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SOHN

# Manta

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**Equipment sheet**  
Fireplace stove

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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 fuel:

For employing suitable fuel, see the chapter **2.2 Fuel** in the General Manual of Operation.

## Proper operation:

For proper and safe handling of the fireplace stove, consult the following chapters: **2. Description of the combustion process** and **5. Operation 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
<b>Block wood</b>	100%	2,2 kg/hour	open on 20%	open on 30%	open on 100%
<b>Block wood</b>	33%	0,7 kg/hour	closed	open on 30%	open on 100%
<b>Ecobriquettes</b>	100%	2 kg/hour	closed	open on 30%	open on 100%
<b>Ecobriquettes</b>	33%	0,7 kg/hour	closed	open on 30%	open on 100%
<b>Coal briquettes</b>	100%	1,3 kg/hour	open on 40%	open on 10%	open on 100%
<b>Coal briquettes</b>	33%	0,4 kg/hour	open on 20%	open on 10%	open on 100%

### Technical data

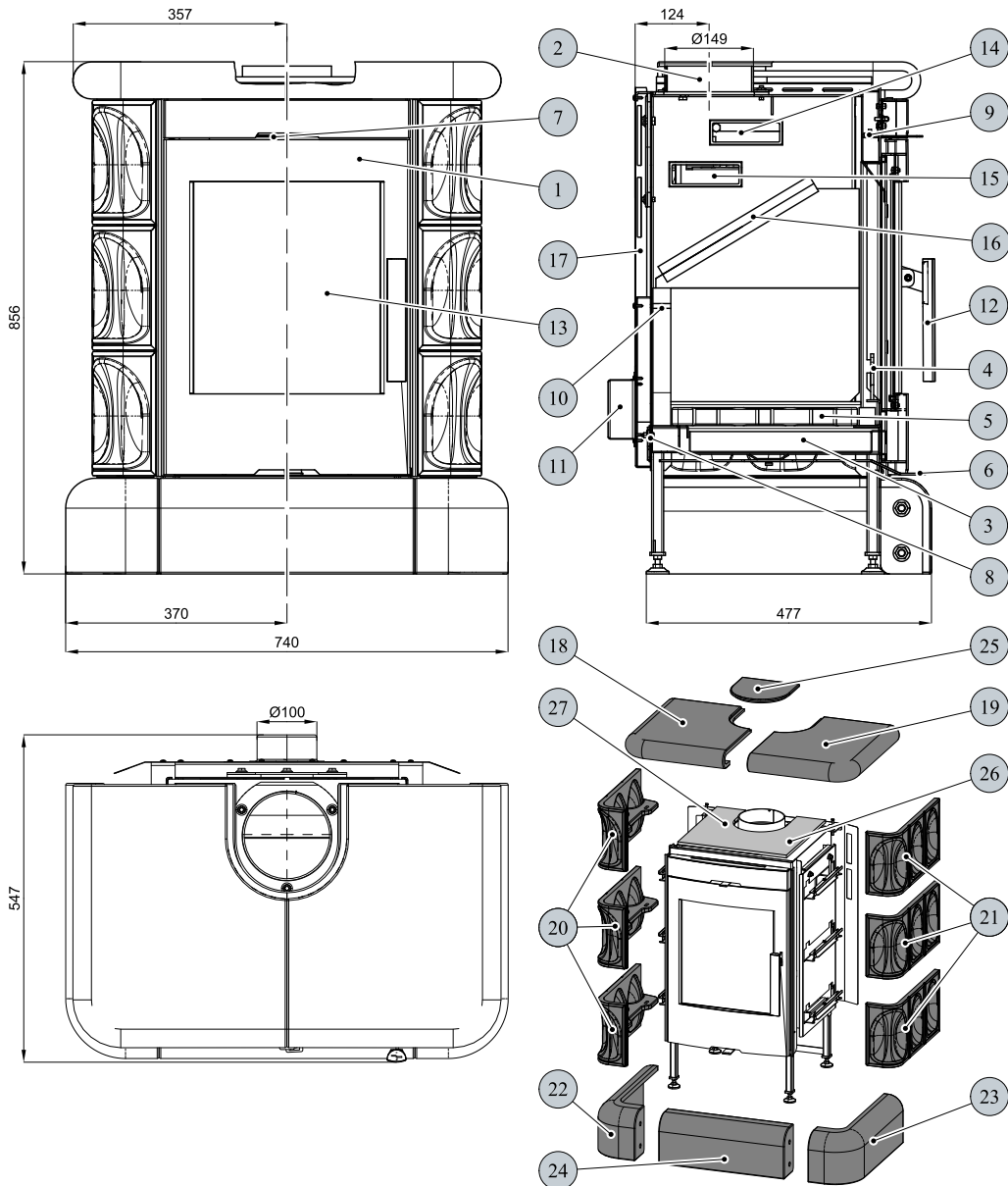
	Block wood	Ecobriquettes	Coal briquettes
Achieved heat output (100%)	7 kW	7,2 kW	7 kW
Nominal heat output	7 kW	7 kW	7 kW
Reduced heat output (33%)	2,3 kW	2,4 kW	2,3 kW
Maximum stoking amount of the fuel	2,2 kg/hour	2 kg/hour	1,3 kg/hour
Average temperature of combustion products behind the smoke flue neck	304 °C	289 °C	240 °C
Maximum mass flow of dry combustion products	5 g/s	5,8 g/s	6,9 g/s
Energy efficiency	81 %	80 %	80 %
Average concentration of CO <sub>2</sub>	10,6 %	10,6 %	6,8 %
Concentration of CO in combustion products at 13% O <sub>2</sub>	908 mg/Nm <sup>3</sup>	1108 mg/Nm <sup>3</sup>	1059 mg/Nm <sup>3</sup>
Dust at 13% O <sub>2</sub>	24 mg/Nm <sup>3</sup>	23 mg/Nm <sup>3</sup>	33 mg/Nm <sup>3</sup>
Amount of combustion air at nominal output	-	-	-
Tested according to EN 13 240			

### Technical information

Height	856 mm
Width	740 mm
Depth	547 mm
Weight	126 kg
Diameter of the smoke flue	150 mm
Minimum draft in the smoke flue neck	12 Pa
Heating capacity (middle heat losses) at 7,2 kW	cca 130 m <sup>3</sup>
Controllable output	2,3 – 7,2 kW

# 2. Technical description

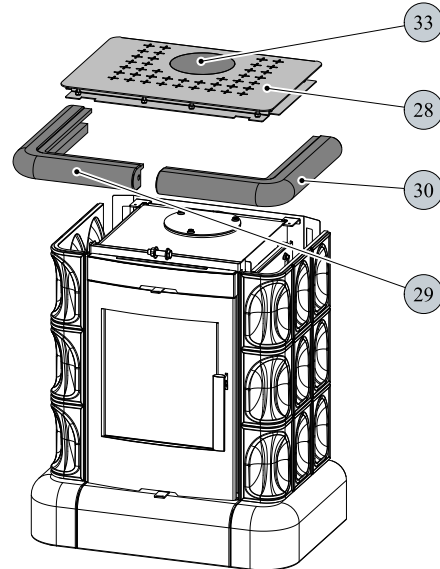
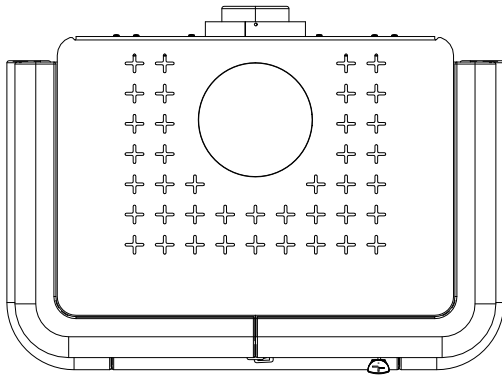
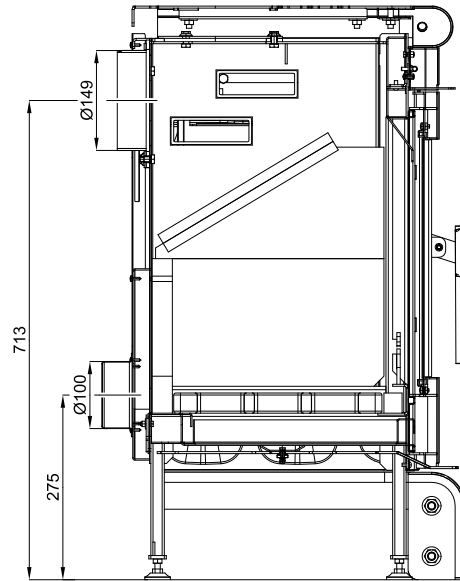
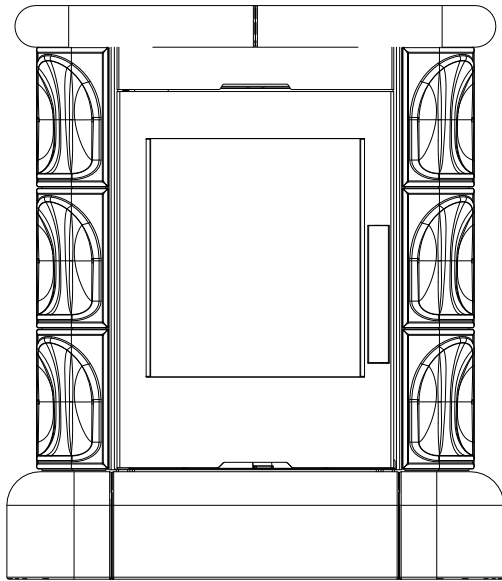
## 2.1. Variant: Tiled top + base



Item	Name	Spare part number
1	Fire-box door/black	0434215105300
2	Smoke flue neck/black	0434215005049
3	Ash pan	0332315005030
4	Protection/black	0434115005045
5	Grate	0332315005052
6	Controller of primary air/black	0434215005186
7	Controller of secondary air/black	0434215005025
8	Intake of primary air	-
9	Intake of secondary air	-
10	Tertiary air output	-

11	External intake of air (Ø100)	0088500050008
12	Fire-box door hand pull	0429415005318
13	Refractory glass (333x375)	0434115005301
14	Lip fixed - upper	-
15	Lip fixed - middle	-
16	Lip loose - lower (30x295x364)	0431915105701
17	Rear cover	0434215005040
18	Tiled top - left/green	0434215026107
18	Tiled top - left/brown	0434215006107
18	Tiled top - left/honey cake	0434215016107
18	Tiled top - left/ivory	0434215036107
19	Tiled top - right/green	0434215026106
19	Tiled top - right/brown	0434215006106
19	Tiled top - right/honey cake	0434215016106
19	Tiled top - right/ivory	0434215036106
20	Fireplace tile - left/green	0434215026104
20	Fireplace tile - left/brown	0434215006104
20	Fireplace tile - left/honey cake	0434215016104
20	Fireplace tile - left/ivory	0434215036104
21	Fireplace tile - right/green	0434215026105
21	Fireplace tile - right/brown	0434215006105
21	Fireplace tile - right/honey cake	0434215016105
21	Fireplace tile - right/ivory	0434215036105
22	Side base - left/green	0434215026102
22	Side base - left/brown	0434215006102
22	Side base - left/honey cake	0434215016102
22	Side base - left/ivory	0434215036102
23	Side base - right/green	0434215026101
23	Side base - right/brown	0434215006101
23	Side base - right/honey cake	0434215016101
23	Side base - right/ivory	0434215036101
24	Front base/green	0434215026103
24	Front base/brown	0434215006103
24	Front base/honey cake	0434215016103
24	Front base/ivory	0434215036103
25	Blind flange/green (not included in the scope of the delivery)	0434215026111
25	Blind flange/brown (not included in the scope of the delivery)	0434215006111
25	Blind flange/honey cake (not included in the scope of the delivery)	0434215016111
25	Blind flange/ivory (not included in the scope of the delivery)	0434215036111
26	Barrier plate (vermiculite)	0434215005011
27	Barrier	0434215005010
-	Sealing cord of the door 12 mm (2150 mm)	0041012120005
-	Sealing cord of the glass 14 mm (940 mm)	0040014140005
-	Sealing cord of the glass 8x2 mm (650 mm)	0040208020006
-	Glass holder sealing rope 8x2 mm (600 mm)	0040208020006

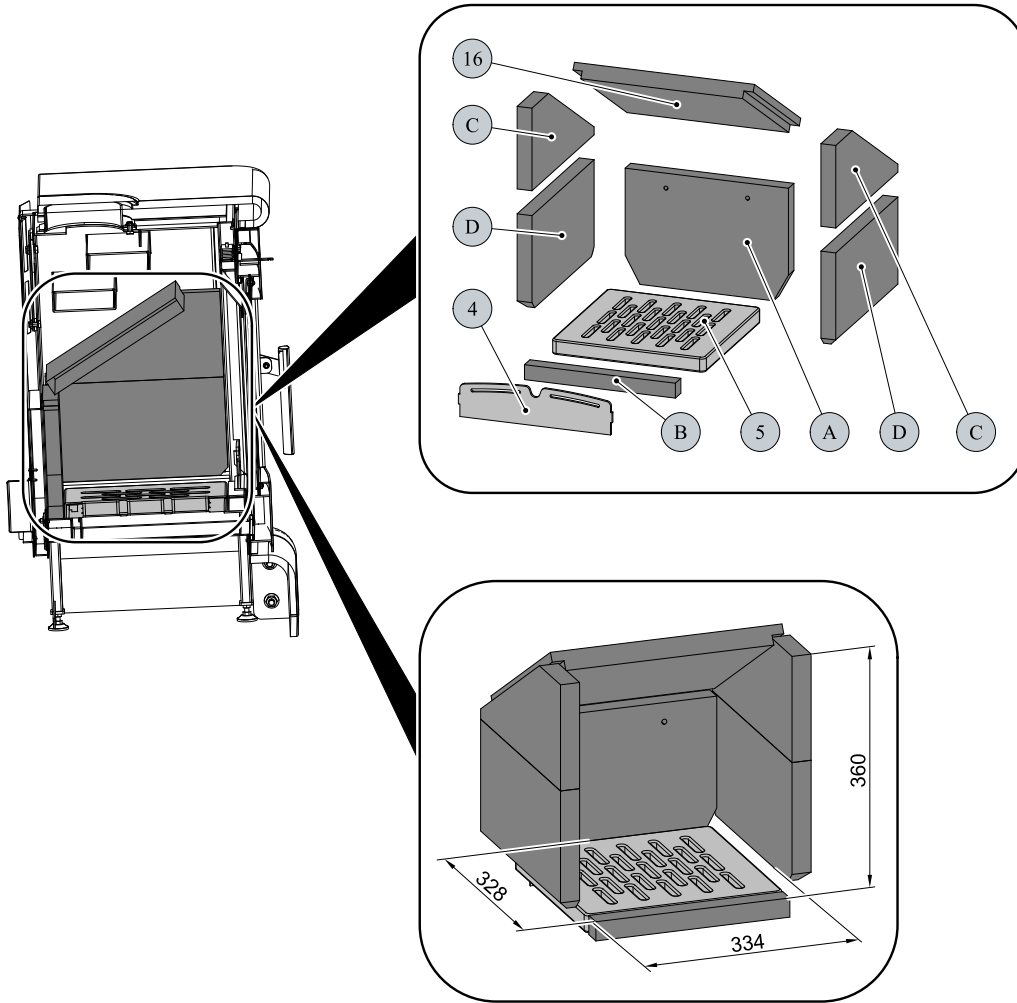
## 2.2. Variant: Tiled mantelpiece + base



Item	Name	Spare part number
28	Top cover/black	0434215006140
29	Tiled mantelpiece - left/green	0434215126108
29	Tiled mantelpiece - left/brown	0434215106108
29	Tiled mantelpiece - left/honey cake	0434215116108
30	Tiled mantelpiece - right/green	0434215126109
30	Tiled mantelpiece - right/brown	0434215106109
30	Tiled mantelpiece - right/honey cake	0434215116109
33	Blind cover/black	0331415005060



## 2.3. Size scheme of furnace



Item	Name	Spare part number
4	Protection/black	0434115005045
5	Grate	0332315005052
16	Lip loose - lower (30x295x364)	0431915105701
A	Brick 30x230x330	0332315005501
B	Brick 27x305x30	0332315005502
C	Brick 30x340x166	0434115005505
D	Brick 30x190x340	0434215005504

# 3. Dimensioned diagram

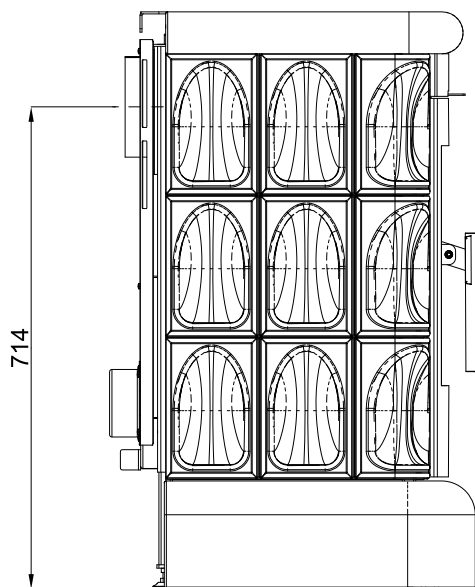
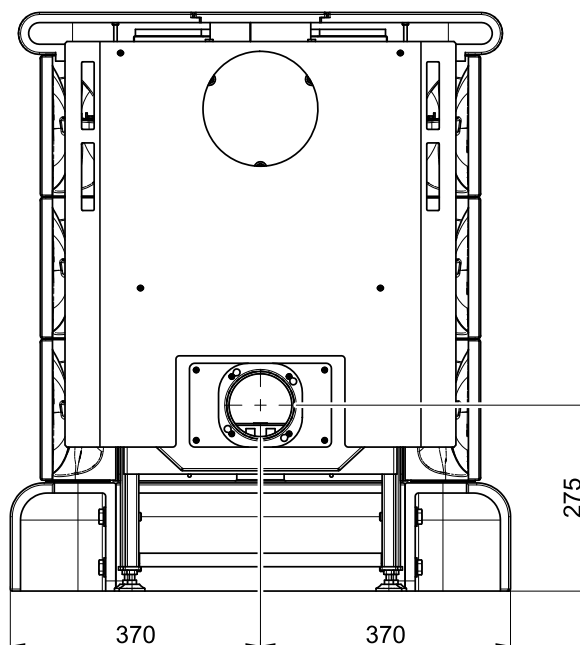
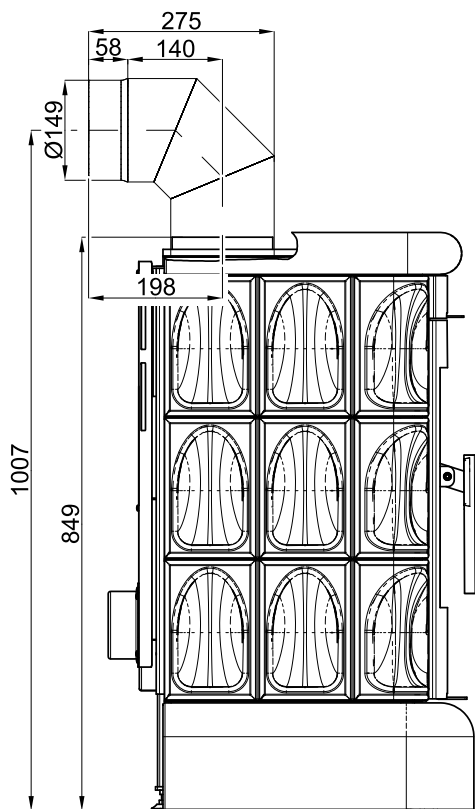
## 3.1. Knee-piece of exhaust of combustion products



Note

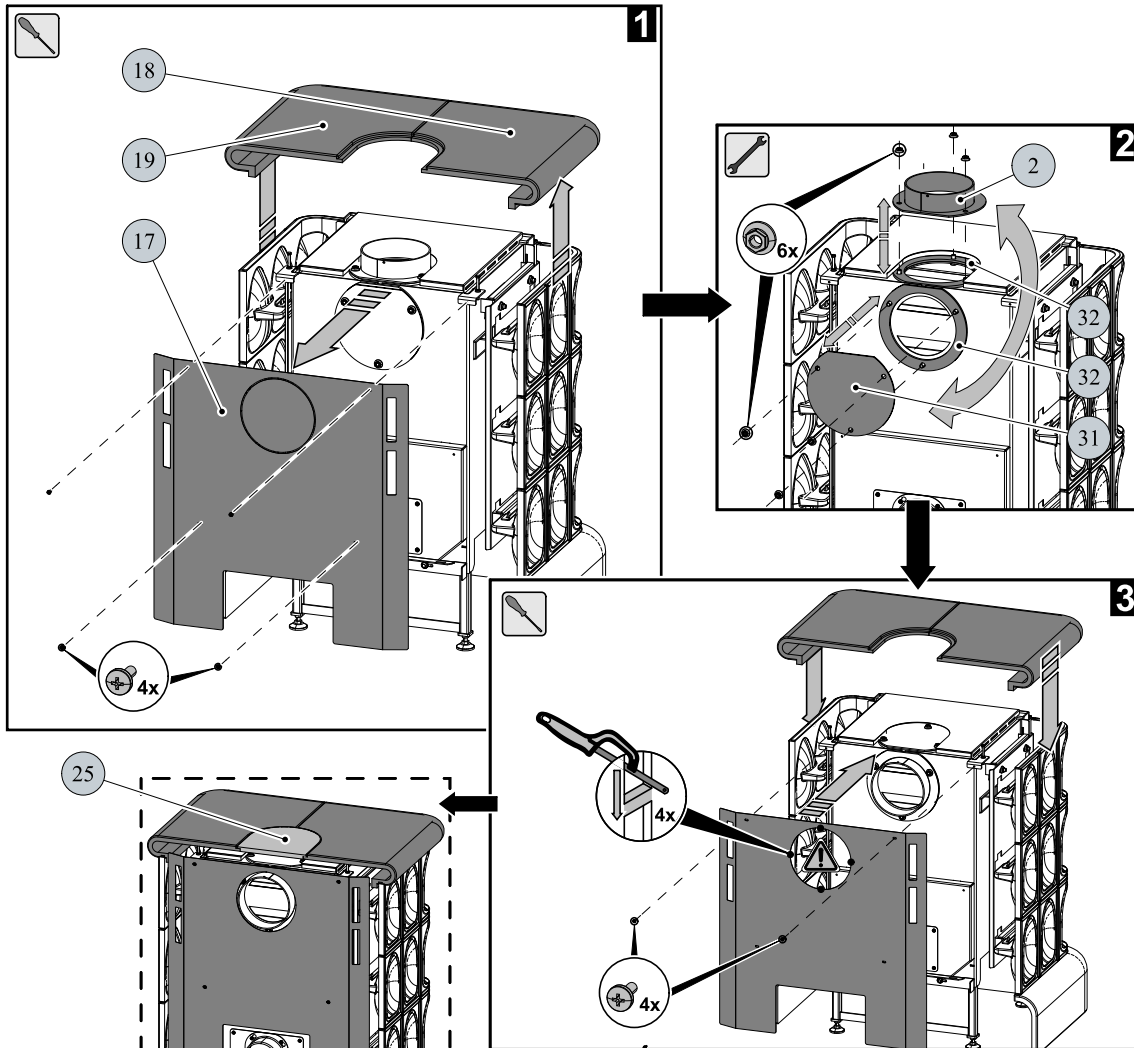
The knee-piece of exhaust of combustion products is delivered as optional accessory.

Dimensioned diagram



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# 4. Exchange of smoke neck



Exchange of smoke neck

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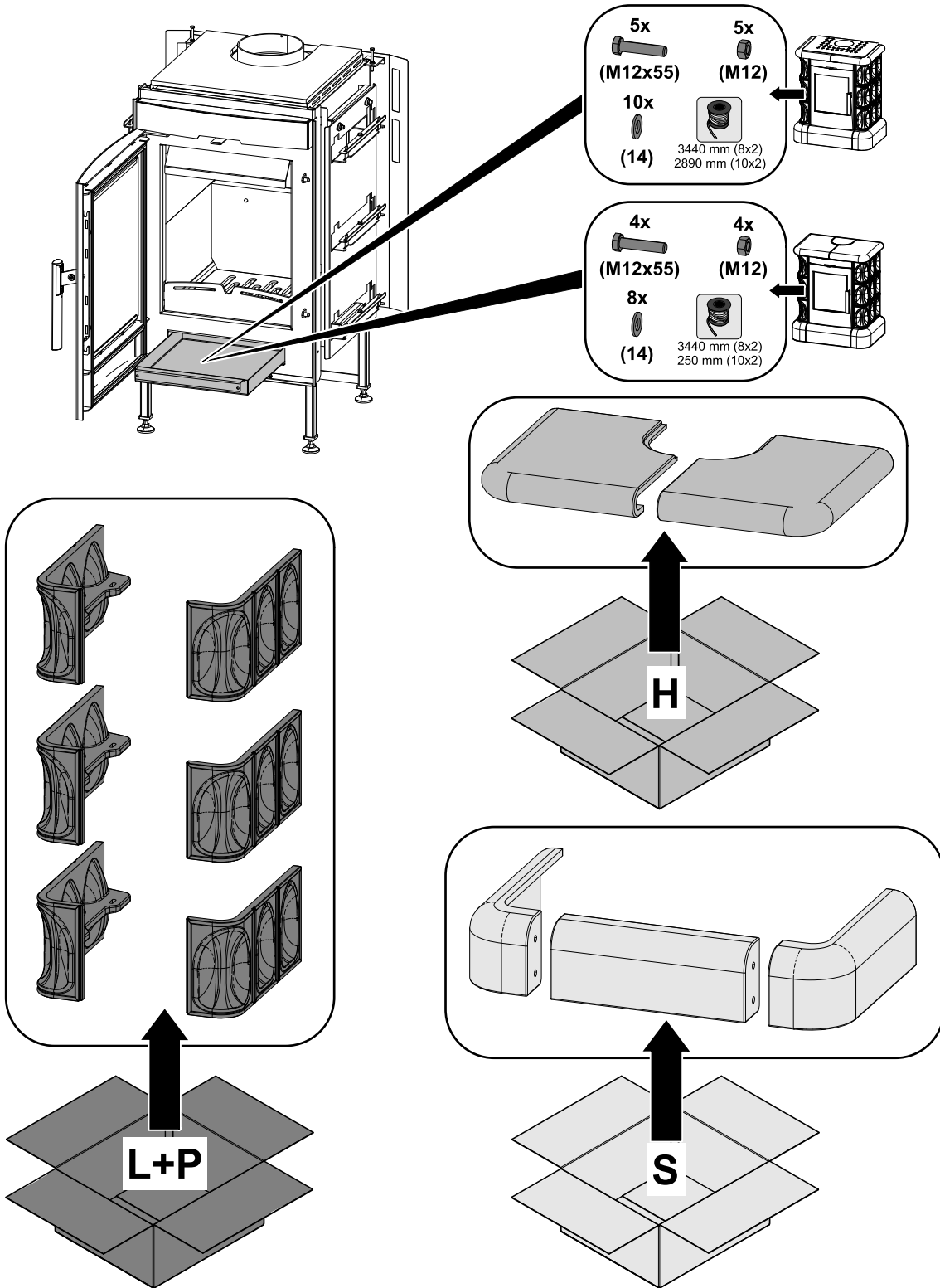
Item	Name	Spare part number
2	Smoke neck/black	0434215005049
17	Rear cover	0434215005040
18	Tiled top - left	-
19	Tiled top - right	-
25	Blind flange (not included in the scope of the delivery)	-
31	Flue gas duct blind flange/black	0429415005048
32	Flue gas duct packing cord	0429415005061

# 5. Fitting instructions for tiles

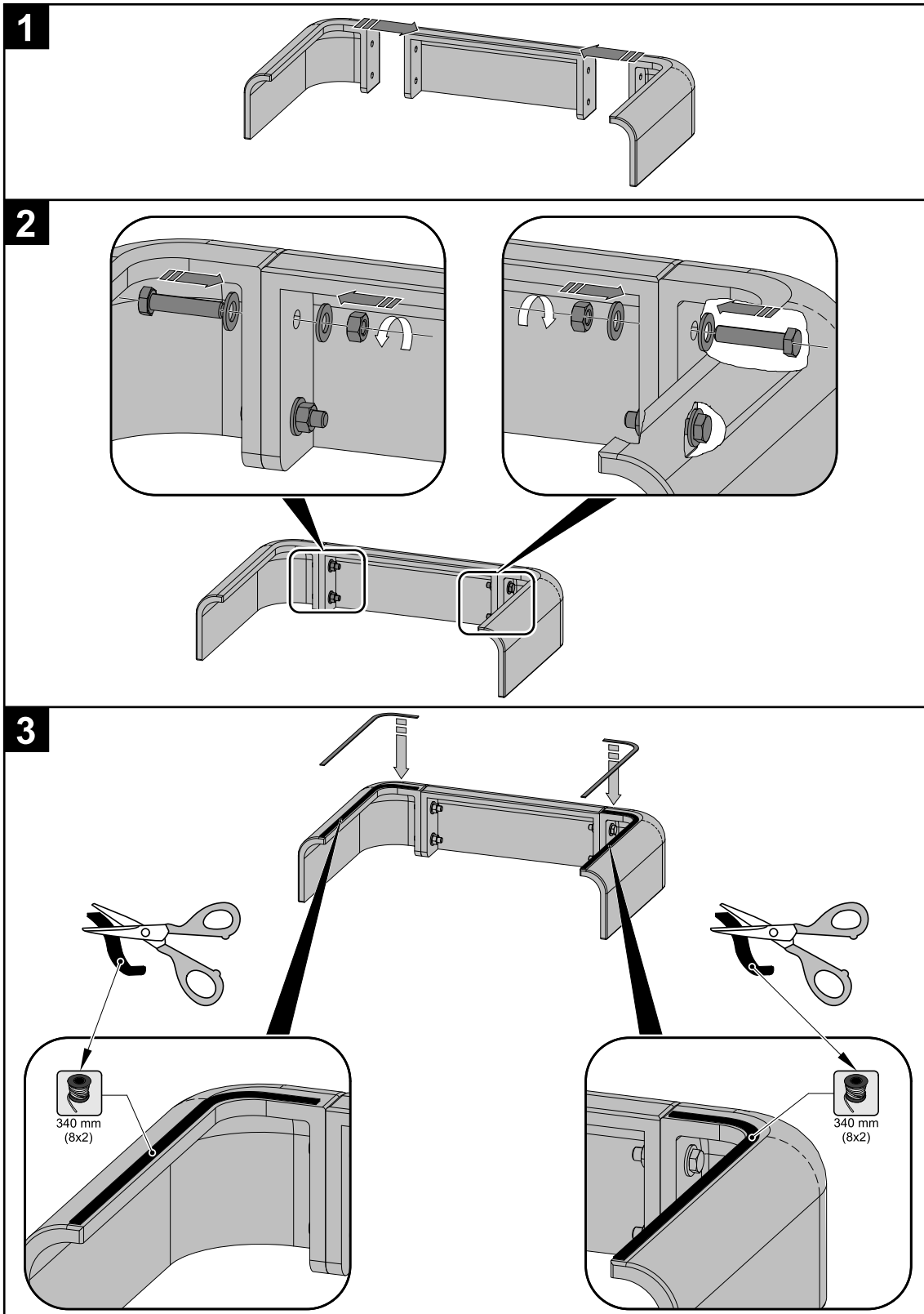
## 5.1. Included in the delivery

Fitting instructions for tiles

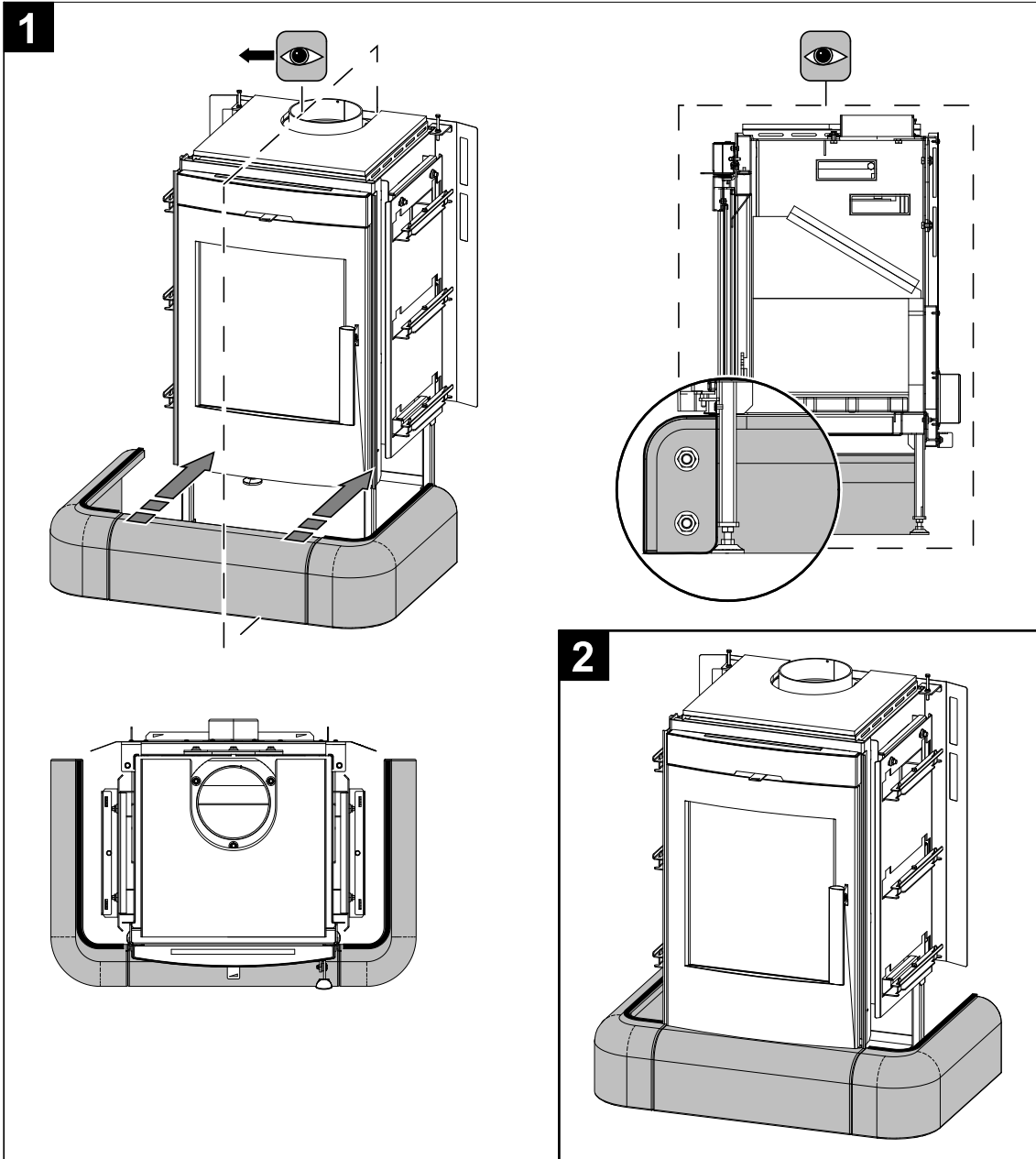
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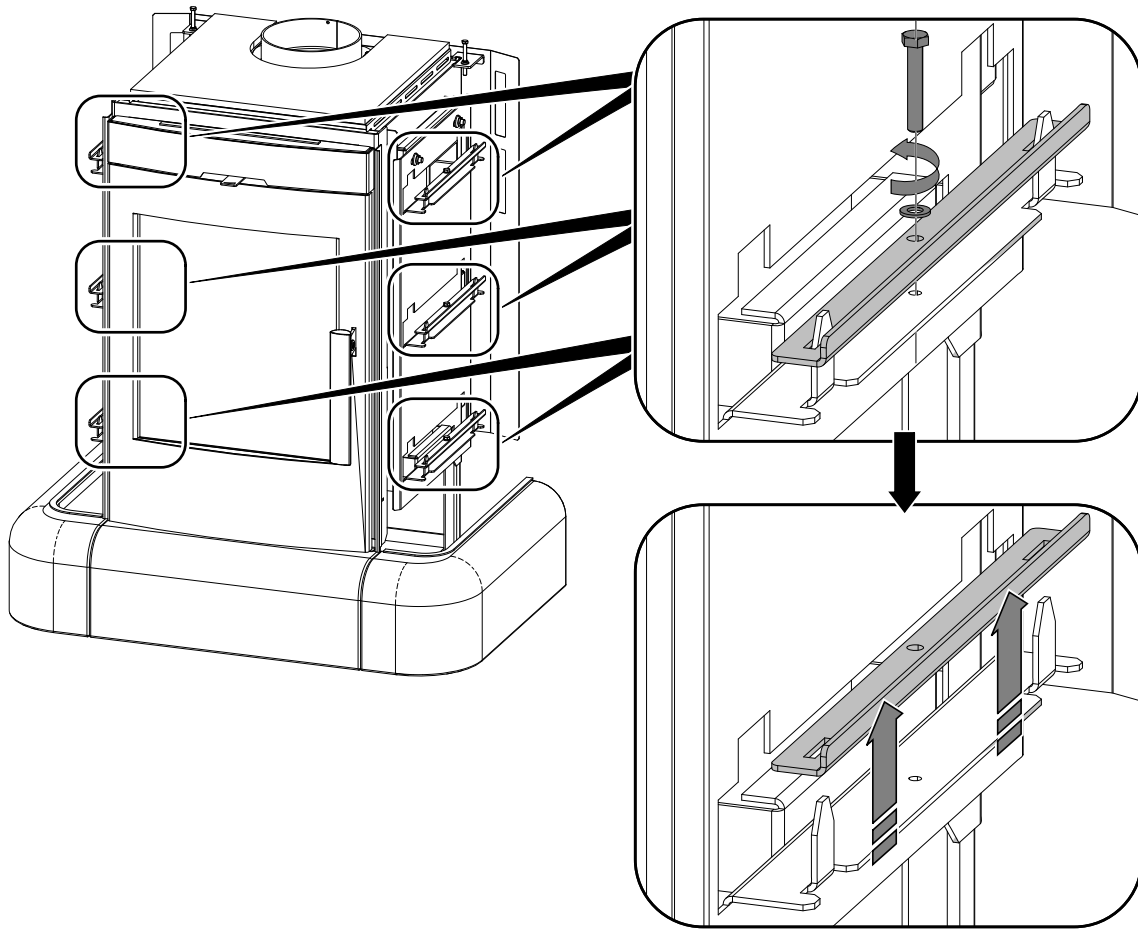
## 5.2. Assembly base - part 1



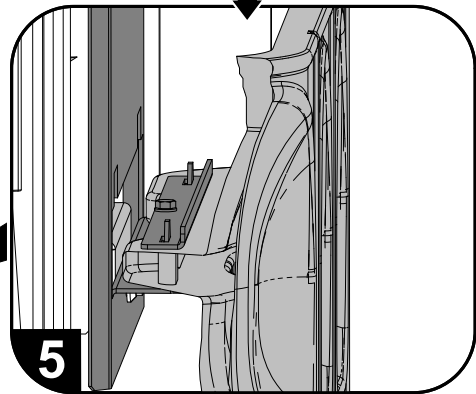
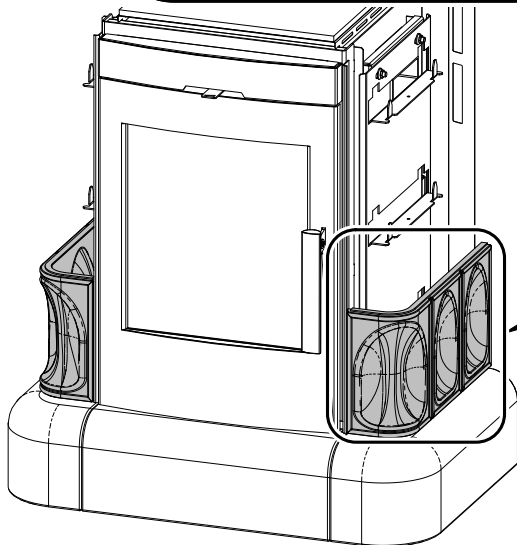
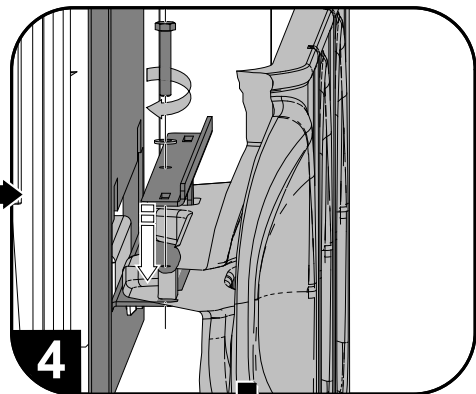
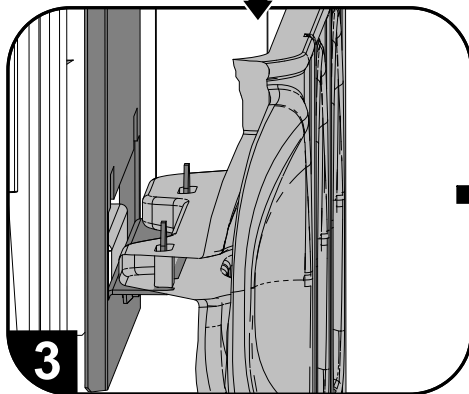
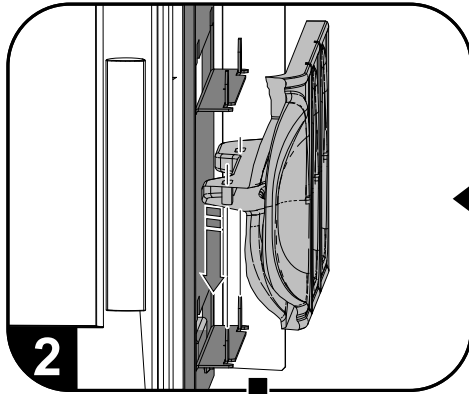
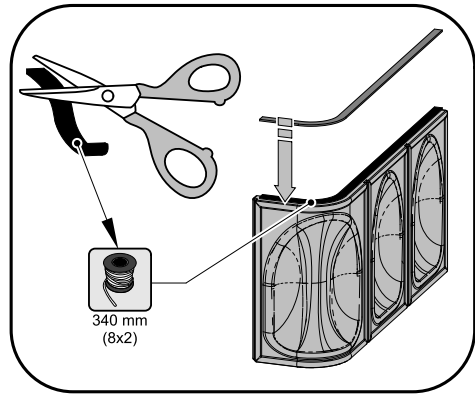
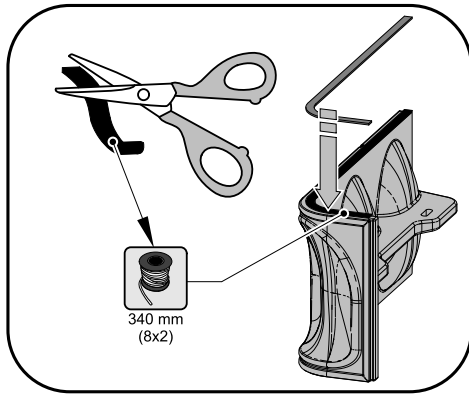
## 5.2.1. Assembly base - part 2



### 5.3. Disassembly - holder for side tiles

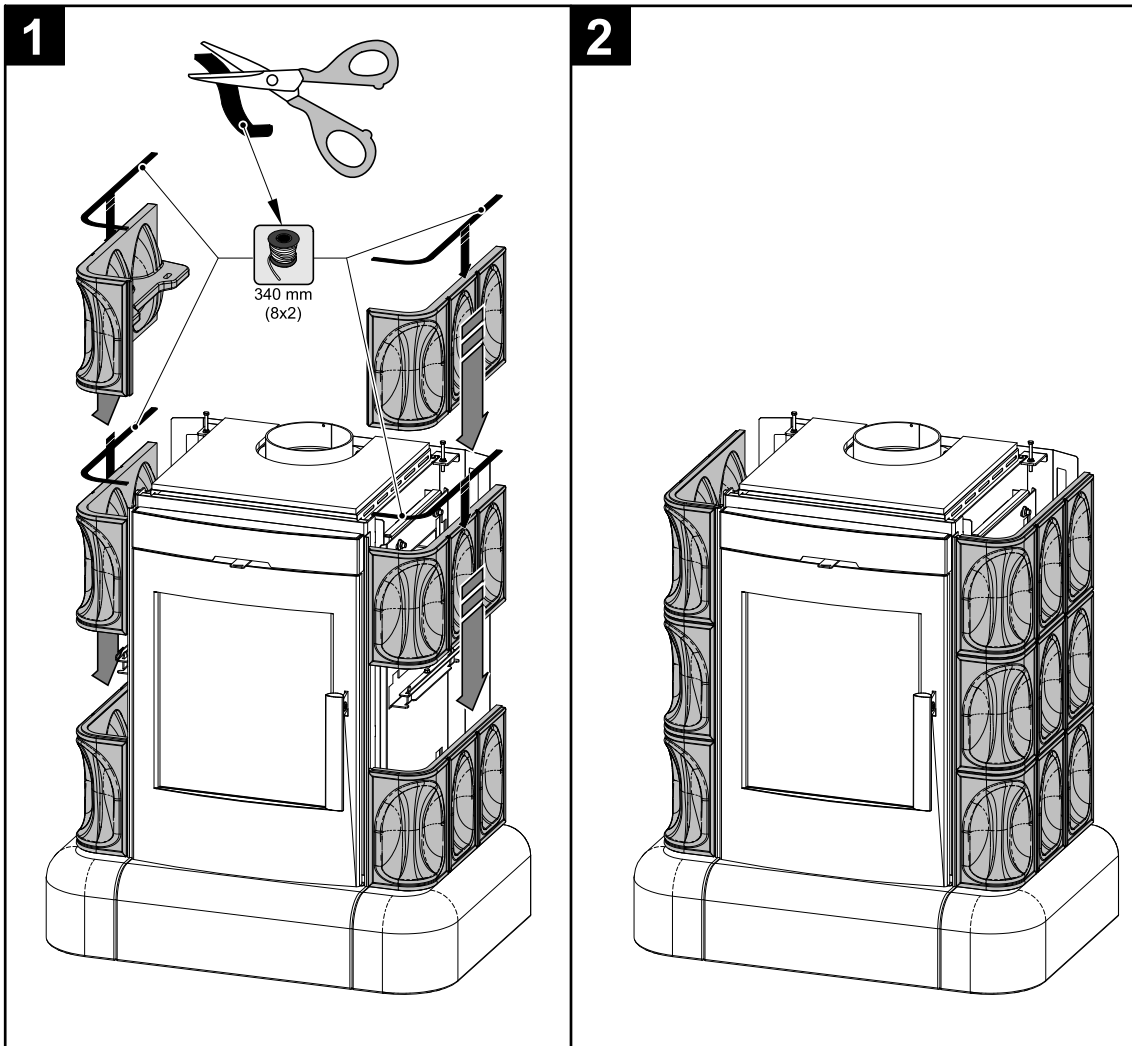


### 5.4. Assembly side tiles - part 1



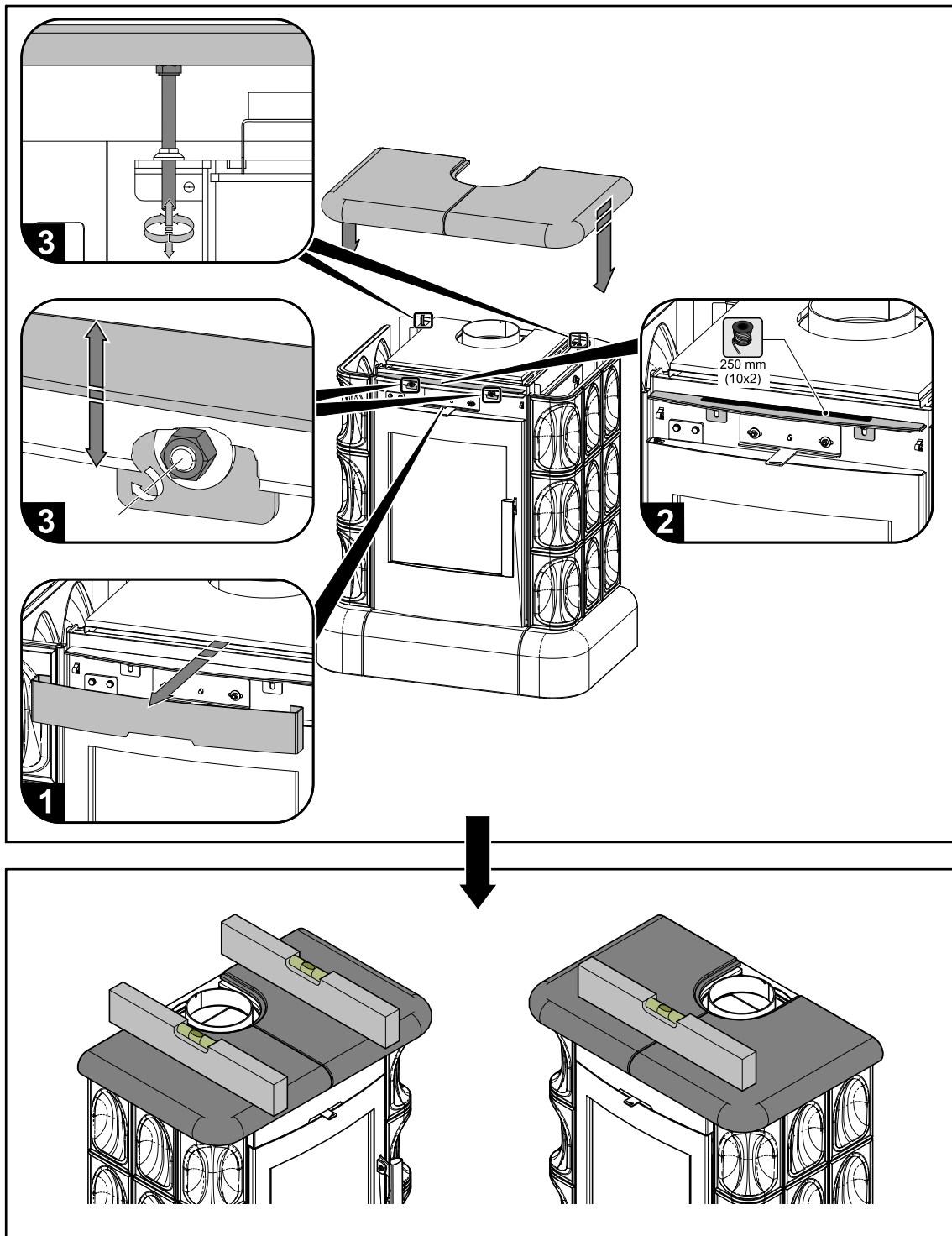


### 5.4.1. Assembly side tiles - part 2



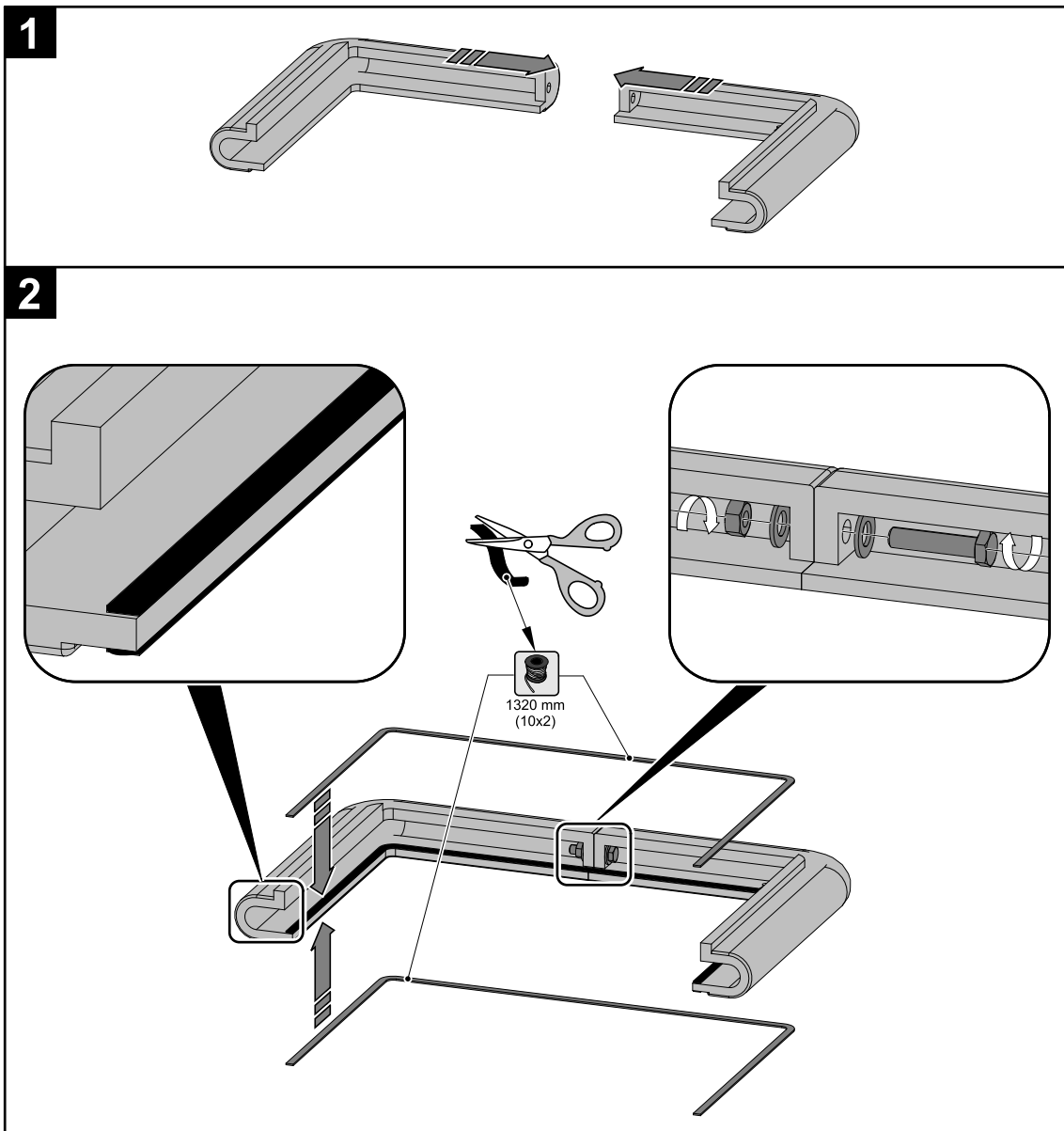
## 5.5. Assembly tiled top

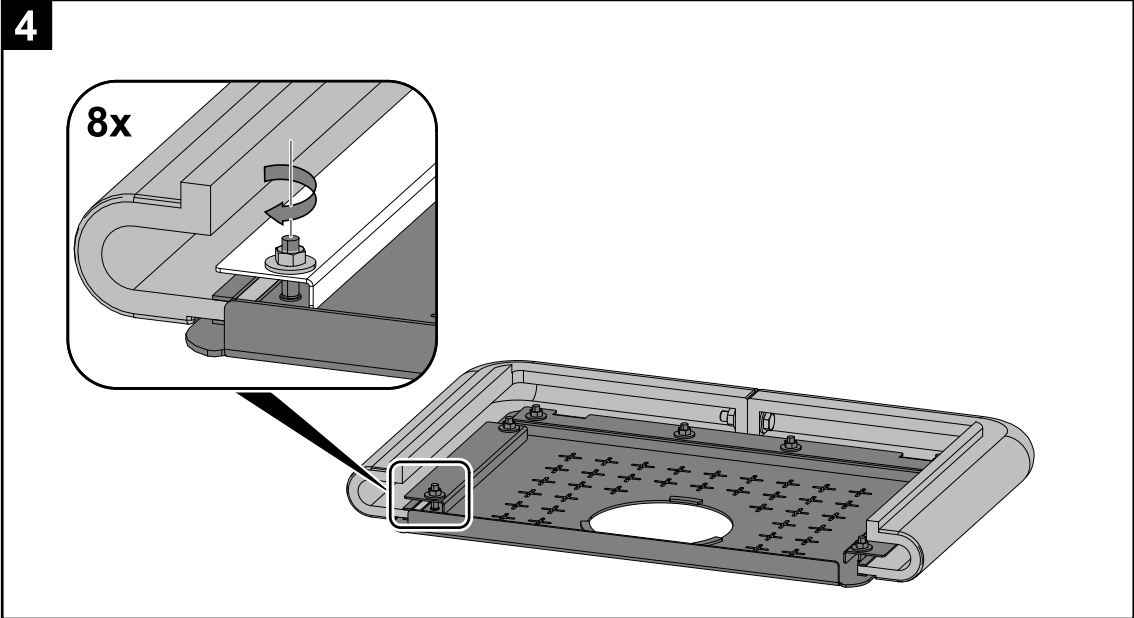
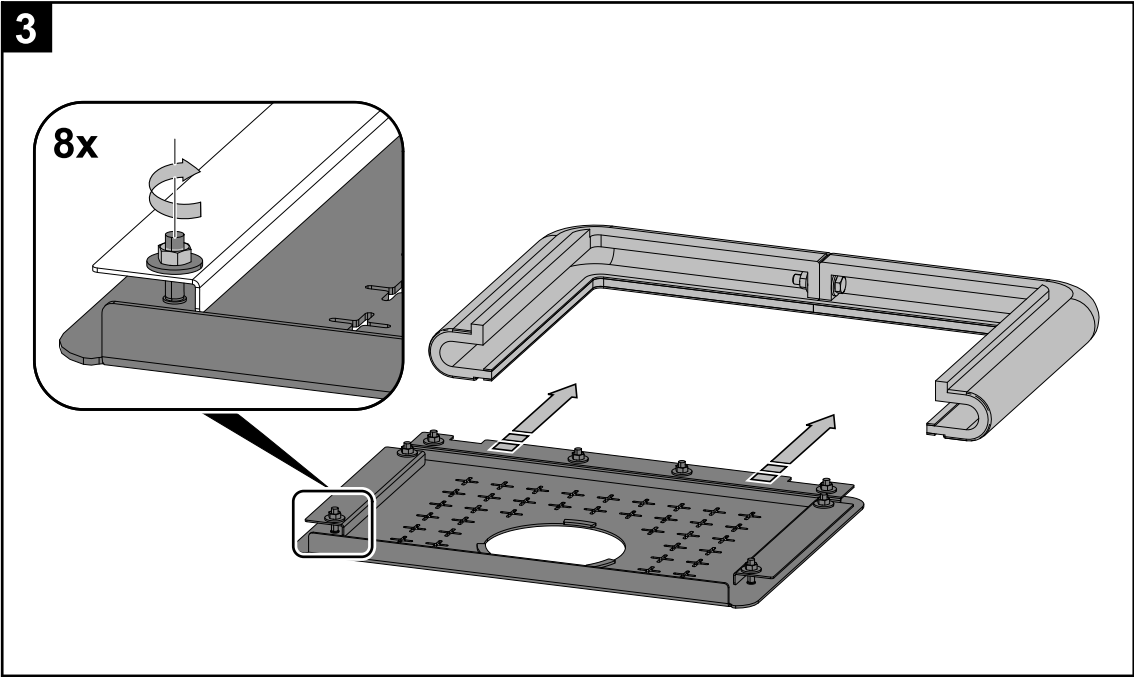
Fitting instructions for tiles



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## 5.6. Assembly tiled mantelpiece - part 1





### 5.6.1. Assembly tiled mantelpiece - part 2

