Installation manual

KK GOT - ZL

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made in germany.

CONTENTS

1 Basic informations....3
2 Safety precautions....4
3 Product description....4
4 Delivery content....5
5 Requirements for location....5
6 Combustion air....6
7 Combustion air supply....7
8 Installation....12
9 Mounting instructions for EAS / EOS variants....13
10 Drawings and technical data....15

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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 installation may only be carried out by a registered specialist.

Fireplaces equipped with a water boiler must be pressure-tested after hydraulic connection to the heating system. Masonry work may follow only after this pressure test. Ulrich Brunner GmbH does not cover any costs incurred by necessary dismantling of masonry for rework at water boiler installation or replacement of the boiler.

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.

Fireplaces that meet the requirements of DIN EN 13240 or DIN EN 13229 and that can only be operated as intended with closed combustion chamber door or that have a self-closing firebox door are suitable for multiple occupancy.

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.

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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 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 CE mark must be removed from the heating insert!

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 PRODUCT DESCRIPTION

The KK masonry heater door can be used as a firing door for hand-crafted masonry heaters. It can be optionally equipped or refit with an electronic control unit (EAS / EOS).

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4 DELIVERY CONTENT

The delivery of the KK traditional masonry heater door is performed in three modules.

- masonry heater door
- cast front respectively front cover (accessory)
- installation material for fixing on floor

5 REQUIREMENTS FOR LOCATION

Possible locations for a wood-burning stove or fireplace are only such rooms, where no danger can occur, if only the instructions for use are being followed and the system is properly used. The state, structure and intended use of the room must be considered, when choosing the location.

Please consider the massive weight of the system. If the floor is not strong enough to bear such load, it has to be distributed by suitable means.

A heating device **may not be located** in the following rooms:

1. Where sufficient volume of combustion air is not guaranteed.
2. Where flammable materials or explosives are stored, manufactured or processed.
3. Which are commonly accessible. Stairways in residential buildings with access from only two flats are not considered as commonly accessible rooms.
4. Where exhaust fans of ventilation or air heating systems are running, unless safe operation of the fireplace is ensured. This is ensured, when:
   - The systems are causing only circulation of air within the room.
   - The systems are equipped with safety devices, which automatically and securely prevent negative pressure in this room.
   - If simultaneous operation of fireplace and ventilation systems is prevented by safety devices.
   - If the total negative pressure level caused by the stream of combustion air of the fireplace and the airflow volume of the ventilation systems in this room and other rooms included in one ventilation system does not exceed 0.04 mbar. This must be ensured even if easily accessible controls of the ventilation system are being manipulated or removed.
   - If exhaust gas flow is being monitored by special safety devices.
   - If the construction type or dimensioning of the systems are excluding the possibility of dangerous negative pressure.

Please consult the location of your fireplace, chimney connection and combustion air supply with your local chimney sweep.

6 COMBUSTION AIR

Sufficient combustion air supply

A fireplace may be installed only in rooms, where sufficient combustion air supply is guaranteed. Normal operation requires sufficient air supply using a separate **combustion air connection** for the fireplace.

Sufficient combustion air supply is present, when by natural means or using technical equipment a combustion air volume of 12,5 m^3 per 1 kg fuel throughput can stream into a room with wood-burning fireplace over a period of 1 hour at calculated negative pressure below 0,04 mbar (4 Pa) against outside air pressure. This is equivalent to a speculative heating power (PLF) of 8 kW per 1 kg fuel throughput.

When other fireplaces are in operation in the same room or different rooms included in one room combination, these fireplaces require at least 1.6 m^3 of combustion air per hour for each kW of their total rated heating power. When a room combination contains only a small volume of air and the building is relatively airtight, a separate combustion air supply from outdoors is required.

Combustion air supply is ensured in rooms with at least one window or one door which can be opened to outside of the building, or when these rooms are directly connected or interconnected with other rooms of such type. Rooms considered as directly connected or interconnected, can be only parts of one apartment or one facility of other kind. Particular attention to combustion air supply is to be paid, when exhaust fans and other heat generators in the same room combination are operated, or when multiple heating devices are connected to one single chimney.

Ventilation systems in this room combination cannot create negative pressure, which could affect the functioning of the fireplace. Exhaust ventilation systems operating in the same room or room combination together with fireplaces, can cause many problems.

Combustion air ducts

Stoves and fireplaces with BRUNNER heating inserts are classified by law as indoor air-dependent fireplaces.

The combustion air can be supplied from outside via a sufficiently dimensioned pipework. This for BRUNNER heating inserts are fitted with a combustion air connection piece. To avoid draughts in the room, the outside air connection should be routed to this combustion air connection piece. The outside air connection can also be established via a suitable chimney with integrated combustion air duct. Corresponding products have a separate combustion air shaft or an air duct between the casing brick and flue gas pipe

The combustion air duct must have sufficient cross-section. It must be laid using the shortest way and without unnecessary bends, to reduce flow resistance. Combustion air duct dimensioning must be according to EN13884; flow resistance has to be estimated by calculation and must be taken into account!

Components of combustion air duct must be made of non-flammable, dimensionally stable and abrasion resistant materials (DIN 4102 A1 or Class A1(B2) according to DIN EN 13501-1); they must ensure tightness und be accessible for inspection and cleaning.

Thermal insulation is necessary from the fire-protection point of view, if air temperatures >85°C are possible.

Temperatures below dew point can cause water condensation, therefore appropriate insulation must be used.

For buildings with more than two storeys and when crossing fire protection walls, the construction of these ducts must prevent fire and smoke from penetrating other fire protection zones (their components must have a fire resistance rating of >90 minutes (F90)). See also national building law.

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If the external air supply duct has a separate flap for closing, the position of this flap must be recognizable. It must be ensured, that the external air supply flap is open until the fire is burning. Air suction grilles or flaps cannot narrow the free cross section.

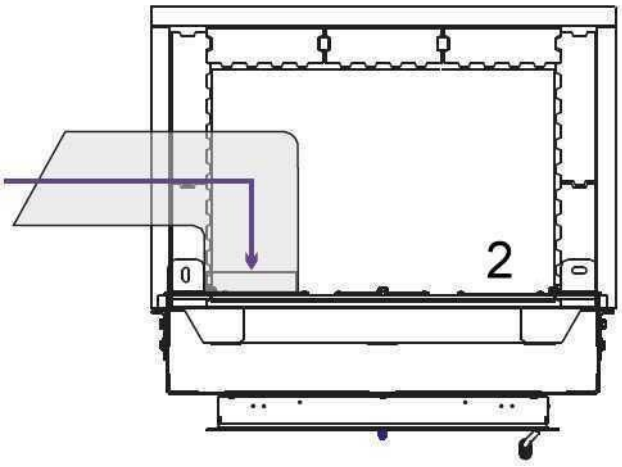
Remember about noise protection!

7 COMBUSTION AIR SUPPLY

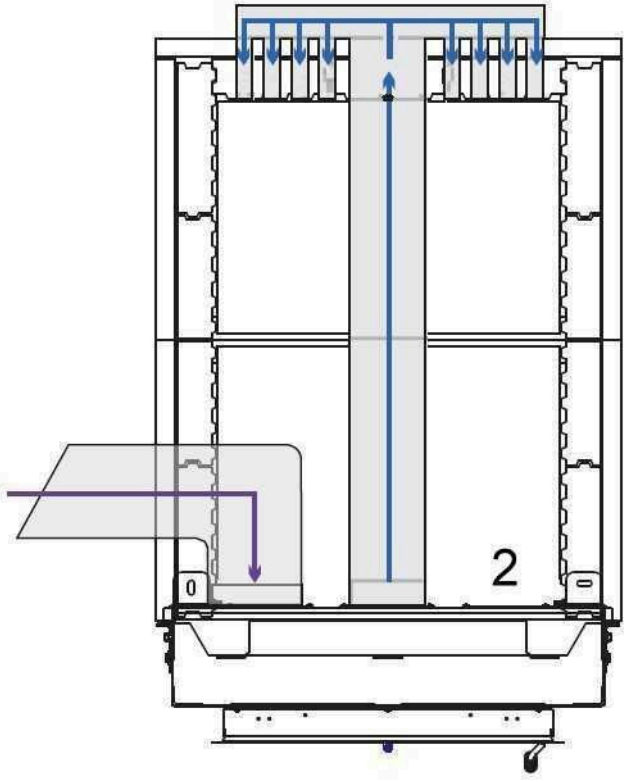
The basic oven doors of series 2 (type designation ZL) have two combustion air connections with a diameter of 160 mm and a connection for the secondary air with a diameter of 125 mm.

The combustion air is always supplied via one or both 160 mm diameter spigots. Combustion air for combustion air nozzles in the rear wall, for example, can be taken via the second air connection. The advantage here is that the entire combustion air can be controlled via a control lever or the EAS/EOS.

The following illustrations show some examples of combustion air connection options.



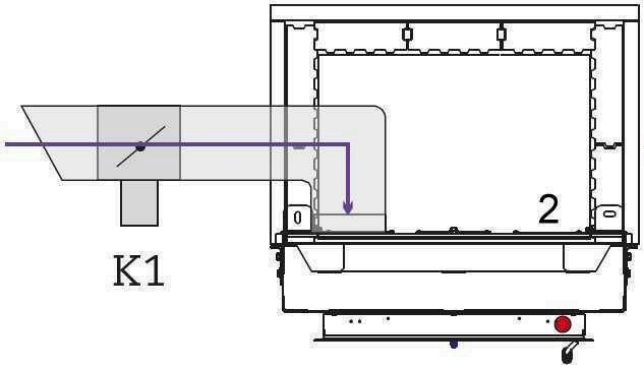
Im. 1: Variant 1a



Im. 2: Variant 1b

Combustion air supply for conventional combustion chambers.

You can also connect the combustion air pipe to point 2.

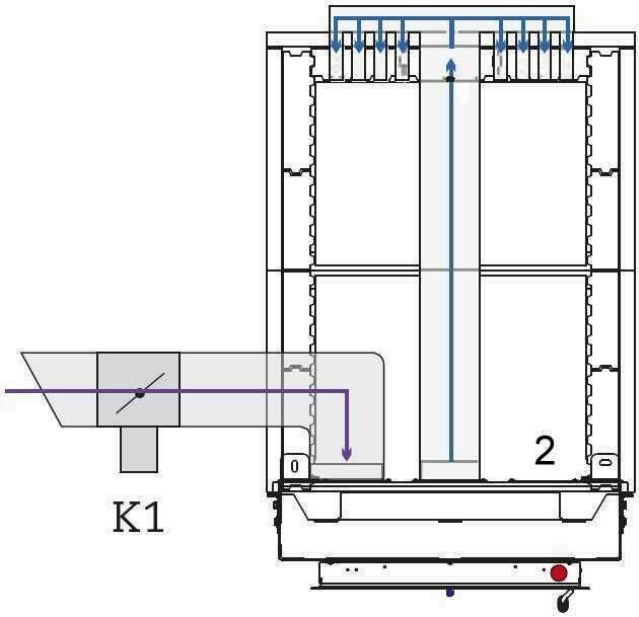


Im. 3: Variant 2a

Combustion air supply for versions with combustion chamber depth > 60 cm.

Additional inlet openings for the combustion air are integrated in the rear wall area (on site). This is supplied via the bypass duct.

You can also connect the combustion air duct to point 2.



Im. 4: Variant 2b

Combustion air supply for conventional combustion chambers with EAS/EOS stove control.

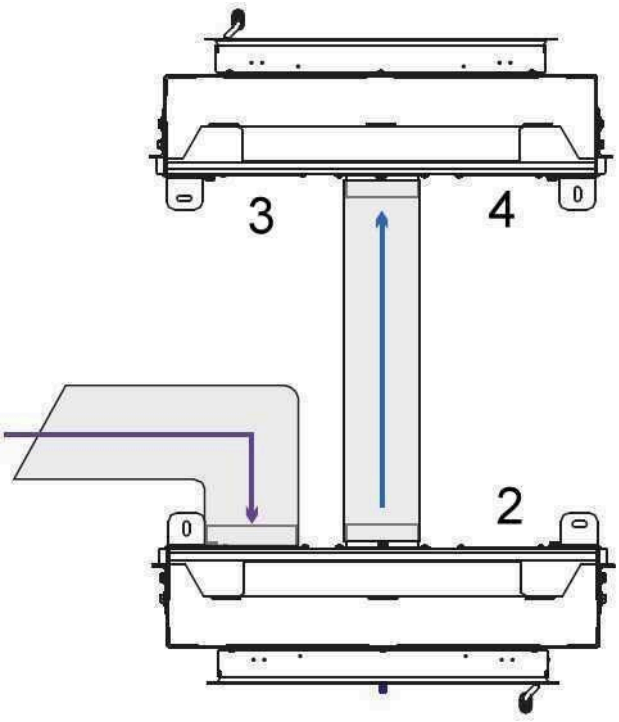
You can also connect the combustion air duct with air damper actuator K1 to point 2.

Combustion air supply for versions with combustion chamber depth > 60 cm with EAS/EOS stove control.

Additional inlet openings for the combustion air are integrated in the rear wall area (on site). This is supplied via the bypass duct.

You can also connect the combustion air duct with air damper actuator K1 to point 2.

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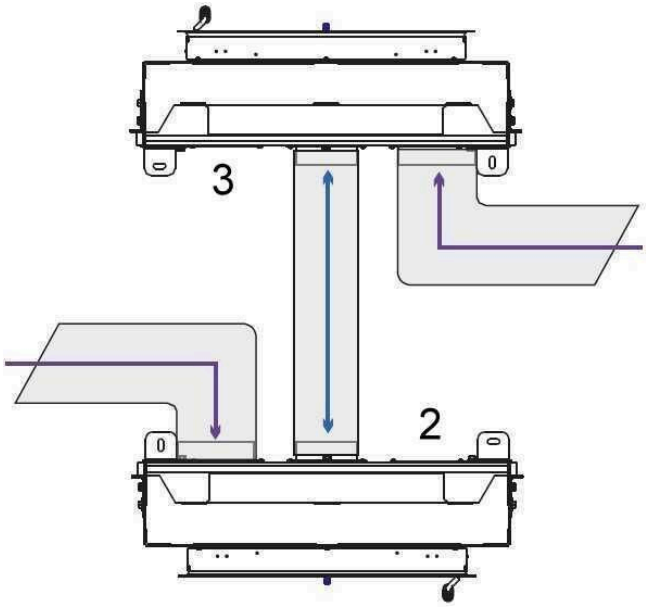


Im. 5: Variant 3

With one control element.

Combustion air flows after air damper door 1 via secondary air to door 2.

You can also connect the combustion air duct to points 2, 3 or 4.



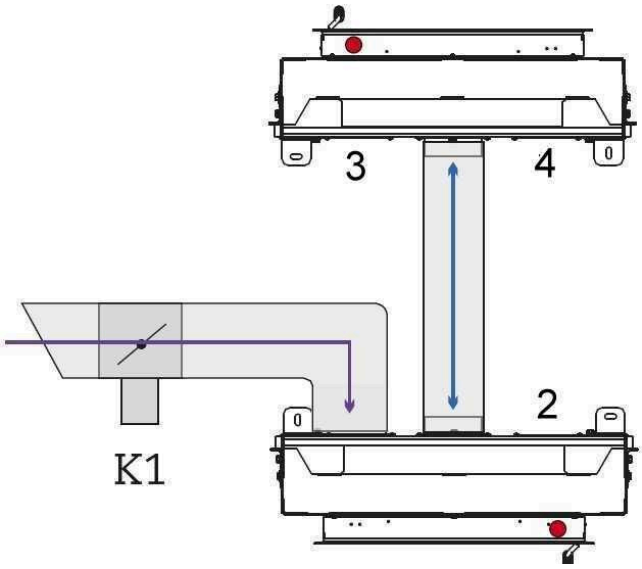
Im. 6: Variant 4

With control element on both doors (not mechanically linked).

Optimum ember retention only when both control elements are closed.

The second air duct prevents the corresponding pane from becoming sooty when the control element is closed.

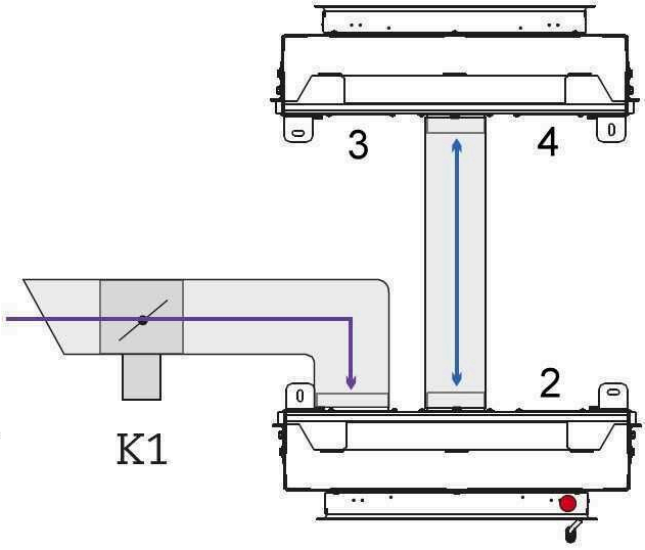
You can also connect the combustion air ducts to points 2 and 3.



Im. 7: Variant 5a

With two door contact switches.

You can also connect the combustion air line with air flap actuator K1 to points 2, 3 or 4.



Im. 8: Variant 5b

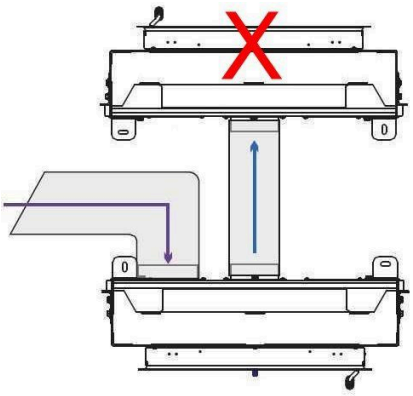
With one door contact switch on the operating side.

The other door can only be opened with tools.

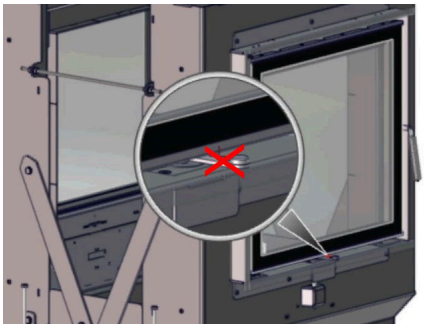
You can also connect the combustion air duct with damper actuator K1 to points 2, 3 or 4.

For tunnel variants, the combustion air control element of the basic oven door should be removed where the combustion air is not supplied directly.

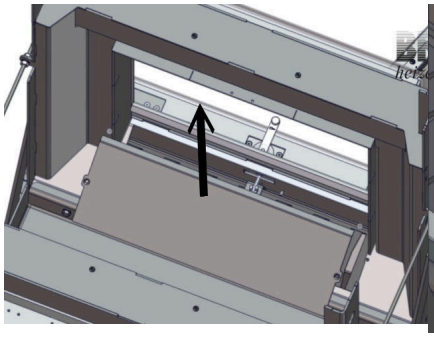
In the example illustration below, the relevant basic oven door is marked with an X.



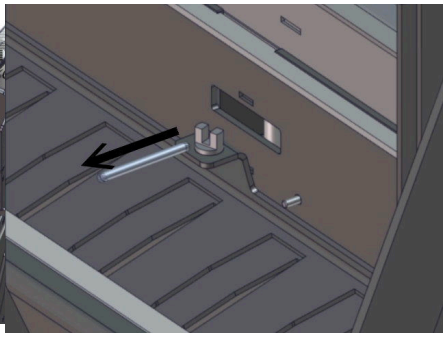
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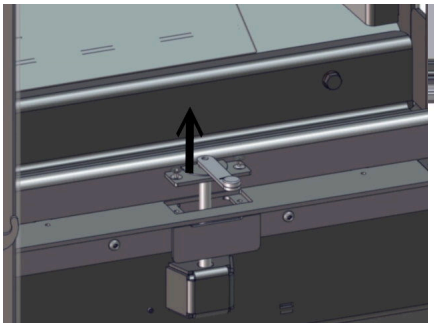
Control element to be removed.



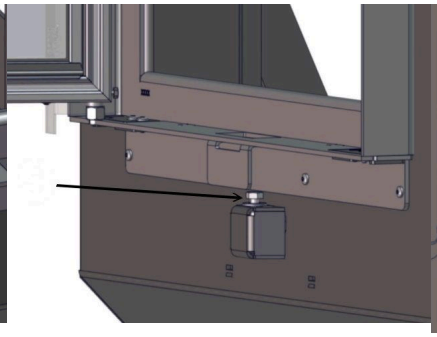
Loosen the two side fastening screws and remove the cover.



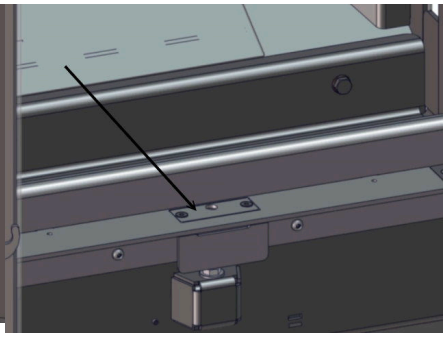
Unscrew and remove the pin with a flat-blade screwdriver.



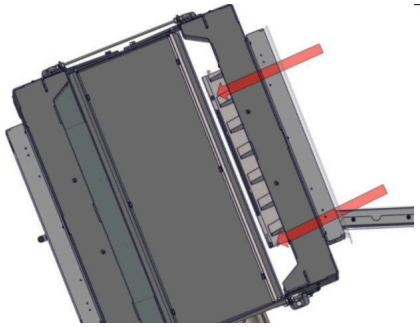
Loosen the screws of the insert and remove the operating lever.



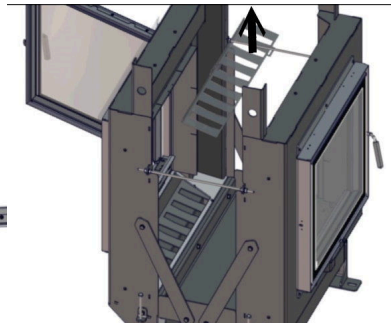
Close the hole underneath the burner door with an M8 screw.



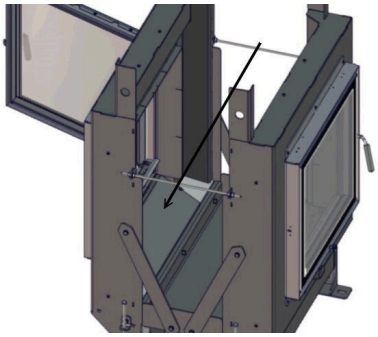
Refit the cover of the control element.



Loosen the screws of the air slide plate.



Remove the air slide plate.



Replace the cover and screw it back on.

8 INSTALLATION

The combustion air flows to the basic stove door through the combustion air connection with a diameter of 160 mm at the rear. One connection must be used for this. Optionally, you can connect a second supply air hose.

The middle connection with a diameter of 125 mm is used for the second air supply, e.g. to supply combustion air nozzles at the rear of the basic stove with air. This connection cannot be used for the complete combustion air supply of the basic stove.

Please refer to the examples in the Combustion air chapter.



Im. 9: Steel GOT Series 2

Floor mounting

1 Floor mounting plate

2 Rear clamping screw

3 Front clamping screw

4 Adjustment bracket

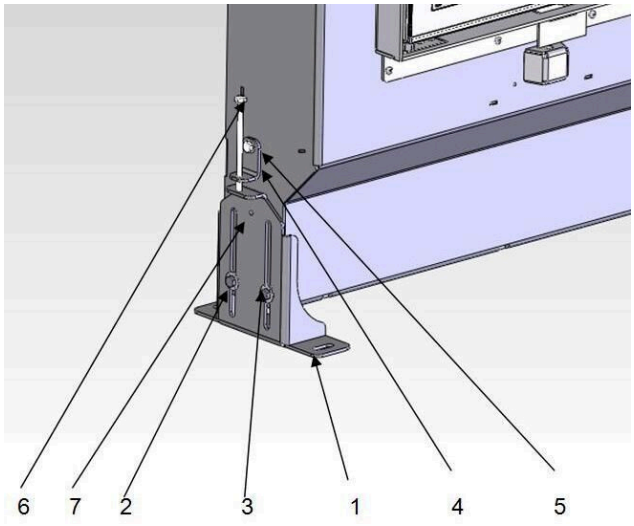
5 Fixing screw Adjustment bracket

6 Adjusting screw

7 Grooved pin

To begin, loosen the rear and front clamping screws (2 and 3) and set the desired height (distance from the floor to the bottom edge of the door).

Now screw the floor mounting plate (1) to the floor.



Im. 10: Fastening the base oven door to the floor

Screw in the adjusting screw (6) until it rests on the floor fixing plate.

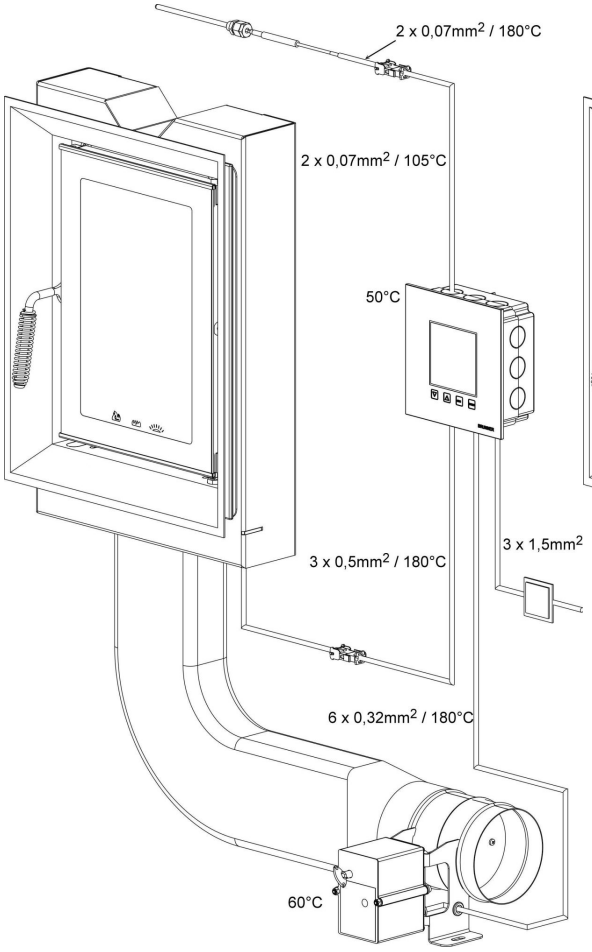
Note : Turning the adjustment angle (4) and the adjustment screw (6) by 180° increases the possible adjustment range.

Fine adjustment of the door:
After loosening the clamping screws (2 and 3), you can use the adjusting screw (6) to set the desired height exactly. If the rear clamping screw (2) is tightened, you can increase the inclination to the rear using the adjusting screw (6). If the front clamping screw (3) is tightened (2 is loose), you can increase the forward tilt using the adjusting screw (6). Once alignment is complete, tighten the clamping screws (2 and 3).

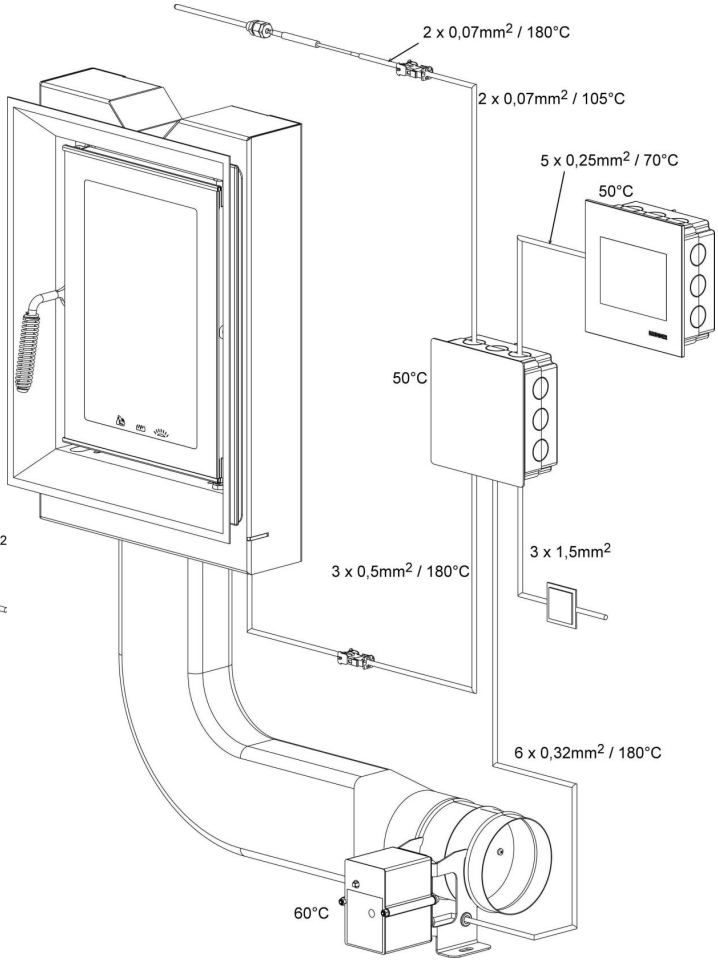
Securing the adjustment:
Drill a 6 mm diameter hole in the air duct through the hole in the floor mounting plate. Then drive in the dowel pin. The base oven door can now be loaded.

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9 MOUNTING INSTRUCTIONS FOR EAS / EOS VARIANTS



Im. 11: Schematic layout of EAS



Im. 12: Schematic layout of EOS

The indicated temperatures are maximal permissible temperatures of components!
The indicated cable dimensions are minimal dimensions!

Installation of electronic components must be prepared and performed carefully. Please pay attention to the following points:

• The flush-mounting box must be fitted in level and clean, to ensure easy, tension-free installation of electronics.

• Prevent any physical contact with electronic components - possible electrostatic discharge can damage them.

• Humidity can affect electronic components. Therefore, it is very important to ensure clean and dry installation of electronics.

• If possible, avoid installation of electronic components in exterior walls to prevent risk of corrosion at temperatures below dew point.

• The control unit must not be installed in hot parts of the tiled stove casing.

• The selected type of installation must ensure that temperatures do not exceed +40# (140°F) and the unit is not exposed to direct heat radiation.

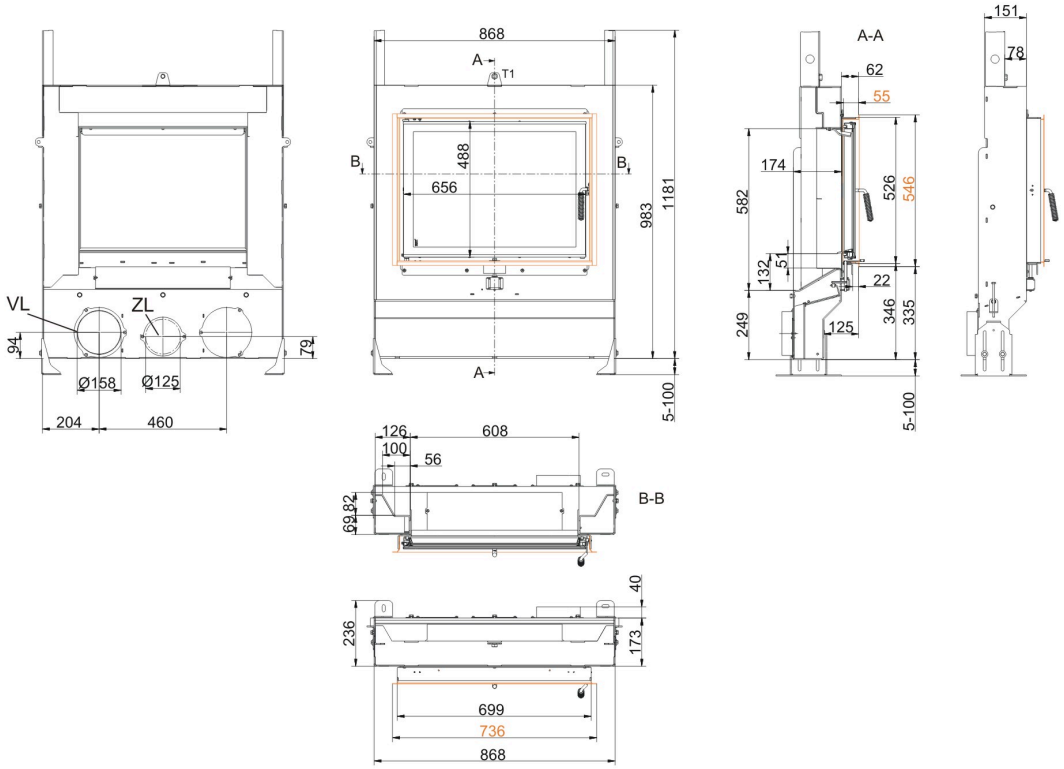
For units with external air supply, the motorized combustion air flap assembly cannot be installed in such way that the motor is located under the flap. Condensate could penetrate the motor and destroy it.

To avoid risk of damage, all cable conduits leading from electronics into the heating chamber must enter at the bottom of the stove casing. Cable conduits cannot end in upper parts of the heating chamber due to excessive temperature.

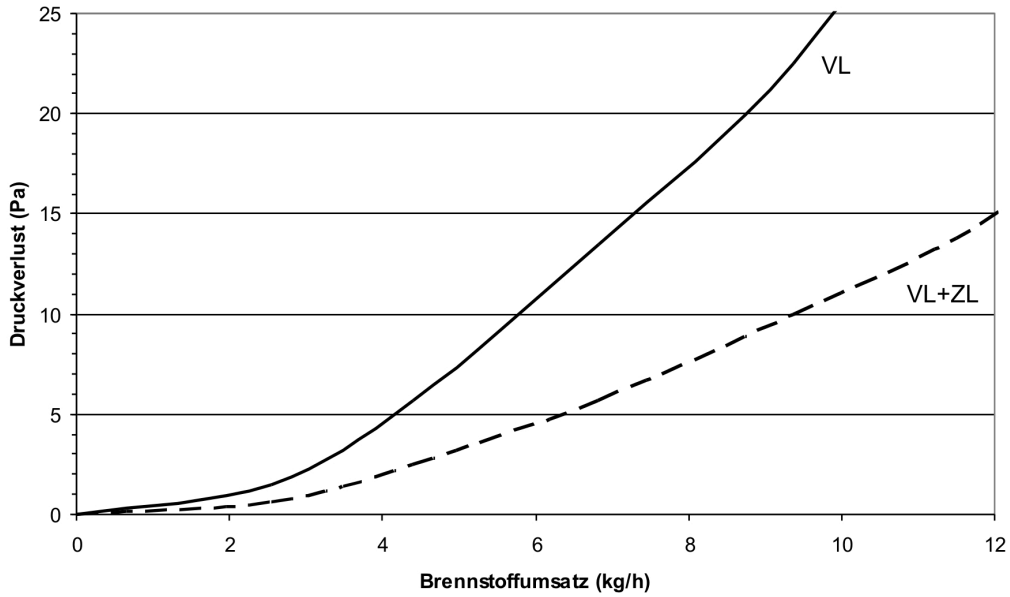
All electronic components must be accessible after installation for revision and replacement. When selecting place of installation, keep in mind the max. permitted temperature for the component. Components cannot be installed in closed spaces; proper ventilation must ensure sufficient heat discharge.

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Dimension sheets - GOT 51/67-ZL



… side opening with door frame



… pressure decrease

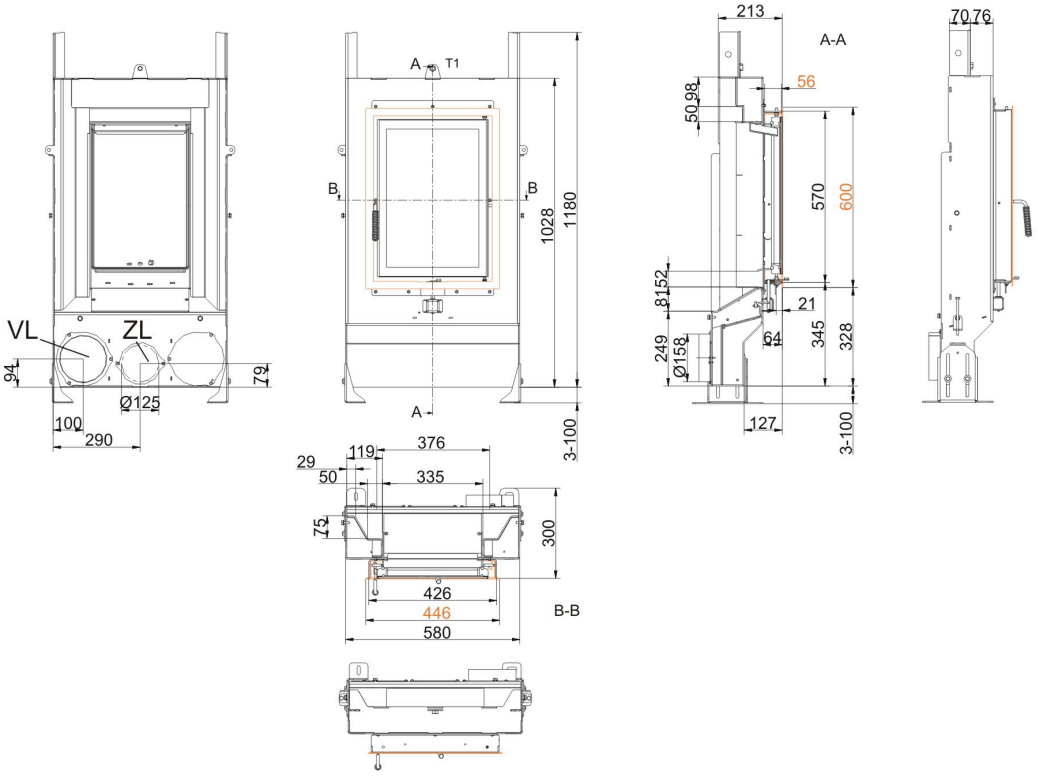
We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de
Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

Planning and installation - GOT 51/67-ZL

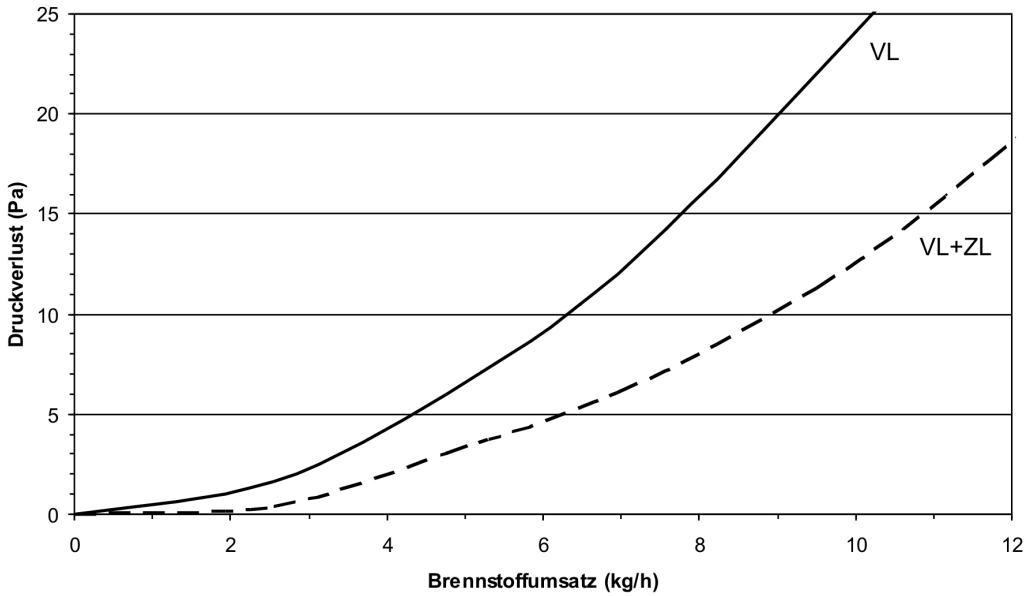
Data for functional demonstration		
Maximal rate of firewood	kg/h	8.3
Loss of pressure [1)]	Pa	Diagramm
Appropriate to fill quantity	kg	4 - 17
Combustion air connection Ø	mm	2 x 160
GOT		
Secondary air supply (ZL) Ø	mm	125
GOT- free cross-section of the combustion air opening	cm^2	402
Weight		
Fireplace / combustion chamber	kg	90 / 135

1) The pressure losses of GOT depends on the used quantity of wood (see layout diagram). For large quantities, we recommend combustion chambers with secondary air inlet (VL + ZL).

Dimension sheets - GOT 52/37-ZL



… side opening with door frame



… pressure decrease

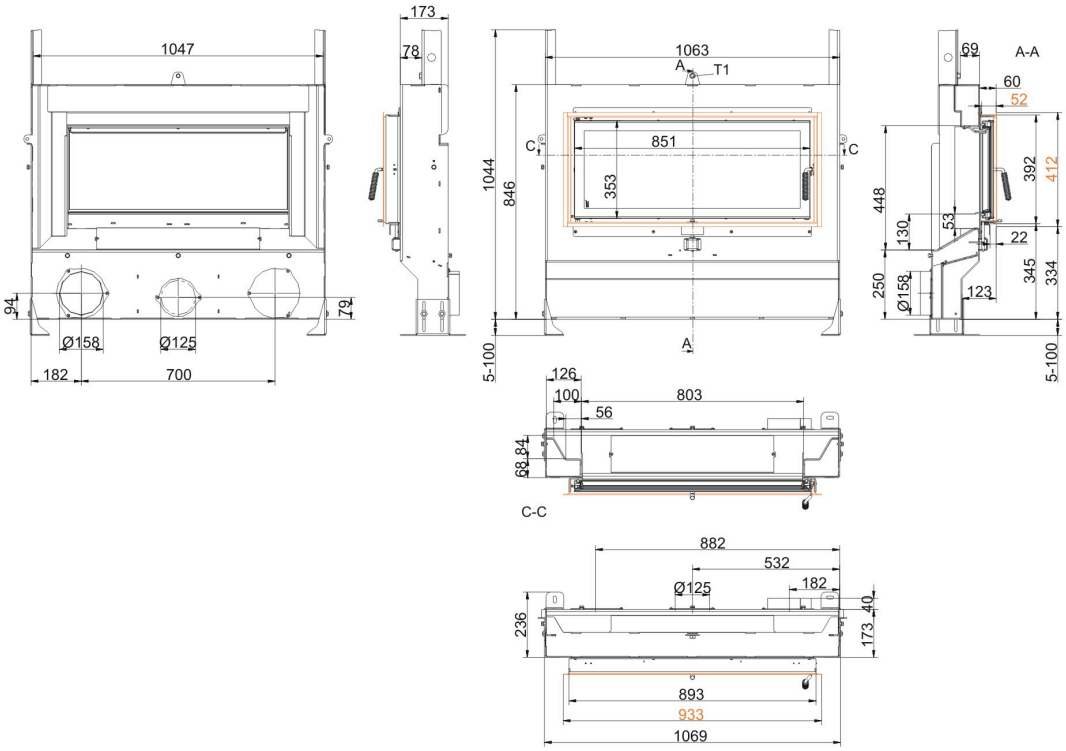
We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de
Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

Planning and installation - GOT 52/37-ZL

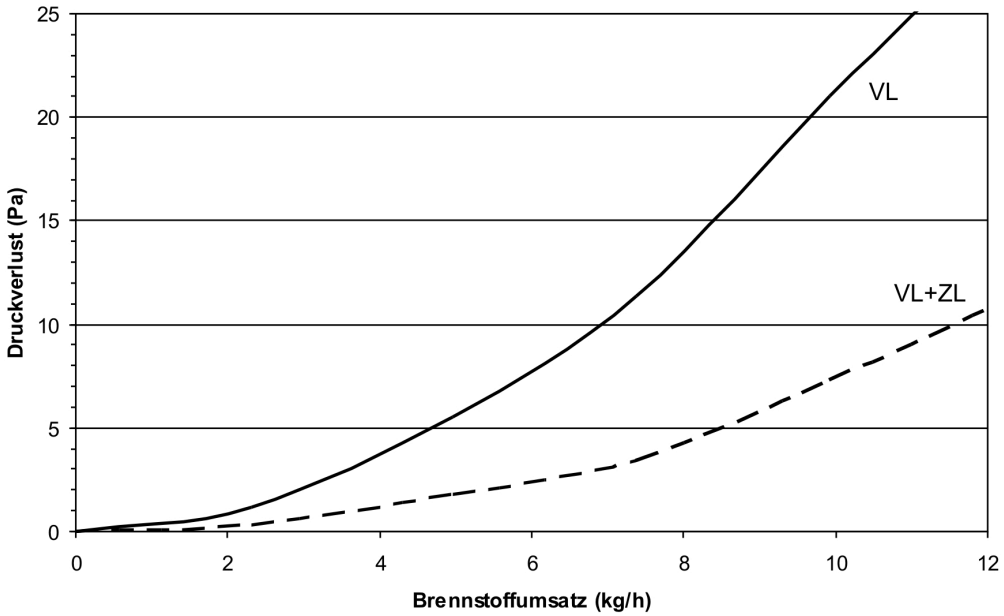
Data for functional demonstration		
Maximal rate of firewood	kg/h	7.9
Loss of pressure [1)]	Pa	Diagramm
Appropriate to fill quantity	kg	4 - 13
Combustion air connection Ø	mm	2 x 160
GOT		
Secondary air supply (ZL) Ø	mm	125
GOT- free cross-section of the combustion air opening	cm^2	402
Weight		
Fireplace / combustion chamber	kg	77 / 123

1) The pressure losses of GOT depends on the used quantity of wood (see layout diagram). For large quantities, we recommend combustion chambers with secondary air inlet (VL + ZL).

Dimension sheets - GOT 38/86-ZL



… side opening with door frame



… pressure decrease

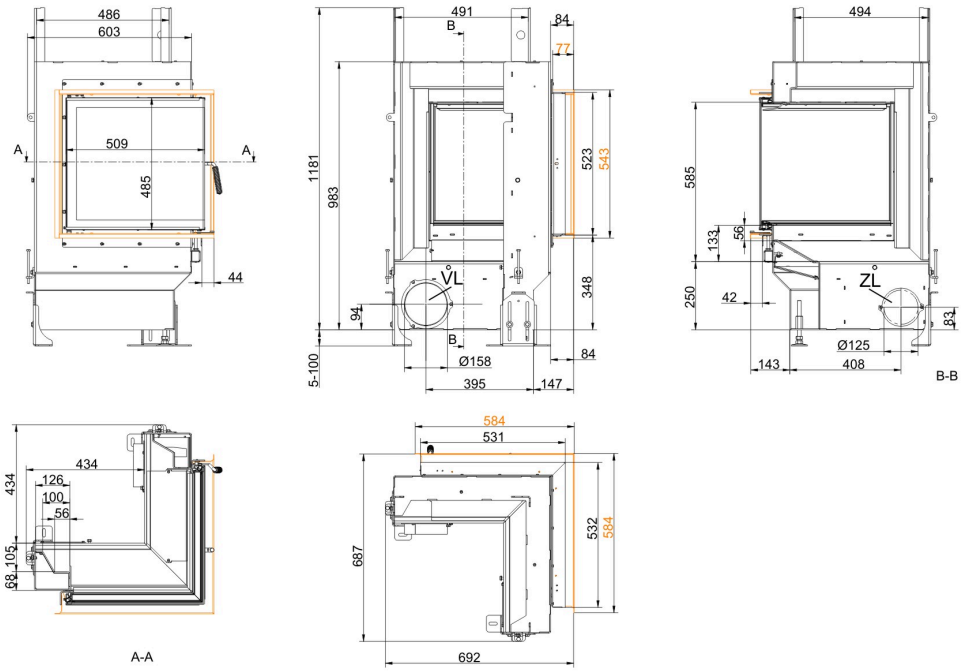
We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de
Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

Planning and installation - GOT 38/86-ZL

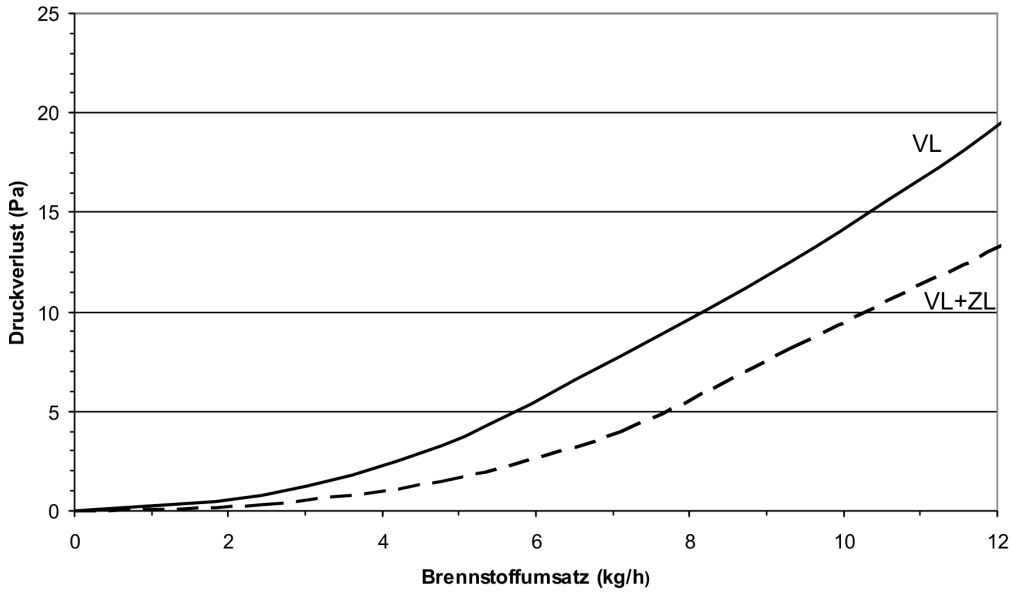
Data for functional demonstration		
Maximal rate of firewood	kg/h	8.3
Loss of pressure [1)]	Pa	Diagramm
Appropriate to fill quantity	kg	5 - 17
Combustion air connection Ø	mm	2 x 160
GOT		
Secondary air supply (ZL) Ø	mm	125
GOT- free cross-section of the combustion air opening	cm^2	402
Weight		
Side-opening door/ lifting door	kg	93 / 142

1) The pressure losses of GOT depends on the used quantity of wood (see layout diagram). For large quantities, we recommend combustion chambers with secondary air inlet (VL + ZL).

Dimension sheets - GOT-Eck 51/52/52-ZL



… side opening with door frame



… pressure decrease

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

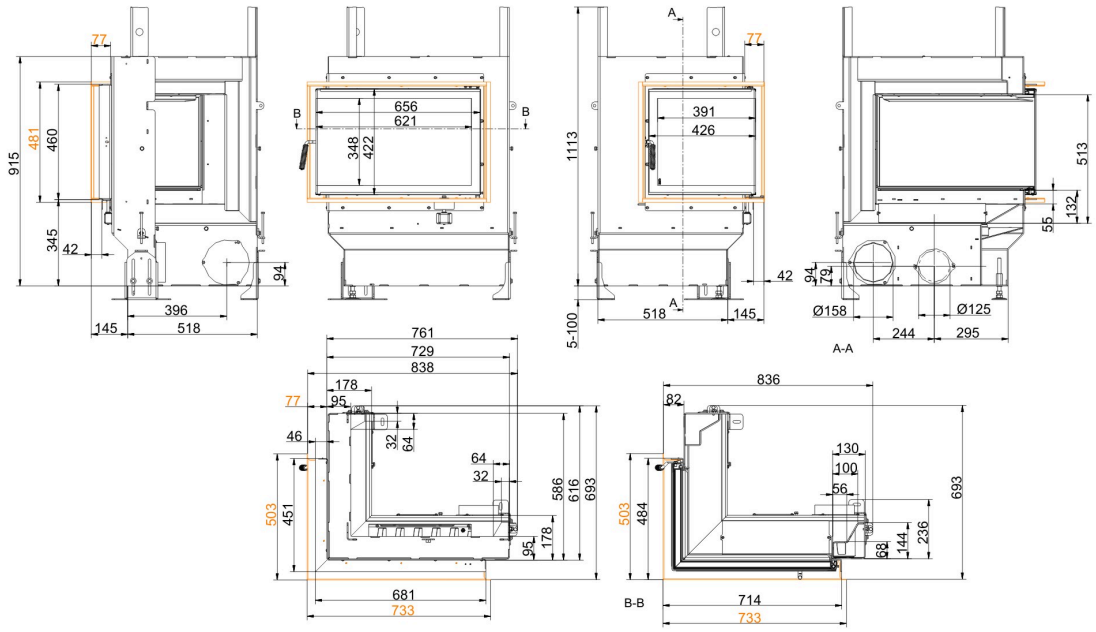
Stand: 2023-09-06

Planning and installation - GOT-Eck 51/52/52-ZL

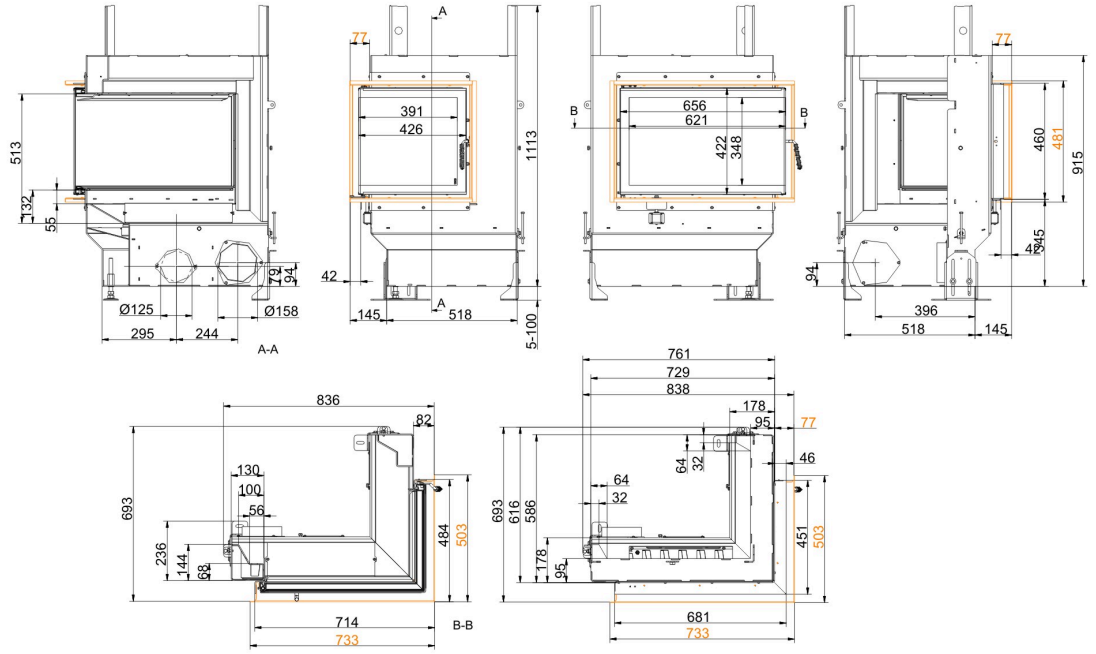
Data for functional demonstration		
Maximal rate of firewood	kg/h	7.9
Loss of pressure [1)]	Pa	Diagramm
Appropriate to fill quantity	kg	4 - 12
Combustion air connection Ø	mm	2 x 160
GOT		
Secondary air supply (ZL) Ø	mm	125
GOT- free cross-section of the combustion air opening	cm^2	402
Weight		
Side-opening door/ lifting door	kg	105 / 186

1) The pressure losses of GOT depends on the used quantity of wood (see layout diagram). For large quantities, we recommend combustion chambers with secondary air inlet (VL + ZL).

Dimension sheets - GOT-Eck 45/67/44-ZL



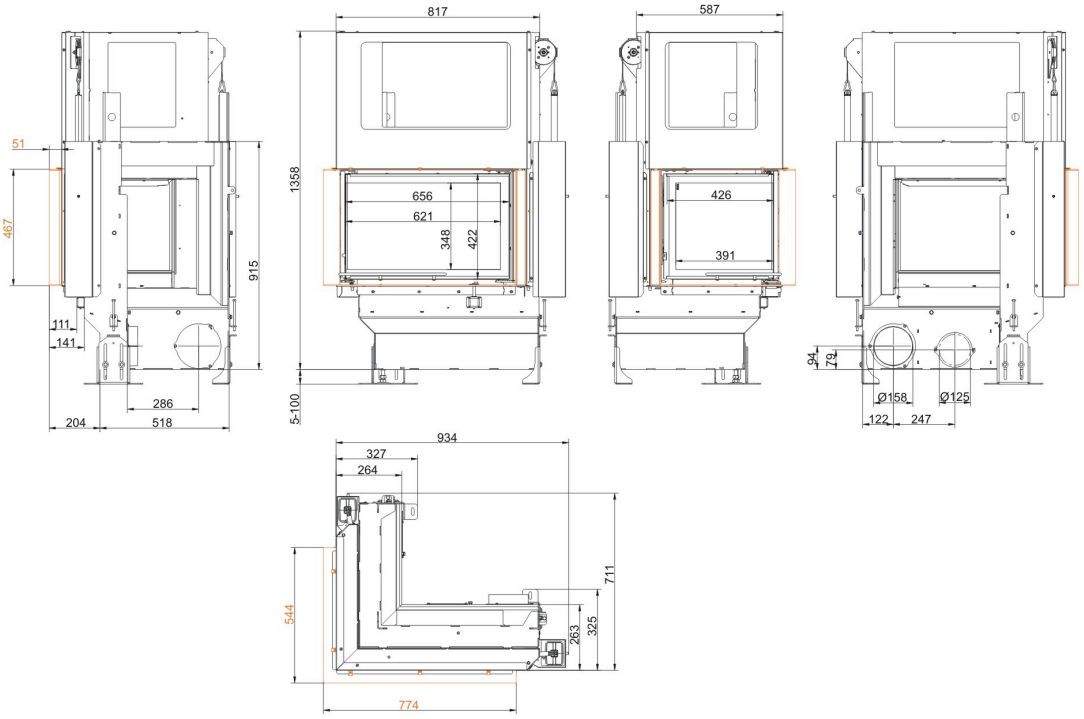
… left with side-opening door



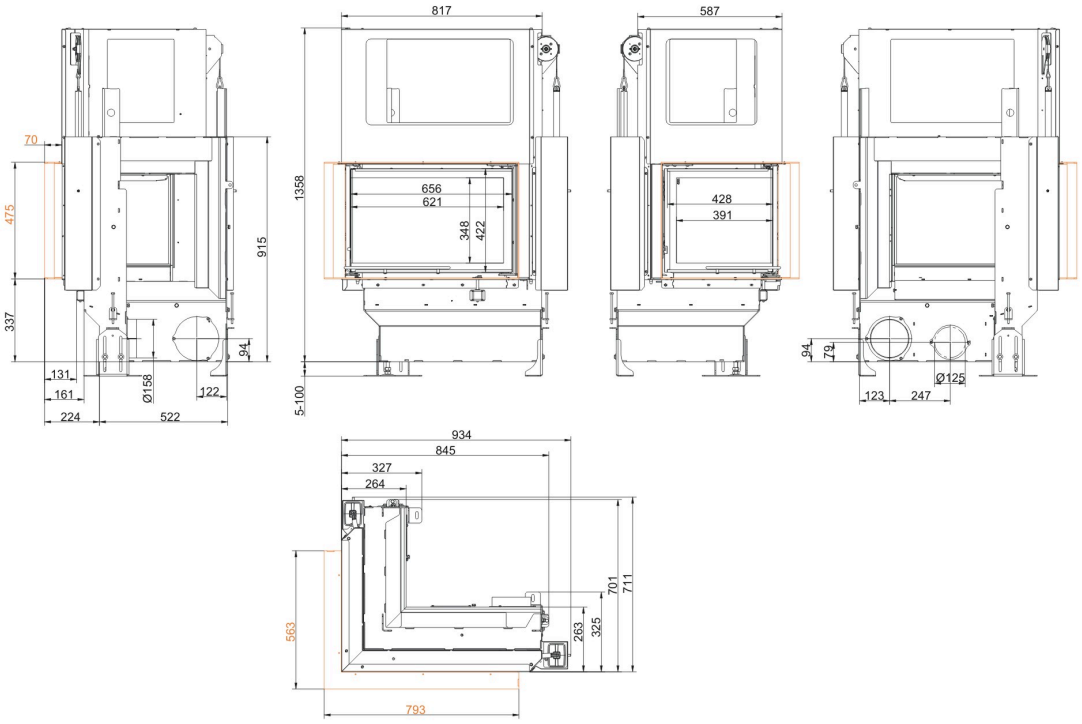
… right with side-opening door

Stand: 2023-09-06

Dimension sheets - GOT-Eck 45/67/44-ZL



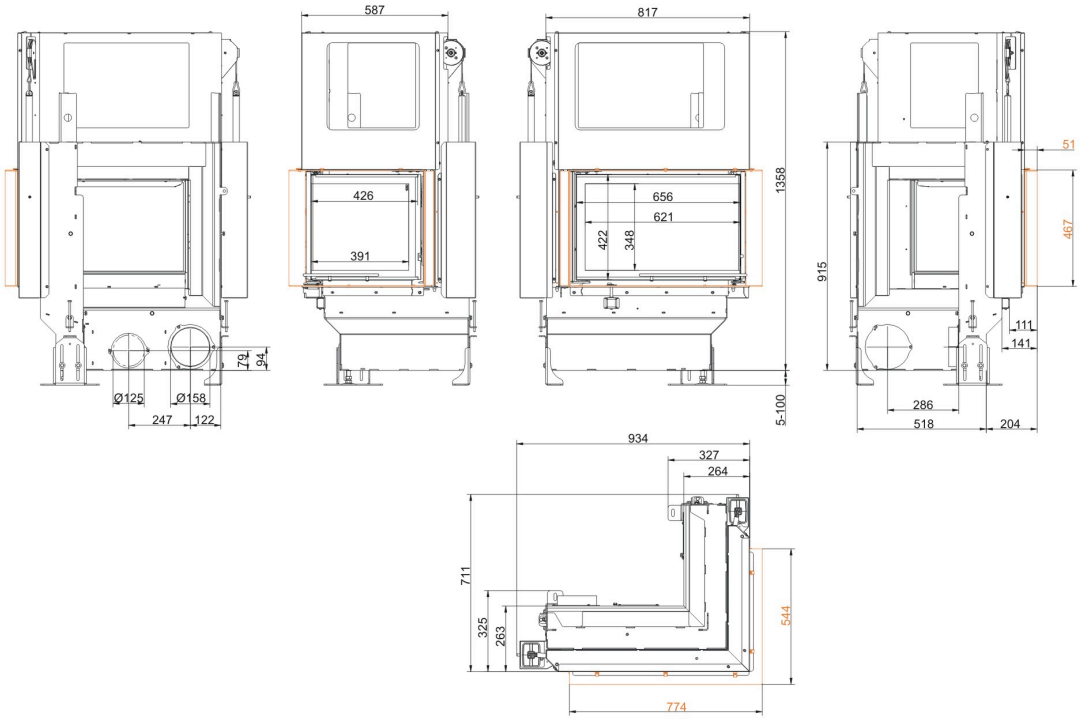
… left with lifting door 50 mm mounting frame



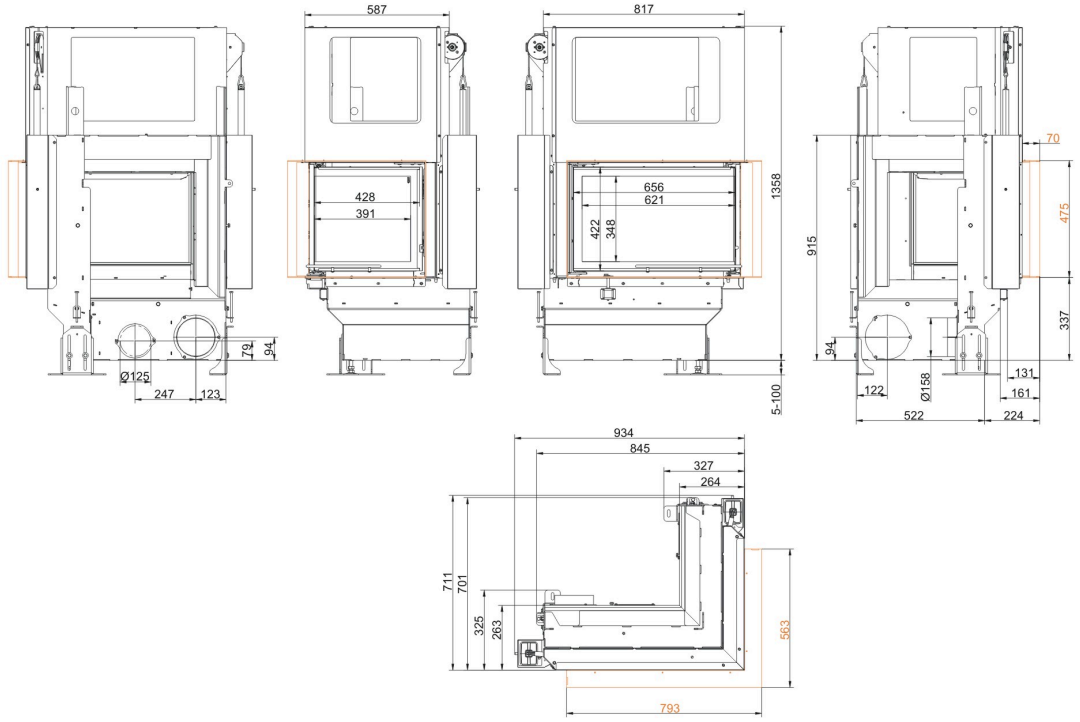
… left with lifting door 70 mm mounting frame

Stand: 2023-09-06

Dimension sheets - GOT-Eck 45/67/44-ZL



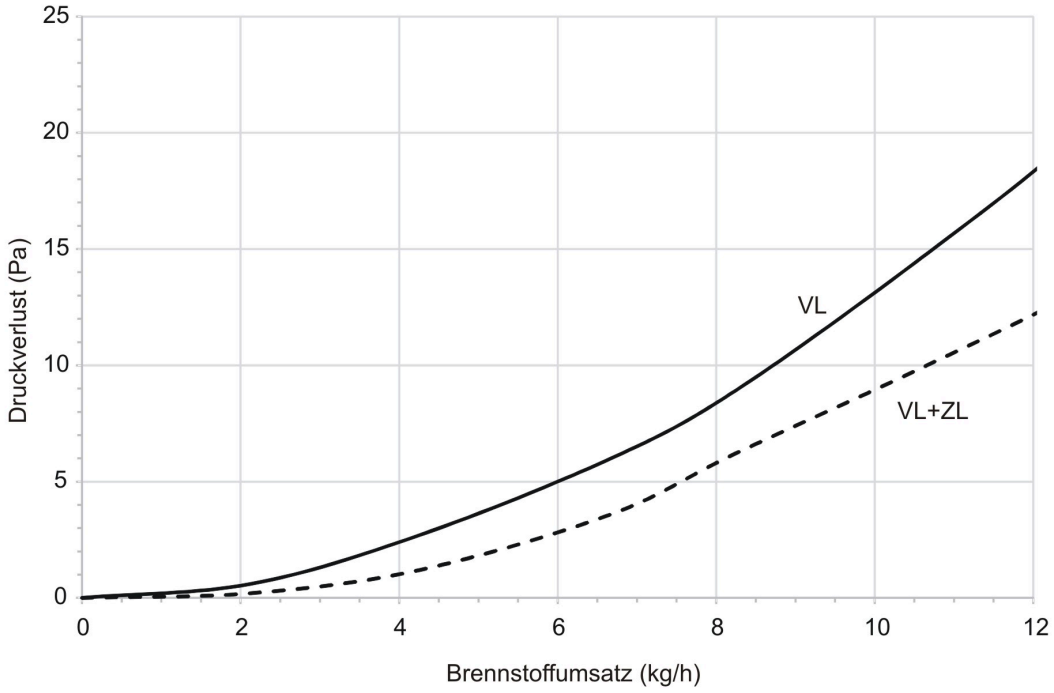
… right with lifting door 50 mm mounting frame



… right with lifting door 70 mm mounting frame

Stand: 2023-09-06

Dimension sheets - GOT-Eck 45/67/44-ZL



… pressure decrease

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 - GOT-Eck 45/67/44-ZL

Data for functional demonstration		
Maximal rate of firewood	kg/h	7.9
Loss of pressure [1)]	Pa	Diagramm
Appropriate to fill quantity	kg	4 - 13
Combustion air connection Ø	mm	2 x 160
GOT		
Secondary air supply (ZL) Ø	mm	125
GOT- free cross-section of the combustion air opening	cm^2	402
Weight		
Side-opening door/ lifting door	kg	107 / 170

1) The pressure losses of GOT depends on the used quantity of wood (see layout diagram). For large quantities, we recommend combustion chambers with secondary air inlet (VL + ZL).

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