

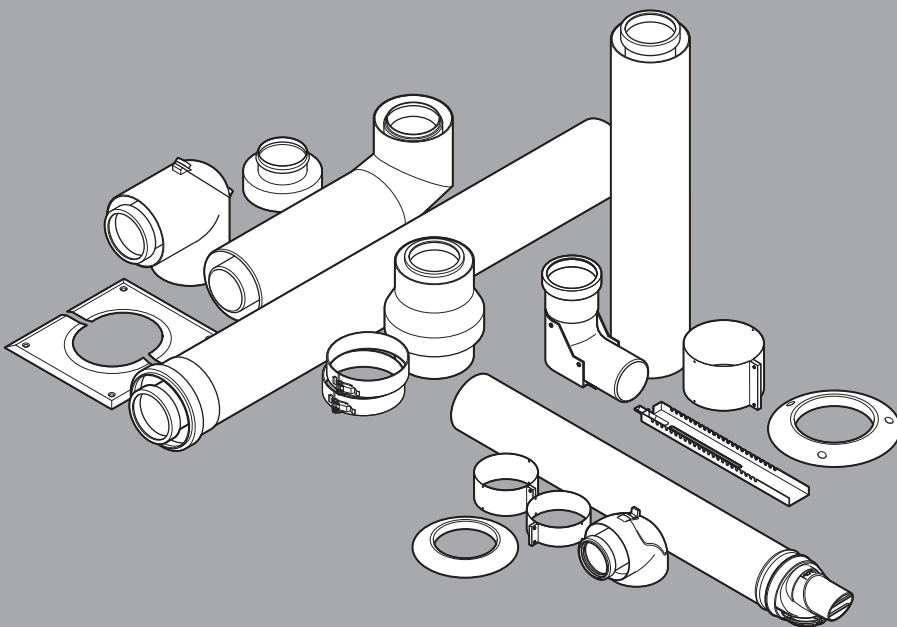


# Glow•worm

## Set-up instructions

Air/flue systems

ENERGY P-GB



# Contents

## Contents

<b>1</b>	<b>Safety</b> .....	<b>3</b>
1.1	Action-related warnings .....	3
1.2	Intended use .....	3
1.3	General safety information .....	3
1.4	CE certification.....	5
1.5	Regulations (directives, laws, standards) .....	5
<b>2</b>	<b>Notes on the documentation</b> .....	<b>6</b>
2.1	Observing other applicable documents .....	6
2.2	Storing documents.....	6
2.3	Validity of the instructions .....	6
<b>3</b>	<b>Certified air/flue systems and components</b> .....	<b>6</b>
3.1	System overview, 60/100 mm diameter .....	6
<b>4</b>	<b>System conditions</b> .....	<b>6</b>
4.1	Route of the air/flue pipe in buildings .....	6
4.2	Location of the terminal .....	6
4.3	Disposing of condensate .....	6
<b>5</b>	<b>Set-up</b> .....	<b>6</b>
5.1	Air/flue systems, 60/100 mm diameter .....	6

## 1 Safety

### 1.1 Action-related warnings

#### Classification of action-related warnings

The action-related warnings are classified in accordance with the severity of the possible danger using the following warning signs and signal words:

#### Warning symbols and signal words



##### **Danger!**

Imminent danger to life or risk of severe personal injury



##### **Danger!**

Risk of death from electric shock



##### **Warning.**

Risk of minor personal injury



##### **Caution.**

Risk of material or environmental damage

### 1.2 Intended use

The air/flue pipes described here are constructed using state-of-the-art technology in accordance with the recognised safety rules and regulations. Nevertheless, there is still a risk of injury or death to the system's end user or others or of damage to the products and other property in the event of improper use or use for which the products are not intended.

The air/flue pipes mentioned in these instructions must only be used in conjunction with the product types mentioned in these instructions.

Any other use that is not specified in these instructions, or use beyond that specified in this document, shall be considered improper use.

Intended use includes the following:

- observance of accompanying operating, installation and maintenance instructions for all system components
- installing and setting up the product in accordance with the product and system approval
- compliance with all inspection and maintenance conditions listed in the instructions.

### 1.3 General safety information

#### 1.3.1 Risk caused by inadequate qualifications

The following work must only be carried out by competent persons who are sufficiently qualified to do so:

- Set-up
- Dismantling
- Installation
- Start-up
- Inspection and maintenance
- Repair
- Decommissioning
- ▶ Proceed in accordance with current technology.

#### 1.3.2 Risk of poisoning due to escaping flue gas

Improperly installed flue pipework may cause flue gas to escape.

- ▶ Before starting up the product, check that the whole air/flue pipe is securely fastened and check it for tightness.

The flue pipework may become damaged by unforeseeable external influences.

- ▶ As part of the annual maintenance, inspect the flue system in terms of:
  - external faults such as brittleness and damage
  - safe pipe connections and secure fastenings

#### 1.3.3 Risk of death from escaping flue gas

- ▶ Ensure that all inspection and test openings in the air/flue pipe that are within the building and can be opened are always closed for start-up and during operation.

Flue gas may escape from leaking pipes or damaged seals. Mineral-oil-based greases can damage the seals.

- ▶ When installing the flue system, use only flue pipes that are made from the same material.
- ▶ Do not install any damaged pipes.
- ▶ File off sharp burrs and chamfer the ends of the pipes before installing them, and dispose of the shavings.

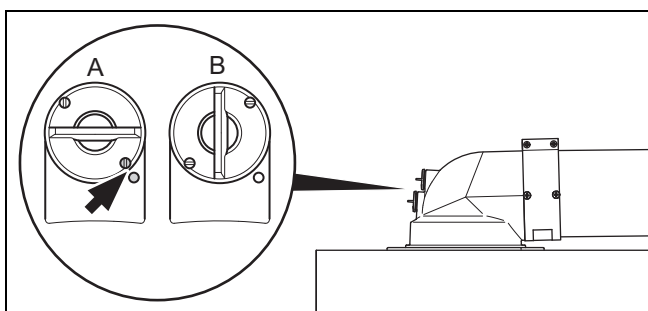
# 1 Safety

- ▶ Never use mineral-oil-based grease for the installation.
- ▶ To facilitate the installation, use only water, standard commercial soft soap or, if required, the supplied lubricant.

Mortar residues, shavings, etc., in the flue gas route may prevent the flue gas from flowing outdoors as intended, and this flue gas may escape into the dwelling instead.

- ▶ After installation, remove all mortar residues, shavings, etc., from the air/flue pipe.

## 1.3.4 Risk of death from escaping flue gas



A Closed

B Open

Flue gas may escape through measurement openings that are incomplete or not sealed.

- ▶ Ensure that the measurement openings are completely sealed during operation.

## 1.3.5 Risk of death from leaks in the flue gas route

Extensions that are not fixed to the wall or ceiling may become disengaged due to sagging or thermal expansion.

- ▶ Ensure that every extension is fixed to the wall or ceiling by means of a pipe clamp. The distance between two pipe clamps must not be greater than the length of the extension, and must not exceed 2 m.
- ▶ For changes of direction just upstream of the elbow, install another pipe clamp.

Condensate that collects inside the flue in certain areas can damage the flue pipework seals.

- ▶ Install the horizontal flue pipe to the product with a downward gradient.

- Downward gradient to the product: 3°



### Note

3° corresponds to a downward gradient of approx. 50 mm per metre of pipe length.

## 1.3.6 Risk of fire and damage to electronics caused by lightning

- ▶ If the building is equipped with a lightning protection system, incorporate the air/flue pipe into the lightning protection.
- ▶ If the flue pipework (parts of the air/flue pipe situated outside the building) contains metal materials, incorporate it into the potential equalisation system.

## 1.3.7 Risk of injury from ice formation

Where air/flue pipes penetrate the roof, the water vapour contained in flue gas may precipitate as ice on the roof or the roof structures.

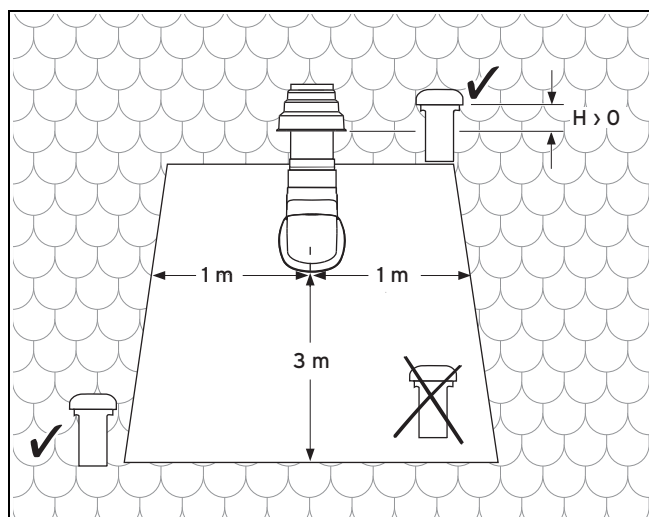
- ▶ Ensure that this ice formation does not slide from the roof.

## 1.3.8 Risk of damage to the structure of the building due to moisture

As a result of improper installation, water may penetrate the building and cause material damage.

- ▶ Observe the definitions in the directives for the planning and implementation of roofs with seals.

### 1.3.9 Product damage caused by adjacent channel vents



Extremely damp extract air escapes from the channel vents. This may condense in the air pipe and cause damage to the product.

- Observe the requirements for minimum clearances in accordance with the figure.

### 1.3.10 Requirements for the air/flue terminal

As a result of improper installation, water may penetrate the building and cause material damage.

- Observe the requirements for the air/flue terminal in the boiler's installation instructions.

### 1.3.11 Risk of material damage caused by using an unsuitable tool

- Use the correct tool.

## 1.4 CE certification

The heat generators are certified as gas-fired boilers with associated flue systems in accordance with the Gas Appliances Regulation (EU) 2016/426. This set-up instructions are a component of the certification and are cited in the type testing certificate. In compliance with the regulatory statutes of these set-up instructions, the proof of usability of the elements identified by Glow-worm article numbers that are designed for the air/flue pipe is provided. If you do not use certified elements for the Glow-worm air/flue pipe when installing the heat generators, this voids the CE conformity of the heat generator. We

therefore strongly recommend that you install Glow-worm air/flue systems.

## 1.5 Regulations (directives, laws, standards)

- Observe the national regulations, standards, directives, ordinances and laws.

## 2 Notes on the documentation

### 2 Notes on the documentation

#### 2.1 Observing other applicable documents

- ▶ You must always observe the installation instructions for the installed heat generator.

#### 2.2 Storing documents

- ▶ Pass these instructions and all other applicable documents on to the end user.

#### 2.3 Validity of the instructions

These instructions apply only for the heat generators named in the other applicable documents, hereinafter referred to as the "product".

### 3 Certified air/flue systems and components

#### 3.1 System overview, 60/100 mm diameter

Article number	Air/flue systems, concentric
0020219523 <sup>1), 3)</sup> 0010031041 <sup>1)</sup>	Horizontal wall/roof duct, 0.7 m
0020219524 <sup>1), 3)</sup>	Horizontal telescopic wall/roof duct (only available in black)
0020219526 <sup>1)</sup>	Direct, rear-side, telescopic flue system
0020230604 <sup>2)</sup>	Vertical roof duct
0010035513 <sup>2)</sup>	Horizontal wall duct, 0.7 m for multi-storey buildings

1) In accordance with the construction regulation, installation in buildings higher than 18 m is not permitted  
2) In accordance with the construction regulation, installation in buildings higher than 18 m is permitted  
3) Only for boilers with an upper cover plate with more than eight fastening holes

### 4 System conditions

#### 4.1 Route of the air/flue pipe in buildings

- ▶ The maximum length of the wall/roof ducts must be observed.

The wall/roof ducts must not be extended by fitting additional components.

#### 4.2 Location of the terminal

The location of the flue system terminal must comply with the relevant applicable international, national and/or local regulations.

- ▶ Align the terminal of the flue system in such a way that ensures a secure outward flow and distribution of the flue gases and prevents these gases from re-entering the building through openings (windows, supply air openings and balconies).
- ▶ Comply with the specified clearances.

#### 4.3 Disposing of condensate

Local regulations may stipulate the minimum quality of any condensate that may enter the public waste-water system. If required, a condensate neutraliser must be used.

- ▶ When disposing of the condensate into the public waste-water system, observe the local regulations.
- ▶ Only use corrosion-resistant piping material for removing condensate discharge.

### 5 Set-up

#### 5.1 Air/flue systems, 60/100 mm diameter

##### 5.1.1 Installing horizontal wall/roof ducts

###### 5.1.1.1 Preparing the installation



#### Danger!

#### Risk of poisoning due to escaping flue gas.

If you select an unsuitable installation site for the air/flue pipe, flue gas may be allowed to enter the building.

- ▶ Observe the existing regulations with regard to the clearances to windows and ventilation openings.



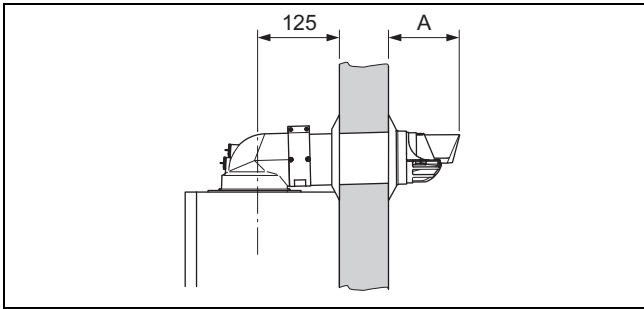
#### Danger!

#### Risk of poisoning due to escaping flue gas.

Condensate that collects inside the flue in certain areas can damage the flue pipework seals.

- ▶ Lay the horizontal flue pipe with a downward gradient of 3° to the product; 3° corresponds to a downward gradient of approx. 50 mm per metre of pipe length.
- ▶ In doing so, note that the air/flue pipe must be centred in the wall hole.

- ▶ Determine the installation site for the air/flue pipe.
- ▶ When installing the product near a light source, point out to the end user that they must clean the terminal regularly. Otherwise, due to the insects that the light may attract, the terminal may become dirty.
  - Minimum dimensions for the dormer: Height x width: 300 mm x 300 mm
- ▶ Determine the installation site for the boiler (→ Installation instructions for the boiler).
- ▶ Ensure that all clearances required for installation and maintenance are available and that the air/flue system can be installed in accordance with these instructions.
- ▶ Secure the mounting template that is supplied with the boiler to the wall.
- ▶ Use a plumb-bob or spirit level to check whether the central line of the mounting template is vertical.



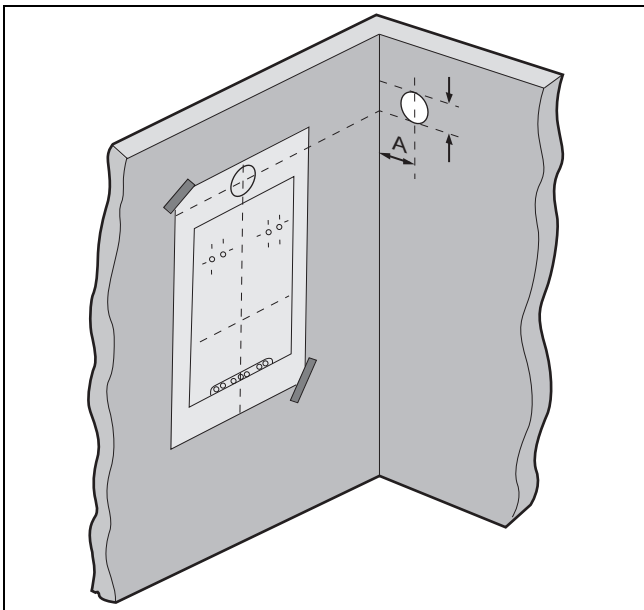
**Note**

View shows article number 0010031041

Clearance	Article number	
	0010035513	0020219523 0010031041
A	87 mm	140 mm

If you install the air/flue pipe directly on the rear of the boiler, the mounting template shows the position of the wall duct for horizontal installation with the connection at the top

**Condition:** Top connection, air/flue pipe to the side

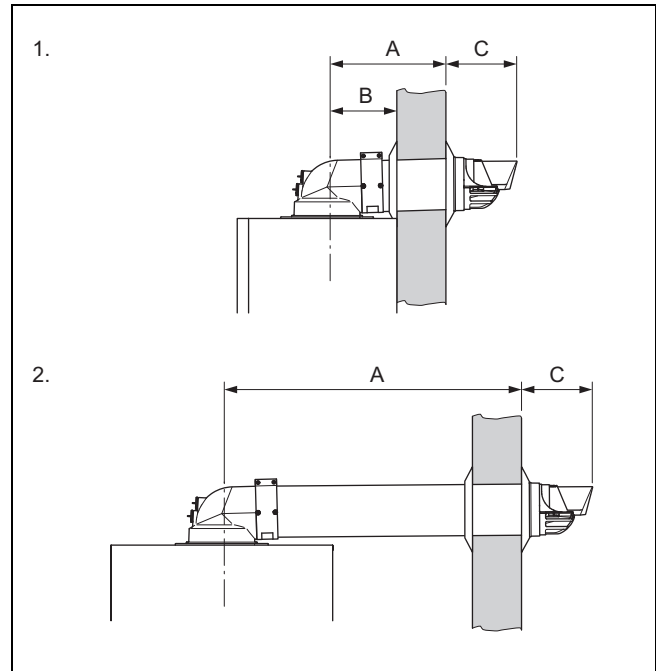


A = 125 mm

If you want to install the air/flue pipe laterally, you can determine the position of the wall duct by carefully offsetting the central line of the wall duct that is marked on the mounting template.

- Calculate the required gradient in accordance with the length of the flue pipework and then mark the position for the wall duct.

**5.1.1.2 Determining the clearance to the external wall**



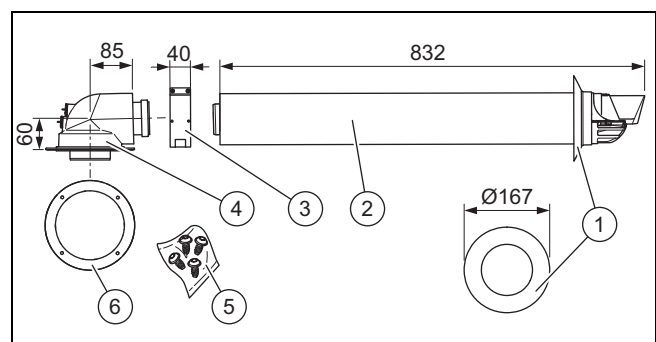
- 1. Upper flue pipe at the rear      A      Clearance to the external wall
- 2. Upper flue pipe to the side      B      Clearance to the internal wall: 125 mm

- Measure the clearance (A) from outside of the wall to the centre of the connector.

Clearance	Article number	
	0010035513	0020219523 0010031041
C	87 mm	140 mm

**5.1.2 Installing the horizontal wall/roof duct, 60/100 mm diameter, article number 0020219523, 0010031041 or 0010035513**

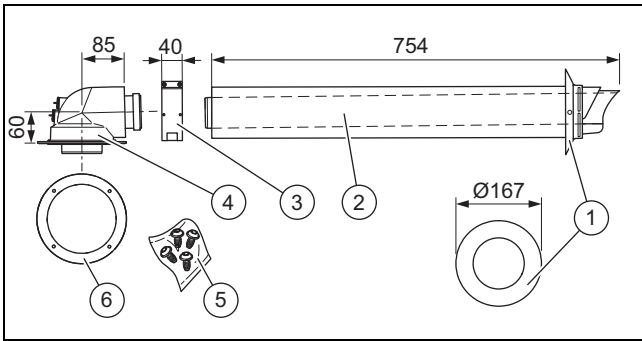
**5.1.2.1 Scope of delivery, article number 0020219523**



- 1 Wall collar, 100 diameter (2 pcs)
- 2 Horizontal wall/roof duct
- 3 40 mm clamp
- 4 87° elbow
- 5 Screws (8 x)
- 6 Seal

## 5 Set-up

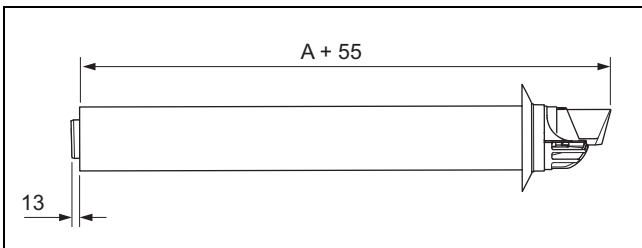
### 5.1.2.2 Scope of delivery, article number 0010035513



- |   |                                   |   |              |
|---|-----------------------------------|---|--------------|
| 1 | Wall collar, 100 diameter (2 pcs) | 4 | 87° elbow    |
| 2 | Horizontal wall/roof duct         | 5 | Screws (8 x) |
| 3 | 40 mm clamp                       | 6 | Seal         |

### 5.1.2.3 Shortening the air/flue pipe

- Determine the clearance to the external wall. (→ Page 7)



#### Danger!

#### Risk of poisoning due to escaping flue gas.

Flue gas can escape if a flue gas pipe is damaged.

- Take care that the flue gas pipe is not damaged when shortening.

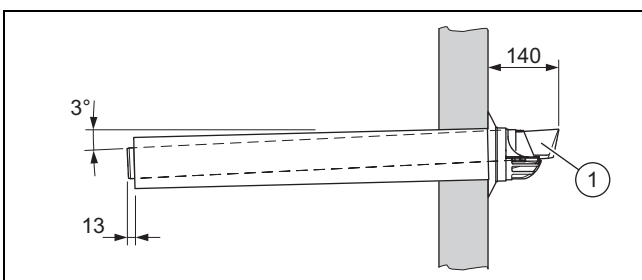
- Shorten the flue pipe and the air pipe by the same amount when they are assembled.



#### Note

Disassembling the flue pipe and the air pipe damages the latching lugs in the terminal.

### 5.1.2.4 Installing the wall duct



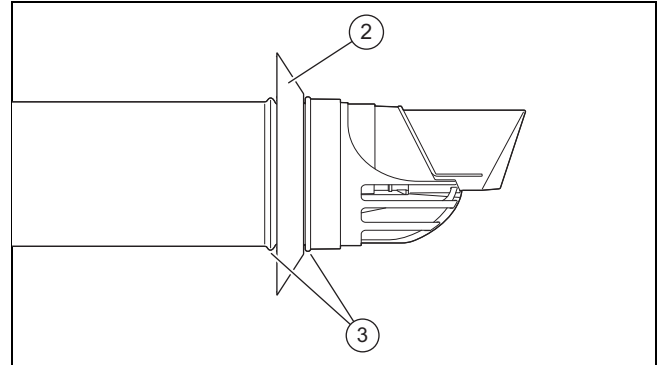
- Drill a hole.

- Diameter: 125 mm



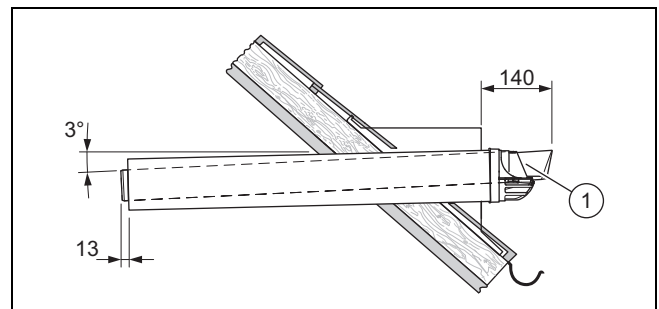
#### Note

If the wall duct can be accessed from the exterior of the building, you can drill the hole with a diameter of 110 mm and install the wall duct with the wall collar from outside.



- Position the flexible external collar (2) between the two seams (3).
- Slide the air/flue pipe (1) with the flexible external collar through the wall.
- Pull the air/flue pipe back until the external collar forms a tight seal on the external wall.
- Secure the air/flue pipe with mortar and leave the mortar to harden.
- Install the wall collar on the inside of the wall.
- Connect the wall/roof duct to the product using extensions, elbows and, if required, a sliding sleeve. (→ Page 9)

### 5.1.2.5 Installing the roof duct

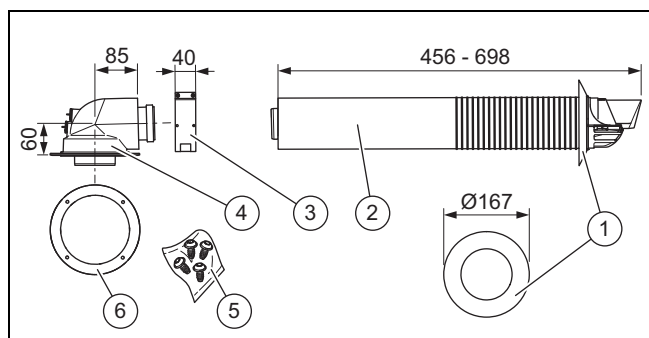


- Insert the air/flue pipe (1) without the external collar into the dormer.



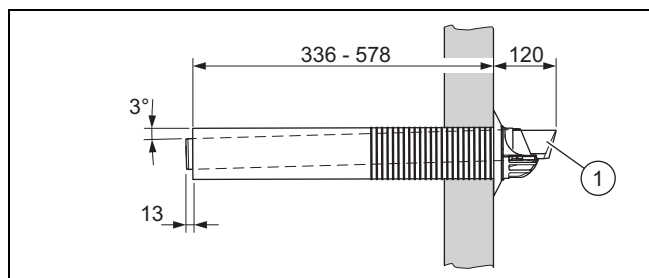
### 5.1.3 Installing the 60/100 mm diameter horizontal telescopic wall/roof duct, article number 0020219524

#### 5.1.3.1 Scope of delivery



- |   |                                   |   |              |
|---|-----------------------------------|---|--------------|
| 1 | Wall collar, 100 diameter (2 pcs) | 4 | 87° elbow    |
| 2 | Horizontal telescopic wall duct   | 5 | Screws (7 x) |
| 3 | 40 mm clamp                       | 6 | Seal         |

#### 5.1.3.2 Installing the wall duct

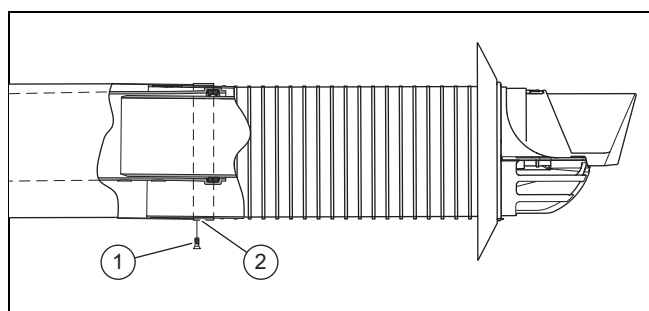


- Drill a hole.
  - Diameter: 125 mm



#### Note

If the wall duct can be accessed from the exterior of the building, you can drill the hole with a diameter of 110 mm and install the wall duct with the wall collar from outside.



- Determine the clearance to the external wall. (→ Page 7)
- Set the telescopic wall duct to the correct length.

- Note that the **TOP** symbol must point upwards on both ends.
- Do not shorten the telescopic flue pipe.



#### Danger!

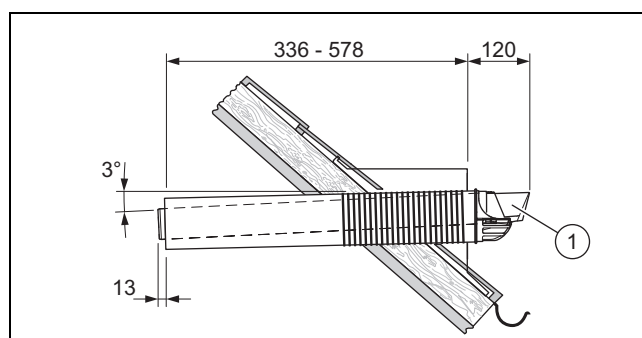
#### Risk of poisoning due to escaping flue gas.

Flue gas can escape if a flue gas pipe is damaged.

- Use only one of the enclosed small self-tapping screws.

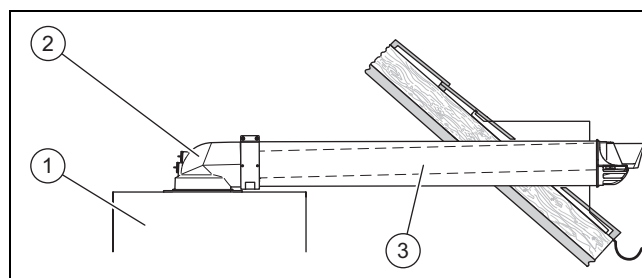
- Secure the air pipes to each other by screwing the overlapping air pipes together using the supplied self-tapping screws on the underside (1).
- Seal the gap in the telescopic air pipe using the supplied adhesive tape (2).
- Slide the air/flue pipe (1) with the flexible external collar through the wall.
- Pull the air/flue pipe back until the external collar forms a tight seal on the external wall.
- Secure the air/flue pipe with mortar and leave the mortar to harden.
- Install the wall collar on the inside of the wall.
- Connect the wall/roof duct to the product using extensions, elbows and, if required, a sliding sleeve. (→ Page 9)

#### 5.1.3.3 Installing the roof duct



- Insert the air/flue pipe (1) without the external collar into the dormer.

#### 5.1.4 Connecting the product



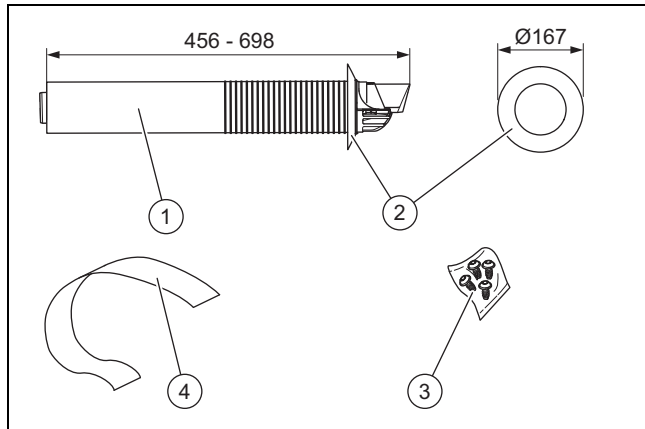
- Install the product (1) – see the installation instructions for the product.
- Install the 87° elbow (2) on the product using the four screws and the seal.
- Connect the wall/roof duct (3) to the 87° elbow.

## 5 Set-up

- Connect all of the pipe joints with air pipe clamps.  
(→ Page 15)

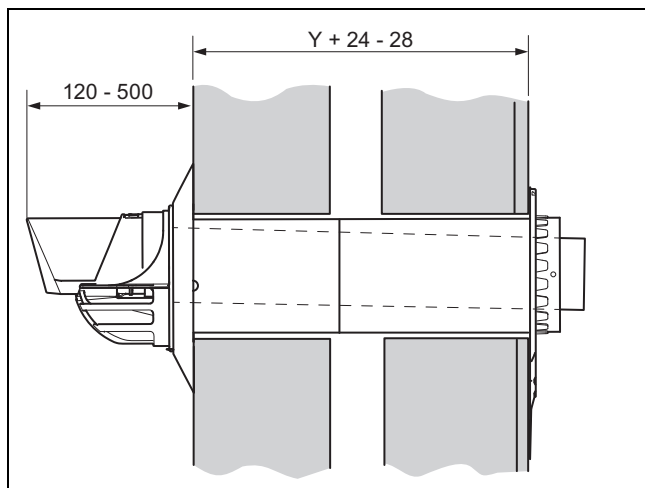
### 5.1.5 Installing the direct, rear, telescopic wall duct – article number 0020219526

#### 5.1.5.1 Scope of delivery



- |   |                      |   |                       |
|---|----------------------|---|-----------------------|
| 1 | Telescopic wall duct | 3 | Safety screws (4 pcs) |
| 2 | Wall collar          | 4 | Sealing tape          |

#### 5.1.5.2 Determining the pipe length and the location of the wall duct



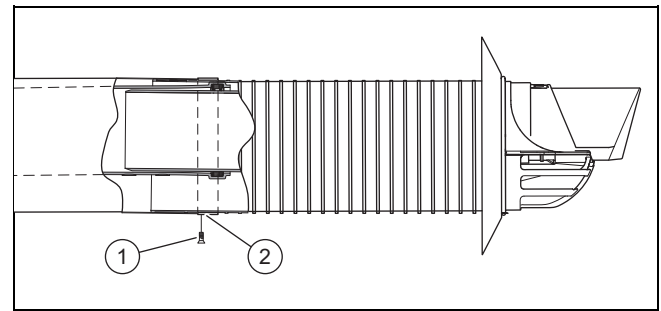
- Determine the pipe length (→ Installation instructions for the boiler) and define the location of the wall duct.
- Measure the clearance  $Y$  from the external wall to the installation surface for the boiler.
- Set the required pipe length:  $Y + 24$  mm to 28 mm.
  - If you install the wall collar, add 12 mm to the total pipe length.
  - If the opening is below a roof projection or a horizontal surface, you can pull the wall duct up to 500 mm out of the wall in order to guarantee that the flue gases are extracted without any obstructions.



#### Note

Do not shorten the telescopic flue pipe.  
If the required pipe length cannot be achieved, use extensions or the horizontal wall/roof duct.

#### 5.1.5.3 Securing the telescopic pipe



- Set the telescopic wall duct to the correct length.
  - Note that the **TOP** symbols at both ends must point upwards.



#### Danger!

#### Risk of poisoning due to escaping flue gas.

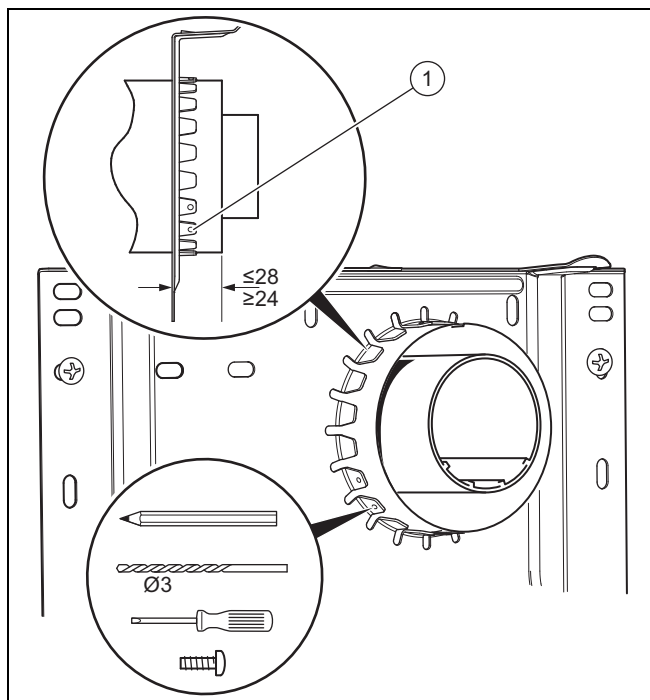
Flue gas can escape if a flue gas pipe is damaged.

- Use only one of the enclosed small self-tapping screws.

- Secure the air pipes to each other by screwing the overlapping air pipes together using the supplied self-tapping screws (1) on the underside.
- Seal the gap on the telescopic air pipe using the supplied adhesive tape (2).
- Install the wall duct. (→ Page 10)

#### 5.1.5.4 Installing the wall duct

- Drill a hole.
  - Diameter: 110 mm
- Push the air/flue pipe from outside and through the wall and the terminals.

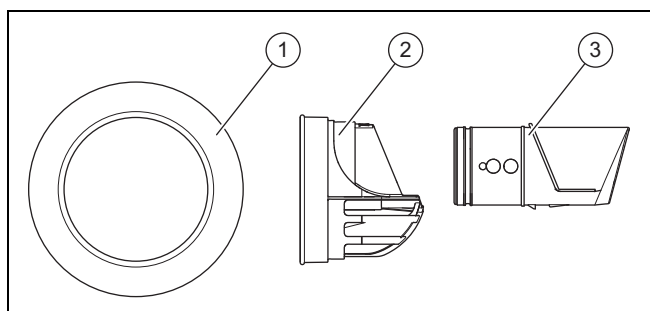


3. Pull the wall duct out to the required depth.
4. Use the locking screws to secure the wall duct.
  - Use at least three of the six holes (1) that are available in the terminals to secure the flue pipe.
5. Install the wall collar.
6. Before you install the boiler, check that the wall duct is safely secured in place.
7. Seal the installation gap using a suitable material (e.g. mortar).
8. Install the boiler (→ Installation instructions for the boiler).

### 5.1.6 Black terminal set – article number 0020219538

(cannot be used with article number 0010035513)

#### 5.1.6.1 Scope of delivery



- |   |                |   |          |
|---|----------------|---|----------|
| 1 | Wall collar    | 3 | End pipe |
| 2 | Terminal piece |   |          |

#### 5.1.6.2 Installing the black terminal (change of colour)

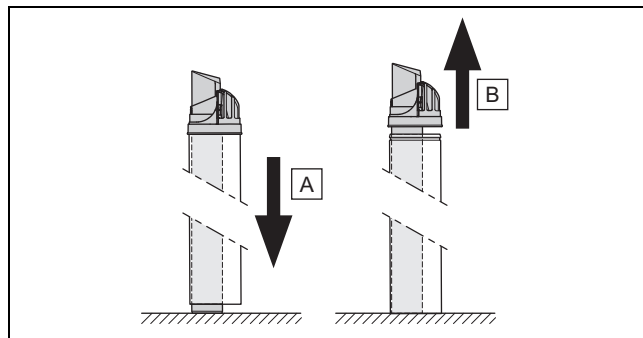


#### Note

You must install the terminal sets before installing the flue pipework.

**Condition:** Terminal secured using screws

- ▶ Undo the lateral screws.



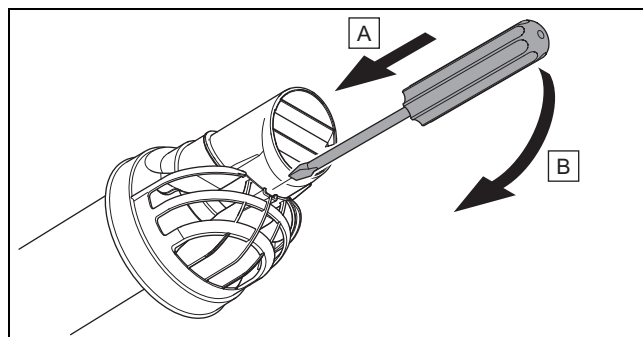
1. Detach the terminal with the flue pipe by pushing the air pipe to the floor.



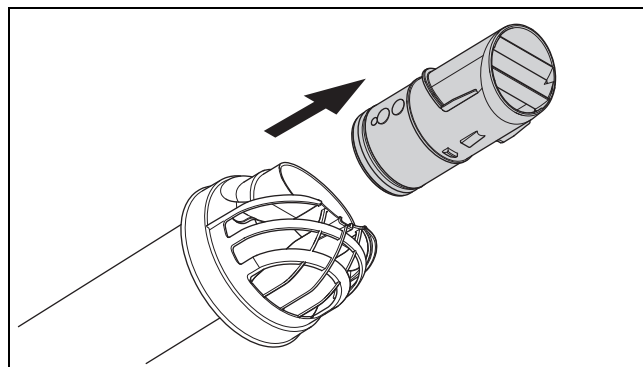
#### Note

You cannot reuse the terminal as detaching the terminal damages the latching lugs in the terminal.

2. Pull the terminal from the air pipe together with the flue pipe.

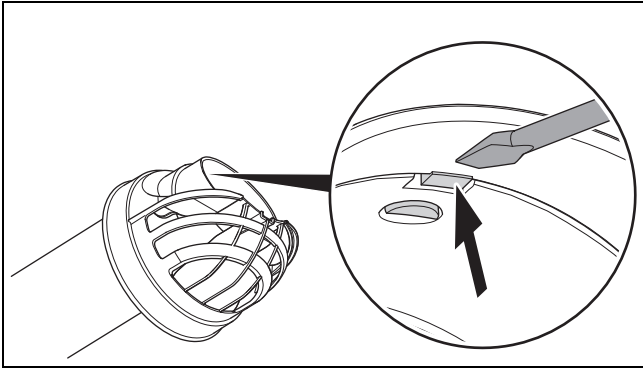


3. Release the catch between the opening piece and the end pipe.

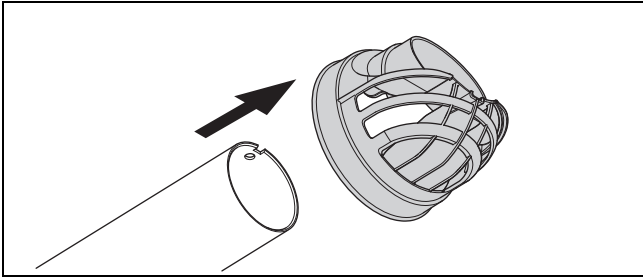


4. Pull the end pipe from the opening piece.

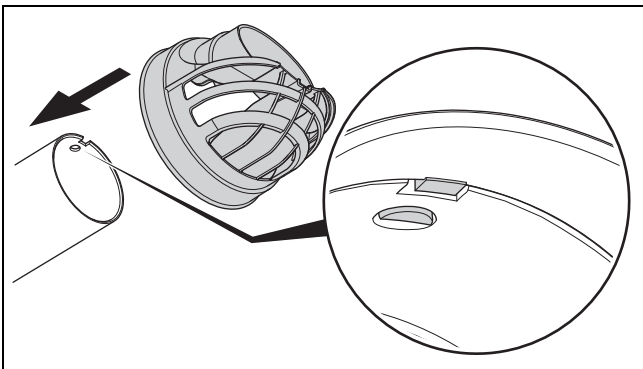
## 5 Set-up



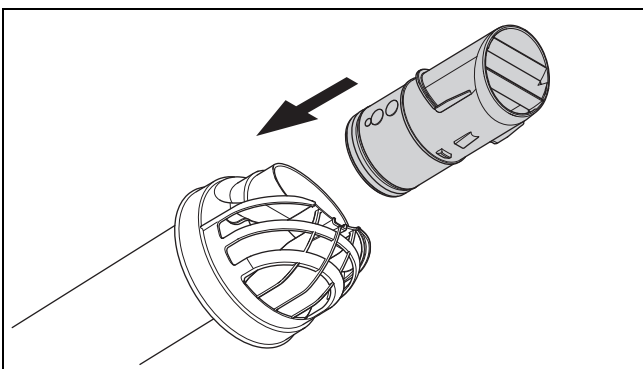
5. Release the catch between the opening piece and the flue pipe.



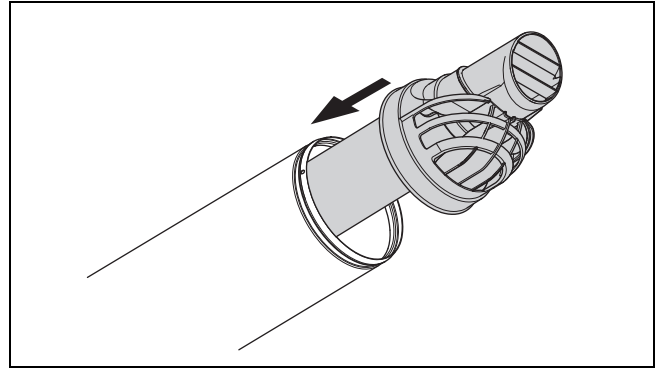
6. Pull the opening piece from the flue pipe.



7. Slide the new opening piece onto the flue pipe until you hear the opening piece click into place.



8. Slide the end pipe onto the opening piece until you hear the end pipe click into place.



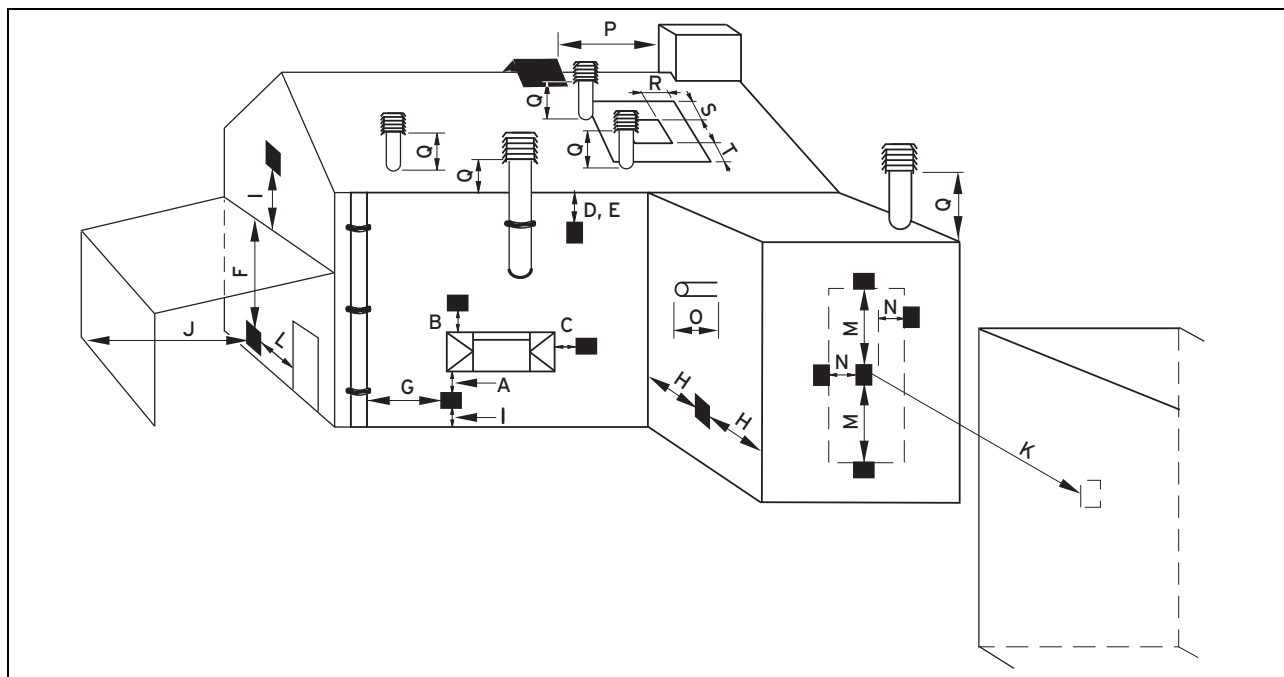
9. Slide the flue pipe with the new terminal into the air pipe until you hear the terminal click into place.

**Condition:** Terminal secured using screws

- ▶ Attach the terminal using the side screws.

## 5.1.7 Variable terminal set (VTK)

### 5.1.7.1 Opening in the air/flue pipe



	Installation site	Minimum dimensions
A	Directly below an opening, air bricks, opening windows, etc., that can be opened.	300 mm
B	Above an opening, air bricks, opening windows, etc., that can be opened.	300 mm
C	Horizontally to an opening, air bricks, opening windows, etc., that can be opened.	300 mm
D	Below temperature-sensitive building components, e.g. plastic gutters, down pipes or wastewater pipes	75 mm
E	Below eaves	200 mm
F	Below balconies or car port roofs	200 mm
G	From vertical wastewater pipes or down pipes	150 mm
H	From external or internal corners	200 mm
I	Above floors, roofs or balconies	300 mm
J	From a surface facing a terminal	600 mm
K	From a terminal facing a terminal	1,200 mm
L	From an opening in the car port (e.g. door, window) which leads into the dwelling	1,200 mm
M	Vertical from a terminal on the same wall	1,500 mm
N	Horizontal from a terminal on the same wall	300 mm
O	From the wall on which the terminal has been installed	0 mm
P	From a vertical structure on the roof	300 mm
Q	Above the roof area	300 mm
R	Horizontal from adjacent windows on pitched or flat roofs	600 mm
S	Above adjacent windows on pitched or flat roofs	600 mm
T	Below adjacent windows on pitched or flat roofs	2,000 mm

You can find further information about positioning the opening in: BS 5440-1: Table C.1.

## 5 Set-up

### 5.1.8 Installing the vertical roof duct, 60/100 mm diameter

#### 5.1.8.1 Installation instructions



#### Danger!

**Risk of poisoning due to escaping flue gas and risk of material damage due to the roof duct shearing off.**

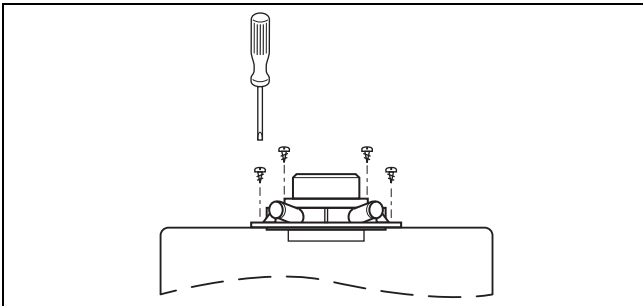
Snow and ice sliding down pitched roofs may break off the vertical roof duct where it exits the roof.

- ▶ In regions where heavy snow falls/extensive ice formation can be expected, install the vertical roof duct close to the ridge or install a snow guard mesh above the roof duct.

The vertical roof ducts can be shortened under the roof. However, to ensure that the fixing bracket is secured tightly, the lengths must still be sufficient.

- ▶ Shorten the flue pipe and the air pipe by the same amount.

#### 5.1.8.2 Installing the 60/100 mm connection piece



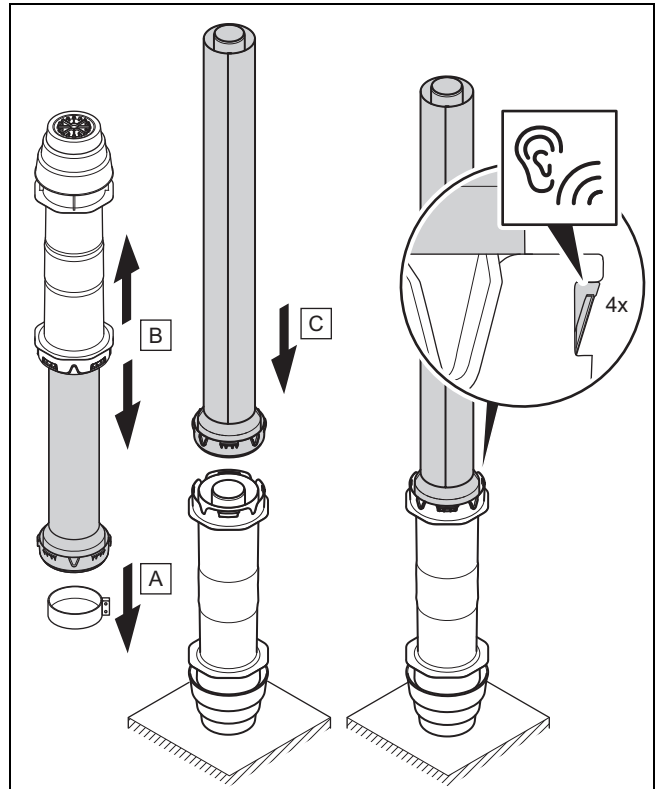
1. Fit the connection piece onto the boiler's flue gas connection. In doing so, ensure that the connection piece is aligned correctly.
2. Secure the connection piece using the 4 screws.

#### 5.1.8.3 Assembling the vertical roof duct



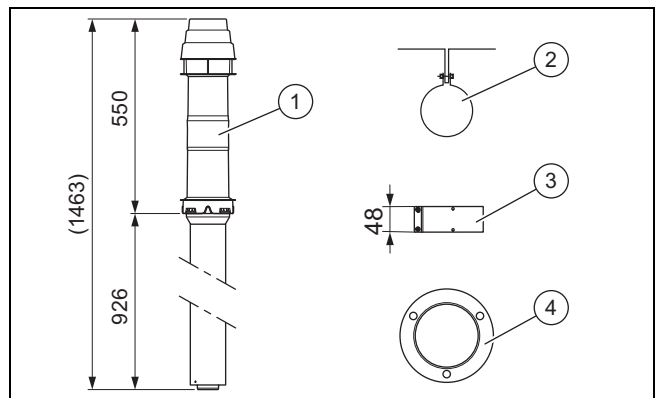
#### Note

In its as-delivered condition, the lower pipe of the vertical roof duct is pushed into the upper pipe.



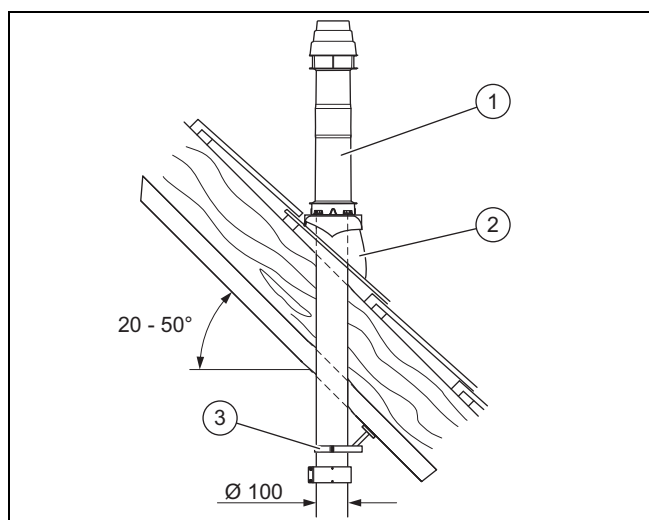
- ▶ Assemble the vertical roof duct.
  - Ensure that you hear the lower part click into place in the upper part.

#### 5.1.8.4 Scope of delivery article number 0020230604 (black, with collar)



- |   |                    |   |                       |
|---|--------------------|---|-----------------------|
| 1 | Vertical roof duct | 3 | 48 mm air-pipe collar |
| 2 | Fixing bracket     | 4 | Cover plate           |

### 5.1.8.5 Installing the pitched-roof duct



1. Determine the installation site of the roof duct so that there is sufficient distance behind the product in order to connect the product to the heating installation.
2. Insert the pantile (2).
3. Insert the roof duct (1) through the pantile from above and push it down until the cover plate is seated firmly.
4. Align the roof duct vertically.
5. Secure the roof duct to the roof construction using the fixing bracket (3).
6. Connect the roof duct to the product using no more than two 45° elbows.

#### 7. Alternatives 1:

**Condition:** Roof duct

- Connect all of the pipe joints with air pipe clamps. (→ Page 15)

#### 7. Alternatives 2:

**Condition:** Roof duct without extension

- Install the sliding sleeve.

### 5.1.8.6 Installing the flat-roof duct

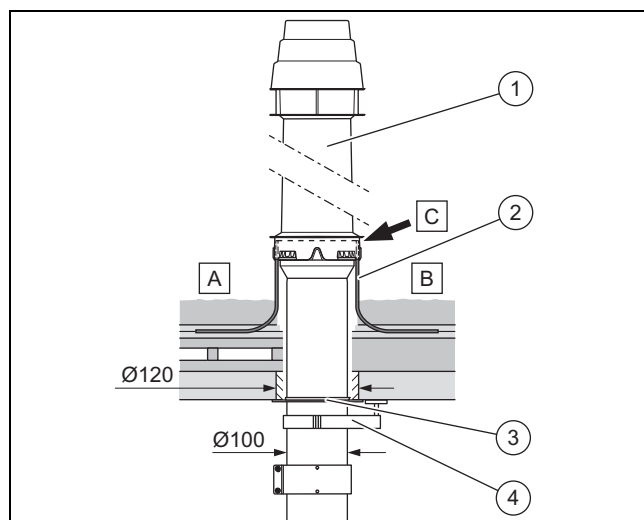


#### Caution.

#### Risk of damage to the structure of the building.

As a result of improper installation, water may penetrate the building and cause material damage.

- Observe the definitions in the directives for the planning and implementation of roofs with seals.



A Cold roof

B Warm roof

C Position of the internal flue pipe seal

1. Determine the installation site for the roof duct.
2. Insert the flat roof penetration collar (2).
3. Glue the flat roof penetration collar firmly in place.
4. Insert the roof duct (1) through the flat roof penetration collar from above and push it down until seated firmly.
5. Align the roof duct vertically.
6. Put the cover plate (3) on.
7. Secure the roof duct to the roof construction using the fixing bracket (4).
8. Connect the roof duct to the product using no more than two 45° elbows.

#### 9. Alternatives 1:

**Condition:** Roof duct

- Connect all of the pipe joints with air pipe clamps. (→ Page 15)

#### 9. Alternatives 2:

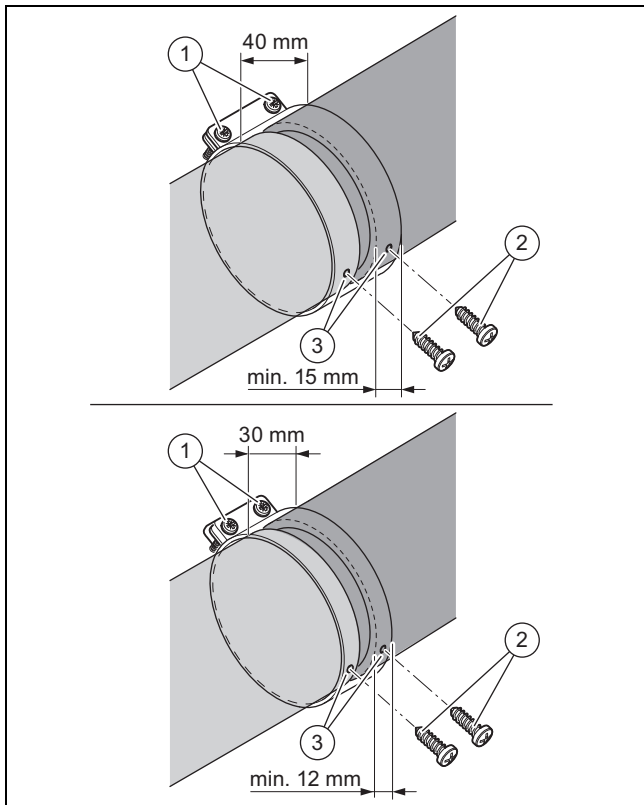
**Condition:** Roof duct without extension

- Install the sliding sleeve.

### 5.1.9 Installing the air pipe clamps

1. Connect all of the pipe joints with air pipe clamps:

## 5 Set-up



- Slide the air pipe clamps centrally over the pipe joint for the air pipes and tighten the screws (1).
  - Air pipes distance:  $\leq 5$  mm



### **Danger!**

#### **Risk of poisoning due to escaping flue gas.**

Flue gas can escape if the flue pipe is damaged.

- ▶ Take care that the flue pipe is not damaged when drilling.

- Drill holes into the air pipe through the holes in the air pipe clamp (3).



### **Danger!**

#### **Risk of poisoning due to escaping flue gas.**

Flue gases may escape as a result of pipes that are not securely connected to each other.

- ▶ Secure the clamps and air pipes using the supplied bolts.

- Insert the locking screws (2).





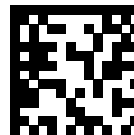




**Manufacturer/Supplier**

**Vaillant Group UK LTD**

Nottingham Road – Belper – Derbyshire DE56 1JQ  
Telephone 01773 824639 – Technical helpline 0330 100 7679  
After sales service 0330 100 3142  
[www.glow-worm.co.uk](http://www.glow-worm.co.uk)



0020283674\_03

0020283674\_03 – 19.03.2020

© These instructions, or parts thereof, are protected by copyright and may be reproduced or distributed only with the manufacturer's written consent.  
Subject to technical modifications.