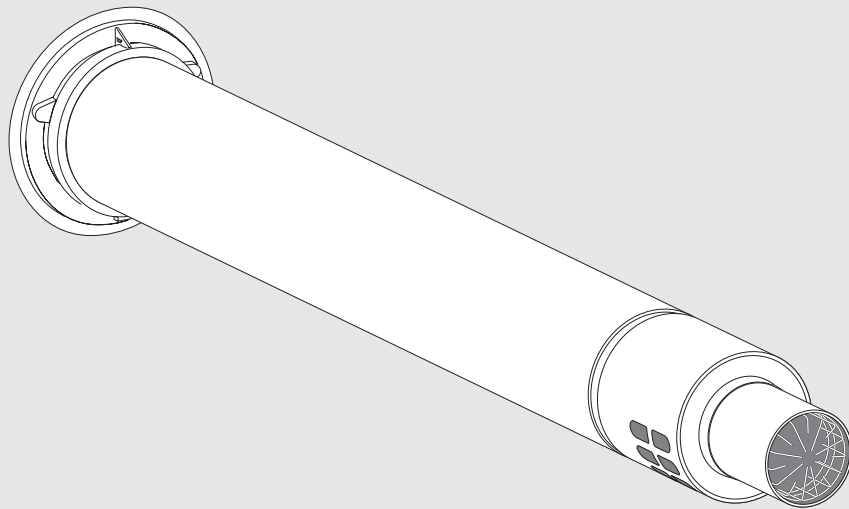


Flue kit installation instructions

8000 F Flue Kit 80/125 Horizontal

Greenstar Condensfit II Floor Standing

7724001998



0010020548-002



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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 minimizing danger are not taken.

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



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



WARNING indicates a hazardous situation which, if not avoided, could result in serious personal injury or danger to life.



CAUTION indicates a hazardous situation which, if not avoided, could result in minor to moderate personal injury.

NOTICE

ATTENTION 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 instruction 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.

⚠ 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

Condensate disposal with the flue system

Extended horizontal flue runs (over the standard flue length) need to allow for proper disposal of condensate through the flue system back to the appliance.

- ▶ All horizontal flue sections must rise by at least 52mm per metre away from the appliance to ensure that the condensate flows back into the appliance for safe disposal via the condensate waste pipe.

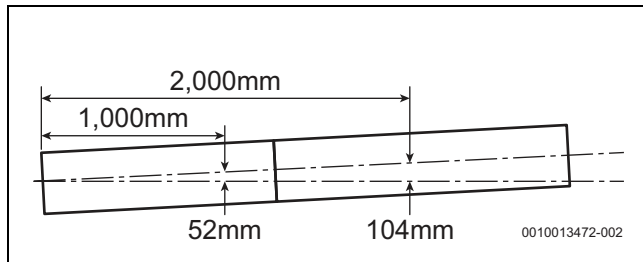


Fig. 1 Slope for condensate disposal

- ▶ Although referred to as 90° elbow they are in fact 93°.
 - They have a built in 3° (52mm per metre) rise from the appliance to help maintain condensate flow back into the appliance for safe disposal.

Flue termination positions

The flue termination positions are covered in the appliance Installation and maintenance instructions as they are part of the appliance installation location considerations.

- Ensure the maximum flue length is not exceeded for the appliance model, maximum lengths are detailed in the appliance Installation and maintenance instructions.

Installation

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

Support

Support the flue at approximately one metre intervals and at a change of direction, use suitable brackets and fittings.

Flue System



Only use the approved Condensifit II floor standing flue system accessories with this flue kit.

Replacing an existing flue

When replacing an existing Condensifit II floor standing flue on an appliance:

- ▶ Ensure it is the correct flue system for the appliance as we have a separate flue system for Wall Hung and Floor Standing gas 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.

Flue system in voids

Where a flue system is going to be concealed, provision for access must be made for service and inspection:

- ▶ Access points for inspection of the flue system must be sufficiently sized for visual inspection, particularly at any joint in the flue system.
 - The access panels must be no less than 300mm square.
 - Larger access panels can be considered if the whole flue system needs to be viewed.
 - Any access must not contravene any other building regulations or fire regulations. Refer to Building Regulations Approved Documents B, L and E.
- ▶ Flue joints within the void must not be more than 1.5m from the edge of the inspection hatch.
- ▶ Inspection hatches should be located at changes of flue direction.
 - If this is not possible, elbows should be viewable from both directions.

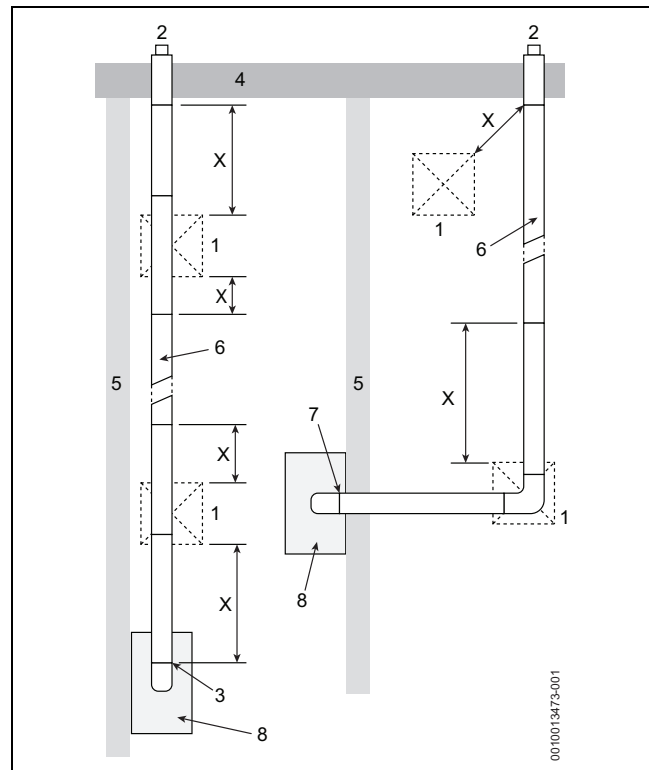


Fig. 2 Flues in voids (example shown as horizontal flue)

- [X] This dimension must not be more than 1.5 metres (applies to all flue orientations).
- [1] Inspection hatch
- [2] Flue terminal
- [3] Concealed flue connection
- [4] External wall
- [5] Internal wall
- [6] Any intervening joints must be visible within 1.5 metres of the inspection hatch (applies to all flue orientations).
- [7] Accessible flue connection
- [8] Appliance

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.

2 Product Information

Intended use

These instructions cover the following flue accessories kits:

- 7 724 001 998, 8000 F Flue Kit 80/125 Horizontal

These 80/125mm flue kit accessories are intended for use with Worcester Greenstar floor standing condensing gas appliances.

The flue elbow and flue connector have an in-built 3° angle giving the flue assembly the rise from the appliance to ensure the condensate flows back to the appliance.

2.1 Appliance Compatibility

For use with the following Worcester gas-fired floor standing appliances:

- Greenstar 8000 F 35kW Combi
- Greenstar 8000 F 50kW Combi
- Greenstar 8000 F 35kW Regular
- Greenstar 8000 F 50kW Regular

2.2 Scope of delivery

- 7 724 001 998

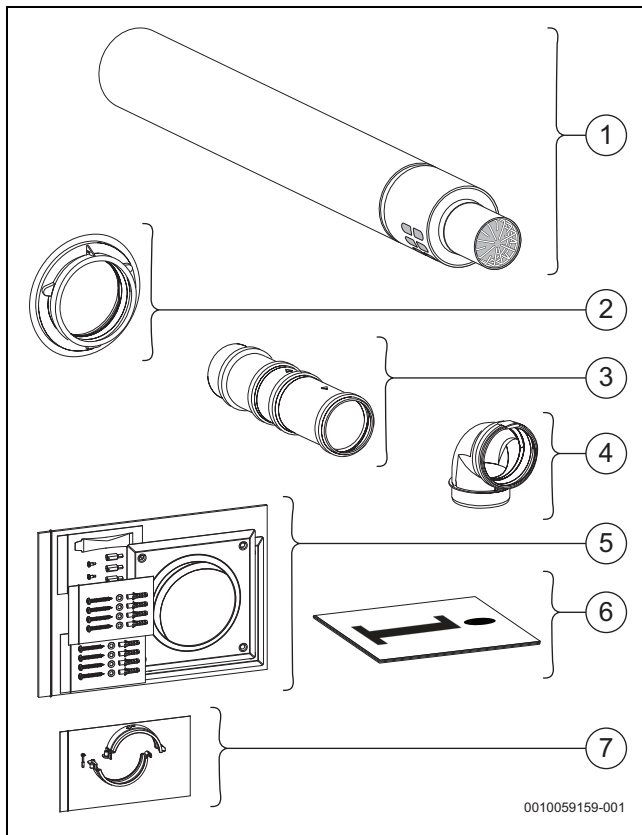


Fig. 3 Scope of delivery

- [1] Horizontal flue
- [2] Flue connector
- [3] Flue adaptor
- [4] 93° Elbow
- [5] Flue accessory pack
 - Wall cover plate x 2
 - Wall cover plate mounting accessories x 2
 - Flue connector mounting accessories
- [6] Instructions
- [7] Flue retainer clamp - large

2.3 80/125mm flue accessories

1	Vertical flue connector and small clamp ¹⁾	7 733 601 598
2	1,000mm extension	7 719 003 666
3	90° elbow	7 719 003 664
4	45° elbow (set of 2)	7 719 003 665
5	Support bracket kit	7 716 191 174

1) Vertical flue connector is required when connecting the horizontal flue kit for higher level flue discharge compared to the standard rear/side horizontal flue discharge.

Table 2 Accessories

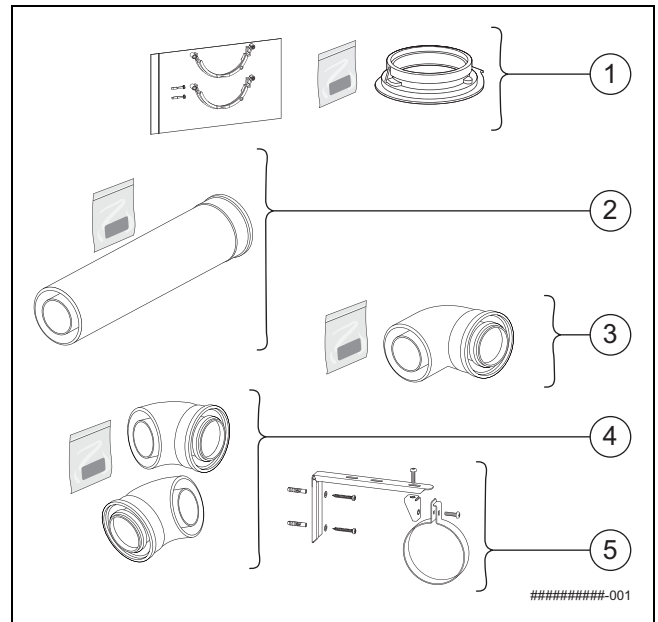


Fig. 4 Accessories

3 Pre-installation

CAUTION

Flue joints and cut sections

- ▶ Secure all joints with the screws supplied in the appropriate flue kit and accessory.
The sole purpose of the screws is to ensure that a correctly assembled joint cannot become separated due to external influences. They are not intended to provide any mechanical strength or support.
- ▶ A hole must be pre-drilled in the outer flue using a 3mm drill-bit wherever a screw is to be used to secure a joint. The joint may not be properly secured if the outer flue is not pre-drilled. Ensure you do not accidentally drill the plastic inner flue.
- ▶ When cutting sections, always take care not to damage the tubes, chamfer the edge of the plastic inner tube and remove any burrs from both tube sections to assist in ease of connection and to prevent seal damage.

Flue joints fixing screws

- ▶ Whenever possible, two screws should be fitted, at 180° from each other on the flue connections, however we recognise that some installation may make it difficult to access the joint sufficiently to fit two screws. On these occasions we would deem one screw to be acceptable.
- ▶ Where only one screw is used, the screw must be in a visible position for inspection purposes.
- ▶ Whenever a flue is identified to have only one screw in each joint, providing the flue is correctly supported and the screw is only being used for its intended purpose to prevent the joint from separating and not for mechanical support, then this would be acceptable.

Maximum flue lengths:

- ▶ For maximum flue lengths see the Installation and maintenance instructions manual for the appliance the flue kit is being installed onto.

3.1 Preparation

3.1.1 Flue measuring

NOTICE

Flue length:

- ▶ Do not exceed the maximum straight length for a horizontal 80/125mm flue as stated in the relevant appliance Installation and maintenance instructions manual.

The maximum flue length can be found in the Installation and maintenance instructions manual for the appliance.

There is a lip [1] on the inside of the flue adaptor that prevents the flue from being pushed into the boiler (→ figure 5).

- ▶ Measure the flue length L from the flue adaptor, along the route of the flue system, to the face of the outside wall.
- ▶ Select the required number of extensions and elbows to achieve the required flue run.

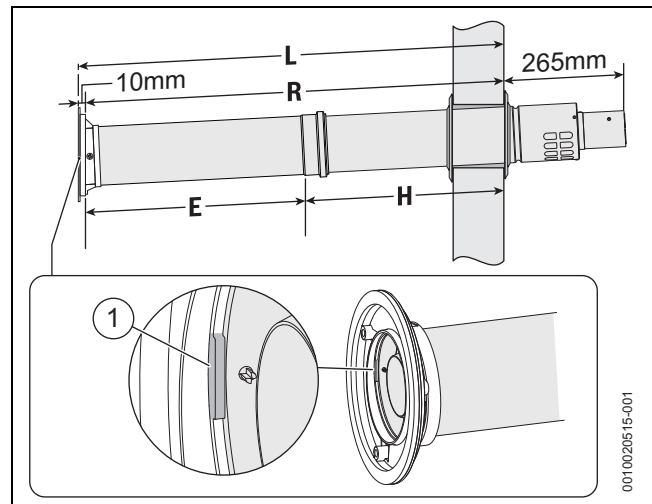


Fig. 5 Flue length determination (extended flue example)

- [1] Lip preventing flue from being pushed into the appliance
- [L] Effective length of the flue system
- [R] Actual length of the flue sections ($L - 10\text{mm} = R$)
- [E] Extension flue length
- [H] Horizontal flue length

Effective length

- ▶ Each flue elbow is rated as a certain straight length of flue, refer to the relevant appliance Installation instructions. The “effective length” of each elbow is added to the straight length of flue. Adding elbows to the flue system reduces the actual flue length available.
- ▶ The effective length of the flue must not exceed that stated in the relevant appliance Installation and maintenance instructions manual.

90° Elbow offset dimensions

Figure 6 shows the offset between 2 x 90° elbows.

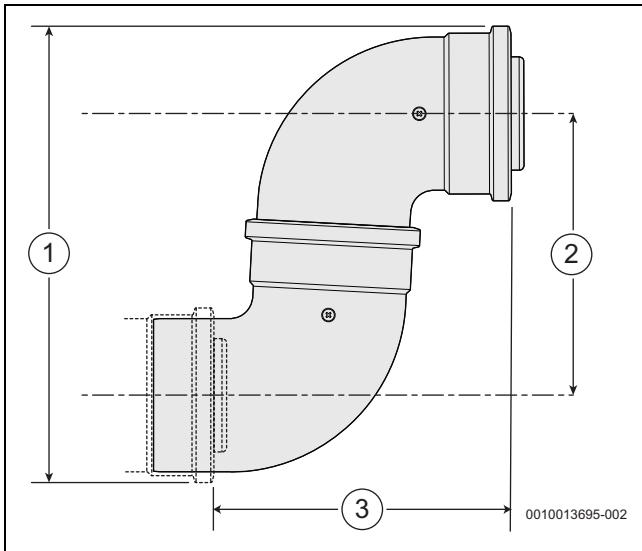


Fig. 6 90° elbows offset

- [1] 320mm
- [2] 180mm
- [3] 230mm

Figure 7 shows the actual length added by a 90° elbow when used with an extension in either orientation.

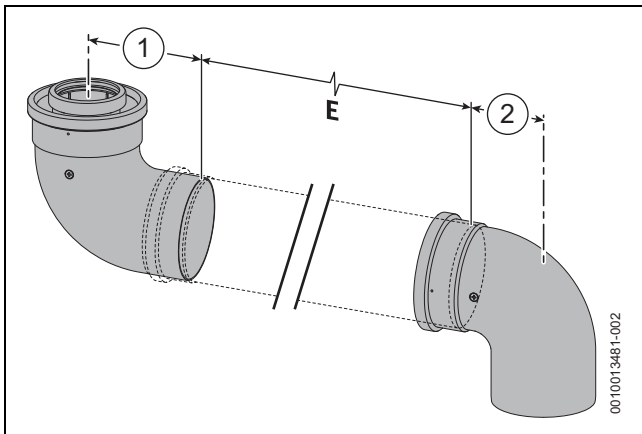


Fig. 7 90° elbow with extension offset dimensions

- [E] Extension flue length
- [1] 110mm
- [2] 70mm

45° Elbows offset dimensions

Figure 8 shows the 45° elbow offset.

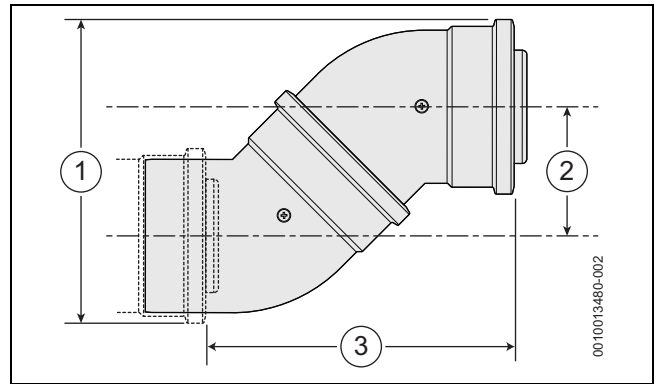


Fig. 8 45° elbows offset dimensions

- [1] 220mm
- [2] 93mm
- [3] 200mm

If using an extension between the 2 x 45° elbows, for offset between centres refer to graphs in elbow instructions manual.

Minimum extension length between elbows

The minimum extension length between two elbows/offsets is 130mm, this allows for a good seal at the connection joints.

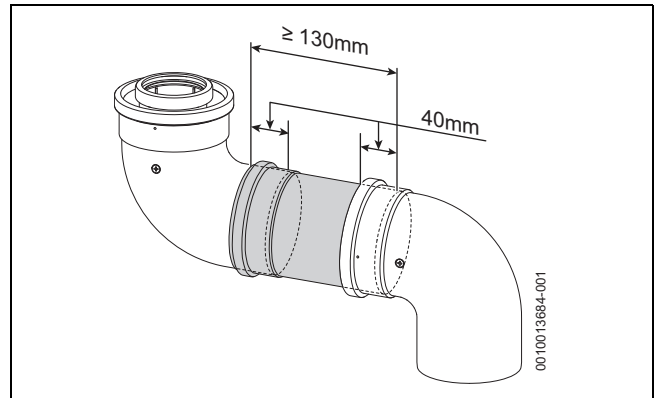


Fig. 9 Example with 90° elbows

3.1.2 Horizontal flue kit lengths

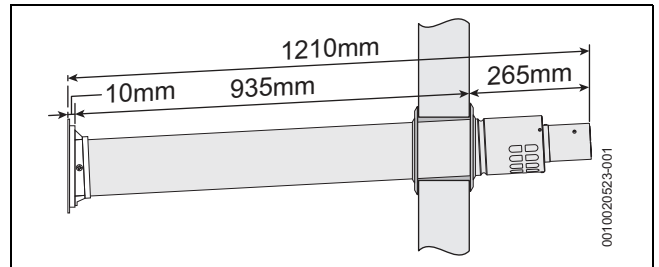


Fig. 10 Standard horizontal flue length

Reducing the horizontal flue length

To shorten the flue terminal:

- ▶ Mark the length required for the terminal [1] as shown (minimum 350mm) and cut square, taking care not to damage the tubes.
- ▶ Remove and discard the unwanted portion [2] of the flue terminal.
- ▶ Remove any burrs and chamfer the outer edge of the tubes to assist ease of connection and prevent seal damage.

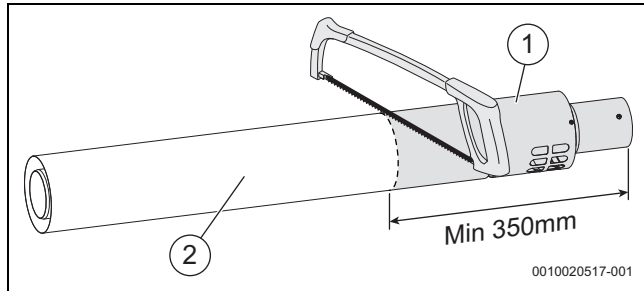


Fig. 11 Reducing horizontal flue kit length

Horizontal flue connector correct orientation

Figure 12 shows the correct orientation when refitting the horizontal flue connector to the horizontal flue.

- ▶ Ensure the horizontal flue connector [1] is correctly orientated for refitting.
 - “TOP” indicated on flue connector ensuring the 3° rise from the appliance for correct flue installation.
- ▶ Fit the horizontal flue [3] firmly into the horizontal flue connector [1] and drill 3mm pilot hole through the outer flue tube of horizontal flue [3] and the horizontal flue connector [1].
- ▶ Secure with the screws [2] provided with the horizontal flue connector [1].

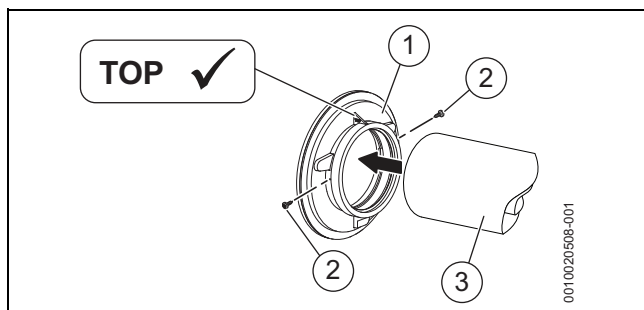


Fig. 12 Horizontal flue connector fitting

- [1] Flue connector
- [2] Securing screws
- [3] Horizontal flue

3.1.3 Reducing extension flue tube length

To shorten the flue extension tube:

- ▶ Mark the length required on the extension tube, measuring from the socket end [1].
- ▶ Cut square, taking care not to damage the tubes, remove the unwanted section [2], chamfer the edge of the plastic inner tube and remove any burrs from both tube sections.

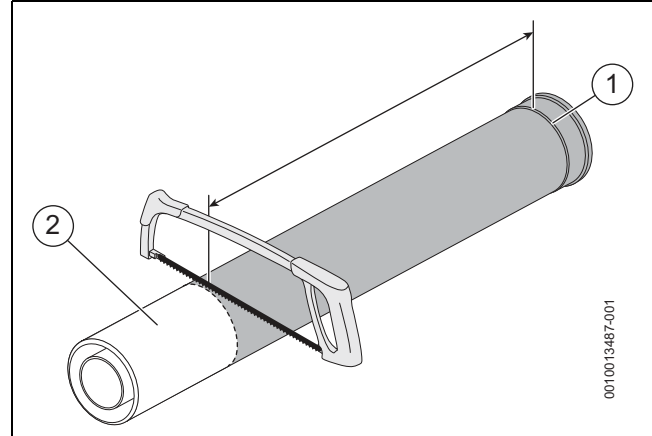


Fig. 13 Cutting an extension tube

3.1.4 Horizontal flues through pitched roofs

Whilst this is an acceptable method of installation, it is preferred that a vertical flue terminal is used where possible through a pitched roof.

It is possible to install a horizontal concentric flue through a pitched roof so long as the following criteria are met:

- ▶ Ensure the minimum distance of 300mm measured vertically between the roof pitch and the flue terminal.
- ▶ Ensure no exposed flue joints are external to the roof flashing.
 - This includes the adjustable joint on the terminal section.
- ▶ The flue must be adequately supported to ensure a constant fall back to the appliance at an angle of 3°, (52mm per metre).
 - Supporting approximately every metre for example at flue joint connections and any change of direction.
- ▶ Ensure that the terminal cannot be affected by a build up of snow etc.
- ▶ All flue terminal clearance must be kept as per appliance Installation and maintenance instructions.

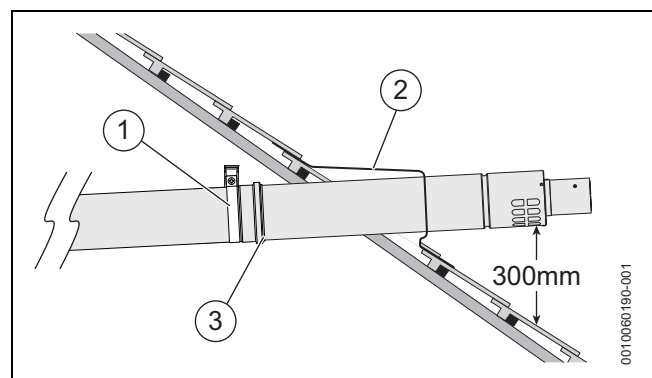


Fig. 14 Example horizontal flue through a pitched roof

- [1] Support bracket
- [2] Roof flashing
- [3] Flue joint



Roof flashing considerations:

- ▶ The flue should be weather sealed to the roof using an Ubbink type flashing, lead flashing can be used at the installer's discretion, but the installer must ensure a weather tight seal.

3.1.5 Extended terminal outside the building fabric

i
 This Installation is acceptable if the standard flue positions are not possible.
 ▶ This type of installation is only used if it is not possible to terminate the flue in the normal manner.

Installations under eaves, balconies or car ports

In order to prevent the products of combustion and condensation emissions from impinging on any bordering surfaces, the practice of extending the flue terminal past the external face of the wall is considered acceptable where the following conditions are met:

- ▶ The flue must not be closer than 25mm to combustible material.
- ▶ The flue must be adequately supported to ensure a constant fall back to the appliance at an angle of 3°, (52mm per metre).
 - Supporting approximately every metre, for example, at flue joint connections and any change of direction.
- ▶ The flue terminal must extend 100mm past any overhang to avoid excessive over flow run off from roofs and gutters [1].
- ▶ The minimum clearances according to BS 5440-1:2008 are met.
- ▶ The maximum equivalent flue length (as stated in the Installation and maintenance instructions manual) must not be exceeded.

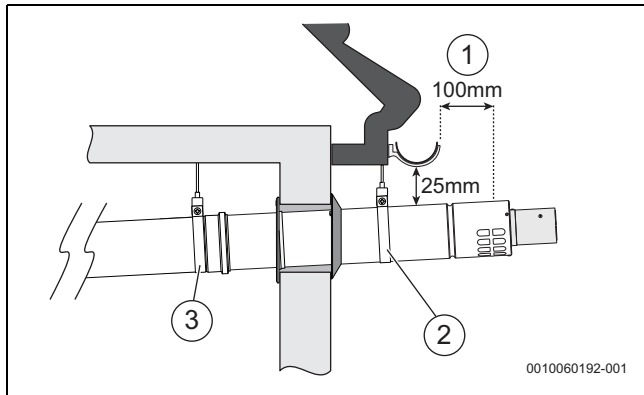


Fig. 15 Installations under eaves example

- [1] 100mm clearance to avoid excessive over flow run off from roofs and gutters from entering the air intake.
- [2] Support bracket, last point for supporting protruding flue past overhang.
- [3] Support bracket, supporting approximately every metre for example at flue joint connections and any change of direction.

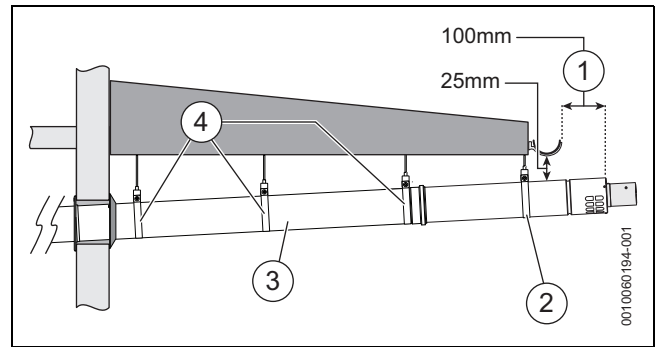


Fig. 16 Installations under balconies or car ports example

- [1] 100mm clearance to avoid excessive over flow run off from roofs and gutters from entering the air intake.
- [2] Support bracket, last point for supporting protruding flue past overhang.
- [3] Using 2,000mm extension reduces the connection joints external to building fabric and adds more stability to the flue run.
- [4] Support bracket, supporting approximately every metre for example at flue joint connections and any change of direction.

Installations below pipes or service ducts/tubes

In order to prevent the products of combustion and condensation emissions from impinging on any bordering surfaces, the practice of extending the flue terminal past the external face of the wall is considered acceptable where the following conditions are met:

- ▶ The flue must not be closer than 25mm to combustible material.
- ▶ The flue must be adequately supported to ensure a constant fall back to the appliance at an angle of 3°, (52mm per metre).
 - Supporting approximately every metre for example at flue joint connections and any change of direction.
- ▶ The flue terminal must extend 100mm from the wall to avoid combustion and condensation emissions from impinging on any bordering surfaces pipes or service ducts/tubes[1].
- ▶ The minimum clearances according to BS 5440-1:2008 are met.
- ▶ The maximum equivalent flue length (as stated in the Installation and maintenance instructions manual) must not be exceeded.

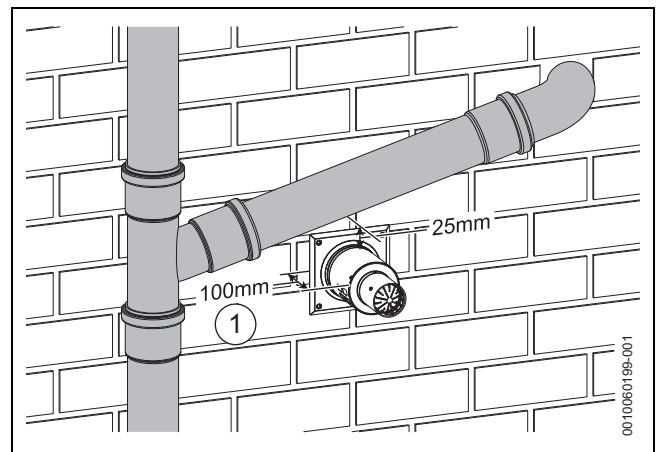


Fig. 17 Installations under pipes or service ducts/tubes

- [1] 100mm clearance from the wall to avoid combustion and condensation emissions from impinging on any bordering surfaces pipes or service ducts/tubes.

4 Installation



Flue considerations

- ▶ If extensions are to be added then the complete flue must rise at an angle of 3° or 52mm for every metre of flue length.
- ▶ Flue terminations close to a light source can become dirty due to large numbers of flying insects. Point out to the homeowner that the outlet should be regularly cleaned.



WARNING

Risk of poisoning due to escaping flue gases!

Flue gases can escape from a damaged flue system.

- ▶ When drilling fixing points in the outer flue tube, take care not to drill into the inner tube.



WARNING

Risk of poisoning due to escaping flue gases!

Flue gases can escape from incorrectly assembled flue system.

- ▶ Ensure all seals are correctly seated.
- ▶ Ensure joints are secured with the screws provided in the flue kit and accessories.
- ▶ Ensure the flue system is adequately supported, approximately one metre intervals and a change of direction.
- ▶ Ensure you carry out a flue integrity check when commissioning the appliance.

Flue adaptor configuration options

The connection to the appliance exhaust outlet will depend on the exit point from the appliance for the flue installation.

Refer to figure 18.

- ▶ Choose the adaptor elbow/flue adaptor combination to suit the installation flue requirement.



Horizontal exit configurations.

- ▶ 80/125 Flue options: 80/80 flue adaptor must be cut to suit rear and left exit horizontal flue configurations.

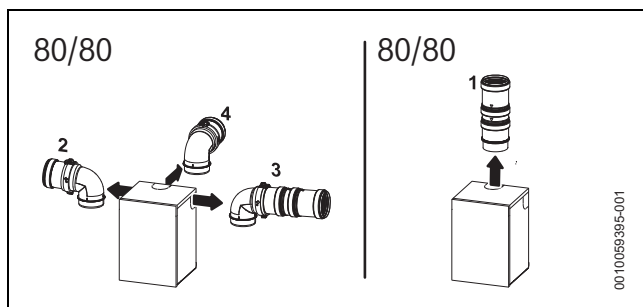


Fig. 18 Flue adaptor configuration options

- [1] **Vertical exit**
Unmodified 80/80 flue adaptor
- [2] **Left exit**
93° adaptor elbow and modified 80/80 flue adaptor - short
- [3] **Right exit**
93° adaptor elbow and unmodified 80/80 flue adaptor - long
- [4] **Rear exit**
93° adaptor elbow and modified 80/80 flue adaptor - short

Adaptor elbow and flue adaptor assembly Adaptor elbow and modified flue adaptor short.

Refer to figure 19.

- ▶ Remove the seal [1] from the flue adaptor.
- ▶ Cut the excess [2] off the adaptor square along the mark as shown, de-burr and clean the adaptor face.
- ▶ Replace the seal [1] in the adaptor.
- ▶ Push-fit the adaptor [3] into the elbow [4] until secured with the clip.
- ▶ Engage the hinge end [5] onto the pivot [6] of the clamp.
- ▶ Test fit the clamp [L] around the flue adaptor/elbow to determine in which clamp half to fit the screw, this will depend upon which flue exit is chosen, left or rear.
 - The screw needs to be accessible for tightening.
 - Ensure that the arrow points in the direction of the exhaust flow.
 - Ensure that the slot in the clamp engages with the tab on the top the adaptor elbow [4].
- ▶ Secure the clamp [L] in position.
 - Tighten the screw [7] sufficiently to close up the clamp, do not over-tighten as this will damage the clamp material.

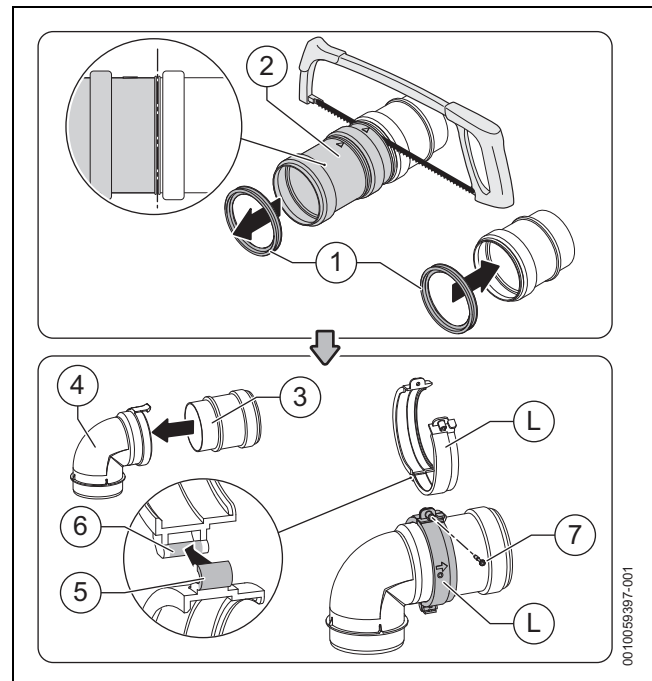


Fig. 19 Short flue adaptor and elbow configuration

Adaptor elbow and modified flue adaptor long.

Refer to figure 20.

- ▶ Push-fit the adaptor [1] into the elbow [2] until secured with the clip.
- ▶ Engage the hinge end [3] onto the pivot [4] of the clamp.
- ▶ Test fit the clamp [L] around the flue adaptor/elbow to determine in which clamp half to fit the screw.
 - The screw needs to be accessible for tightening.
 - Ensure that the arrow points in the direction of the exhaust flow.
 - Ensure that the slot in the clamp engages with the tab on the top the adaptor elbow [2].
- ▶ Secure the clamp [L] in position.
 - Tighten the screw [5] sufficiently to close up the clamp, do not over-tighten as this will damage the clamp material.

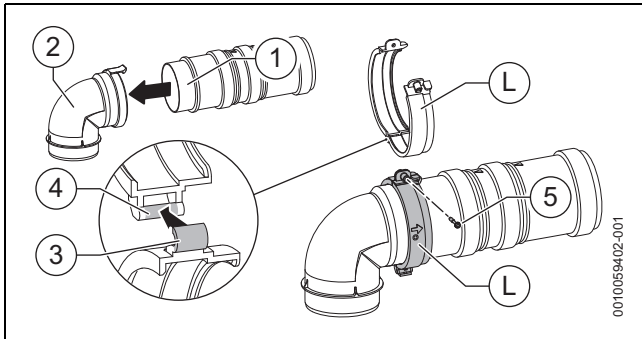


Fig. 20 Long flue adaptor and elbow configuration

Rear exit configuration



Apply silicone lubricant supplied in the flue kit to the seals to aid fitting.

Fitting the flue connector to the appliance.

Refer to figure 21.

- ▶ Slide the appliance onto the mounting frame, leaving enough of a gap between the appliance and the wall to allow access to connect the fixing points on the flue connector.
- ▶ Position the flue connector [1] with 'TOP' uppermost to align with the three holes in the appliance inner casing.
- ▶ Secure the flue connector [1] from inside the appliance case using three hexagonal bolts [2].

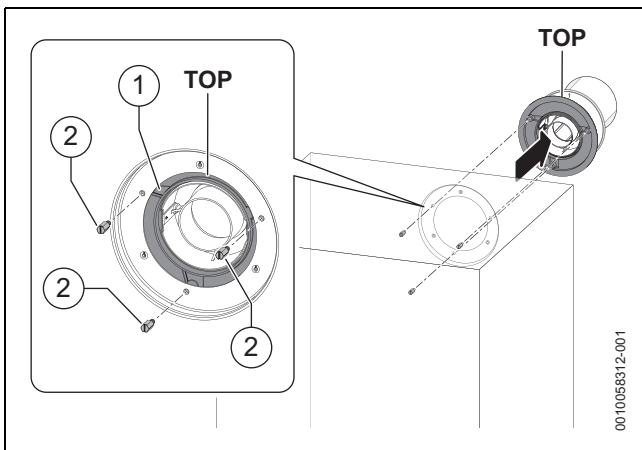


Fig. 21 Rear flue connection

- ▶ Carefully slide the appliance with rear exit flue the remaining distance onto the mounting frame until fully located in position.
- ▶ Secure appliance to mounting frame with screw (left hand side rail).

Fitting the adaptor assembly.

Refer to figure 22.

- ▶ Remove the adaptor clamp [M], already fitted to the appliance exhaust outlet.
 - Remove securing screw [1].
 - Open the clamp utilising the pivot point and remove.
- ▶ Fit the adaptor assembly.
 - Slide the flue adaptor into the inner flue tube.
 - Slide the elbow into the appliance exhaust outlet [3], ensuring that the clips either side [2] secure the elbow into position.
- ▶ Re-fit the adaptor clamp [M] around the appliance exhaust outlet and adaptor joint.
 - Ensure that the adaptor clamp [M] is fully located over the clips [2] of the appliance exhaust outlet [3].
- ▶ Pinch the adaptor clamp [M] halves together to close the clamp and align the screw fittings. Secure with screw [1] to retain the clamp.

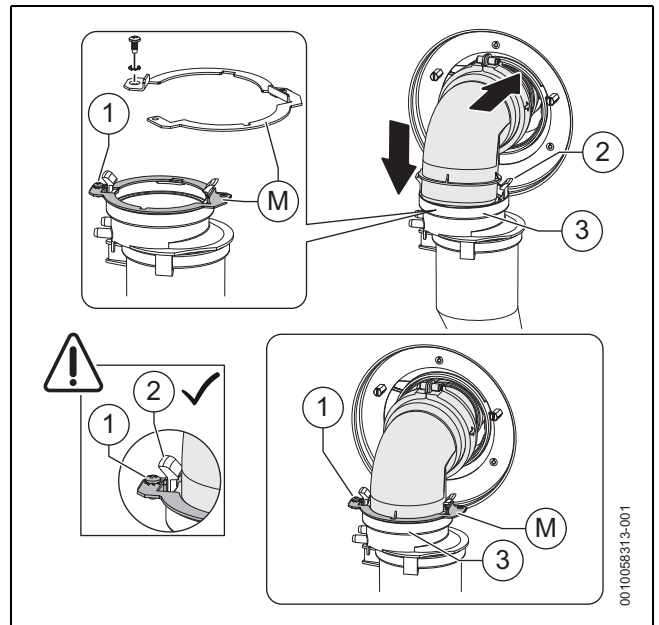


Fig. 22 Adaptor assembly fitting to appliance exhaust outlet

Converting from rear exit flue

The appliance is supplied ready to fit a rear flue outlet. To convert the flue outlet from rear to side or top, the following actions need to be completed:

- ▶ Select the required outlet position for the flue configuration.

Refer to figure 23, right hand side example shown.

- ▶ Remove the knock-out panel [1] from the outer casing.
- ▶ Remove the flue outlet blanking plate, comprising the three screws [2] and the cover plate [3] and gasket [4].

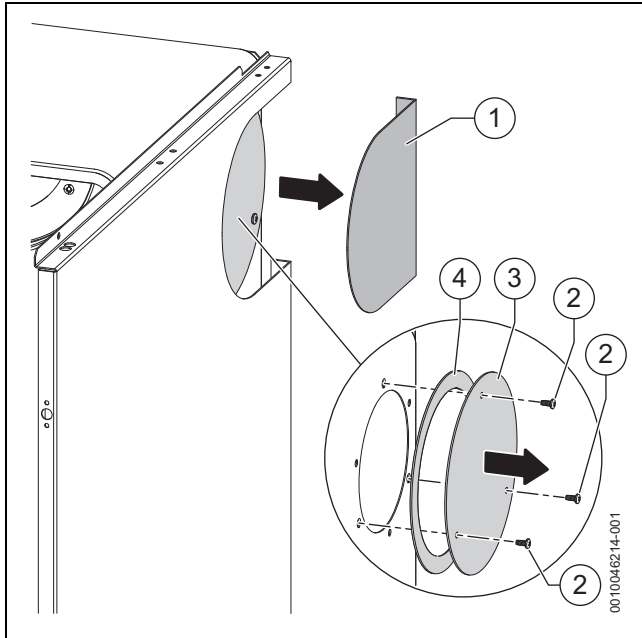


Fig. 23 Removing knock-out panel and flue outlet blanking plate (right hand side example)

- ▶ Refit the flue outlet blanking plate to the rear exit outlet.
 - Ensure gasket is in good condition and secured with the three screws.

Side exit configuration



Apply silicone lubricant supplied in the flue kit to the seals to aid fitting.

Fitting the flue connector to the appliance.

Refer to figure 24, right hand side example shown.

- ▶ Position the flue connector [1] with 'TOP' uppermost to align with the three holes in the appliance inner casing.



50kW output appliances for right hand side exit configurations.

- ▶ Pre fit the lower hexagonal bolt into the flue connector and slide into lower slot before securing with remaining two hexagonal bolts.
- ▶ Secure the flue connector [1] from inside the appliance case using three hexagonal bolts [2].
- ▶ Push the flue [3] firmly into the flue connector [1].

- ▶ Drill two 3mm holes through the connector and into the outer sleeve of the flue and secure with the screws [4] provided.

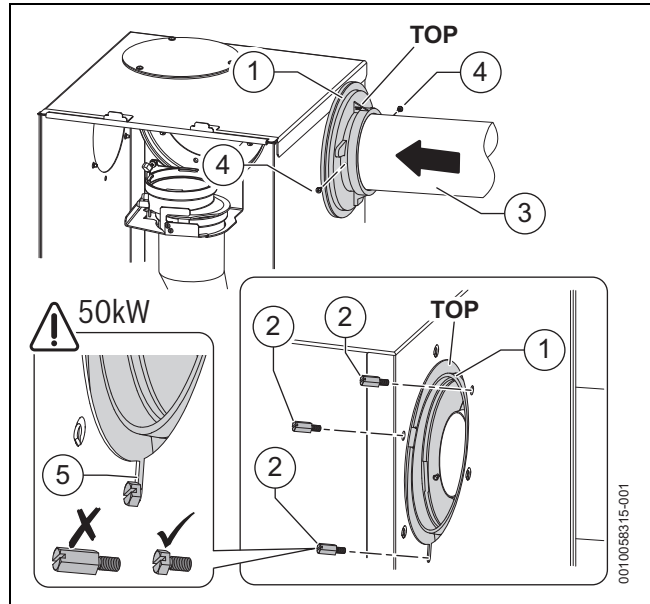


Fig. 24 Side flue connection (right hand side example)

Fitting the adaptor assembly.

Refer to figure 25.

- ▶ Remove the adaptor clamp [M], already fitted to the appliance exhaust outlet.
 - Release securing screw [1].
 - Open the clamp utilising the second screw as a pivot and remove.
- ▶ Fit the adaptor assembly.
 - Slide the flue adaptor into the inner flue tube.
 - Slide the elbow into the appliance exhaust outlet [3], ensuring that the clips either side [2] secure the elbow into position.
- ▶ Re-fit the adaptor clamp [M] around the appliance exhaust outlet and adaptor joint.
 - Ensure that the adaptor clamp [M] is fully located over the clips [2] of the appliance exhaust outlet [3].
- ▶ Pinch the adaptor clamp [M] halves together to close the clamp and align the screw fittings. Secure with screw [1] to retain the clamp but do not over-tighten as this will damage the clamp material.

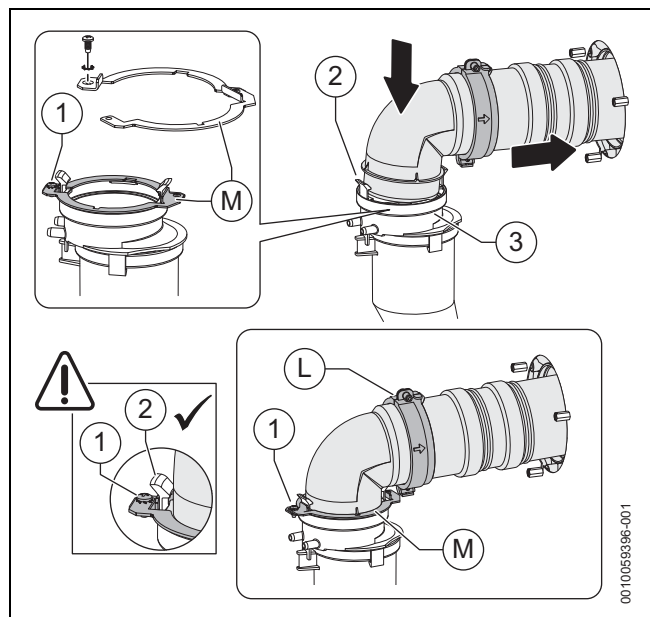


Fig. 25 Adaptor assembly fitting to appliance exhaust outlet

Vertical exit configuration



Vertical flue connector

- ▶ **High level horizontal flue options:**
The vertical flue connector is available separately.
- ▶ **Vertical flue options:**
The vertical flue connector is supplied as part of the vertical flue kit.



Apply silicone lubricant supplied in the flue kit to the seals to aid fitting.

Fitting the flue connector to the appliance.

Refer to figure 26.

- ▶ Slide the vertical flue adaptor [2] over the inner flue tube of the vertical flue section [1].
 - Push the adaptor almost all the way into the flue, leaving enough of the adaptor showing to be able to pull the adaptor down later.
- ▶ Align the holes in the vertical flue connector [3] with the holes in the case and secure from inside the case with the three bolts [4] provided.
- ▶ Fit the vertical flue section [1] into the vertical flue connector [3].
- ▶ Using the two indents, drill two 3mm holes through the connector and into the outer sleeve of the flue and secure with the screws [5] provided.

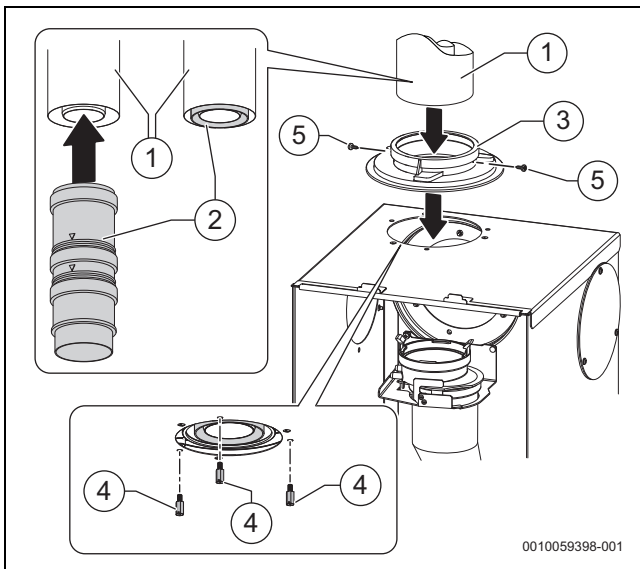


Fig. 26 Top exit flue connection

Fitting the vertical flue adaptor.

Refer to figure 27.

- ▶ Remove the adaptor clamp [M], already fitted to the appliance exhaust outlet.
 - Release securing screw [1].
 - Open the clamp utilising the pivot point, remove and recycle.
 - This component is swapped for vertical exit configurations.
- ▶ Connect the vertical flue adaptor.
 - Slide the flue adaptor [2] down into the appliance exhaust outlet [4].
 - Ensure that the clips either side [3] secure the adaptor into position.
- ▶ Fit the adaptor clamp [S] (supplied in the Vertical flue kit/vertical flue connector) around the appliance exhaust outlet and adaptor joint.
 - Ensure that the adaptor clamp [S] is fully located over the clips [3] of the appliance exhaust outlet [4].

- ▶ Pinch the adaptor clamp [S] halves together to close the clamp and align the screw fittings. Secure with screw [1] to retain the clamp but do not over-tighten as this will damage the clamp material.

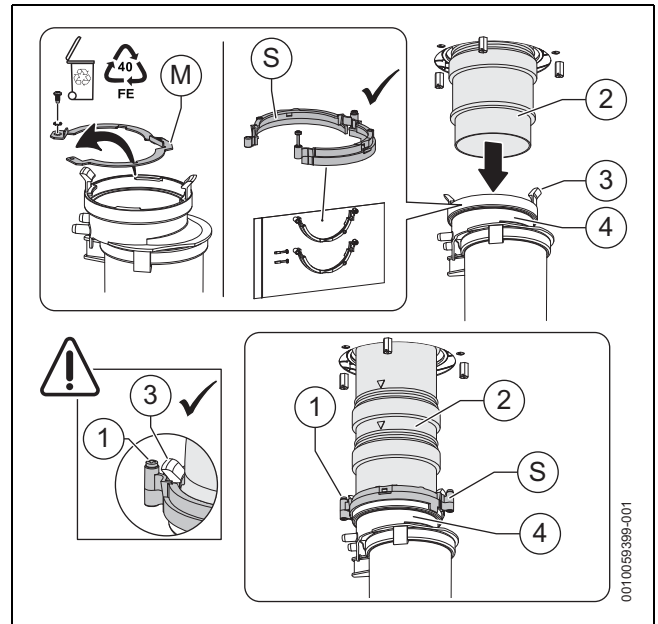


Fig. 27 Vertical flue adaptor fitting to appliance exhaust outlet

4.1 Installing the horizontal flue through the wall



WARNING

Products of combustion!

To ensure products of combustions do not enter the property through the flue hole.

- ▶ Where possible the flue hole should be sealed to the building fabric on the inner and outer face using a suitable building material. As a minimum, the flue must be sealed to the inner wall using a suitable building material and the rubber collar fitted to the flue against the outside face. Providing the face of the outside wall is flat then the rubber collar is considered to be an adequate seal.



Correct orientation of the terminal:

- ▶ Ensure that the terminal (item [3], figure 28) is orientated correctly before securing flue in place. The air intake vents of the terminal (item [3], figure 28) facing downwards.

Refer to figure 28

- ▶ If installing an unmodified horizontal flue kit:
 - Slide the inner cover plate [4] onto the horizontal flue.
- ▶ Slide the horizontal flue [5] through the flue opening.
- ▶ Position terminal [3] through the flue opening in the wall to the outside of the building by the distance shown.
 - Ensuring the air intake vents are facing downwards.
- ▶ The flue should be sealed to the outside wall with a suitable building material once the flue is assembled.
- ▶ Mark and drill fixing holes for the inner cover plate [4] and seal the gap around the horizontal flue to secure in position.
 - Fix inner cover plate [4] in position using wall plugs and screws provided.
- ▶ Slide the outer cover plate [2] onto the terminal as shown, mark and drill fixing holes.
 - Fix in position using wall plugs and screws provided.

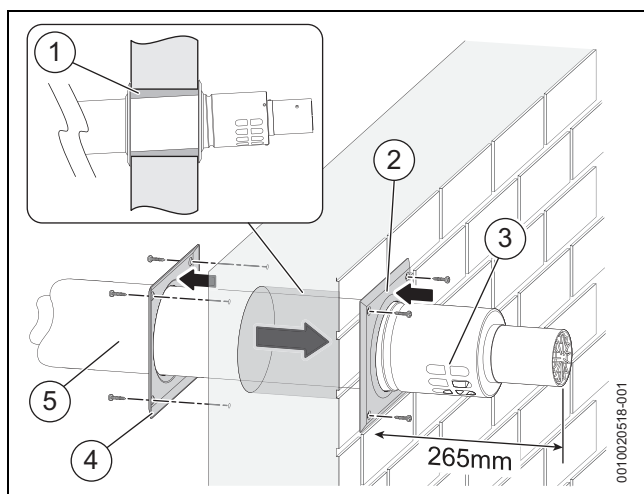


Fig. 28 Horizontal flue through the wall

- [1] Flue hole
- [2] Outer cover plate
- [3] Terminal
- [4] Inner cover plate
- [5] Horizontal flue

4.2 Flue joint connection examples



CAUTION

Damage to flue system!

- ▶ Take care when drilling fixing points in the outer flue tube, do not drill into the inner tube.

Connection to the flue connector with extension example

Vertical flue connector, flue extension and 90° elbow (→ figure 29)

- ▶ Fit the extension piece [3] into the vertical flue connector [7] and drill 3mm pilot hole into the vertical flue connector [7] through to the outer flue extension tube [3].
- ▶ Secure with the screws [6] provided with the vertical flue connector [7].
 - The flat edge of the vertical flue connector faces the rear of the appliance.
- ▶ Fit the 90° elbow [1] firmly into the extension piece [3] use the silicone grease provided with the extension kit.
- ▶ Drill two 3mm holes, through the outer flue tube of extension [3] and 90° elbow [1].
- ▶ Secure the 90° elbow [1] into the extension piece [3] with the screws [2] provided with the extension kit.

Horizontal flue connector and flue extension (→ figure 29)

- ▶ Ensure the horizontal flue connector [4] is correctly orientated.
 - “TOP” indicated on flue connector ensuring the 3° rise from the appliance for correct flue installation.
- ▶ Fit the extension piece [3] firmly into the horizontal flue connector [4] and drill 3mm pilot hole through the outer flue tube of extension [3] and the horizontal flue connector [4].
- ▶ Secure with the screws [5] provided with the horizontal flue connector [4].
 - If required a 90° elbow can be fitted in the same way as with the vertical flue connector example.

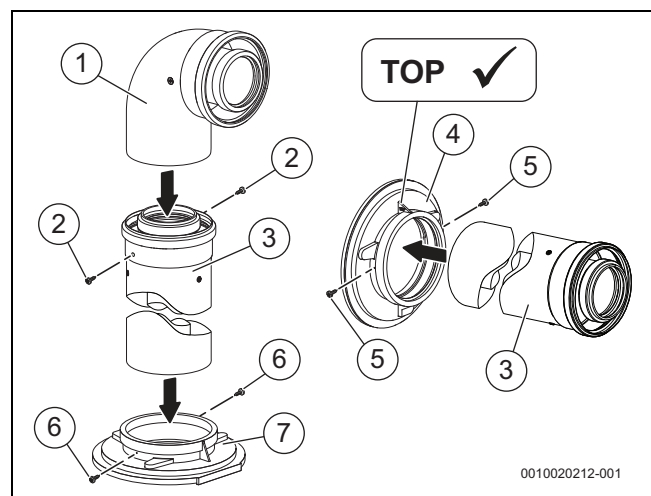


Fig. 29 Connection to the flue connector examples

Elbow connections example (90° elbow)

Flue extension into a 90° elbow (vertical orientation → figure 30)

- ▶ Slide the support clamps [3] onto the flue extension.
- ▶ Fit the extension piece [4] into the 90° elbow [1] using the silicone grease provided as a lubricant. Working from the appliance, secure the support clamps [3] to its wall bracket to take the weight of the flue.
- ▶ Drill two 3mm holes, 180° apart, through the outer flue tube of the extension and secure with the screws [2] provided.

Flue extension into a 90° elbow (horizontal orientation → figure 30)

- ▶ Working from the appliance, support the flue extension with elbow using the support clamps [3].
- ▶ Slide the support clamps [3] onto the flue extension.
- ▶ Fit the extension piece [4] into the 90° elbow [1] using the silicone grease provided as a lubricant. Working from the appliance, fit the support clamps [3] to their wall brackets using the screws provided [5] to take the weight of the flue.
- ▶ Drill two 3mm holes, 180° apart, through the outer flue tube of the extension and secure with the screws [2] provided for all assembled joints.

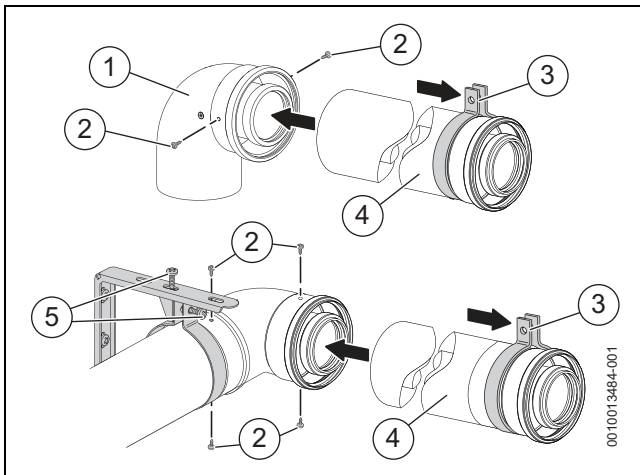


Fig. 30 Elbow connection examples (90° elbow)

Extension and horizontal flue connection examples

Additional extensions (→ figure 31)

- ▶ Working from the appliance, support the first extension flue using the wall brackets and support clamps [1]. Drill and secure using the two screws provided.
- ▶ Slide the support clamps [3] onto the next flue extension using the silicone grease provided as a lubricant.
- ▶ Fit the extension [4] into the previous extension using the lubricant provided. Fit the wall bracket and support clamps [3] to take the weight of the flue.
- ▶ Drill two 3mm holes, 180° apart, through the outer flue tube of the extension and secure with the screws [2] provided.

Horizontal flue into flue extension (→ figure 31)

- ▶ Working from the appliance, support the flue extension using the wall bracket and support clamps [1].
- ▶ Fit the horizontal flue [5] into the flue extension using the lubricant provided.
- ▶ See section 4.1 "Installing the horizontal flue through the wall" for installing the horizontal flue through a wall.

- ▶ Drill two 3mm holes, 180° apart, through the outer flue tube of the extension and secure with the screws [2] provided.

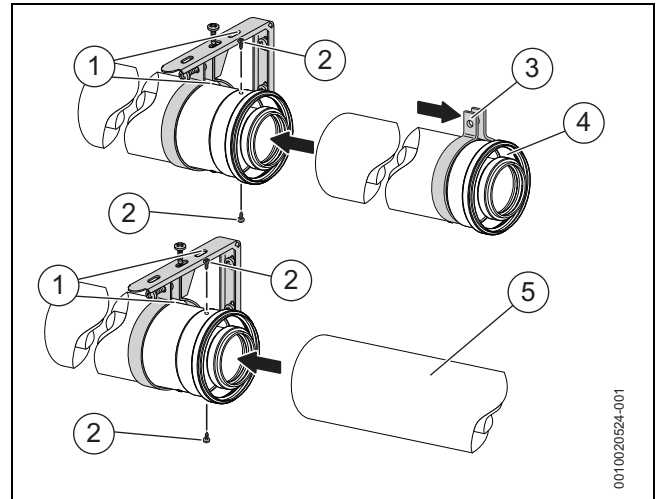


Fig. 31 Extension and horizontal flue connection examples

5 Inspection and maintenance

- ▶ An annual visual check of the flue system must be carried out in addition to the checks stated in the appliance Installation and maintenance Instructions.

TECHNICAL SUPPORT: 0330 123 3366
RENEWABLE SUPPORT: 0330 123 9229
CONTROLS AND CONNECTIVITY TEAM: 0330 123 3641
APPOINTMENTS: 0330 123 9339
SPARES: 0330 123 9779
LITERATURE: 0330 123 9119
TRAINING: 0330 123 0166
SALES: 0330 123 9669

Bosch Thermotechnology Ltd.
Cotswold Way, Warndon
Worcester WR4 9SW
United Kingdom
Tel. 0330 123 9559
worcester-bosch.co.uk

