Installation manual

DF 33

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BRUNNER®

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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.

Please also take note of the online product documentation provided by:

General instructions of the Brunner products installation for the stove construction.

(https://www.brunner.de/produktdownloads/kacheloefen-kamine/allgemeine-hinweise-fuer-den-aufbau_de.pdf) laden können.

2 PRODUCT DESCRIPTION

This heating device is compliant to EN 13229. It can be used with metallic as well as ceramic reheating devices (radiators vs. ceramic ducts).

The DF Series devices with rotating function are basically considered as subject to the Machinery Directive. However, hence the rotating movement does not pose any threat for the user of device, the evaluation of conformity is performed according to the EN 13229 standard.

Combustion air can be supplied from outside by connecting to a separate air duct.

The air is supplied through a provided connecting piece. The volume of supplied combustion air can be controlled by using a combustion air adjusting element.

When installing electric or electronic parts (controllers, sensors, cables...), please consider the max. permitted surrounding temperatures for these components.

The device can be ordered with the optional electronic stove control system (EAS/EOS). It is not possible to adapt a manually operated device to the EAS/EOS control system.

The motorized rotating function with remote control can be installed any time.



To make the rotating function mechanism accessible for maintenance works, a masking kit is available as option. It must be assembled in such a manner, that the lower cover and the lower insert are removable. When the masking kit is is not used, the access to the mechanism must be ensured in other ways.

The lateral access underneath the DF fireplace does **not** ensure sufficient access to the rotating function mechanism!

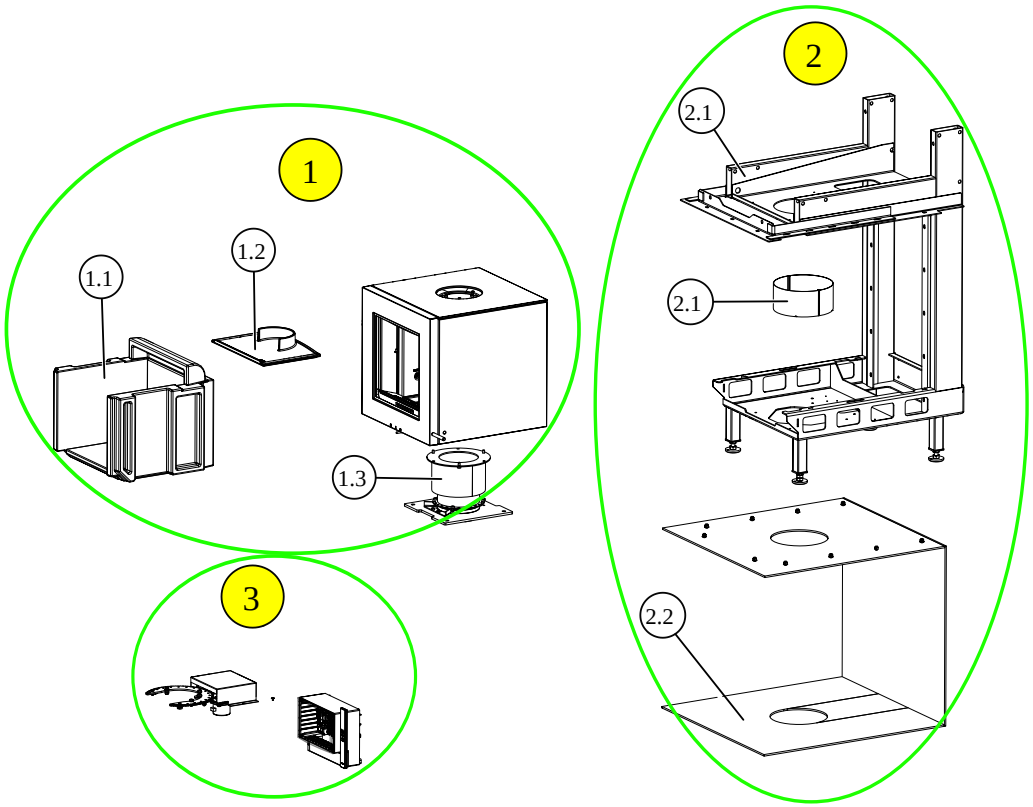
3 DELIVERY CONTENTS

The delivery consists of different packaging units depending on the configuration of the system.

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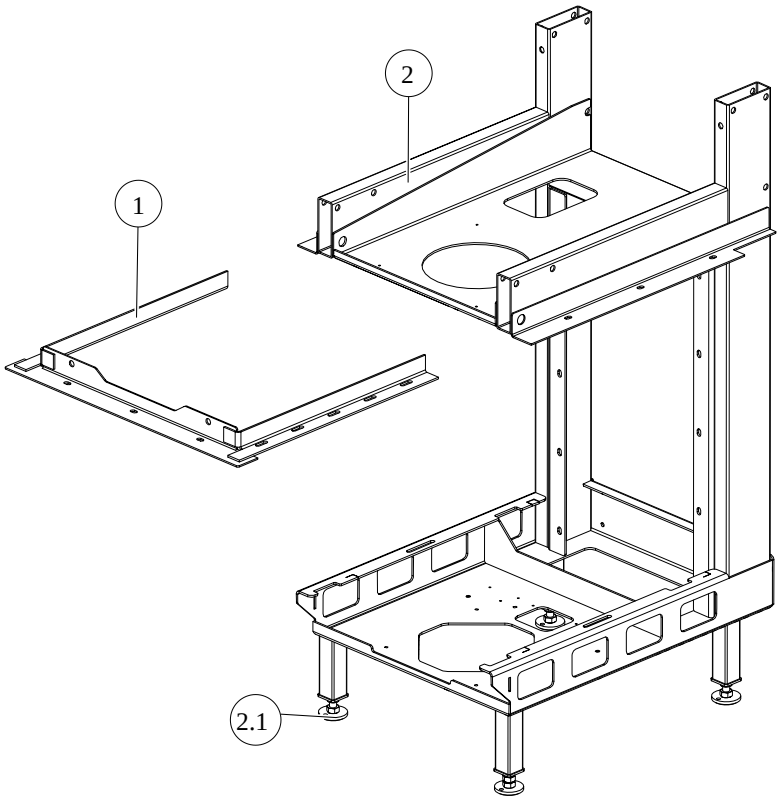
4 DESCRIPTION OF PARTS

4.1 COMPONENTS OVERVIEW



Item	Part No.	Designation
1	D028004	DF33 Standard
1.1	D028020	Combustion chamber linings
1.2	D028048	Cast iron deflector plate
1.3	D028180	Column with baseplate
2 Variant A:	D028107-01	C frame with masking kit 1
2.1	D028153	Variable C frame with smoke pipe cover
2.2	D028106-01	Masking kit 1
2 Variant B:	D028136	C frame with masking kit 2
2.1	D028153	Variable C frame with smoke pipe cover
2.2	D028129-01	Masking kit 2
3 Optional	D028160	Rotating system with remote control

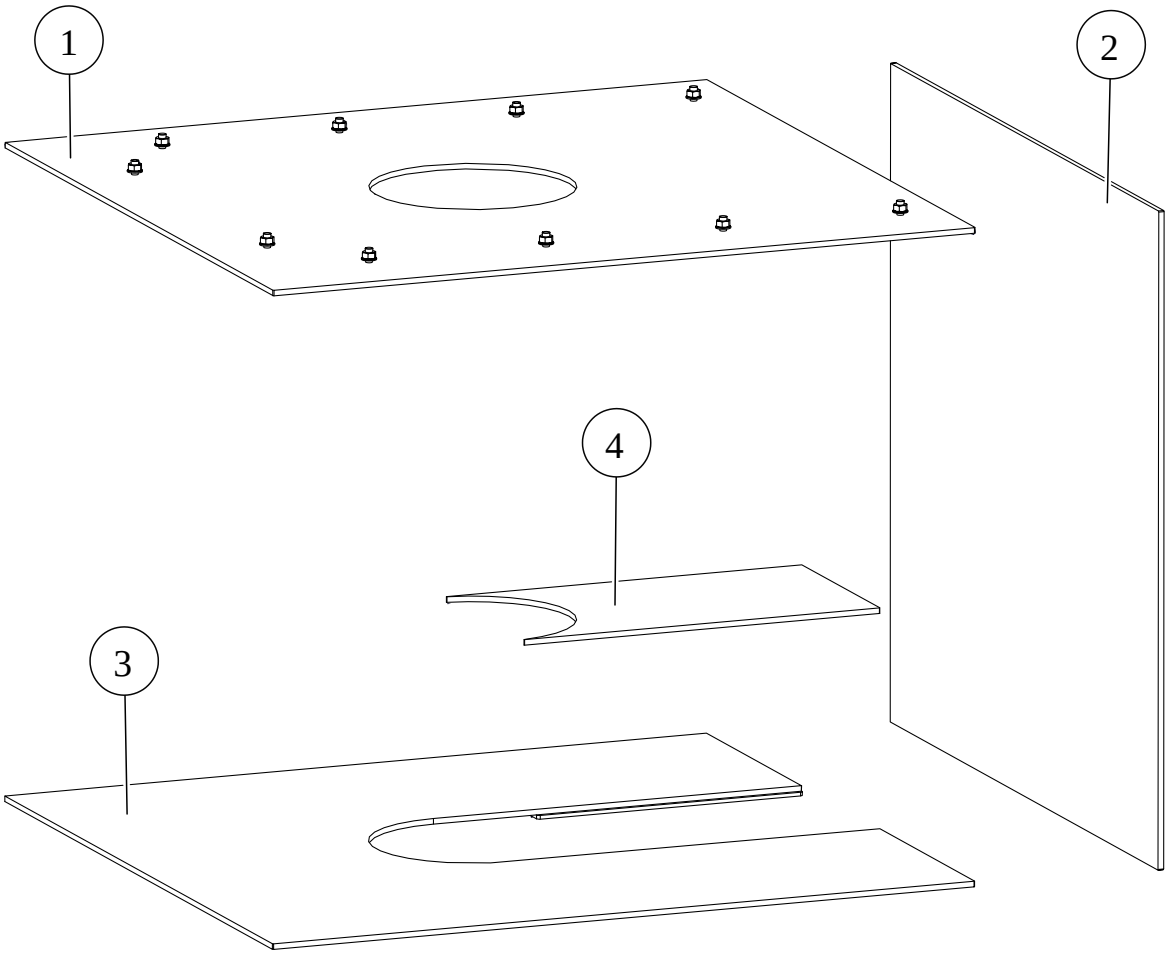
4.2 C FRAME (D028153)



Item	Part No.	Designation	No.
1	D028151	C frame upper elongation assembly	1
2	D028123	Welded niche support assembly	1
2.1	02080	Long adjustable foot complete assembly	4

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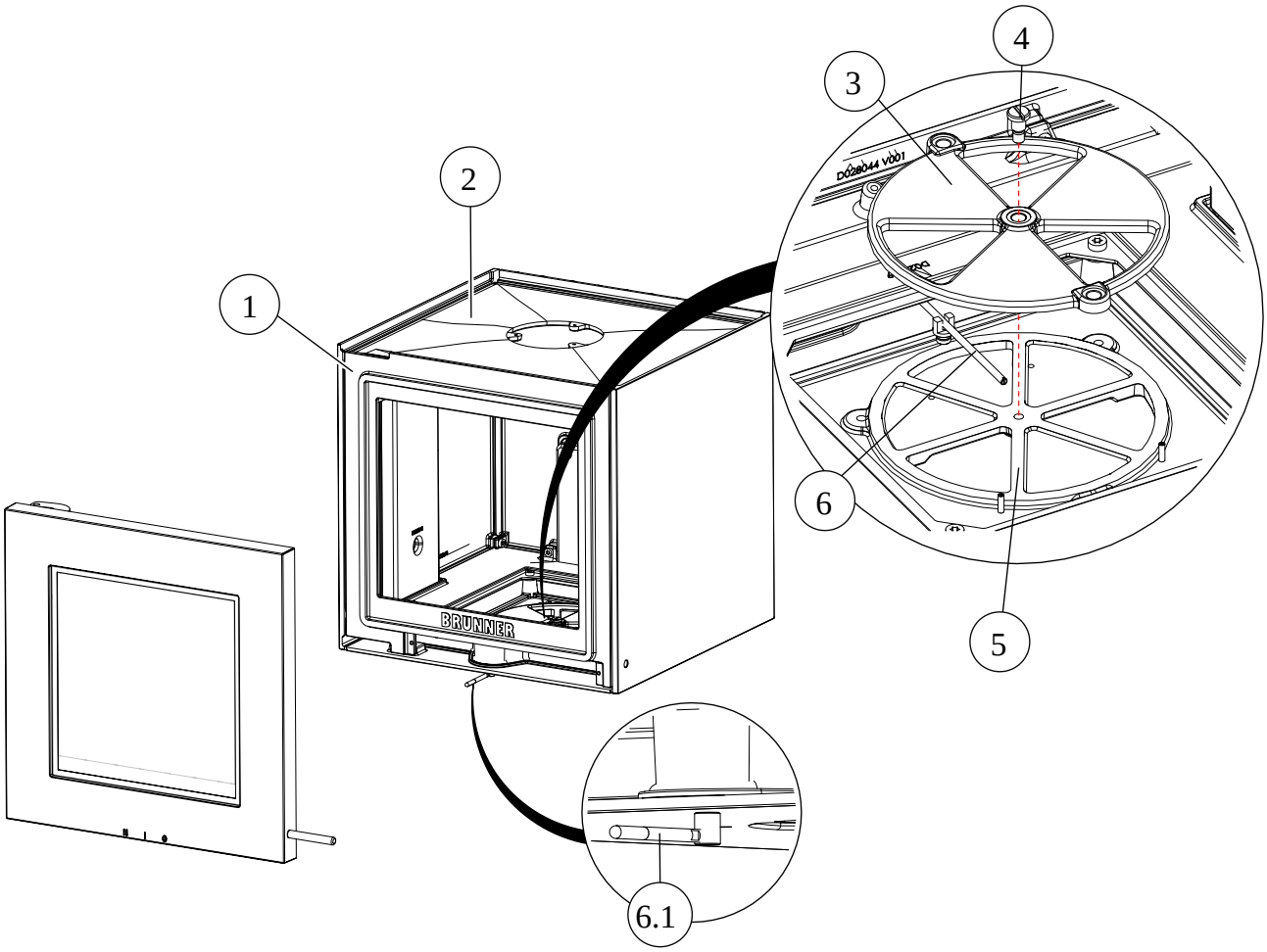
4.3 COMPLETE MASKING KIT (D028106-01 OR D028129-01)

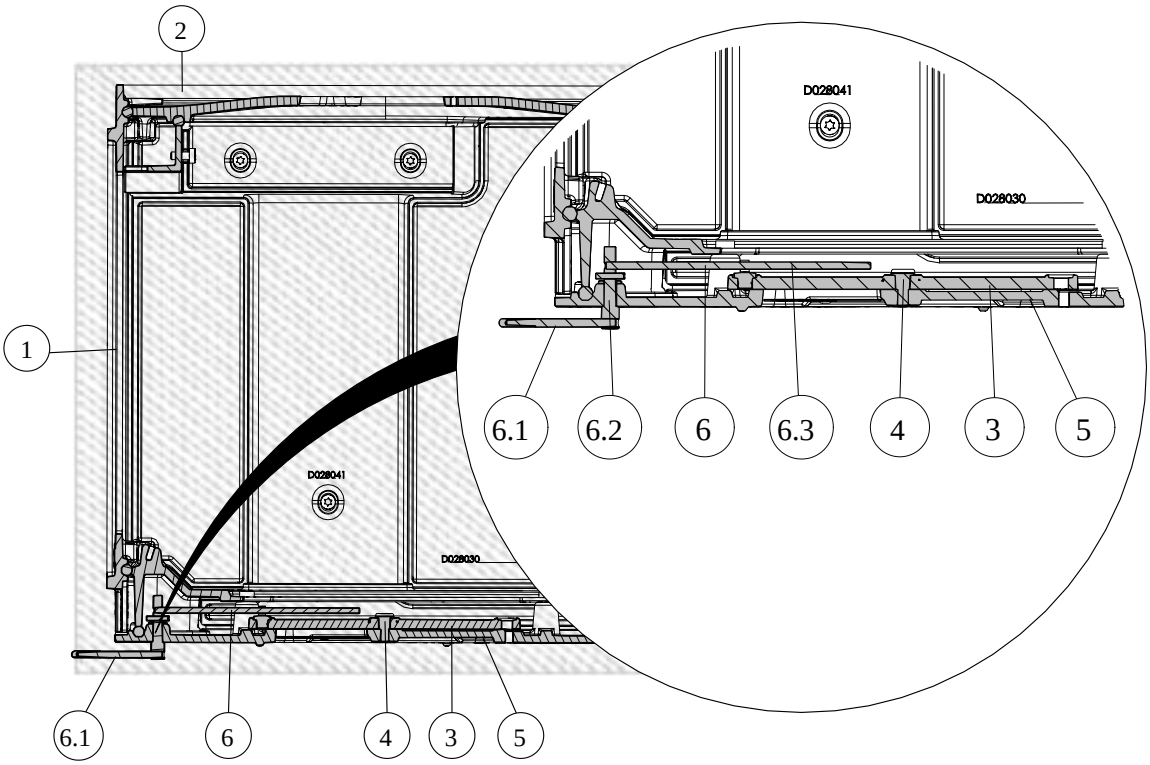


Item	Masking kit part no.		Designation	No.
	D028106-01	D028129-01		
1	D028103-01	D028130-01	Upper cover assembly	1
2	D028105-01	D028133-01	Rear cover assembly	1
3	D028104-01	D028132-01	Lower cover assembly	1
4	D028149-01	D028149-01	Lower cover insert	1

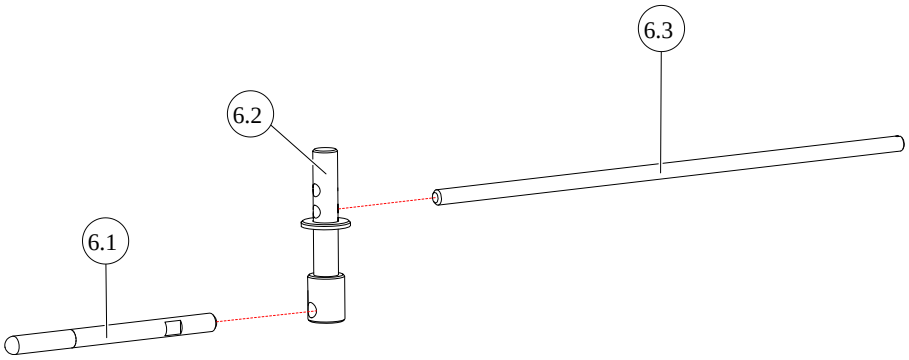
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4.4 CAST IRON PARTS





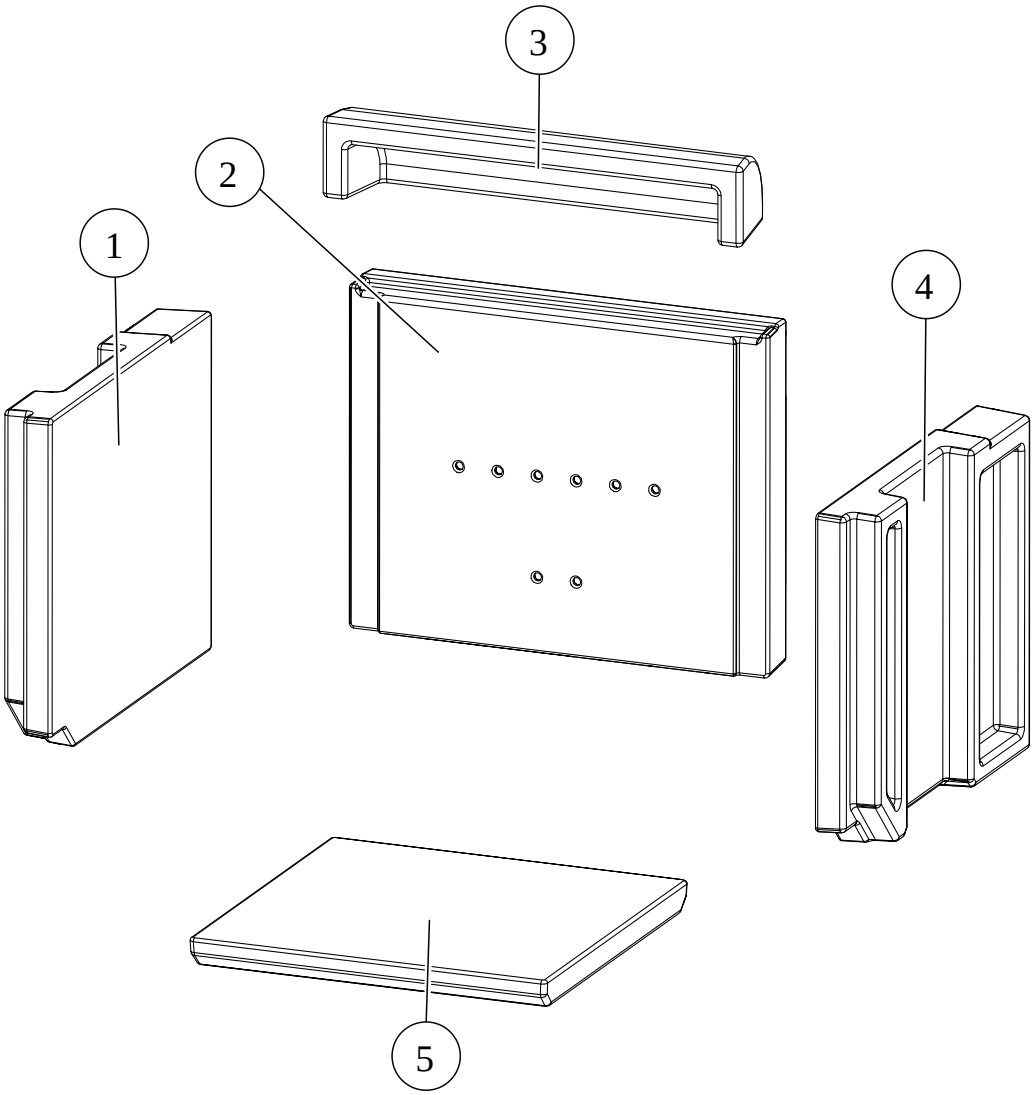
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Item	Part No.	Designation	No.
1	D028044-01	Front wall	1
2	D028005	Cast iron parts assembly	1
3	D003221	Combustion air turntable	1
4	800168	Flat head screw M8x10	1
5	D028040-01	External bottom plate	1
6	D028074	Air control lever assembly	1
6.1	D003484	Air adjuster round handle assembly	1
6.2	D028075	Air adjusting rod	1
6.3	G022038	Air adjusting pusher	1

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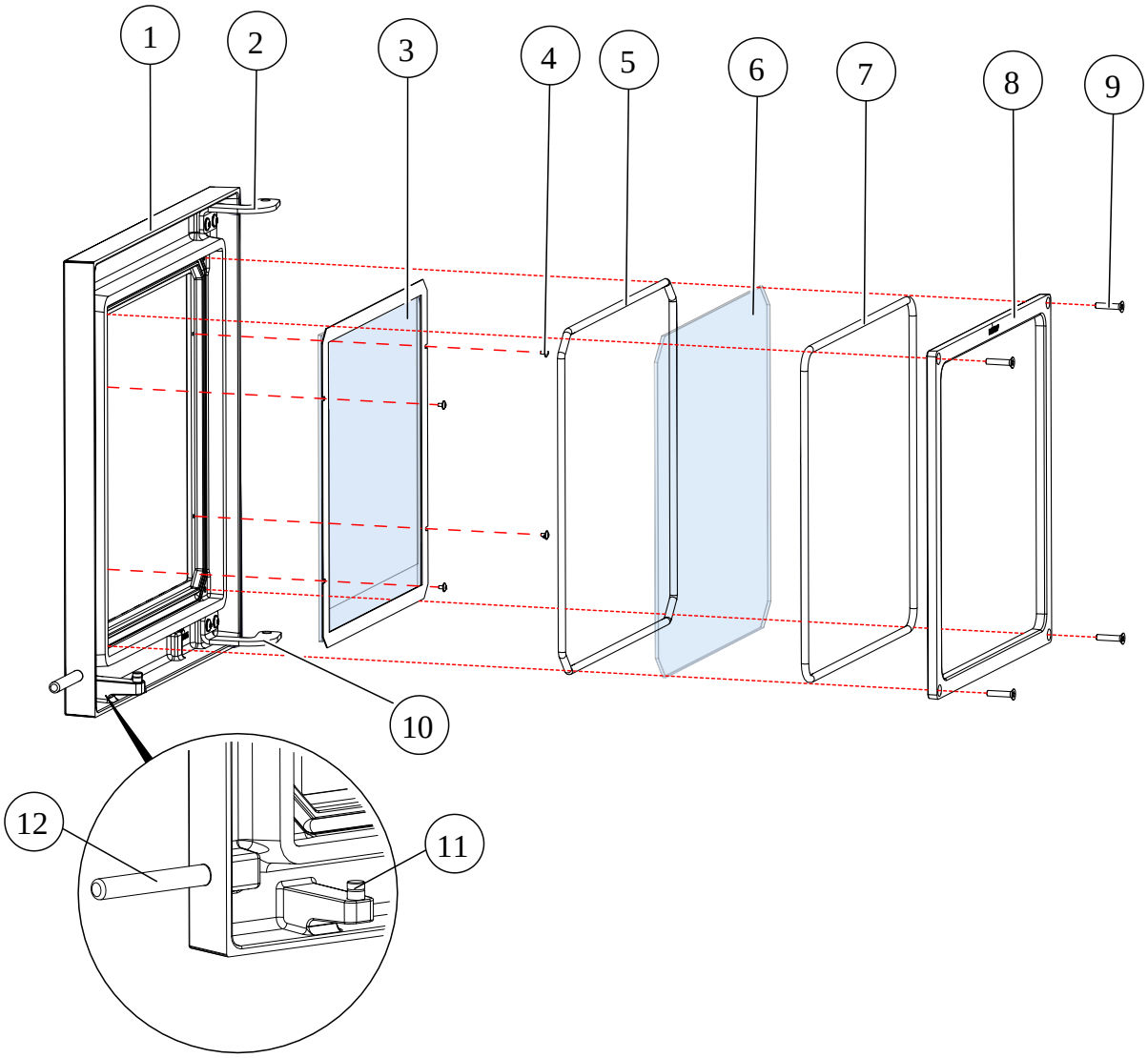
4.5 COMBUSTION CHAMBER LININGS (D028020)



Item	Part No.	Designation	No.
1	D028023	Left side wall stone	1
2	D028022	Rear wall stone	1
3	D028025	Deflector	1
4	D028024	Right side wall stone	1
5	D028021	Bottom plate	1

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4.6 DOOR ASSEMBLY (D028019)



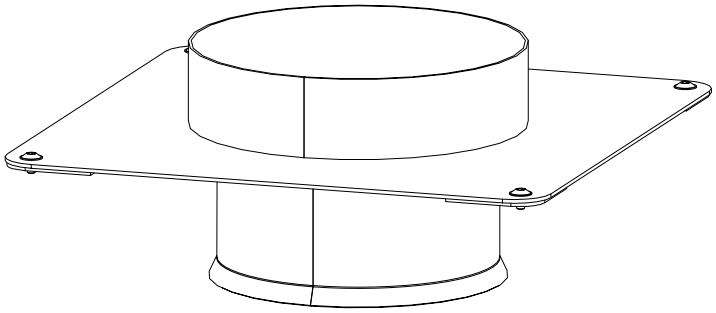
Item	Part No.	Designation	No.
1	D028046-01	DF 33 door	1
2	D028059	Upper door hinge	1
3	D028052	External glass pane with holding frame	1
4	02543	Lens headed screw M4x6	4
5	D028063	Sealing rope for glass pane 2	D8x1510mm
6	D028056	Internal glass pane	1
7	D028055	Sealing rope for glass pane	D8x1465mm
8	D028047	Glass holding frame	1
9	800115	Countersunk screw M6x20	4
10	D028060	Lower door hinge	1
11	D028057	Roller bearing for door closing	1

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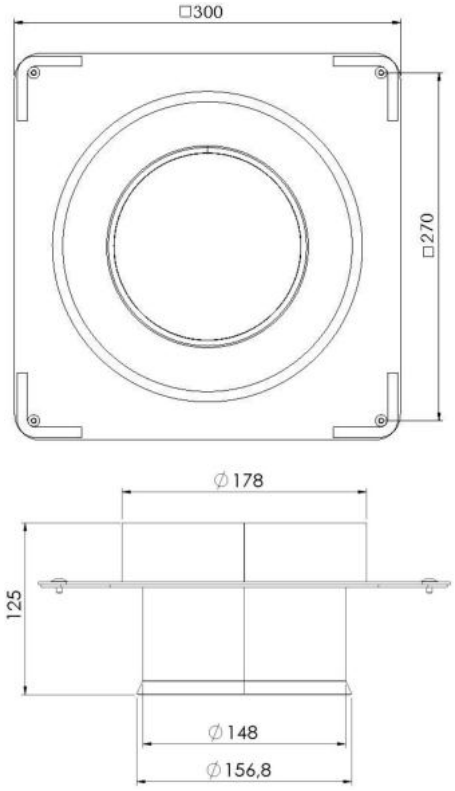
Item	Part No.	Designation	No.
12	D028058	DF33 door handle	1

4.7 ADAPTER (OPTIONAL)

For smoke outlet connection with steel cover, MSS to the rear or top, the adapter part no. D028195 is required.

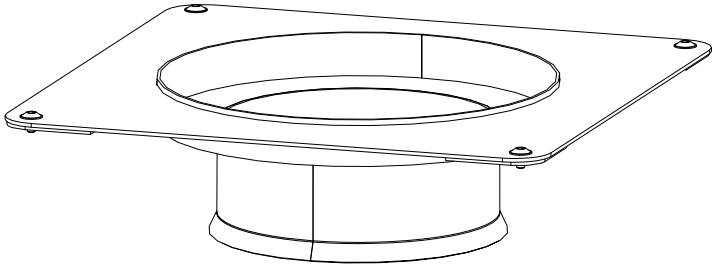


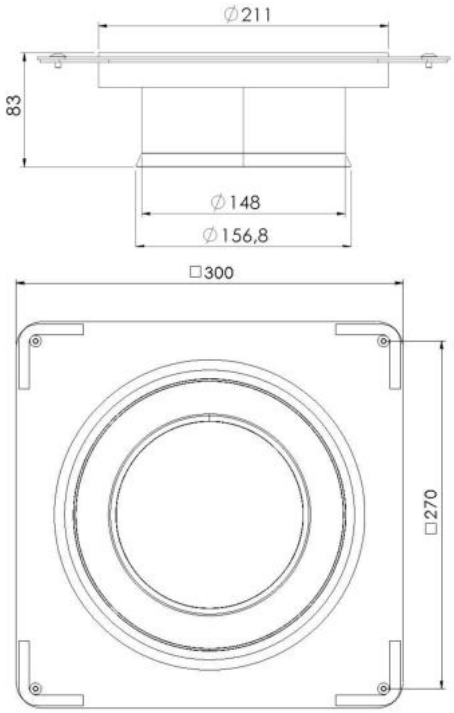
Im. 1: Component D028195



For smoke outlet connection with MAS 440 or the appicable ring, the adapter part no. D028194 is required.

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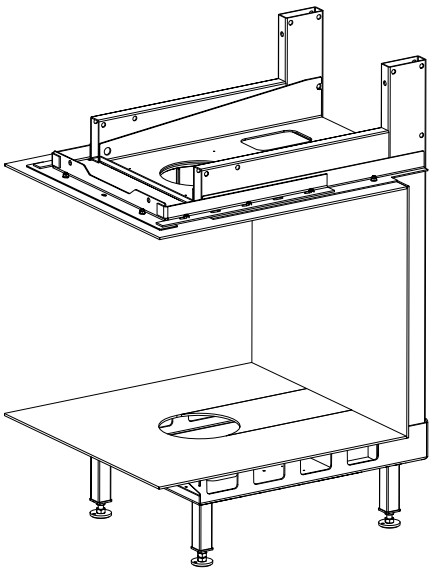


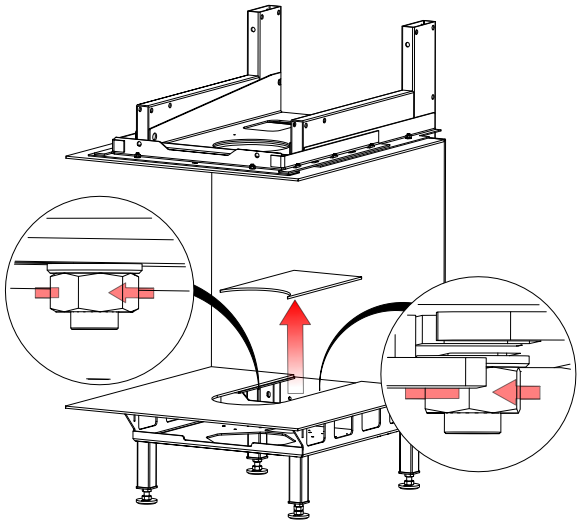
Im. 2: Component D028194

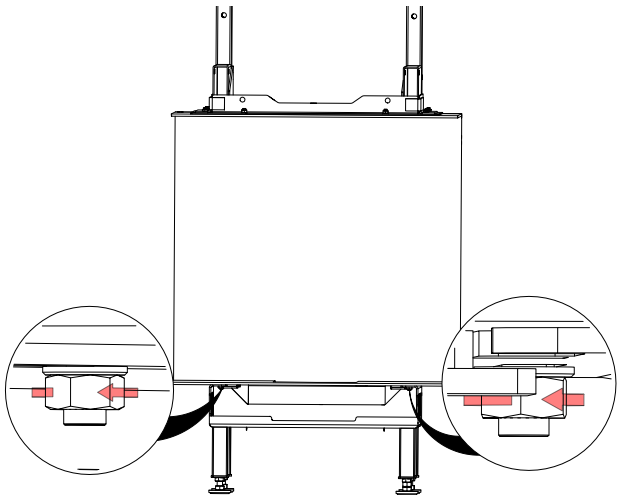
5 INSTALLATION

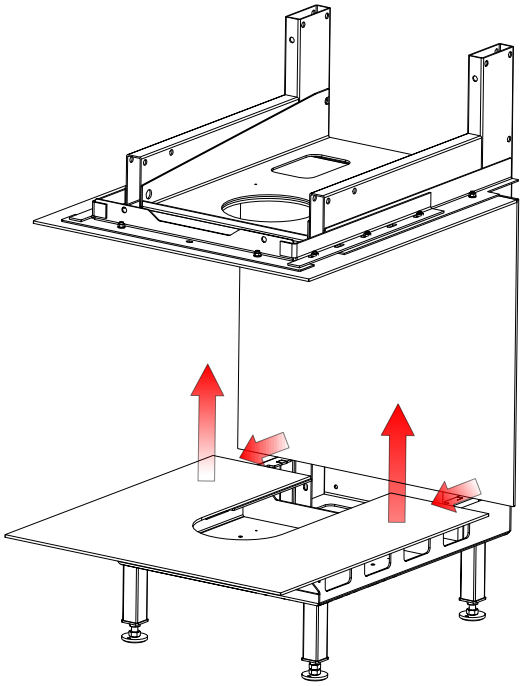
5.1 SET UP

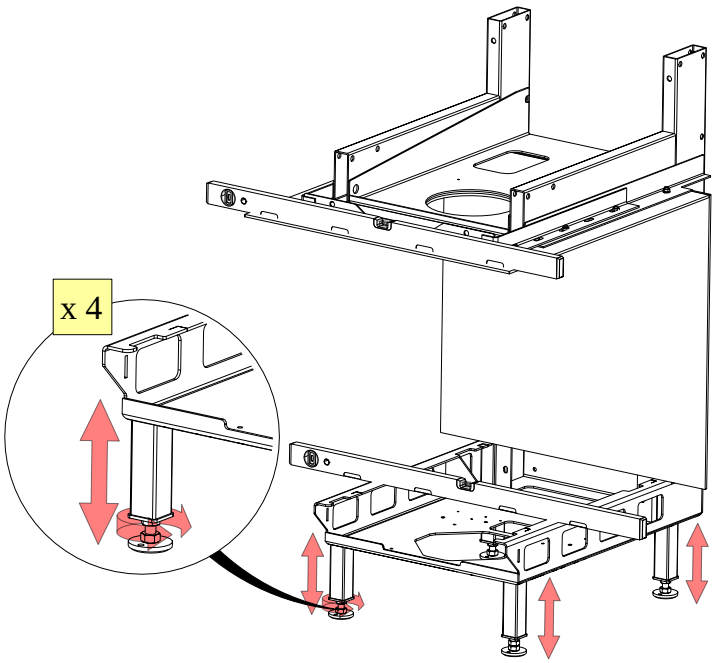
Delivery condition:









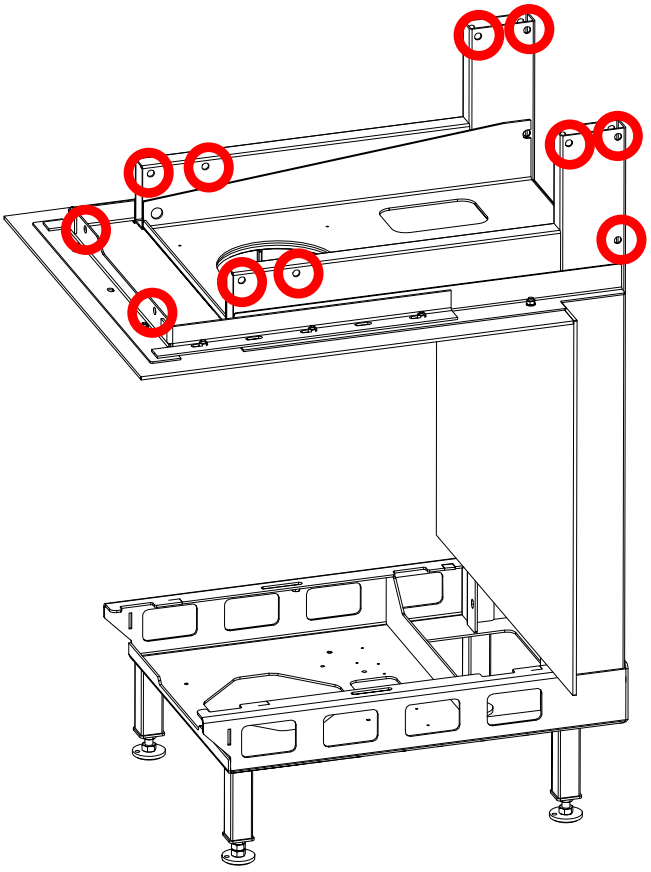


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If there is a static load on the mounting frame, a bracing to the rear wall / ceiling is required.



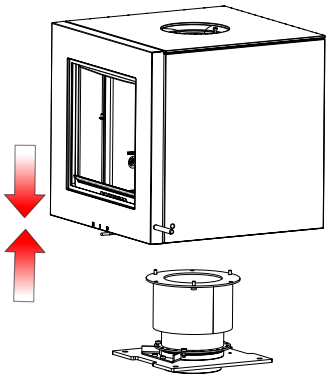
Points for fixing fixtures to the wall or to the ceiling (if necessary):



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5.2 ASSEMBLY

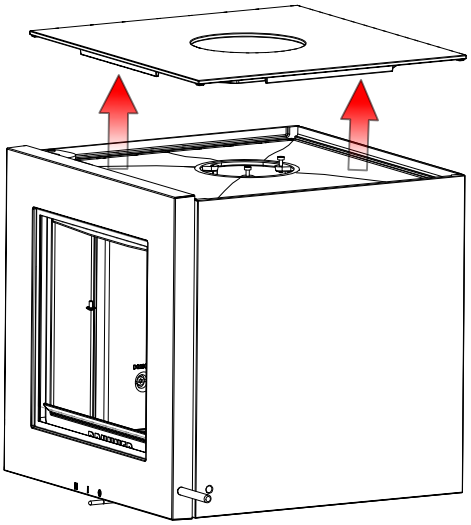


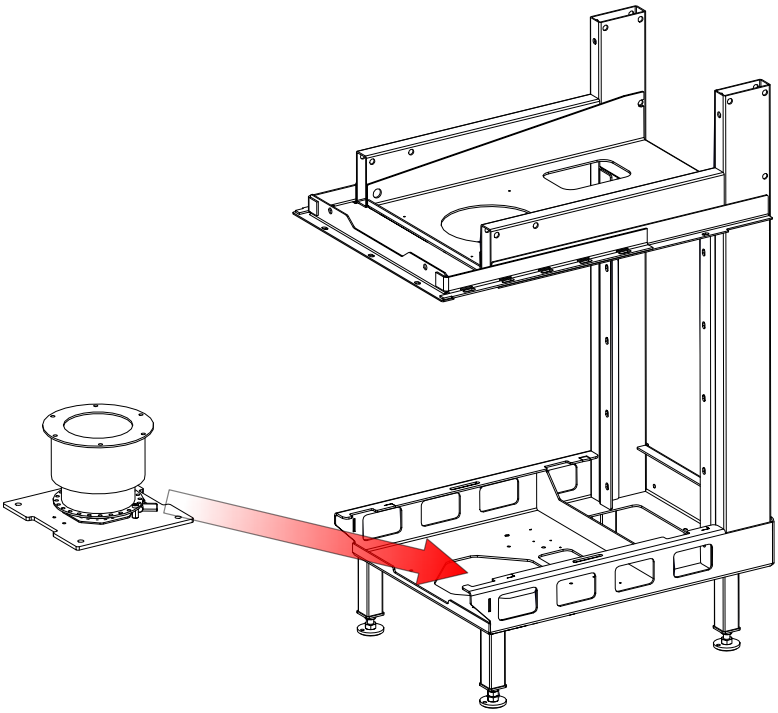


CAUTION

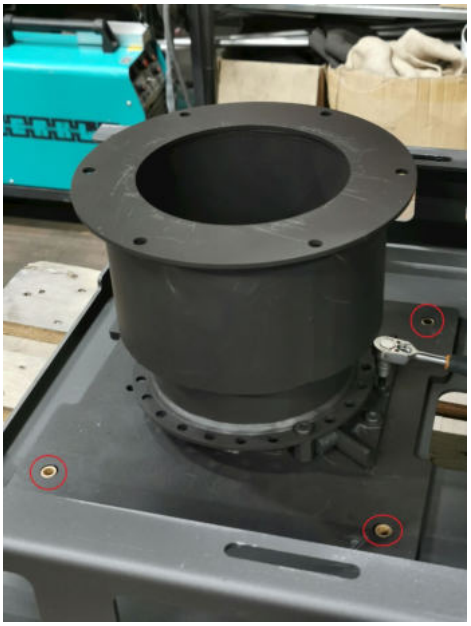
Risk of injury during handling!

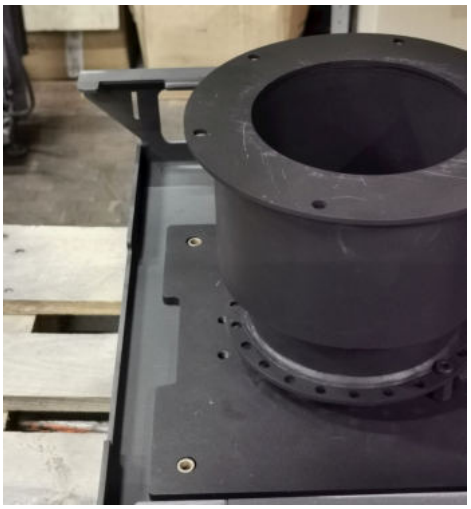
We recommend that at least two people carry out the work.





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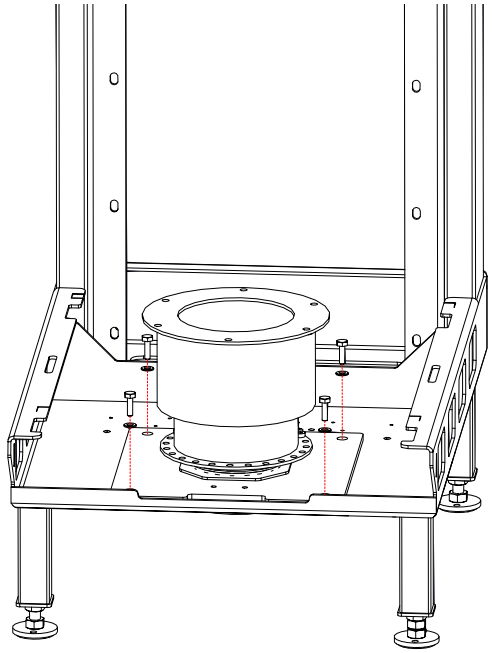




Insert the enclosed bushings (see illustrations on the left)

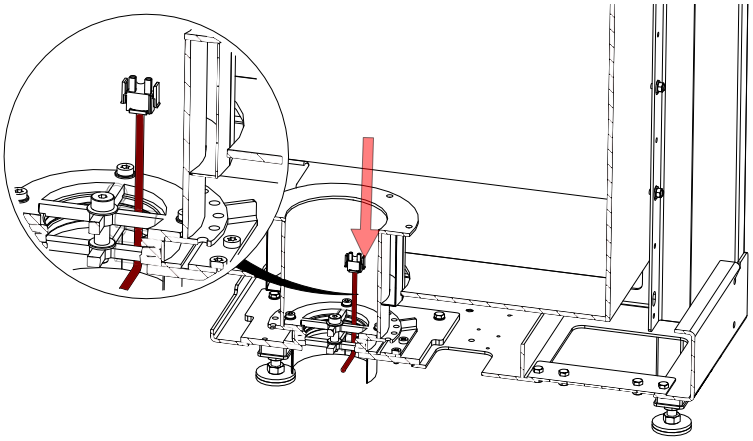
Screw on column with baseplate afterwards





For the variants with EAS / EOS, the door contact line must now be pulled into the standpipe.

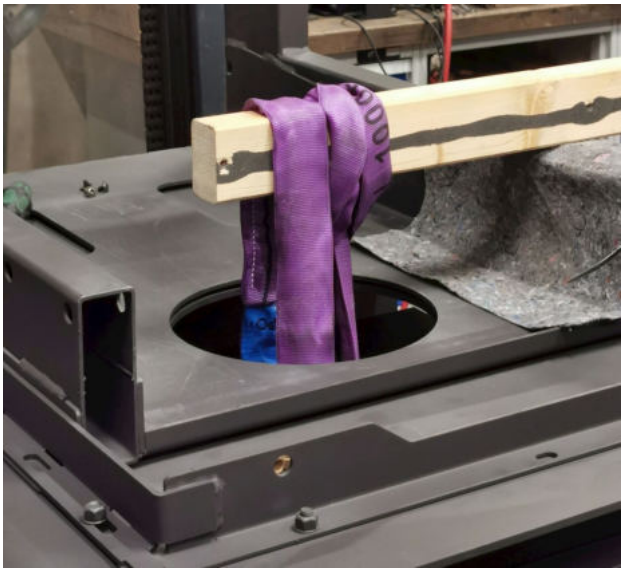
Place sufficient cable length in the standpipe so that the cable can later be pulled into the body of the DF and connected to the cable from the door contact switch.

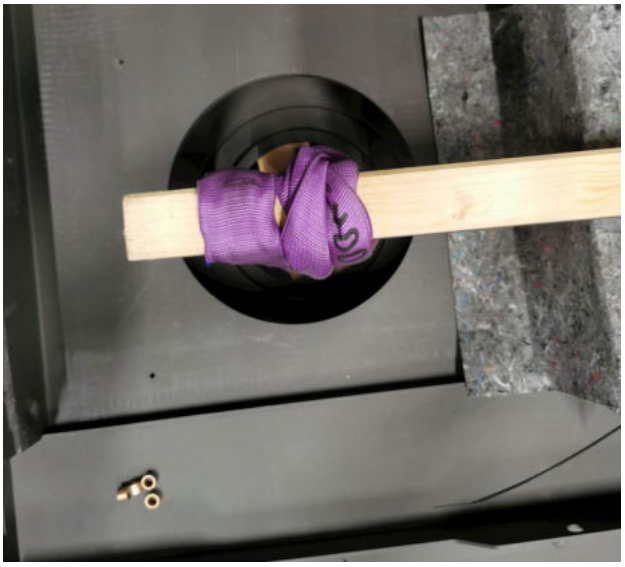




Lift the DF with at least two people! Place scratch protection underneath

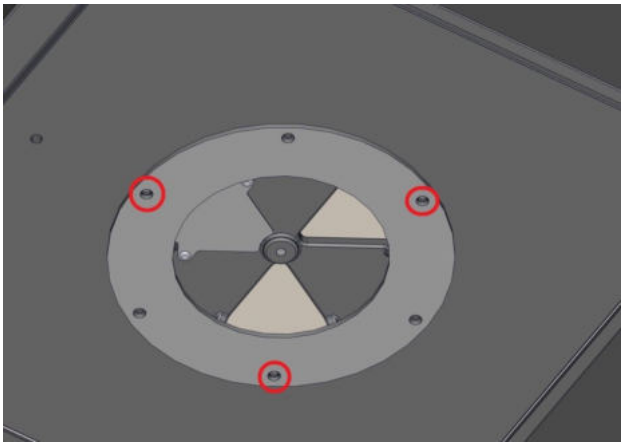
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Use a lever (see illustrations) to adjust the DF

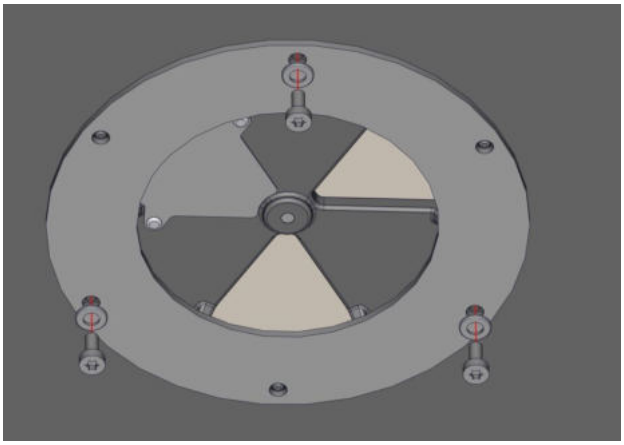






Adjust the DF so that the three centring bolts on the underside engage (compare figures on the left)

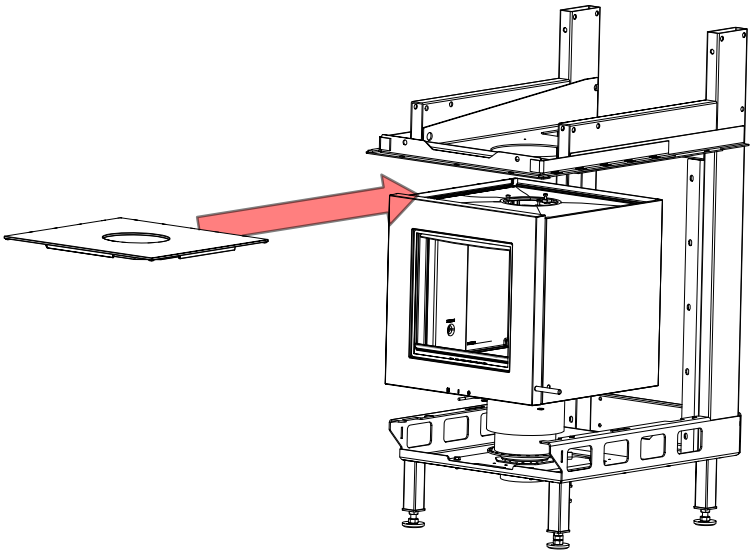
When the bolts are engaged, fasten the DF with 3 screws at the bottom



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Screw on the adapter for the DF centred at the top

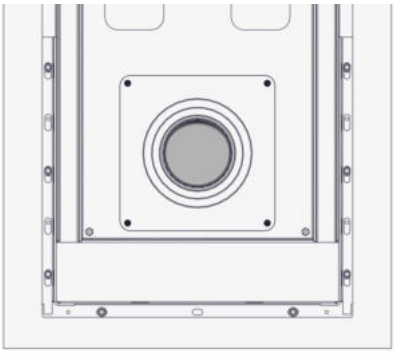


The mechanism of the rotary movement below the DF must be accessible for maintenance purposes. If the bottom cover is not used, accessibility must be ensured by the customer.





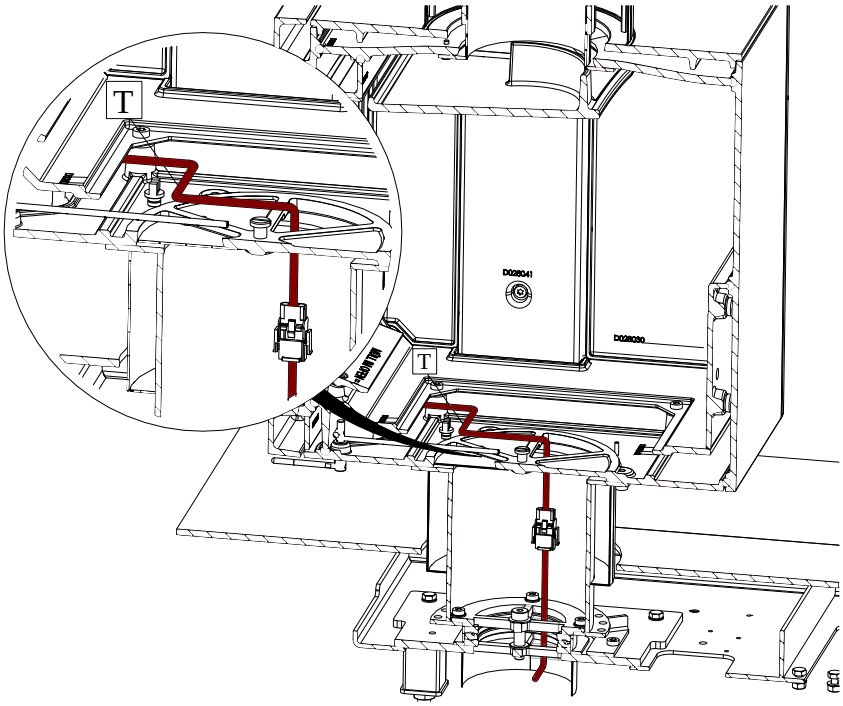
Fit the flue gas outlet and screw it
on from the inside with three screws



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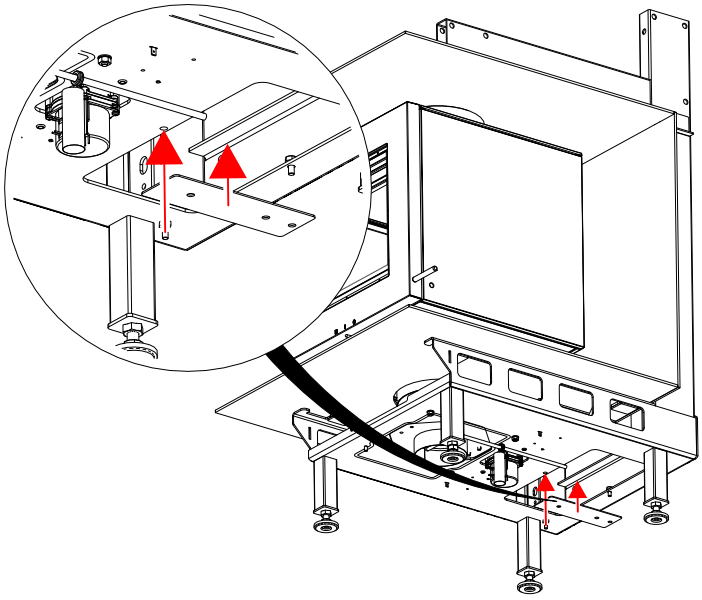
The following assembly steps are only relevant when using the EAS / EOS:

Connect the line of the door contact switch (T) and the door contact line.

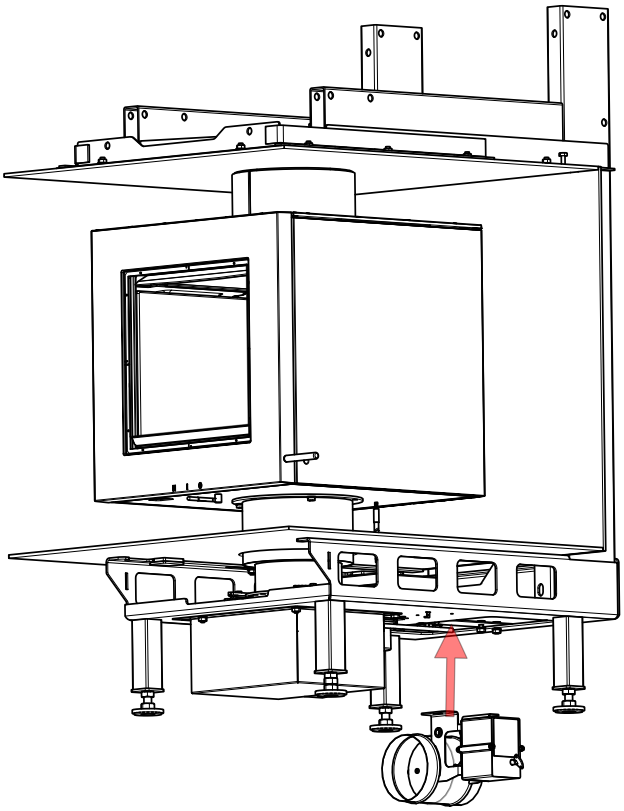


Leave sufficient cable length in the standpipe so that the plug connection can later be pulled into the body of the DF for maintenance purposes.

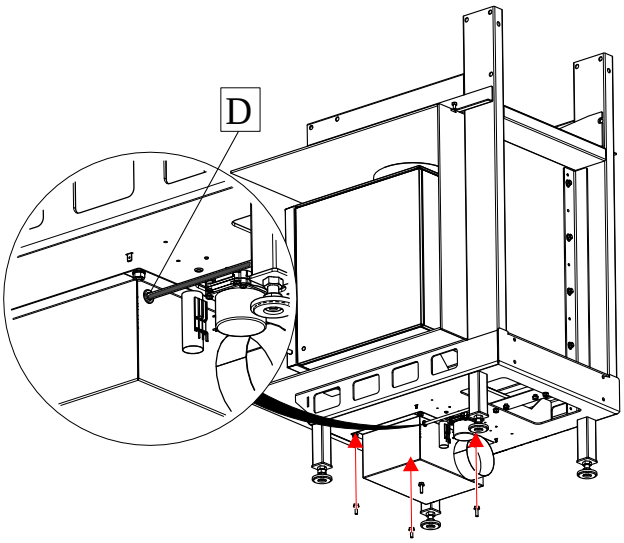
If the air flap actuator is to be mounted below the C-frame, the retaining plate must be fitted.



The air flap with actuator can be fitted to the retaining plate at the bottom of the C-frame.



The door contact line is led through the hole in the air distribution box (D) to the EAS / EOS. The air distribution box is fixed to the screws of the cast plate.



5.3 MOUNTING THE THERMOCOUPLE

The thermocouple is installed either in the intermediate ring to the MAS or in the first part of the connecting pipe to the reheating surface (hole must be drilled on site). Make sure that the thermocouple can be reached when spare parts are required.

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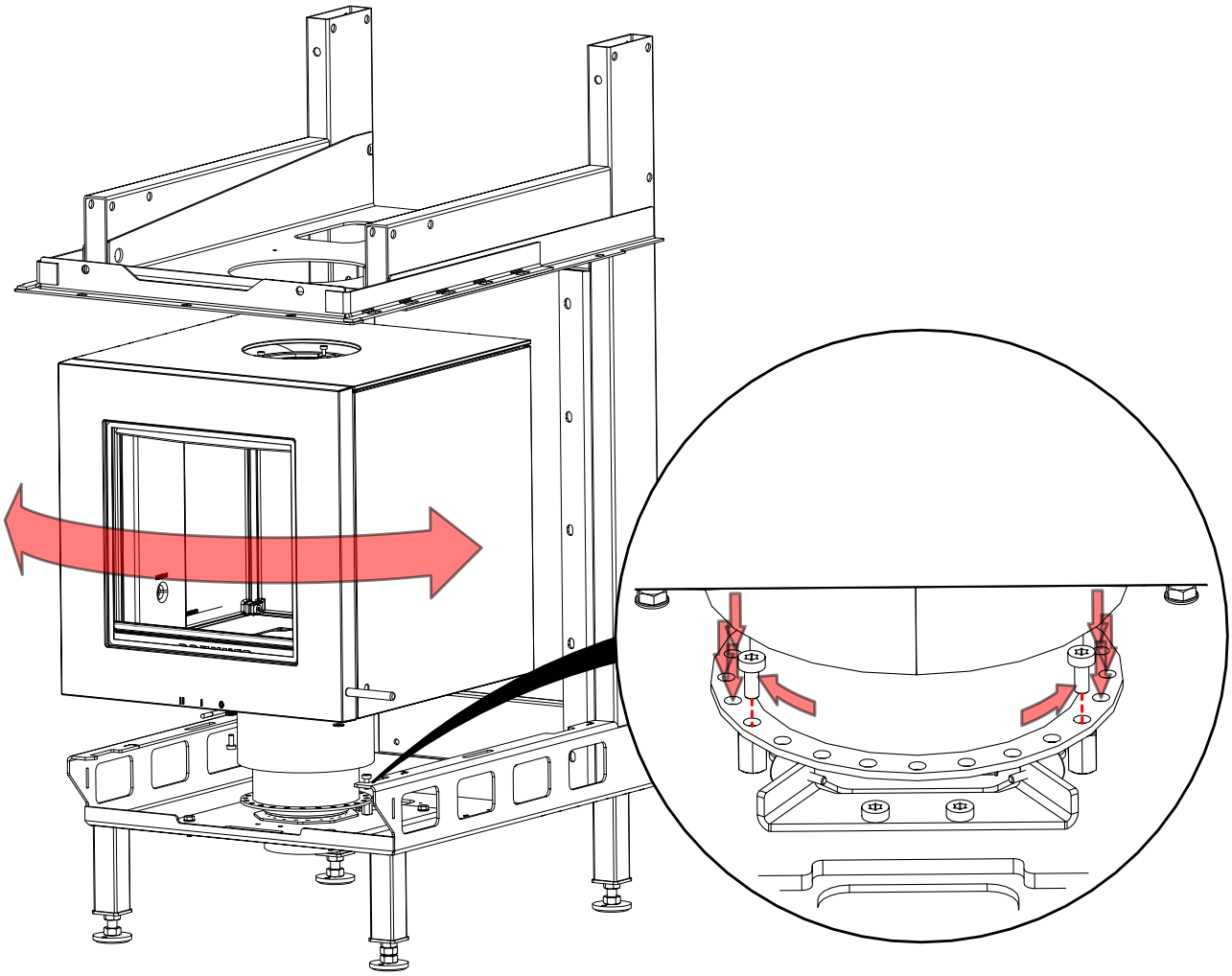
BRUNNER offers a separate item for sale, which consists of a thermocouple together with a clamp.

This **article** with the number **E007170** can be purchased as an option and is specially designed for mounting the thermocouple in the first part of the connecting pipe to the reheating surface.

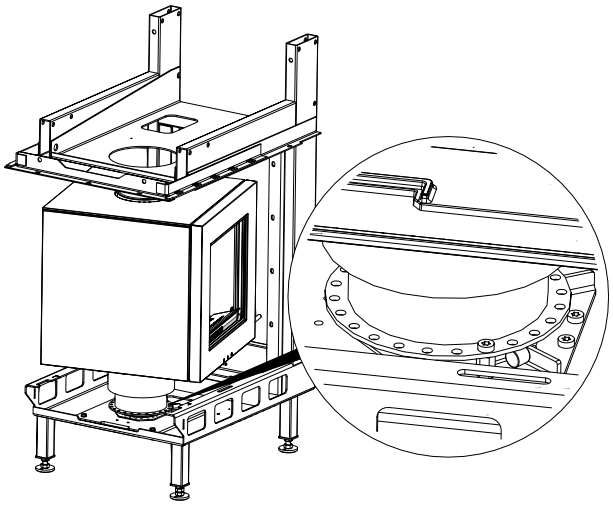


Please refer to the EAS / EOS installation instructions for the next steps!

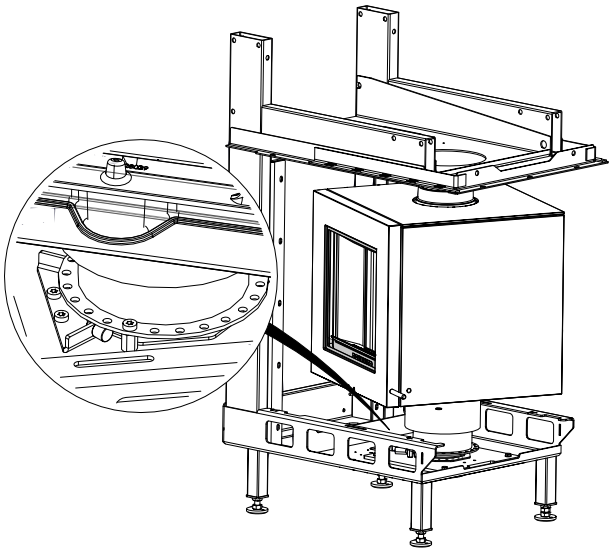
5.4 SETTING OF THE MAXIMUM TURN (MANUAL OPERATION)



maximum turn to the right:

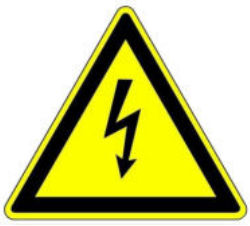


maximum turn to the left:



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5.5 ELECTRICAL CONNECTION OF THE ROTARY FUNCTION

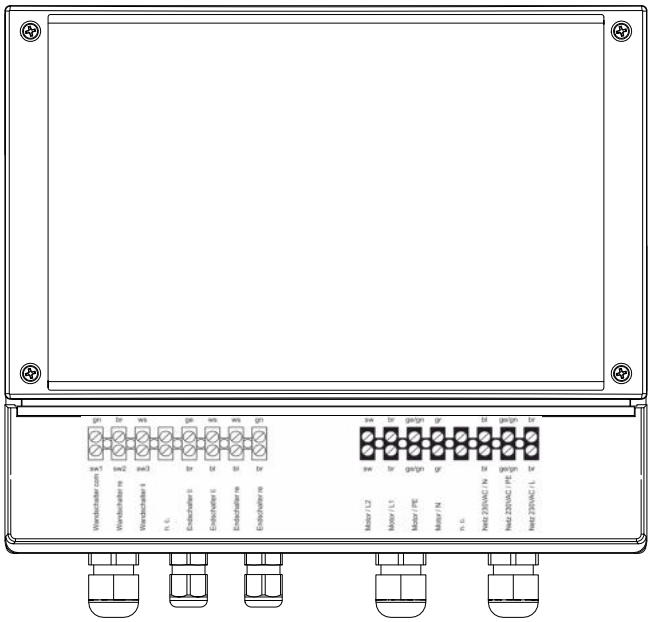


Electric shock

Only a qualified specialist is allowed to work on the electrical installation. The electrical connections are under mains voltage. This can lead to an electric shock. Observe all applicable regulations.

The control box for the rotary function must be installed in the cold area. The ambient temperature must not exceed 50°C. Please note that a radio connection must be possible between the control box and the remote control.

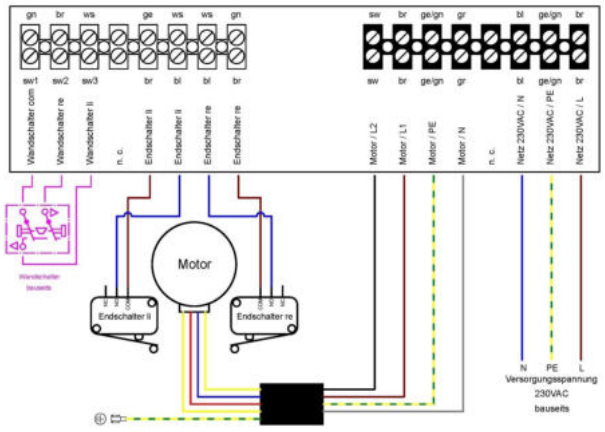
The connection points for the limit switches, the motor, the mains connection and an optional pushbutton (wall switch) are located in the lower, flat part of the terminal box.



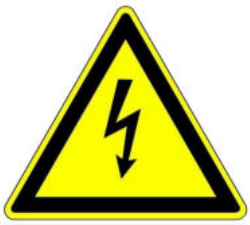
The electrical components of the automatic lathe can be connected as shown opposite.

The remote control is already coupled with the electronics at the factory.

Optionally, a manual pushbutton can be connected in addition to the remote control.

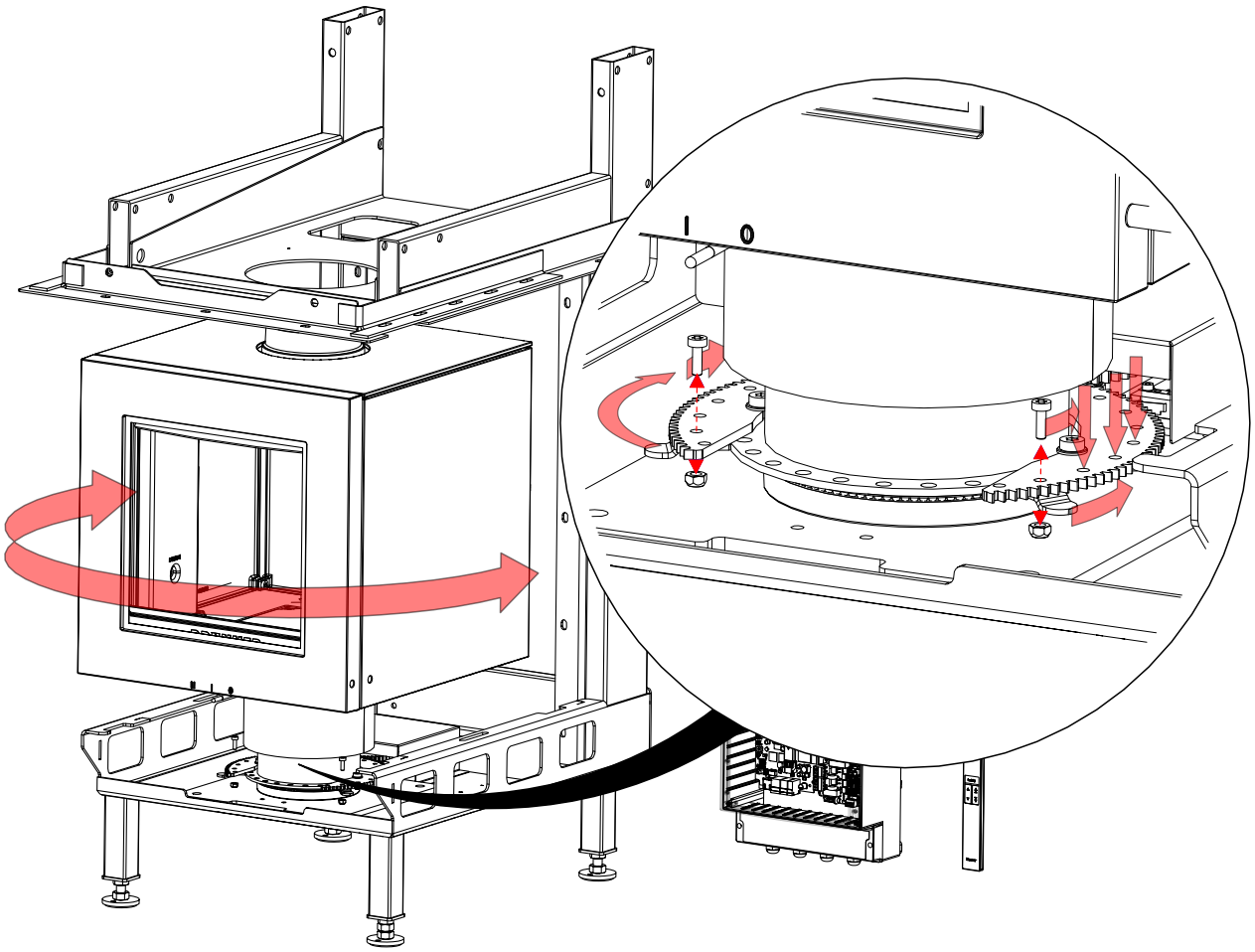


5.6 SETTING OF THE MAXIMUM TURN (MOTOR CONTROLLED OPERATION)



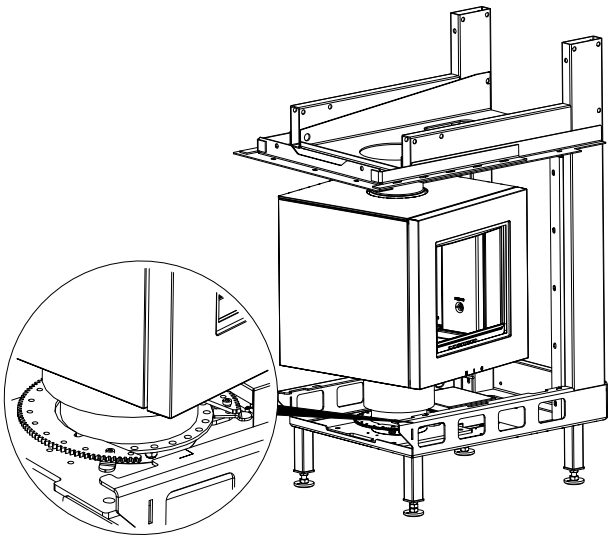
Electric shock

Only a qualified specialist is allowed to work on the electrical installation. The electrical connections are under mains voltage. This can lead to an electric shock. Observe all applicable regulations.

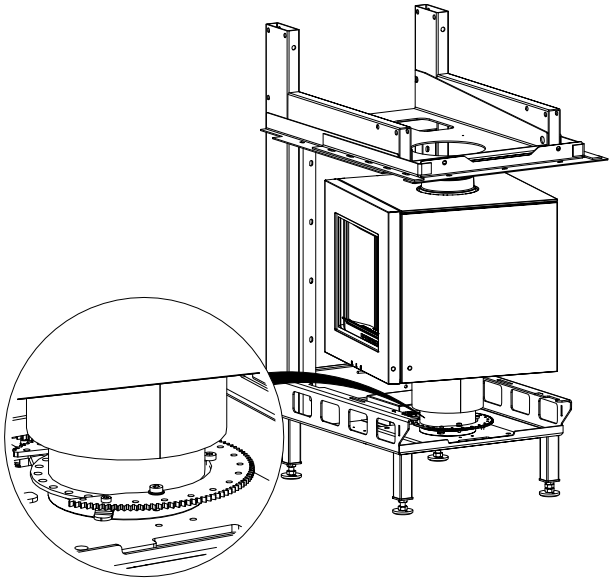


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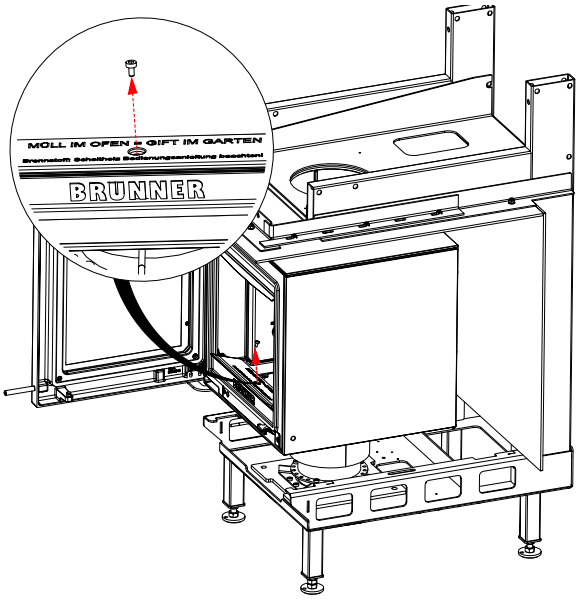
maximum to the right:

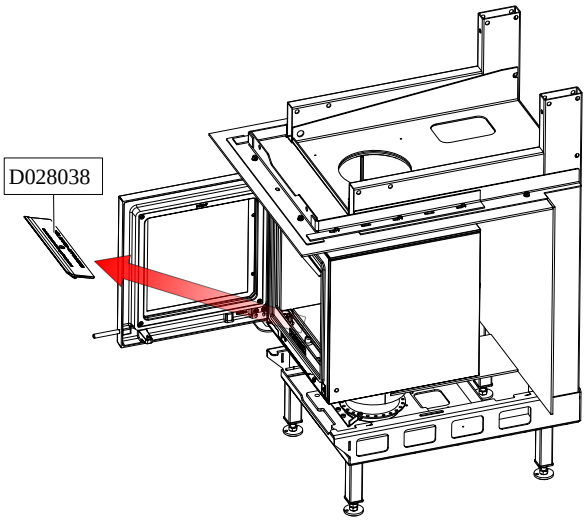


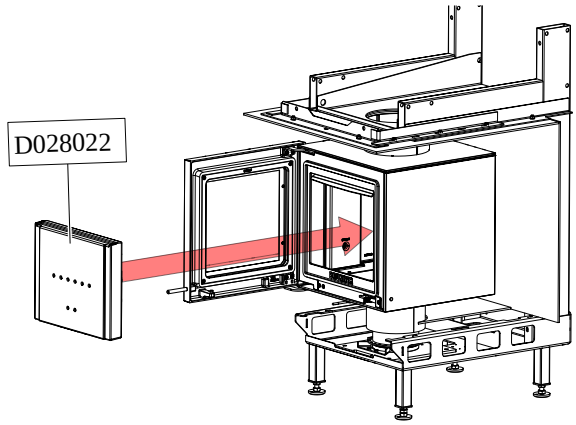
maximum to the left:

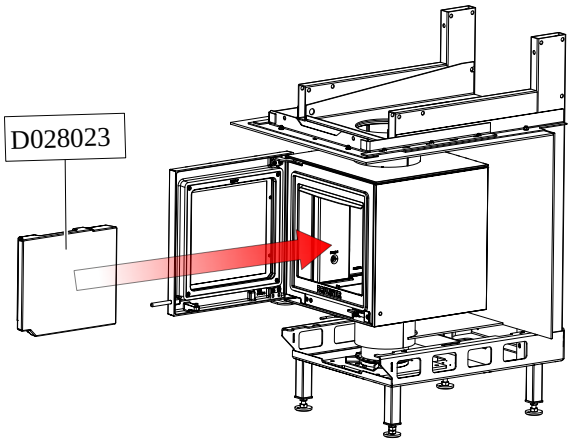


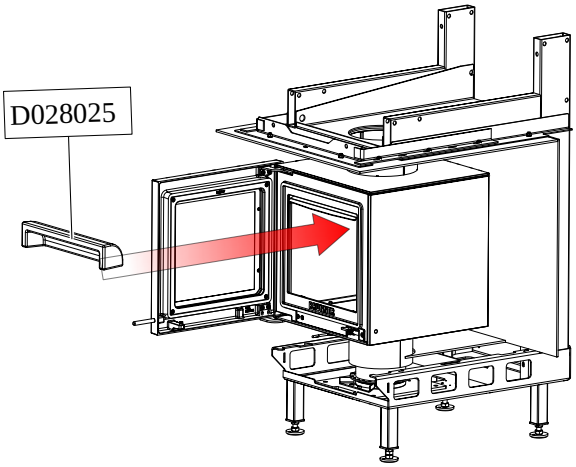
5.7 ASSEMBLY OF THE COMBUSTION CHAMBER

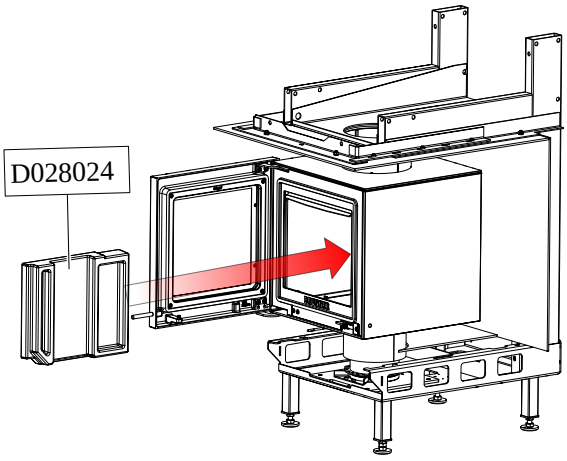




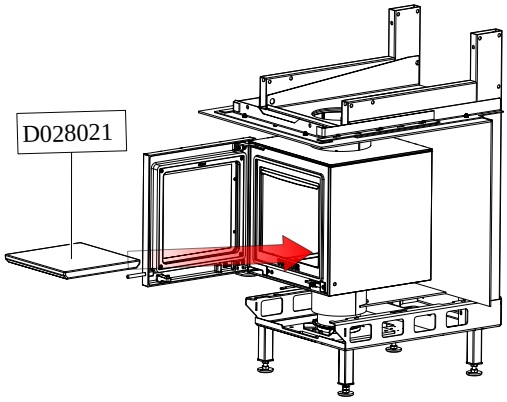


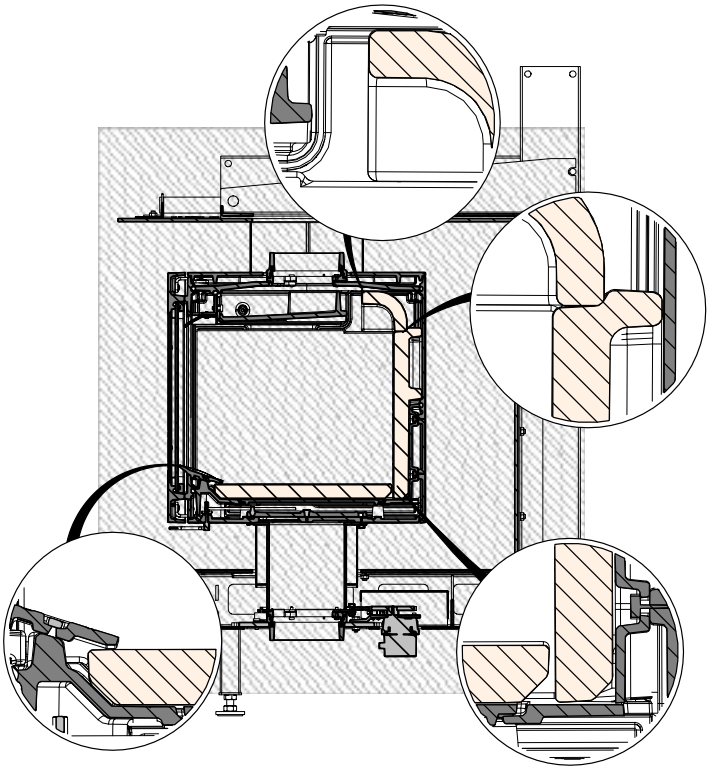


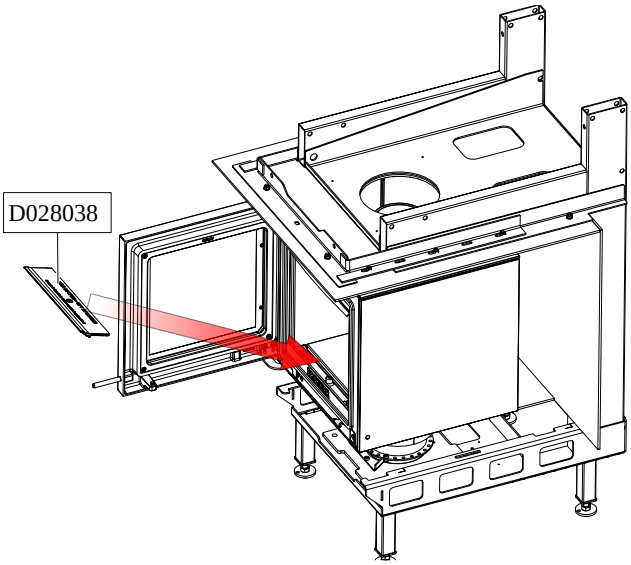


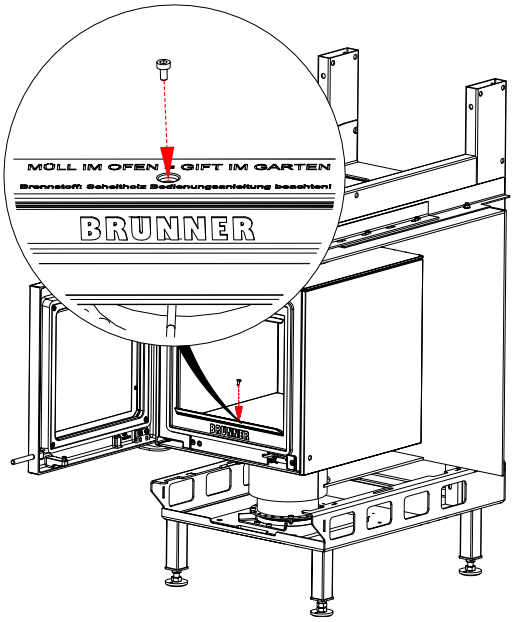


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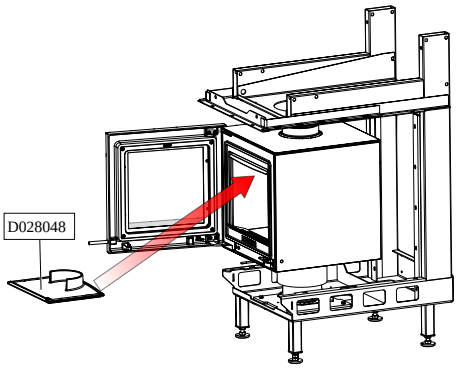

D028021

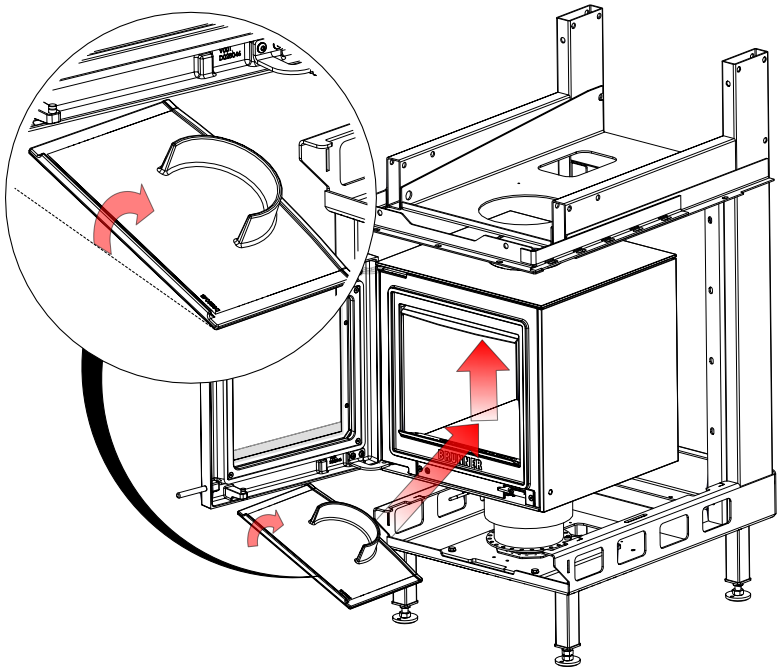


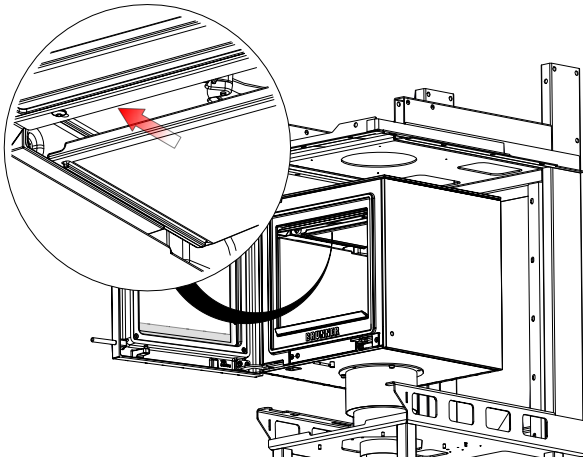

D028038

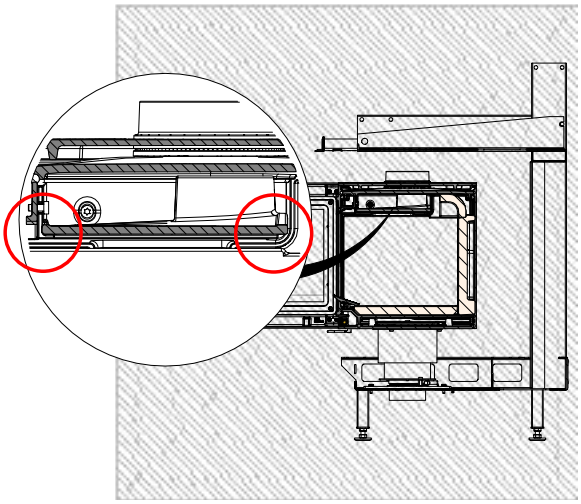

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5.8 INSTALLATION OF THE DEFLECTOR PLATE



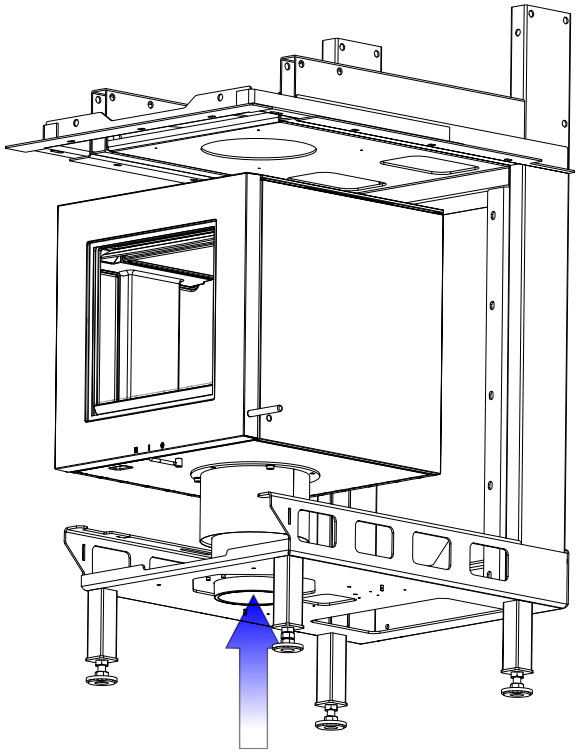






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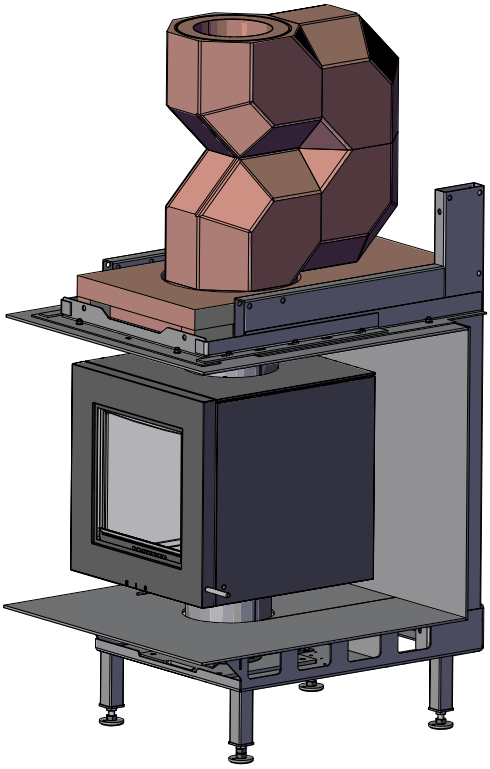
5.9 AIR SUPPLY CONNECTION



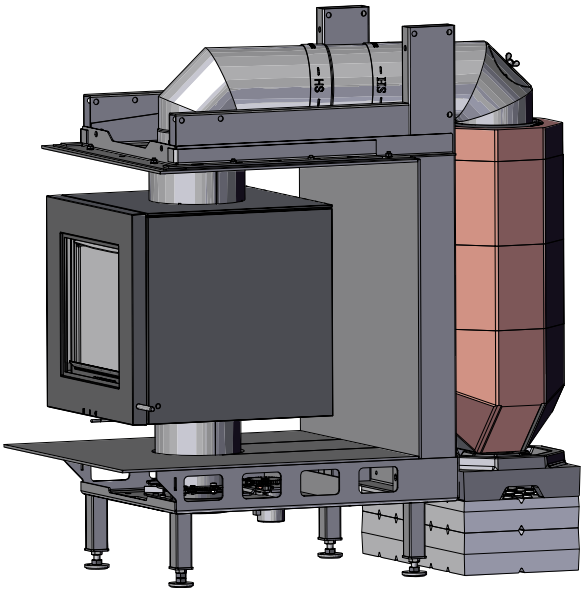
5.10 FLUE OUTLET CONNECTION

For the flue outlet connections with MSS or with steel hood the adapter no. D028195 is necessary.

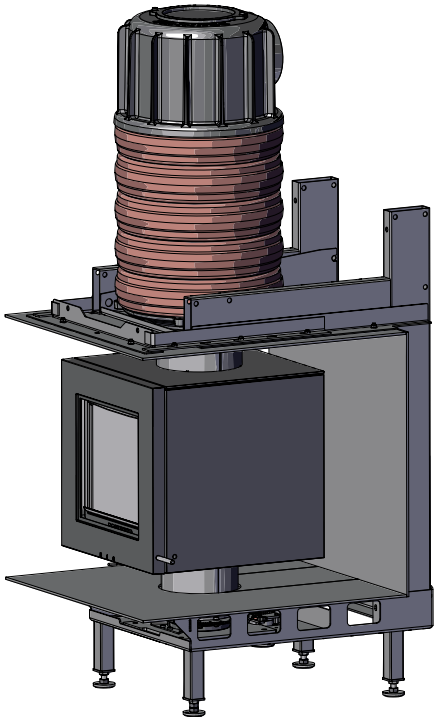
Flue outlet connection with MSS mounted on top:



Flue outlet connection with rear mounted MSS

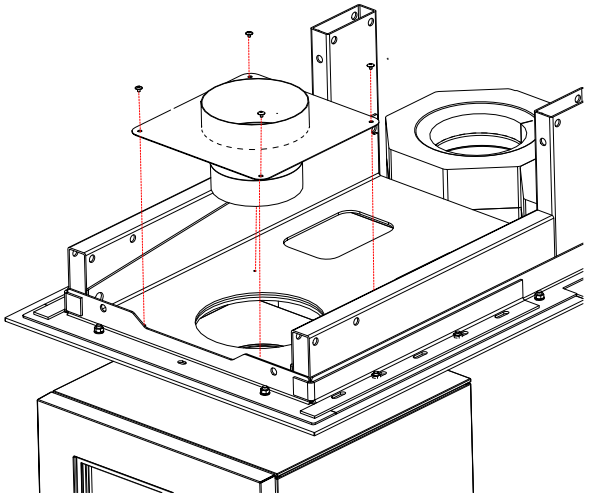


For a flue outlet connection with MAS 440 the adapter no. D028194 (matching the ring of the MAS) is necessary.



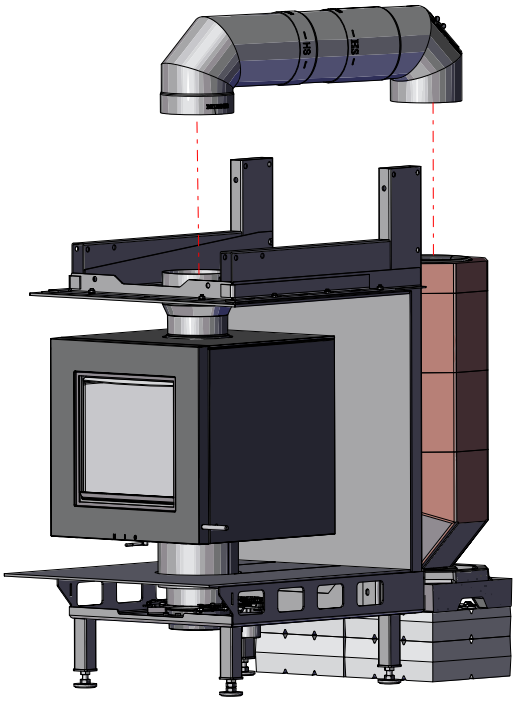
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5.10.1 IN THE VERSION WITH STEEL HOOD, WITH MSS REAR OR ON TOP

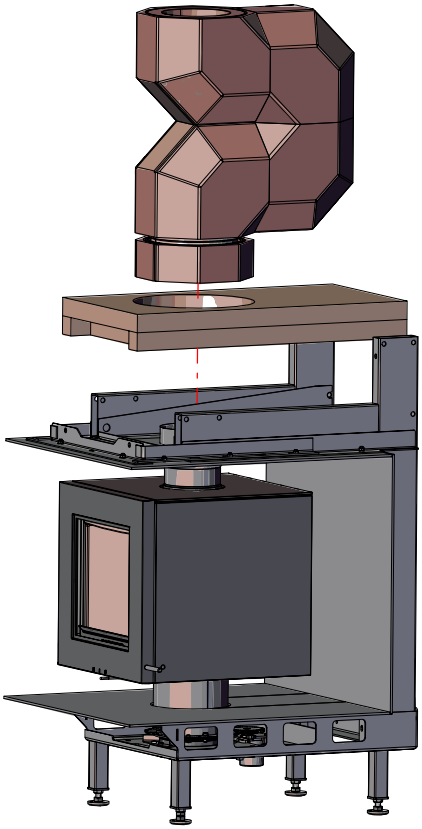


After fixing the adapter, the installation of the respective flue outlet connection is carried out according to the applicable installation instructions:

with rear mounted MSS:

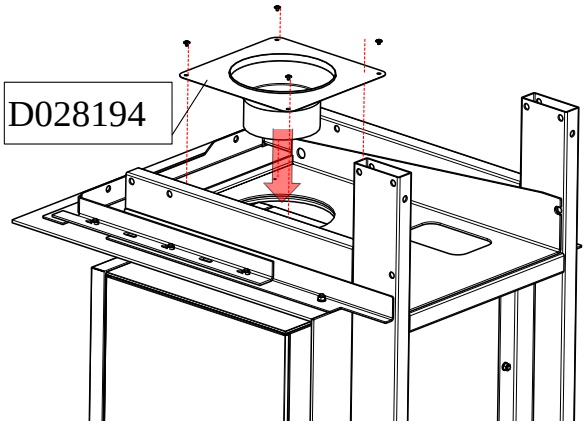


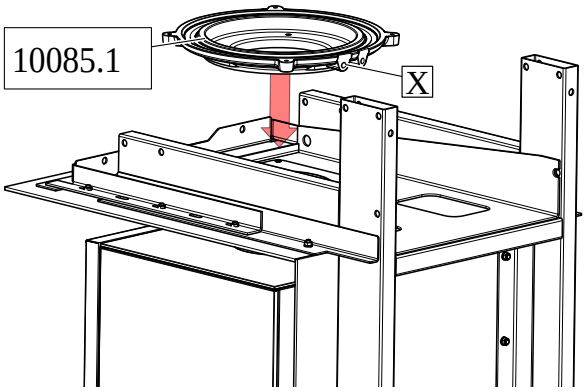
wiht MSS on top:



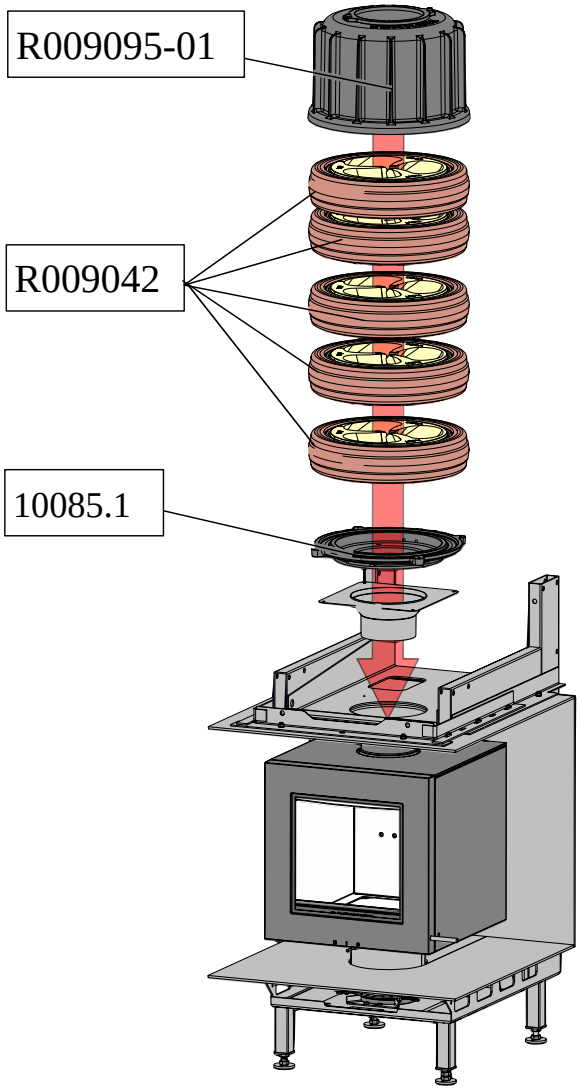
5.10.2 FLUE GAS OUTLET CONNECTION IN THE VERSION WITH MAS 440

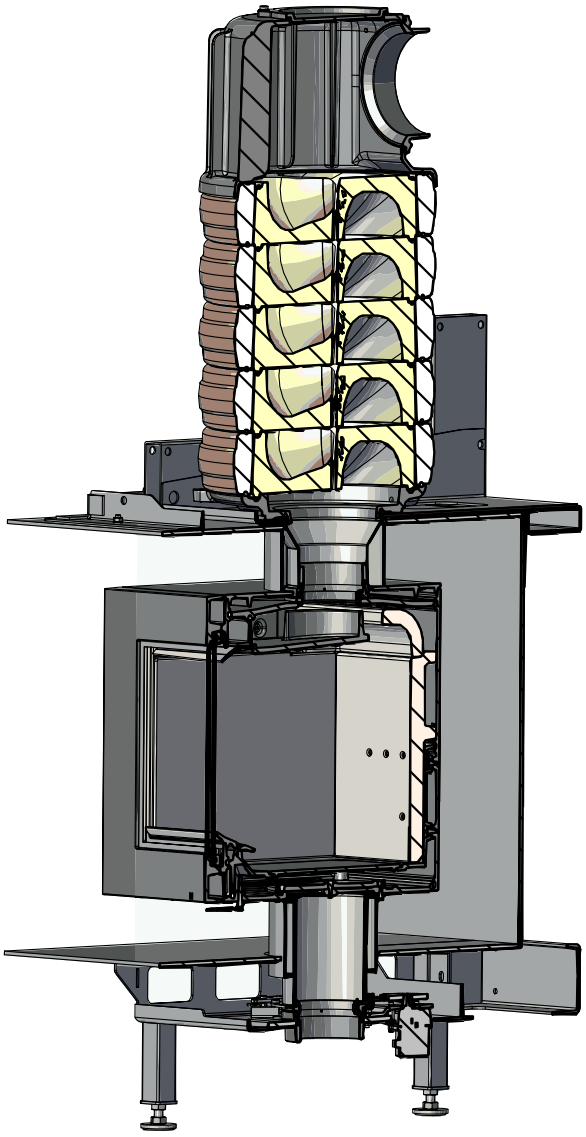
Installation of the spacer ring adapter





Note that for a later installation of the thermocouple the thermocouple connection (X) in the intermediate ring (10085.1) must point to the rear!

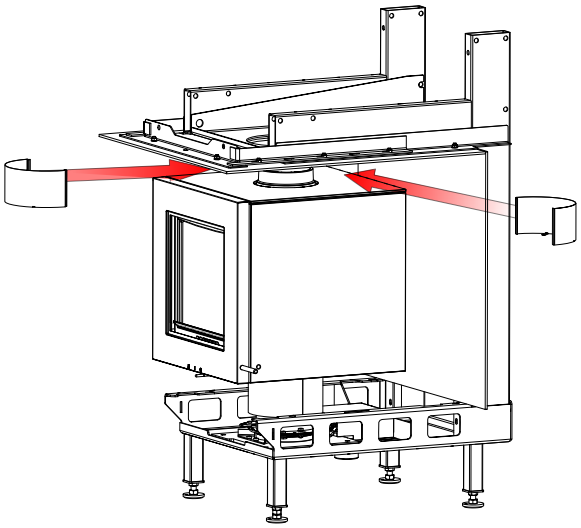




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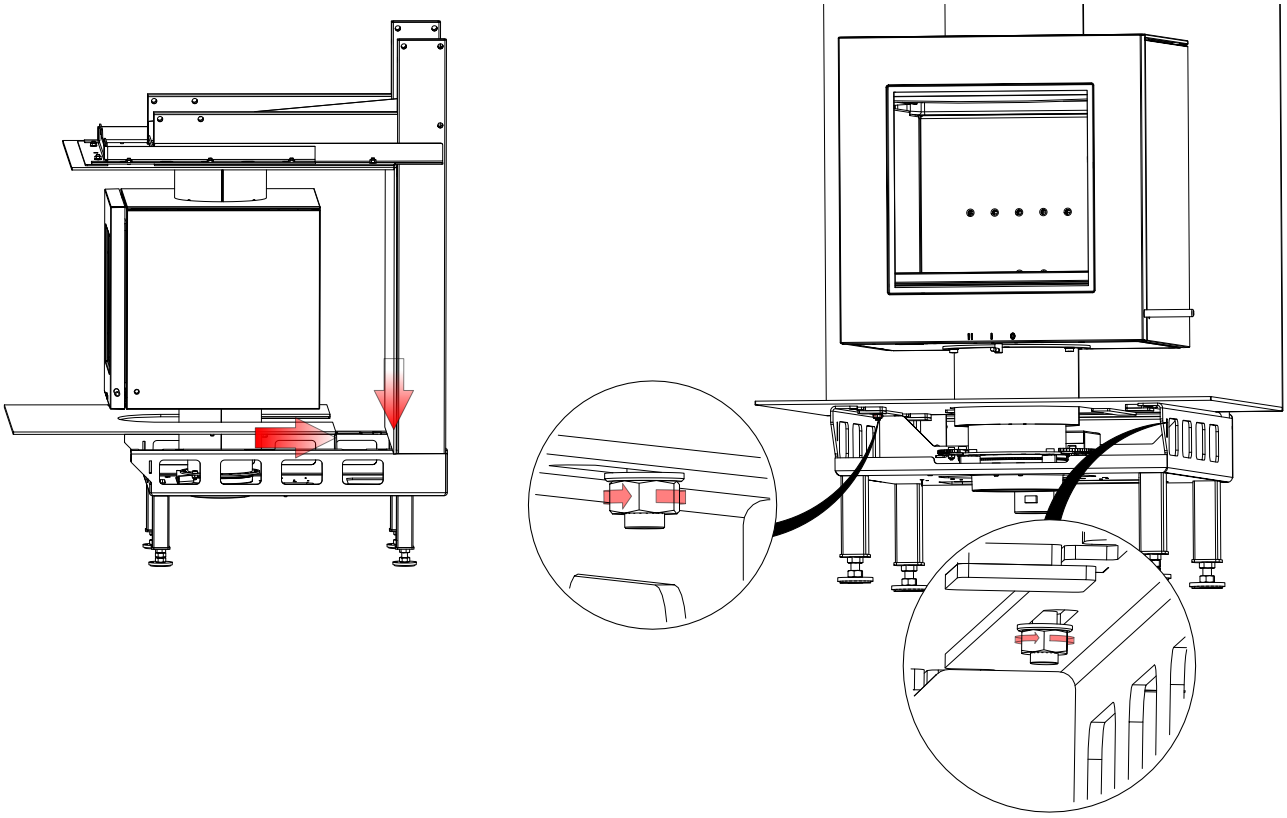
5.11 FINISHING WORKS

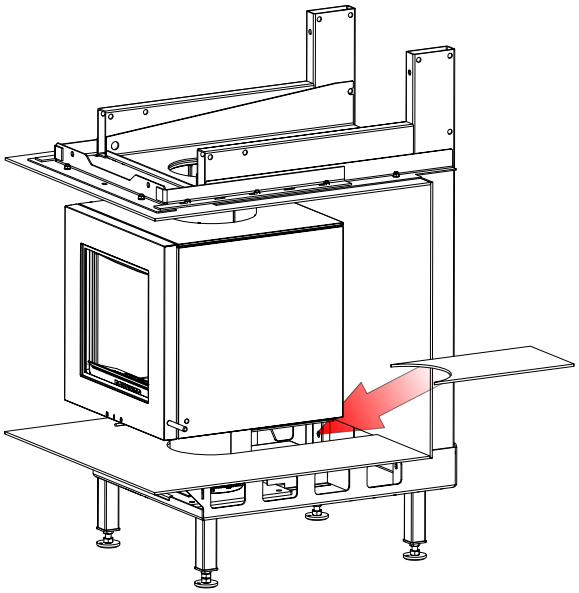
Installation of the cover panel for the flue tube casing



Installation of cover panel and insert layer

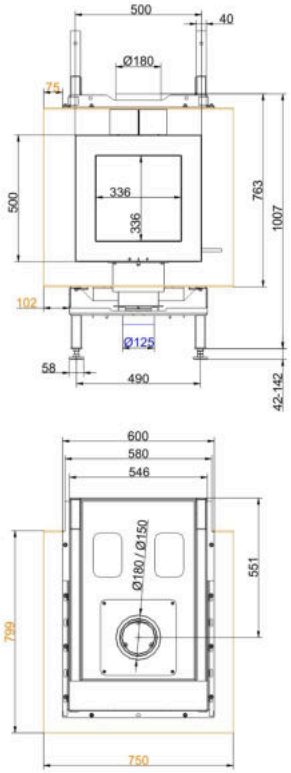
In order to be able to reach the mechanism for the rotational movement in the case of service work, the cover and insert must be removably installed!

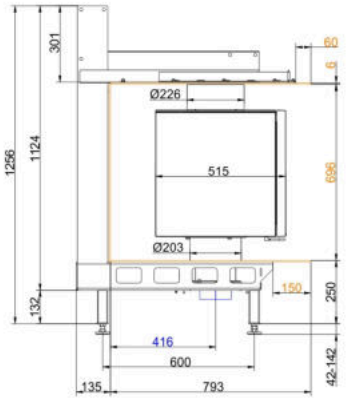




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Dimension sheets - DF 33





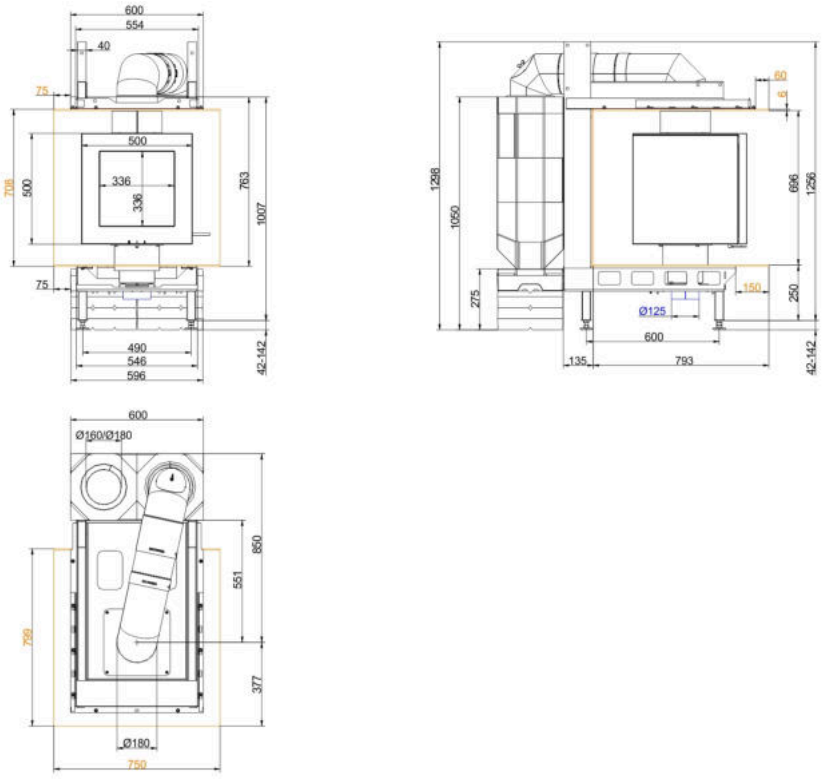
DF 33 with niche cladding 01



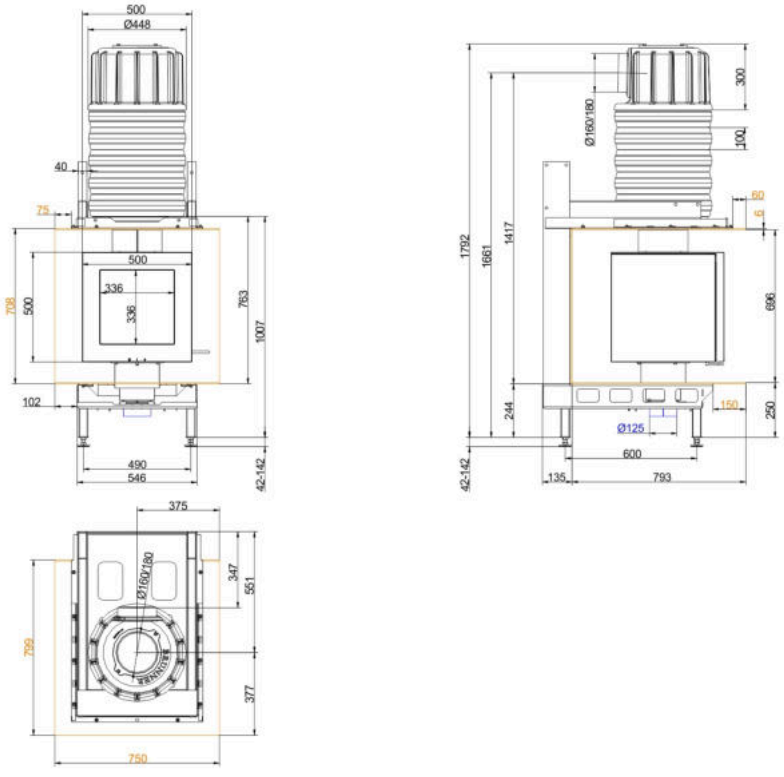


DF 33 with niche cladding 01

Dimension sheets - DF 33



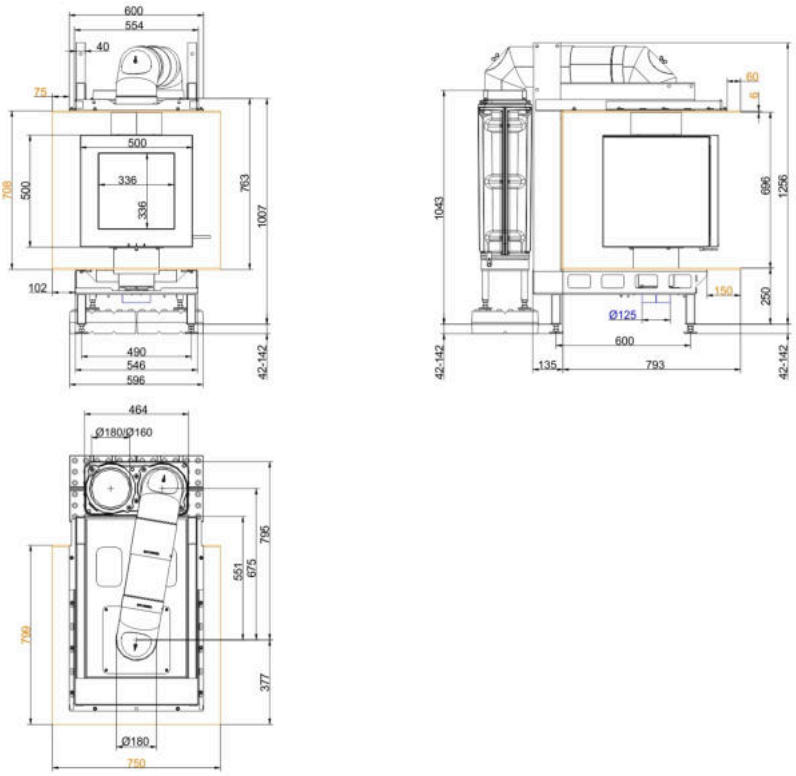
Niche cladding 01 with MSS



Niche cladding 01 with MAS

Stand: 2024-08-22

Dimension sheets - DF 33



Niche cladding 01 with GNF 8

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

Stand: 2024-08-22

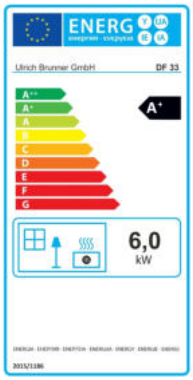
Planning and installation - DF 33

Tested according to		EN 13229 W	EN 13229 WA
Values measured at		Rated power [1]	Storage operation [2]
Suitable for all construction types according to rules		OK	OK
Data for functional demonstration			
Rated heat power	kW	6	-
Fire wood volume	kg/h	1.7	2.5
Combustion performance	kW	7.5	10.0
Flue gas mass flow	g/s	7.0	10.0
Outlet temperature (before reheating surface)	°C	420	460
Flue gas temperature after:			
1 x adjoining cast iron radiator (GNF 8/10)	°C	175	190
5 x accumulation rings (MAS) [3]	°C	230	245
3,3 m ceramic accumulator [4]	°C	215	225
2,0 m accumulation stones (MSS) [4]	°C	215	225
Necessary supply pressure	Pa	12	12
Combustion air consumption	m³/h	22	30
Combustion air connection Ø	mm	125	125
Heating gas temperature (before the hood/dome variant)			
insert flue outlet nozzle	°C	430	520
Heat distribution			
Insert / reheating surface	%	15 / 70	15 / 70
Glass pane (single / double)	%	- / 15	- / 15
Cross-section of gratings [5]			
exhaust warm air	cm²	- / 200 / 200	- / 200 / 200
Recirculation air	cm²	- / 200 / 200	- / 200 / 200
Min. distances of fireplace without / with convection casing			
to cladding, insulation layer	cm	4	4
to mounting floor	cm	40	40
Thermal insulation without / with air gratings [6]			
Mounting wall	cm	5 [7]	5 [7]
Floor	cm	0	0
Ceiling	cm	18 [7]	18 [7]
Brick lining for combustible wall	cm	10	10
Weight			
Fireplace / combustion chamber	kg	208-286 / 28,5	
Meets requirement/limit values for:			
Germany/ Austria		1.BImSchV (Stufe 2) / 15a BVG (2015)	

1) Indications to "Rated power" determined with metallic reheating surface
2) Indications to "Storage operation" for the manual execution of the reheating surface (guide values).
3) Damper flap recommended
4) Approximate value. Determination according to design characteristics for adjacent storage mass or proof of function provided by calculation
5) for fireplace inserts / flue gas pipe / metallic reheating surface
6) Values determined with upper air cross- sections; stove cladding is heat emitting
7) Promasil 950KS

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

Supplier's name or trademark	Ulrich Brunner GmbH
Model identifier:	DF 33
Energy efficiency class:	A+
Direct heat output:	6,0 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 documentation	



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Email: info@brunner.de

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