

POLARIS

SCHIEDEL

POLARIS

INSTALLATION INSTRUCTIONS

EN

All local regulations, including those referring to national and European standards, must be observed when installing the product. Assembly and installation of your chosen product must be performed only by an authorized dealer of **SCHIEDEL** company. This is necessary for the recognition of the warranty and the proper functioning of the product. This product is not suitable as a primary heat source.

Instruction manual

Please read the information and instructions in the Instruction manual carefully.

Operating chimney draft

Operating draft is 12 Pa. Maximum operating chimney draft is 20 Pa. This should be measured during full operation of the product. It is recommended to install a draft regulator, especially when the appliance is equipped with unit for automatic combustion regulation.

Authorized fuel

Dry, lump wood with residual moisture up to 20 %. The stated average fuel consumption must always be observed – 2,20 kg/h. The recommended fuel length is approximately 250-350 mm. Depends on the size of the combustion chamber. Always use at least 2 pieces of wood.

Operation of the product

1

Hardening of the paint

If your model of stove has a closable grate, leave it in open position. The first heating of the product should take place with a limited amount of smaller pieces of wood (ca ½ the average fuel). Leave the door ajar (approximately 2 cm gap), so that the door cord does not stick to the paint. Also open the air supply to the maximum (pos. C). Slow process of heating up will prevent paint damage and deformation of materials.

After burning the wood on glowing coals, you can proceed to hardening of the paint. Place the allowed fuel dose in the chamber, using smaller logs and pieces. Leave the door ajar (approximately 2 cm). The paint under the door must harden sufficiently. When this dose burns out, carry out at least 2 to 3 additional periods with the allowed fuel dose, now with the door closed and the air supply open to the maximum (pos. C). Hardening of the paint is accompanied by an odor that persists throughout full hardening process, so described actions should only be carried out with sufficient room ventilation.

2

Heating up

Move the air supply lever to the open position (pos. C), if there is no automatic combustion regulation active. If the product includes a cast iron grate, open it. Use max. twice amount of the average fuel dose for ignition. First place larger logs on the bottom of the chamber, then layer finer logs of dry piece of wood

on them (pos. 2) – igniting from above. Use a lighter that is specifically designed for this purpose. If necessary (the fire still did not start after some time), leave the door open for a while (approx. 2 cm), for additional sufficient air supply. Then, during standard heating, always keep the door closed. Do not reload new dose of wood, until the previous batch has completely burned to glowing coals and there are only embers in the chamber, without visible flames.

3

Heating and reloading

To equalize the pressure in the room and the combustion chamber, slightly open the door to approx. 2 cm gap for 10 seconds before each reloading. This will prevent possible escape of ash and smoke into the room. Add the amount of wood that is suitable for your product, see average fuel consumption (pos. 4). After reloading the wood, always close the door properly. We recommend setting the air supply lever to the optimum position at nominal output (pos. B, B1). Do not reload new dose until the wood burns to glowing coals.

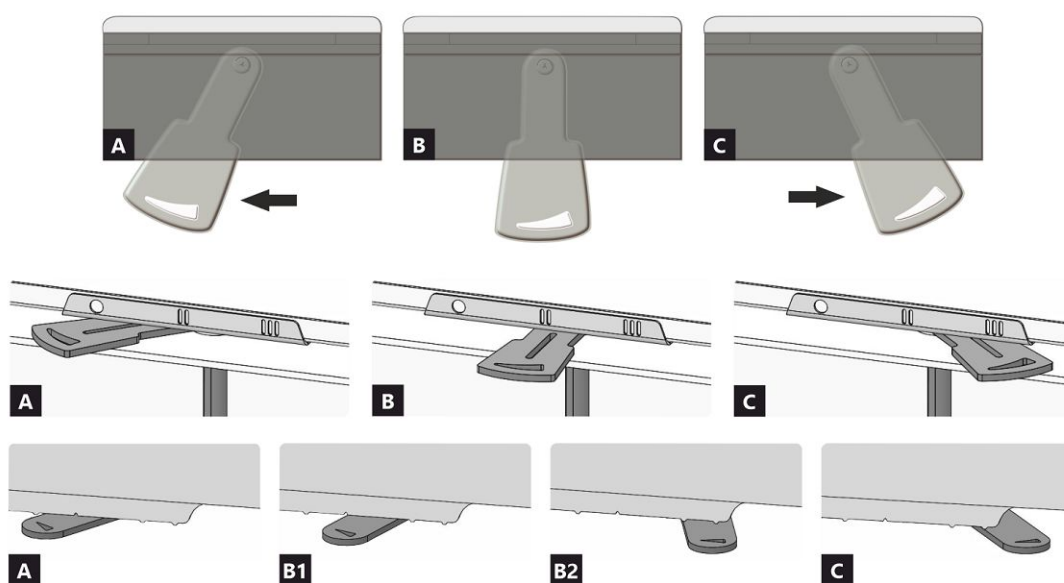
4

Termination of heating process

Once the wood in the chamber burns out, move the air supply lever to closed position. This will prevent unwanted leakage of accumulated heat into the chimney / outside (pos. A).



- 1** preparation of fuel for heating
- 2** placements of wood in the chamber
- 3** igniting the wood from above
- 4** stoking



- A** closed
- B** open – heating at nominal output (optimal operation)
- C** open – starting a fire position (putting the product into operation)

- A** closed
- B1** open – heating at nominal output (optimal operation)
- B2** open – primary air closed
- C** open – starting a fire position (putting the product into operation)

Declared qualities stated

Harmonised technical specification				✓ EN 16510-1 ed.2:2023 EN 16510-2-2:2022				✓ Ecodesign				✓ DIN+				✓ BImSchV2				✓ 15a B-VG 2015			
Classification of appliance				Type BE																			
				Nominal heat output (nom)				Part load heat output (part)															
Energy efficiency	$\eta_{\text{nom}} \eta_{\text{part}}$			82				---															
Seasonal space heating energy efficiency at nominal heat output	$\eta_{\text{Snom}} \eta_{\text{Spart}}$			72				---															
Energy Efficiency Index	EEI			109																			
Energy label				A+																			
Fuel				Wood logs																			
Fuel length				250-350																			
Average fuel consumption				2,20				---															
Allowed fuel dose				3,0																			
Fuel supply interval				1 hour																			
Base layer of fuel				0,22				---															
Criterion for the end of the test cycle				4,0				---															
Amount of combustion air				27,9																			
Nominal heat output	$P_{\text{nom}} P_{\text{part}}$			7,8				---															
Hot-water exchanger nominal heat output	$P_{\text{Wnom}} P_{\text{Wpart}}$			---				---															
Maximum water operating pressure	P_{W}			---																			
Dry flue gas mass flow rate	$\Phi_{\text{f,g nom}} \Phi_{\text{f,g part}}$			6,0				---															
Flue gas outlet temperature	$T_{\text{Snom}} T_{\text{Spart}}$			268				---															
Flue draught	$P_{\text{nom}} P_{\text{part}}$			12				---															
Chimney temperature class				T400																			
Connection to the common chimney				No																			
Storage of fuel in the wood shed area				No																			
Maximum warming of the wood in the wood shed				---																			
Dust O ₂ = 13 %	$PM_{\text{nom}} PM_{\text{part}}$			38				---															
CO ₂				9,09				---															
Emissions of gases of combustion (CO in the flue gases at O ₂ = 13 %)	$CO_{\text{nom}} CO_{\text{part}}$			0,0946				---															
OGC O ₂ = 13 %	$OGC_{\text{nom}} OGC_{\text{part}}$			1182				---															
NOx O ₂ = 13 %	$NO_{\text{xnom}} NO_{\text{xpart}}$			42				---															
Automatic regulation unit of burning				83				---															
Electricity consumption in standby mode	e_{lsb}			---				---															
Electricity consumption	$e_{\text{lmax}} e_{\text{lmin}}$			---				---															
Intermittent operation Continuous operation	INT CON			INT																			

Basic technical data

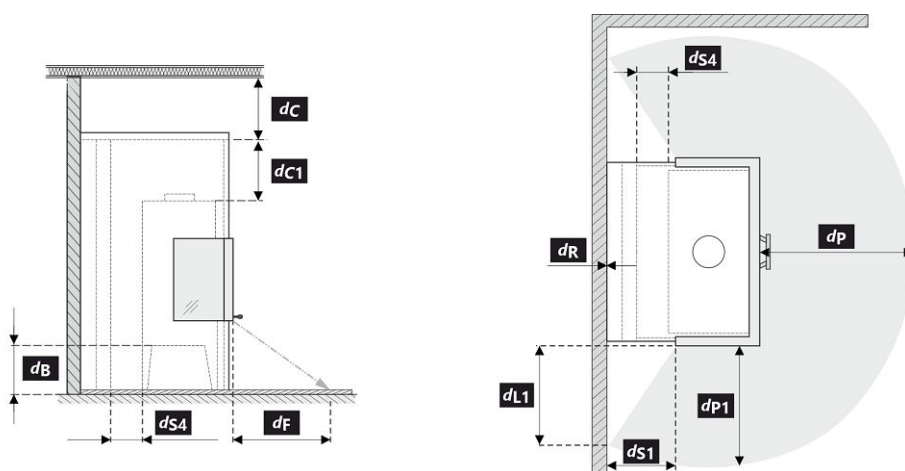
Principal dimensions (Height Width Length)	H W L	1341 805 574	mm
Combustion chamber dimensions	H W L	--- --- ---	mm
Fireplace door dimensions	H W L	--- --- ---	mm
Axis height of the rear (side) outlet		---	mm
Volume of hot-water exchanger		---	l
Flue diameter		150-200	mm
Diameter of flue throat	d_{out}		mm
Diameter of external air connection			mm
Maximum length (pipe) of external air intake		---	mm
Weight	m	205	kg

Heat capacity**minimum size of the room of appliance installation**

Insulation of the house – very good (20 W/m ³)	e.g. new, insulated house / permanently inhabited	256	m ³
Insulation of the house – good (22,5 W/m ³)		228	m ³
Insulation of the house – middle (32 W/m ³)		160	m ³
Insulation of the house – bad (45 W/m ³)		114	m ³
Insulation of the house – very bad (50 W/m ³)	e.g. old, uninsulated house / cottage / chalet	102	m ³

Distances from flammable materials**Note**

Back	d _R	0		mm
Front	d _P d _{P1}	1200	800	mm
Front to the floor	d _F d _{F1}	500	460	mm
Side	d _S d _{S1}	800	440	mm
Side – niche	d _{S2}	---		mm
Side – location 45°	d _{S3}	---		mm
Side radiation	d _L d _{L1}	0	0	mm
From the floor	d _B	50		mm
From the ceiling	d _C	500		mm
From the back and side edge of the fireplace insert to the inside of the insulation	d _{S4}	120		mm



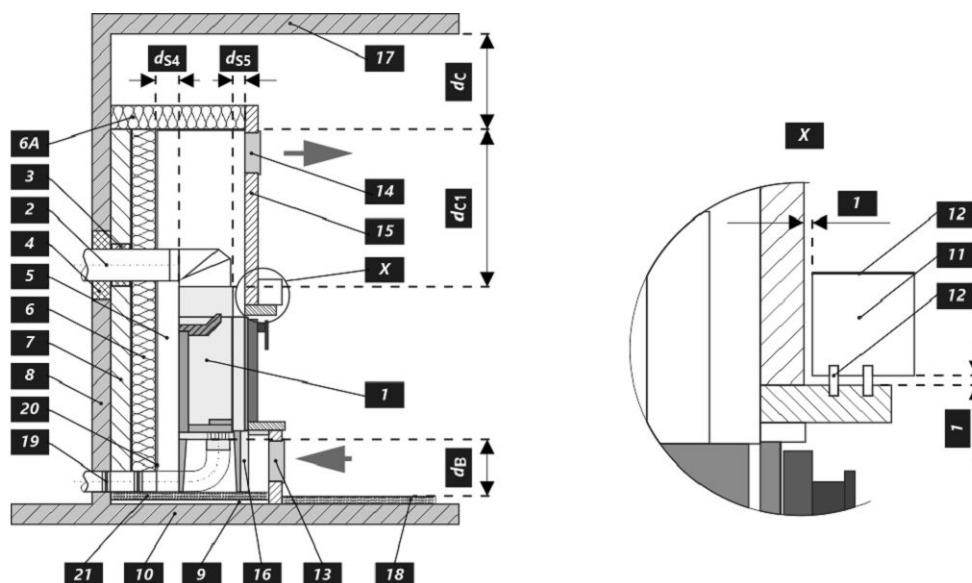
All local regulations, including regulations relating to national and European standards, must be observed during the installation and operation of the product.

Legend	Note	Description	Material	Dimension
1		Appliance	153V 0000 001	
2		Flue gas outlet	metal	DN150-200
3		Insulation of the flue gas connection		
4		Mineral insulation		
5		Convection air space around the appliance		
6		Protective insulation of walls	SILCA 250	2x50 mm
6A		Protective ceiling insulation	SILCA 250	80 mm
7		Protective wall	hollow burnt brick	100 mm
8		Combustible wall		
9		Concrete slab		
10		Combustible floor		
11		Decorative / ornamental beam		
12		Beam with ventilation air gap		
13		Convection air inlet		--- cm ²

14	Convection air outlet	---	cm ²
15	Lining	SILCA 250	40 mm
16	Support frame		
17	Combustible ceiling		
18	Protective insulation board for combustible floors	SILCA 250	40 mm
19	Combustion air regulation		
20	Sheet metal cover if mineral wool is used		
21	If necessary, a floor protection plate under the appliance		
d _c	From the top of the exhaust vent to the combustible ceiling		500 mm
d _{c1}	– From the top of the fireplace insert to the underside of the ceiling insulation – In the case of an installed heat exchanger from the top edge of the heat exchanger to the underside of the ceiling insulation		300 mm 200 mm
d _{s4}	From the back and side edge of the fireplace insert to the inside of the insulation		120 mm
d _{s5}	From the front edge of the fireplace insert to the inside of the insulation		10 mm
d _B	From the bottom of the fireplace insert to the fireproof floor		50 mm

Caution: Fire protection / insulation boards SILCA® 250SB can be replaced by a suitable nonflammable material with a thermal conductivity (λ) $\leq 1,1 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$.

Protective wall – hollow burnt brick (thickness 100 mm) can be replaced by a suitable nonflammable material with a thermal conductivity (λ) $\leq 0,36 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$.



Notice



If the products are installed in areas where air is suctioned by fans, hoods, heating or ventilation equipment, external air intake (EAI) must be ensured. Turn off all ventilation devices in the house before the planned stoking.

Adequate access for cleaning and maintenance of your product, flue and chimney must be provided during installation, unless the product can be cleaned from another location such as the roof or a dedicated door.

The product and its flue gas paths must be regularly and thoroughly rechecked and cleaned before and after the heating season.



Read the general instructions carefully.

The product label

The diagram shows a product label for a Schiedel Polaris boiler. The label is divided into several sections, each identified by a number from 1 to 12. The sections include: 1. Manufacturer's name or registered trade mark; 2. Company headquarters, website; 3. CE mark of conformity; 4. Type and/or model number designation; 5. Product specifications; 6. Recommended fuel; 7. Classification of appliance; 8. Applicable standards; 9. Table of values; 10. Document: DOP / CPR; 11. Instructions; 12. Barcode | The serial number.

Standards Normen Normes Norme		ČSN EN 16510-1 ed. 2:2023 Ecodesign BImSchV2 DIN+ 15a B-VG 2015	
		nom	part
P	kW		
P _w	kW		
η	%	≥	≥
CO (13 % O ₂)	mg/Nm ³	≤	≤
NO _x (13 % O ₂)	mg/Nm ³	≤	≤
OGC (13 % O ₂)	mg/Nm ³	≤	≤
PM (13 % O ₂)	mg/Nm ³	≤	≤
p	Pa		
p _w	bar		
d _a	mm		
d _b	mm		
d _c	mm		
d _e	mm		
d _f	mm		
d _g	mm		
d _h	mm		
d _i	mm		
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Product sheet under Regulation EU 2015/1186

Supplier's name or trademark	SCHIEDEL
Supplier's model identifier	POLARIS
The energy efficiency class of the model	A+
The direct heat output in (kW)	7,8
The indirect heat output in (kW)	-
The energy efficiency index EEI	109
The useful energy efficiency at nominal heat output (%)	82
The useful energy efficiency at minimum load (%)	Pass

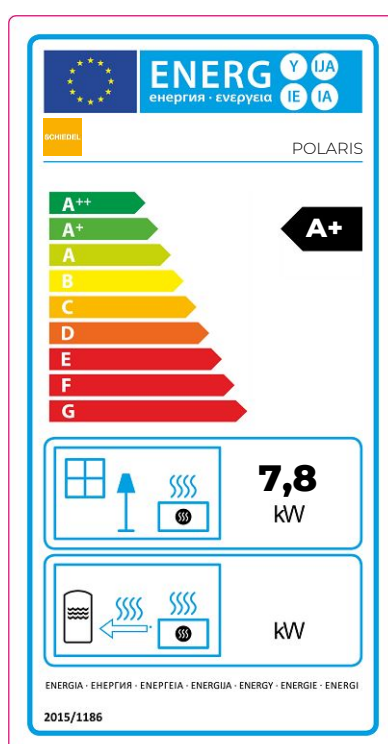
Installation and maintenance instructions:

Please read and follow the installation and operating instructions!

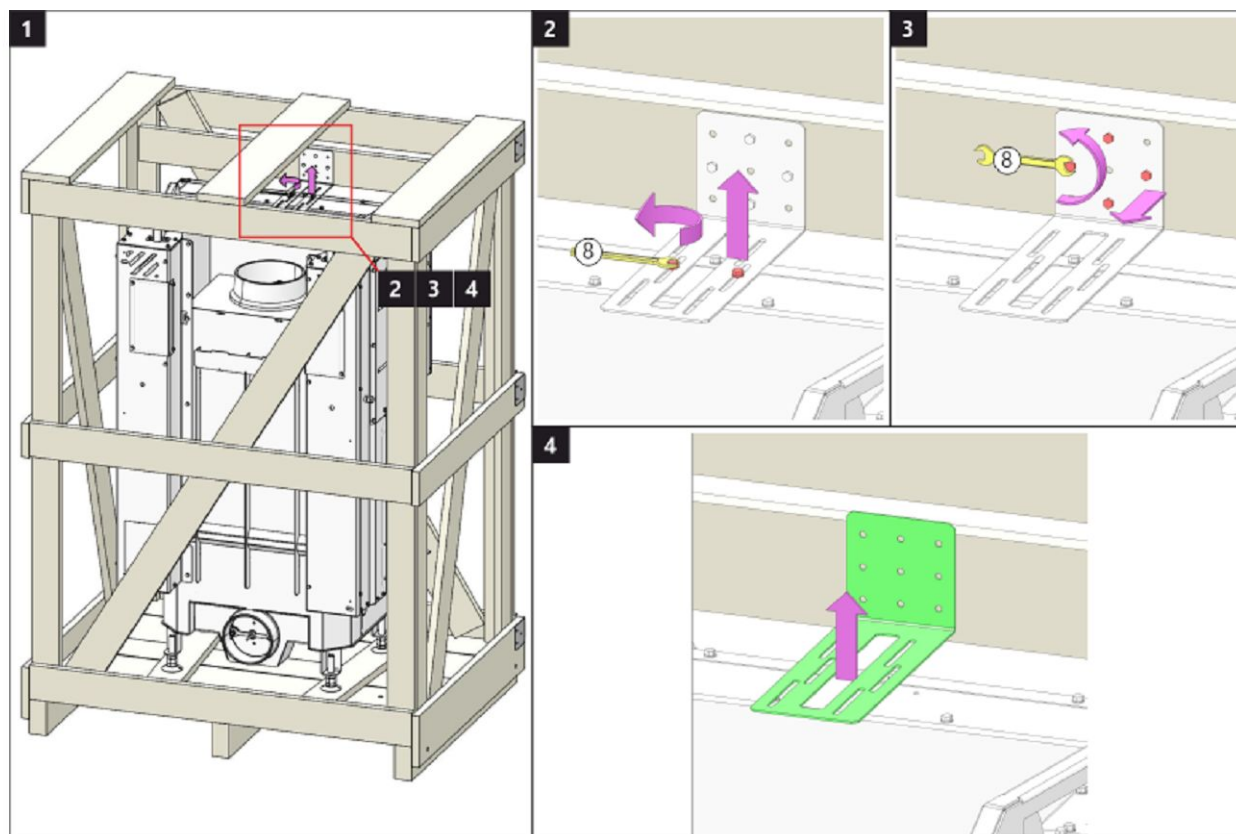
Distances to combustible components and fire protection must be observed!

Sufficient combustion air must be able to flow to the fireplace!

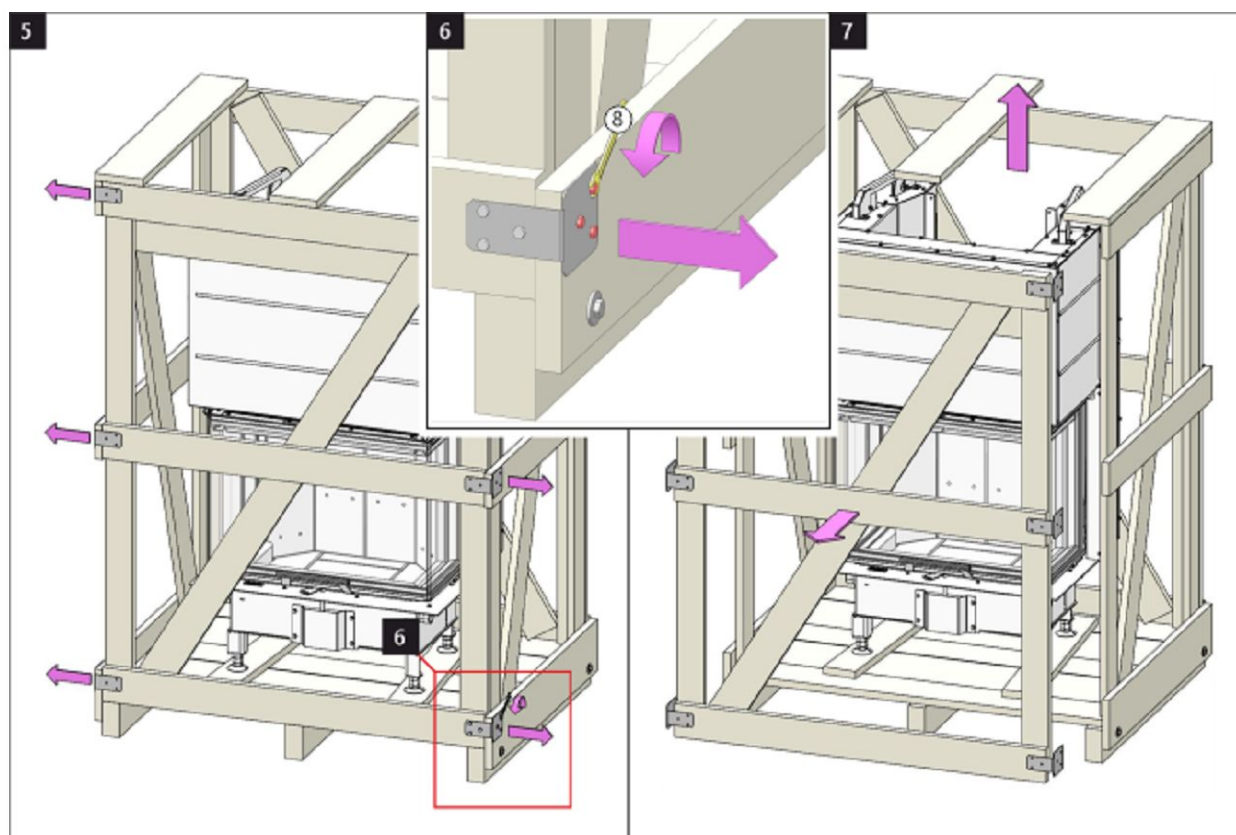
Heating devices with water technology may only be put into operation if all safety devices are operational and functional!



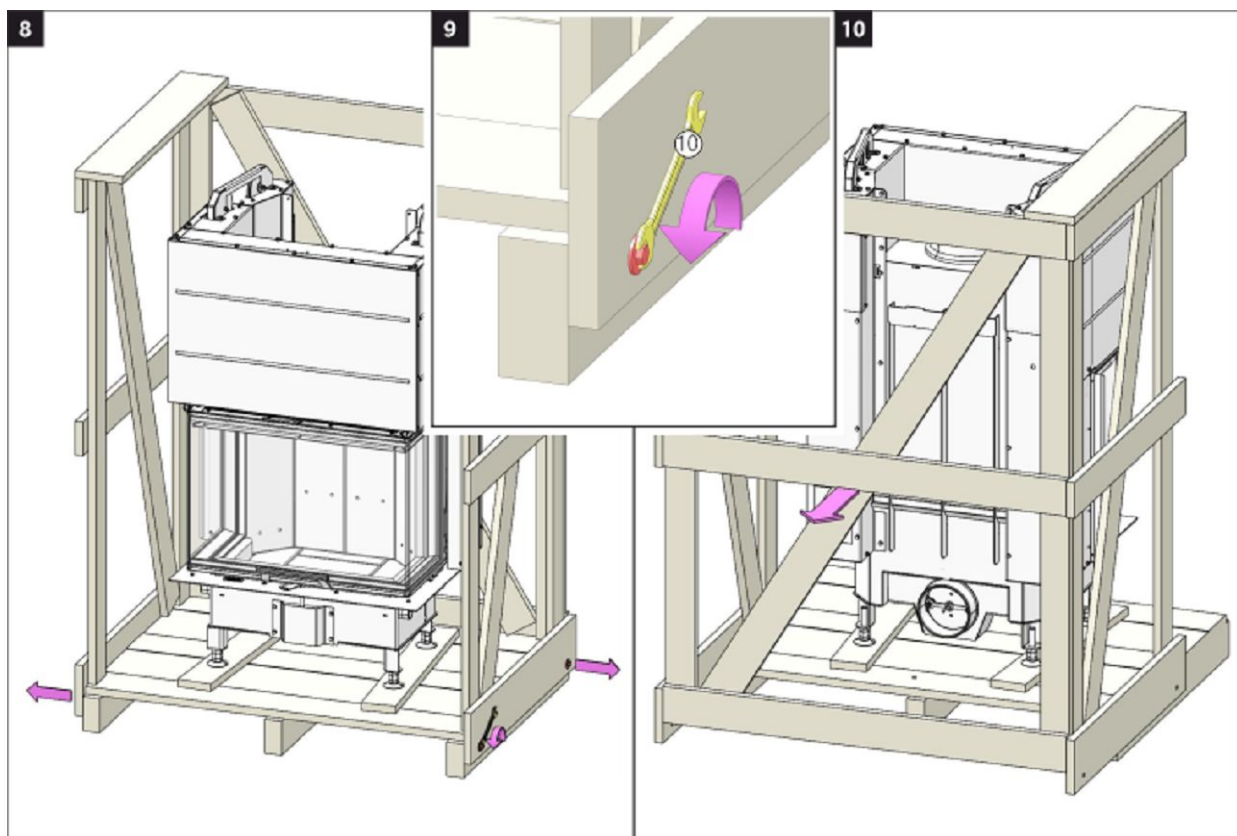
Disassembly of wooden packaging 1



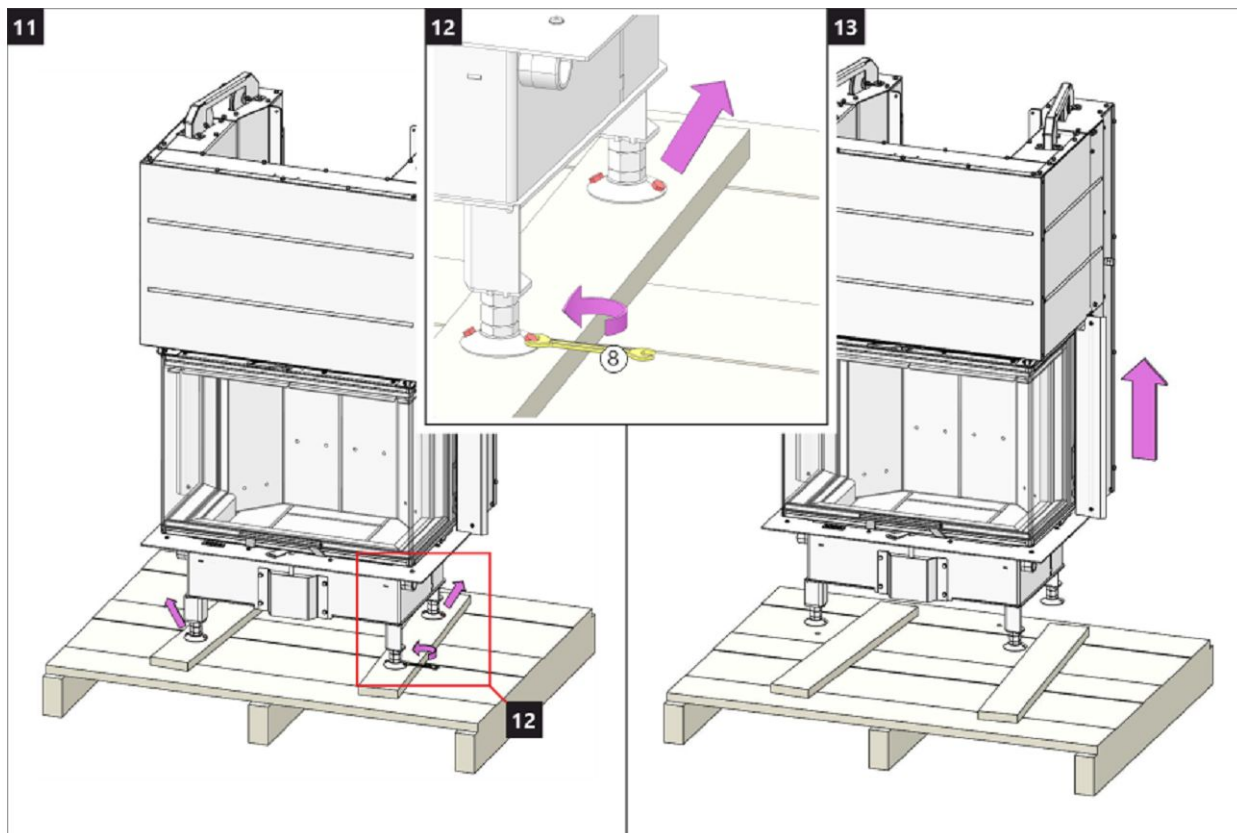
Disassembly of wooden packaging 2



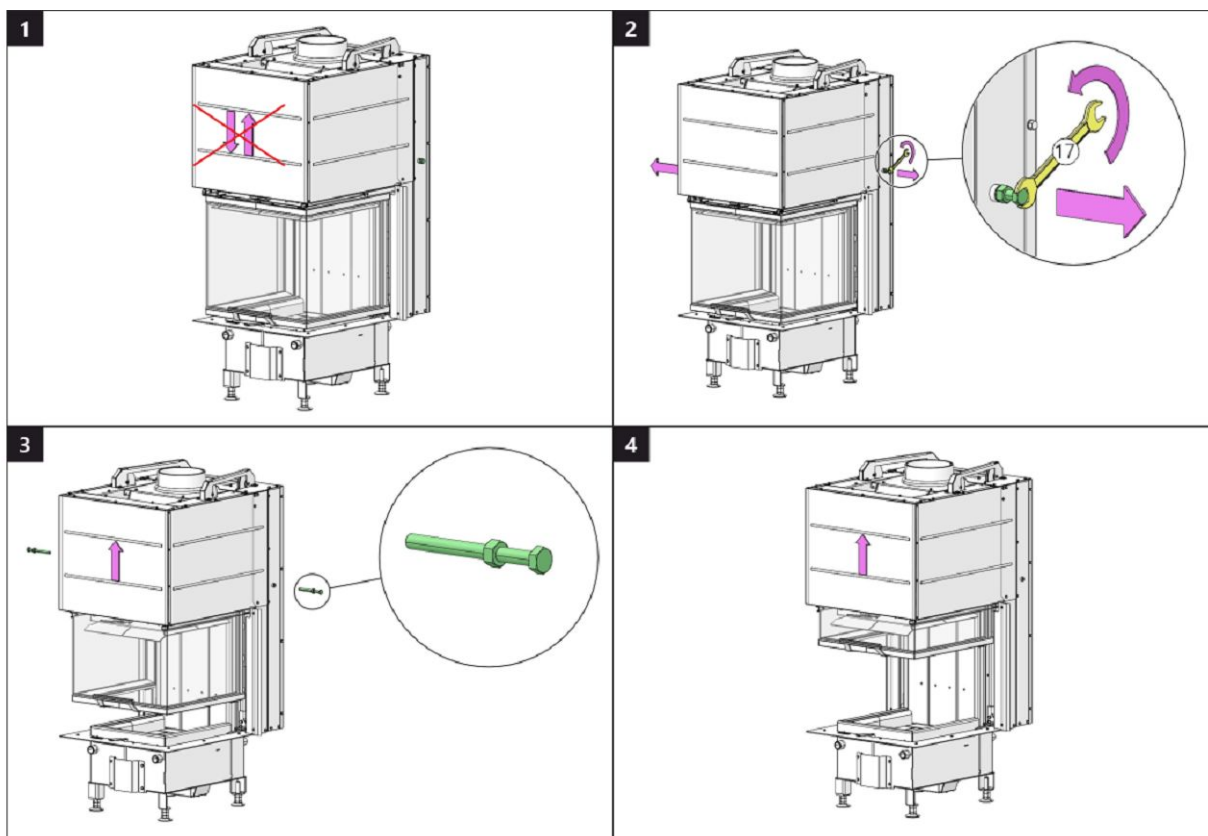
Disassembly of wooden packaging 3



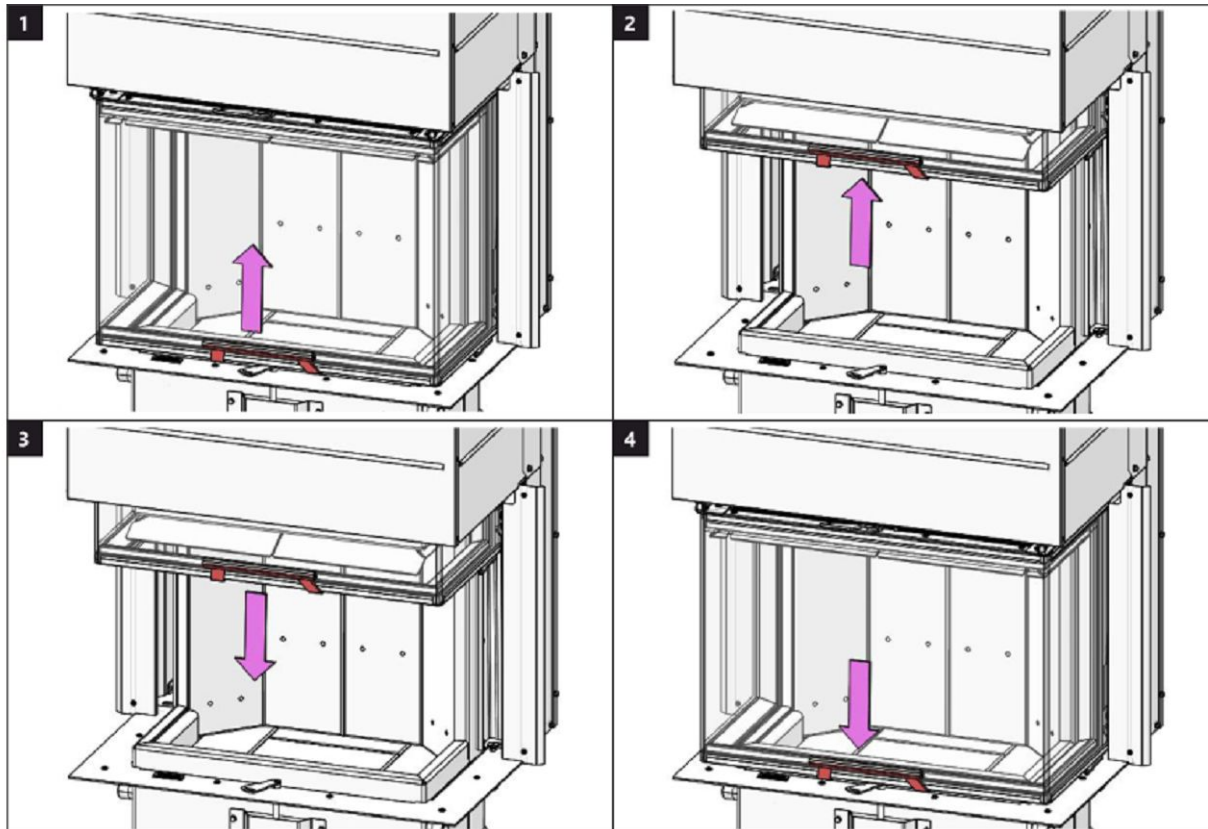
Disassembly of wooden packaging 4



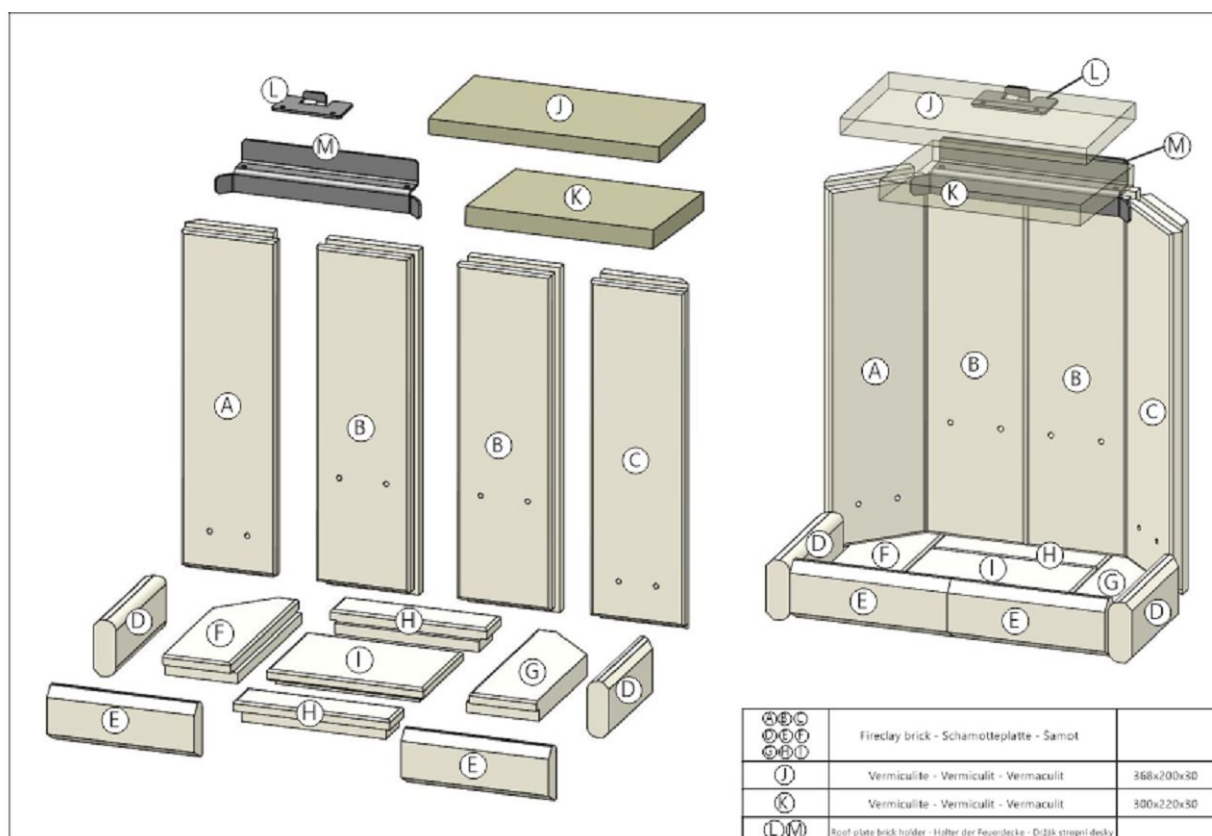
Locking of balance weight 1



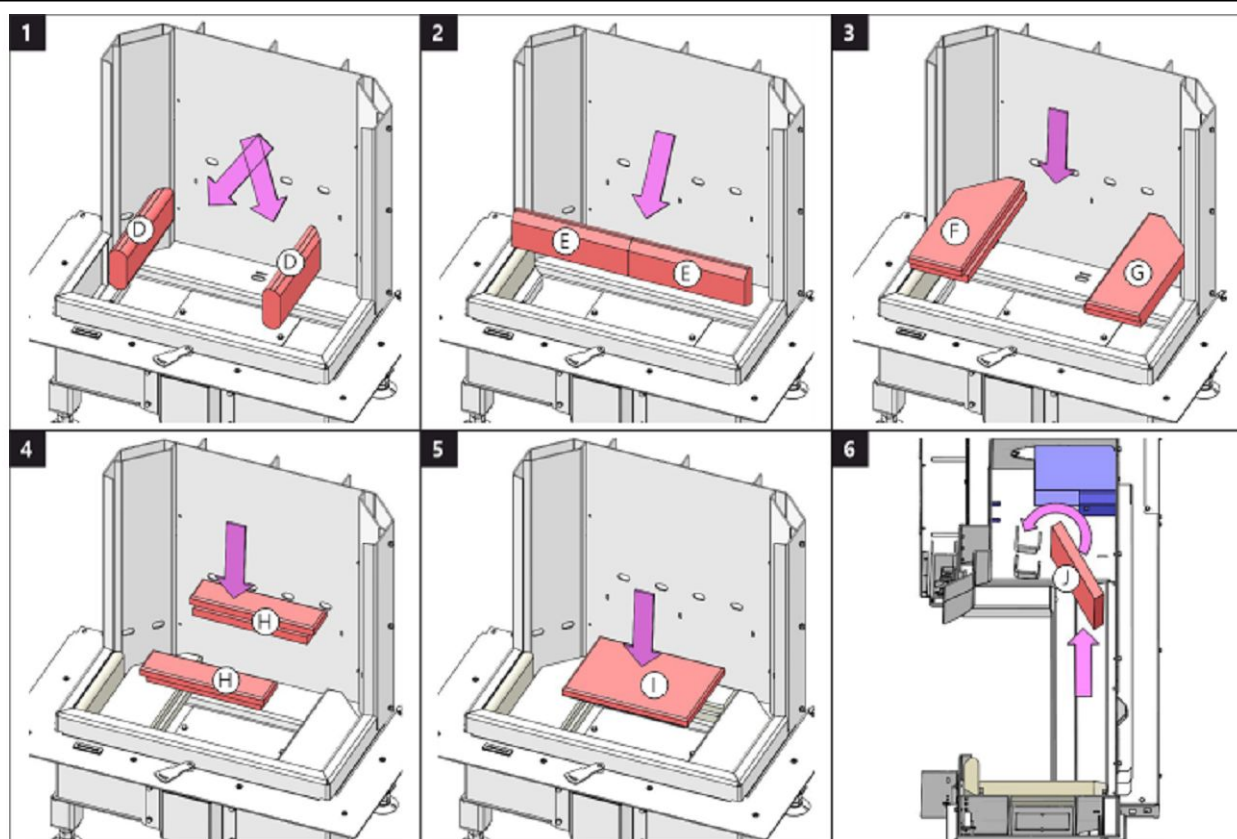
Fireplace door – Locking mechanism 1



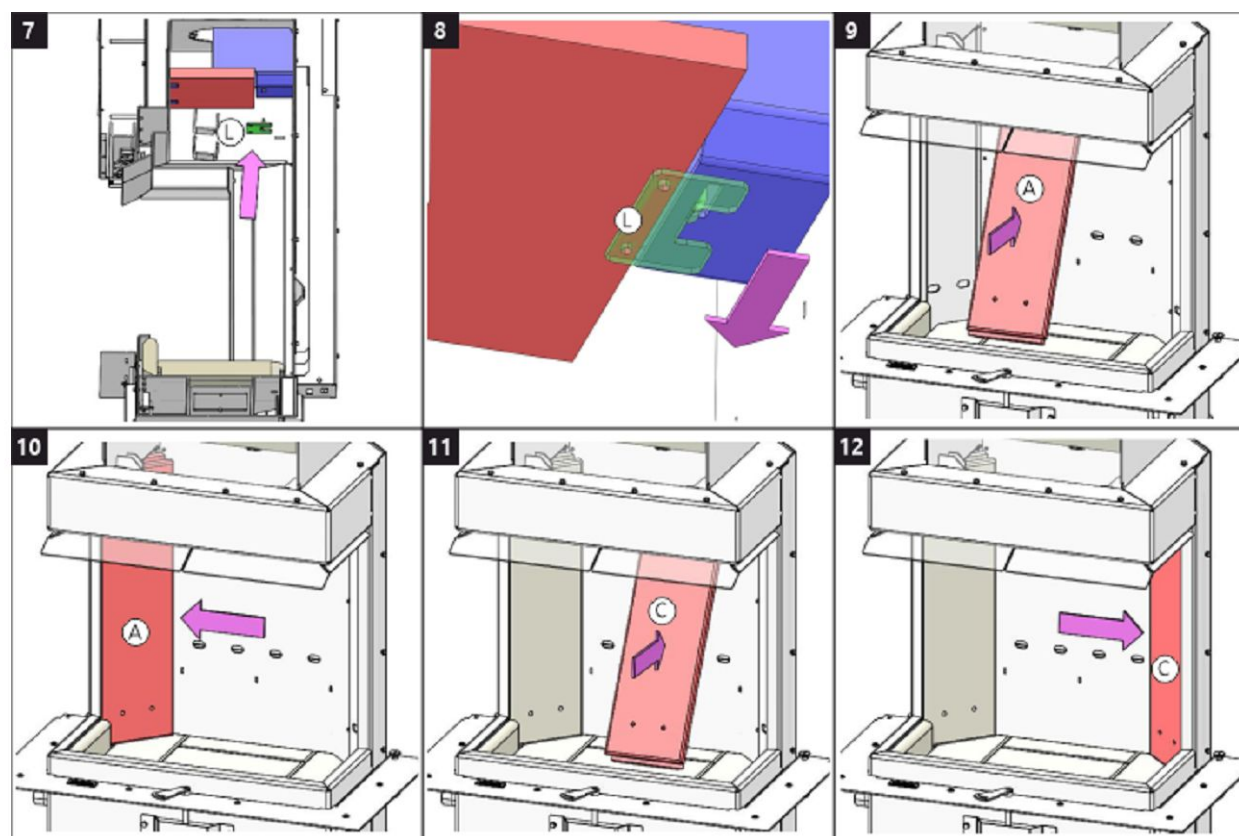
Burning chamber 1



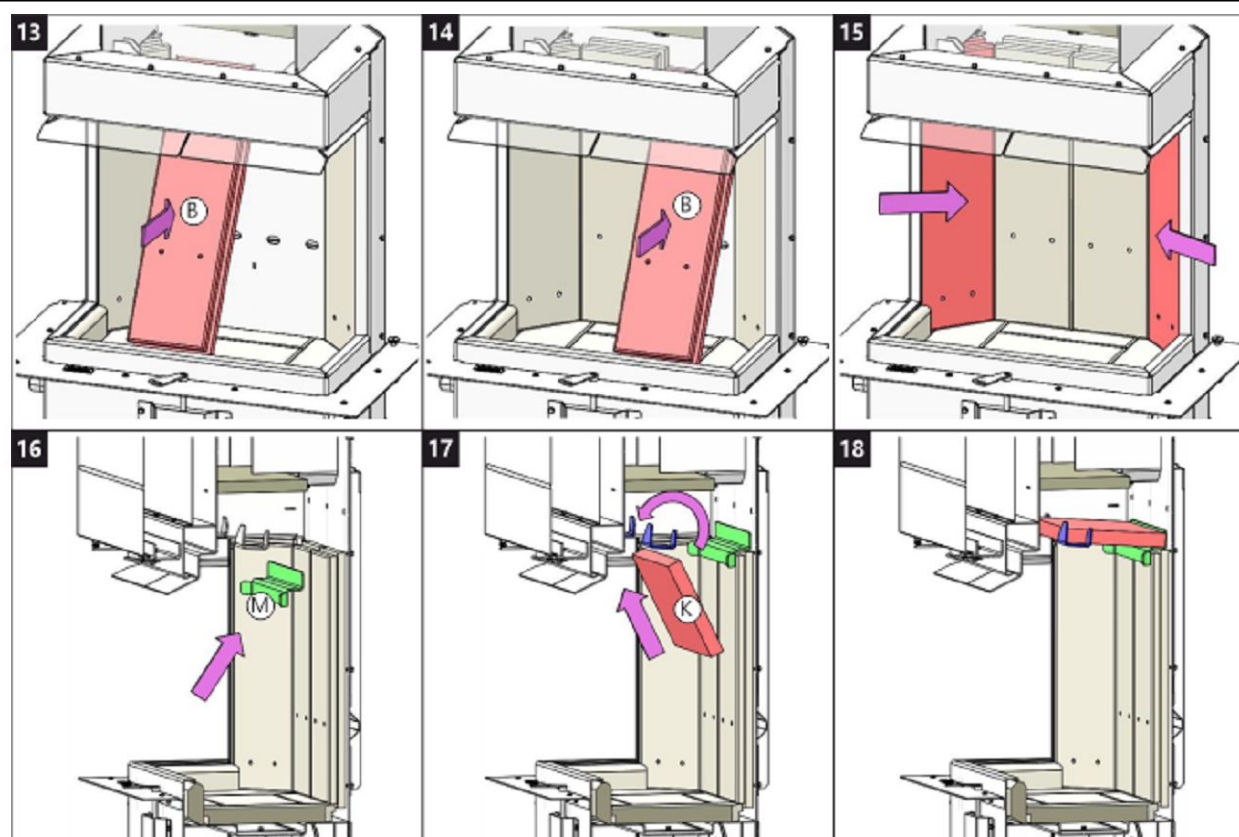
Burning chamber 2



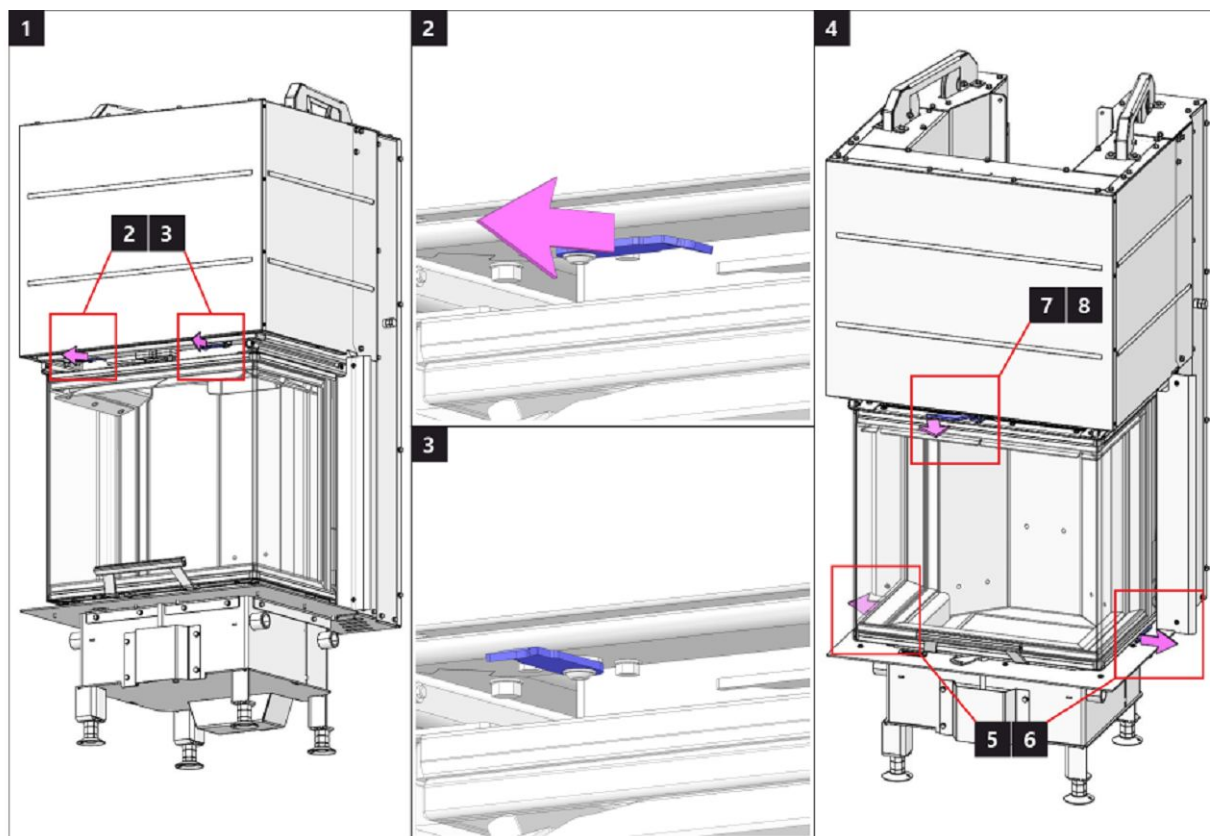
Burning chamber 3



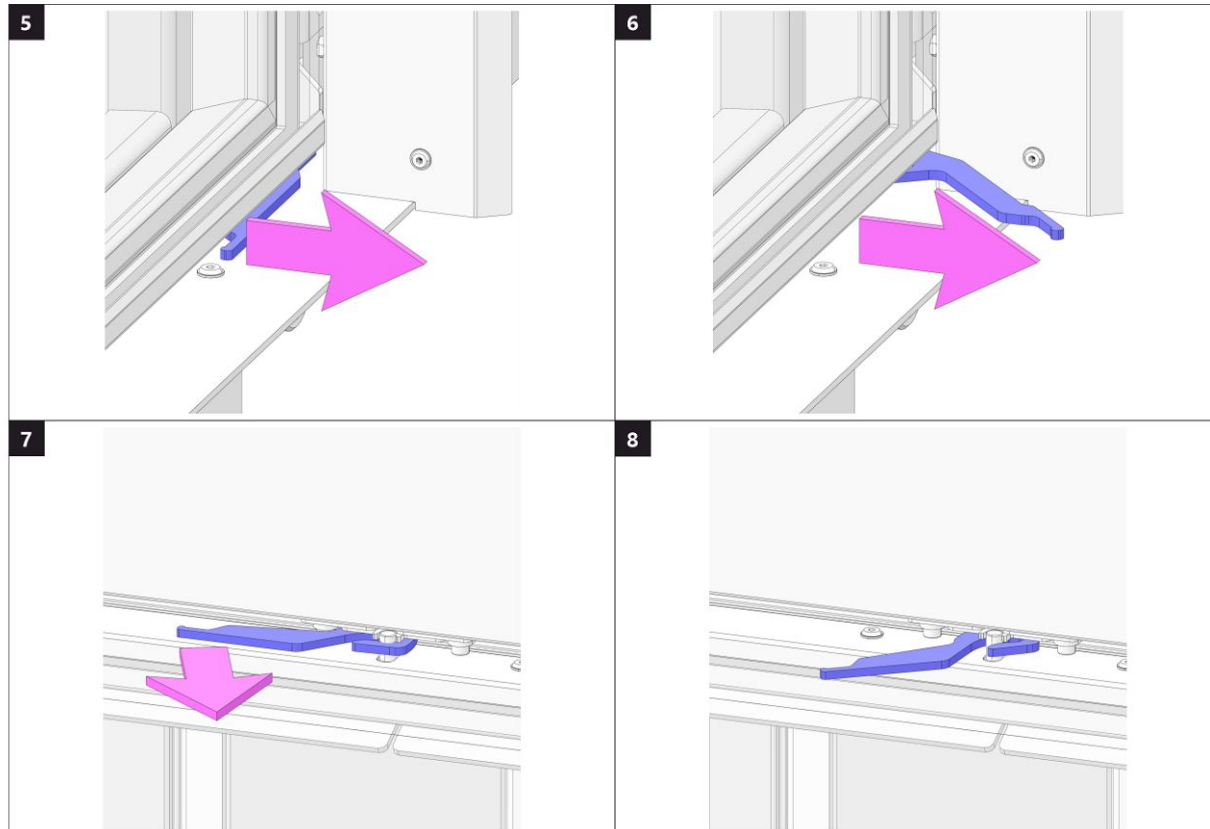
Burning chamber 4



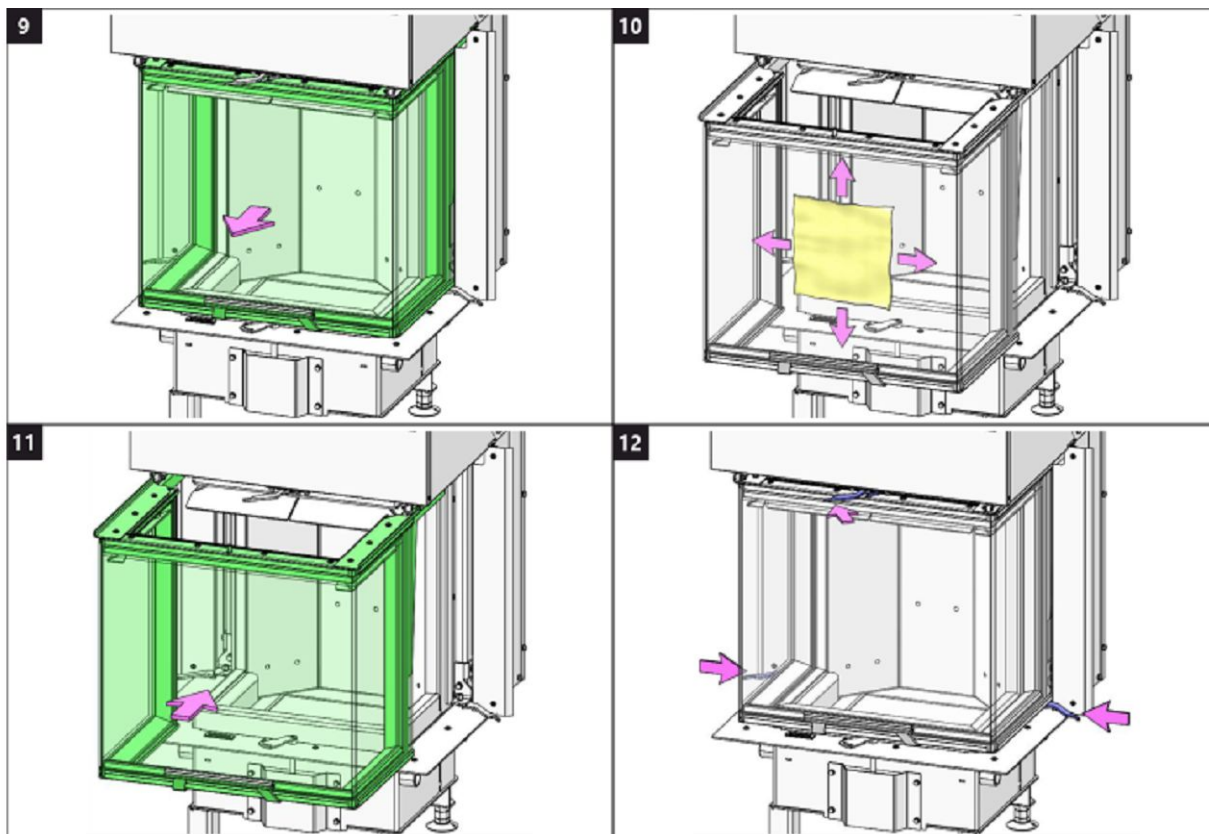
Glass cleaning 1



Glass cleaning 2



Glass cleaning 3





www.schiedel.com