Installation manual

HKD 12

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made in germany.

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1 PRODUCT DESCRIPTION

The fireplace has been approved according to EN 13229 and can be combined with a metallic radiator or ceramic accumulator for greater efficiency and heating power. It can be fitted with the optional electronic stove control system (EAS/EOS) at delivery or after the fireplace installation has been completed.

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

Combustion air is supplied through a provided connecting piece. The volume of air supplied for combustion can be controlled by using a combustion air regulator.

The HKD series are designed for closed installation without any vents (hypocaust principle). Design of a hypocaust must ensure uninterrupted transfer and even distribution of heat inside the casing, preventing all parts of the heating chamber from overheating. Dimensioning of heat projecting walls of the casing must by adjusted to performance data of the heating device. Thickness of insulation for building walls surrounding the fireplace stated in technical data has been determined during continuous operation with open air vents (safety test according to EN 13229 - heat transfer coefficient of the tested wall at 0,7 W/m2K), and must be amended accordingly for different conditions (for example, by providing air ventilation for walls).

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

You can optionally upgrade the device with an electronic control system (EAS/EOS).

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2 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.

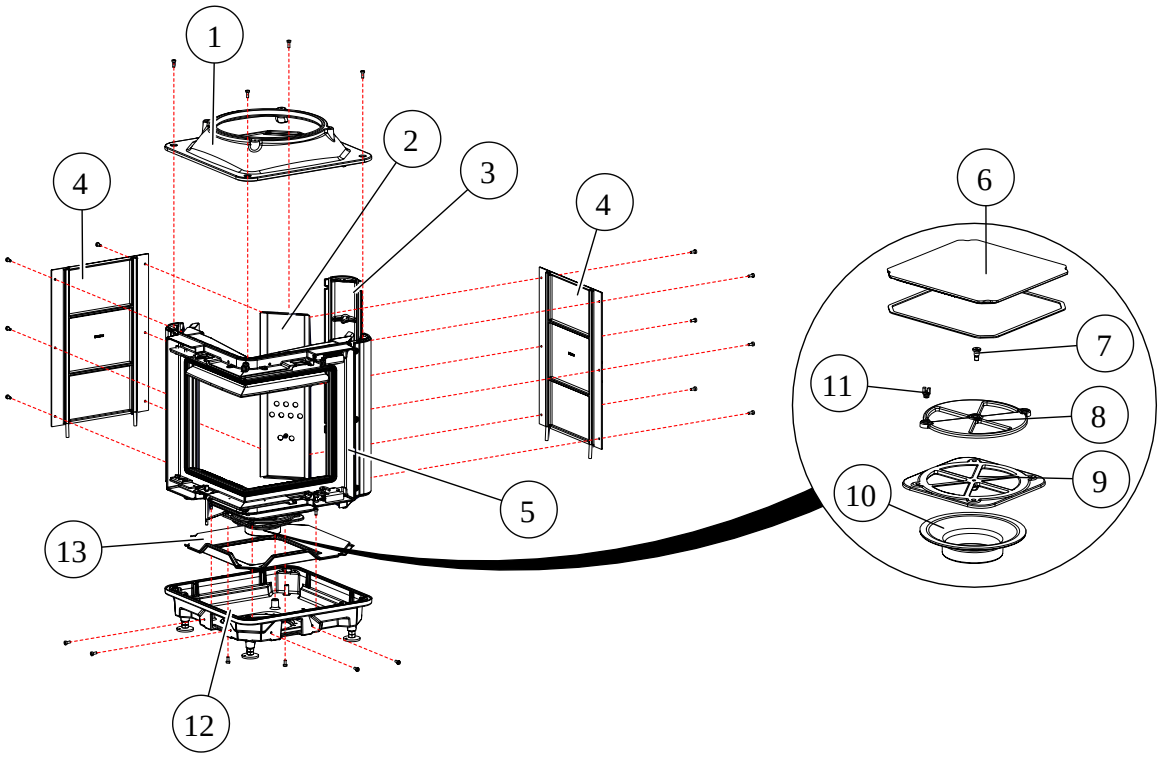
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3 DELIVERY CONTENTS

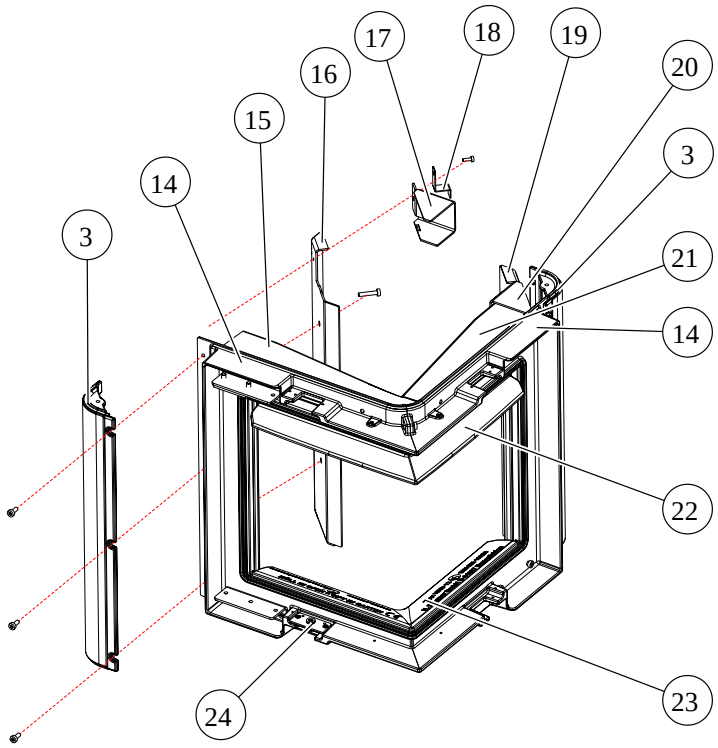
The delivery consists of different packaging units depending on the configuration of the system.

4 DESCRIPTION OF PARTS

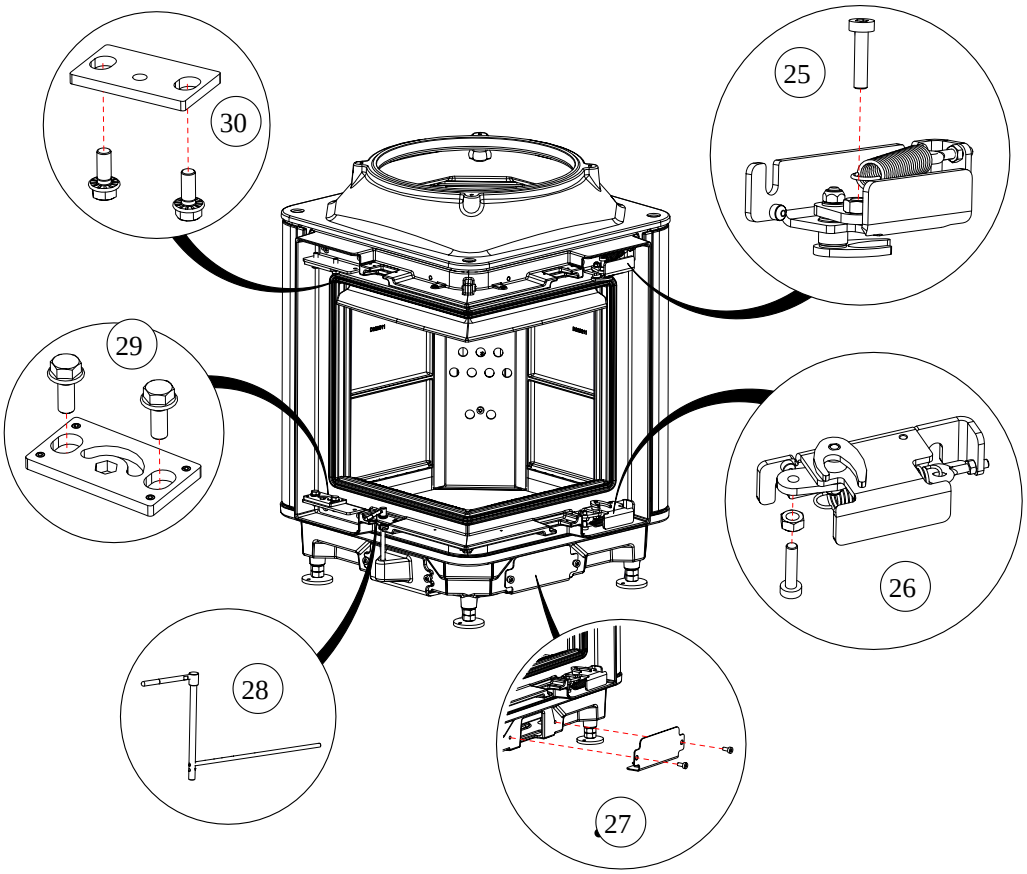
4.1 BODY HKD 12

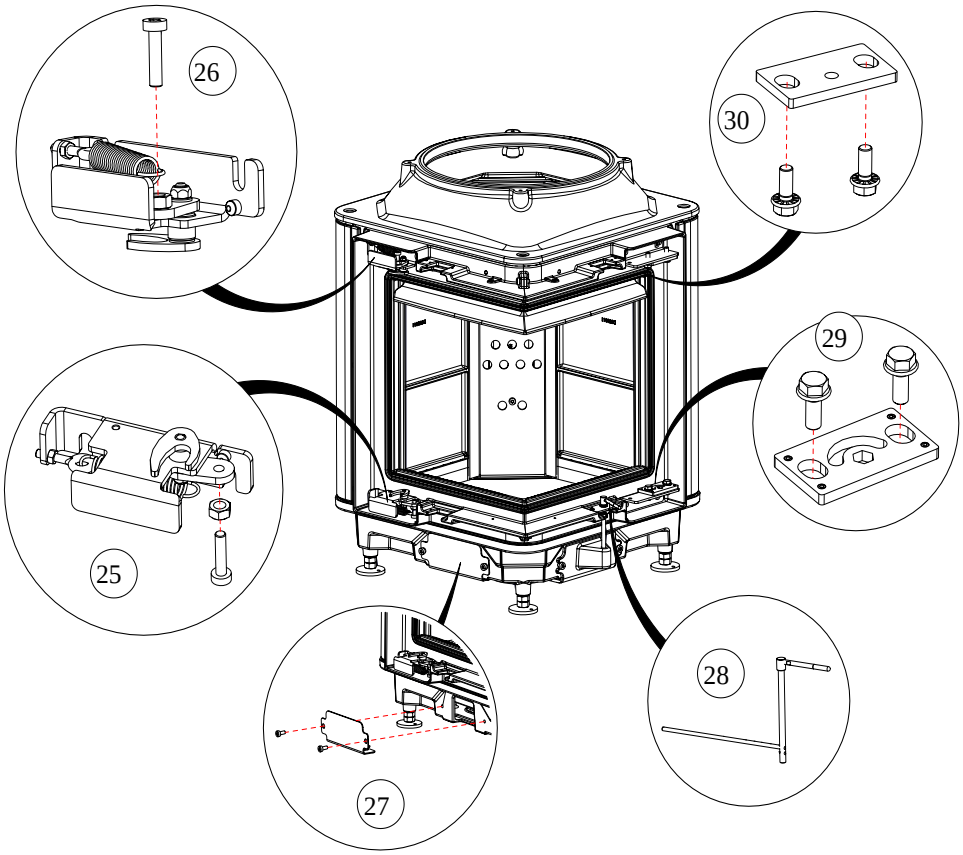


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Im. 1: Front assembly

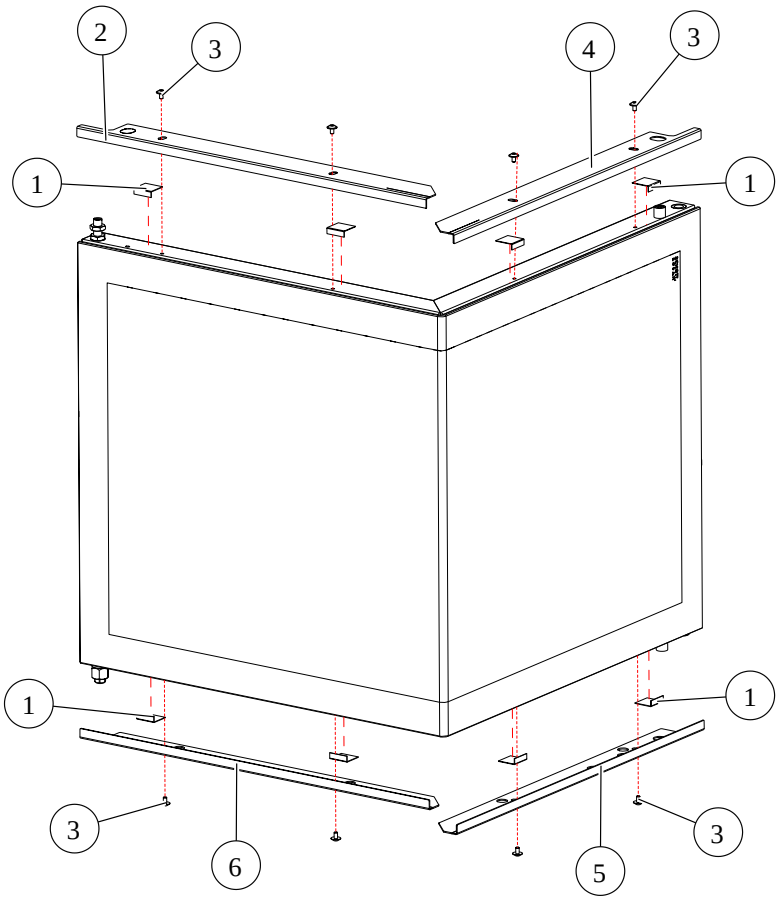




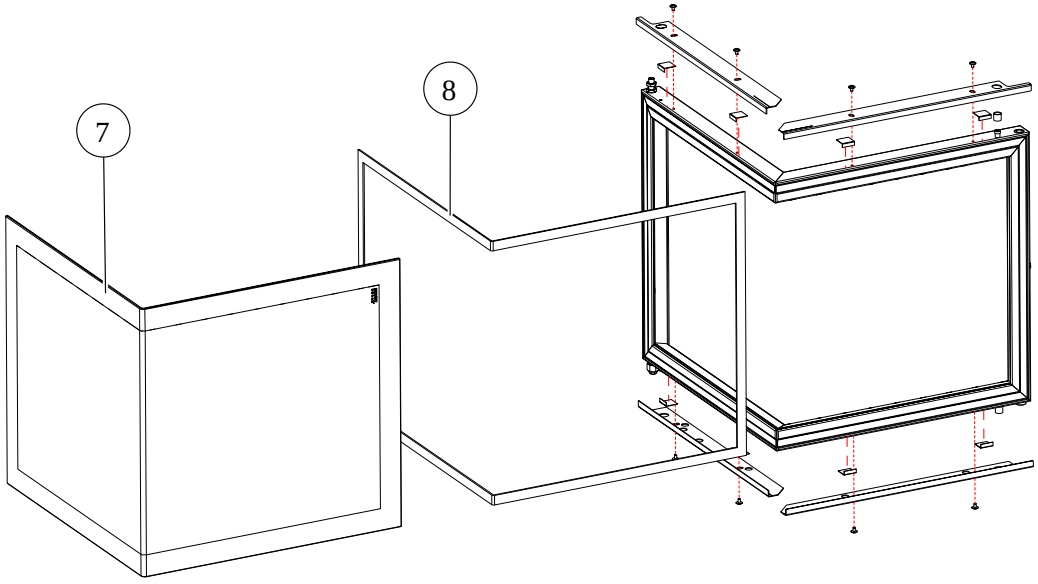
Pos.	Art.no	Designation	Pcs.	Pos.	Teilenr.	Designation	Pcs.
1	D029030	Hood assembly	1	16	D029064	Air duct cover left	1
2	D029063	Air inlet sheet	1	17	D029028	Air duct deflector left	1
3	D029005	Corner element air duct assembly	3	18	D029048	Bracket for lateral stone	2
4	D029031	Rear wall assembly	2	19	D029088	Air duct cover right	1
5	-	Front assembly	1	20	D029029	Air duct deflector right	1
6	D016019	Revision cover assembly	1	21	D029027	Inner front rigth	1
7	800168	Flat-head screw	1	22	D029062	Primary air distributor top	1
8	D003221	Combustion air turntable	1	23	D029018	Text plate	1
9	D016116	Air inlet plate	1	24	D003249-4	Switch insert	1
10	D016117	Combustion air supply nozzle d125	1	25	D029085	Lock 2	1
11	D003239	Air adjuster mount	1	26	D029080	Lock 1	1
12	D029032	Bottom assembly HKD 12	1	27	D029058	Blind cover	1
13	D029021	Intermediate bottom assembly	1	28	D003238	Handle of air supply adjuster	1
14	D029010-01	Front HKD 12	2	29	D025107	Door hinge assembly bottom	1
15	D029014-01	Inner front	1	30	D025106	Door hinge assembly top	1

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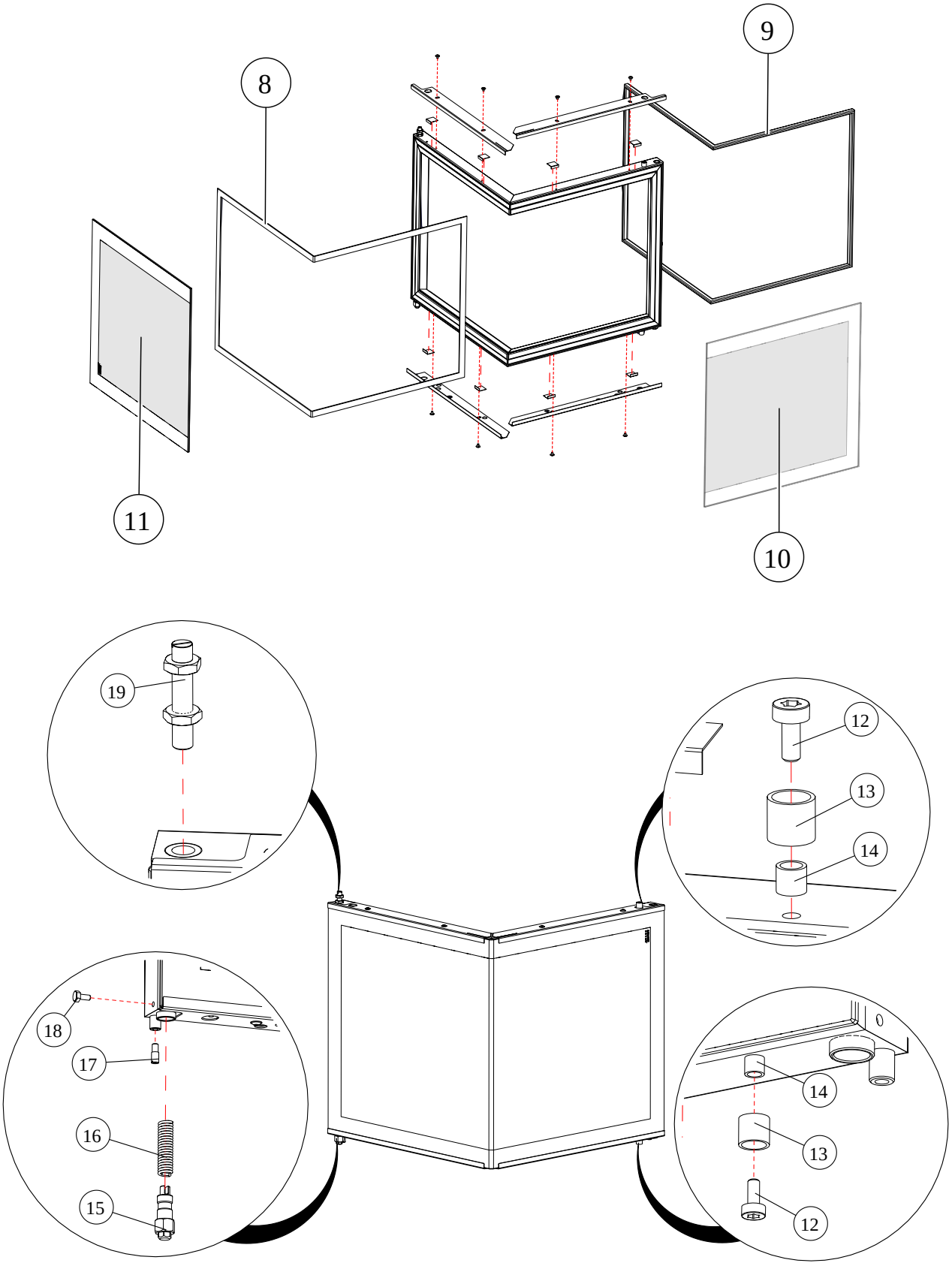
4.2 BG CORNER DOOR (D029022)



D029022-01

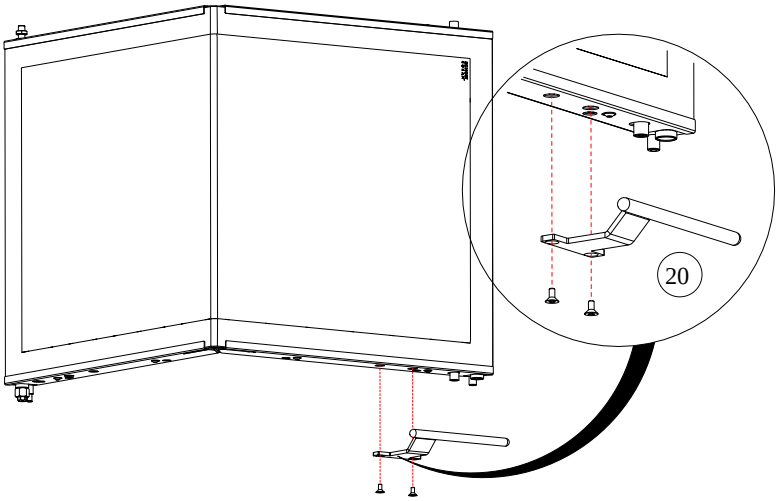


D029022-02

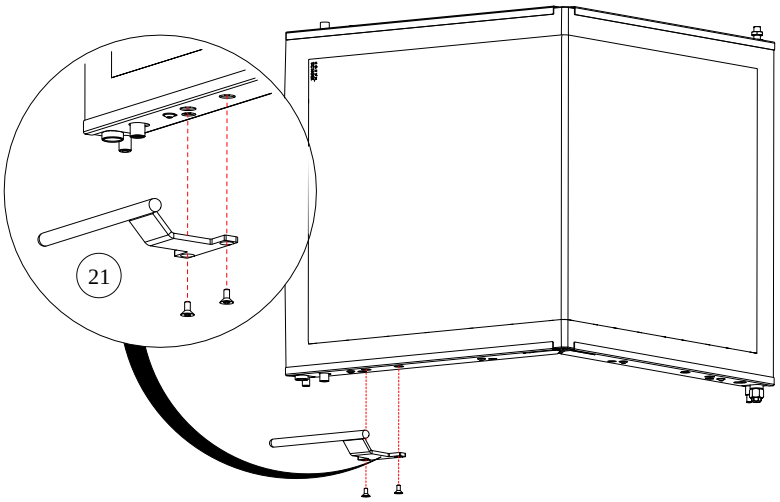


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Door right:



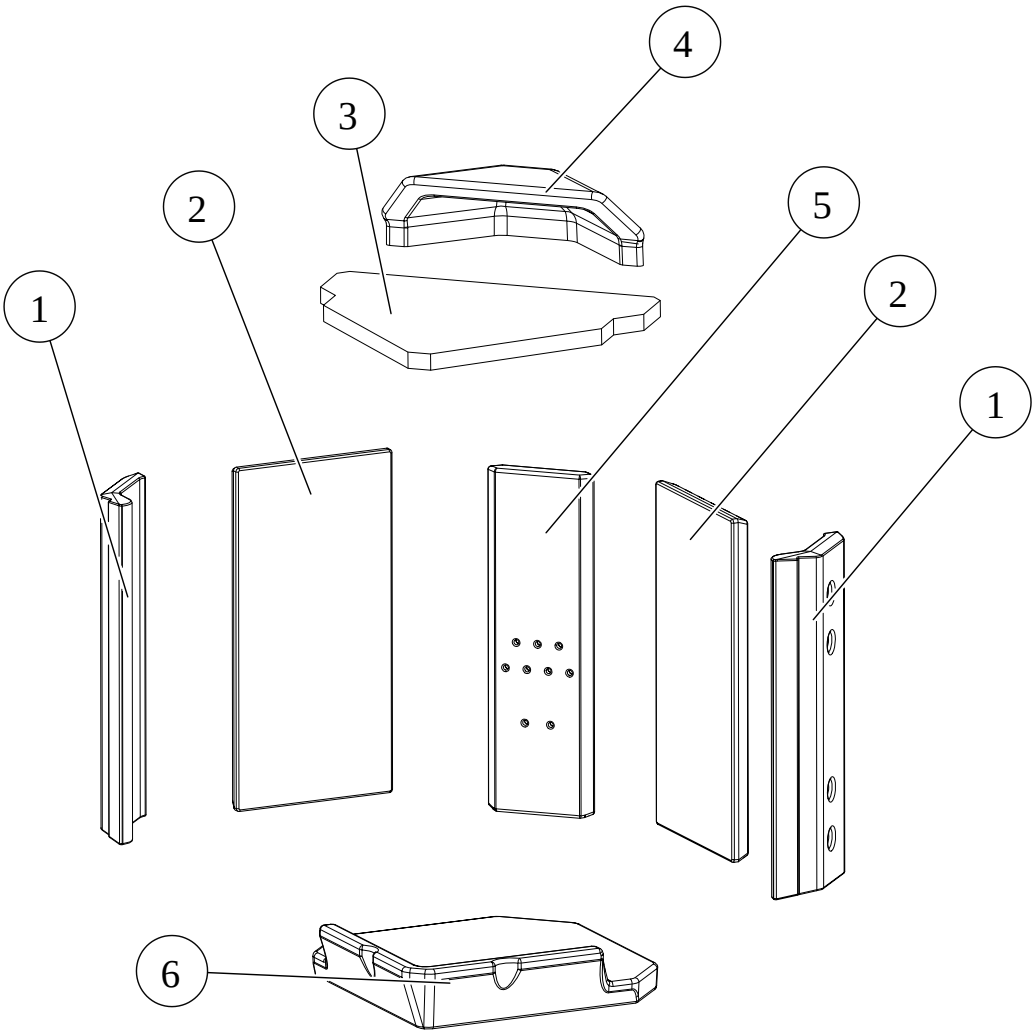
Door left:



Pos.	Part.-No..	Designation	Pcs.	Pos.	Part.-No..	Designation	Pcs..
1	I012415	Sealing of glass pane bracket	8	11	I064080-01	Glass pane long	1
2	D029015-01	Bracket outer glass pane left	1	12	800049	Cylinder head screw M5x10	2
3	02543	lens head screw with flange M4x6	8	13	I003363	Socket	2
4	D029008-01	Bracket outer glass pane right	1	14	I003364	Spacer	2
5	D029007-01	Bracket outer glass pane right	1	15	I003385	Torsion spring counterpart	1
6	D029006-01	Bracket outer glass pane left	1	16	I013955	Spring self-closing	1
7	I064032-01	Glass pane	1	17	800164	Shaft screw M6x16	1
8	I064027	Flat sealing between pane and door frame	1	18	02531	Hexagon screw M5x10	1
9	I064035	Sealing between door and front	1	19	D025041	Upper door hinge pin	1
10	I064079-01	Glass pane short	1	20	D029070	BG Door handle with screws	1
				21	D029078	BG Door handle with screws	

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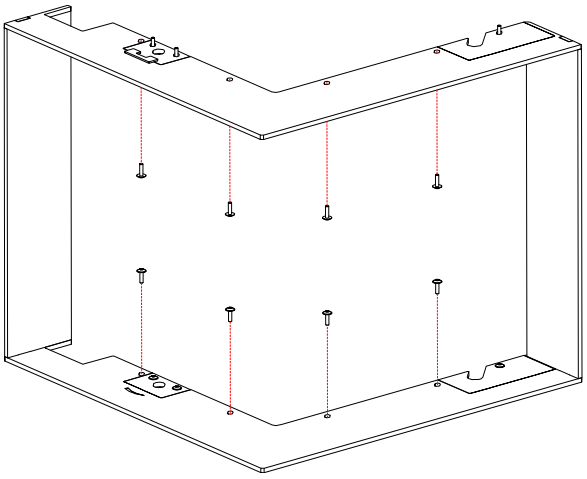
4.3 BG INNER LININGS WITH DEFLECTOR PLATE (D029035)

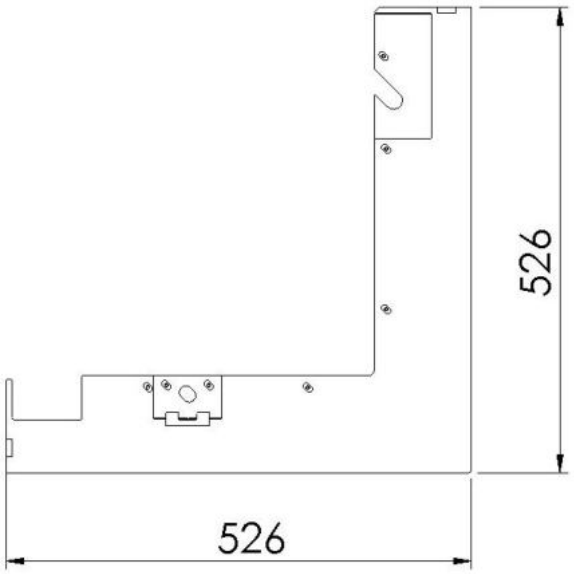


Pos.	Part.-No.	Designation	Pcs.
1	D029043	Side wall stone front left-right	2
2	D029042	Sidewall stone left-right	2
3	D029037	Deflector plate 2	1
4	D029038	Deflector plate	1
5	D029039	Rear wall stone	1
6	D029041	Bottom plate	1

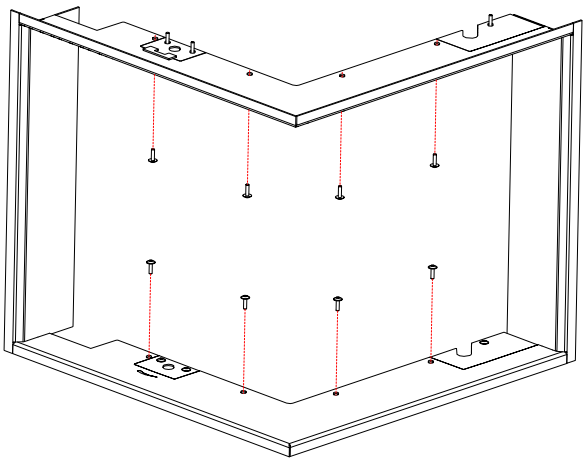
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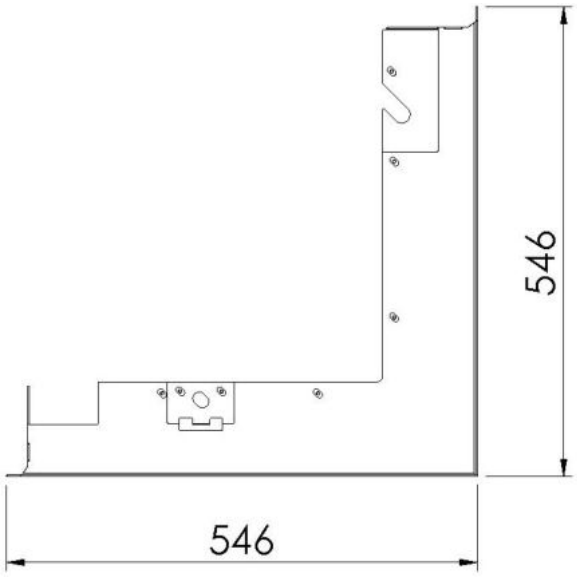
4.4 INSTALLATION FRAME (D029090-01)



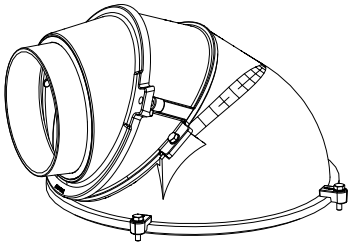
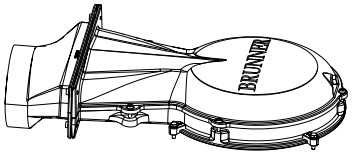


4.5 DOOR FRAME (D029100-01)

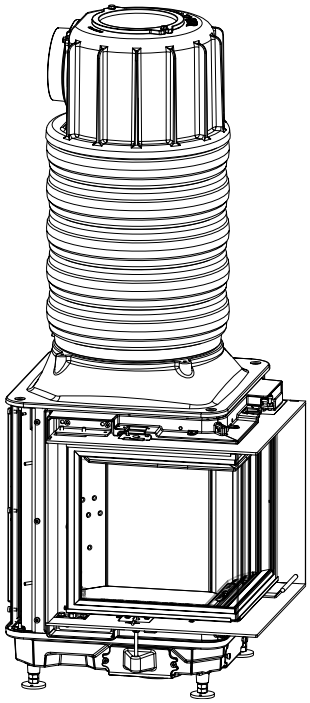




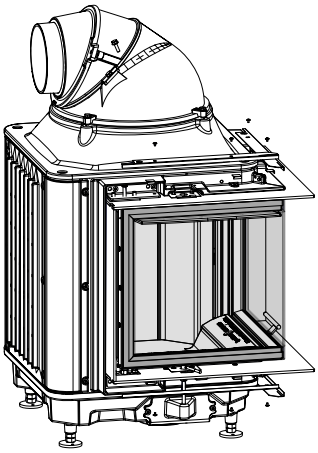
4.6 FLUE GAS CONNECTION

Variants with:	Art.no	
Rotatable cast hood with nozzle Ø 180 mm (hood-assembly)	D004186	
Rotatable cast hood with nozzle Ø 200 mm (hood-assembly)	10087	
Rotatable cast hood with nozzle Ø 180 mm low (hood-assembly)	D016042	
Spacer ring for MAS 440	10077	

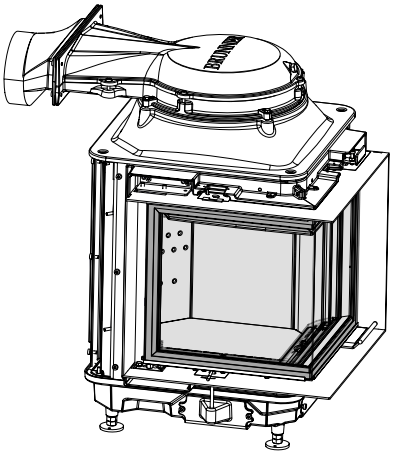
HKD 12 with MAS



HKD 12 with cast hood:



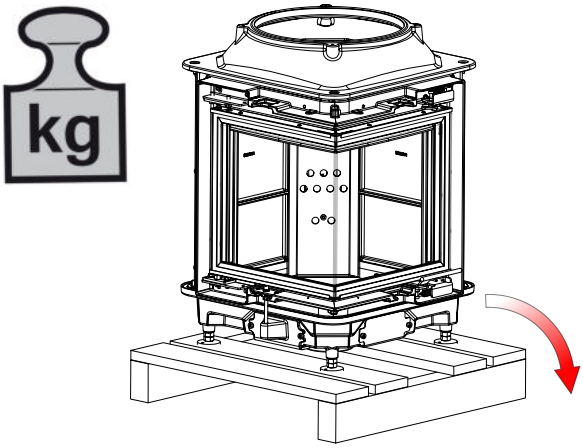
HKD 12 with cast hood:

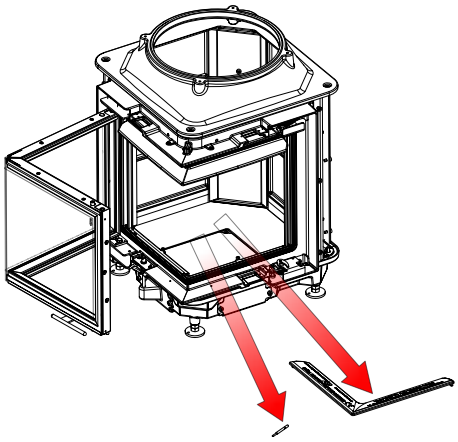


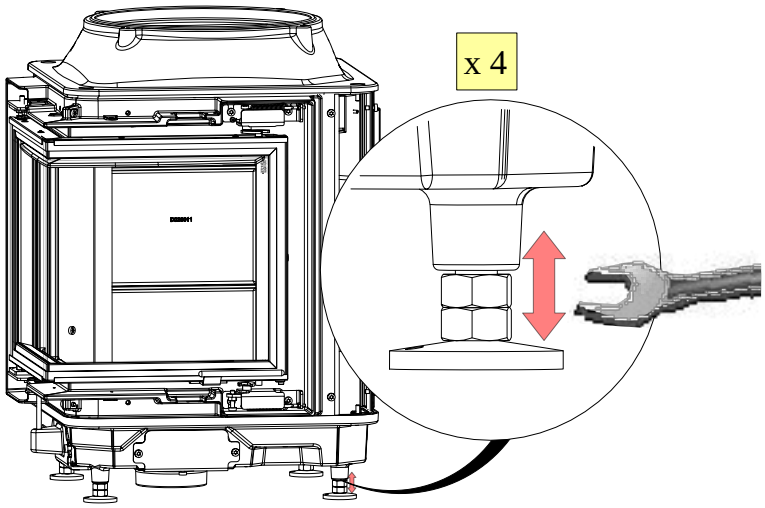
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5 ASSEMBLY

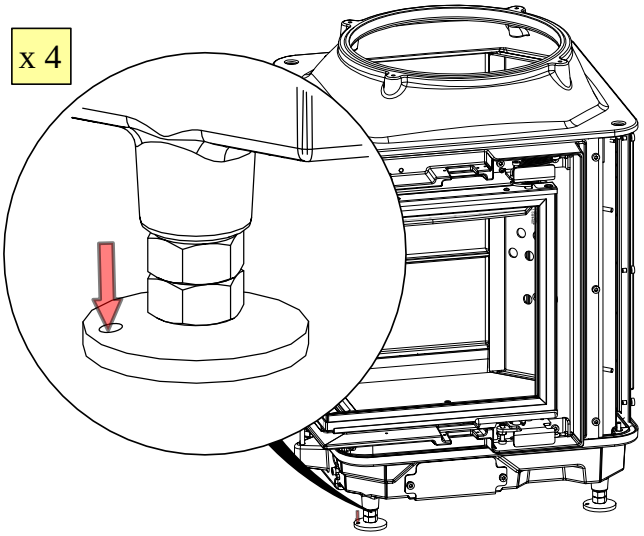
5.1 SETTING OF THE HKD 12





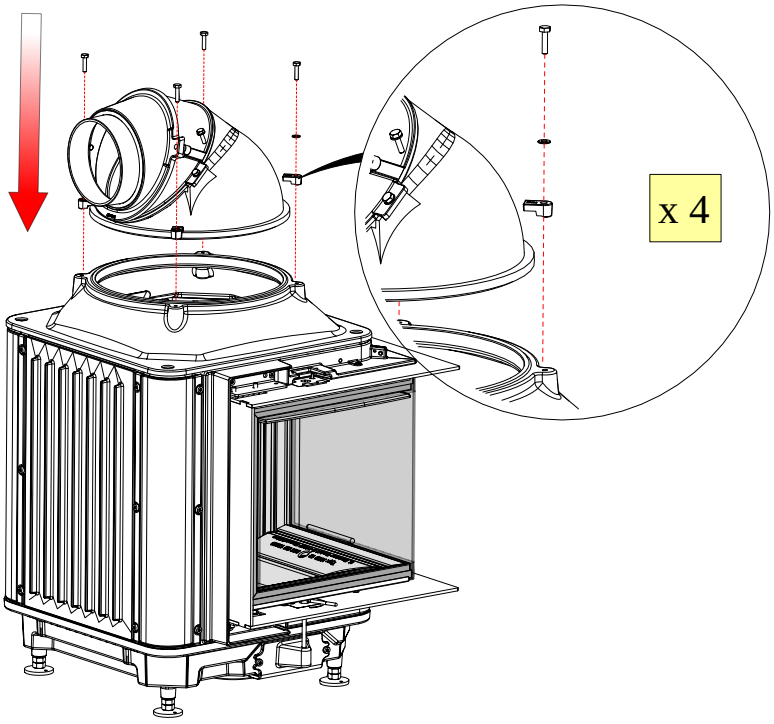


We recommend to fix the adjustable feet on the ground.

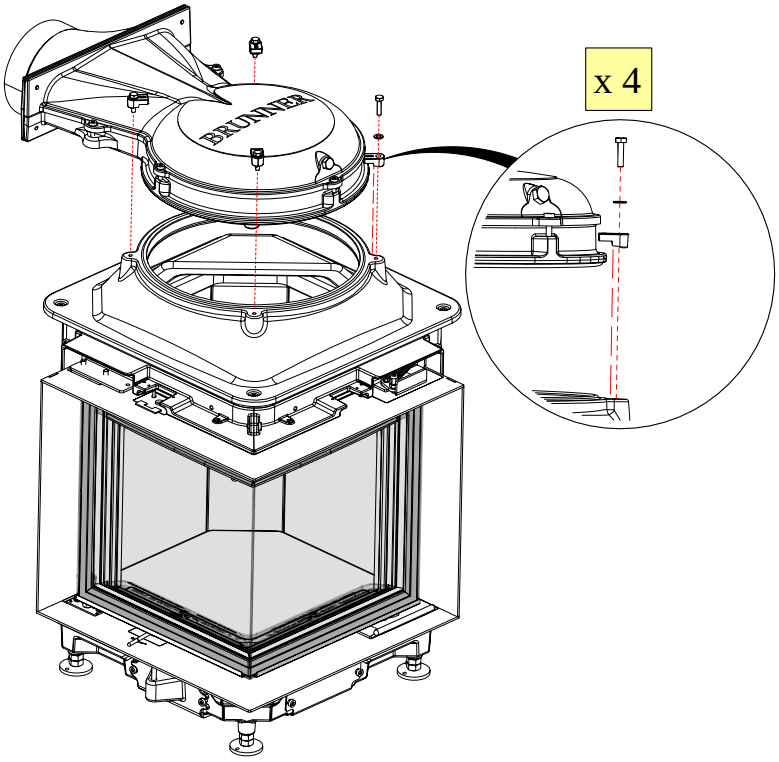


5.2 FLUE GAS OUTLET

with cast hood

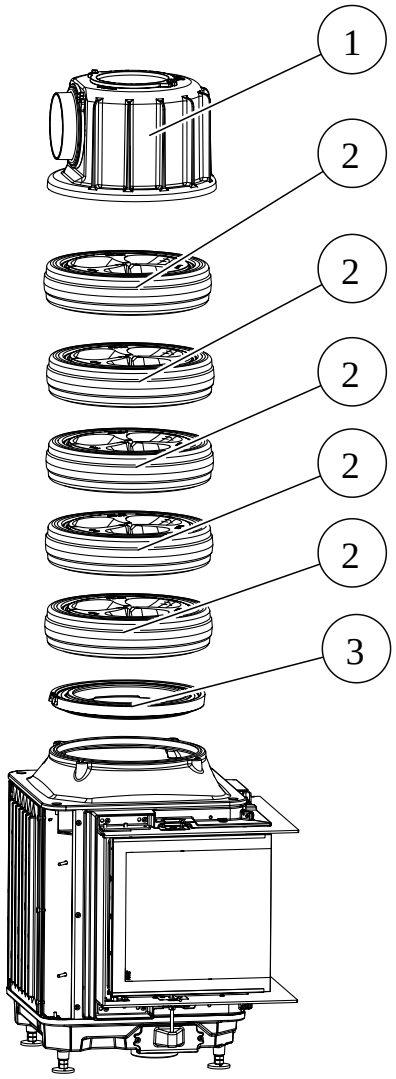


with cast hood, low

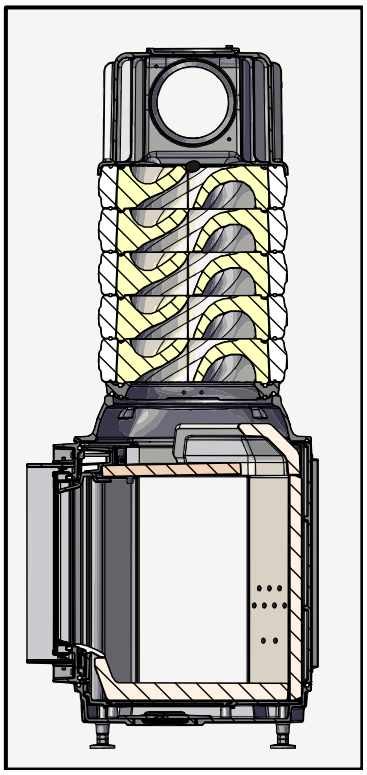


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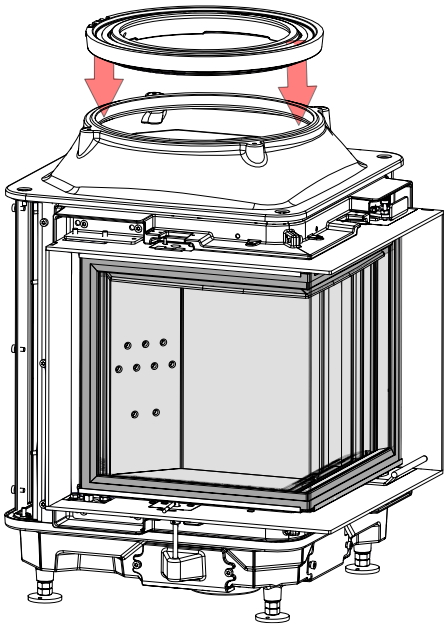
with MAS cast hood



Pos.	Art.no	Designation	pcs.
1	R009095-01	MAS cast hood assembly	1
2	R009042	Two-piece spiral D444 2 assembly	5
3	10077	Spacer ring storage module- assembly	1



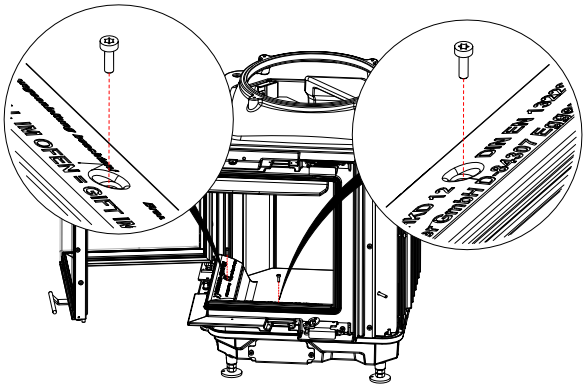
Im. 2: Cut section trough HKD 12 with MAS



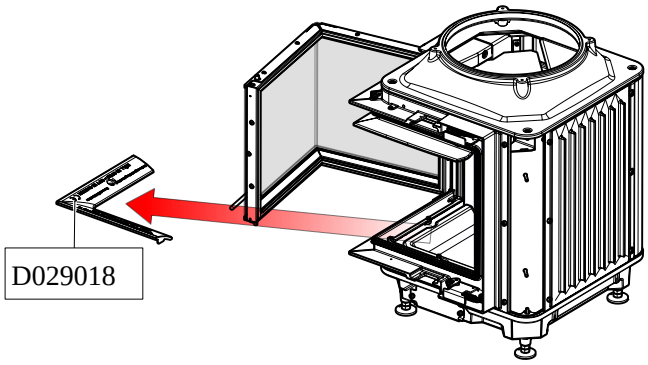
Im. 3: Set on the spacer ring

5.3 INSTALLATION OF THE COMBUSTION CHAMBER

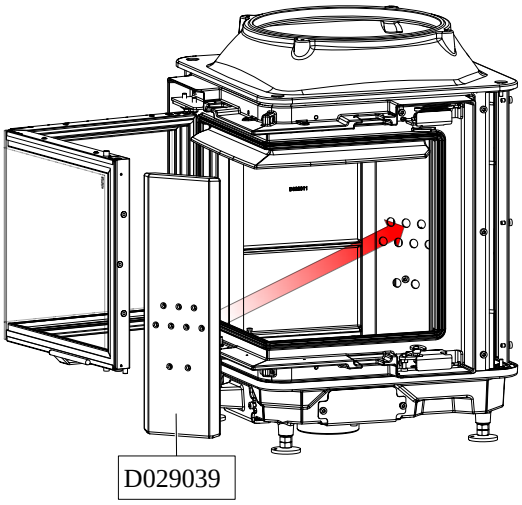
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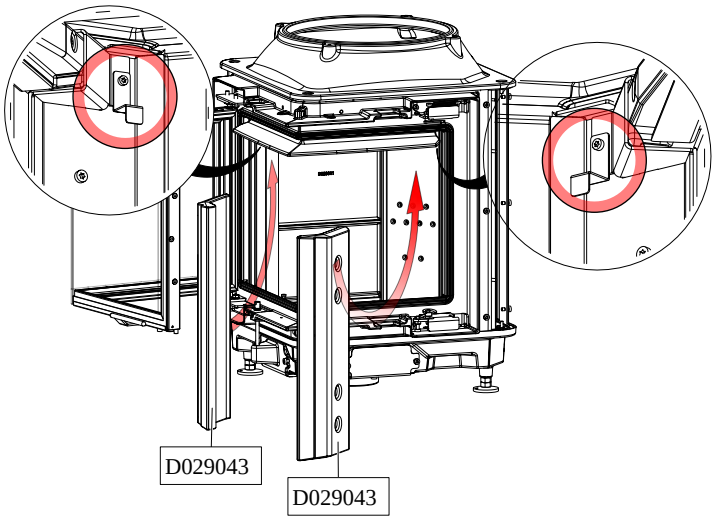
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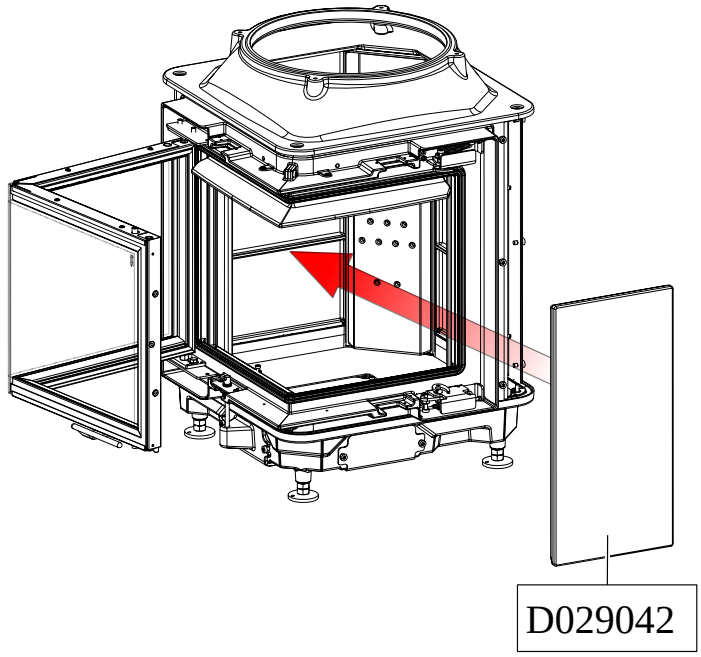


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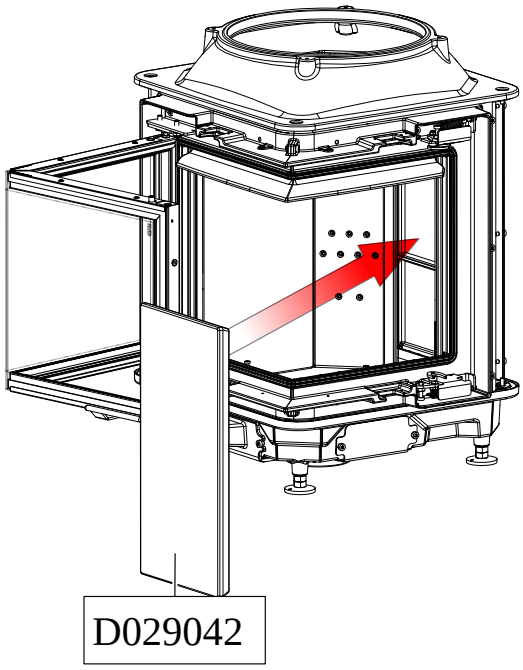


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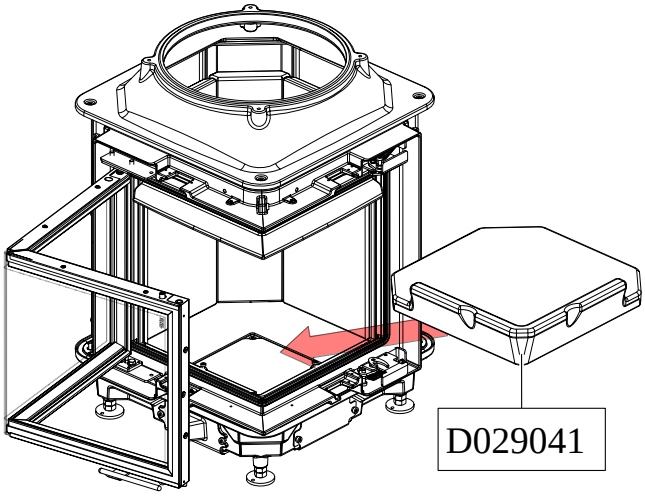
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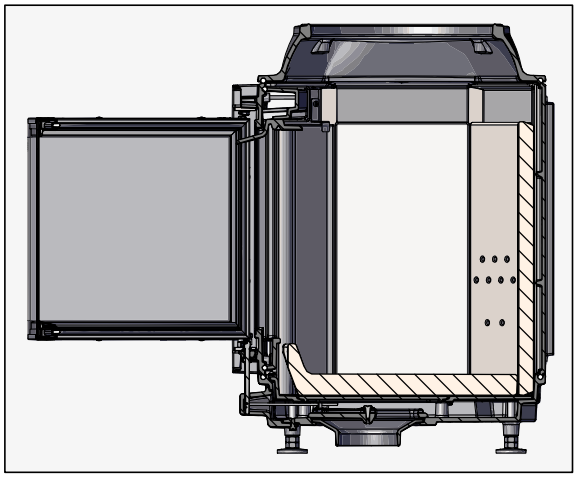
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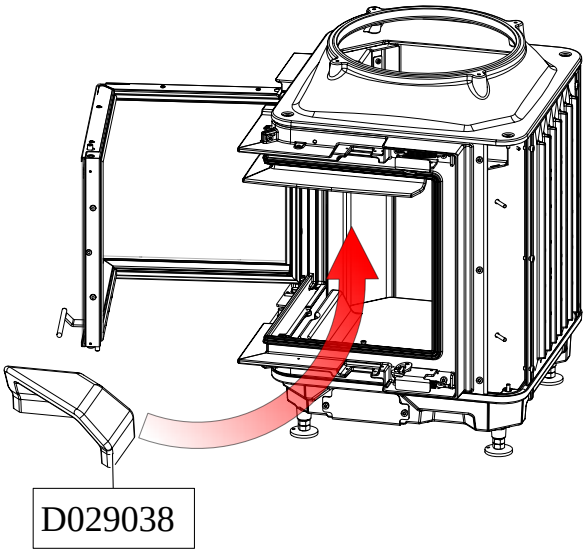
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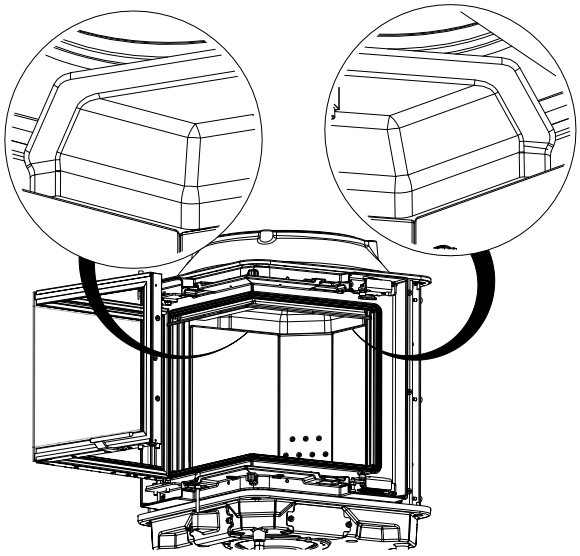
Detail:



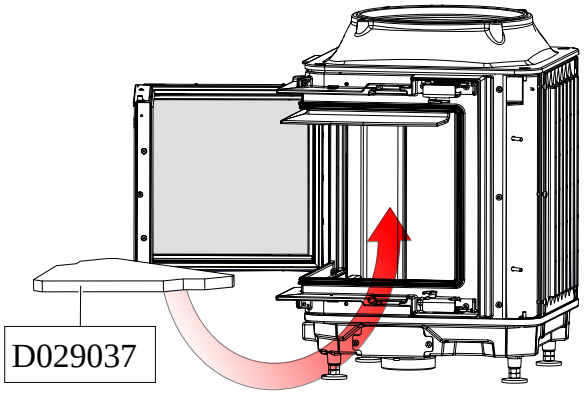
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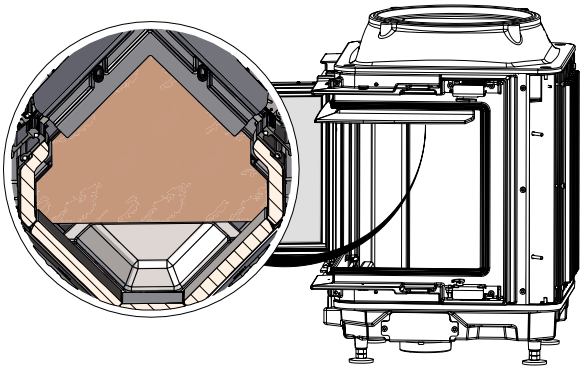
Detail:



9

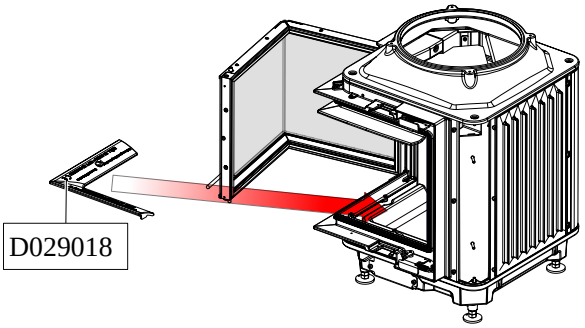


Detail:

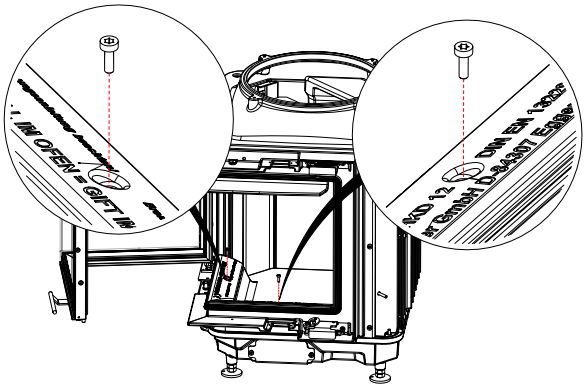


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10

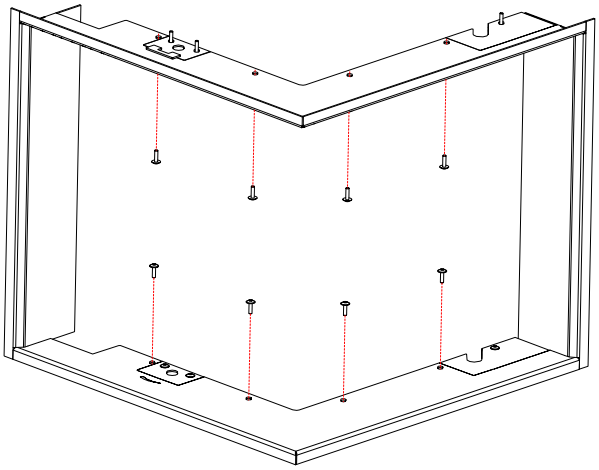


11

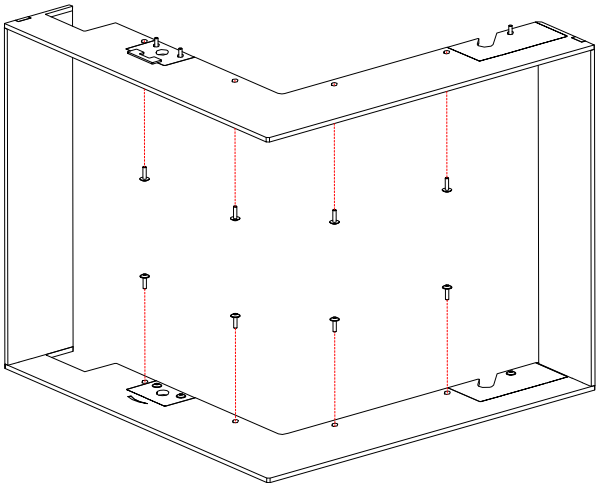


5.4 FRAME INSTALLATION

The frame of the fireplace is to be fixed to the corpus with a total of eight fastening screws.



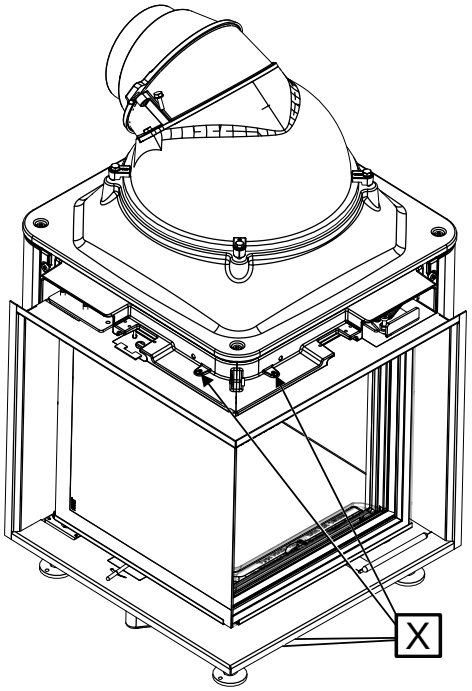
Im. 4: Door frame



Im. 5: Mounting frame

If necessary, it is possible to adjust the frame with the four grub screws (X) and the eight fastening screws.

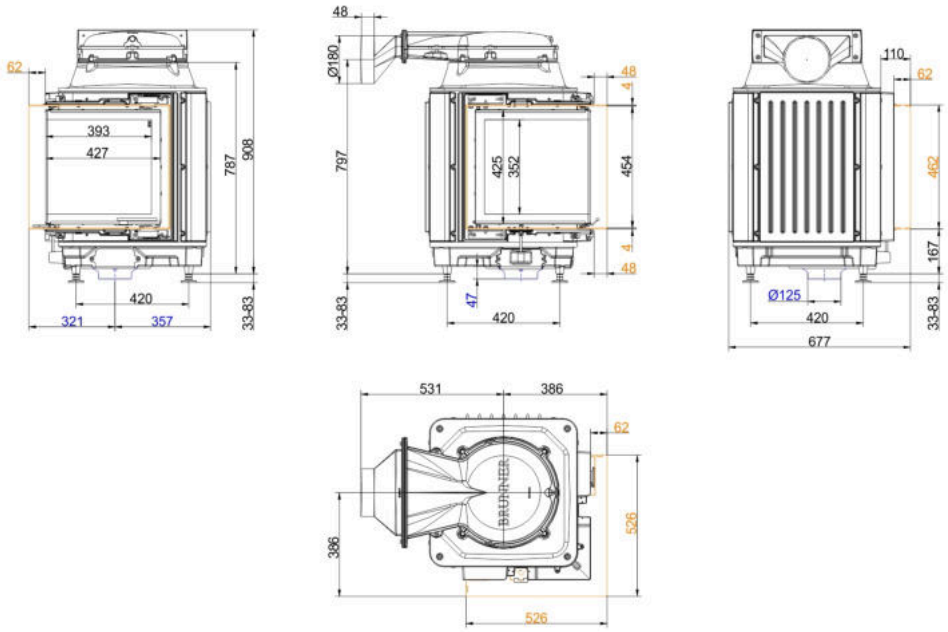
To do this, align the frame with the grub screws and fix this setting by tightening the eight fastening screws.



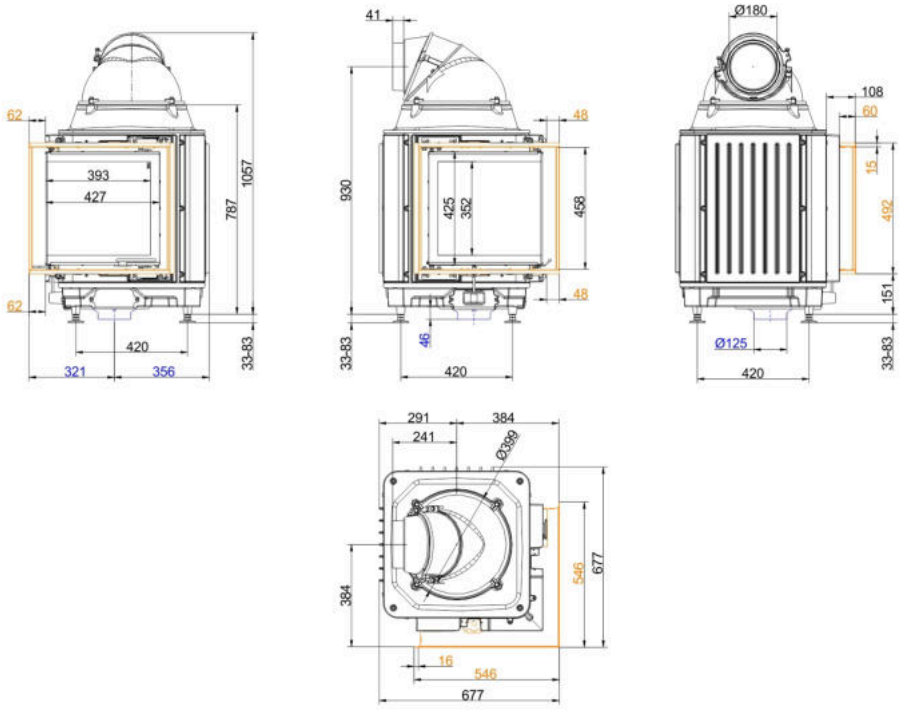
Im. 6: Position of the grub screws

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Dimension sheets - HKD 12

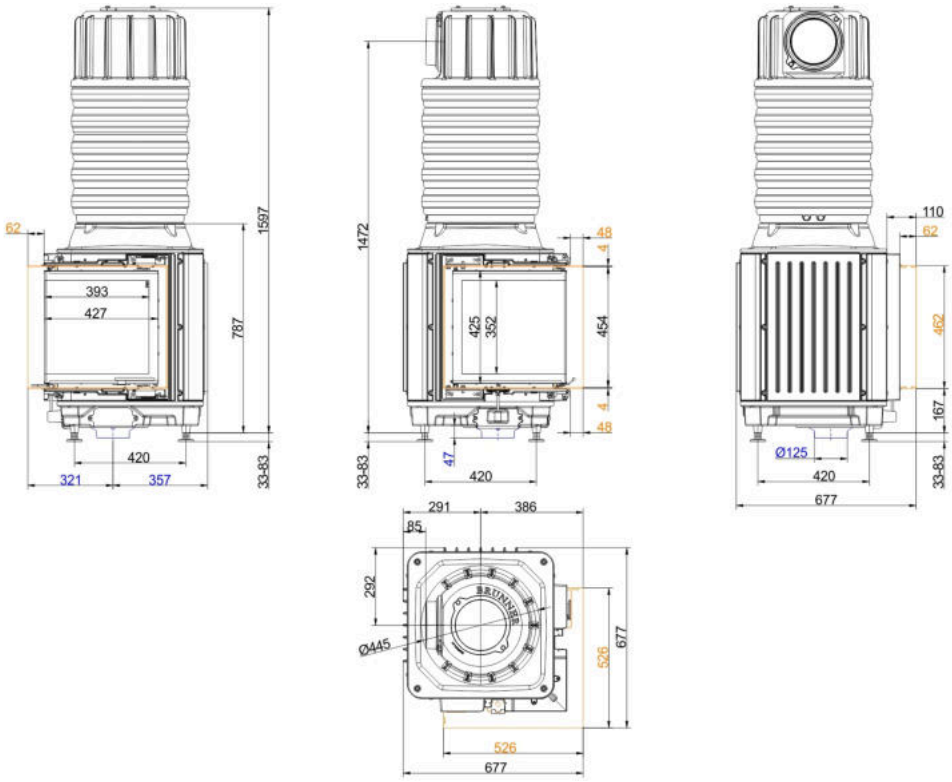


… mounting frame and cast iron dome low

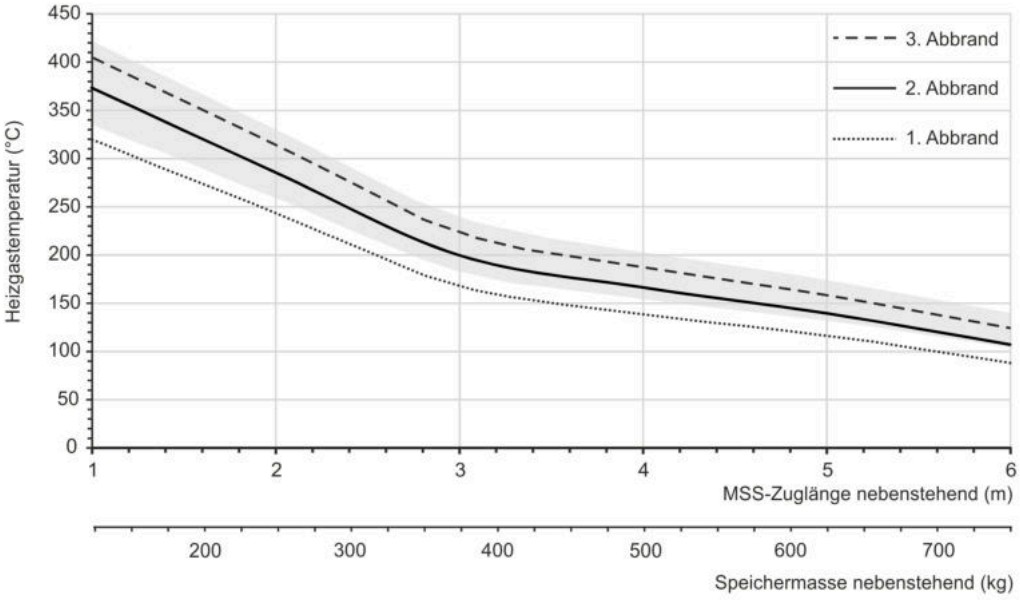


… door frame and cast iron dome

Dimension sheets - HKD 12



… mounting frame and MAS



Design characteristics for adjacent storage mass

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.

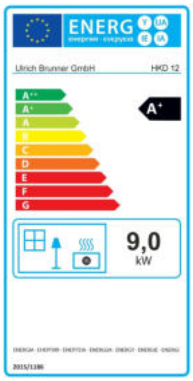
Planning and installation - HKD 12

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	9	-
Fire wood volume	kg/h	2.8	5.0
Combustion performance	kW	11.0	19.0
Flue gas mass flow	g/s	10.0	18.0
Outlet temperature (before reheating surface)	°C	410	520
Flue gas temperature after:			
1 x adjoining cast iron radiator (GNF 8/10)	°C	200	230
5 x accumulation rings incl. MAS casted cover [3]	°C	220	-
4,4 m ceramic accumulator [4]	°C	-	180
3,0 m accumulation stones (MSS) [4]	°C	-	190
Necessary supply pressure	Pa	12	15
Combustion air consumption	m^3/h	29	42
Combustion air connection Ø	mm	125	125
Heating gas temperature (before the hood/dome variant)			
cast iron dome	°C	430	490
Heat distribution			
Insert / reheating surface	%	40 / 35	40 / 35
Glass pane (single / double)	%	25 / -	25 / -
Cross-section of gratings [5]			
exhaust warm air	cm^2	700 / 300 / 500	700 / 300 / 500
Recirculation air	cm^2	700 / 300 / 500	700 / 300 / 500
Minimal distances of the fireplace			
to cladding, insulation layer	cm	8	8
to mounting floor	cm	6	6
Thermal insulation without / with air gratings [6]			
Mounting wall	cm	14 / 12	14 / 12
Floor	cm	0	0
Ceiling	cm	19 / 15	19 / 15
Brick lining for combustible wall	cm	10	10
Weight			
Fireplace / combustion chamber	kg	170 / 38	
Meets requirement/limit values for:			
Germany/ Austria / Switzerland / Norway		1.BImSchV (Stufe 2) / 15a BVG (2015) / LRV / -	

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) Brandsicherheit: Werte ermittelt in Sicherheitsprüfung mit prüftechnisch erfassten Luftquerschnitten; Ofenhülle wärmeabgebend ausgeführt. Dämmstoffangaben mit Referenzdämmstoff (Mineralwolle nach AGI Q 132).

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

Supplier's name or trademark	Ulrich Brunner GmbH
Model identifier:	HKD 12
Energy efficiency class:	A+
Direct heat output:	9,0 kW
Indirect heat output:	N.A. kW
Energy efficiency index:	109
Fuel energy efficiency (at nominal heat output):	82,0 %
Fuel energy efficiency (at minimum load):	N.A. %
Special precautions: see supplied product documentation	



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