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Boras AL II with exchanger

Equipment sheet
Fireplace stove with exchanger

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Introduction

We thank you very much for purchasing our product!

The description of the heating device will inform you in detail about the design, technical specification and operation of the heating device. We recommend you to acquaint yourselves closely with these data. In this way, you will avoid possible faults during the proper assembly and operation.

You will find detailed conditions of installation and operation in General Manual of Operation (included in the scope of the delivery).

Notes in the text

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Of utmost importance there are the notes entitled **WARNING**. The notes entitled **WARNING** advise you on **serious danger of damage to the heating device or of an injury**.



The note entitled **Notice** advises you on possible damage to your heating device.



The note entitled **Important** calls your attention to the information important for the operation of your heating device.



The note itself calls your attention to the information important for the operation of your heating device in general.

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1. Technical specification

Suitable fuels: As concerns suitable fuel to be employed, see the chapter **2.2 Fuel** in the General Manual of Operation.

Fuel quantities, setting of combustion air damper, operation: As concerns the proper and safe operation of the fireplace stove, see the chapters **2. Description of the combustion process** and **5. Operating instructions** in the General Manual of Operation.

Instructions for the control of combustion regime

Fuel	Output of the heating device	Quantity of fuel	Primary air	Secondary air	Tertiary air
Eco-briquettes	100%	2,7 kg/hour	open on 10%	open on 100%	not controllable
Eco-briquettes	33%	0,9 kg/hour	open on 5%	open on 50%	not controllable
Coal briquettes	100%	2 kg/hour	open on 100%	open on 20%	not controllable
Coal briquettes	33%	0,7 kg/hour	open on 50%	open on 10%	not controllable

Technical data

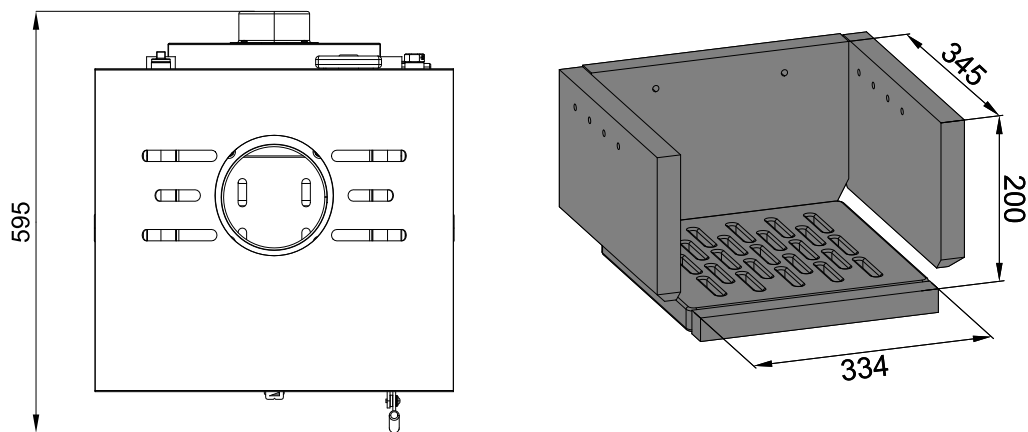
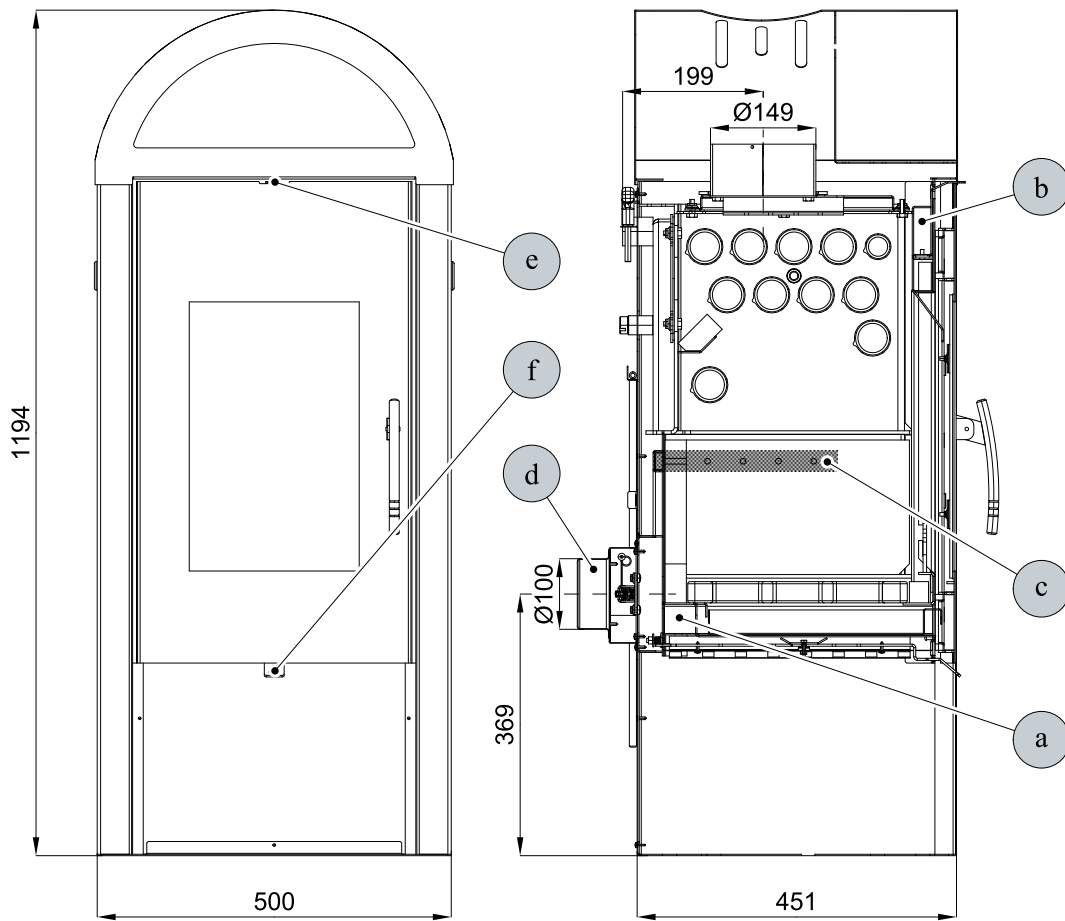
	Eco-briquettes	Coal briquettes
Achieved heat output (100%)	10 kW	10,2 kW
Nominal heat output	10 kW	10 kW
Reduced heat output (33%)	3,3 kW	3,4 kW
Output delivered by the stove body only	2,6 kW	3 kW
Output available for heating of water	7,4 kW	7,2 kW
Maximum stoking amount of the fuel	2,7 kg/hour	2 kg/hour
Average temperature of combustion products behind the smoke flue neck	280 °C	257 °C
Maximum mass flow of dry combustion products	9,5 g/s	10,2 g/s
Energy efficiency	80,1 %	80,1 %
Average concentration of CO ₂	8,9 %	7,6 %
Concentration of CO in combustion products at 13% O ₂	666 mg/Nm ³	1060 mg/Nm ³
Dust at 13% O ₂	17 mg/Nm ³	24 mg/Nm ³
Amount of combustion air at nominal output	35 m ³ /hour	30 m ³ /hour
Tested according to EN 13 240		

Technical information

Height	1194 mm
Width	500 mm
Depth	595 mm
Weight – sheet metal/ceramics	129 kg/135 kg
Diameter of the smoke flue	150 mm
Maximum operating over-pressure of the exchanger	0,2 MPa
Water contents of the exchanger	14 l
Recommended heat gradient ($t_{\text{output}} - t_{\text{input}}$)	75 – 60 °C
Minimum draft in the smoke flue neck	12 Pa
Heating capacity (middle heat losses) at 10,2 kW	cca 189 m ³
Controllable output	3,3 – 10,2 kW

2. Technical description

Technical description

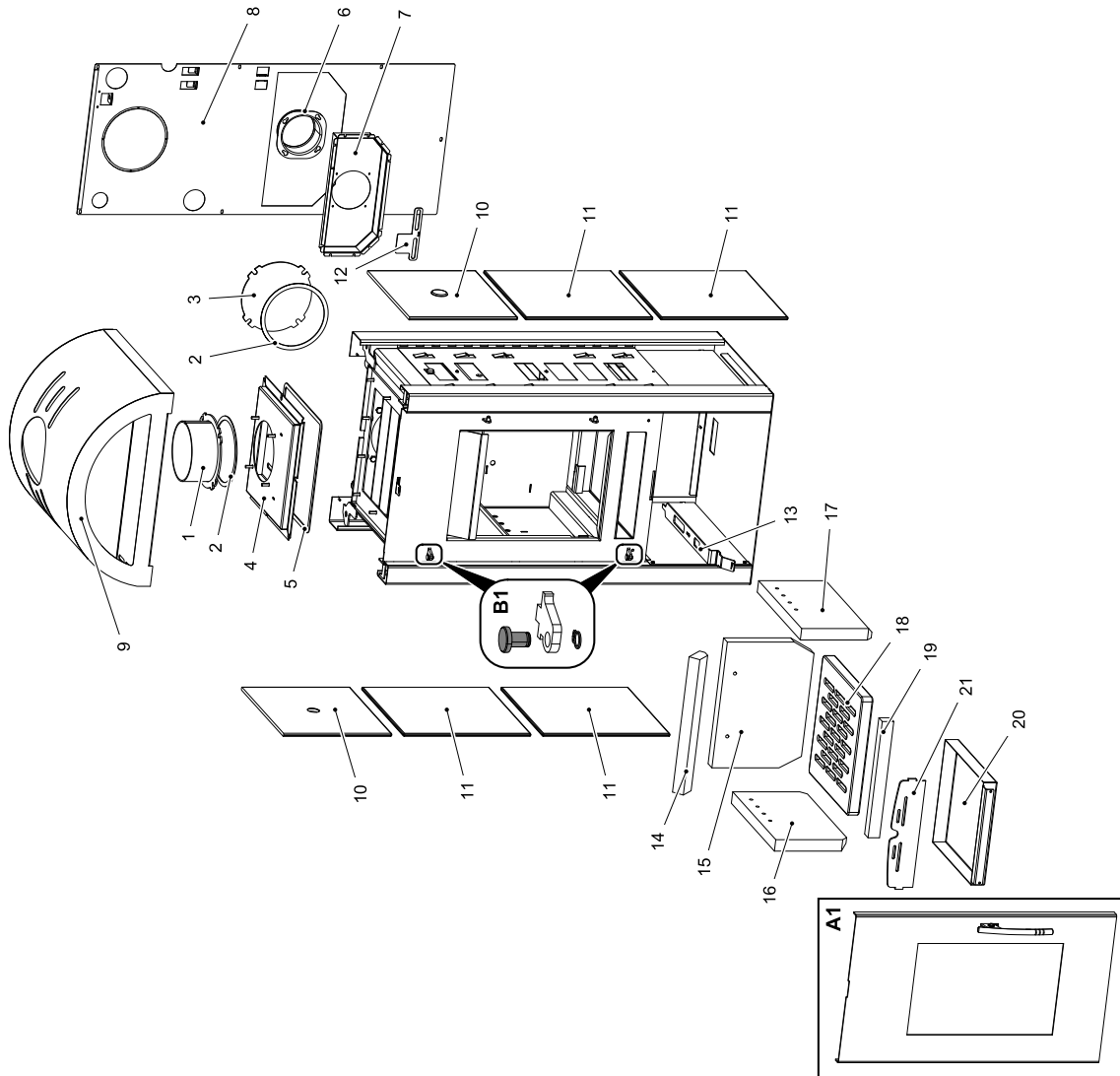


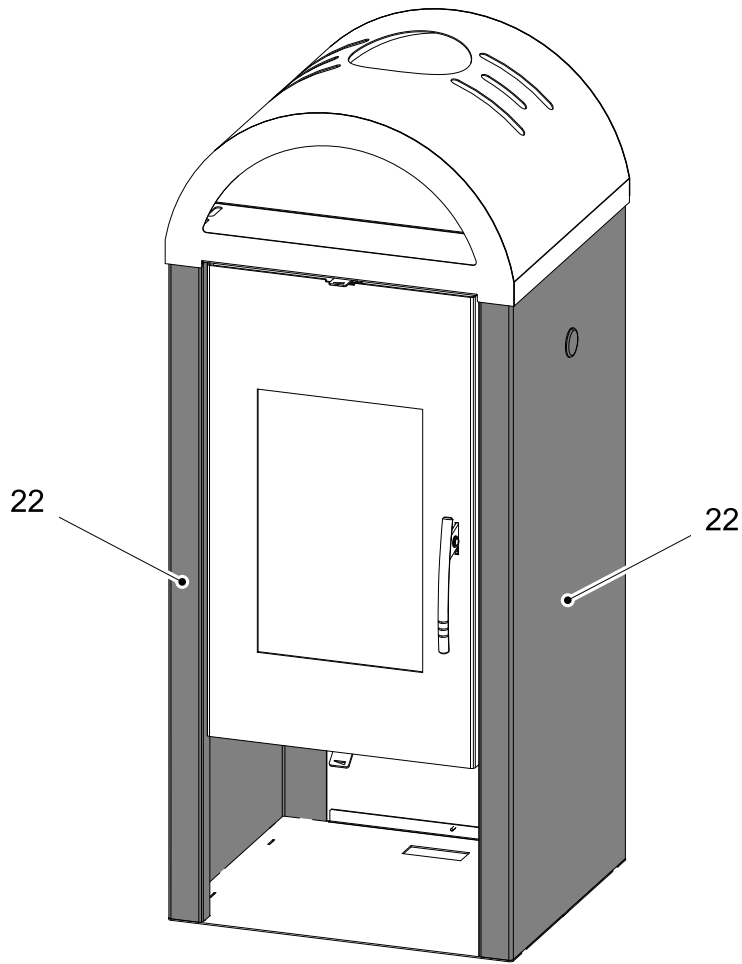
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Item	Name
a	Intake of primary air
b	Intake of secondary air
c	Tertiary air output
d	External intake of air (Ø 100 mm)
e	Controller of secondary air
f	Controller of primary air

3. Overview of spare parts

3.1. Whole emplacement

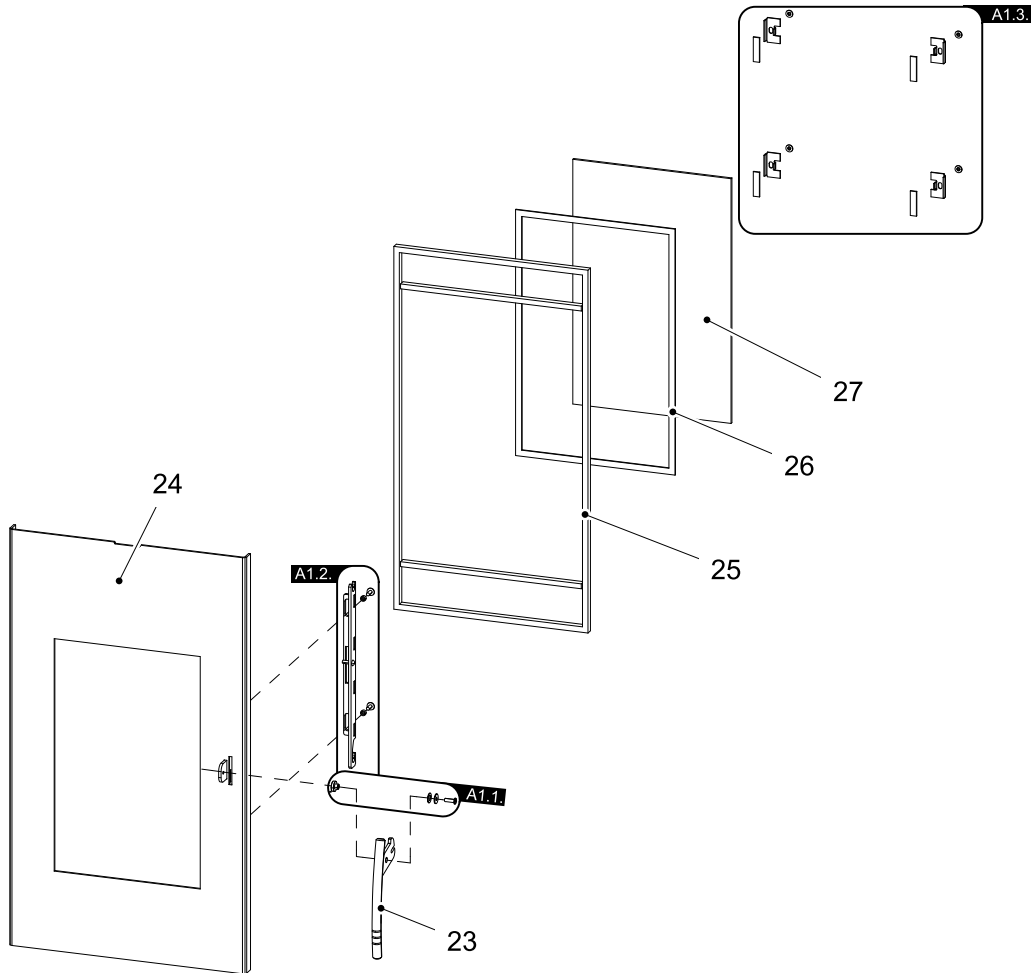




Item	Name	Piece	Spare part number
Whole emplacement			
A1	Fire-box door (complete)/black	1 piece	0433715015300
A1	Fire-box door (complete)/silver	1 piece	0433715005300
B1	Strip connecting material - set	1 piece	0089931140006
1	Smoke flue neck/anthracite	1 piece	0470315006007
2	Flue gas duct packing cord 10x4 mm	480 mm	0040210040005
3	Flue gas duct blind flange/anthracite	1 piece	0470315008002
4	Body cover/black	1 piece	0332315005061
5	Packing cord of body cover 10x4 mm	1100 mm	0040210040005
6	External intake of air (Ø100)	1 piece	0088500050008
7	Cover	1 piece	0433615105087
8	Rear cover	1 piece	0433715006110
9	Lid/black	1 piece	0432915206800
9	Lid/anthracite	1 piece	0432915205800
10	Upper lining/beige	1 piece	0431915456120
11	Lateral lining/beige	1 piece	0061001000605
12	Sliding valve (primary air)	1 piece	0433615005183
13	Controller of primary air/black	1 piece	0433715005186
14	Lip - loose (30x58x355)	1 piece	0431915005701
15	Brick 30x230x330	1 piece	0332315005501
16	Brick 30x190x340	1 piece	0332315005504
17	Brick 30x190x340	1 piece	0332315005505
18	Refractory concrete grid	1 piece	0332315005052
19	Brick 27x305x30	1 piece	0332315005502

20	Ash pan	1 piece	0332315005030
21	Protection/black	1 piece	0431915006040
21	Protection/anthracite	1 piece	0431915005040
22	Sheet-metal variant	1 piece	—

3.2. Detail A1



Item	Name	Piece	Spare part number
23	Fire-box door hand pull/gold	1 piece	0081010080005
23	Fire-box door hand pull/chrom.	1 piece	0081020120005
A1.1.	Hand pull connecting material - set	1 piece	0081010180005
A1.2.	Door closing blade/black - set	1 piece	0331415017330
A1.2.	Door closing blade/silver - set	1 piece	0331415027330
A1.3.	Glass holder - set	1 piece	0416515015304
24	Fire-box door (welded part)/black	1 piece	0433715006200
24	Fire-box door (welded part)/silver	1 piece	0433715005200
25	Sealing cord of the door 14 mm	2500 mm	0040014140005
26	Sealing cord of the glas 10x4 mm	1300 mm	0040210040005
27	Refractory glass (260x400)	1 piece	0431915005304

4. Dimensioned diagram

4.1. Knee-piece of exhaust of combustion products

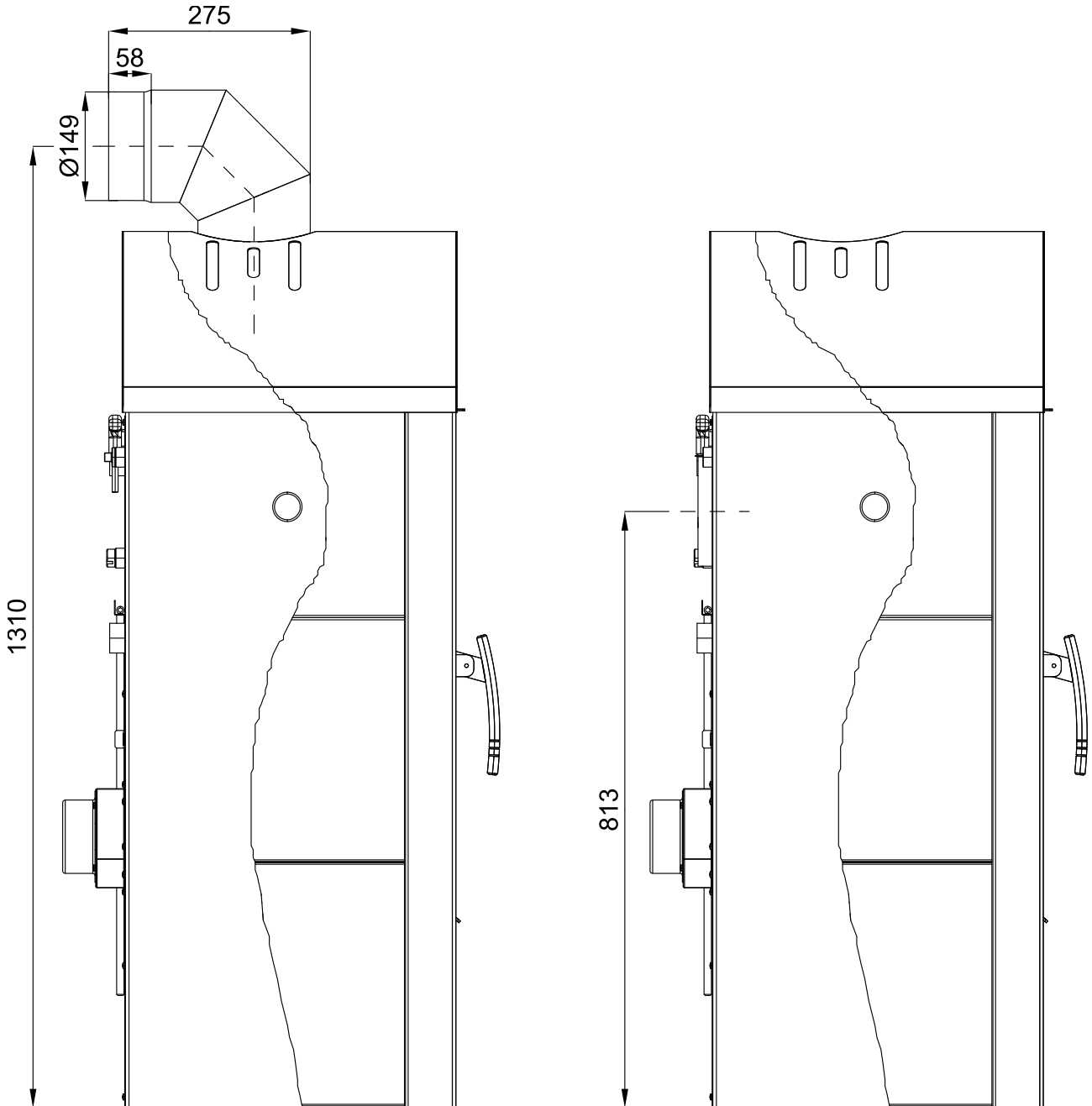


Note

The knee-piece of exhaust of combustion products is delivered as optional accessory.

Dimensioned diagram

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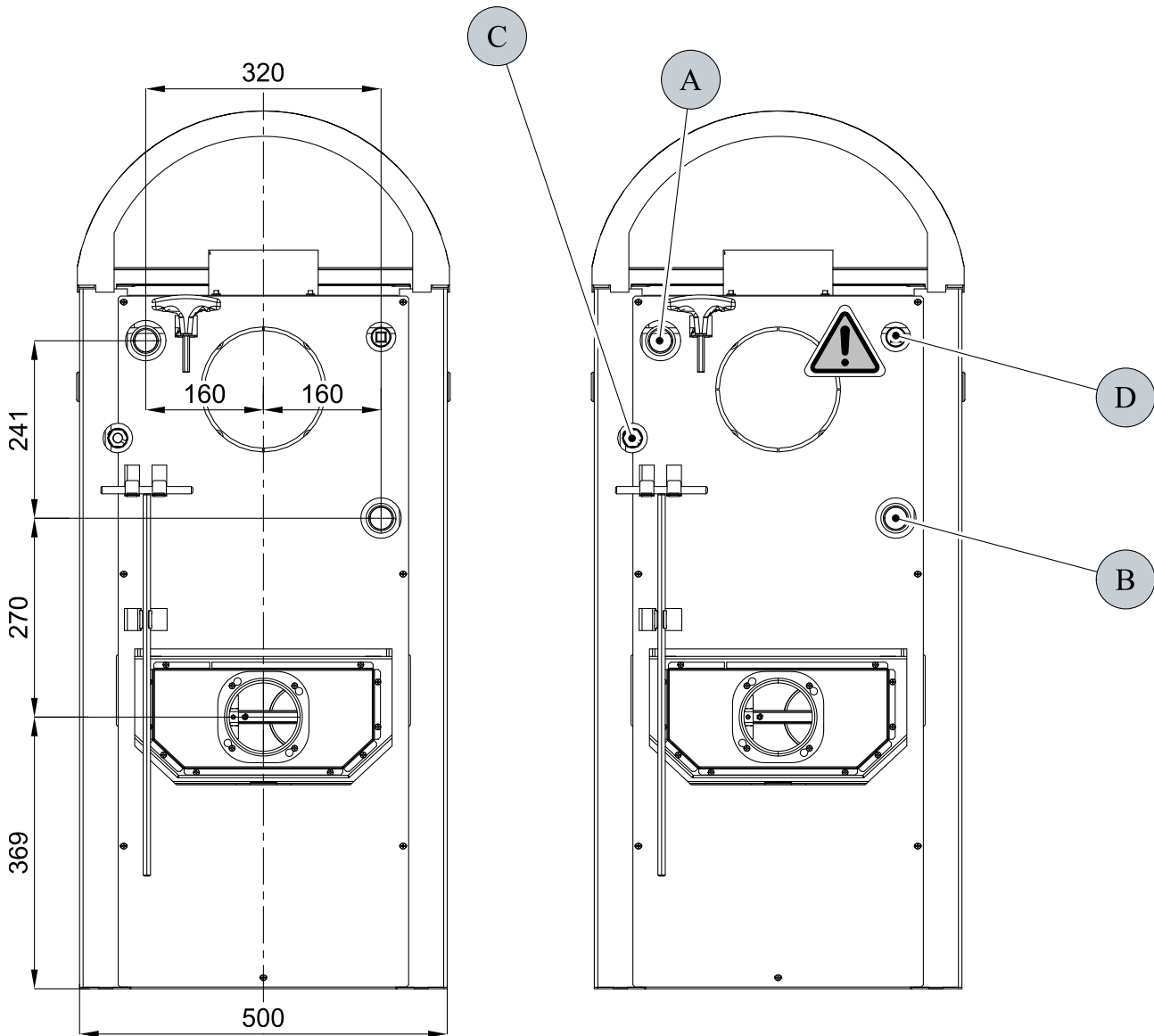


4.2. Connection of the exchanger



WARNING

The automatic venting valve (item D) must be always connected!



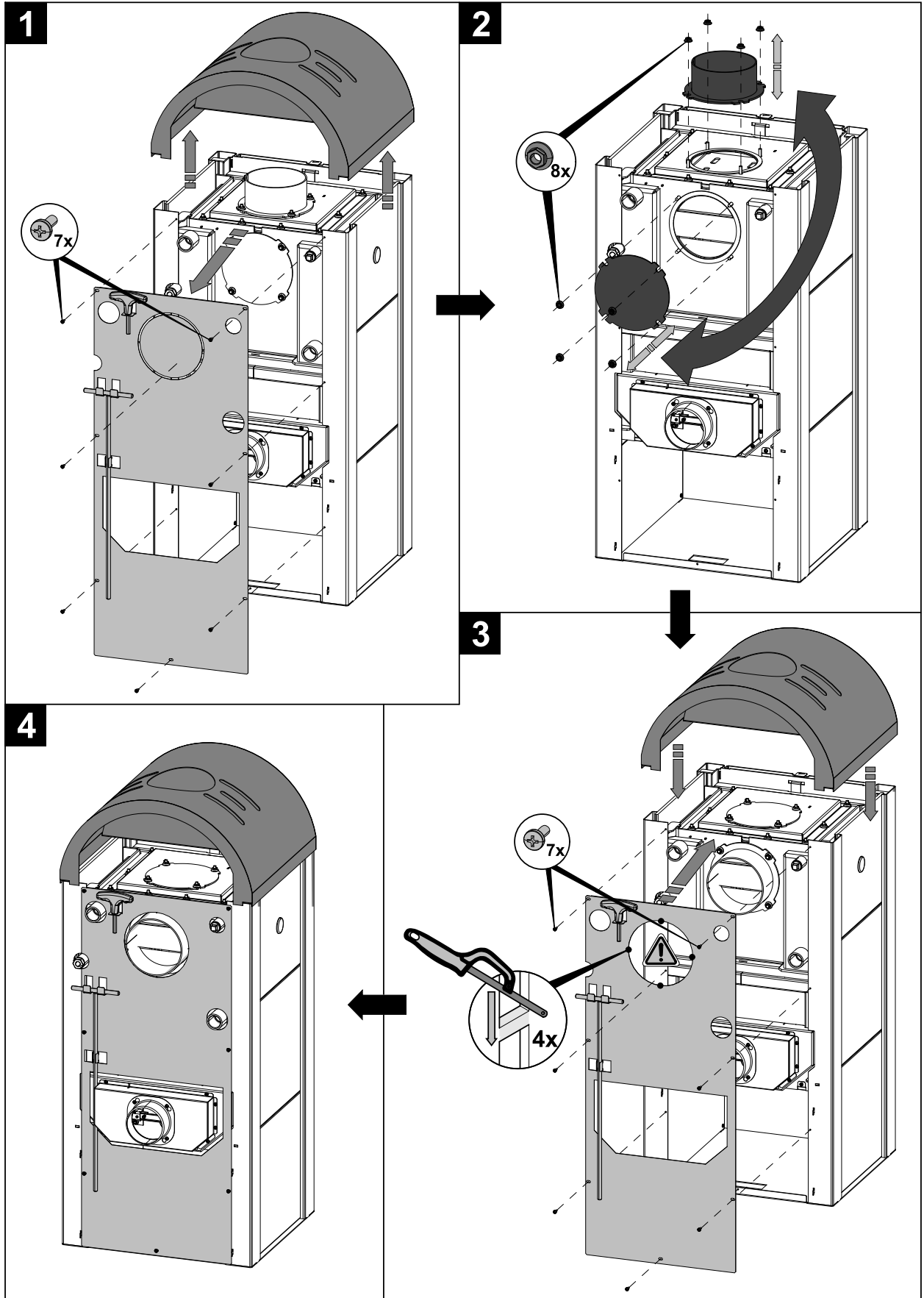
Dimensioned diagram

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Item	Name
A	Heating water output (inner thread G1)
B	Return water intake (inner thread G1)
C	Connection of the sensor of the thermal outlet cut-off (inside thread G1/2) – Maximal cup length 105 mm
D	Hole for venting valve (inner thread G1/2)

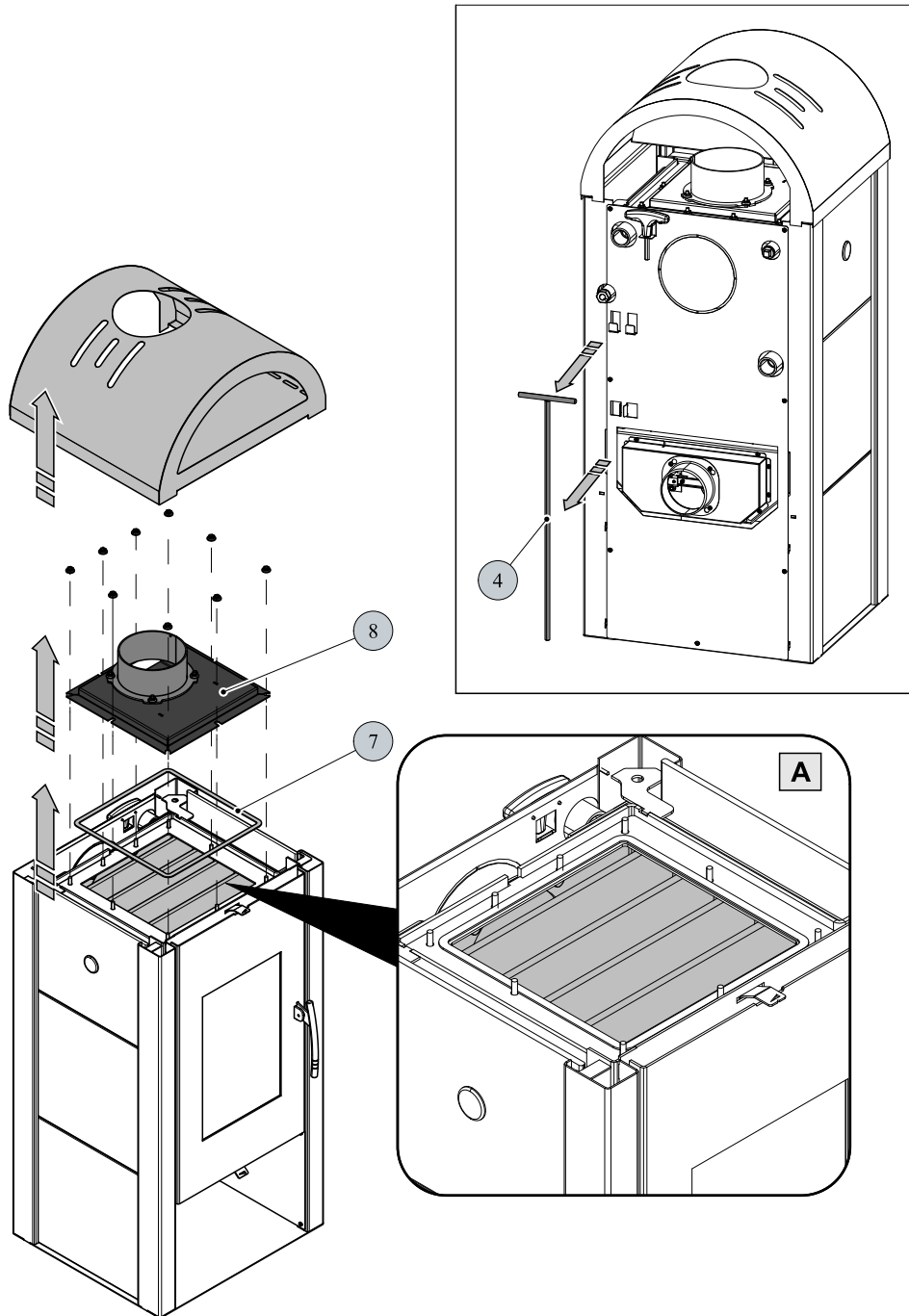
5. Change of the smoke neck

Change of the smoke neck



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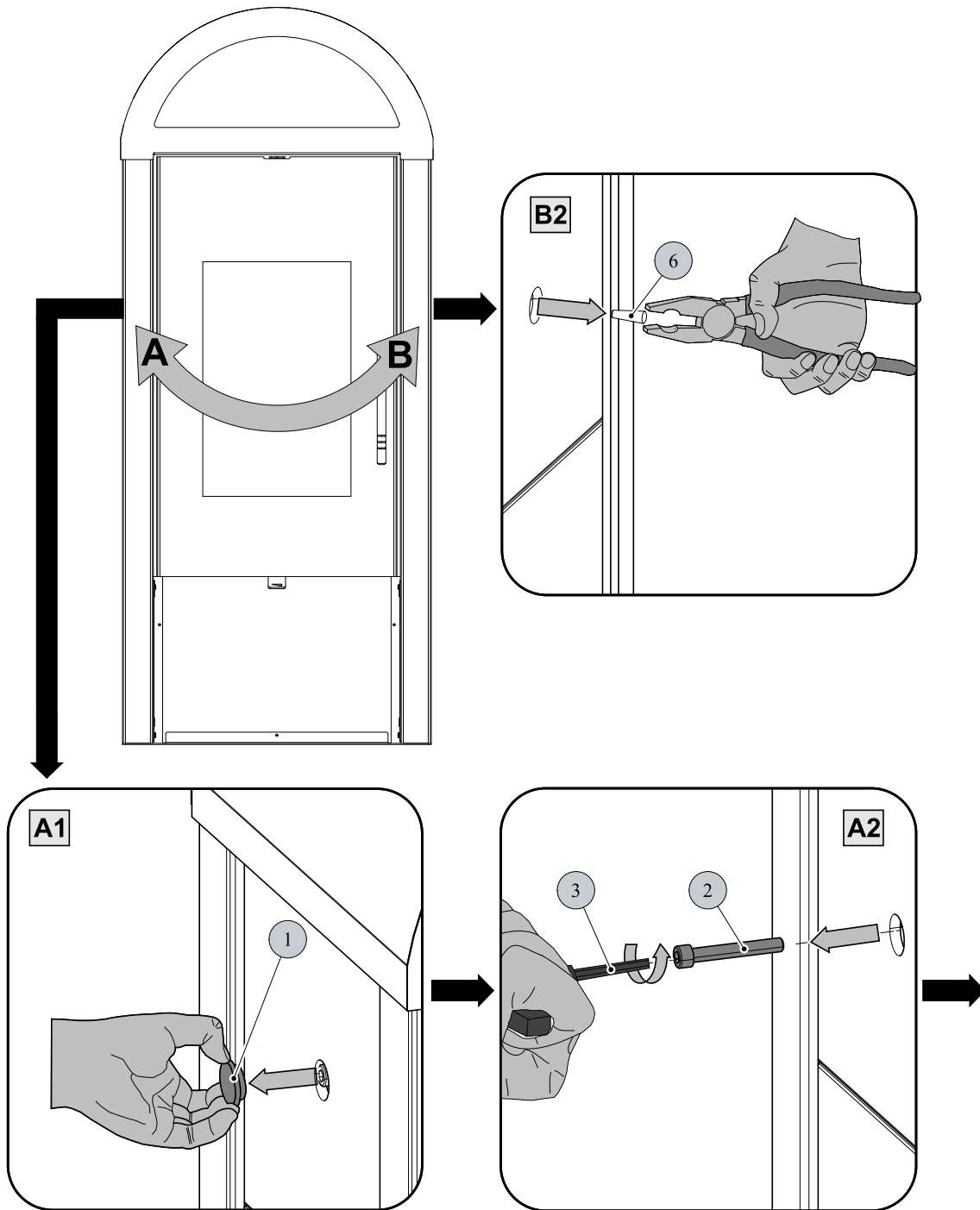
6. Heat exchanger cleaning instructions



IMPORTANT

Basic cleaning with wiping bar must be performed approximately 1x per week.

General cleaning of the exchanger should be performed at least 1x per heating season or more often, depending on the way of operation. select a suitable cleaning tool to clean the exchanger surfaces (fig. A). when performing general cleaning, dismount carefully the body cover (pos. 8) to avoid damage to the packing cord (pos. 7).

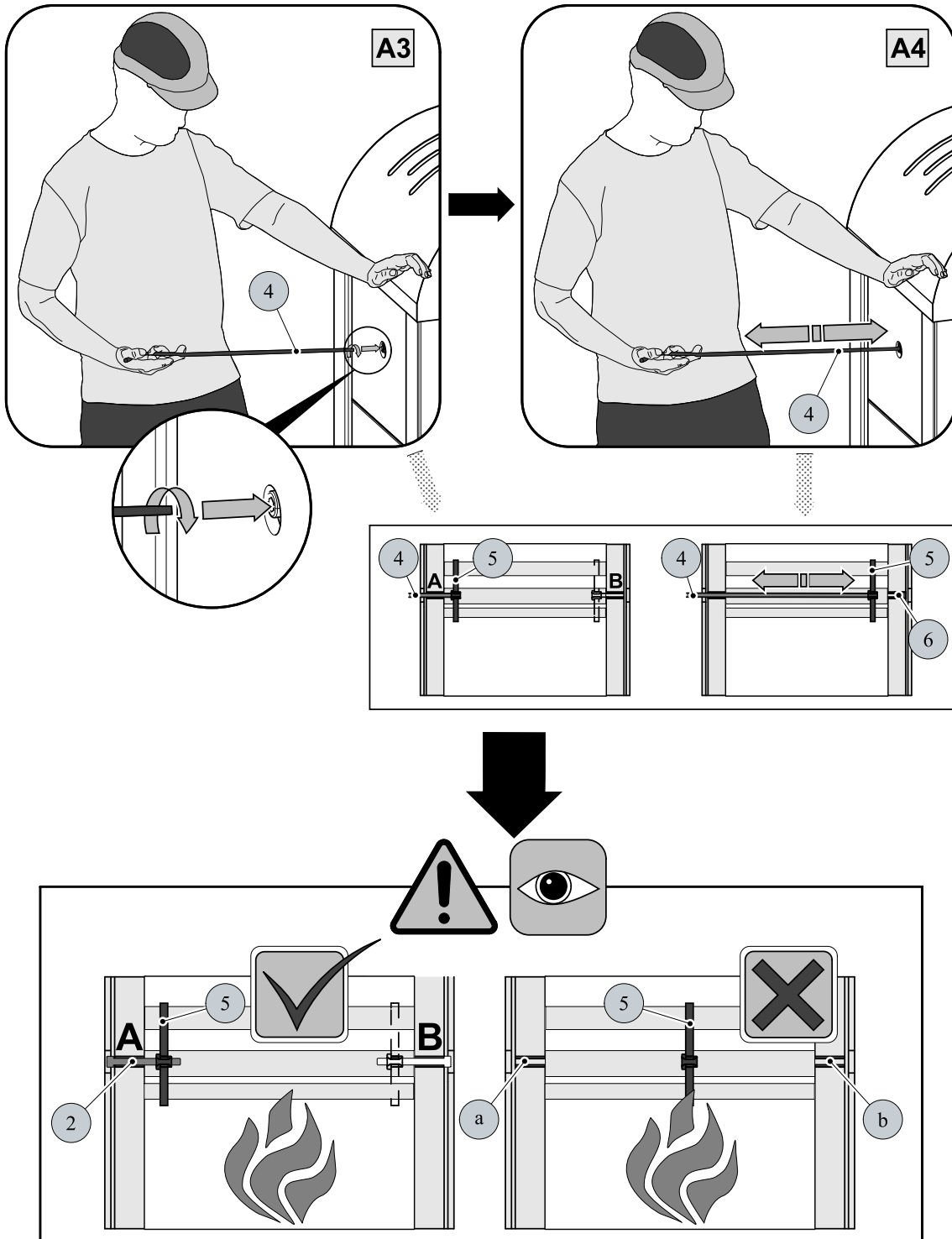


Note

When exchanging the cleaning sides, **pos. 6** is exchanged for **pos. 2** (fig. B2, A2). The cleaning procedure applies also for the opposite side.

Item	Name	Piece	Spare part number
1	Cover plug	1 piece	0431915005015
2	Screw M10x70	1 piece	0030031000705
3	Allen wrench 8 mm (forms part of the delivery)	1 piece	9001700080005
4	Drawbar of cleaning/black	1 piece	0433317005063
4	Drawbar of cleaning/anthracite	1 piece	0433317006063
5	Wiping blade	1 piece	—

6	Plug	1 piece	0431915005018
7	Packing cord of body cover 10x4 mm	1100 mm	0040210040005
8	Body cover/black	1 piece	0332315005061



WARNING

When terminating the cleaning, always arrest the wiping bar. Do not leave the wiping bar over the flame and the (a, b) holes freely passable.