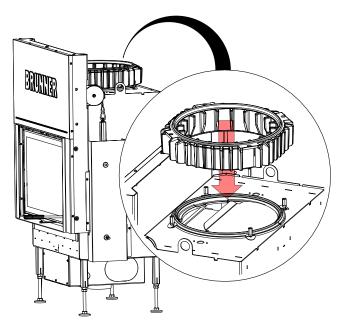


Workflow:

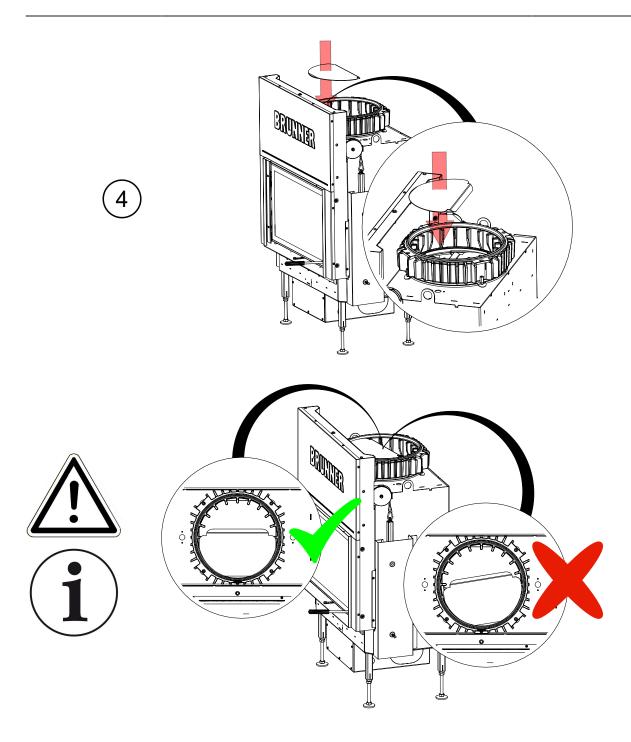


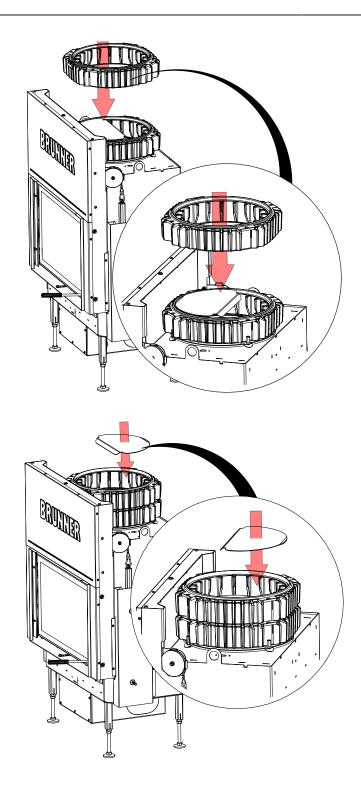




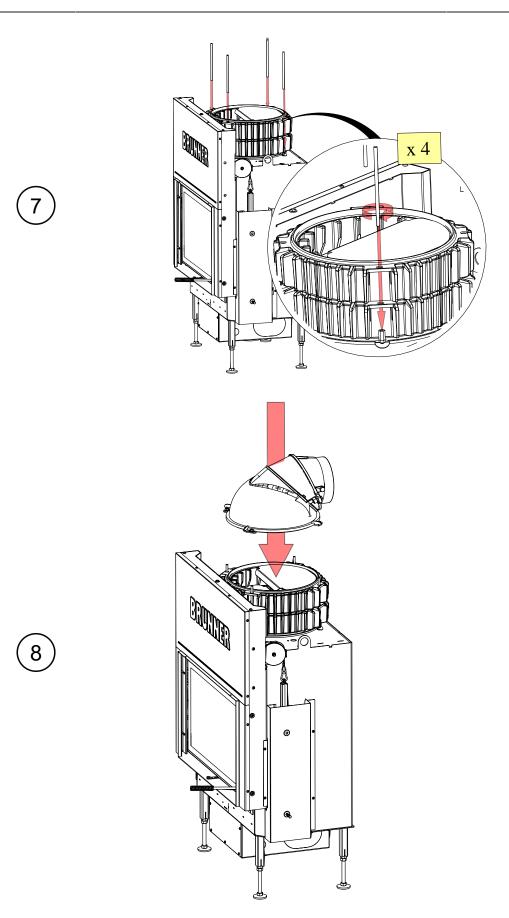








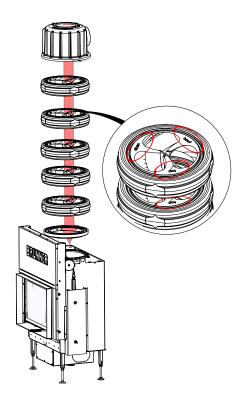


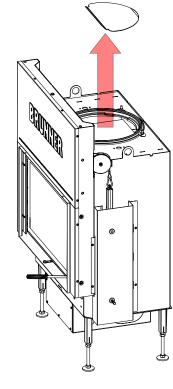


Thereafter: see "Cast iron dome"

## 9.5 HEAT EXCHANGER MAS

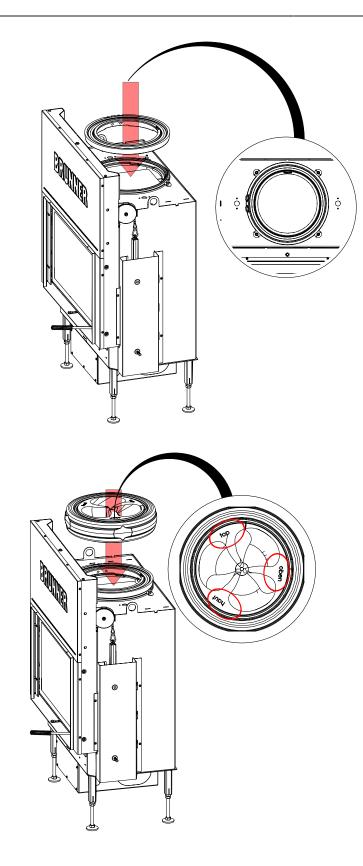
Summarised information:

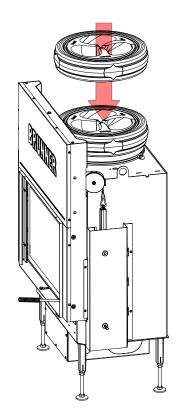


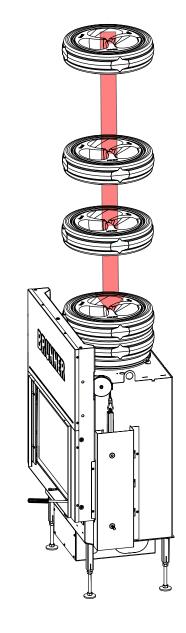


Workflow:

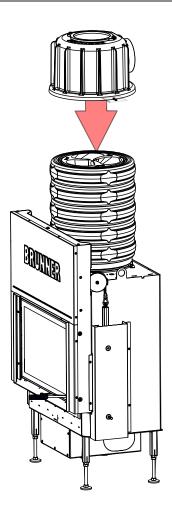
1



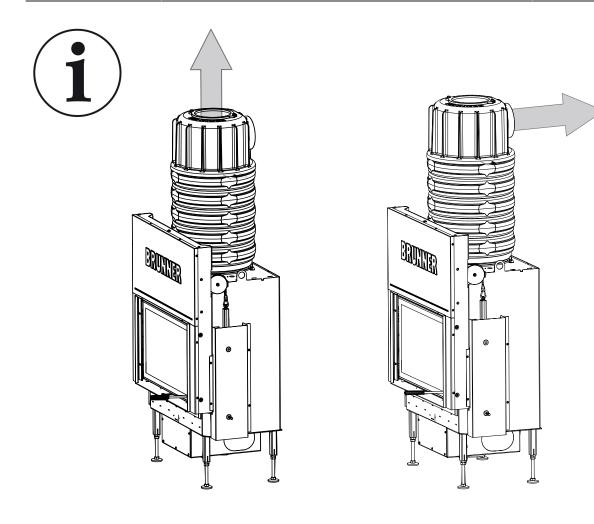






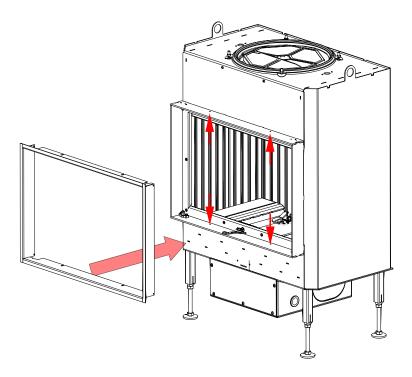






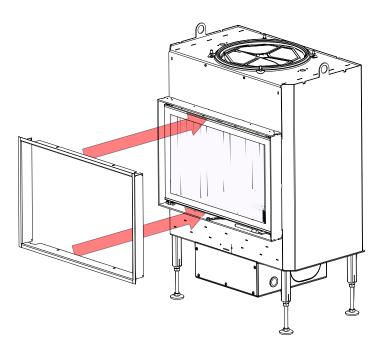
## **10 FRAME VARIANTS**

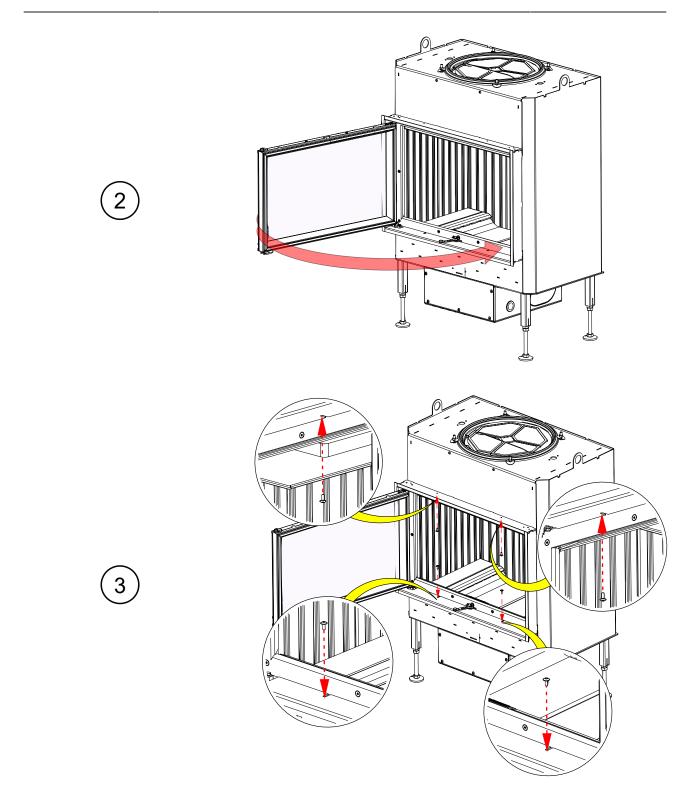
## 10.1 DOOR FRAME (BKH WITH SIDE-OPENING DOOR)



Im. 11: Summarised information

Workflow:



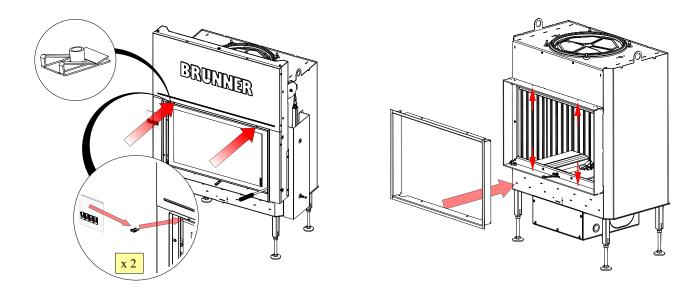


# 10.2 MOUNTING FRAME OR DOOR FRAME (BKH WITH LIFTING DOOR)

Summarised information:

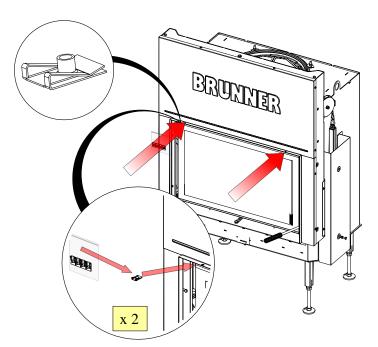
Mounting frame

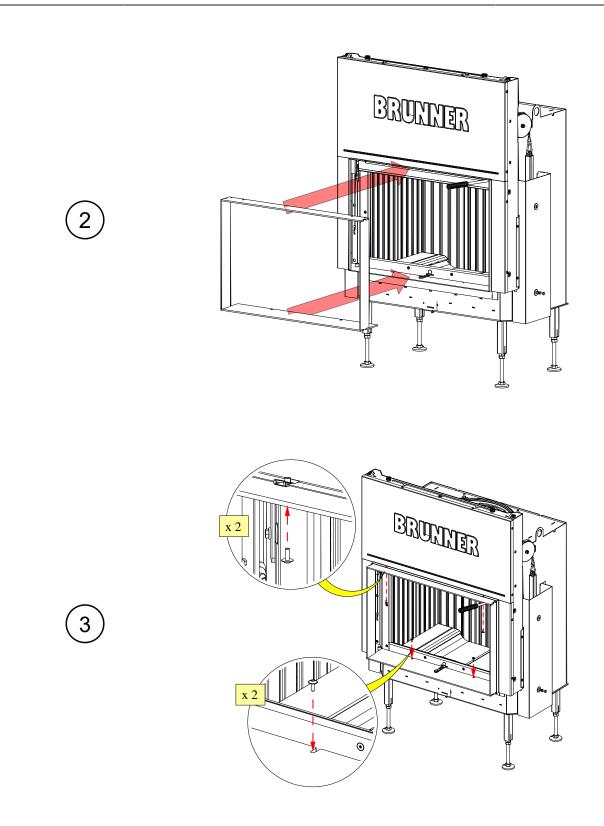
Door frame



### Mounting: mounting frame

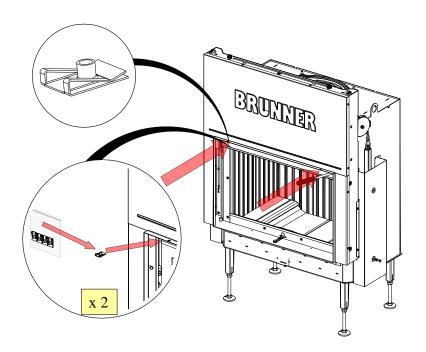
Workflow :

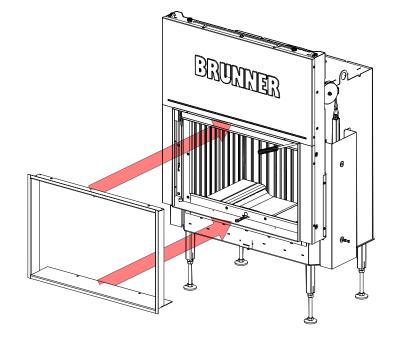


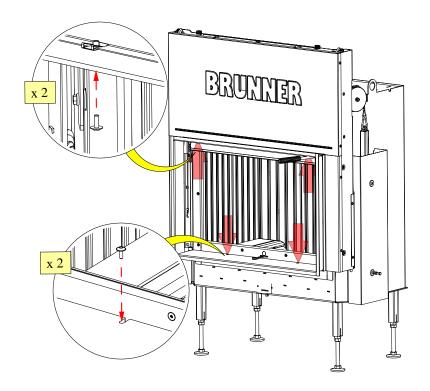


### Mounting: door frame

Workflow:



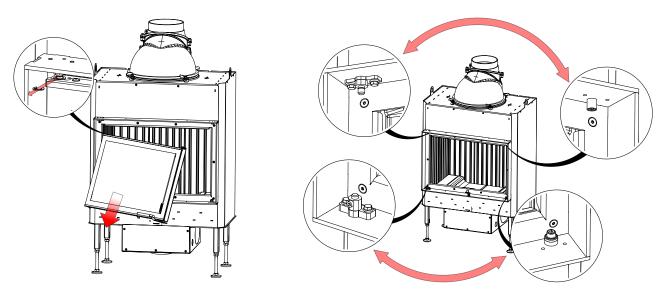


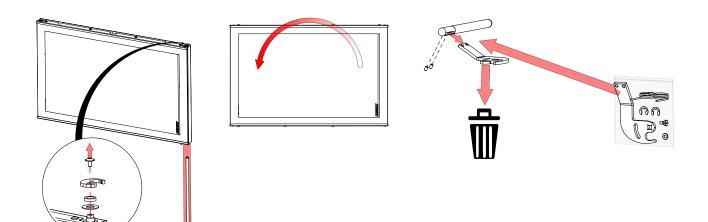


# 11 CONVERSIONS, SETTINGS

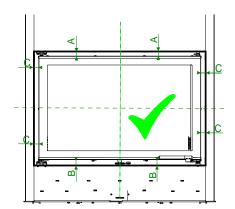
## 11.1 CHANGE OF THE DOOR STOP

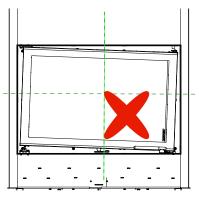
Summarised information:









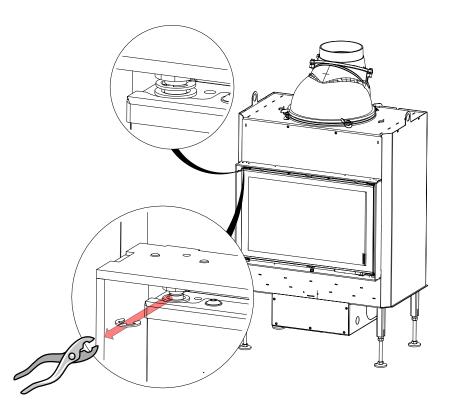


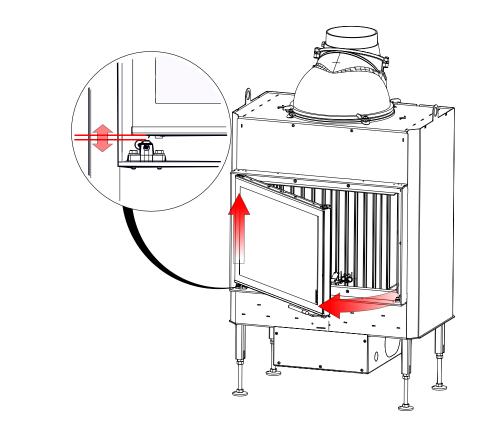


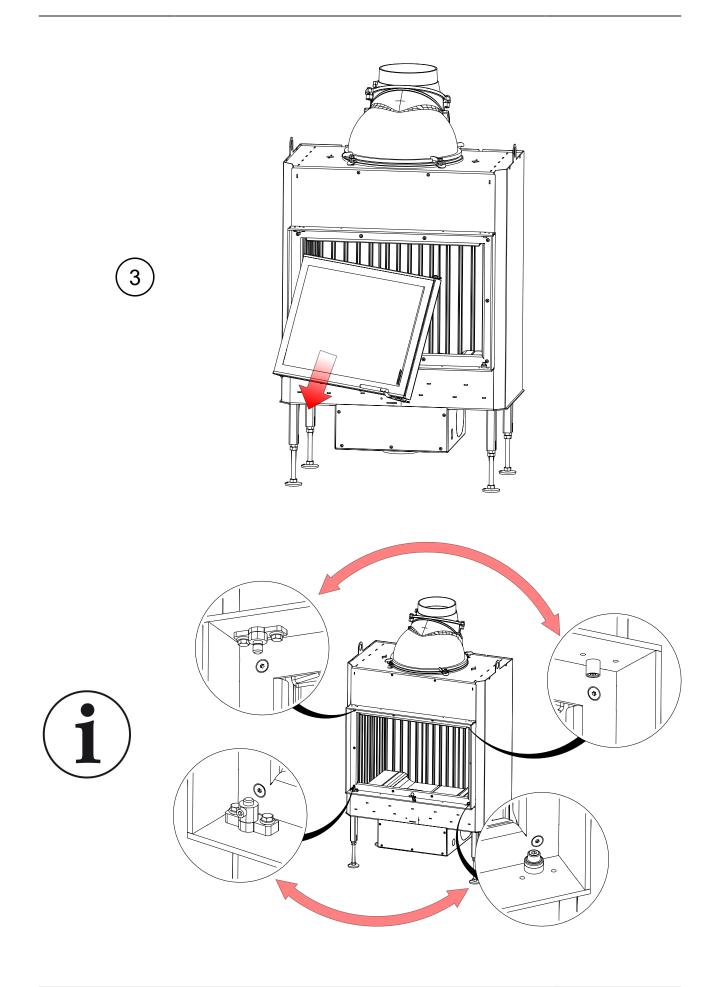
The door must be aligned vertically and horizontally. When the door is closed, the sealing cord of the door must be tight to the body.

Additional info: https://www.brunner.de/de/

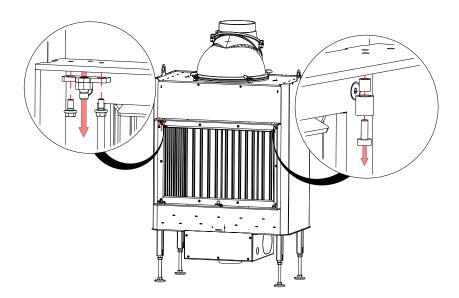
#### Workflow:

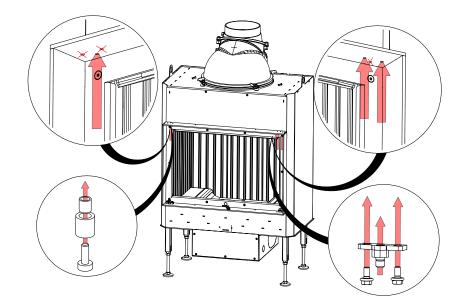


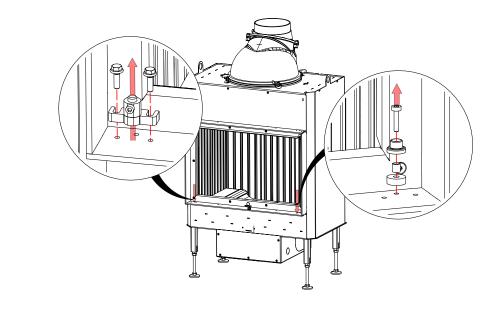




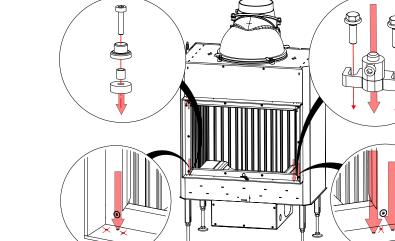








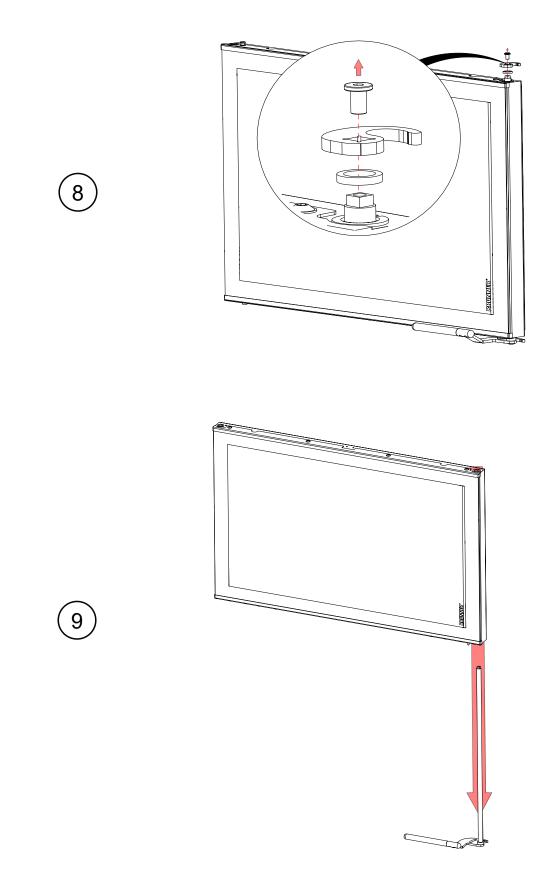
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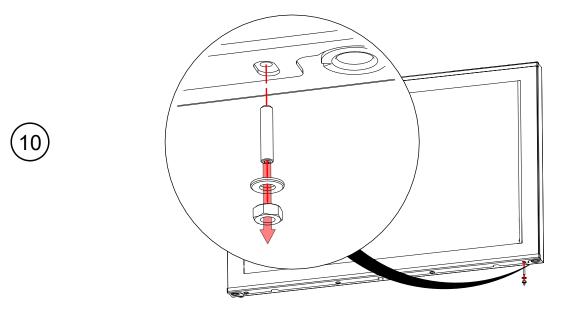


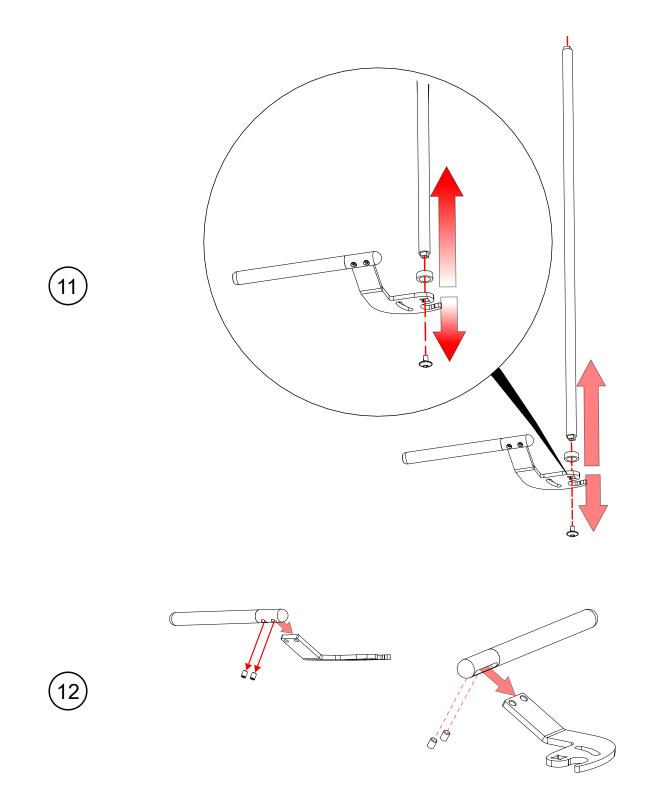


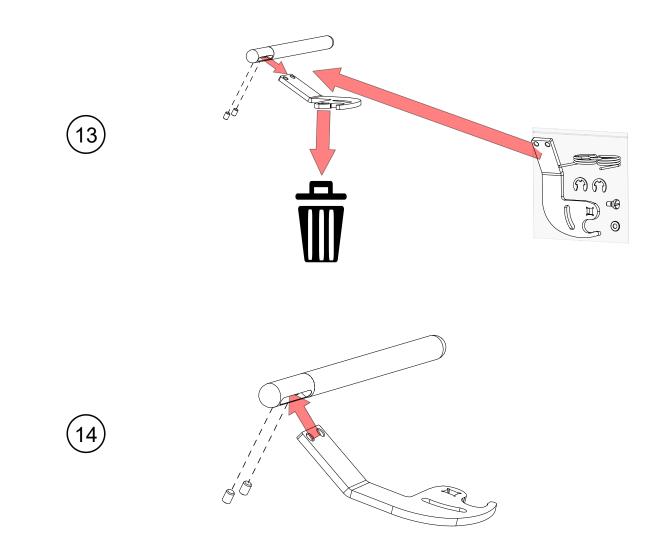


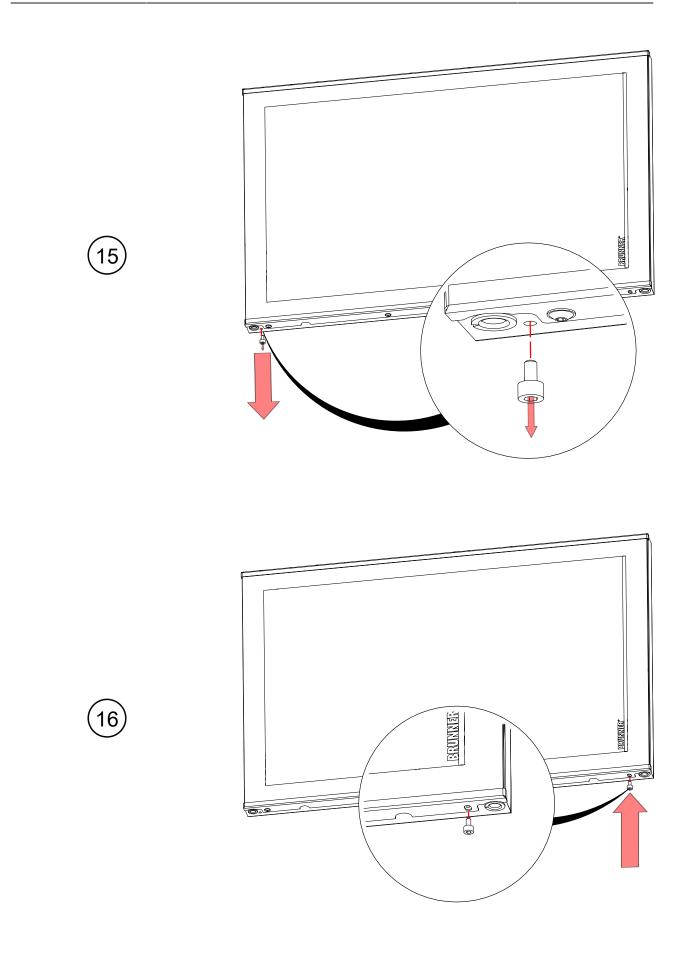
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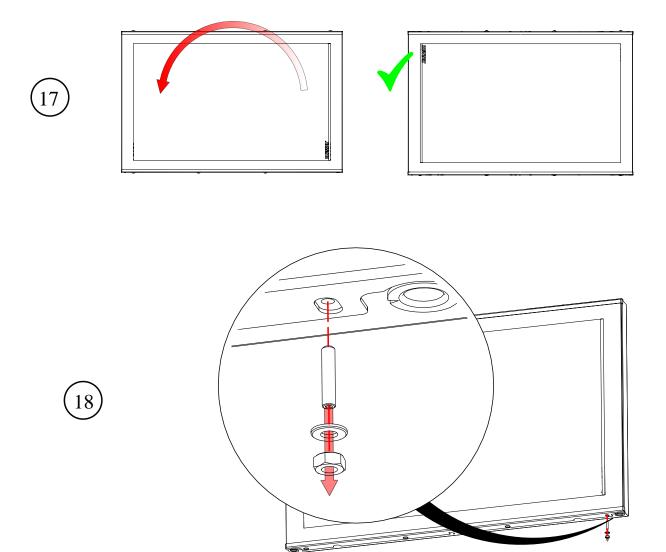


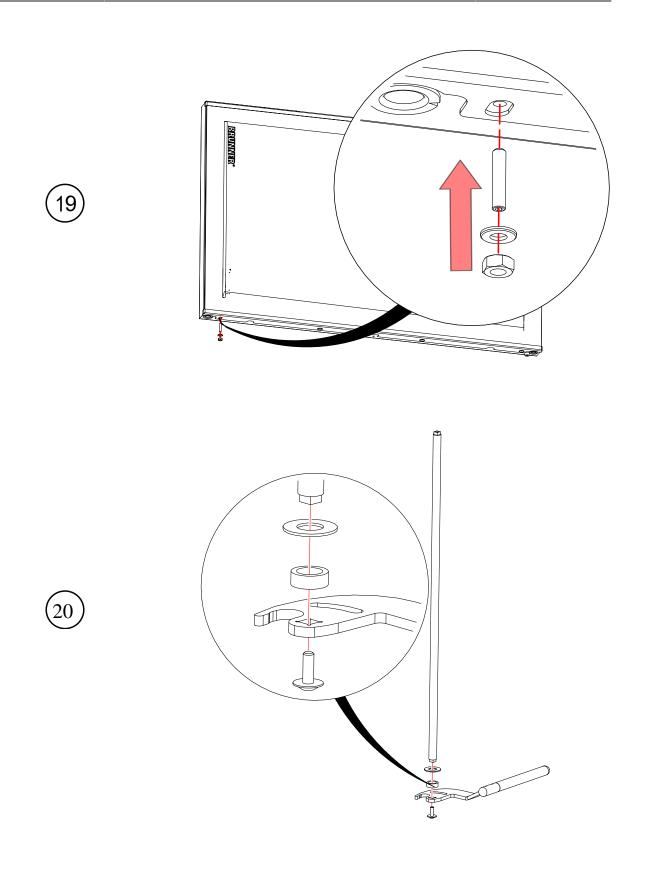


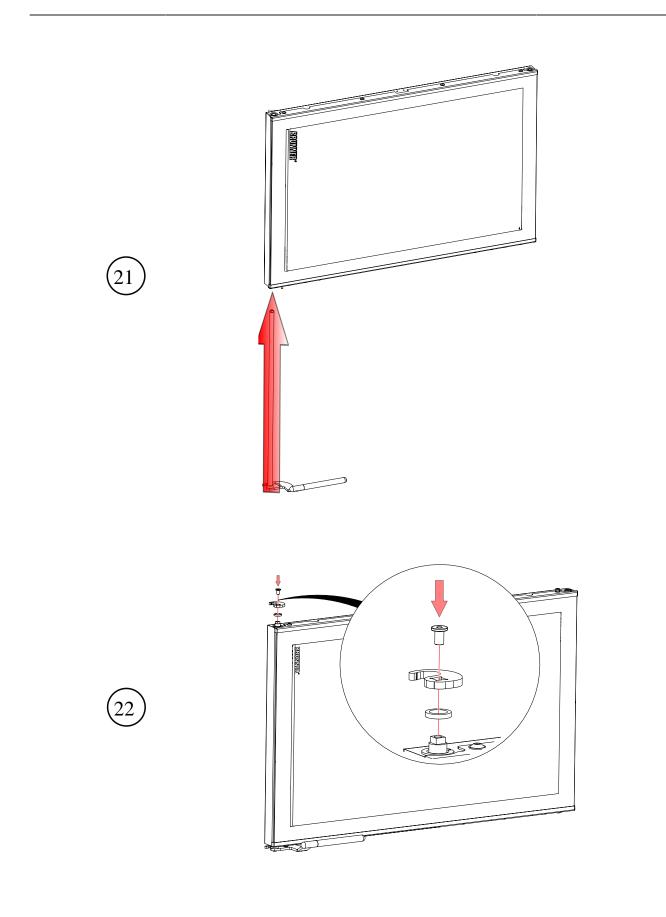


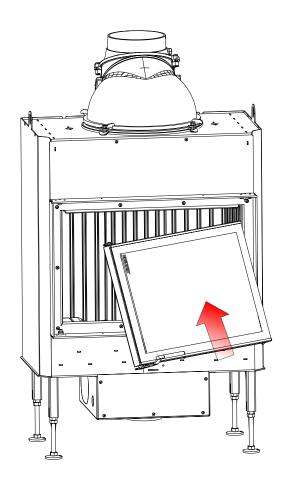




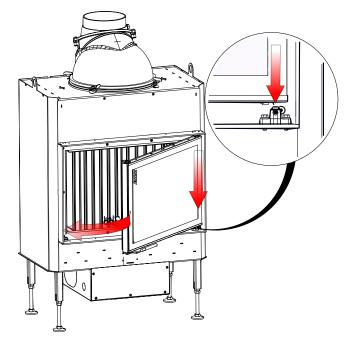


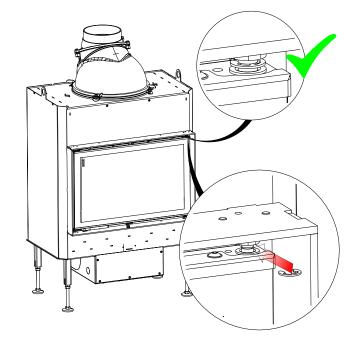


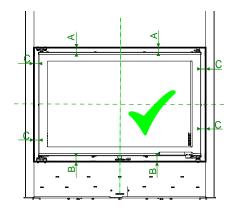


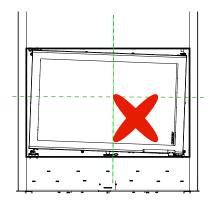










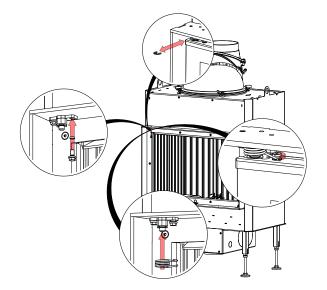


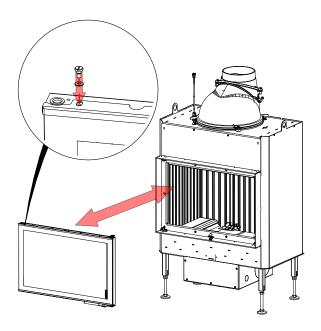


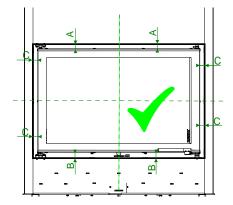
The door must be aligned

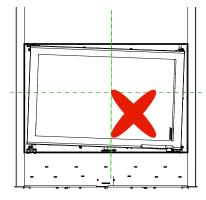
vertically and horizontally. When the door is closed, the sealing cord of the door must be tight to the body.

## 11.2 ADJUSTING OF SELF-CLOSING DOOR









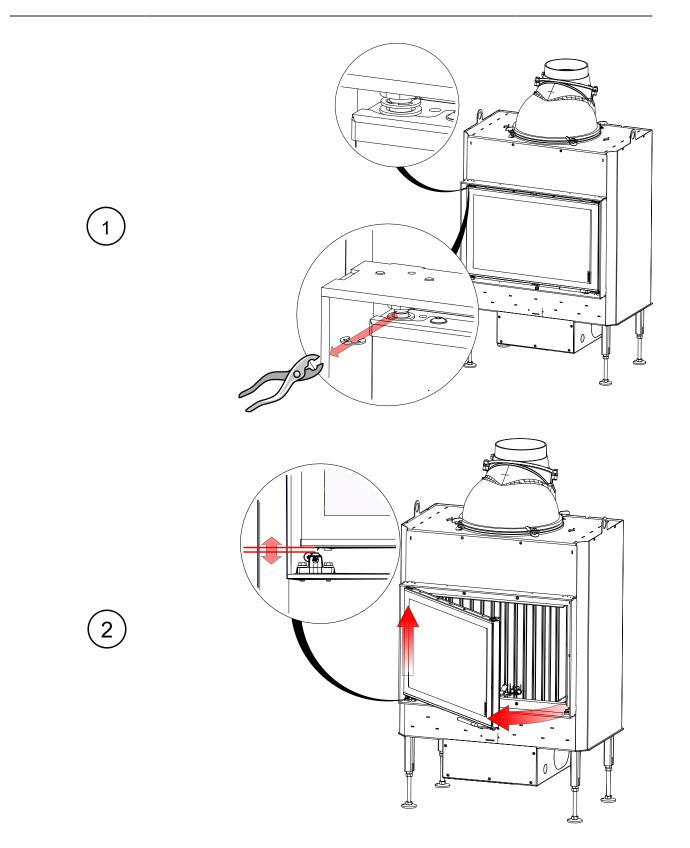


Adjust door !!

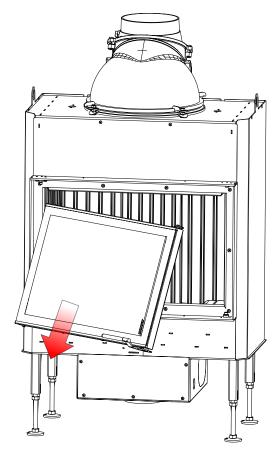
The door must be aligned vertically and horizontally. When the door is closed, the sealing cord of the door must be tight to the body.

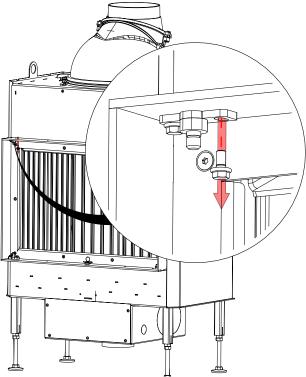
#### Version : BKH with side-opening door

-> without self-closing

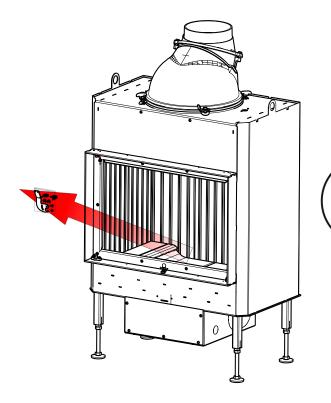




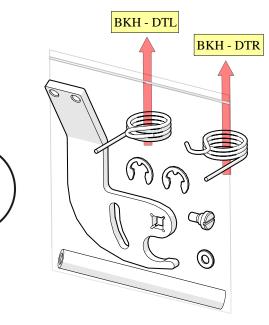




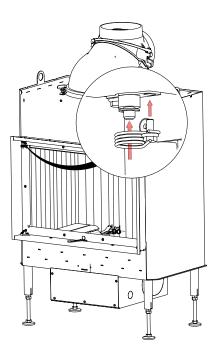


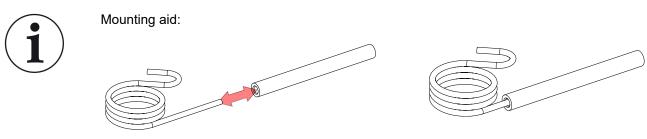


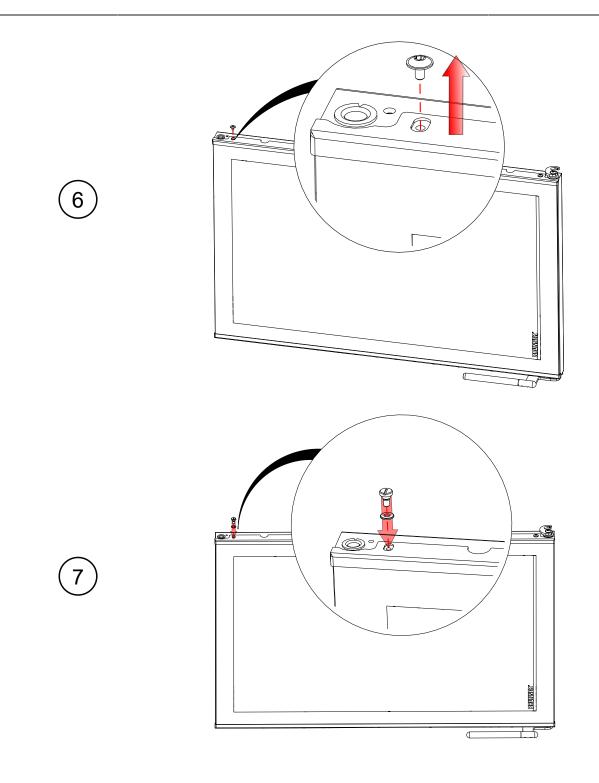
5

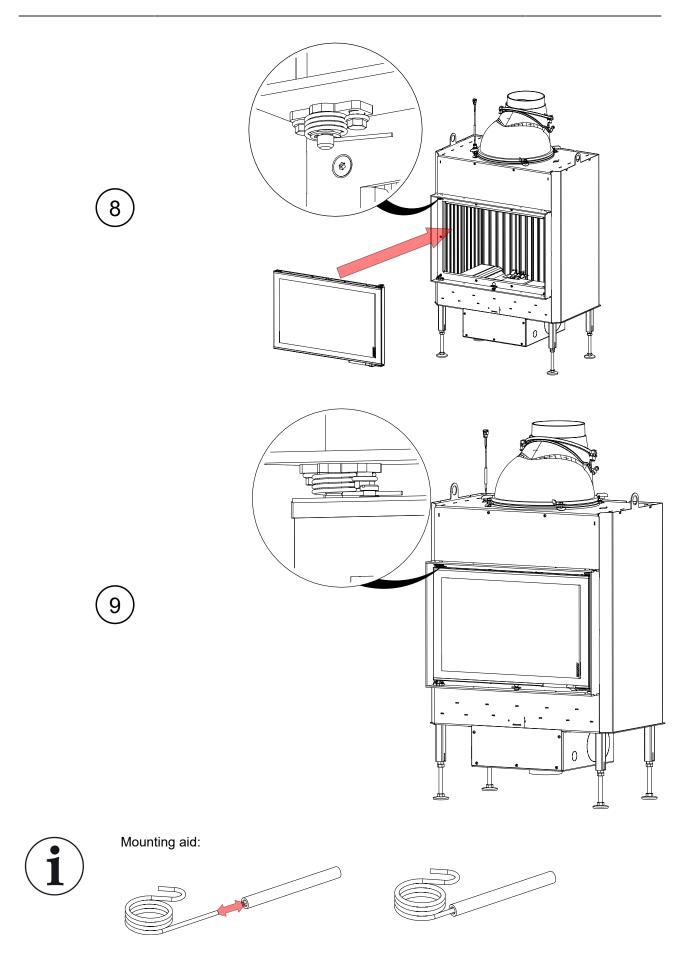


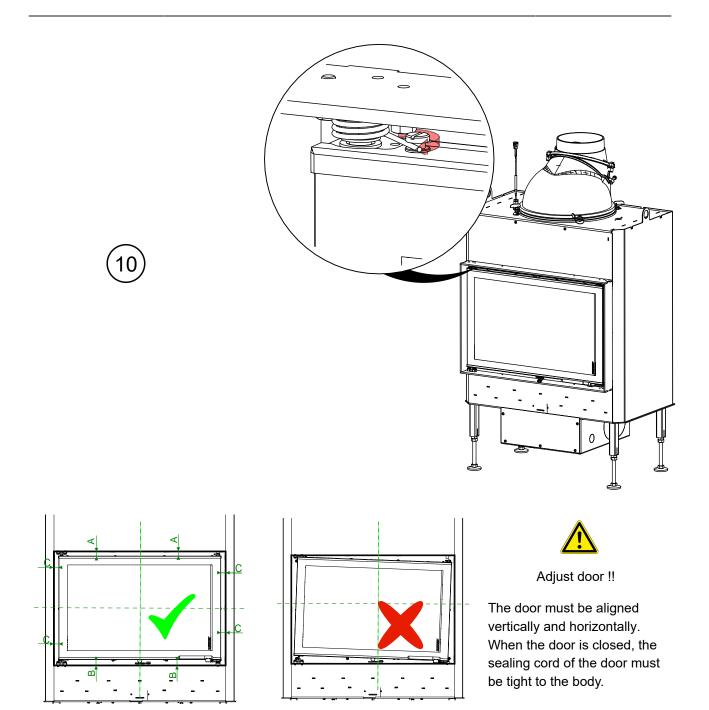
DTL = side-opening door - left side DTR = side-opening door - right side







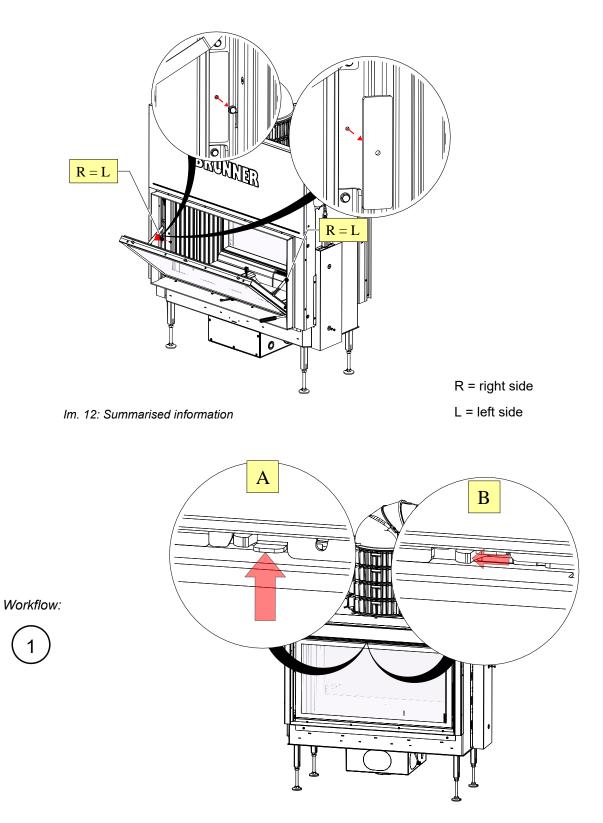


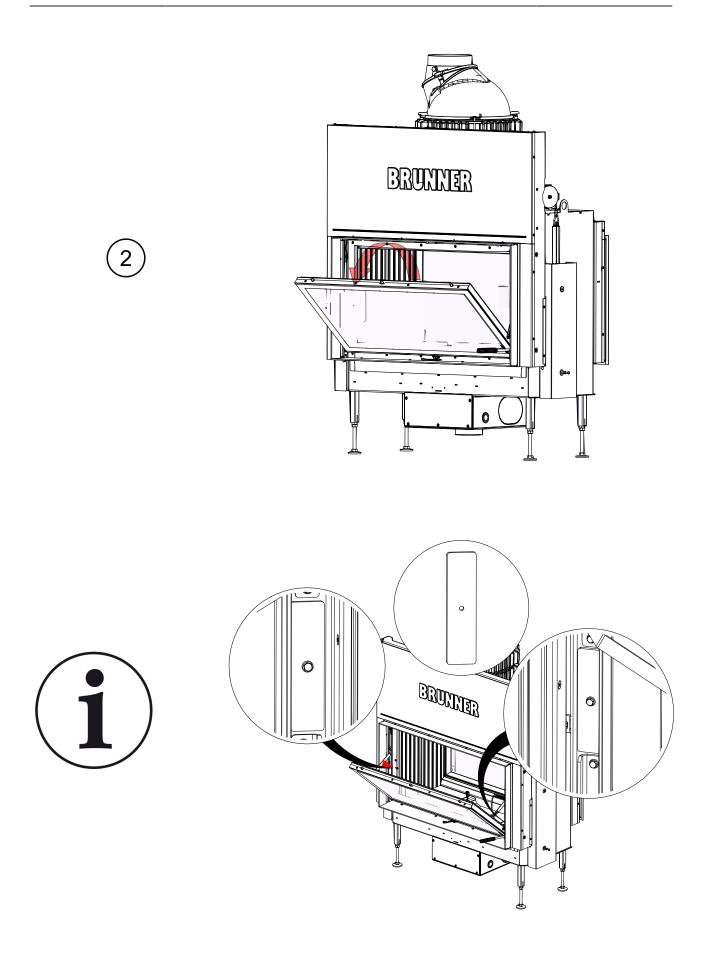


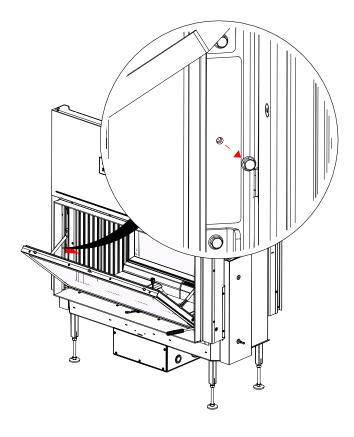
Version : BKH with lifting door

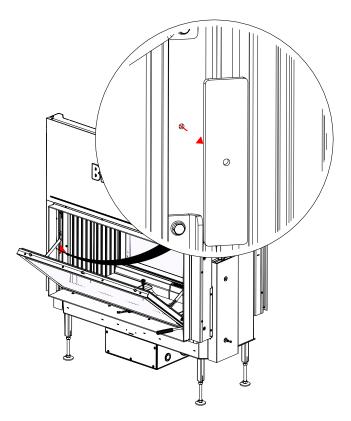
-> Self-closing is active in the delivery state..

#### 11.3 MODIFICATION - LIFTING DOOR: "NON SELF CLOSING"









(4)

3

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#### 11.4 RETROFITTING EAS/EOS

Retrofitting an EAS or EOS is possible for BKH appliances in the 5.0 series. If retrofitting is desired, this must be specified when ordering. A few preparatory measures must be taken for retrofitting EAS/EOS, which are listed below.

Preparatory measures	Remark
Pull-in cable for thermal sensor	Pre-assembled at the fac- tory
Possible opening for thermal sensor installation and EAS installa- tion from the front	Advantageous, but not ab- solutely necessary
Empty conduits for EAS. power supply or EOS control unit	
Empty conduits between flush-mounted box for EAS (with and without display) or EOS control unit and appliance	
Empty conduits between the flush-mounted boxes control unit and display	for EOS
Control option	Provide relay A4

# 12 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

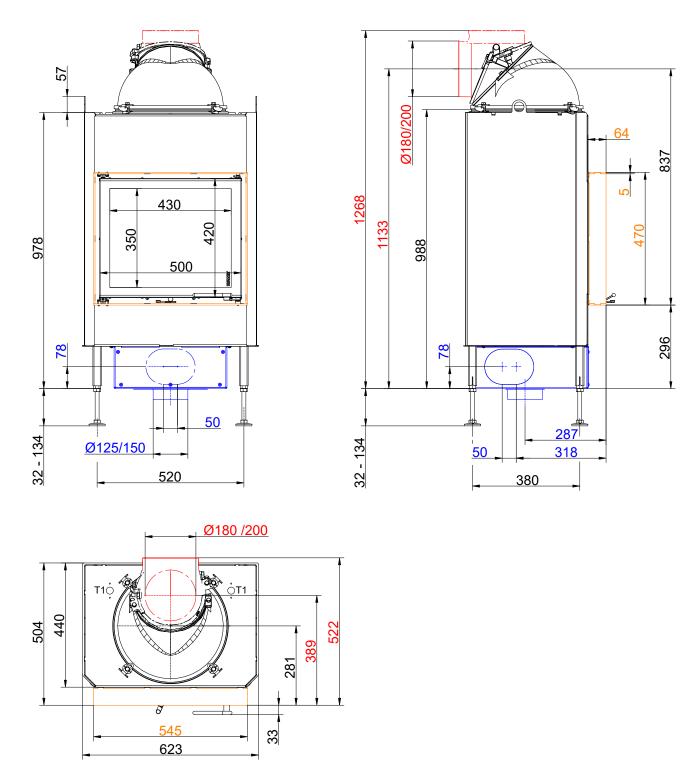
Oxidative catalytic converters, as installed in modern wood stoves, are very effective at reducing emissions of carbon monoxide and hydrocarbons. This is possible, because precious metals like platinum, palladium and rhodium are used on the surface of catalytic converters. These precious metals are distributed 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.

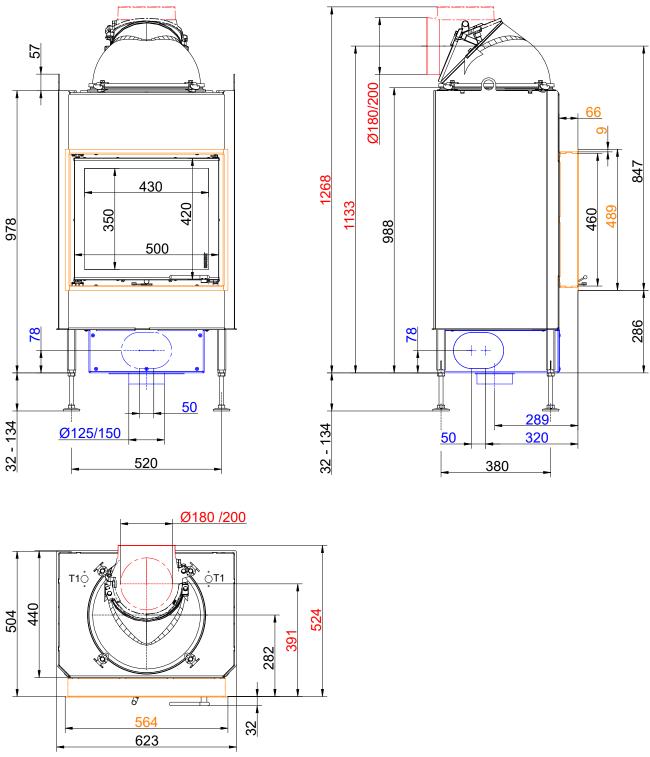
Contained precious metals can be recovered by thermal or chemical separation techniques to almost 90%, and then used again in the manufacturing process.

Please bring the used cacatalytic converter to a recycling center.

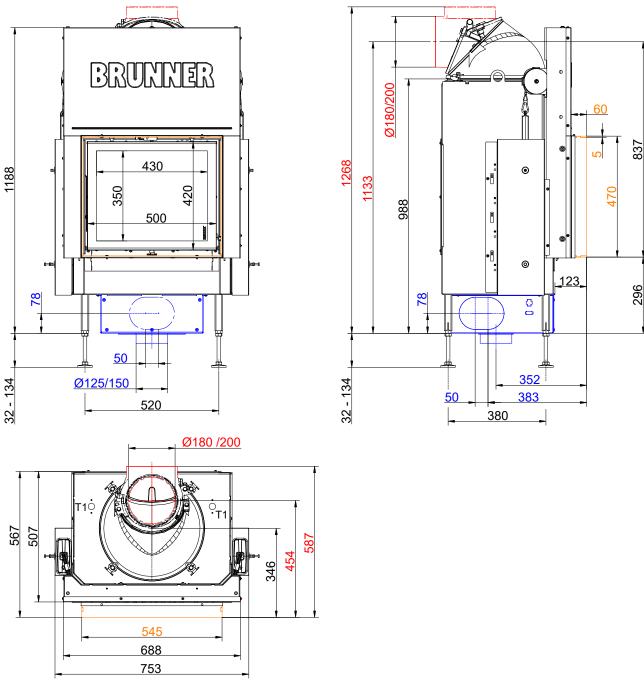
Thank you very much for your efforts in supporting the protection of environment and sustainable use of resources.



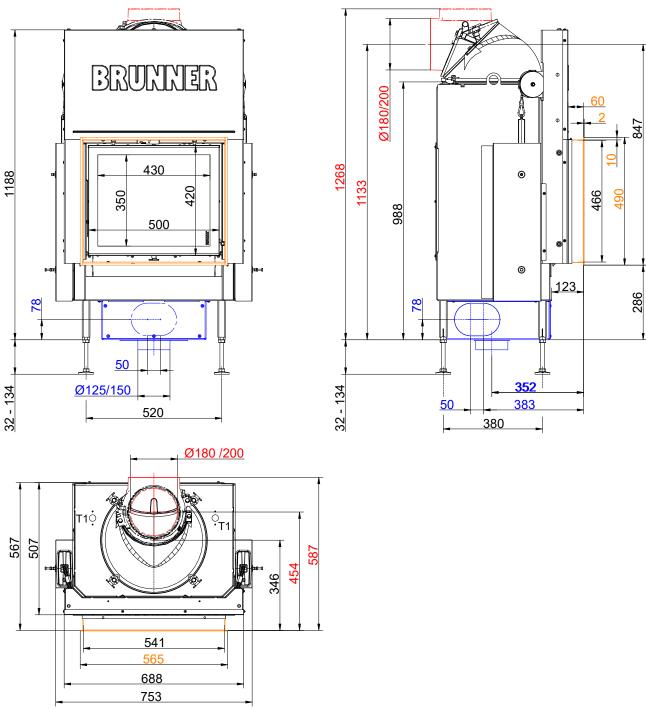
... mounting bracket with cast iron dome (side-opening door, DT)



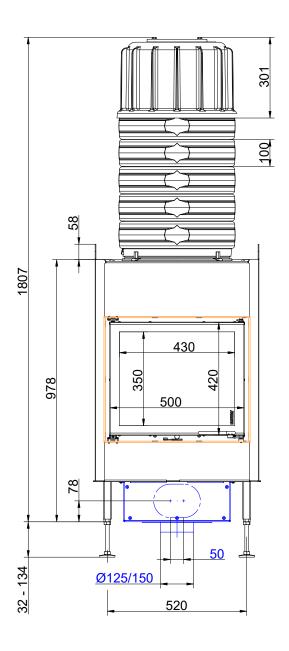
... door frame and cast iron dome (side-opening door, DT)

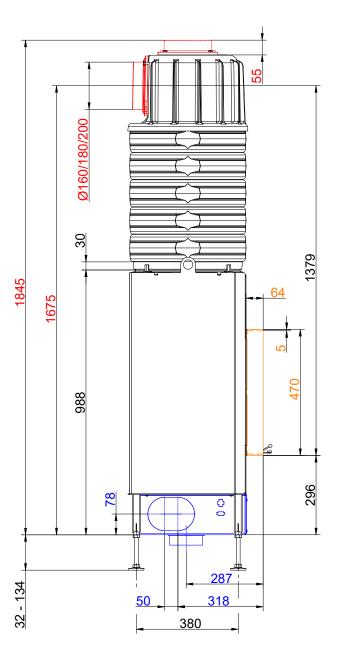


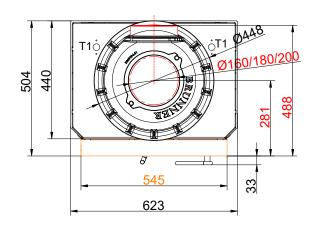
 $\ldots$  mounting frame and cast iron dome (lifting door, ST)



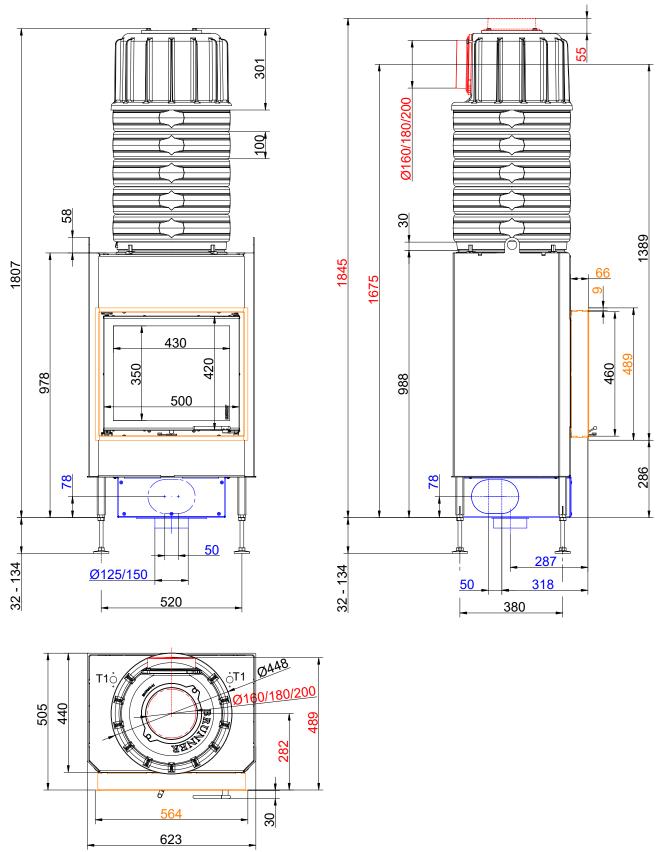
... door frame and cast iron dome (lifting door, ST)



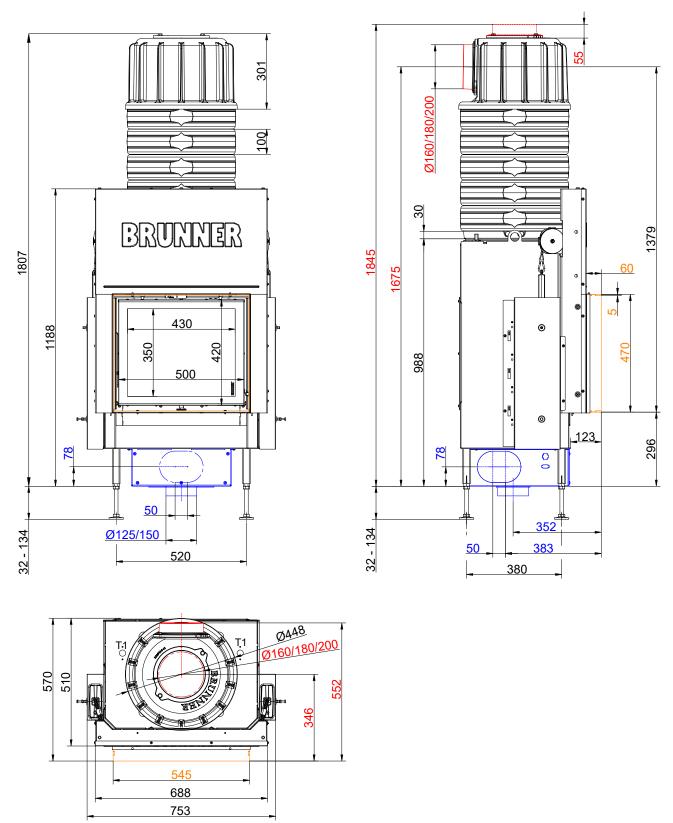




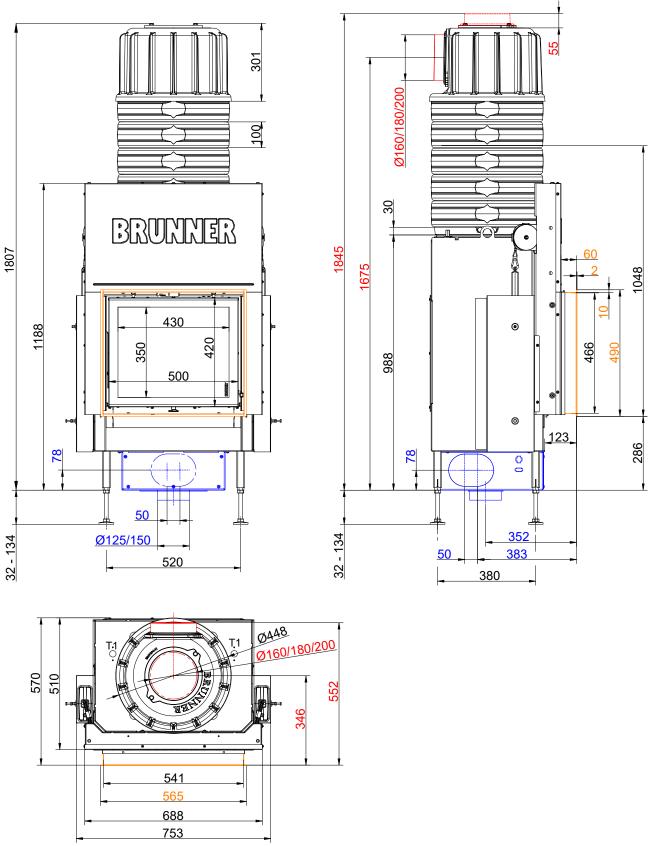
... mounting bracket and MAS (side-opening door, DT)



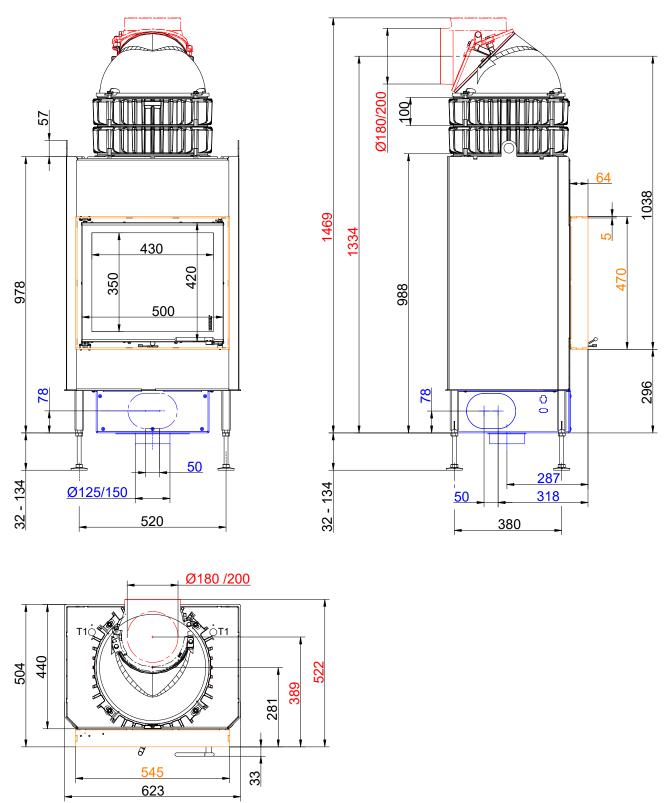
... door frame and MAS (side-opening door, DT)



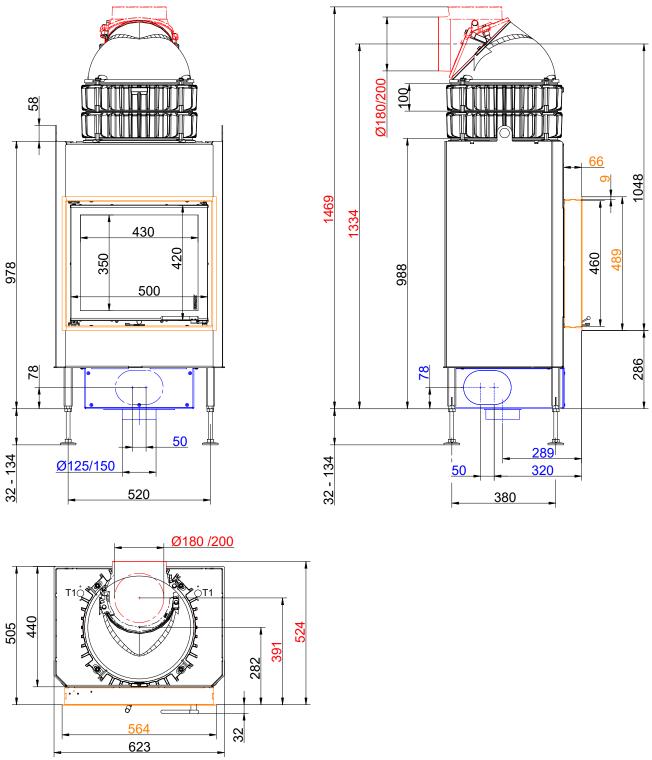
... mounting frame and MAS (lifting door, ST)



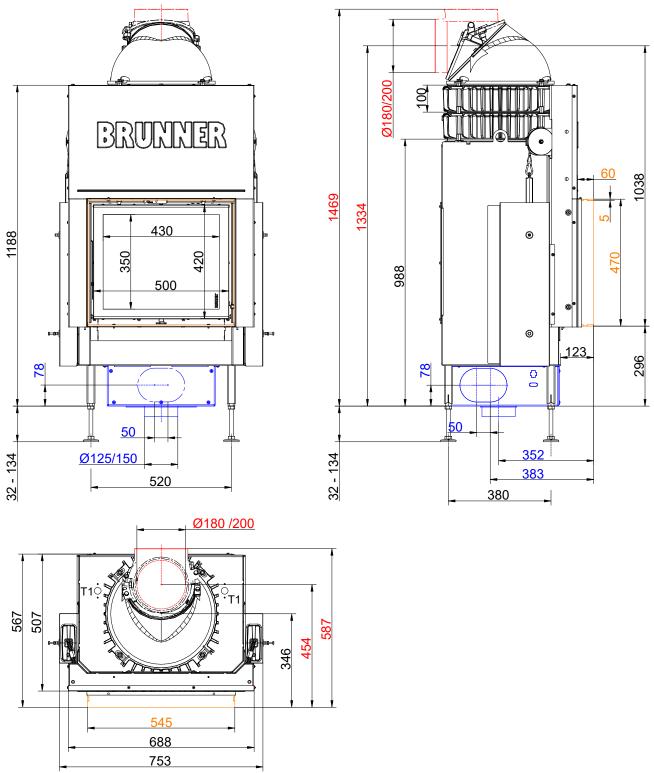
... door frame and MAS (lifting door, ST)



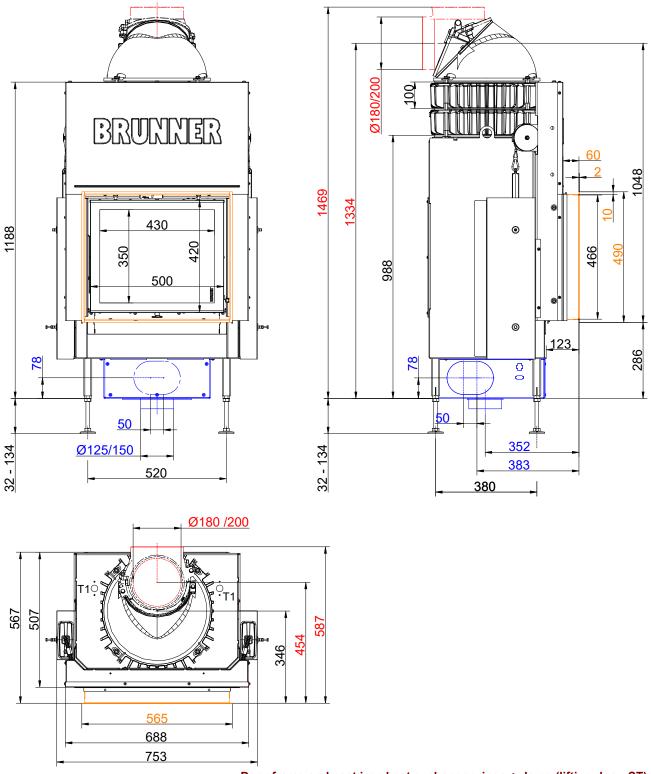
... Mounting bracket and cast iron heat exchanger rings + dome (side-opening door, DT)



... Door frame and cast iron heat exchanger rings + dome (side-opening door, DT)



... Mounting frame and cast iron heat exchanger rings + dome (lifting door, ST)



... Door frame and cast iron heat exchanger rings + dome (lifting door, ST)

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.

#### Planning and installation - BKH flat 42-50 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	8	-
Fire wood volume	kg/h	2.4	3.5
Combustion performance	kW	10	14
Flue gas mass flow	g/s	10	16
Flue gas temperature after:			
Cast iron dome	°C	220	350
2 x cast iron heat exchanger rings + dome	°C	210	260
5 x accumulation rings incl. MAS casted cover <sup>3)</sup>	°C	-	260
2,0 m ceramic accumulator <sup>4)</sup>	°C	-	180
1,4 m accumulation stones (MSS) <sup>4)</sup>	°C	-	180
Necessary supply pressure	Pa	12	12
Fuel amount	kg	2.0	4.0
Combustion air consumption	m³/h	30	43
Combustion air connection Ø	mm	125	125
Heat distribution			
nsert / reheating surface	%	30 / 30	30 / 30
glass ceramic / glass ceramic coated (GKB)	%	40 / 30	40 / 30
Cross-section of gratings <sup>5)</sup>			
exhaust warm air	cm <sup>2</sup>	600	600
Recirculation air	cm <sup>2</sup>	600	600
Minimal oven surface for closed construction type			
Heat dissipating surface	m <sup>2</sup>	3.8	3.8
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 insu			
with heat protection panel for mounting wall (non-	cm	6/8	6/8
combustible) <sup>7)</sup>	om	070	070
with heat protection panel for mounting wall (com- bustible) <sup>7)</sup>	cm	12 / 13 + 10	12 / 13 + 10
o mounting wall (non-combustible)	cm	8 / 10	8 / 10
o 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 cha	mber, glass	ceramic / glass cerami	c coated (GKB)
or combustible parts	cm	≥ 120 / ≥ 80	≥ 120 / ≥ 80
Weight			
Fireplace insert + combustion chamber inner lining chamotte/cast iron	kg	g 104 (DT) - 142 (ST) + 71 / 87	
Meets requirement/limit values for:			
		Ecodesign / 1. I	

1) Indications to "Rated power" determined with 2 heat exchanger rings made of cast iron and Ø180 dome.

2) Indications to "Storage operation" for the manual execution of the reheating surface (guide values).

3) Damper flap recommended

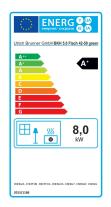
- 4) Standard value or calculated functional proof required.
- 5) Air cross-sections if the specified nominal heat output is desired as the heat output.
- 6) Fire safety: values determined with air cross-sections evaluated by safety testing; stove cladding is heat emitting. Insulation material data with 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).

#### Planning and installation - BKH flat 42-50 green

7) 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, side wall 3 cm.

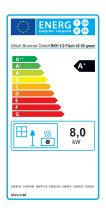
#### Product data sheet according to (EU) 2015/1186:

Supplier's name or trademark	Ulrich Brunner GmbH
Model identifier:	BKH 5.0 Flach 42-50 green ST
Energy efficiency class:	A+
Direct heat output:	8,0 kW
Indirect heat output:	N.A. kW
Energy efficiency index:	110
Fuel energy efficiency (at nominal heat output):	83,0 %
Fuel energy efficiency (at minimum load):	N.A. %
Special precautions: see supplied product documenta- tion	



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

Supplier's name or trademark	Ulrich Brunner GmbH
Model identifier:	BKH 5.0 Flach 42-50 green DT
Energy efficiency class:	A+
Direct heat output:	8,0 kW
Indirect heat output:	N.A. kW
Energy efficiency index:	110
Fuel energy efficiency (at nominal heat output):	83,0 %
Fuel energy efficiency (at minimum load):	N.A. %
Special precautions: see supplied product documenta- tion	



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