Installation manual

HKD 5.1/12 GOT
HKD 5.1/20 GOT
HKD 6.1 GOT
GOT 44/55

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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.

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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.

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 DEVICE DESCRIPTION

The HKD basic stove door can be used as a combustion door for hand-built basic stoves. You can optionally equip or retrofit the basic stove door with an electronic stove control (EOS/EOR).

The installation of an external combustion air duct (e.g. for very tight construction, etc.) is possible.

4 SCOPE OF DELIVERY

The HKD base oven door is supplied in three assemblies.

- Basic oven door
- Cast front or plug-in panel (accessory)
- Floor bracket for installation (accessory)

5 ACCESSORIES

- Front variants

You can equip the basic oven door with different plug-in fronts as required.

- Electronic combustion air control

You can equip the basic stove door with an EOS/EOR. To do this, you must use the EOS/EOR version of the GOT with door contact switches fitted. You can use the flue gas probe sensor connection (art. no. 12112) to attach the thermocouple.

- Combustion air duct

The basic oven door is equipped with one (EOS) or two (EOR) rectangular connection pieces for the combustion air. Use a flexible molded hose (art. no. 10541 for Ø125 mm or art. no. 10570 for Ø160 mm) as the connecting piece between the appliance spigot and the outside air duct or EOS damper, which is adapted to the shape of the spigot on one side and is circular on the other side with a diameter of 125 mm or 160 mm. Two or four hose clamps are included in the scope of delivery. Check the delivery for damage or missing parts. Report any complaints to your supplier immediately.

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6 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.

7 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.

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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.

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!

MOUNTING WITH FLOOR BRACKET

Please note:

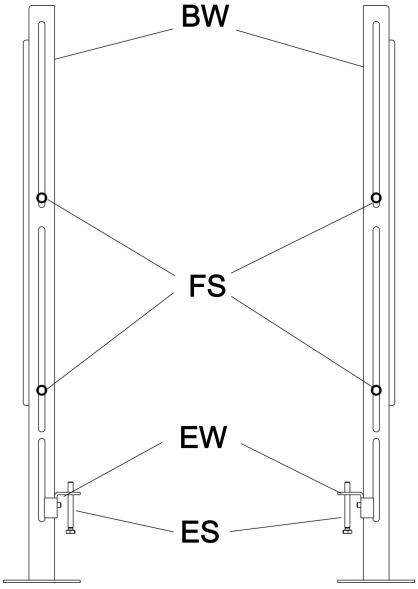
The combustion air flows in via the combustion air connection piece. The air inlet opening of the combustion air spigot must not be blocked by the stove casing. Provide sufficient free space!

When using the variant with EOS/EOR, ensure that there is sufficient space for the door contact cable below the combustion door in the stove casing.

You must use heat-resistant elastic sealing materials between the basic stove door and the stove body to compensate for the different expansion.

Installation sequence

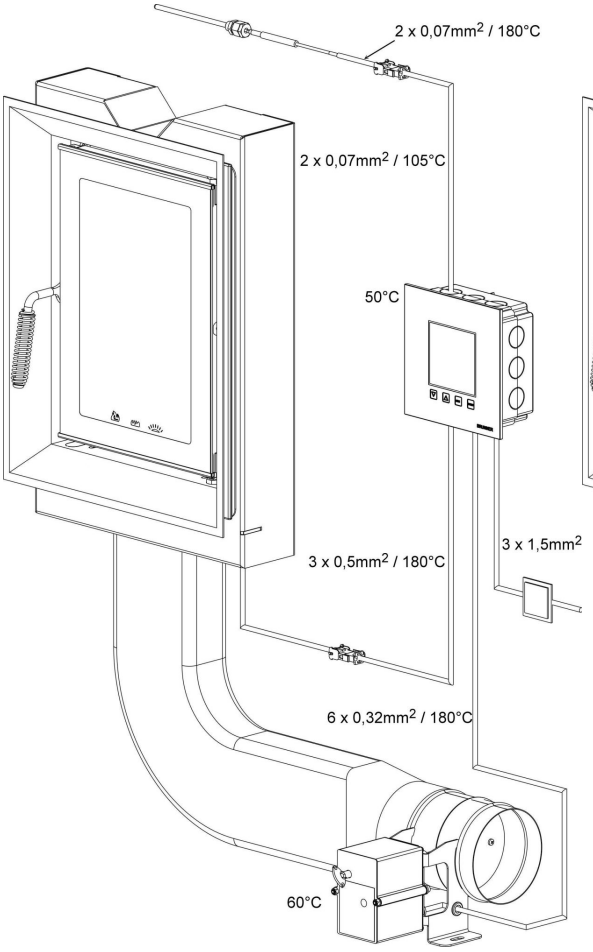
1 Install the setting brackets (EW) at the desired height. Ensure sufficient ground clearance, provide at least 10 cm free space below the combustion air connection. For EOS/EOR versions, allow sufficient space for the shaped hose.
2 Place the base oven door between the sheet metal brackets (BW) and tighten the four M8*16 fixing screws (FS) only lightly.
3 Set the base oven door in the floor bracket vertically to the desired height using the adjusting screws (ES).
4 Now tighten the locking screws (FS) firmly.
5 Connect the shaped hose (if required) and secure with a hose clamp.
6 Insert the feed on the combustion chamber side.
7 For EOS/EOR: Lay the door contact cable. It must be possible to replace the door contact switch in the event of damage.
8 Finish the outer cladding.
9 Fit the panel (see “Fitting the panel” or the instructions enclosed with the panel).



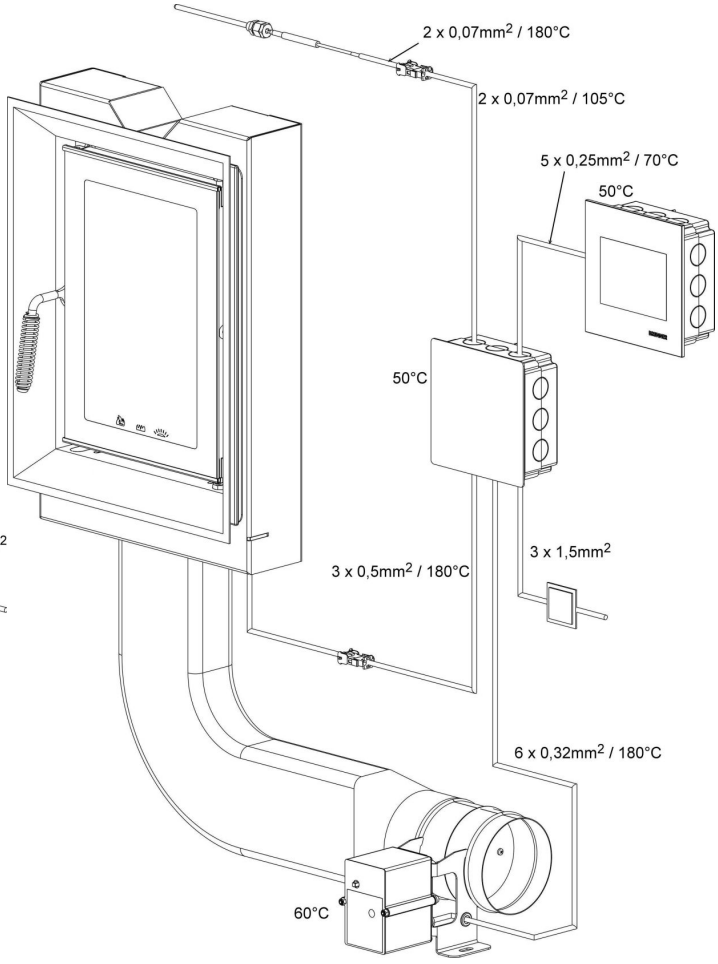
Im. 1: Floor console

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8 MOUNTING INSTRUCTIONS FOR EAS / EOS VARIANTS



Im. 2: Schematic layout of EAS



Im. 3: 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.

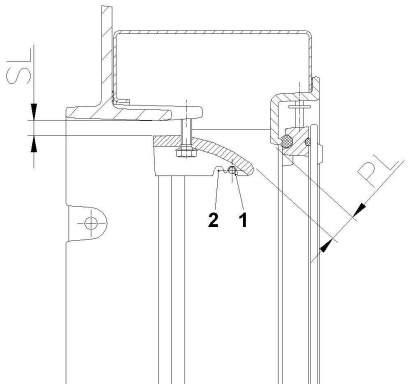
All electronic components must be accessible after installation for revision and replacement. When selecting place of installation, keep in mind the max. permitted temperature for the component. Components cannot be installed in closed spaces; proper ventilation must ensure sufficient heat discharge.

9 AIR SETTING

Setting the primary and secondary air for HKD 5.1/20, HKD 5.1/12 and GOT 44/55

Once installation is complete, remove the wooden wedges from the primary and secondary air gaps and adjust the air gaps for primary air (PL) and secondary air (SL). To change the air gaps, you can hang the air baffle plate in positions 1 or 2 and adjust it with the adjusting screw.

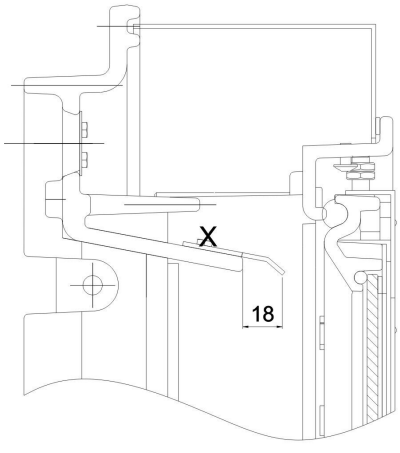
	HKD 5.1/20	HKD 5.1/12	GOT 44/55
PL	22 mm	12 mm	16 mm
SL	10 mm	10 mm	15 mm



Im. 4: Air setting HKD 5.1 / GOT 44/55

Setting the primary air for HKD 6.1

After installation, check the position of the air baffle plate. You can adjust the gap for the secondary air using two screws on the air baffle plate (accessible through the open combustion door, marked X in the picture).



Im. 5: Air setting HKD 6.1

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10 ADJUSTING THE COMBUSTION DOOR

Variants with self-closing firing door Variants with self-closing firing door

The door adjustment is done in factory and must not be changed. If you want to remove the door, please observe the following. The lower turning point of the door is furnished with a lifting hinge. The door has a threaded bolt, which is screwed into a brass nut mounted on the frontal frame. You can change the height of the door by turning the hexagon brass nut. To remove the door, the nut must be turned until the threaded bolt is removed from the nut. Then lift the door up shortly and lower it slightly to the front.

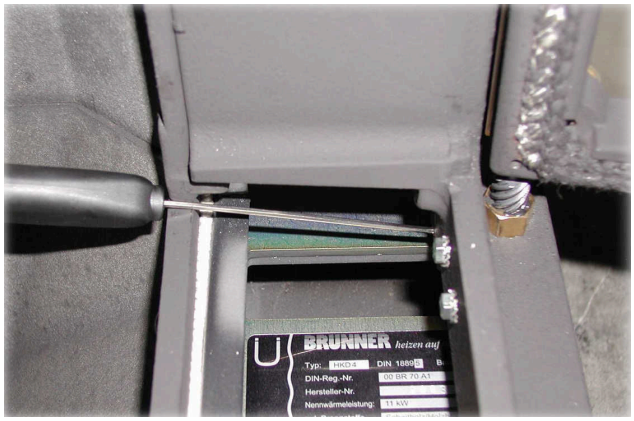


Im. 6: Turning the brass nut

The brass nut is secured with a threaded pin against turning. The hexagon nut may be turned only after the threaded pin is turned loose.

The threaded pin is accessible after removal of air leading plate from the inside (see picture “Position of threaded pin”). After the adjustments are done, the brass nut must be secured again with the threaded pin.

If the door is set to high, the thread is loose in the open door position, and the door may fall out. Always check after adjustments, if the mounting is safe in the opened position.



Im. 7: Position of threaded pin

With the EAS/EOS version, lowering the threaded bolt when closing the door triggers the door contact. Raising the door can result in the door contact no longer being switched.

It is essential to check the function of the door contact switch. Risk of deflagration!

Variants with non-self-closing firing door

To change the height setting of the firing door on variants with a non-self-closing firing door, it is necessary to unhinge the firing door.

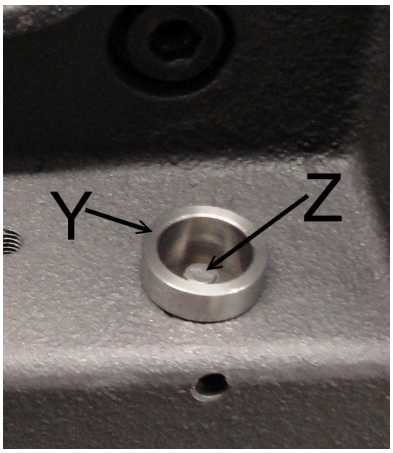
To be able to remove the combustion door, it is necessary to dismantle the panel. To do this, loosen the four screws of the panel fastening and pull off the panel. See also the assembly instructions for the stove or the assembly instructions for the panel.

To be able to unhinge the fireplace door, the upper door stop must first be loosened. To do this, unscrew the two countered screws completely, as shown in the picture 'Loosening the door stop'.

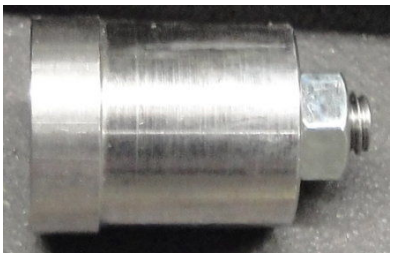
The furnace door can now be lifted out.



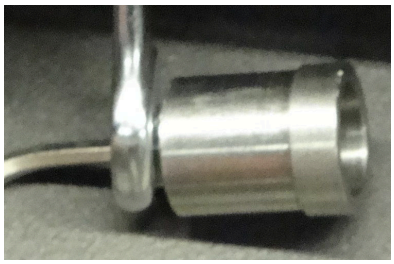
Im. 8: Loosening the door stop



Im. 9: Hinge sleeve



Im. 10: Hinge sleeve with lock nut



Im. 11: Locking

Now lift out the hinge sleeve (Y). Adjust the height of the firing door using the grub screw (Z) on the hinge sleeve and lock.

Replace the firing door and check its function.

Unscrew the two screws on the upper hinge and lock them again.

Variant with non self closing door

In order to change the height setting of the stove door in the case of variants with a non-self-closing door, it is necessary to unhinge the door.

In order to be able to remove the door, it is necessary to dismantle the frame. To do this, loosen the four screws on the frame fastening and pull off the frame. See also the assembly instructions for the fireplace stove or the assembly instructions for the frame.

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11 INSTALLATION OF COMBUSTION AIR CONTROL ELEMENT FOR MANUALLY OPERATED STOVES

CAUTION: The following instructions for the installation of combustion air control element are applicable only for stoves with manual operation! For stoves with EOS/EOR, the sliding plate is secured with a screw against accidental position change.

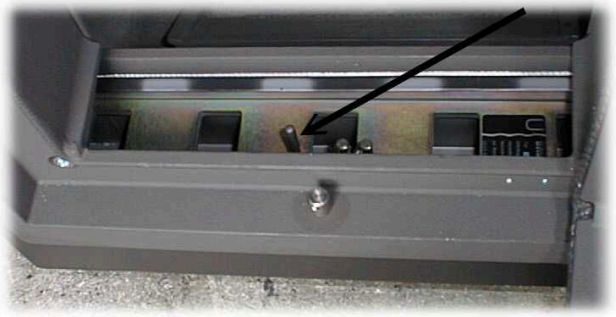
During transport, the combustion air control element is mounted onto the sliding plate of the combustion air supply as a protection against damage (see arrow on the picture in the middle of page).

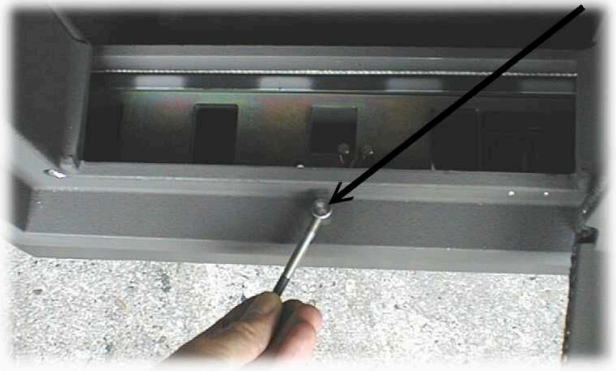
To install the combustion air control element for the manual stove operation, lift off the warning plate (see arrow on the upper picture) and remove the adjusting lever (see arrow on the picture in the middle of page) from the sliding plate.

Now attach the control element as shown in the lower picture and put the warning plate in place again.

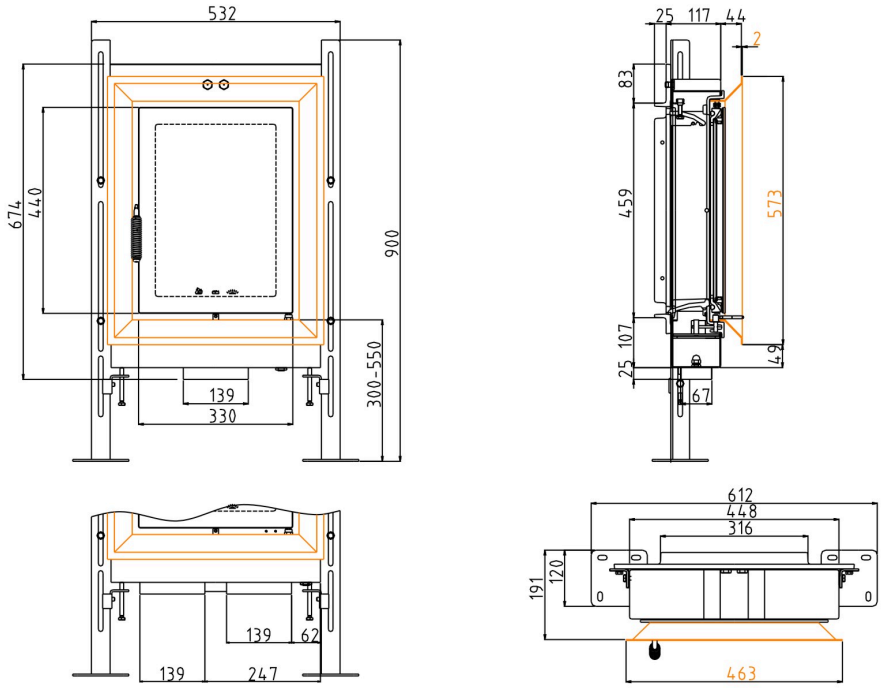
Check function!







Dimension sheets - GOT 5.1/12



… with ground bracket

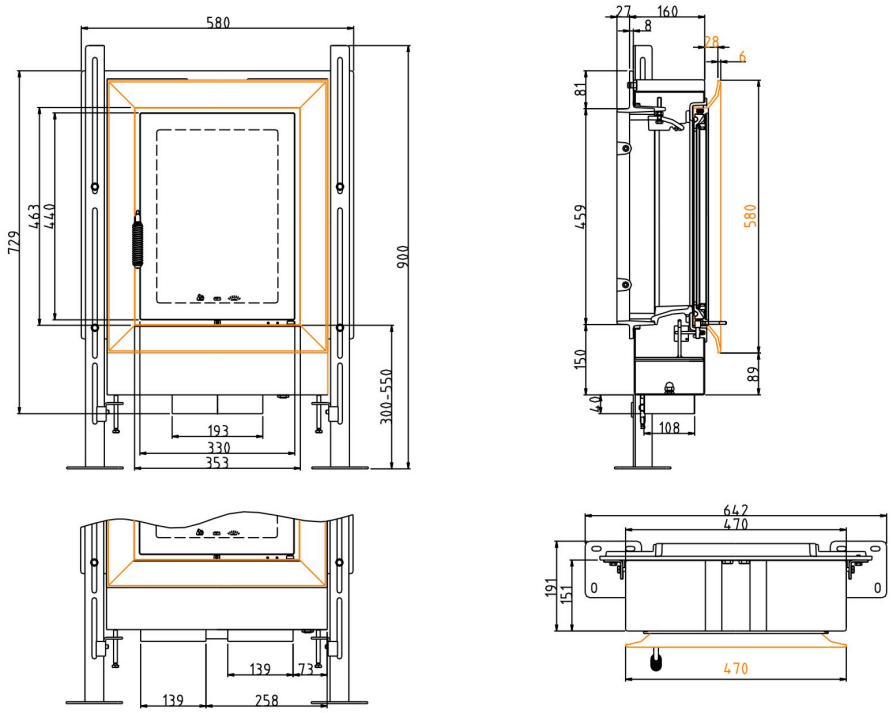
We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de
Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

Planning and installation - GOT 5.1/12

Data for functional demonstration		
Maximal rate of firewood	kg/h	9
Loss of pressure [1)]	Pa	3
Combustion air connection Ø	mm	125
GOT		
GOT- free cross-section of the combustion air opening	cm^2	95
Weight		
Side-opening door/ lifting door	kg	53

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 5.1/20



…with ground bracket and cast iron frame

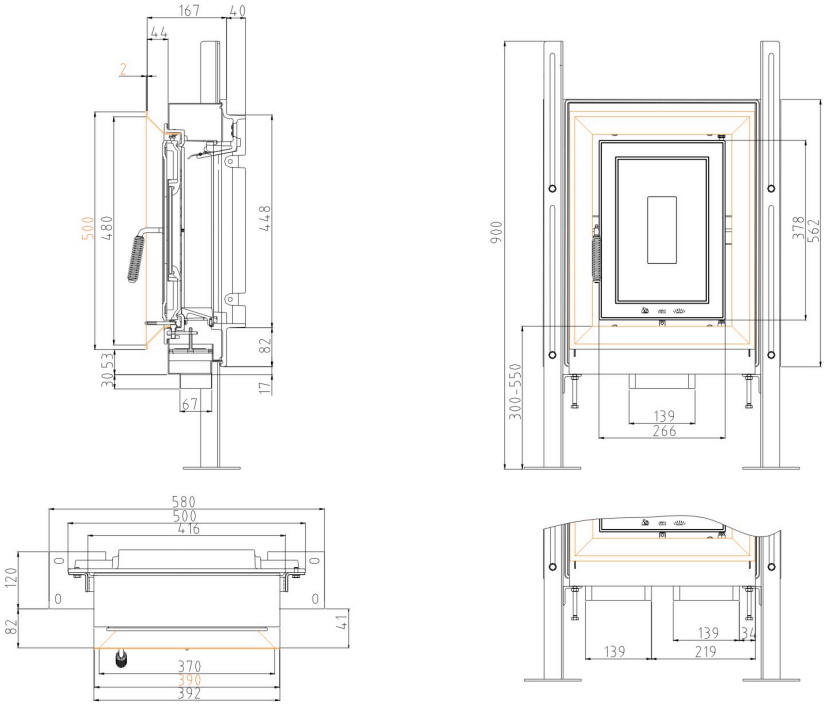
We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de
Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

Planning and installation - GOT 5.1/20

Data for functional demonstration		
Maximal rate of firewood	kg/h	15
Loss of pressure [1)]	Pa	2
Combustion air connection Ø	mm	160
GOT		
GOT- free cross-section of the combustion air opening	cm^2	110
Weight		
Side-opening door/ lifting door	kg	62

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 6.1



… with ground bracket

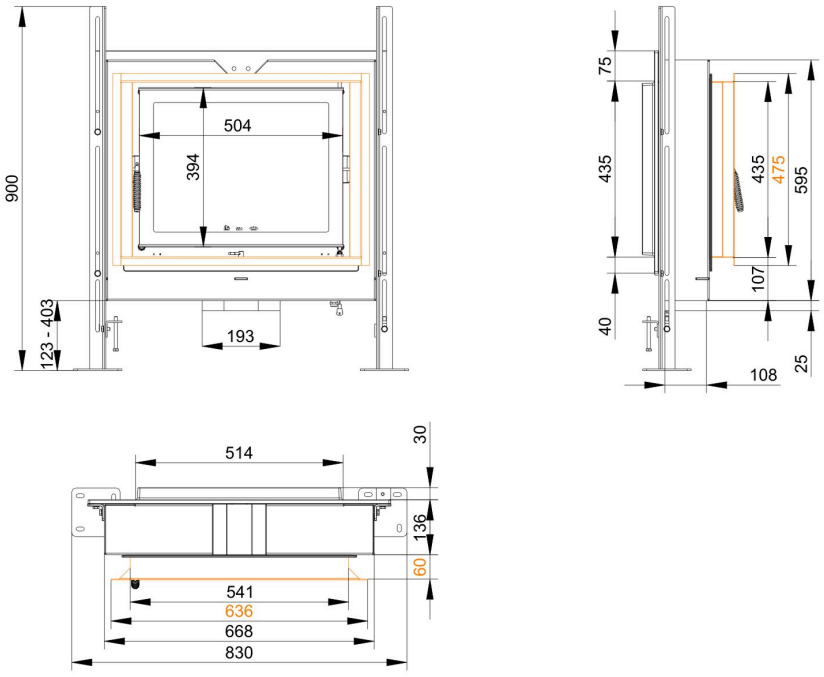
We suggest for CAD planning Palette CAD. Permanent updated drawings: www.brunner.de
Frames/ flue gas outlet connection/ combustion air supply connection/ front variants/ support bearing are marked in color.

Planning and installation - GOT 6.1

Data for functional demonstration		
Loss of pressure [1)]	Pa	3
Appropriate to fill quantity	kg	8
Combustion air connection Ø	mm	125
GOT		
GOT- free cross-section of the combustion air opening	cm^2	75
Weight		
Side-opening door/ lifting door	kg	35

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 44/55



… flat

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 44/55

Data for functional demonstration		
Maximal rate of firewood	kg/h	18
Necessary supply pressure	Pa	2
Loss of pressure [1)]	Pa	2
Combustion air connection Ø	mm	160
GOT		
GOT- free cross-section of the combustion air opening	cm^2	122
Weight		
Side-opening door/ lifting door	kg	79

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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