

Installation Manual

BKO 42-42

BKO 42-42-42

©2026

BRUNNER®

INHALT

1	General information.....	3
1.1	Raw steel cladding.....	3
1.1.1	Care instructions.....	4
1.1.2	Surface quality & complaint.....	6
1.1.3	Toleranzen der Verkleidungsteile.....	8
2	Safety.....	11
2.1	Safety precautions.....	11
3	Assembly preparation.....	13
3.1	Delivery contents.....	13
3.2	Delivery condition.....	14
3.3	Instructions for installing BKO accessories & additional options.....	16
3.4	Transport locks.....	18
3.4.1	Fitting the KAT retaining ring.....	19
4	Installation.....	21
4.1	Overview of dimensions for setting & alignment.....	21
4.2	Variant Supply air connection box ø 125 mm.....	24
4.3	Removing the raw steel cladding.....	25
4.4	Variant EAS or EOS.....	27
4.4.1	Bottom cover air box EOS.....	27
4.4.1.1	Components EOS.....	27
4.4.1.2	Installation: EOS.....	28
4.4.1.3	Membrane feed-through.....	29
4.4.1.4	Air position indicator BKH flat.....	30
4.4.2	Thermocouple.....	31
4.4.2.1	Components Thermocouple.....	31
4.4.2.2	flat.....	32
4.4.2.2.1	Installation: Thermocouple.....	32
4.4.2.3	corner.....	34
4.4.2.3.1	Installation: Thermocouple.....	34
4.4.3	Door contact switch.....	36
4.4.3.1	Components Door contact switch.....	36
4.4.3.2	flat.....	37
4.4.3.2.1	Installation: Door contact switch.....	37
4.4.3.3	corner.....	39
4.4.3.3.1	Door contact switch-assembly.....	39
5	Technical data.....	42

1 GENERAL INFORMATION

1.1 RAW STEEL CLADDING

Our BRUNNER BKO with its special raw steel cladding embodies the interplay of precision craftsmanship and natural aesthetics. With a timelessly elegant look, it becomes an expressive highlight in modern and rustic living concepts. In industrial design in particular, raw steel is a central element that accentuates urban charm and modern loft style.

Raw steel is steel in its most original form, whose unique surface is created by a special rolling process at high temperatures. During this process, a hard layer of iron oxide, also known as scale, forms, giving the material its characteristic black-blue color. In combination with its irregular, organic structure, in which small color nuances and individual patterns become visible, each BKO is visually unique.

With the right care of the raw steel, the surface is preserved for a long time and develops an individual appearance over time, giving your stove additional personality.

1.1.1 CARE INSTRUCTIONS

Careful care of the raw steel is essential to maintain the BKO cladding in the long term. The best possible protection of the surface can be ensured by observing the following care instructions, which will keep it in optimum condition in terms of appearance and quality.

1. protection from moisture

Moisture has a negative effect on the raw steel as it can lead to rust formation. The surface can therefore be effectively protected against moisture:

Observe the humidity in the installation area

- Ensure moderate humidity in the installation room (ideally between 40 - 60 %).
- Avoid strongly fluctuating humidity conditions (e.g. longer ventilation periods in winter).
- Use in swimming pools and damp rooms is not recommended.
- The product is not suitable for outdoor use.

Remove spilled liquids immediately

- Avoid direct contact of liquids (water, drinks, etc.) with the surface.
- If liquids get onto the surface, wipe them up immediately with a soft, dry cloth.

Avoid skin contact

- Avoid direct skin contact with the surface, as fingerprints and handprints can otherwise leave stains.
- Always wear gloves when touching the cladding.

2. after-treatment of the surface

Post-treatment with anti-corrosion oil is a simple way of protecting the cladding from rust and sealing the raw steel.

Frequency of post-treatment

- Re-treatment should be carried out as required, usually once or twice a year.
- If necessary: If changes to the surface become visible (e.g. slight stains or matt sheen)

Preparing the surface

- Clean the surface thoroughly before applying the oil.
- Wipe off dust and dirt with a dry cloth.
- Ensure that the surface is completely dry.

Applying oil

- Spread a small amount of anti-corrosion oil onto a soft, lint-free cloth.
- Apply a thin, even layer to the surface.
- Less is more - too much oil can leave unsightly streaks.
- Then lightly polish the surface with a dry cloth.

3. regular and correct cleaning

Regular cleaning is important to keep the surface looking attractive.

Remove dust and dirt

- Wipe the surface regularly with a soft, dry cloth.
- Alternatively, a vacuum cleaner with a soft brush nozzle can be used to remove dust.

Do not use aggressive cleaning agents

- Never use aggressive cleaning agents, scouring milk or steel wool!
- This will permanently damage the surface, which can impair protection against corrosion.

4. avoid scratches

Raw steel is robust, but can be scratched by mechanical influences.

Do not lean on any objects

- Avoid leaning objects (e.g. everyday objects, tools, etc.) against the cladding, as this can leave scratches and dents.

Keep the cover clear

- Do not use the lid as a storage surface.
- Small objects such as keys or decorations can also scratch the surface.

1.1.2 SURFACE QUALITY & COMPLAINT

The cladding parts comply with class A1 in accordance with EN 10163-2:2004 with regard to its surface requirements.

Material or production-related irregularities in or on the surface of hot-rolled steel products are regarded as imperfections in accordance with EN 10163-1:2004.

Types of surface imperfections

Scale indentations, scale marks

Markings of varying shape, thickness and frequency that are rolled into the surface.

Indentations and impressions

Elevations or depressions caused by the natural wear of the rollers or drive rollers during the manufacturing process.

Scuffs and grooves

Mechanical markings on the surface.

Scales

Fine surface separations that occur irregularly.

Bubbles

Gas bubbles that lie just below the surface.

Sand spots

Non-metallic internal inclusions that are stretched in the direction of rolling and have different colors.

Cracks

Narrowly limited material separation in the surface area.

Shells

Material overlaps that are partially bonded to the base material.

Imperfections that are not deeper than 0.2 mm are categorically regarded as imperfections. These are an unavoidable part of the manufacturing process, are permissible regardless of their number and are therefore **not worthy of complaint**.

Imperfections are only considered to be worthy of complaint from a depth of 0.4 mm and under simultaneous examination of the affected zone of the individual case.

Discontinuities can only be classified as (material) defects if they exceed the limit value of 0.4 mm and the affected zone of the respective cladding part has been checked.

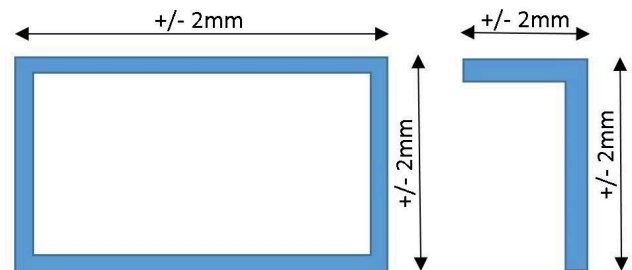
The technical functionality is not affected by the presence of imperfections of this type.

1.1.3 TOLERANZEN DER VERKLEIDUNGSTEILE

Für die Formteile unserer Systemverkleidungen gelten die im folgenden angegebenen Toleranzen. Sofern nichts anderes angegeben, beziehen sich sämtliche Angaben auf die in den Maßblättern angegebenen Nennmaße.

Length Tolerances

For each part, the indicated tolerances apply.



Height Tolerances

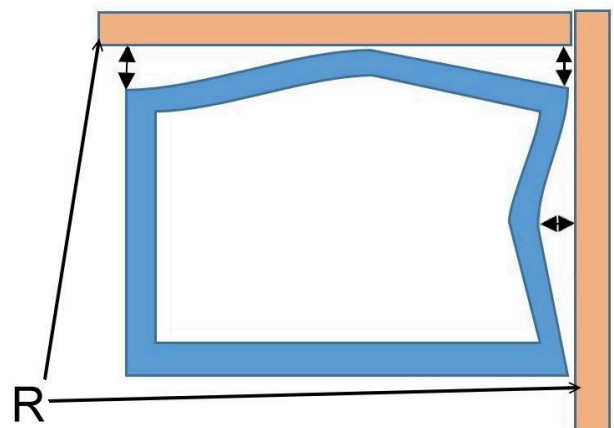
For each part, the indicated tolerances apply.



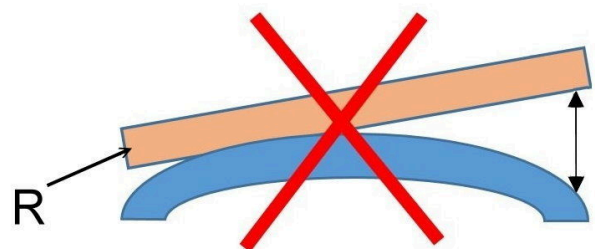
Tolerances of Flatness

For parts with nominal dimensions up to 950 mm, a tolerance of +/- 2.5 mm applies. Above this dimension, a tolerance of +/- 3 mm applies.

These tolerances apply also for the base support and top cover parts. The leveling board (R) must be placed in parallel to the basic body!



Im. 1: Leveling boards placed correctly

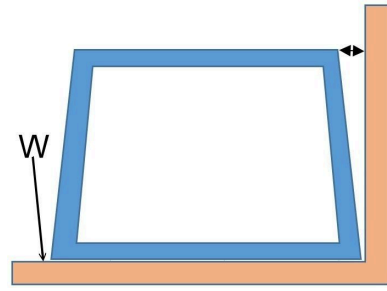


Im. 2: Incorrectly placed leveling board

Tolerances of Angle

In order to determine the deviations of angles, place the square measuring tool along the long edge!

For nominal dimensions up to 600 mm, a tolerance of 0.28%, i.e. 1.7 mm applies. For nominal dimensions up to 900 mm, a tolerance of 0.30%, i.e. 2.4 mm applies.



2 SAFETY

2.1 SAFETY PRECAUTIONS

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

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



Fireplaces with external air supply are not independent from room air supply and must be considered and designed as roomsealed fireplaces. In connection with a ventilation or extraction system, we recommend the use of a negative pressure safety device USA.



If additional parts are installed on the fireplace which are not approved for this appliance by Ulrich Brunner GmbH (for example, an external control unit), it is a customized product that meets customer requirements. The resulting fireplace insert is not type-tested; the declaration of performance of this fireplace insert will be no longer valid.

The responsibility for installation (according to TROL) and operation lies exclusively with the specialist craftsman!

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.

Stoves with water boilers are ready for use only with a fully functional boiler section.

3 ASSEMBLY PREPARATION

3.1 DELIVERY CONTENTS

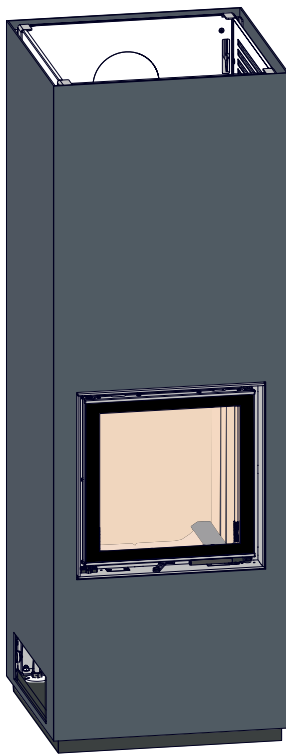
Designation	Use	Pcs.
Heating insert BKH		1
Raw steel cladding BKO		4
BKO assembly pack	in case of spare parts/reserves	1
BKO EOS accessory pack	only for EOS variant	1
Rubberized work gloves		2
Suction handle	Carrying aid for cladding parts	2
Screw clamp	Tools for removing/installing the trim parts	1
Ballistol cleaning and care oil	Care of the cladding parts	1

3.2 DELIVERY CONDITION

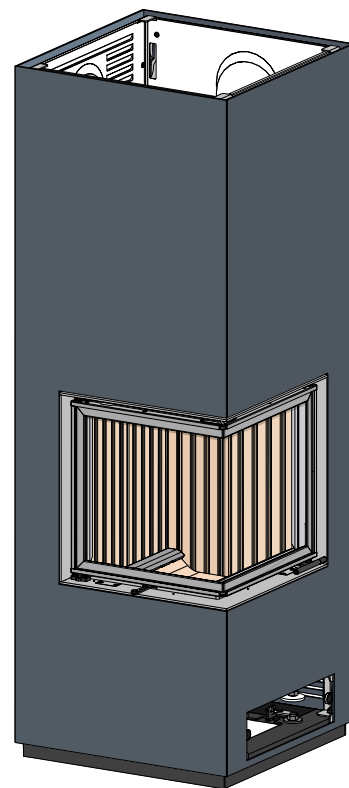
The BKO consists of a BKH heating insert with the selected configuration, a floor unit and the raw steel cladding, which is connected to the floor unit via cladding supports. These components of the BKO are delivered pre-assembled at the factory. The lower panels for the side cladding parts and the covers are packed separately as part of the scope of delivery.

Delivery condition

BKO flat



BKO corner



Optional top-mounted variants such as the modular top-mounted storage tank (MAS) or the cast iron heat exchanger rings (WTR) must be fitted during installation. The respective attachment can be fitted from above without removing parts of the raw valley cladding.

For installation of the top-mounted variants, see the BKO accessories & additional options instructions chapter.



CAUTION

Risk of injury due to heavy loads

Moving the heating element and heavy cladding parts can cause crushing injuries.

- ▶ Ensure a secure hold when carrying the individual parts.
- ▶ Ensure correct use when using the assembly tools supplied.
- ▶ Move the heating element and cladding parts with at least two people.

3.3 INSTRUCTIONS FOR INSTALLING BKO ACCESSORIES & ADDITIONAL OPTIONS

The QR codes below provide access to the instructions for installing the respective accessories and additional options.

Heat exchanger rings

for:



BKO flat

BKO corner



https://www.brunner.de/wp-content/uploads/202959_Montageanleitung-Waermetauscherringe-Guss_de.pdf

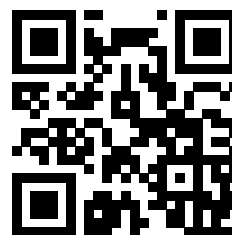
Modular Accumulator MAS

for:



BKO flat

BKO corner

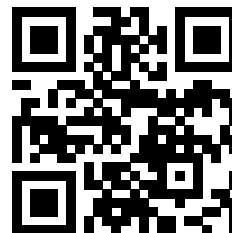


<https://www.brunner.de/22266>

for:

Control mechanism baffle flap

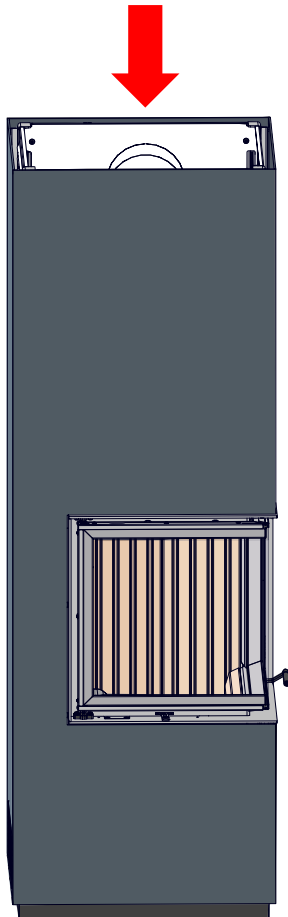
BKO



<https://www.brunner.de/23602>

3.4 TRANSPORT LOCKS

Two plates have been fitted to the top of the heating insert to stabilize it during transport. These must be removed for assembly.

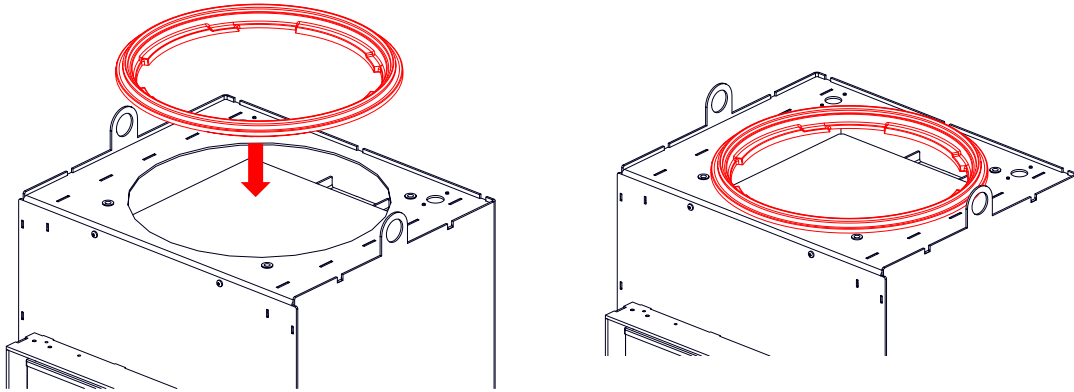


After removing the wooden panels, fit the KAT mounting ring using the retaining plates and stud bolts.

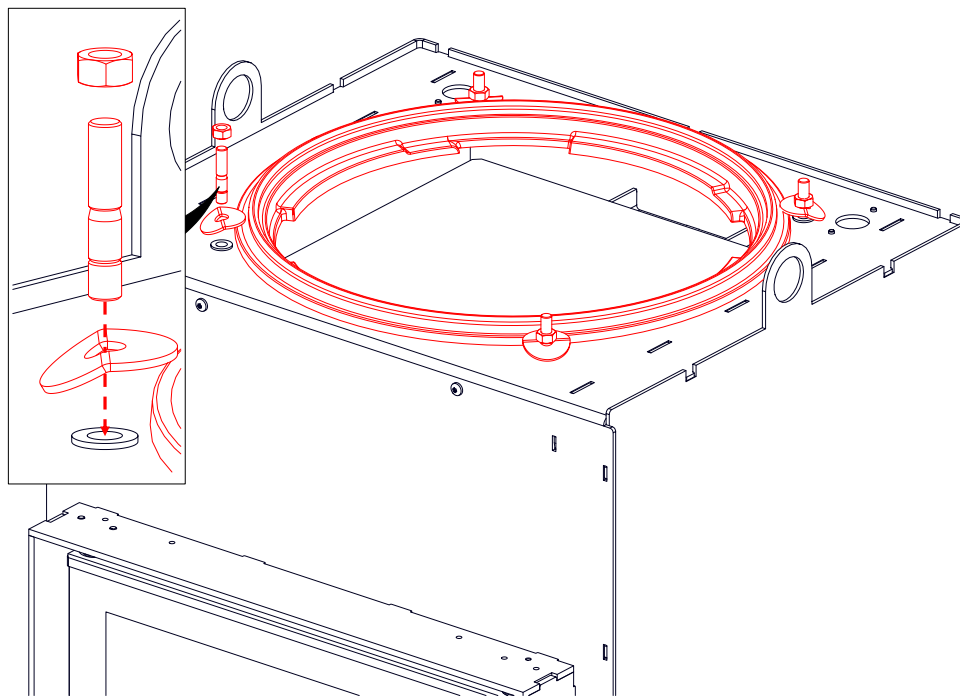
3.4.1 FITTING THE KAT RETAINING RING

Work steps

- Fit the retaining ring into the opening.



- Fit the retaining ring to the body using the retaining plates.

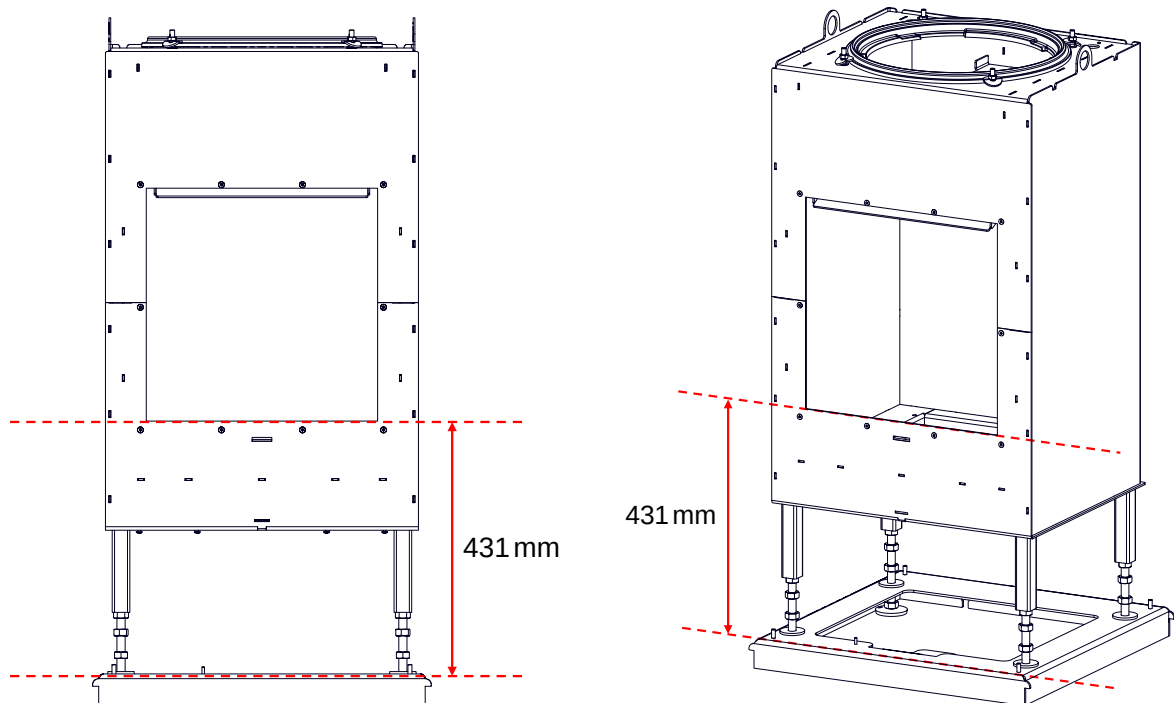


4 INSTALLATION

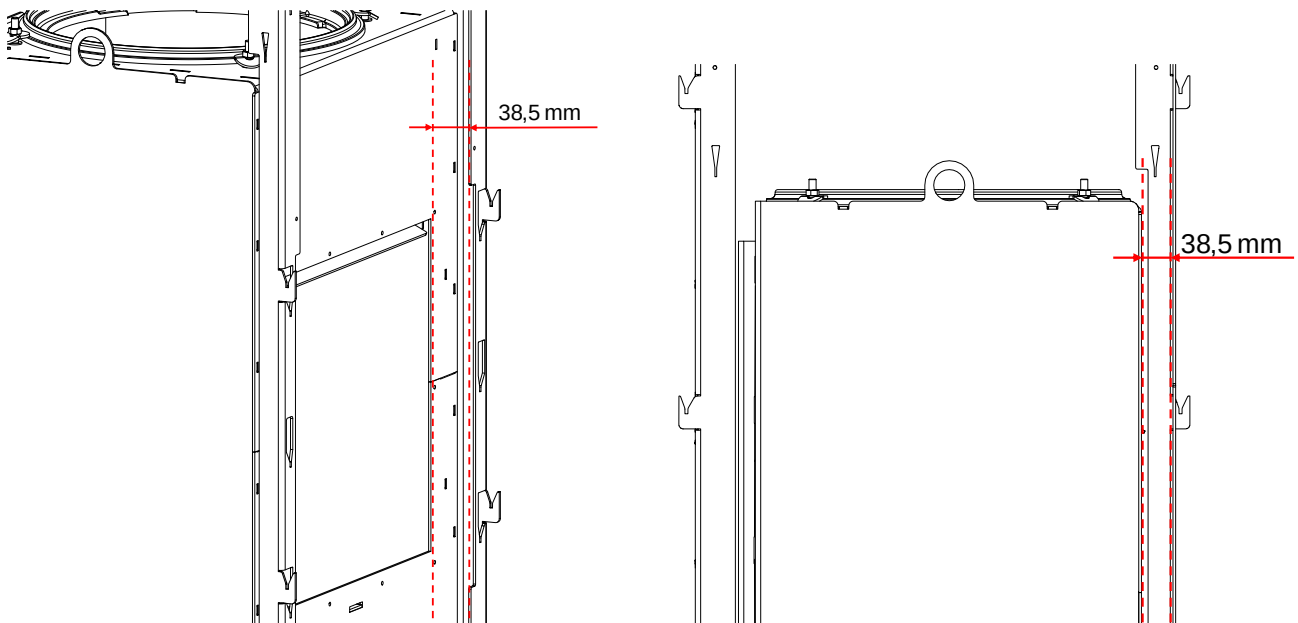
4.1 OVERVIEW OF DIMENSIONS FOR SETTING & ALIGNMENT

The BKO is set to the correct dimensions at the factory. If necessary, the information in the following section can be used for readjustment.

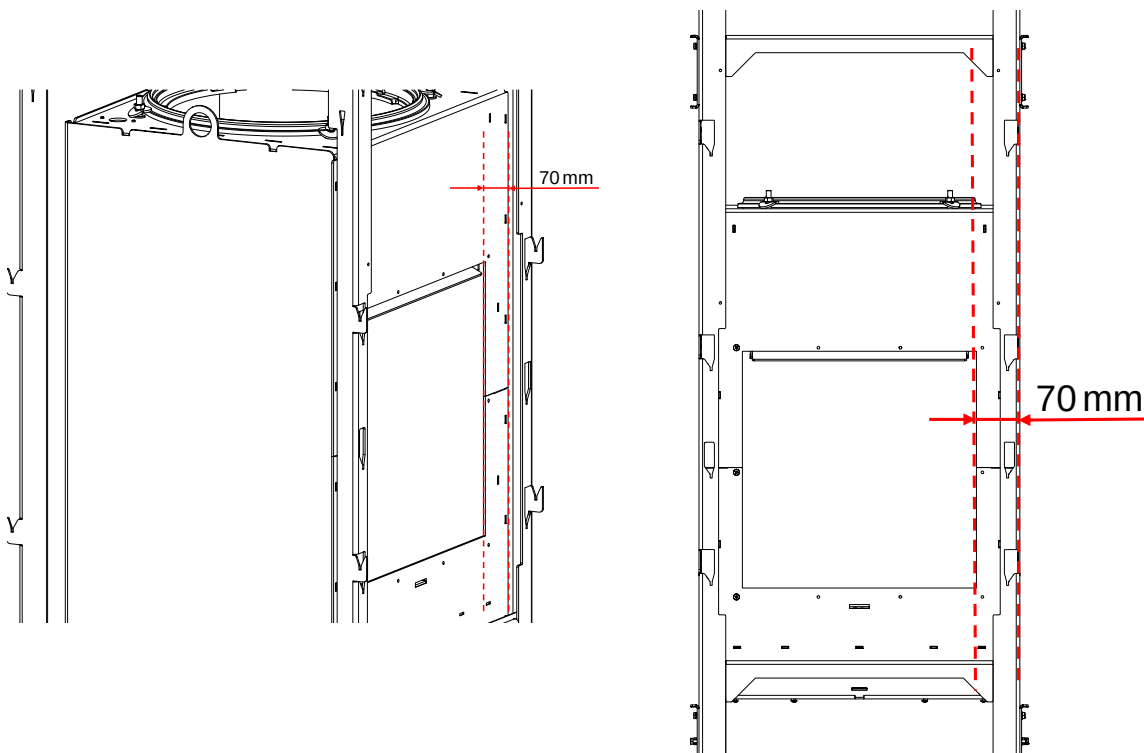
Distance between the floor unit and the lower edge of the front door recess: 431 mm



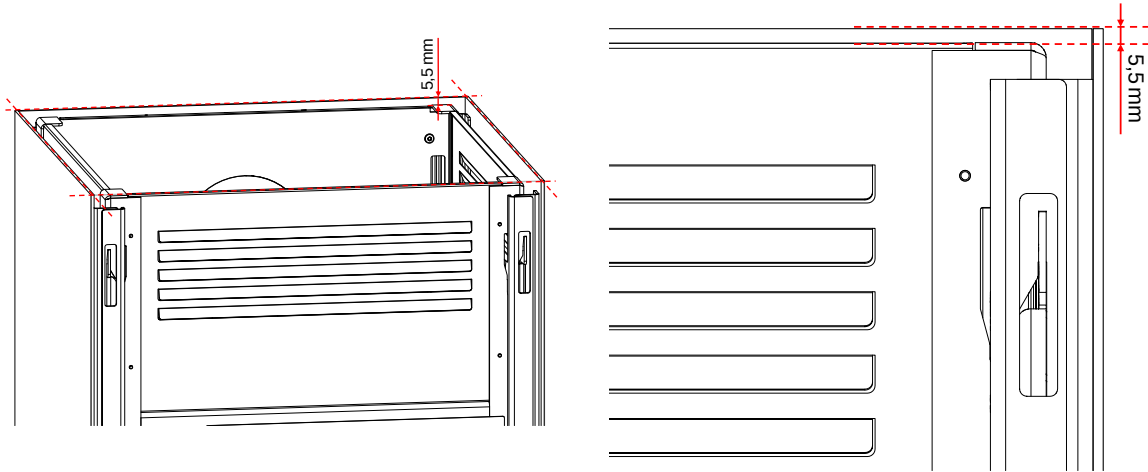
Distance between front heating insert and edge of cladding support: 38.5 mm



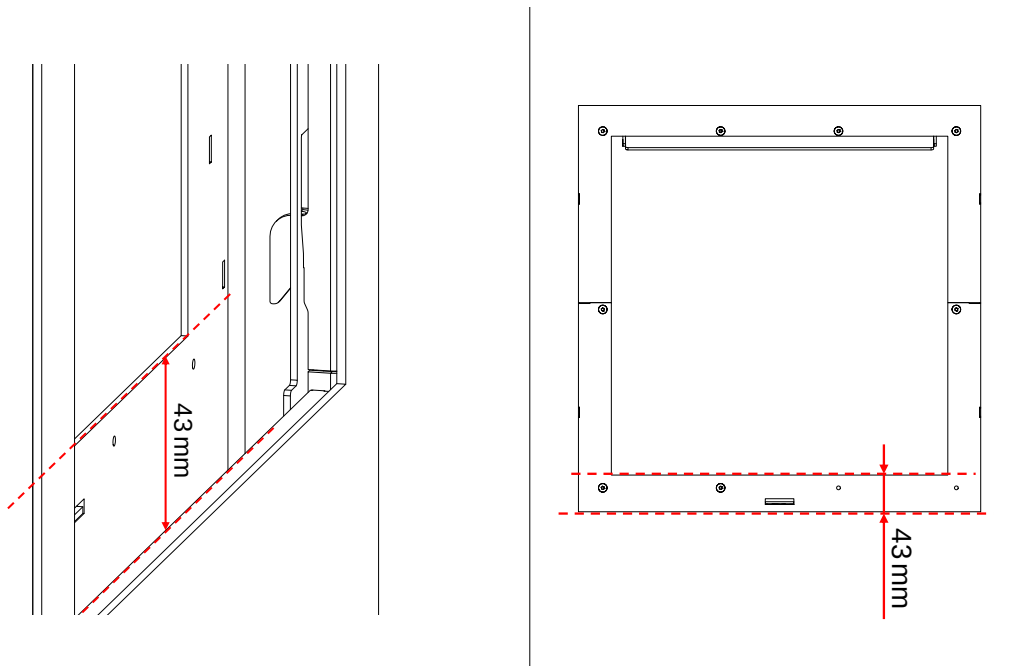
Lateral distance between the front recess for the heating insert and the cladding support: 70 mm



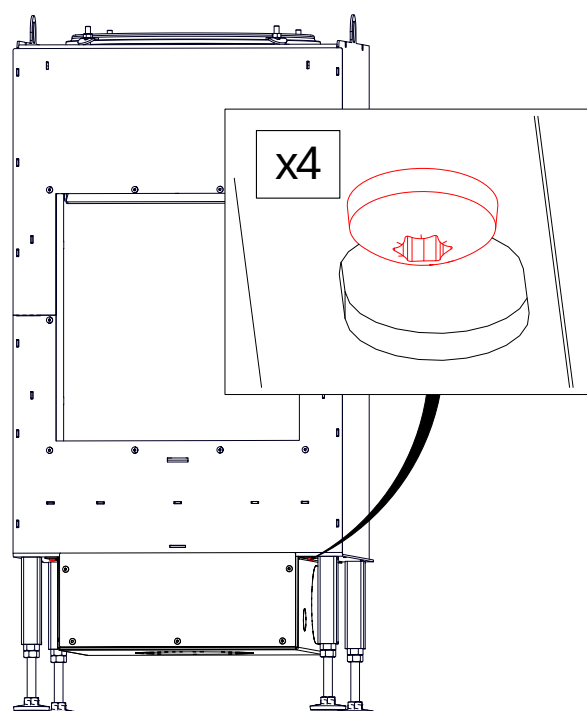
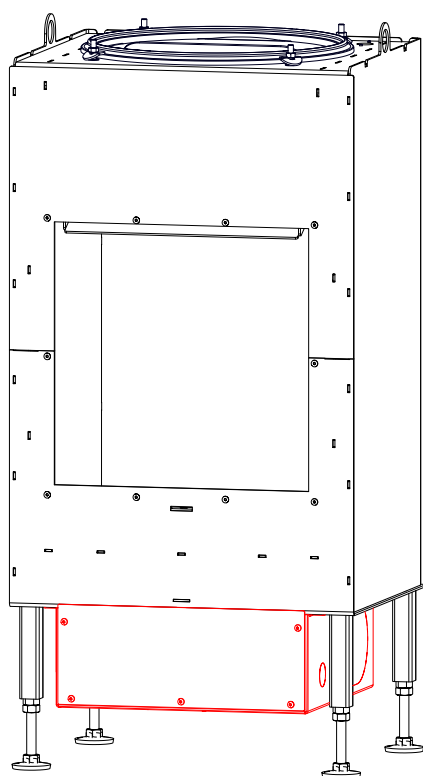
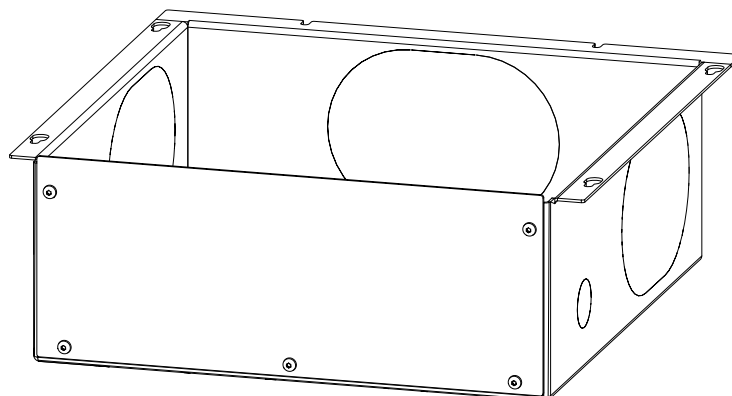
Distance between upper edge of cladding panels and cladding support 5.5 mm (check for all cladding panels!)



Distance between front cut-out for heating insert and front cut-out for cladding at the front: 43 mm

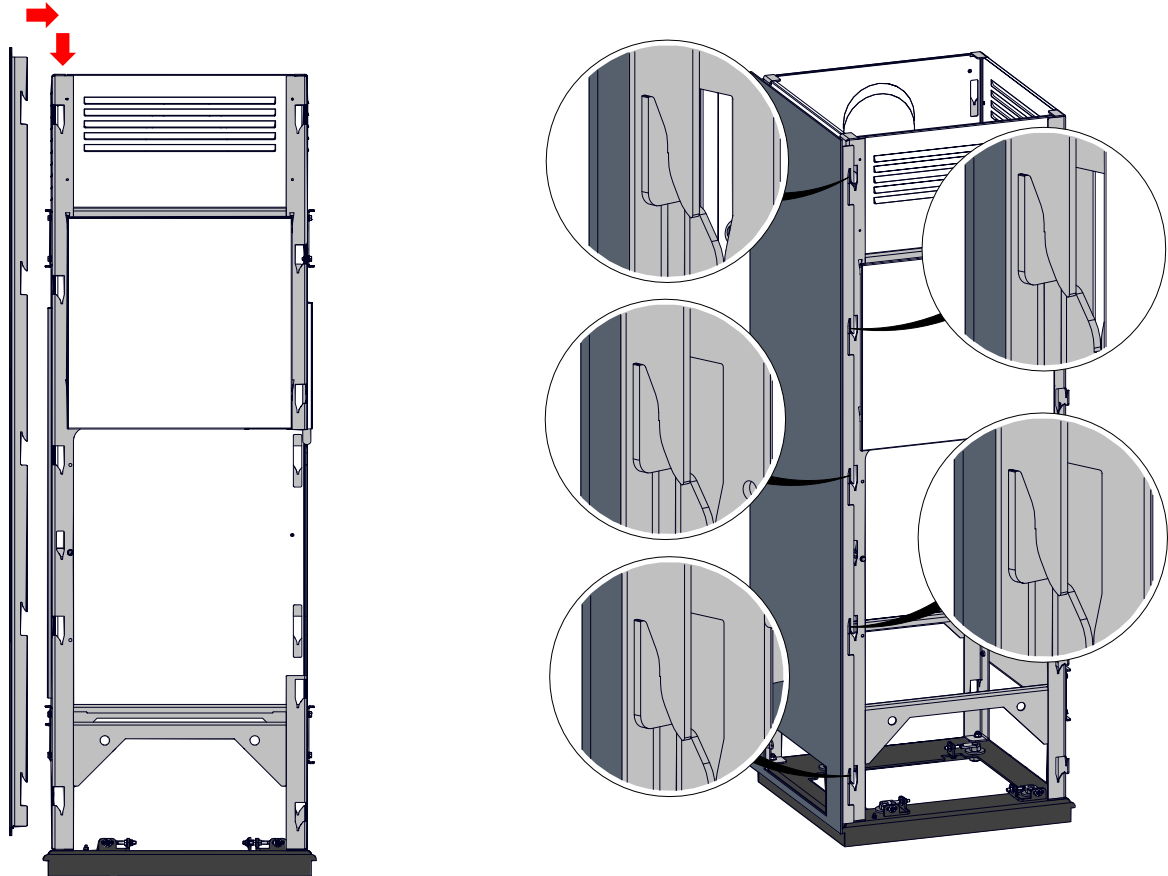


4.2 VARIANT SUPPLY AIR CONNECTION BOX Ø 125 MM



4.3 REMOVING THE RAW STEEL CLADDING

The cladding parts are fitted at the factory and can only be removed after delivery if necessary! Regardless of the BKO version, the cladding parts are hooked into the cladding frame on both sides using a plug-in system.





CAUTION

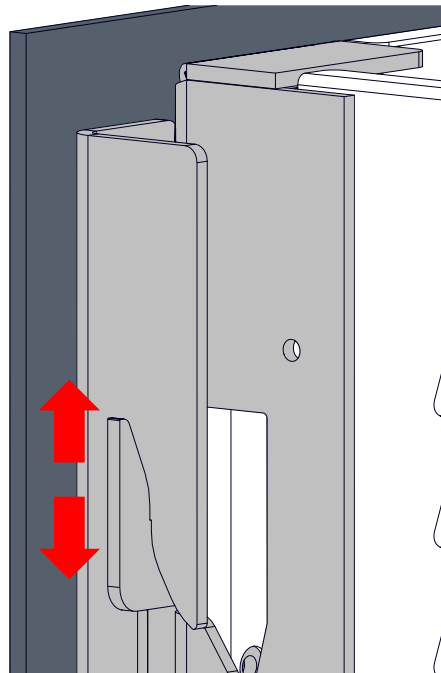
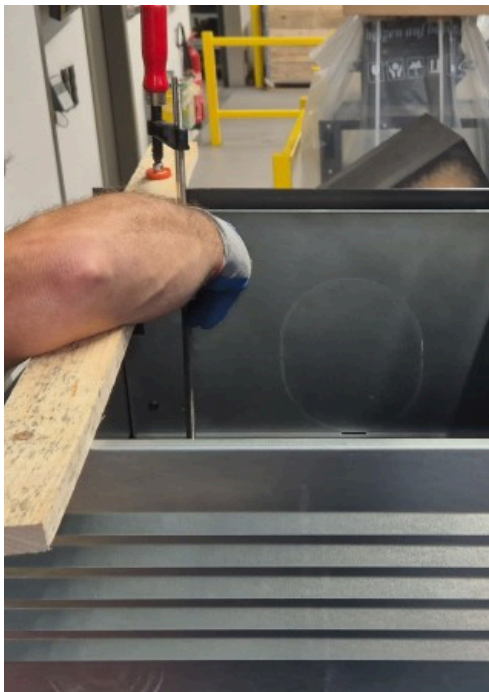
Risk of injury due to heavy loads

Moving the heavy cladding parts can lead to crushing injuries.

- ▶ Ensure correct use when using the installation tools supplied.
- ▶ Move cladding parts with at least two people.

Use the suction grips supplied to remove the cladding parts. Depending on how firmly the cladding parts are engaged with the frame, individual raw steel plates may be difficult to remove.

In these cases, the supplied screw clamp can be used to loosen the teeth of the plug-in system. When using the screw clamp, ensure that the raw steel surface is not damaged!

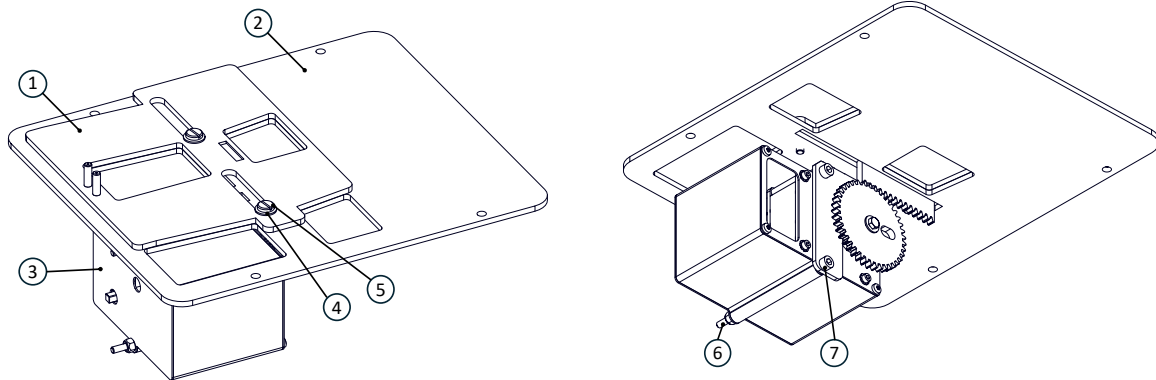


4.4 VARIANT EAS OR EOS

4.4.1 BOTTOM COVER AIR BOX EOS

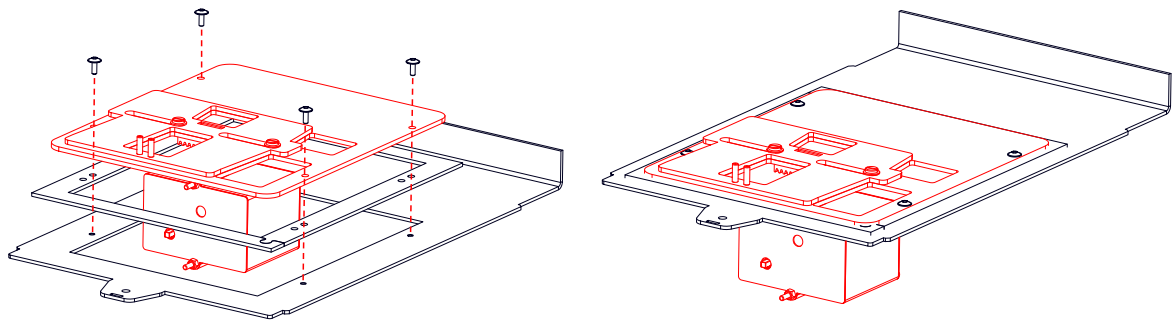
4.4.1.1 COMPONENTS EOS

BG Bottom cover Air box small, EOS (HK000064)

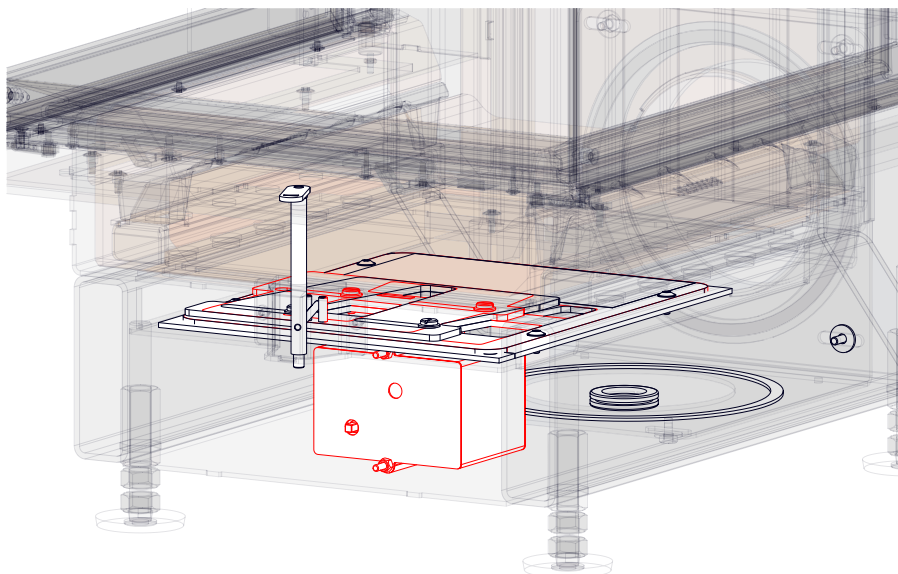
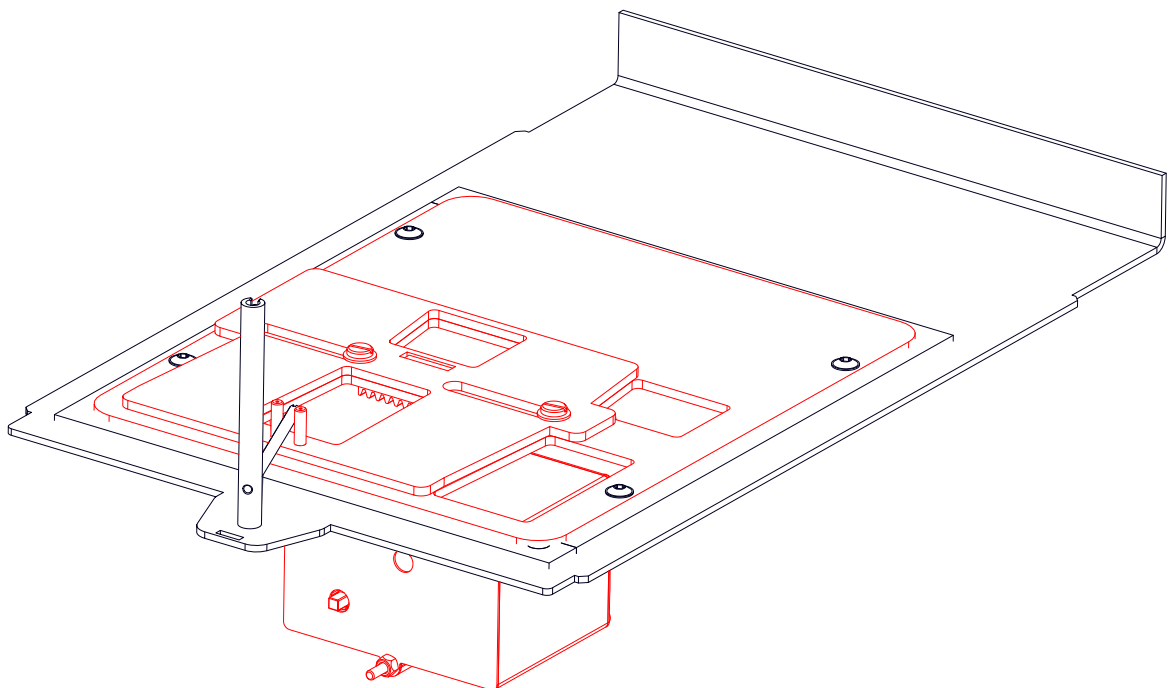


Position	Designation	Art.-Nr.	Pcs.
1	Air slider plate small EOS	HK000232	1
2	BG Bottom cover Air box small EOS	HK000219	1
3	BG Servomotor EOS with Gear wheel	N003157	1
4	Collar bushing	I007337	2
5	Flat head screw (M5x6)	800461	2
6	Hexagon nut with Clamping part	800155	2
7	Cylinder head screw (M5x100)	800035	2

4.4.1.2 INSTALLATION: EOS

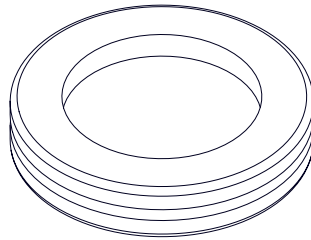


1

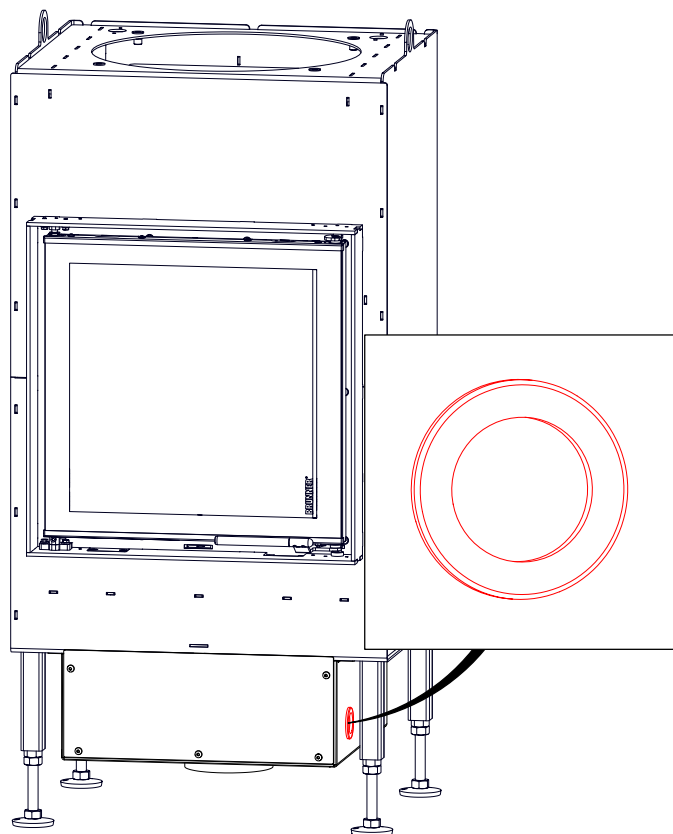


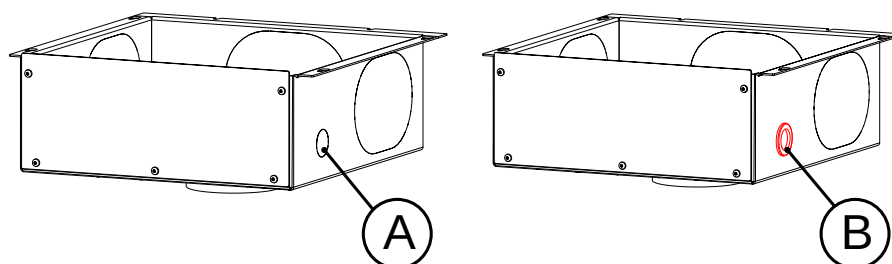
4.4.1.3 MEMBRANE FEED-THROUGH

Membrane feed-through (901248-01)



Position

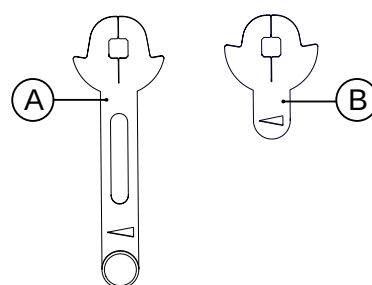
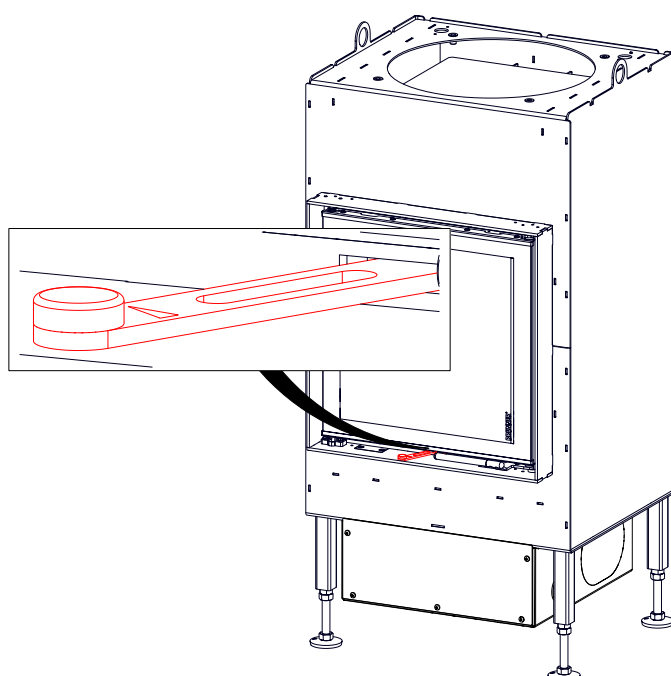




A = BKH

B = BKH with EOS

4.4.1.4 AIR POSITION INDICATOR BKH FLAT



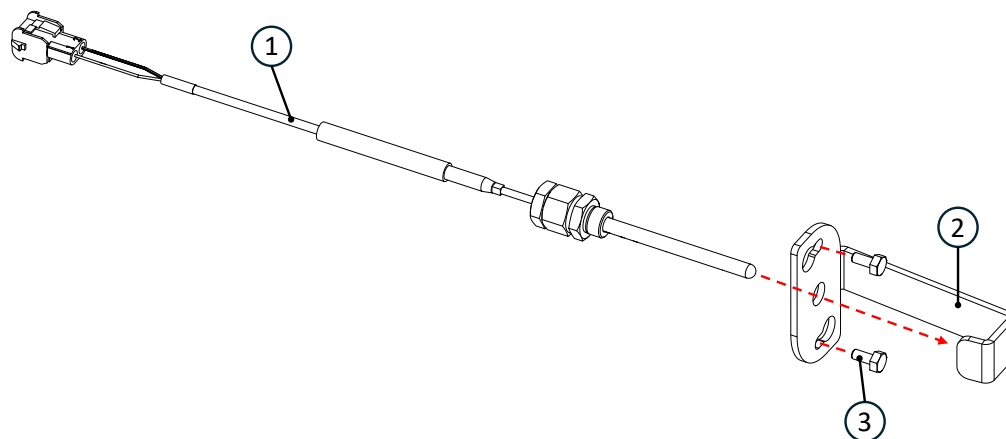
A = BKH flat

B = BKH flat with EOS

4.4.2 THERMOCOUPLE

4.4.2.1 COMPONENTS THERMOCOUPLE

BG Thermocouple with Retaining plate (HK000095)

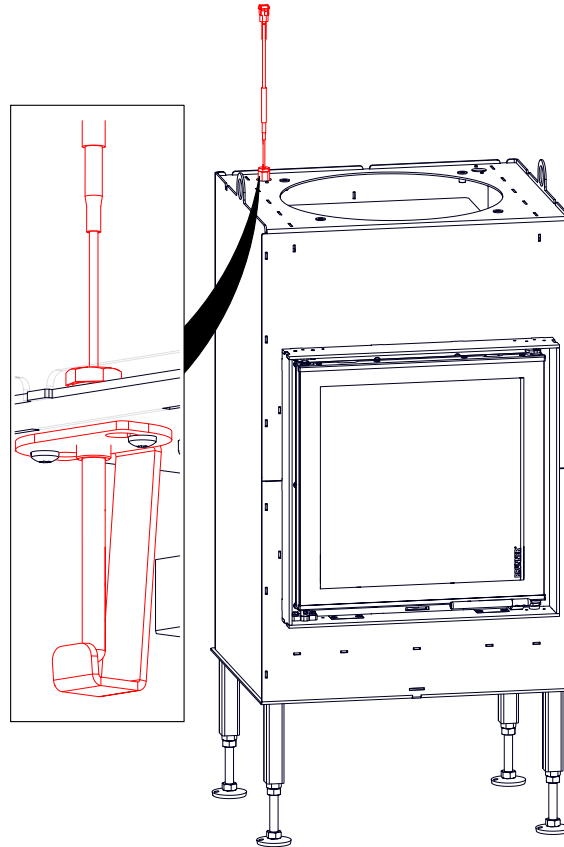


Position	Designation	Art.-Nr.	Pcs.
1	BG Thermocouple	10992.1	1
2	Thermocouple Retaining plate	HK000216	1
3	Hexagon head screw (M5x10)	02531	2

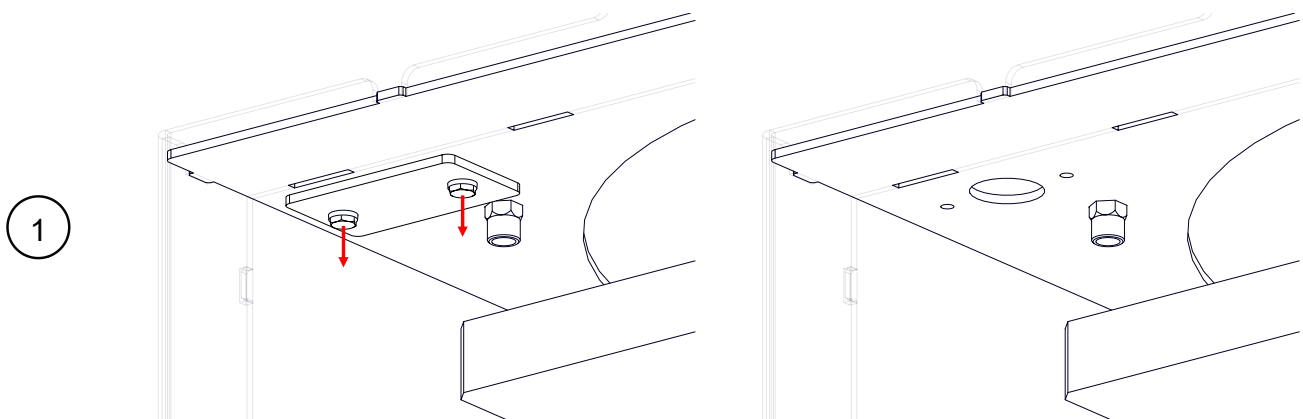
4.4.2.2 FLAT

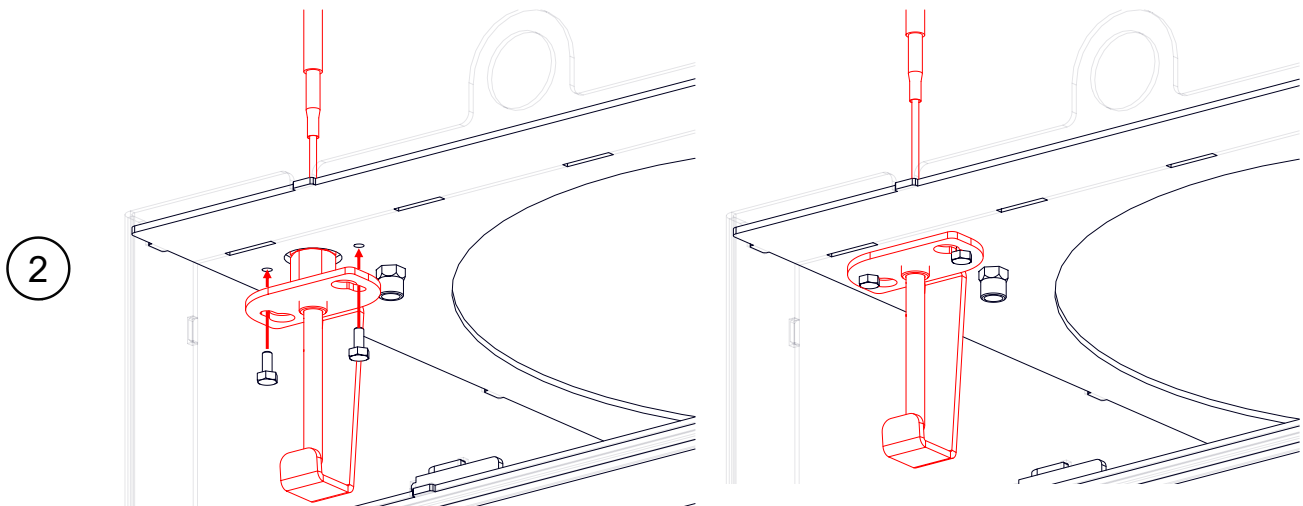
4.4.2.2.1 INSTALLATION: THERMOCOUPLE

Position

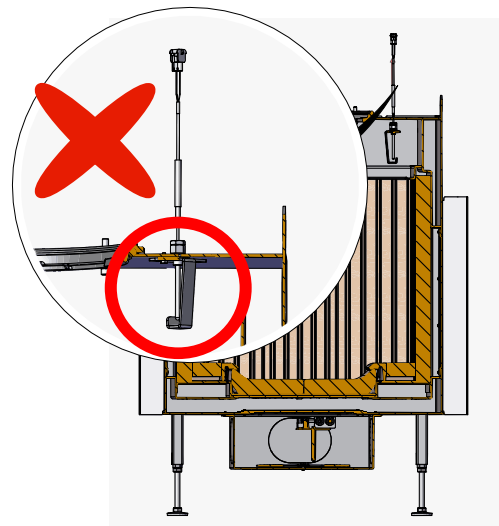
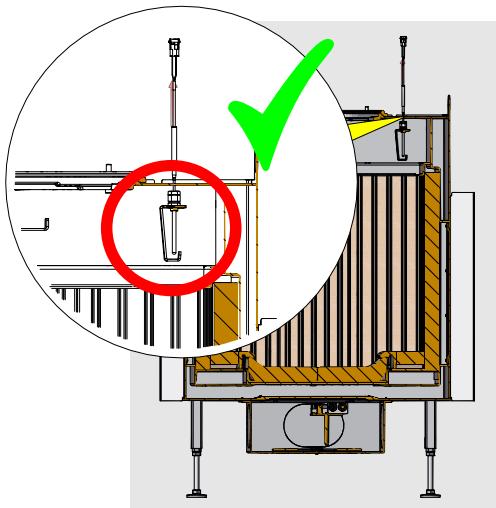


Workflow

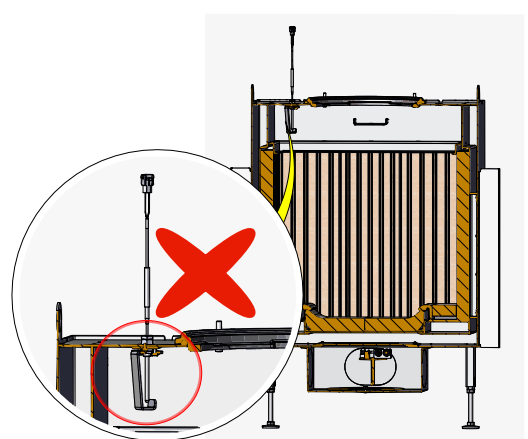
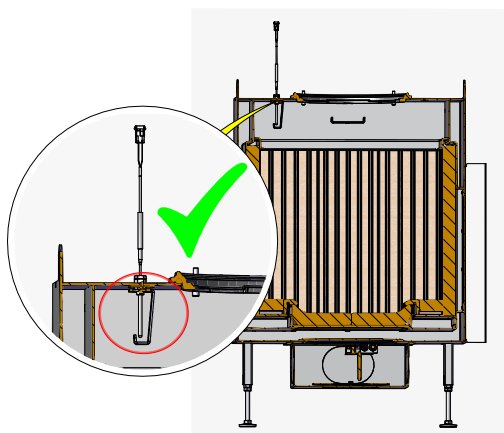




**Variant: Ther-
mocouple
right side**



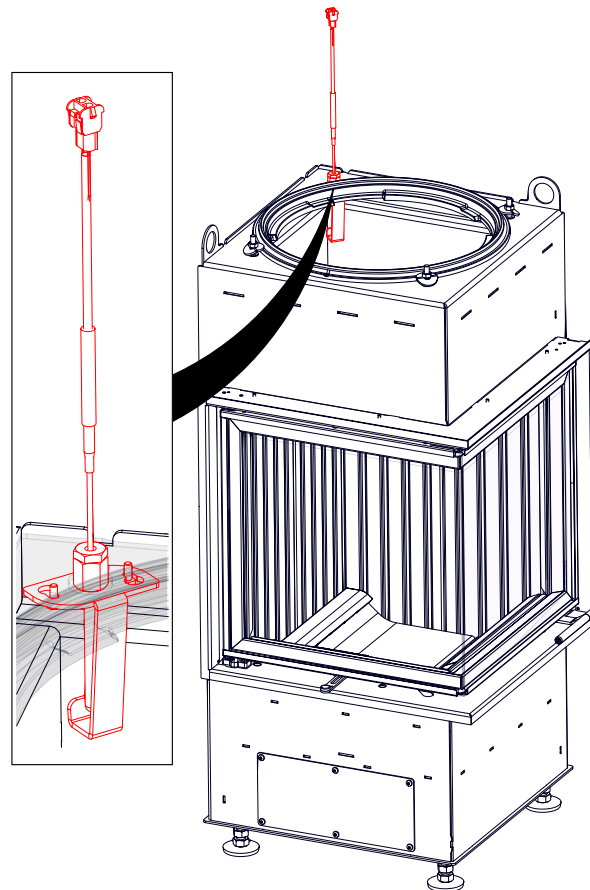
**Variant: Ther-
mocouple
left side**



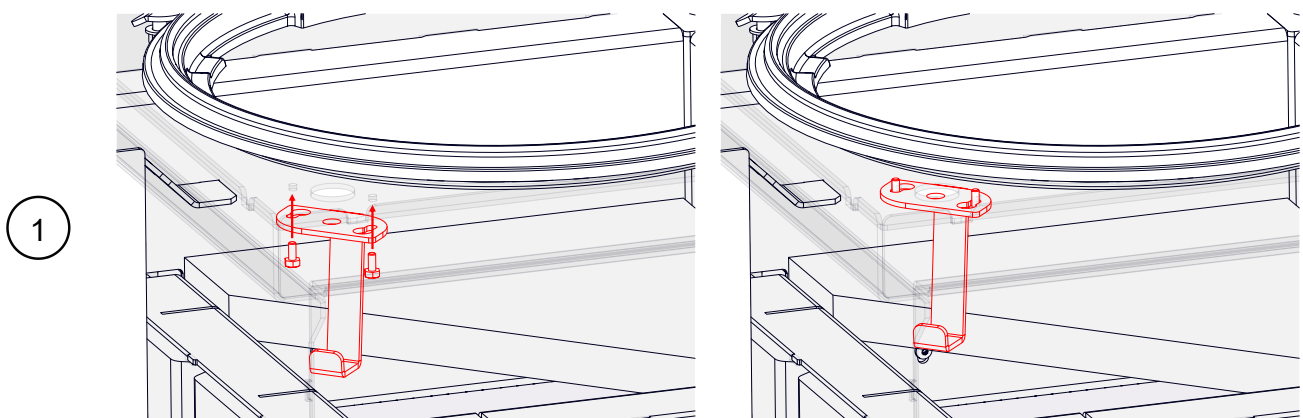
4.4.2.3 CORNER

4.4.2.3.1 INSTALLATION: THERMOCOUPLE

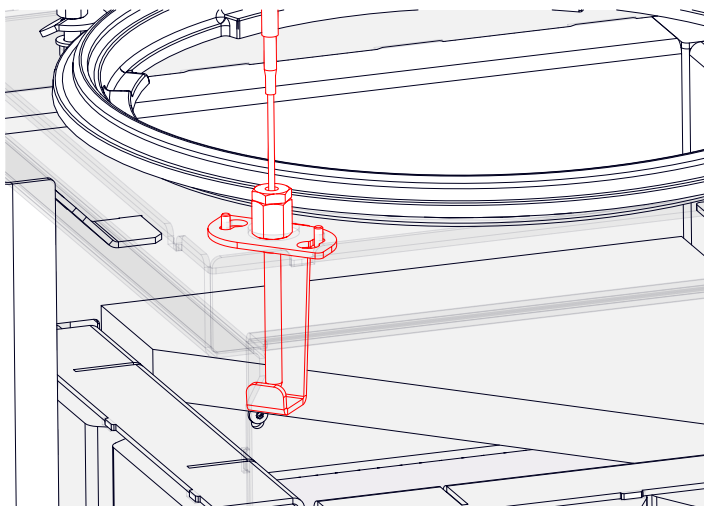
Position



Workflow



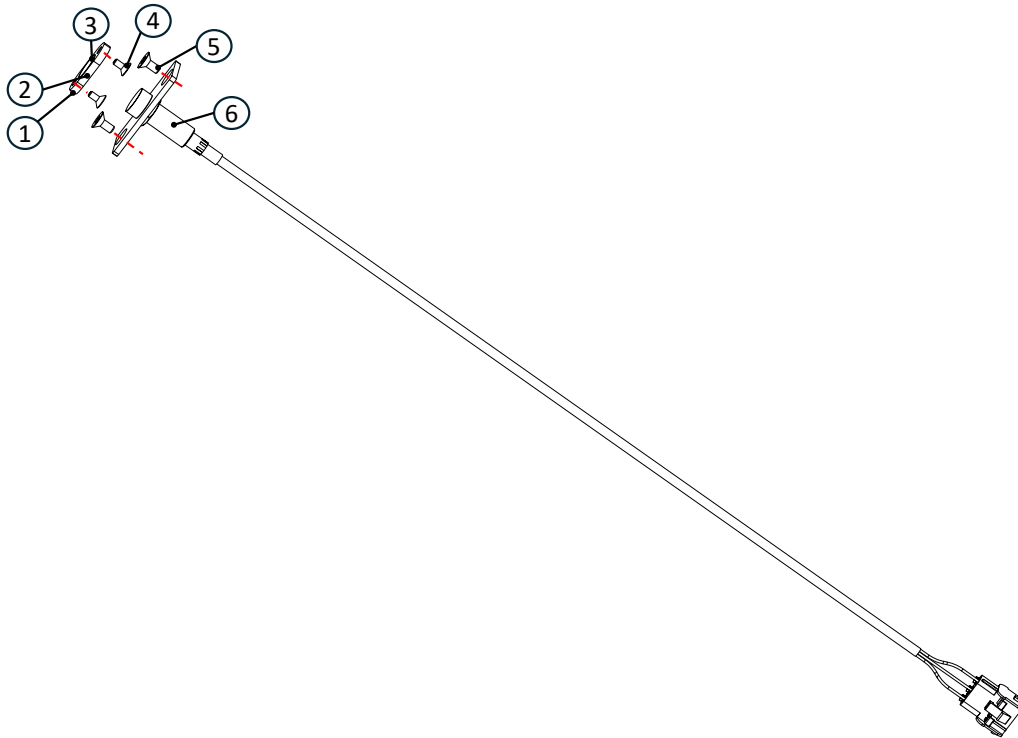
2



4.4.3 DOOR CONTACT SWITCH

4.4.3.1 COMPONENTS DOOR CONTACT SWITCH

Door contact switch (E011001)

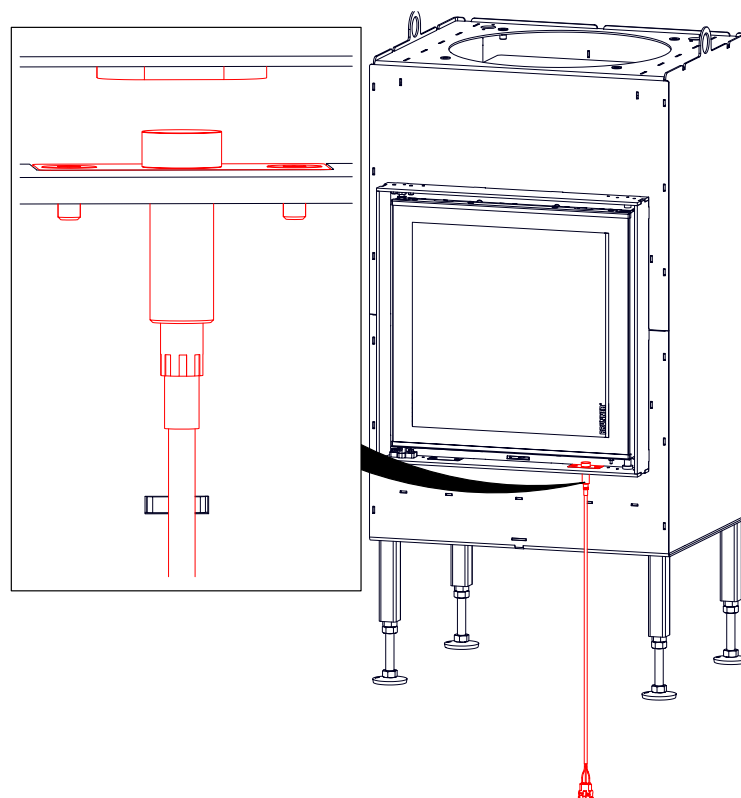


Position	Designation	Art.-Nr.	Pcs.
1	Retaining plate Magnet	E011011	1
2	Magnet	903324	1
3	Insulation	E011013	1
4	Countersunk screw (M4x8)	800063	2
5	Countersunk screw (M5x10)	800184	2
6	Door contact switch	E011003	1

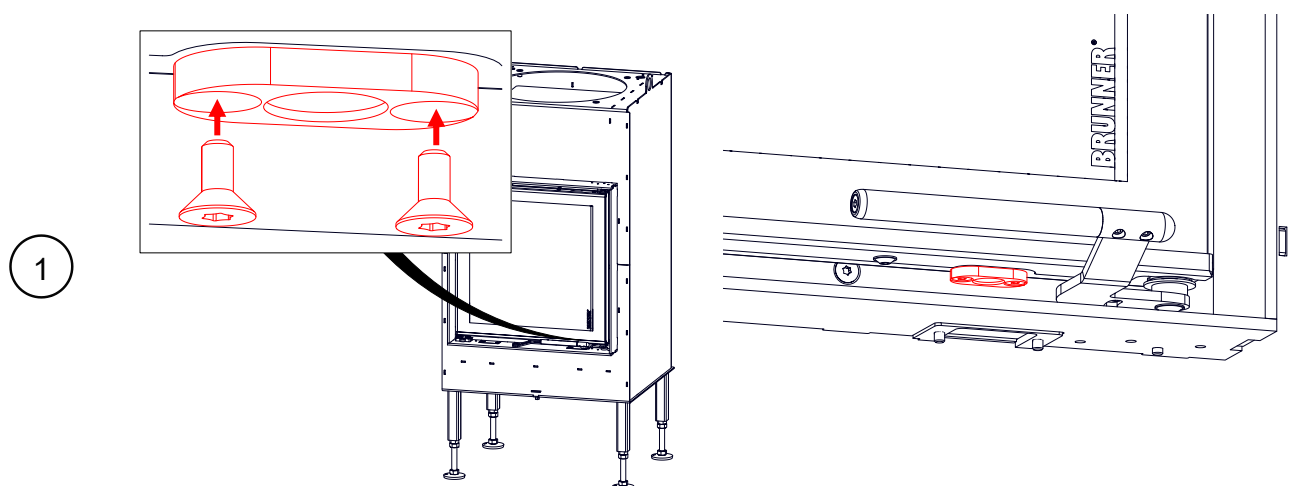
4.4.3.2 FLAT

4.4.3.2.1 INSTALLATION: DOOR CONTACT SWITCH

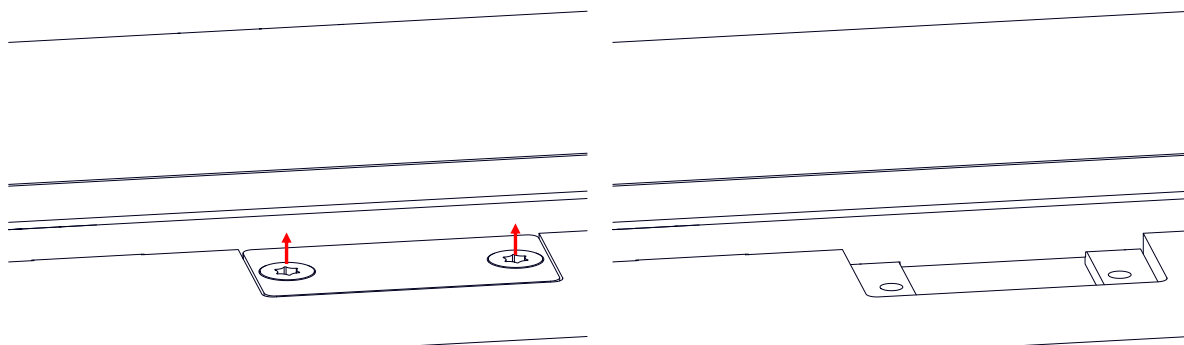
Position



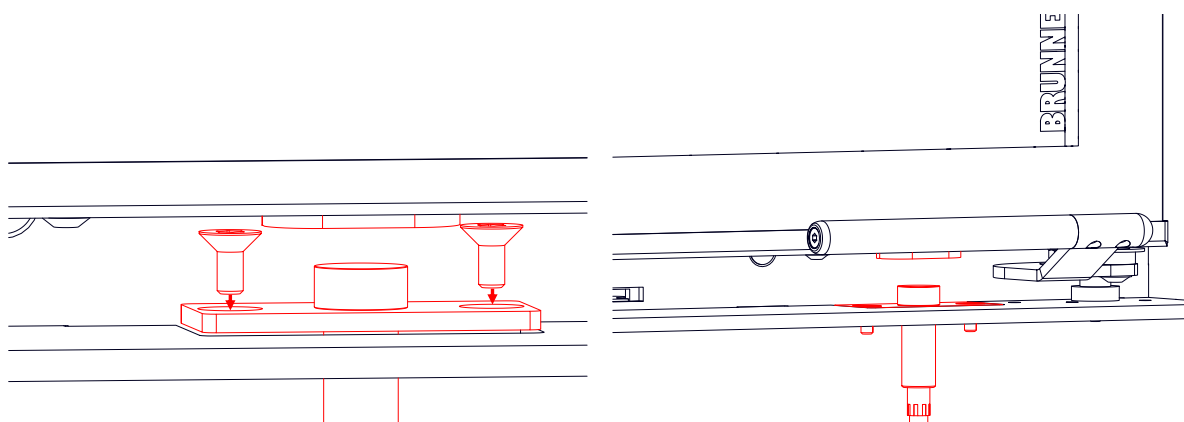
Workflow



2



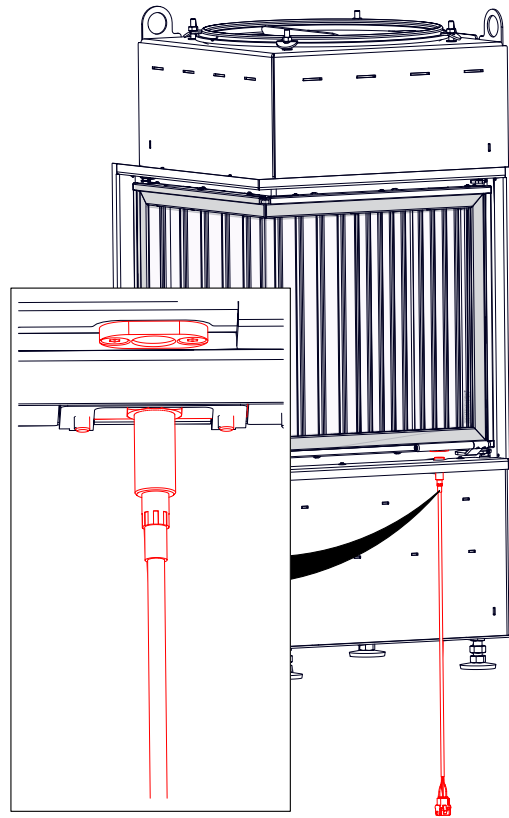
3



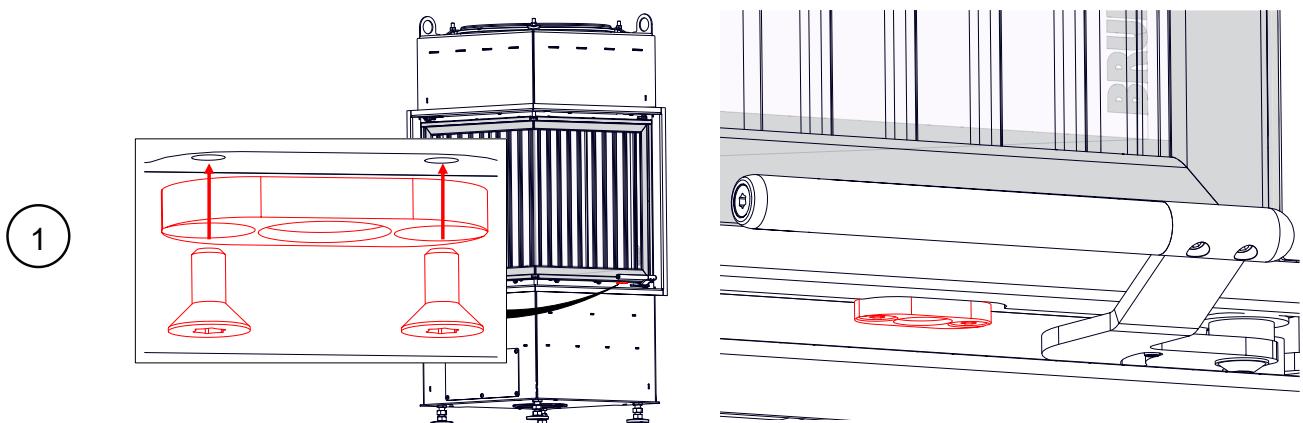
4.4.3.3 CORNER

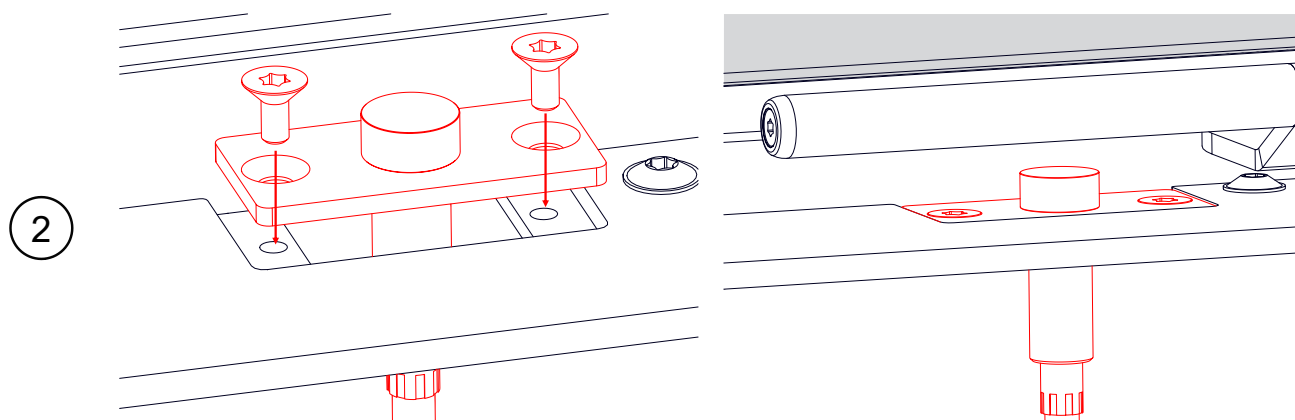
4.4.3.3.1 DOOR CONTACT SWITCH-ASSEMBLY

Position

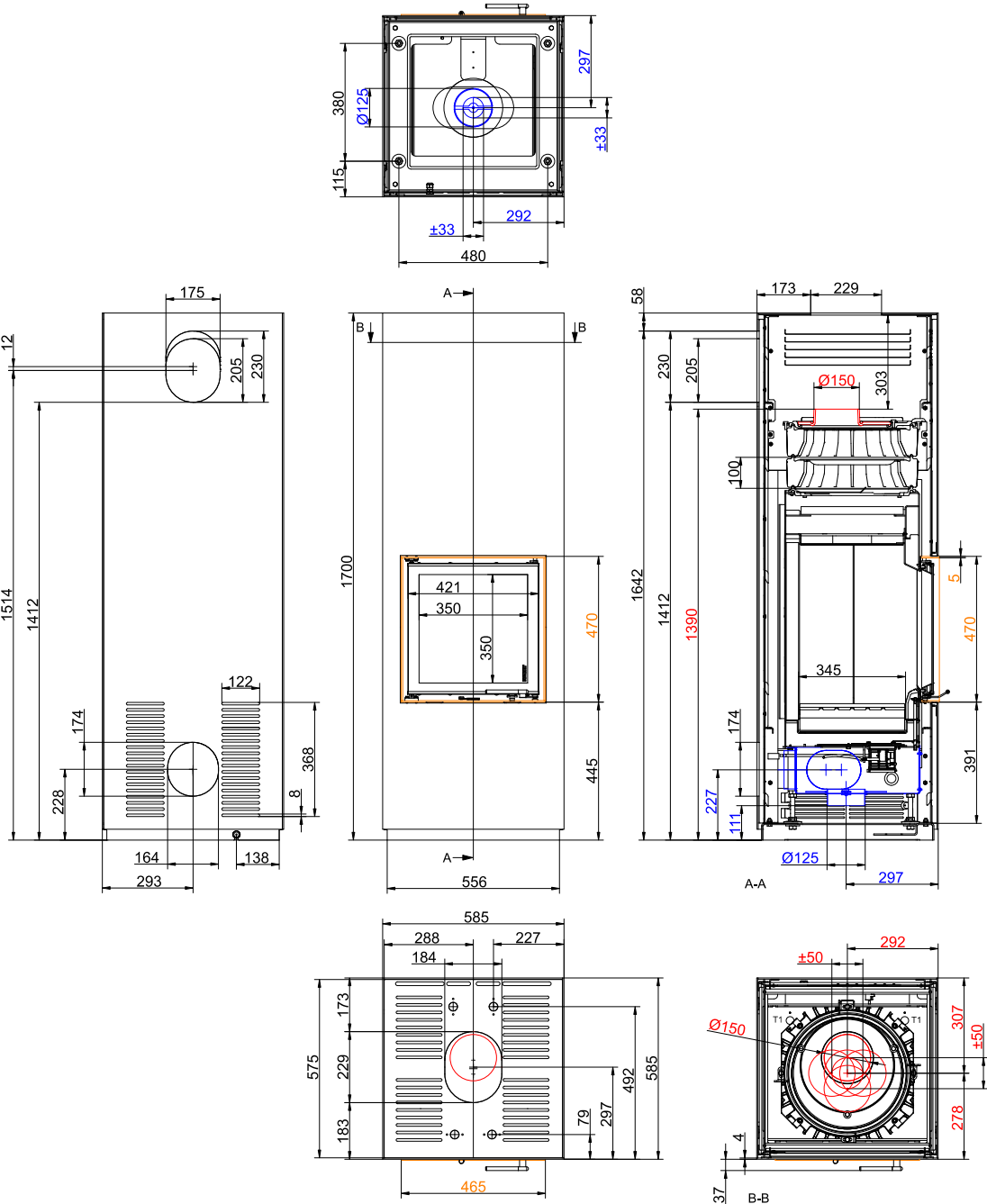


Workflow



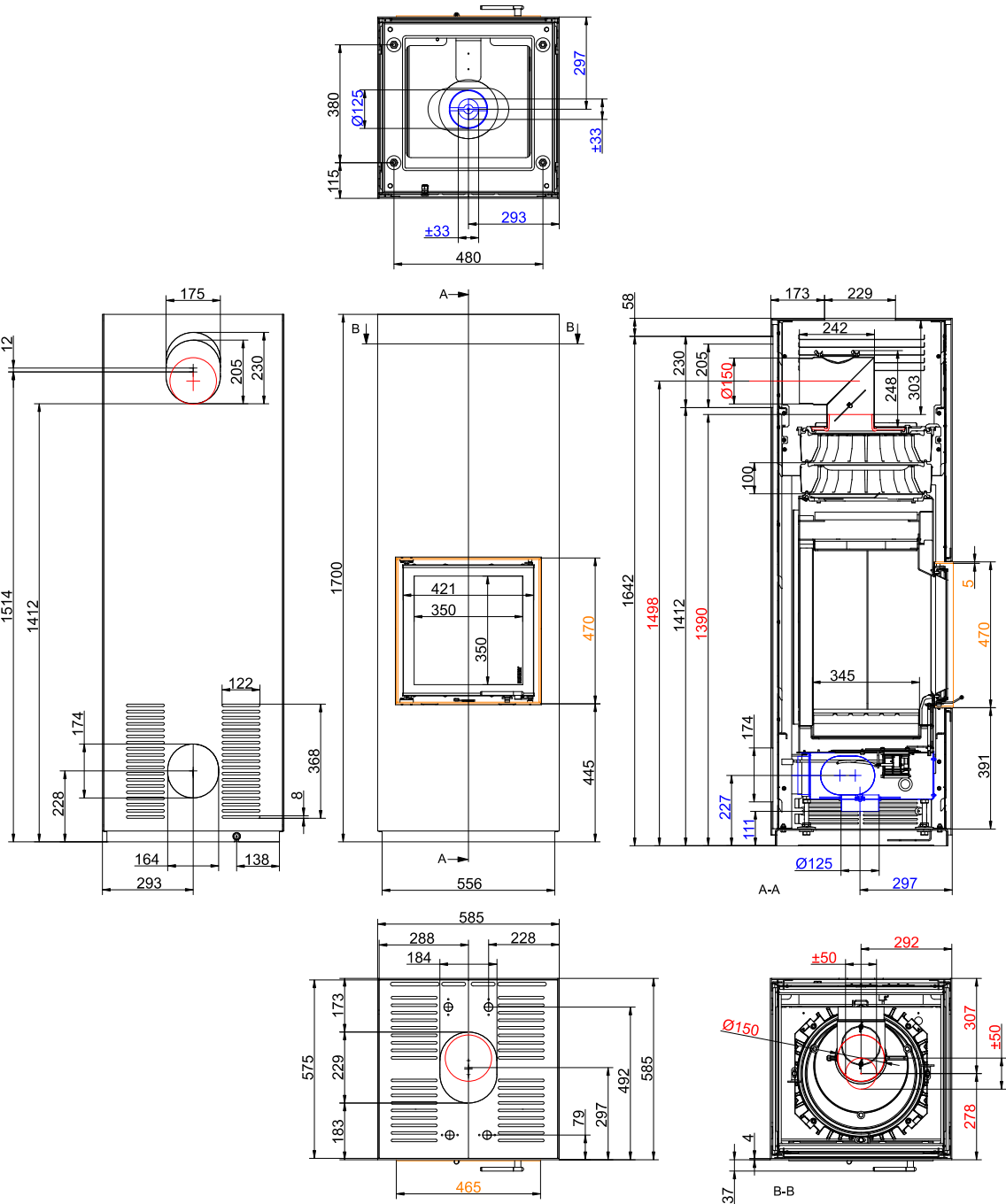


Dimension sheets - BKO 42-42



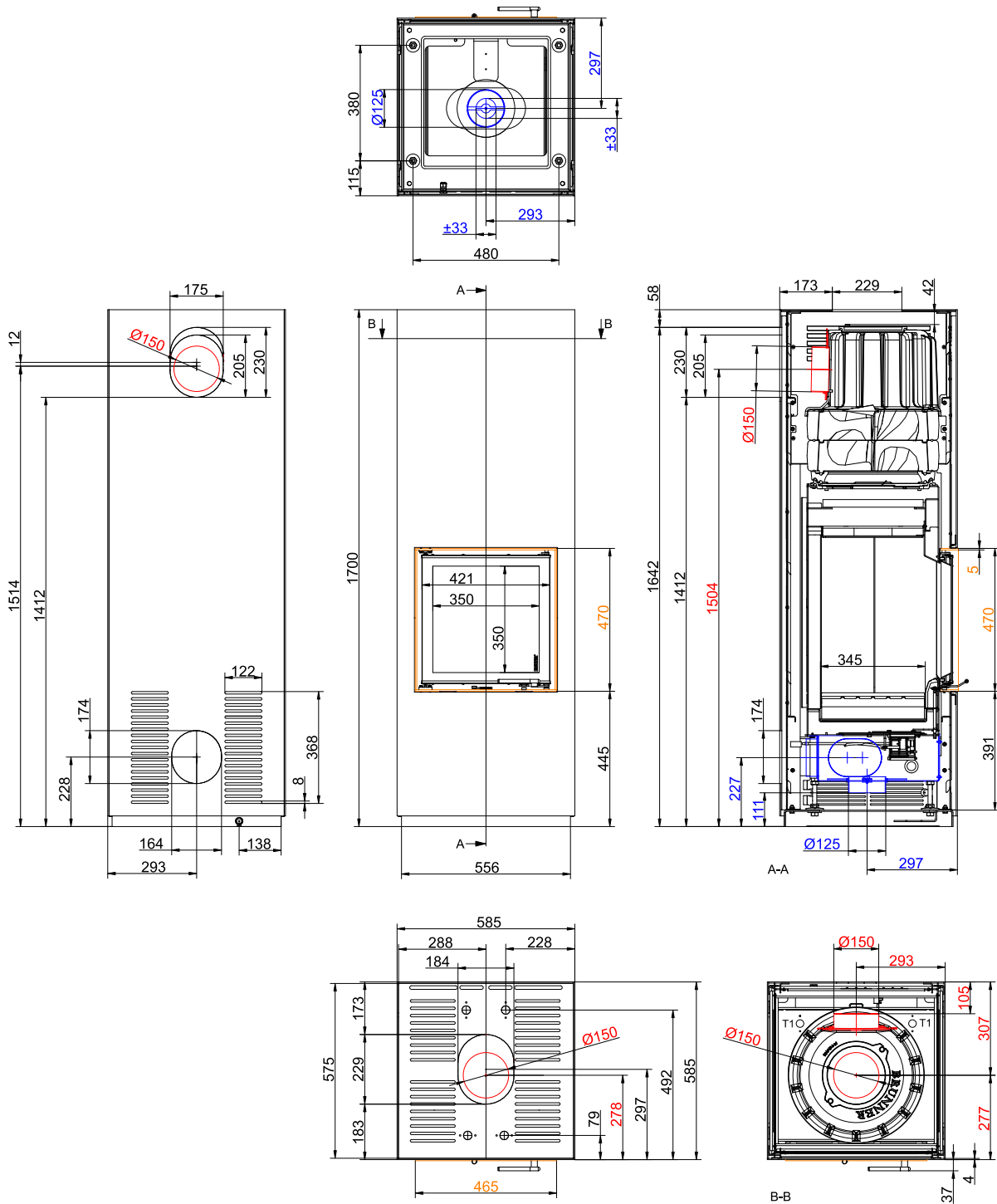
...Cast iron heat exchanger rings and vertical flue gas connection

Dimension sheets - BKO 42-42



...Cast iron heat exchanger rings, elbow 90° and horizontal flue gas connection

Dimension sheets - BKO 42-42



...MAS

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 - BKO 42-42

Tested according to		EN 16510
Data for functional demonstration		
Rated heat power	kW	7.0
Fire wood volume	kg/h	2.1
Flue gas mass flow	g/s	7.5
Flue gas temperature	°C	220
Necessary supply pressure ¹⁾	Pa	12
Combustion air consumption	m³/h	18
Combustion air connection Ø	mm	125
Cladding components ²⁾		
Foot print (W x D)	mm	585 x 585
Overall height	mm	1700
Minimal distances		
to mounting wall	cm	5
to combustible mounting wall (d _R , d _S)	cm	5
to mounting floor (d _B)	cm	0
from top of fireplace to ceiling (d _C)	cm	60
Cross-section of gratings		
Exhaust warm air	cm²	463
Recirculation air	cm²	420
Minimum distances in the radiation area, glass ceramic / glass ceramic coated (GKB)		
in the radiation area (d _P)	cm	120 / 80
in the floor area (d _F)	cm	0
in the side wall area (d _L)	cm	40 / 27
Weight		
Insert	kg	158
Total weight	kg	423
Meets requirement/limit values for:		
EU / Germany		Ökodesign / 1. BImSchV (Stufe 2)

1) Damper flap recommended

2) Characteristics of raw steel ("black steel"):

Untreated steel with an individual, irregular surface and visible signs of use (welding discoloration, manufacturing marks and unevenness).

Rolled at approx. 1200 degrees Celsius - this creates a natural scale layer with an individual patina - deliberately untreated for an authentic look.

Surface requirements: Class A1 in accordance with EN 10163-2:2004. Material or production-related irregularities ("imperfections") with a depth of up to 0.2 mm are unavoidable due to the production process and therefore not worthy of complaint. Any imperfections can only be classified as (material) defects if the limit value of 0.4 mm depth is exceeded and the affected zone of the respective cladding part is checked.

Only suitable for indoor use.

Technical drawing of a door assembly showing four views: front, side, top, and bottom. The drawing includes dimensions in millimeters and specific callouts for components like the handle, lock, and door frame.

Front View (Top Left): Shows the door's profile. Dimensions include a total height of 1412 mm, a handle height of 230 mm, a handle width of 175 mm, and a handle depth of 205 mm. The door frame has a width of 293 mm and a height of 368 mm. The handle is 122 mm wide and 8 mm high. The door is 174 mm wide and 230 mm high. The handle is 164 mm wide and 138 mm high.

Side View (Bottom Left): Shows the door's profile. Dimensions include a total height of 1700 mm, a handle height of 230 mm, a handle width of 175 mm, and a handle depth of 205 mm. The door frame has a width of 293 mm and a height of 368 mm. The handle is 122 mm wide and 8 mm high. The door is 174 mm wide and 230 mm high. The handle is 164 mm wide and 138 mm high.

Top View (Top Right): Shows the door's width and the handle's position. Dimensions include a total width of 360 mm, a handle width of 289 mm, and a handle depth of 205 mm. The door frame has a width of 294 mm and a height of 360 mm. The handle is 122 mm wide and 8 mm high. The door is 174 mm wide and 230 mm high. The handle is 164 mm wide and 138 mm high.

Bottom View (Bottom Right): Shows the door's height and the handle's position. Dimensions include a total height of 464 mm, a handle height of 230 mm, a handle width of 175 mm, and a handle depth of 205 mm. The door frame has a width of 293 mm and a height of 368 mm. The handle is 122 mm wide and 8 mm high. The door is 174 mm wide and 230 mm high. The handle is 164 mm wide and 138 mm high.

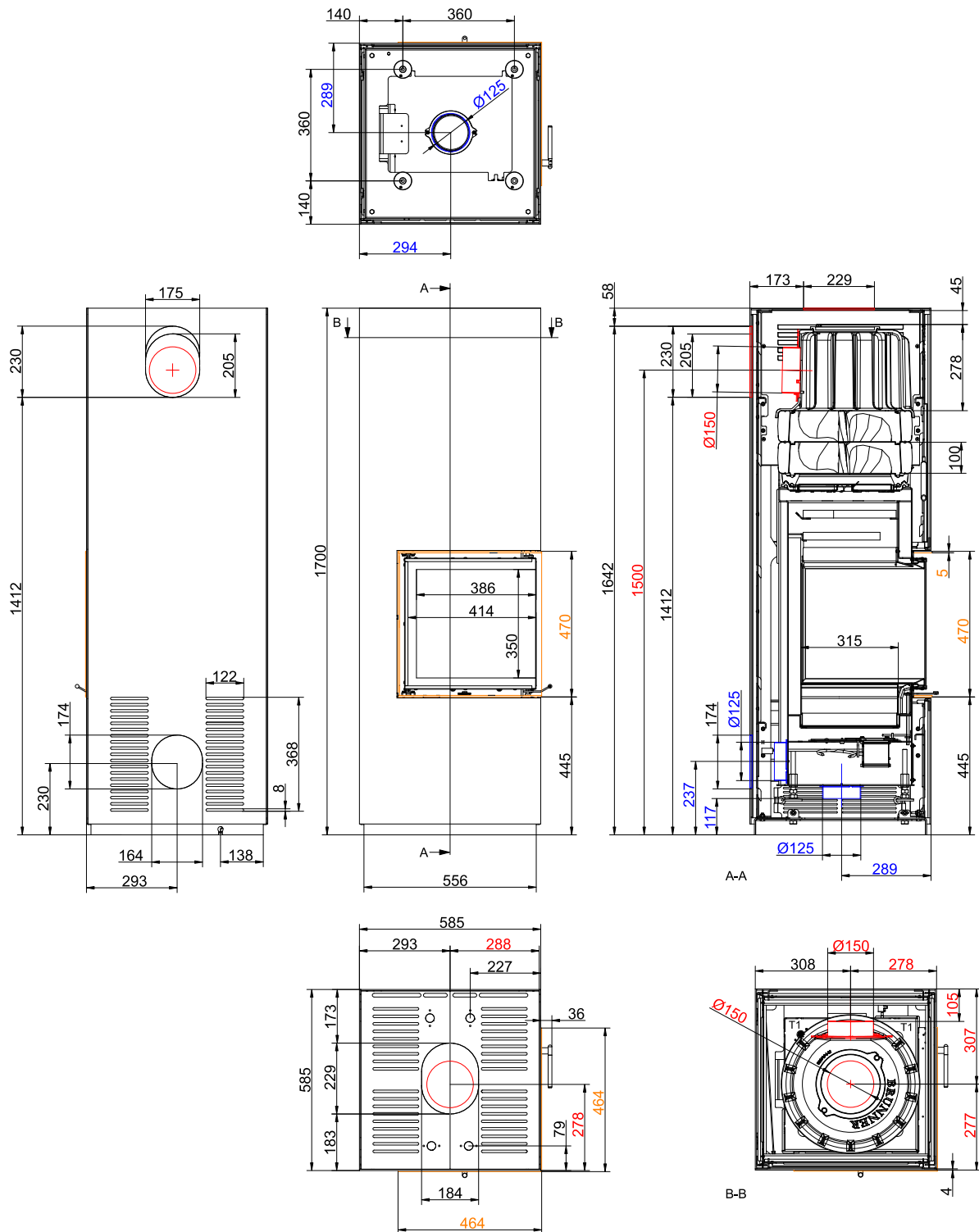
Stand: 2026-03-12

Technical drawing of a door assembly, showing multiple views and dimensions:

- Front View (Top Left):** Shows the door's profile with a total height of 1502mm. Key dimensions include 1412mm for the main body, 174mm for the handle area, and 230mm for the bottom section. The handle is 175mm wide and 205mm high. The door is 293mm wide at the bottom.
- Side View (Middle Left):** Shows the door's side profile with a total height of 1700mm. The door is 556mm wide. The handle is 470mm high and 445mm wide. The door is 368mm high at the bottom.
- Top View (Bottom Left):** Shows the door's top profile with a total width of 585mm. Key dimensions include 293mm for the main body, 288mm for the handle area, and 227mm for the bottom section. The door is 464mm wide at the bottom.
- Bottom View (Top Right):** Shows the door's bottom profile with a total width of 556mm. Key dimensions include 386mm for the main body, 414mm for the handle area, and 350mm for the bottom section. The door is 470mm wide at the bottom.
- Section A-A (Middle Right):** A cross-section view of the door showing the internal structure, including the handle mechanism and the door's thickness. The total height is 1502mm, and the total width is 556mm. The handle is 470mm high and 445mm wide. The door is 368mm high at the bottom.
- Detail View B-B (Bottom Right):** A detailed view of the handle mechanism, showing the handle's profile and the internal components. The handle is 175mm wide and 205mm high. The door is 293mm wide at the bottom.

Stand: 2026-03-12

Dimension sheets - BKO 42-42-42



...MAS

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 - BKO 42-42-42

Tested according to		EN 16510
Data for functional demonstration		
Rated heat power	kW	7.0
Fire wood volume	kg/h	2.1
Flue gas mass flow	g/s	7
Flue gas temperature	°C	200
Necessary supply pressure ¹⁾	Pa	12
Combustion air consumption	m³/h	21
Combustion air connection Ø	mm	125
Cladding components ²⁾		
Foot print (W x D)	mm	585 x 585
Overall height	mm	1700
Minimal distances		
to mounting wall	cm	5
to combustible mounting wall (d _R , d _S)	cm	5
to mounting floor (d _B)	cm	0
from top of fireplace to ceiling (d _C)	cm	60
Cross-section of gratings		
Exhaust warm air	cm²	463
Recirculation air	cm²	420
Minimum distances in the radiation area, glass ceramic / glass ceramic coated (GKB)		
in the radiation area (d _P)	cm	120 / 80
in the floor area (d _F)	cm	0
in the side wall area (d _L)	cm	40 / 27
Weight		
Insert	kg	177
Total weight	kg	440
Meets requirement/limit values for:		
EU / Germany		Ökodesign / 1. BImSchV (Stufe 2)

1) Damper flap recommended

2) Characteristics of raw steel ("black steel"):

Untreated steel with an individual, irregular surface and visible signs of use (welding discoloration, manufacturing marks and unevenness).

Rolled at approx. 1200 degrees Celsius - this creates a natural scale layer with an individual patina - deliberately untreated for an authentic look.

Surface requirements: Class A1 in accordance with EN 10163-2:2004. Material or production-related irregularities ("imperfections") with a depth of up to 0.2 mm are unavoidable due to the production process and therefore not worthy of complaint. Any imperfections can only be classified as (material) defects if the limit value of 0.4 mm depth is exceeded and the affected zone of the respective cladding part is checked.

Only suitable for indoor use.

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

Doku-Nr.: 203074