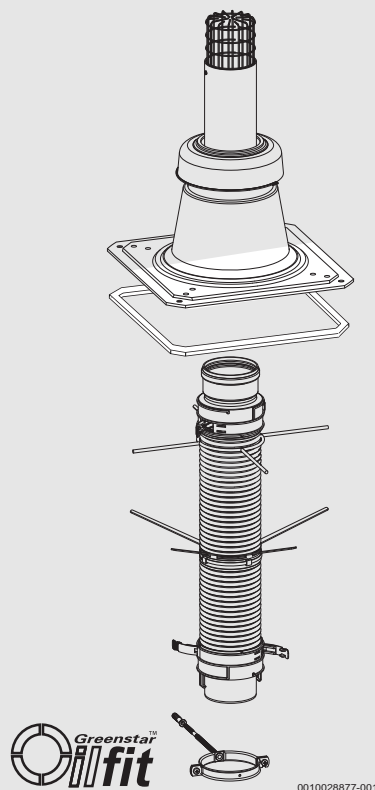


Flue kit installation instructions

Floor standing oil condensing appliance flue

Greenstar Oilfit Flexi CF Flue

Conventional Flexible Flue Liner



0010028877-001



Table of contents

1 Explanation of symbols and safety instructions 2

1.1 Explanation of symbols 2

1.2 General safety instructions 2

1.3 Requirements 3

2 Product information 3

2.1 Vertical CF kit components 4

2.2 CF Flexible flue liner kit components (100mmØ) 4

2.3 CF Stainless steel extension components (100mmØ) 5

2.4 CF Flexible flue liner kit components (130mmØ) 6

2.5 CF Stainless steel extension components (130mmØ) 7

3 Pre-Installation 8

3.1 Typical installations 8

4 Installation 10

4.1 Preparing the chimney opening. 10

4.2 Preparing the flue liner. 11

4.3 Fitting the seal and lower adaptor. 12

4.4 Fitting the support bracket, seal, and adaptor. 13

4.5 Fitting the chimney cowl 13

1 Explanation of symbols and safety instructions

1.1 Explanation of symbols

Warnings

In warnings, signal words at the beginning of a warning are used to indicate the type and seriousness of the ensuing risk if measures for minimising danger are not taken.

The following signal words are defined and can be used in this document:

 **DANGER:**

DANGER indicates that severe or life-threatening personal injury will occur.

 **WARNING:**

WARNING indicates that severe to life-threatening personal injury may occur.

 **CAUTION:**

CAUTION indicates that minor to medium personal injury may occur.

NOTICE:

NOTICE indicates that material damage may occur.

Important information



The info symbol indicates important information where there is no risk to people or property.

Additional symbols

Symbol	Meaning
▶	a step in an action sequence
→	a reference to a related part in the document
•	a list entry
–	a list entry (second level)

Table 1

1.2 General safety instructions

⚠ Important - These instructions are to be used in conjunction with appliance Installation and maintenance instructions.

Please read these instructions in conjunction with the appliance Installation and maintenance instructions manual carefully before starting installation.

- ▶ Observe all the safety precautions described in the Installation and maintenance instructions for the appliance this accessory is being installed onto.

⚠ Danger to life from poisoning by flue gas

There is a danger to life from escaping flue gas.

- ▶ Ensure that flues and gaskets are not damaged.

⚠ Danger of death from poisoning by flue gas due to inadequate combustion

Danger of death due to flue gas leak. If flues are damaged or leaking, or if you smell flue gas, observe the following rules.

- ▶ Close the fuel infeed.
- ▶ Open doors and windows.
- ▶ If necessary, warn all residents and leave the building.
- ▶ Prevent third parties from entering the building.
- ▶ Rectify any damage to the flue gas pipe immediately.
- ▶ Check the combustion air supply.
- ▶ Do not cover or reduce the size of ventilation openings in doors, windows and walls.
- ▶ Ensure that there is adequate combustion air supply, including for any appliances installed at a later date, e.g. extractor fans, kitchen fans or air conditioning units that discharge air to the outside.
- ▶ Never operate the device if there is insufficient combustion air supply.

⚠ Electrical work

Electrical work must only be carried out by electrical installation contractors.

Before starting electrical work:

- ▶ Isolate all poles of the mains voltage and secure against reconnection.
- ▶ Make sure the mains voltage is disconnected.
- ▶ Observe the wiring diagrams of other system components as well.

⚠ Packaging

The following points should be observed during unpacking.

- ▶ Check the delivery immediately upon receipt for completeness and possible transport damage.
- ▶ In the event of transport damage, the delivery should only be accepted conditionally.
- ▶ Do not use damaged components for assembly.
- ▶ Carefully unpack the unit.
- ▶ Ensure that all packaging material is removed and that the unit is free from all materials that may prevent the unit from operating correctly.

1.3 Requirements

Installation

The flue installation must be fitted and terminated in accordance with your local regulations.

Support

Flues require adequate support throughout their entire run.

Flue System



Only use the approved Oilfit flue system accessories with this flue kit.

Replacing an existing flue

When replacing an existing Oilfit flue on an appliance:

- ▶ Ensure it is the correct flue system for the appliance as we have various flue systems for Floor Standing oil appliances.
- ▶ Ensure the flue installation meets current Building Regulation requirements.
 - Building Regulation requirements may have changed from the original date of installation of the existing flue system.

Annual inspection

When the flue system is inspected during the annual service, the engineer must inspect and confirm that:

- ▶ The flue system is continuous without any breaks.
- ▶ All joints in the flue system are secure and correctly assembled according to the manufacturers instructions.
- ▶ The flue has a fall of 3° (52 millimetres per metre) back to the boiler.
- ▶ The terminal is not damaged or restricted.
- ▶ The plume management kit is not damaged (if fitted).

2 Product information

Conventional flexible flue liner

For use with the following Worcester Greenstar oil-fired appliances:

Utility 18/25, 32/50, 50/70

Danesmoor 18/25

Heatslave 12/18, 18/25, 25/32

Camray Kitchen 12/18, 18/25, 25/32

Camray Utility 12/18, 18/25, 25/32

Camray Utility System 12/18, 18/25, 25/32

Heatslave II 12/18, 18/25, 25/32

Danesmoor (2013) 12/18, 18/25, 25/32

2.1 Vertical CF kit components

Greenstar Utility 25/32 and 32/70

130mmØ CF Vertical flue kit

Part number: 7 716 190 049

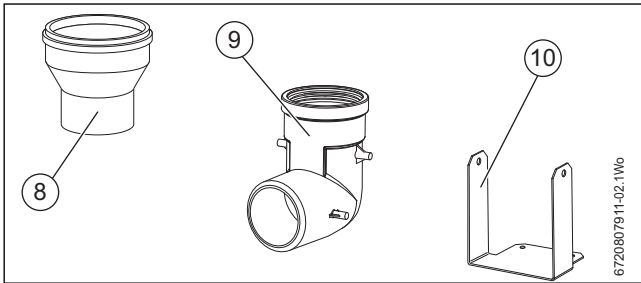


Fig. 1 CF Vertical flue kit 130mm

[8] Adaptor 100mmØ to 130mmØ

[9] Elbow

[10] Elbow support bracket

2.2 CF Flexible flue liner kit components (100mmØ)

100mmØ Flexible flue liner kits:

8 metre - part number: 7 733 601 205

12 metre - part number: 7 733 601 206

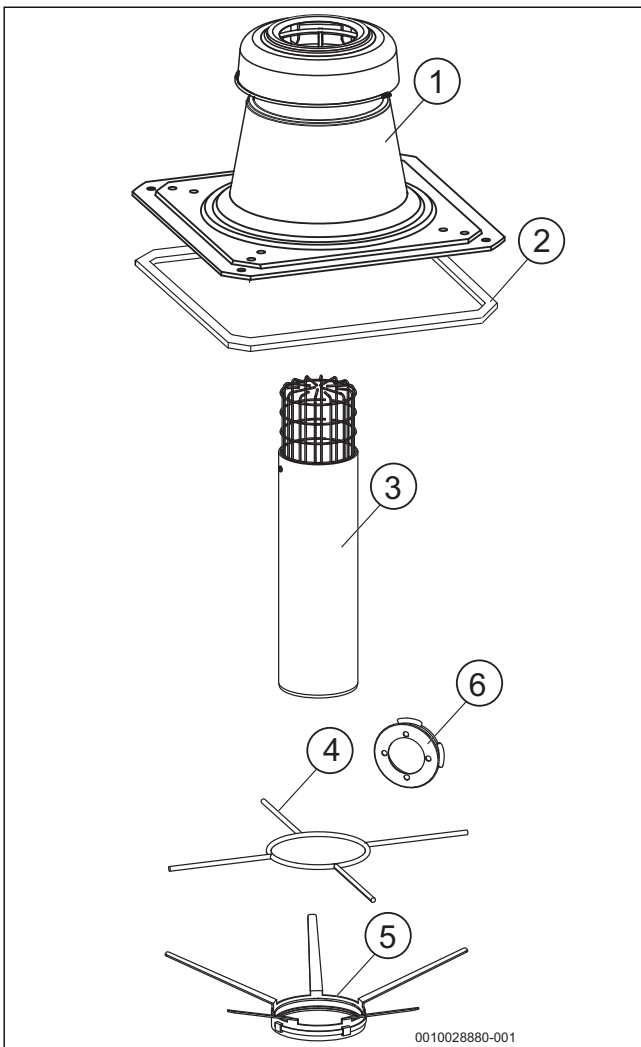


Fig. 2 CF Flexible flue liner components (100mm)



Chimney gasket

- The self adhesive chimney gasket does not have to be used, but may be required if there are large irregularities on the chimney top face.

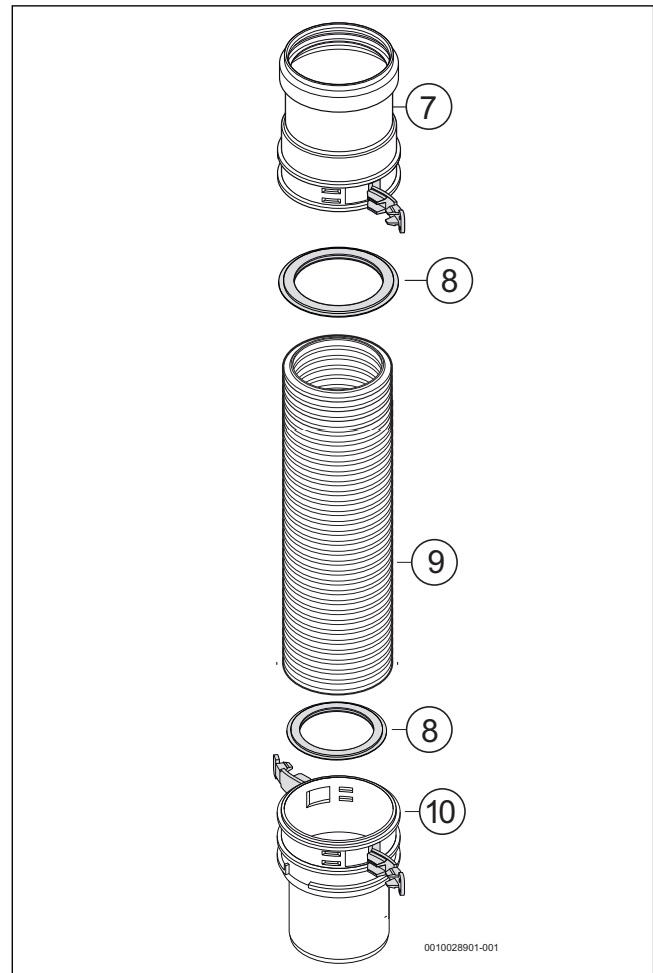


Fig. 3 CF Flexible flue liner components (100mm)

[1] Chimney cowl

[2] Chimney gasket

[3] Terminal

[4] Support bracket assembly

[5] Centralising spacer

[6] Flue damper assembly

[7] Flexible to rigid adapter kit

[8] Seal 100mmØ Part number: 8 718 666 509

[9] Flexible liner (8 or 12 metres)

[10] Rigid to flexible adapter kit

NOTICE:

Seals

- Seals [7] must be located at the top and bottom of the flexible flue liner [8]. Refer to figures 16 and 18.

2.3 CF Stainless steel extension components (100mmØ)

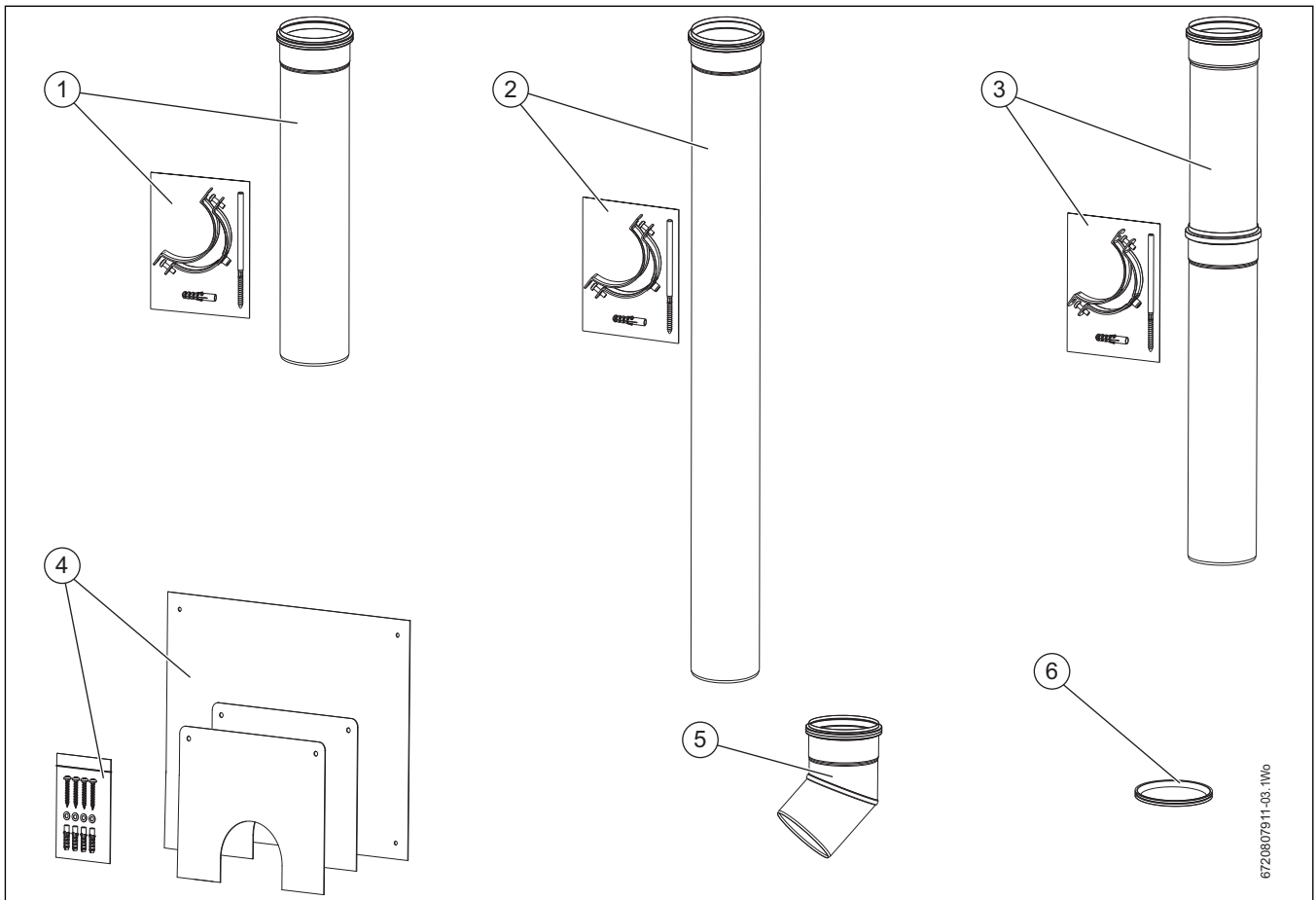


Fig. 4 CF S/S extension components

- [1] 500mm x 100mmØ Stainless steel extension kit - Part number: 7 716 190 067
- [2] 1000mm x 100mmØ Stainless steel extension kit - Part number: 7 716 190 066
- [3] 500mm - 1000mm x 100mmØ Stainless telescopic steel extension kit - Part number: 7 716 190 068
- [4] 100mmØ Inspection plate pack - Part number: 7 716 190 074
- [5] 45° x 100mmØ Stainless steel elbow - Part number: 7 716 190 069
- [6] 100mmØ Spare seal - Part number: 8 716 110 299 0

2.4 CF Flexible flue liner kit components (130mmØ)

130mmØ Flexible flue liner kits:

8 metre - part number: 7 733 601 208

12 metre - part number: 7 733 601 209

15 metre - part number: 7 733 601 210

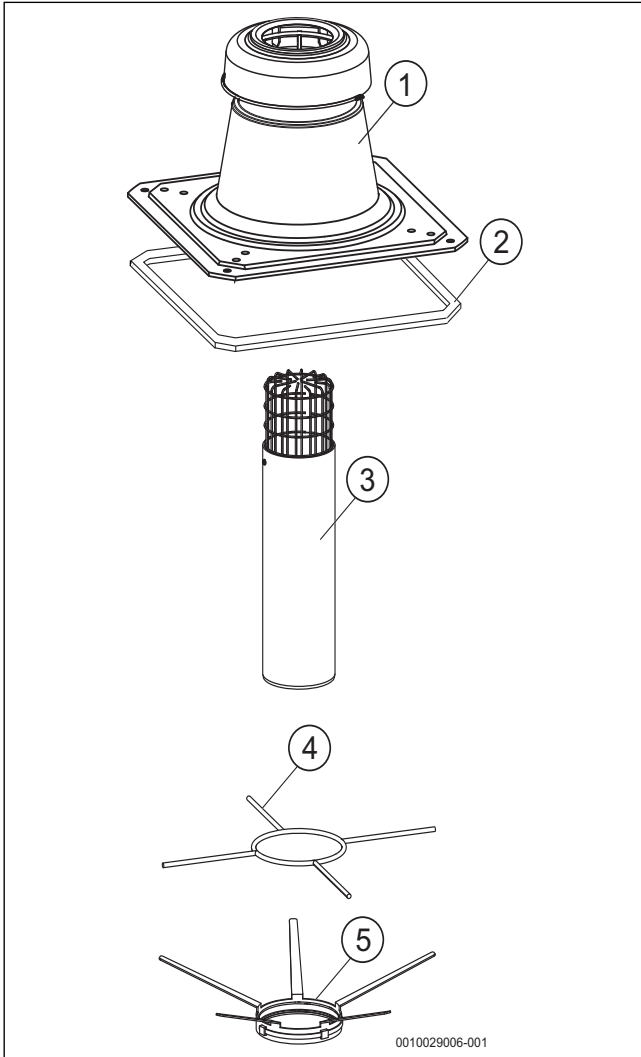


Fig. 5 CF Flexible flue liner components (130mm)



Chimney gasket

- The self adhesive chimney gasket does not have to be used, but may be required if there are large irregularities on the chimney top face.

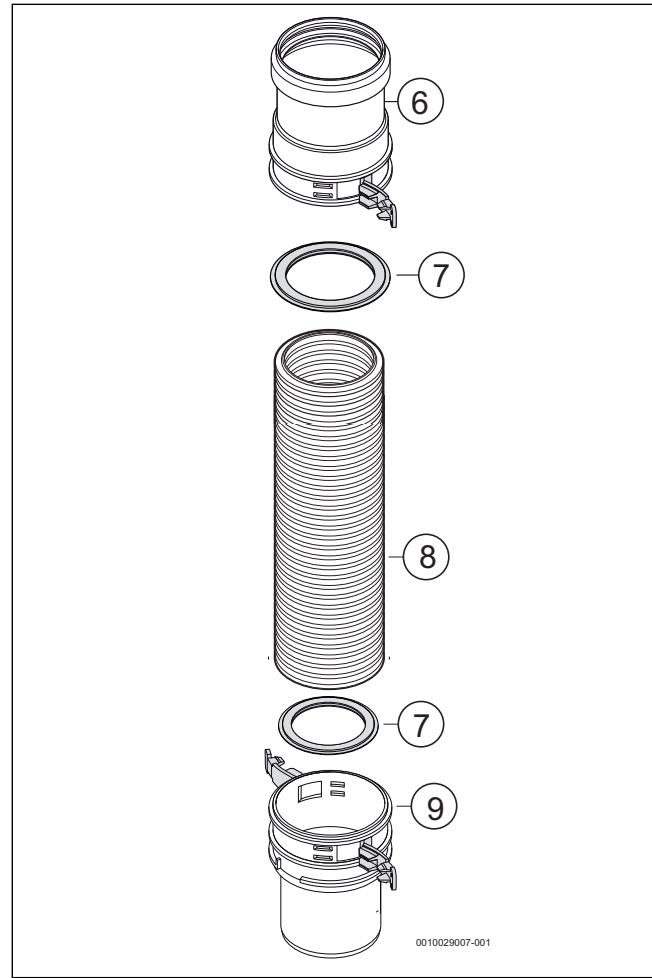


Fig. 6 CF Flexible flue liner components (130mm)

- [1] Chimney cowl
- [2] Chimney gasket
- [3] Terminal
- [4] Support bracket assembly
- [5] Centralising spacer
- [6] Flexible to rigid adapter kit
- [7] Seal 130mmØ, Part number: 8 750 301 515
- [8] Flexible liner (8, 12 or 15 metres)
- [9] Rigid to flexible adapter

NOTICE:

Seals

- Seals [7] must be located at the top and bottom of the flexible flue liner [8]. Refer to figures 16 and 18.

2.5 CF Stainless steel extension components (130mmØ)

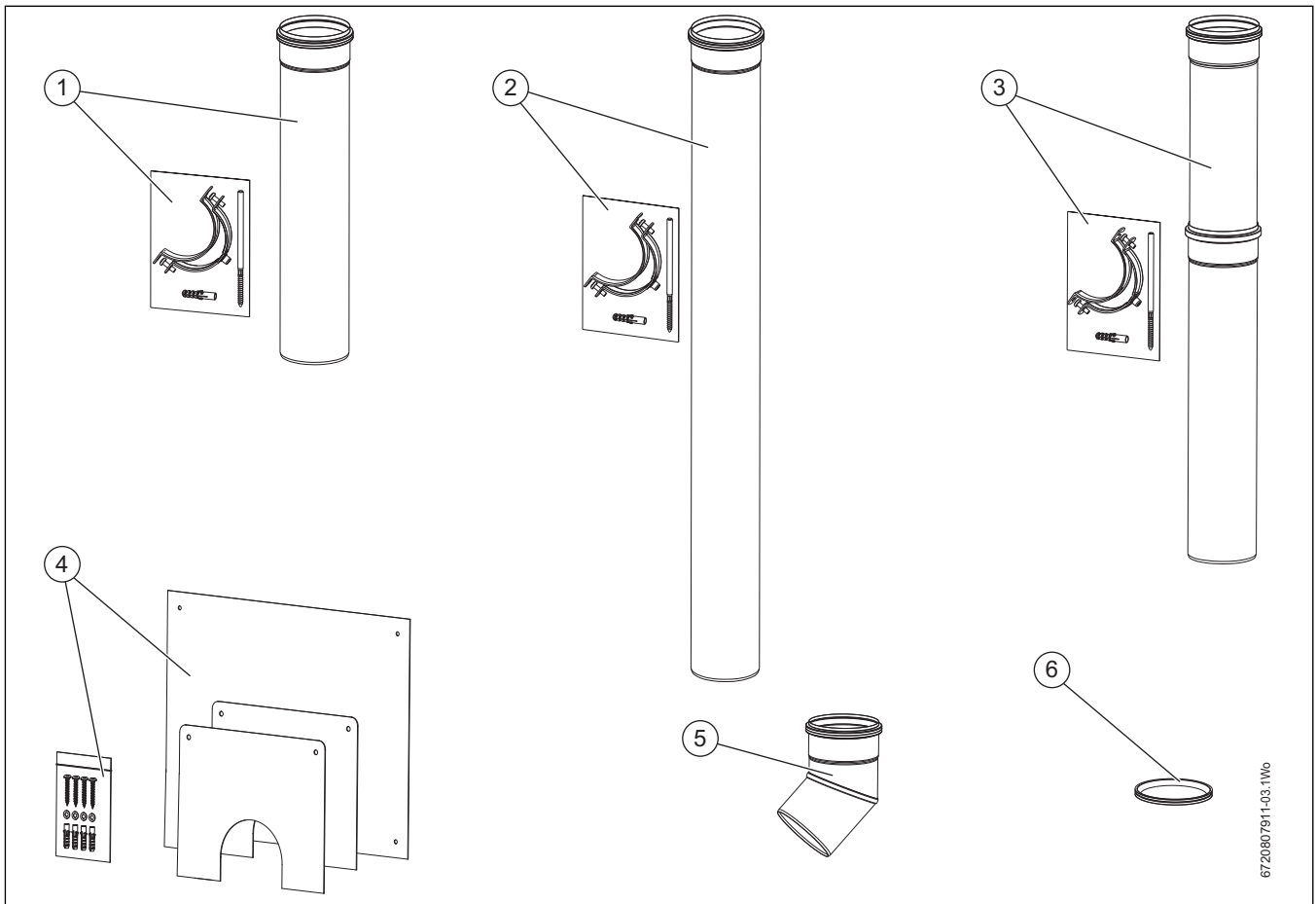


Fig. 7 CF/S/S extension components 130mm

- [1] 500mm x 130mmØ Stainless steel extension kit: Part number: 7 716 190 071
- [2] 1000mm x 130mmØ Stainless steel extension kit: Part number: 7 716 190 070
- [3] 500mm - 1000mm x 130mmØ Stainless telescopic steel extension kit: Part number: 7 716 190 072
- [4] 130mmØ Inspection plate pack Part number 7 716 190 075
- [5] 45° x 130mmØ Stainless steel elbow Part number: 7 716 190 073
- [6] 130mmØ Spare seal - Part number: 8 716 110 155 0

3 Pre-Installation

3.1 Typical installations

WARNING:

Open flue

- ▶ Open (conventional) flued appliances must not be installed in bedrooms, bathrooms or bedsitting rooms
- ▶ Inspection points must be provided for access to check the flue system joints.

Before starting installation, check that:

- the chimney is structurally sound and free from obstructions
- the chimney has been swept to remove deposits since the last use

This flexible flue pipe is only suitable for lining chimneys that conform to the Building Regulations and it should not be used as a chimney on its own or outside a masonry or flue block chimney.

All the flexible liner and adaptors must be within the chimney, with rigid stainless steel flue pipe connecting to the boiler.

The first 600mm of the stainless steel flue pipe from the boiler must be vertical with no bends or restrictions.

There must be a least a 25mm clearance between the S/S flue pipe and any combustible material.

The data label must be secured onto the chimney or chimney hearth using the plate provided.

If it is not possible to attach the plate to the chimney, the plate can be attached, in a visible position, next to the electricity consumer unit.

Do not attach the data plate or label to the flue system.

The terminal should not be modified and an extra cowl or cover must not be fitted, the boiler is designed so that any rain that enters the flue will be directed down to the condensate drain.

Calculating the flue length

Refer to figure 8 and table 2

$L_{max} = \text{boiler max} - 1 \text{ metre}^*$

(Each 45° bend has a 0.5 metre equivalent flue length).

* If the chimney has an additional offset, then L will be reduced by an extra metre.

** The top 45° bend may not be required if there is sufficient room in the chimney to turn the flexible liner through 45° within the chimney. The stainless steel section must be adequately supported.

Maximum flue length without damper is 6 metres

Greenstar boiler models	Model	FlueØ mm	Max flue length (m)	Damper required >6m
Camray kitchen	12/18	100	15	N
	18/25	100	15#	Y
	25/32	100	15#	Y
Camray Utility & Utility System	12/18	100	15	N
	18/25	100	15#	Y
	25/32	100	15#	Y
Danesmoor (pre 2011)	18/25	100	15	N
Heatslave	12/18	100	15	N
	18/25	100	15	N
	25/32	100	15	N
Utility	18/25	100	15	N
	32/50	100	15	N
	50/70	100	15	N

Greenstar boiler models	Model	FlueØ mm	Max flue length (m)	Damper required >6m
Heatslave II	12/18	100	12	N
	18/25	100	12	N
	25/32	100	12	N
Danesmoor (cross firing post 2013)	12/18	100	12	N
	18/25	100	12	N
	25/32	100	12	N

Table 2 Max flue lengths

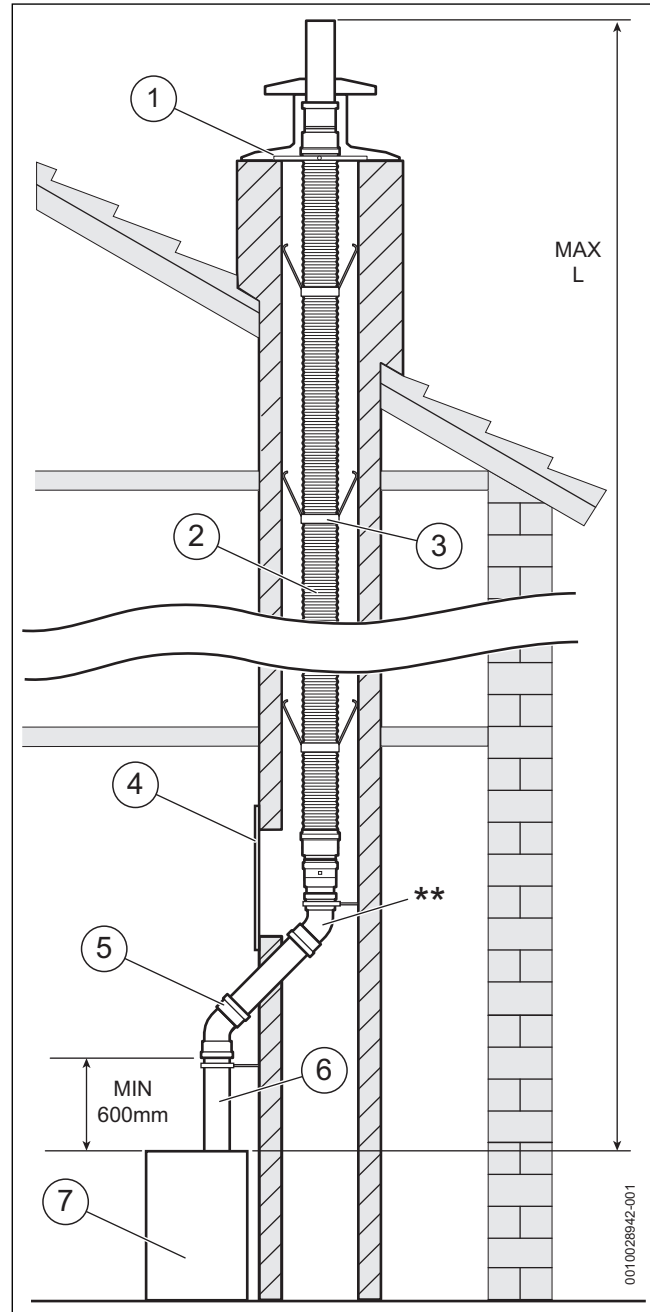


Fig. 8 Typical installation - offset flue

- [1] Chimney cowl
- [2] Flexible liner
- [3] Centralising spacer
- [4] Fire stop/Inspection plate
- [5] Maximum two bends at 135°
- [6] Stainless steel vertical section (minimum 600mm)
- [7] Boiler

Calculating the flue length

Refer to figure 9 and table 2.

$L_{max} = \text{boiler max}^*$.

*If the chimney has an offset, then L will be reduced by 1m.

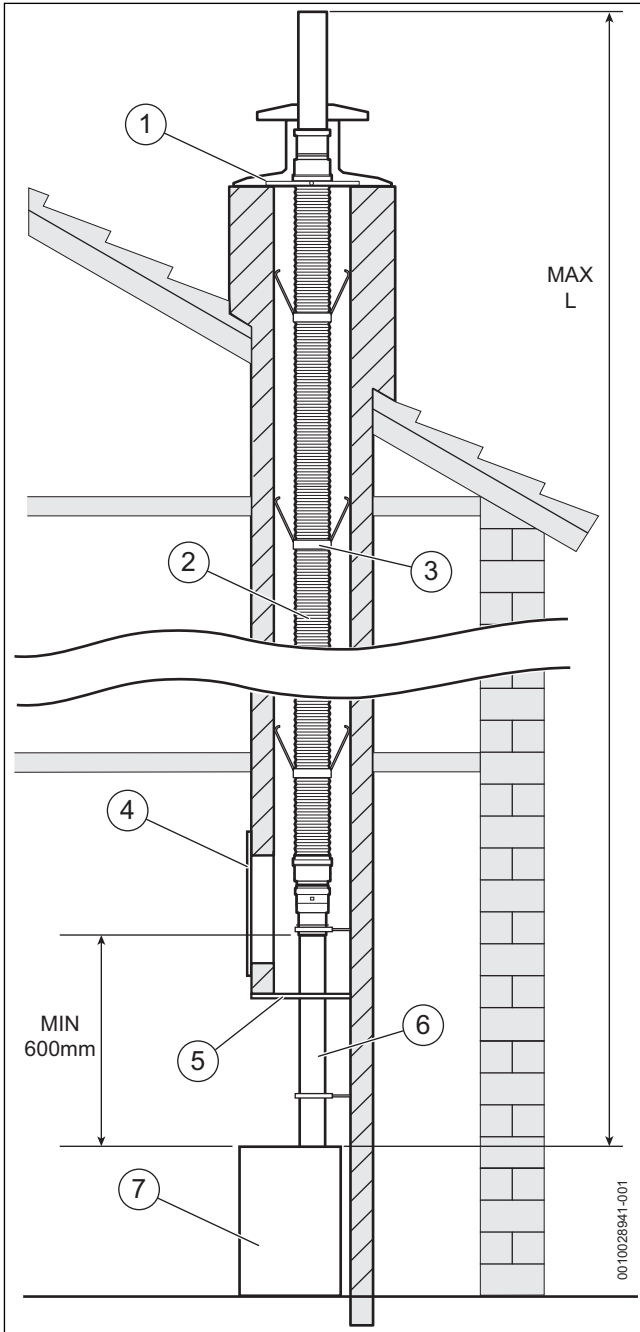


Fig. 9 Typical installation - straight flue

- [1] Chimney cowl
- [2] Flexible liner
- [3] Centralising spacer
- [4] Fire stop/Inspection plate
- [5] Fire stop plate
- [6] Stainless steel vertical section (minimum 600mm)
- [7] Boiler

NOTICE:

Fire stop plates

- Depending upon the opening situation, a fire stop plate, as shown, can be used.

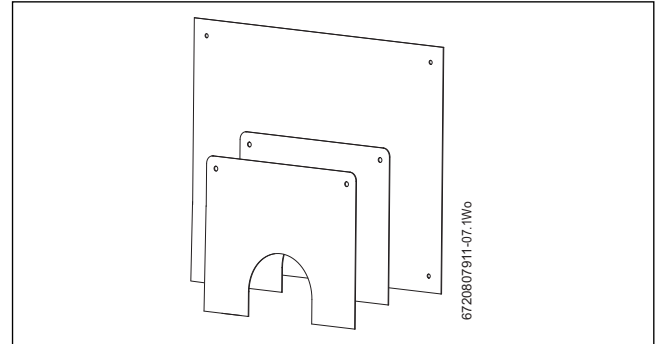


Fig. 10 Fire stop/Inspection plates

To fit the damper

- Remove the flue manifold access cover
- Put the damper in, behind the flue stat pocket
- Push the damper firmly onto the protruding stainless steel elbow

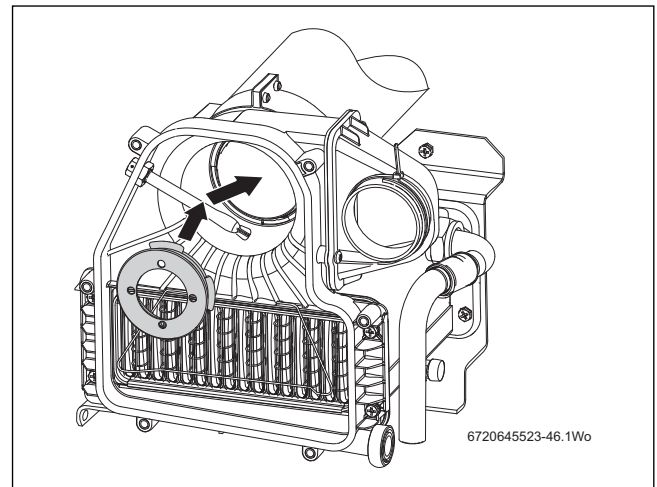


Fig. 11 Damper fitting detail

4 Installation

NOTICE:

Flue components

- ▶ All seals must be greased with the silicone grease provided before assembly.
- ▶ Any damaged flue components must be replaced, repairs are not allowed.

4.1 Preparing the chimney opening

1. Refer to the CF vertical flue kit instructions to assemble the suitable adapters onto the boiler flue outlet.
2. Make a suitable entry into the chimney above the boiler, large enough to install the flue and allow access to the joints for servicing.
3. Assemble the first stainless steel flue section [2] to the flue adapter [1].
4. Mark the position of the support brackets [3] for the first flue section [2] on the chimney wall. Drill the chimney wall and fit the support bracket [3] using the wall plug and screw provided.



On some installations it will be necessary to shorten the bracket mounting screw [5]

5. Grease the seals of the second stainless steel flue section [2] and two 135° flue bends and assemble onto the first flue section as shown in figure 12.
6. Mark the position of the support bracket [3] for the 135° flue bend [4] inside the chimney. Drill the chimney and fit the support bracket [3] using the wall plug and screw provided.
7. Fit the stainless steel flue sections and clamp with the support brackets.

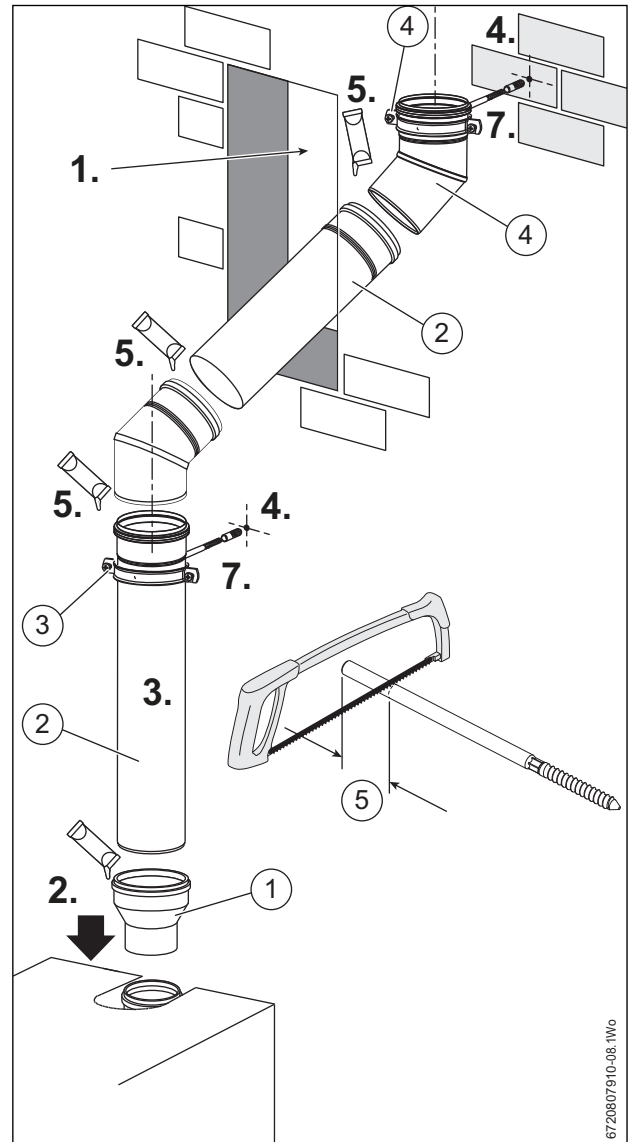


Fig. 12 Prepare the chimney opening

- [1] Flue adapter
- [2] Flue section
- [3] Support bracket
- [4] 135° Flue bend
- [5] Shorten this end only

4.2 Preparing the flue liner

1. The flexible flue liner [1] should be fed down the chimney from the top, fitting centralising spacers [2] at a maximum of every 2.5 metres, less preferably.
2. When the flexible liner is in place, the bottom of the liner should be cut off tidily at the start of a corrugated section, shown in the figure below.
3. Where the bend in the chimney is 500mm or less follow the advice in figure 14 or if the bend is greater than 500mm follow the advice in figure 15

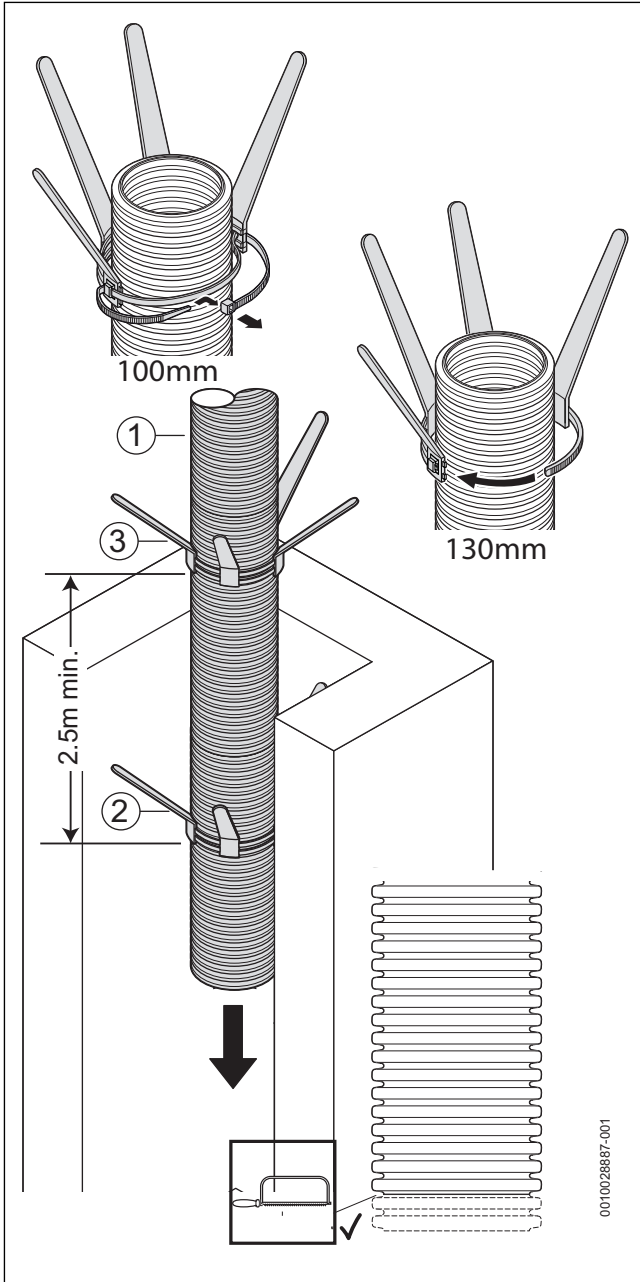


Fig. 13 Preparing the liner

- [1] Flexible flue liner
- [2] Centralising spacer

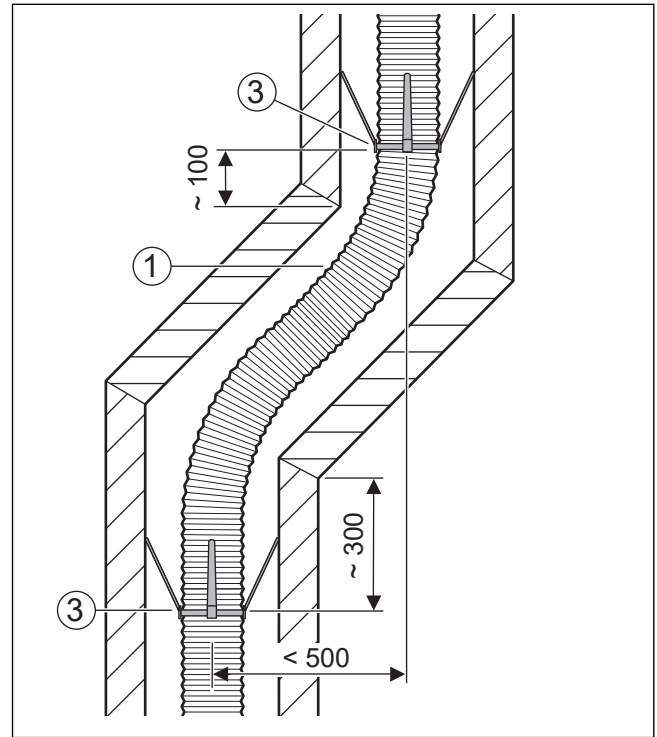


Fig. 14 Installation in slightly angled chimney

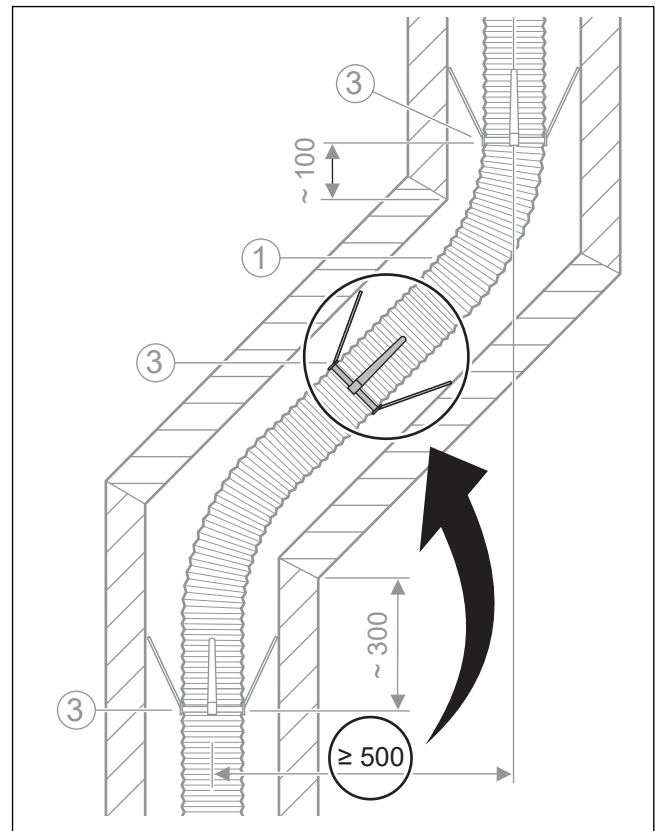


Fig. 15 Installation in angled chimney

4.3 Fitting the seal and lower adaptor

1. Apply silicon grease (3) to the seal (2) and fit the seal into the second or third recess on the flexible liner (1), make sure that the seal is not twisted and is seated properly.
2. Check that the locking lugs on the adaptor assembly (4) are fully undone. If the adaptor is locked, push the locking tabs outward to release the locking lugs from the adaptor. Push the adaptor (4) onto the flexible liner (1), it may be necessary to pull the locking lugs out to allow the adaptor to be pushed into the flexible liner, until the adaptor "bottoms out". Ensure that the flexible flue:
 - is pushed fully down
 - is square with the adaptor
3. Push the locking tabs in the direction of the arrow until they click and lock in place.
4. If the adaptor assembly (4) needs to be removed after assembly then a small flat-bladed screwdriver can be used to lift the locking tabs to allow removal of the flexible liner.

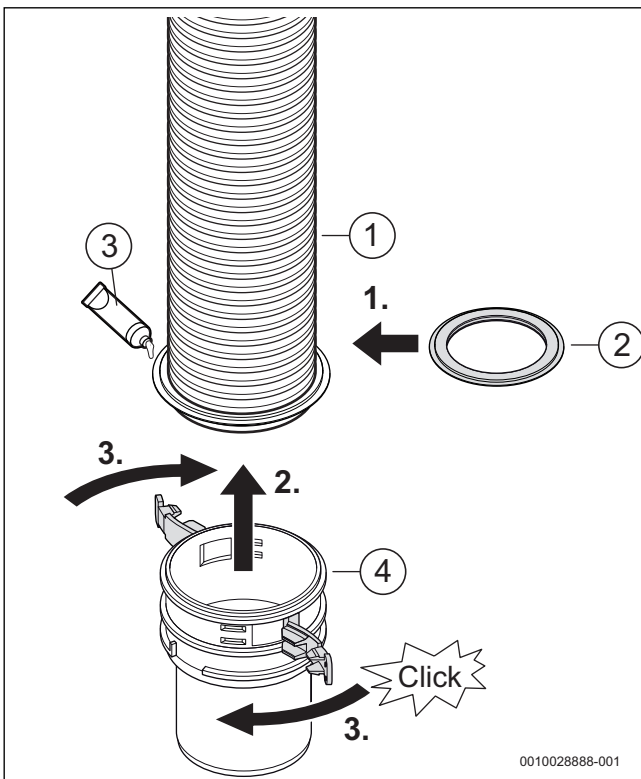


Fig. 16 Adapter assembly

- [1] Flexible flue liner
- [2] Seal
- [3] Grease
- [4] Flue adaptor

5. Apply grease (3) to the stainless steel elbow (5) then push adaptor (4) into the elbow.
6. Fit a removable inspection panel to allow inspection of the joints within the chimney. Make good the opening around the stainless steel flue pipe.

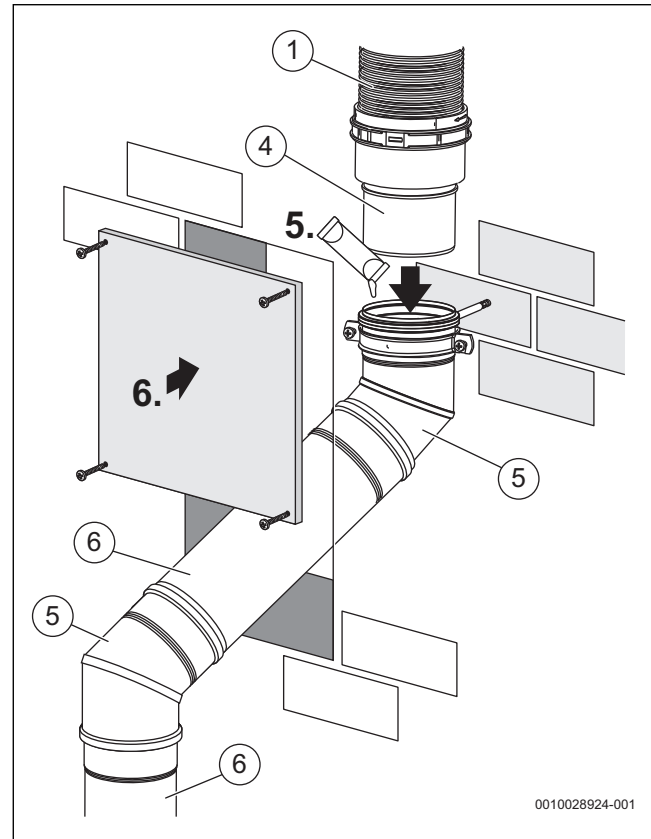


Fig. 17 Chimney detail

- [5] Stainless steel elbow
- [6] Flue section

4.4 Fitting the support bracket, seal, and adaptor

1. Slide the Chimney support bracket (2) over the flexible flue liner (1).
2. Apply silicon grease (3) to the seal (4) and fit the seal into the second or third gap from the top of the flexible liner (1), ensure that the seal is not twisted and is seated properly.
3. Check that the locking lugs on the adaptor assembly (5) are fully open.
Push the adaptor (5) onto the flexible liner (1) until the liner bottoms out.
4. Push the locking tabs in until they click into place and are locked.

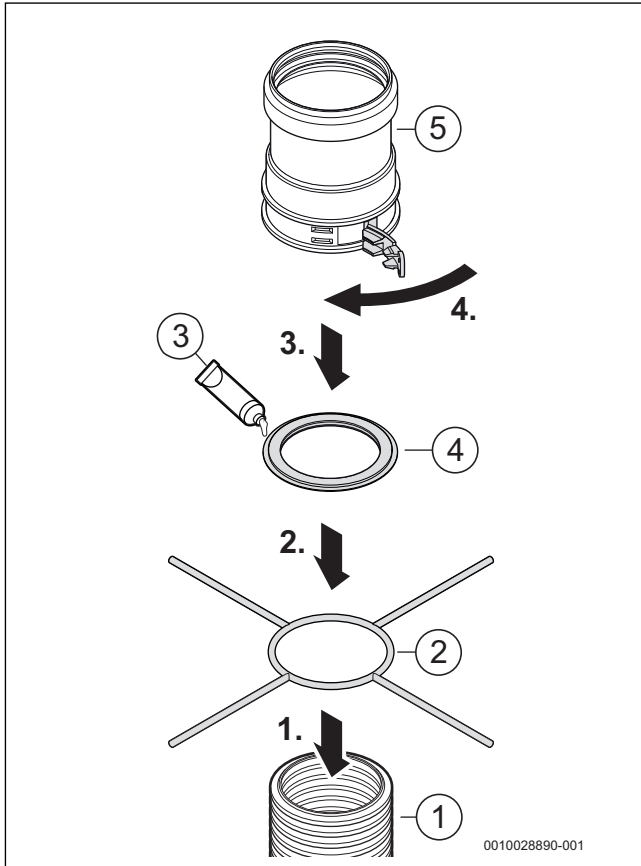


Fig. 18 Terminal assembly

- [1] Flexible flue liner
- [2] Chimney support bracket
- [3] Silicon grease
- [4] Seal
- [5] Adaptor assembly

4.5 Fitting the chimney cowl

The terminal flue end must be at least 350mm long.

Ensure that the chimney bracket is larger than the chimney opening and rests on the top of the chimney. When fitted, the Chimney cowl will hold the flue in place.

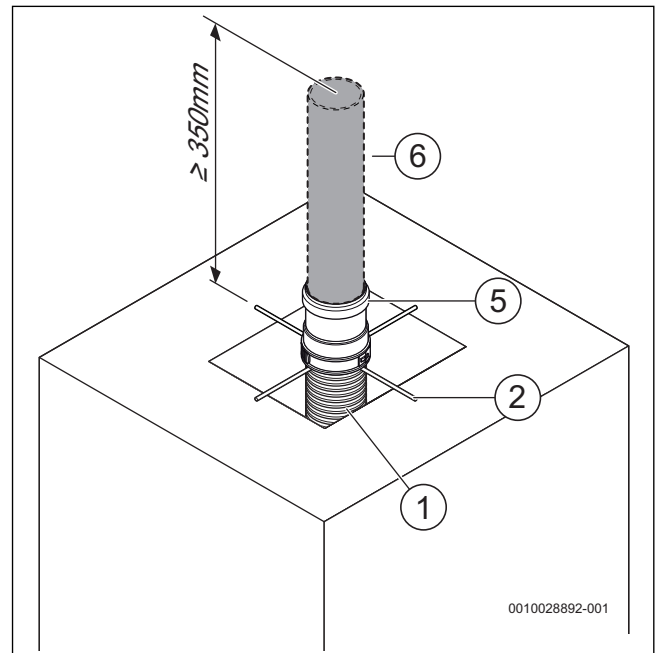


Fig. 19 Terminal flue

- [1] Flexible flue liner
- [2] Chimney bracket
- [5] Flexible to rigid adaptor
- [6] Flue terminal end
- [7] Chimney cowl
- [8] Flue terminal grille

1. Apply silicon grease to the seal on the adaptor (5) and fit the flue terminal (6) to the adaptor (5).
2. Fit the Chimney cowl (7) over the terminal end (6).
Mark the cowl securing points.
Turn the cowl to reveal the marked securing points, drill and fit the wall plugs.
Secure the cowl (7) with the screws provided.

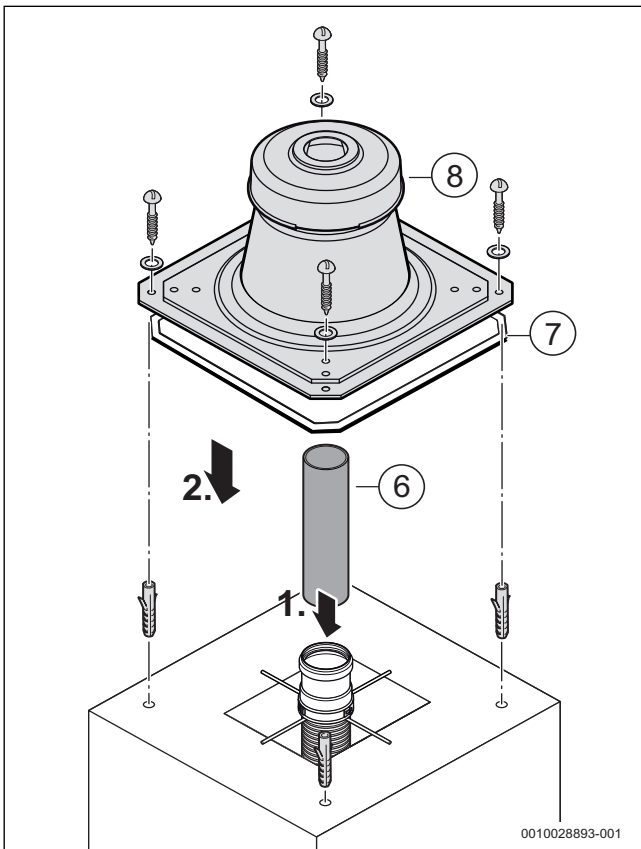


Fig. 20 Chimney cowl



If the chimney cowl is too large:

- ▶ Cut the chimney cowl down along the moulded marks and use the inner set of securing points.

Fit the grille (8) onto the terminal end and secure with the screw provided.

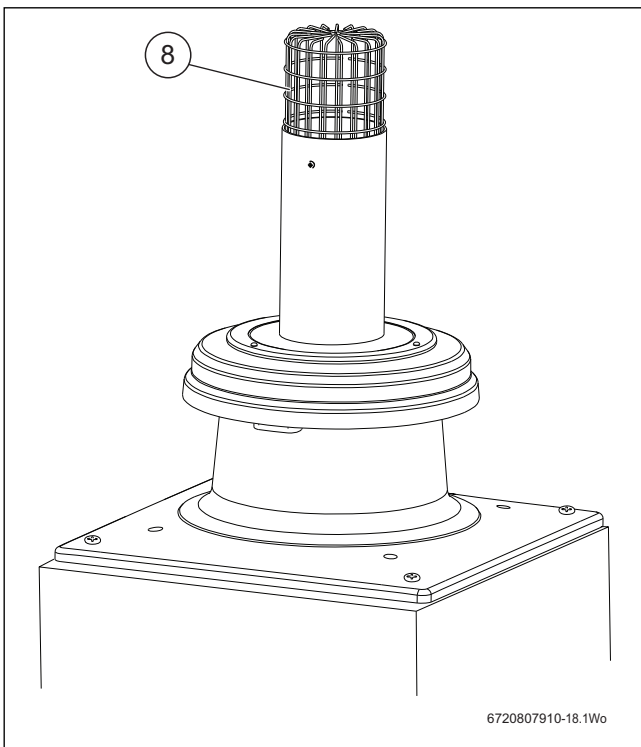


Fig. 21 Finishing the installation

Information plate

Fill in the details on the chimney plate and fit the chimney plate, either next to the boiler/chimney or next to the electricity consumer unit. The plate can either be stuck to a flat sound surface or fitted to the mounting plate and screwed in place.

Flue draft

Because the flue operates at a lower temperature on a condensing boiler, compared to that of a conventional boiler, the flue draft will be lower. Typically the draft will be between 0.5mmwg and 4.4mmwg, measured with a warm flue, but the burner not firing. The actual figure will vary depending upon weather conditions, flue height and position.

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