

Installation Instructions

Alpha Easy-Flue (with Plume Management Facility)

Easy-Flue 500 mm Part No. 3.031805

Easy-Flue 1000 mm Part No. 3.031806

**60/100 concentric flue for use with
Alpha condensing boilers**

For Technical help or for Service call ...
ALPHA HELPLINE Tel: 0344 871 8764
website: www.alpha-innovation.co.uk

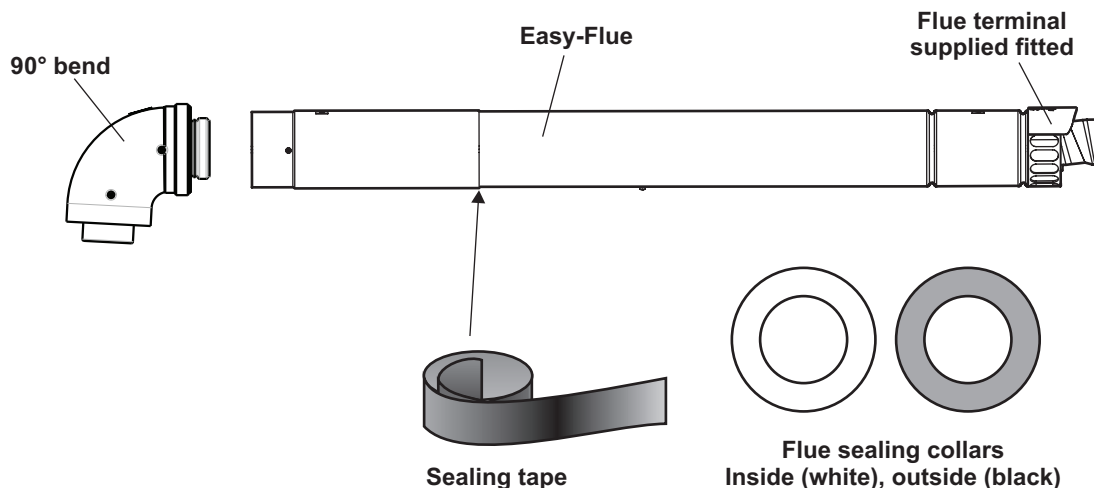
Alpha
HEATING INNOVATION

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DECLARATION OF PERFORMANCE

No. 003DoP0027System chimney with plastic flue liners
EN 14471:2013



KIT CONTENTS

1. GENERAL

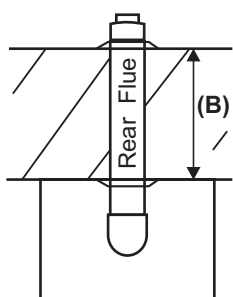
Note: These flues **MUST ONLY** be used with the Alpha Condensing boilers.

- The Alpha Easy-Flue is suitable for straight horizontal flues only and can be extended up to the maximum lengths given in Section 4.
- The Alpha Easy-Flue is suitable for providing two options for management of the exhaust flue gas/plume emitted from the terminal. They are:-
 - Divert the plume by altering the terminal of the the Easy-Flue.
 - Extend the inner flue duct by using Plume Management accessories to re-locate the terminal to an area where the plume will not cause a nuisance. **Note:** When fitting plume management accessories, ensure there is always a slope towards the Easy-Flue assembly in the wall by a minimum of 25-30 mm per metre and there is no part of the pipework where condensate/rain will collect.

Refer to Section 5 for full details.

- The Easy-Flue includes a 90° bend.
- Ensure the Easy-Flue outer duct is installed horizontally (please note that the Easy-Flue inner duct already has a pre-determined slope towards the boiler for condensate to run back towards the boiler). When extending the flue with flue extensions, these flue extensions must be installed with a slope downwards towards the boiler by a minimum of 25-30 mm per metre.
- The flue system must be installed in accordance with BS 5440:1.
- The boiler must be installed in accordance with the installation instructions supplied with the Alpha condensing boiler.
- The Easy-Flues are suitable for use in the flue length ranges shown in the tables below.

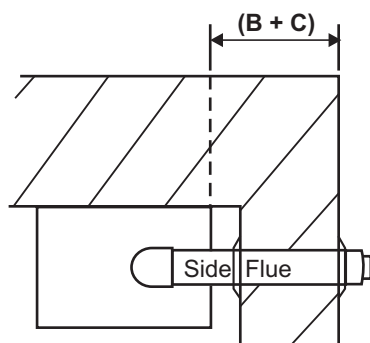
Note: Where the length is less than the minimum or more than the maximum, refer to Section 4.



All combi and system models	B (mm)	
	Max	Min
Easy Flue		
500 mm	501	291
1000 mm	946	736
* 500 mm	456	246
* 1000 mm	901	691
* With Premier pack		

E-Tec R	B (mm)	
	Max	Min
Easy Flue		
500 mm	498	288
1000 mm	943	733

Fig. 1 - Rear Flue



All combi and system models	B + C (mm)	
	Max	Min
Easy Flue		
500 mm	416	206
1000 mm	861	651

E-Tec R	Right exit B + C (mm)		Left exit B + C (mm)	
	Max	Min	Max	Min
Easy Flue				
500 mm	426	216	456	246
1000 mm	871	661	901	691

Fig. 2 - Side Flue

2. INSTALL THE BOILER

- Fit the boiler in accordance with the installation instructions supplied with the Alpha condensing boiler.
- Use the template (supplied with the boiler) to mark the flue position and cut a 110 mm diameter flue hole (or use a 107 mm core drill).

Notes: i. Ensure the hole is cut horizontally.

ii. If the Easy-Flue is being fitted internally, cut a 130 mm diameter flue hole (or use a 127 mm core drill). Refer to Section 3, paragraph (c) or Section 4.

3. FIT THE FLUE

Note: Lubricate the flue seals using the lubricant supplied before assembling the flue. **DO NOT** use a different lubricant.

The following procedure applies to fitting an Alpha Easy-Flue to both rear or side exit flue - horizontally only.

Note: If extending the Easy-Flue refer to Section 4.

- Determine the overall length (L) of flue required, (see Fig. 3) as follows:-

Rear flue $L = \text{wall thickness (B)} + *71 \text{ mm or } 74 \text{ mm (for E-Tec R)}$

* Add 45 mm when Premier Pack is used

Side flue $L = \text{wall thickness (B)} + \text{distance between boiler and wall (C)} + 156 \text{ mm or } 146 \text{ mm (for E-Tec R right side exit) or } 116 \text{ mm (for E-Tec R left side exit)}$

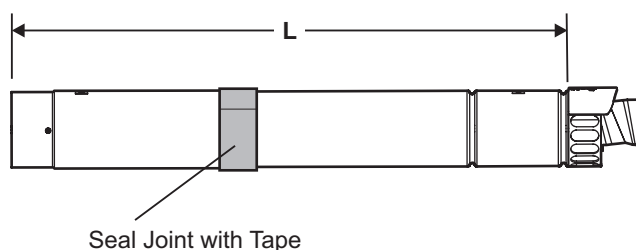


Fig. 3

- Adjust the telescopic section of the flue to the distance 'L', ensuring that the two labels marked 'TOP' are aligned, then seal and secure the joint between the ducts with the sealing tape supplied.

Note: Always ensure that there is a minimum overlap of 20 mm when fully extending the telescopic section.

- Pass the flue assembly through the wall (from inside or outside).

Note: Internal fitting - If there is no access to make good the outside wall, locate the outside (black) flue sealing collar onto the outer duct of the flue immediately before the terminal grille onto the location provided. Push the flue assembly through the 130 mm flue hole, so that the collar completely passes through the wall. Then pull the flue assembly back into the correct position. Visually check that the collar is sealing the outside wall and that it is not restricting any of the openings of the flue terminal.

Where a flue terminates less than 150 mm below a gutter, eaves or other obstructions it is possible to extend the flue to allow the flue termination to clear the obstruction, providing the flue is not extended beyond the first joint. For situations below balconies or large eaves where extensions may be required, the flue must be supported using the correct brackets. Alternatively plume management components can be used with supports where necessary.

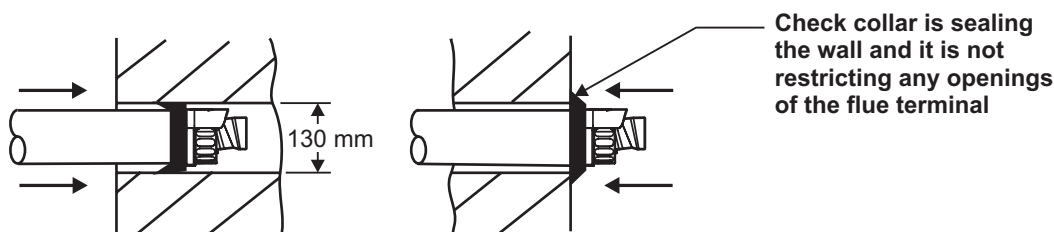


Fig. 4 - Fitting the flue from inside

- Fit the inside (white) flue sealing collar over the Easy-Flue. If it was not previously fitted, fit the outside (black) flue sealing collar onto the flue immediately before the terminal grille onto the location provided.
 - Place the flat concentric gasket (supplied with the boiler) onto the boiler, ensuring the protruding 60mm rib is facing downwards and located correctly.
 - Fit the bend to the flue turret supplied with boiler. Push the bend onto the Easy flue, fully engaging both inner and outer duct.
 - Check the flat concentric gasket is still in the correct position and fix the flue turret to the boiler with the 4 screws (supplied with the boiler).
- Note:** Check the flue terminal protrudes 120 mm out of the wall and the inner duct of the terminal is positioned correctly (see Fig. 5).
- Make good the inside wall by pushing the inside flue sealing collar up to the wall.

Refer to the boiler manual for more details about flue turret and flat concentric gasket installation.

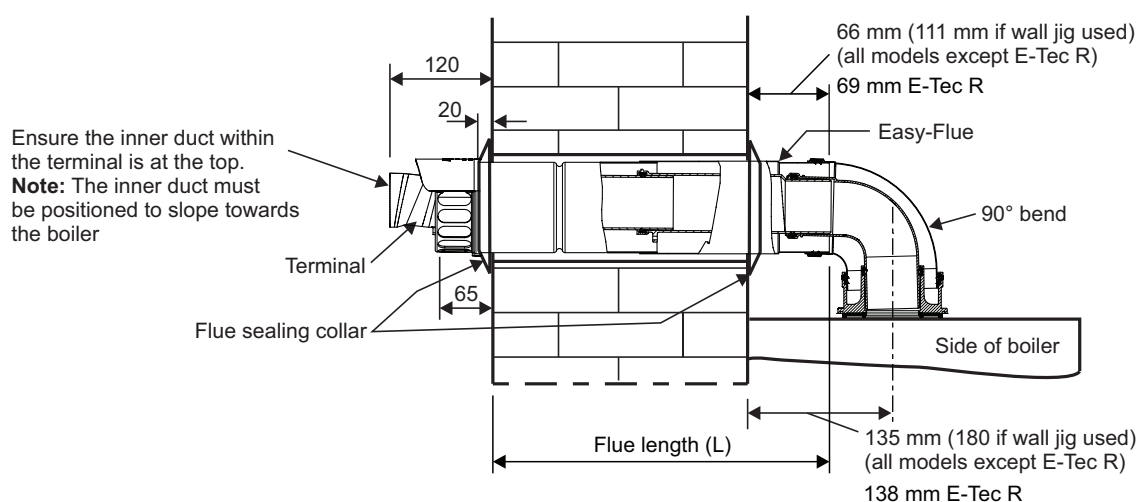


Fig. 5 - Rear flue

4a. REDUCING THE FLUE - Fig. 6

When the flue length required is less than the minimum stated in Section 1, paragraph (g), refer to Fig. 6 below.

Discard the first telescopic section (**not** the section with the terminal) of the Easy-Flue 1000 mm or 500 mm and cut to the required length.

Note: Ensure that all cuts are square, flush and free from burrs.

Once assembled with the components pushed home, the flue is fully sealed.

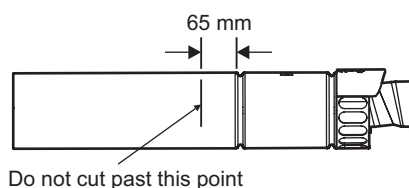


Fig. 6

4b. EXTENDING THE FLUE - Fig. 7

Note: The flue assembly length must not exceed the maximum length stated, including the equivalent lengths of any extensions, bends etc, used for plume management components.

Alpha boilers must not exceed the maximum of 12 m.

- a. When the flue length required is more than the maximum stated in Section 5.6, the Alpha 750 mm flue extension (Part No. 3.031807), 1000 mm extension (Part No. 3.031808) or 2000 mm extension (Part No. 3.031814) are required to extend the range of telescopic flue. Refer to Section 4b for instructions on how to extend the flue.

Note: A 130 mm flue hole (127 mm core drill) may be required in the wall. This is when the extended flue is passed through the wall.

Each extension used must be supported with the bracket supplied with the extension. If necessary the bracket M8 threaded stud can be replaced with a longer one (not supplied).

Additional support brackets are available if required. (Part No. 3.034521).

- b. Use the template (supplied with the boiler) to mark the required flue position, ensuring there is the correct slope towards the boiler.
- c. Determine the overall flue length as described in Section 3, paragraph (a) to determine the number of Alpha flue extensions required.
- d. When assembling the flue components, lubricate the seals with the lubricant provided before connecting the parts together. Ensure both the inner and outer ducts are fully engaged.

Note: If it is required to cut an extension, **DO NOT** cut the end of the inner duct that incorporates the seal joint. Ensure the inner and outer ducts are cut flush. Ensure that all cuts are square and free from burrs.

Once assembled with the components pushed home, the flue is fully sealed.

- e. Adjust the telescopic section of the Easy-Flue to the required length and secure the Easy-Flue with the sealing tape supplied. Fit the Easy-Flue to the extensions, ensuring both the inner and outer ducts are fully engaged.
- f. Mark the end of the flue assembly 'TOP' where it is connected to the boiler, so that the 'TOP' of the flue terminal is aligned with the 'TOP' at the boiler end of the flue assembly.
- g. Pass the complete flue assembly through the wall.
- h. Fit the inside (white) flue sealing collar over the Easy-Flue. If it was not previously fitted, fit the outside (black) flue sealing collar onto the flue immediately before the terminal grille onto the location provided.
- i. Place the flat concentric gasket (supplied with the boiler) onto the boiler, ensuring the protruding 60mm rib is facing downwards and located correctly.
- j. Fit the bend to the flue turret supplied with boiler onto the Easy-Flue, fully engaging both inner and outer duct.
- k. Check the flat concentric gasket is still in the correct position and fix the flue turret to the boiler with the 4 screws (supplied with the boiler).

Refer to the boiler manual for more details about flue turret and flat concentric gasket installation.

- l. Using a Flue Gas Analyser (FGA), carry out a flue integrity test. If readings are unacceptable, remove flue and check all joints before carefully re-assembling and repeating the test

Note: Check the flue terminal protrudes 120 mm out of the wall and the inner duct of the terminal is positioned correctly (see Fig. 5).

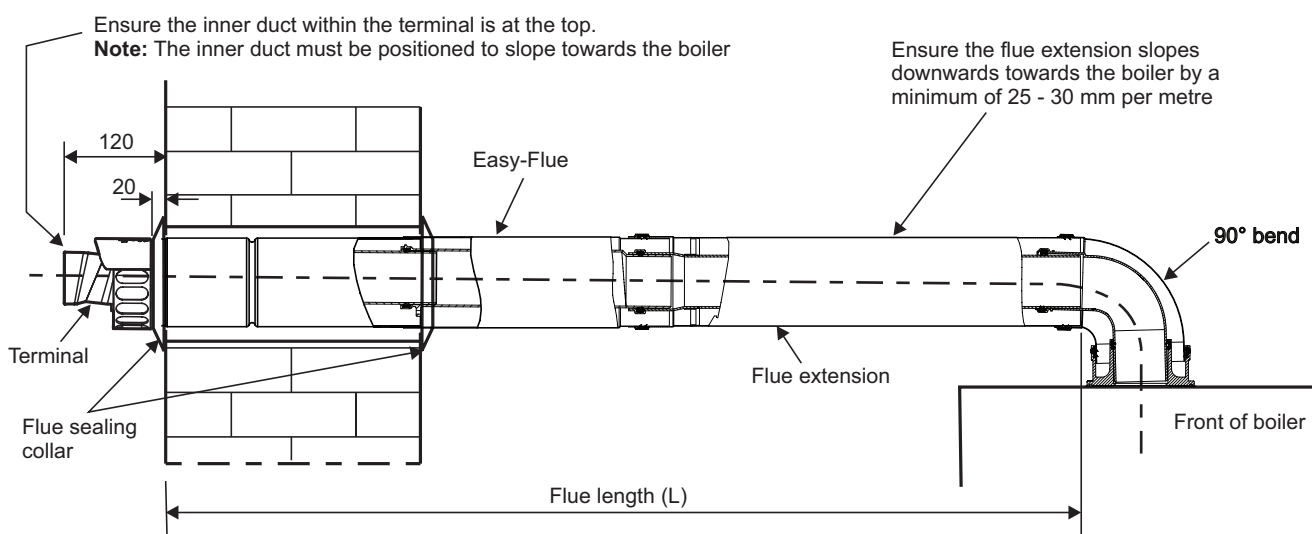


Fig. 7 - Side flue

5. FIT PLUME MANAGEMENT COMPONENTS - (OPTIONAL)

The following procedures detail the options for management of the exhaust flue gas/plume emitted from the terminal.

- a. The terminal supplied with the Easy-Flue can be altered to divert exhaust flue gas/plume at an angle.

This can be achieved by simply turning the end section of the terminal to the desired angle.

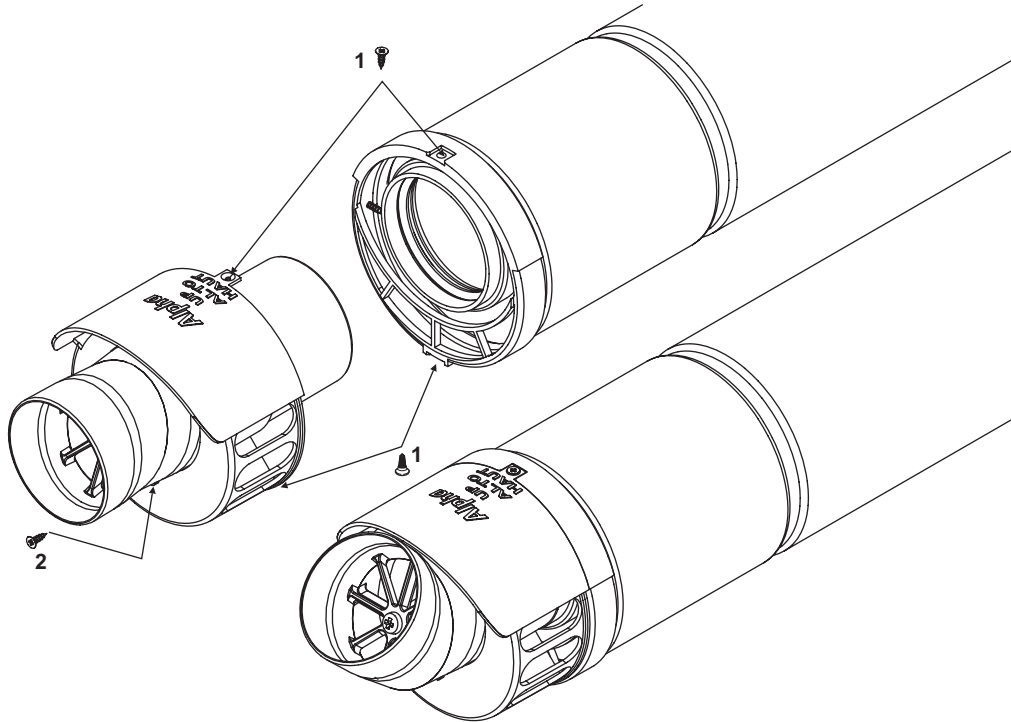


Fig. 8

- b. The Easy-Flue can be converted to allow the inner flue duct to be extended so as to position the terminal in an area where the exhaust flue gas/plume will not cause a nuisance. This can be done before or after installation of the flue, providing there is access to the terminal from outside.
- Remove the screws (1 in Fig. 8) securing the terminal and remove the terminal by pulling it from the flue assembly. Remove the screw (2 in Fig. 8) securing the terminal end section and remove the end section from the terminal.
 - Locate a 93° Plume Management bend into the flue assembly and rotate it to the direction required.
 - Connect to the 93° bend the required Plume Management components as detailed and refer to Fig. 9.

Notes:

- The wall support brackets must be used to secure the Plume Management pipework to the wall and prevent disconnection of the 93° bend from the flue assembly or any other component.
 - Each joint must be secured with one of the screws provided to prevent accidental disconnection.
 - Ensure there is always a slight slope towards the flue assembly fitted in the wall and there is no part of the plume management pipework where condensate/rain will collect and cause a blockage or any restriction.
- iv. Terminate the Plume Management pipework by fitting the terminal end section (push-fit) previously removed. Refer to Fig. 9.
- v. The Plume Management components available for extending the inner flue duct are as follows:-
- Plume Management 93° bend 60 mm dia. (each 93° bend equivalent to 1.3 m flue length)
 - Plume Management 45° bend 60 mm dia. (each 45° bend equivalent to 0.9 m flue length)
 - Plume Management 1000 mm extension 60 mm dia. (equivalent to 1 m flue length)
 - 60 mm dia. wall bracket

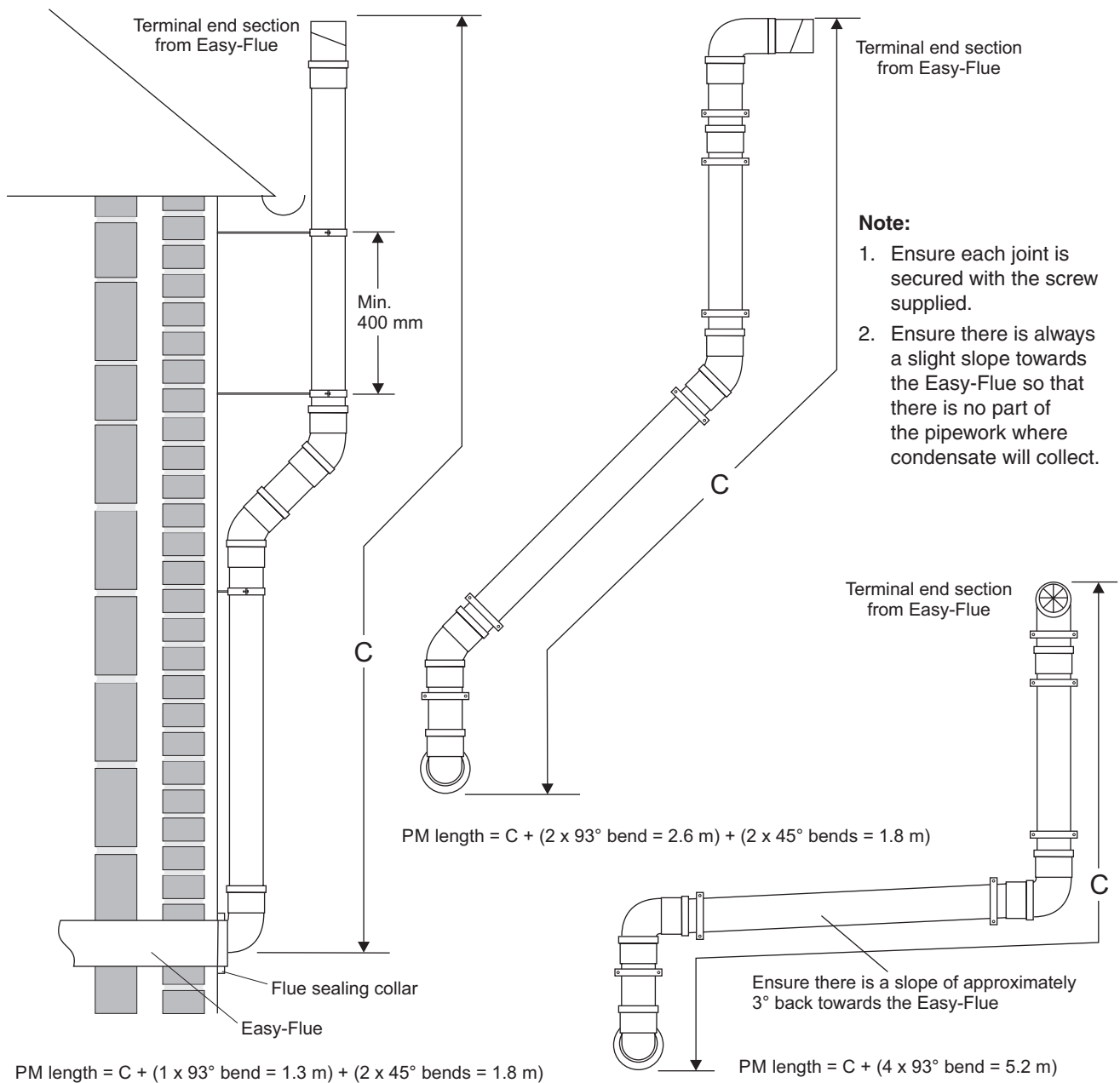


Fig. 9

Note: The equivalent horizontal flue assembly length + the equivalent plume management length (PM length) must not exceed the maximum flue length stated.

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