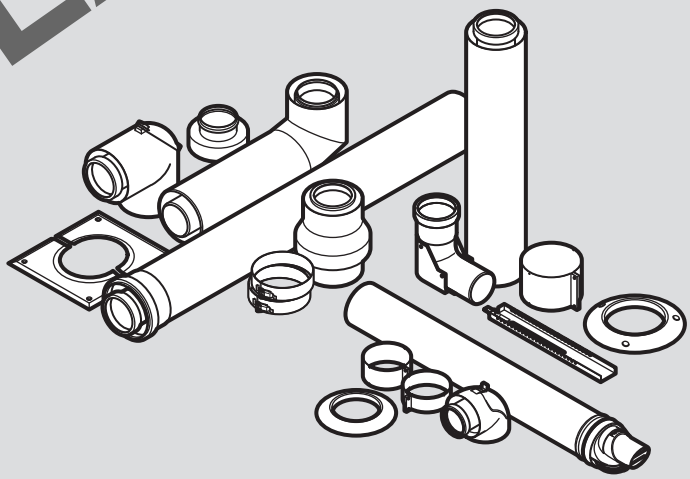
DemirDöküm

Air/flue pipe

ademiX, vintomiX,

TRANSLATION



8000015141_00 - 28.06.2023

en Air/flue pipe installation manual

Air/flue pipe installation manual

Contents

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 symbols 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 death from 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
► Ensure that all 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.
► Deburr and chamfer the ends of the pipes before installing them, and dispose of the shavings.
► 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 restrict the outward flow of the flue gas, meaning that flue gas can escape.

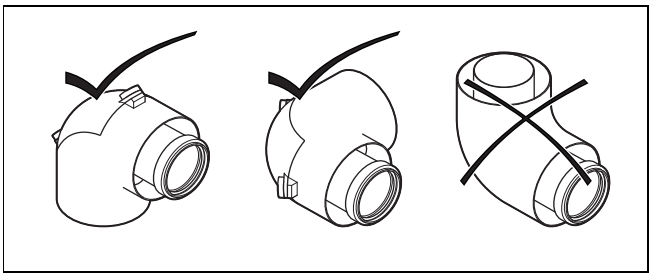
- After installation, remove all mortar residues, shavings, etc., from the air/flue pipe.

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.

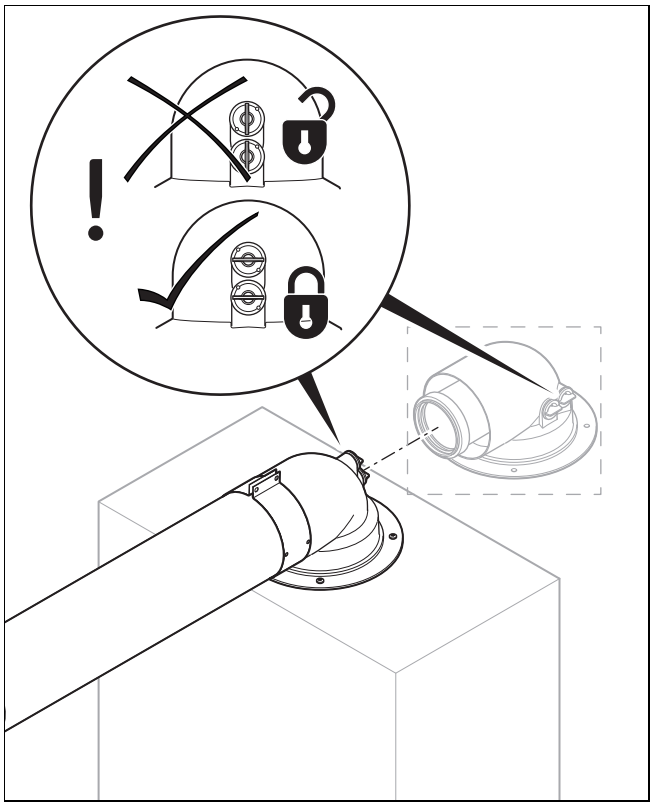
Condensate that collects inside the flue in certain areas can damage the flue pipework seals.

- Install the horizontal flue pipe to the product with a downward gradient.
  - Downward gradient to the product: ≥ 3° (56 mm per 1 m of pipe length)
- Only install the 60/100 mm diameter and 80/125 mm diameter offset pieces vertically.



An incorrect installation position leads to condensate leaking from the inspection-opening cover and may lead to corrosion damage.

- Install the inspection elbow in accordance with the illustration.



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

- Ensure that the test openings are completely sealed during operation.

Sharp edges in the shaft may damage the flexible flue gas duct.

- Two people are needed to guide the flue pipework through the shaft.
- Never attempt to pull the flexible flue gas duct through the shaft without using the installation aid.

1.3.3 Risk of death from escaping flue gas due to negative pressure

For open-flued operation, the product must not be placed in rooms from which the air is extracted using fans (e.g. ventilation systems, extraction hoods, tumble dryer ventilation). These installations create negative pressure in the room. This negative pressure can, for example, cause flue gas to be sucked into the installation room from the opening through the annular gap between the flue pipework and the shaft or from a multi-configuration flue system through a heat generator that is not in operation. The product must only be operated open-flued if simultaneous operation of the product and fan is not possible or it can be guaranteed that the air supply is sufficient.

- Install mutual interlocking of the fan and the product.

1.3.4 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.

1.3.5 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.

1.3.6 Risk of corrosion caused by sooted chimneys

Chimneys that previously discharged the flue gas from oil- or solid-fuel-fired heat generators are unsuitable for combustion air supply. Chemical deposits in the chimney may pollute the combustion air and cause corrosion in the product.

- Ensure that the combustion air supply is free from corrosive materials.

1.4 Regulations (directives, laws, standards)

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

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". The tables in the system overview section refer to the grouping below.

Product	Article number	Group
vintomiX P18/24-AS/1 (H-UA)	8000015375	1
vintomiX P24/28-AS/1 (H-UA)	8000015367	2
ademiX P18/24-AS/1 (H-UA)	8000015116	3
ademiX P24/28-AS/1 (H-UA)	8000015117	4

3 System overview

3.1 System conditions

3.1.1 Conditions for the pipe lengths

The maximum pipe length in the cold area (unheated rooms and/or outdoor area) is 5 m.

The total pipe length includes the number of 87° elbows that are specified in the table for the horizontal area and the support elbow.

Validity: Air/flue pipe, 60/100 mm diameter

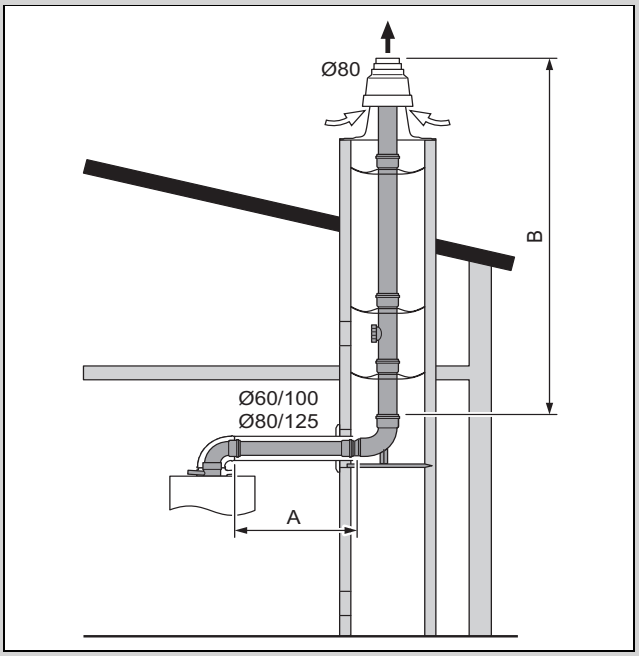
The maximum pipe length is reduced as each additional diversion is added, as follows: By 1 m for each 87° elbow, by 0.5 m for each 45° elbow.

Validity: Air/flue pipe, 80/125 mm diameter OR Air/flue pipe, 80/80 mm diameter

The maximum pipe length is reduced as each additional diversion is added, as follows: By 2.5 m for each 87° elbow, by 1 mm for each 45° elbow and by 2.5 m for each inspection T-piece.

3.2 Installing the shaft connection on the rigid flue pipework, 80 mm diameter (PP)

Validity: 80 mm diameter



► Start setting up the system by installing the rigid flue pipework (→ Page 17) while taking the relevant pipe length tables into consideration.

Validity: Air/flue pipe, 60/100 mm diameter

System article number: 0010039994
Room-sealed
Round shaft: At least 130 mm
Square shaft: At least 120 x 120 mm

Group	A_{max} [m]	B_{max} [m]	Number of 87° elbows
1 + 3	3	8	2
2 + 4	3	10	2

System article number: 0010039994
Room-sealed
Round shaft: At least 150 mm
Square shaft: At least 130 x 130 mm

Group	A_{max} [m]	B_{max} [m]	Number of 87° elbows
1 + 3	3	12	2
2 + 4	3	15	2

System article number: 0010039994
Room-sealed
Round shaft: At least 180 mm
Square shaft: At least 140 x 140 mm

Group	A_{max} [m]	B_{max} [m]	Number of 87° elbows
1 + 3	3	20	2
2 + 4	3	25	2

Validity: Air/flue pipe, 80/125 mm diameter

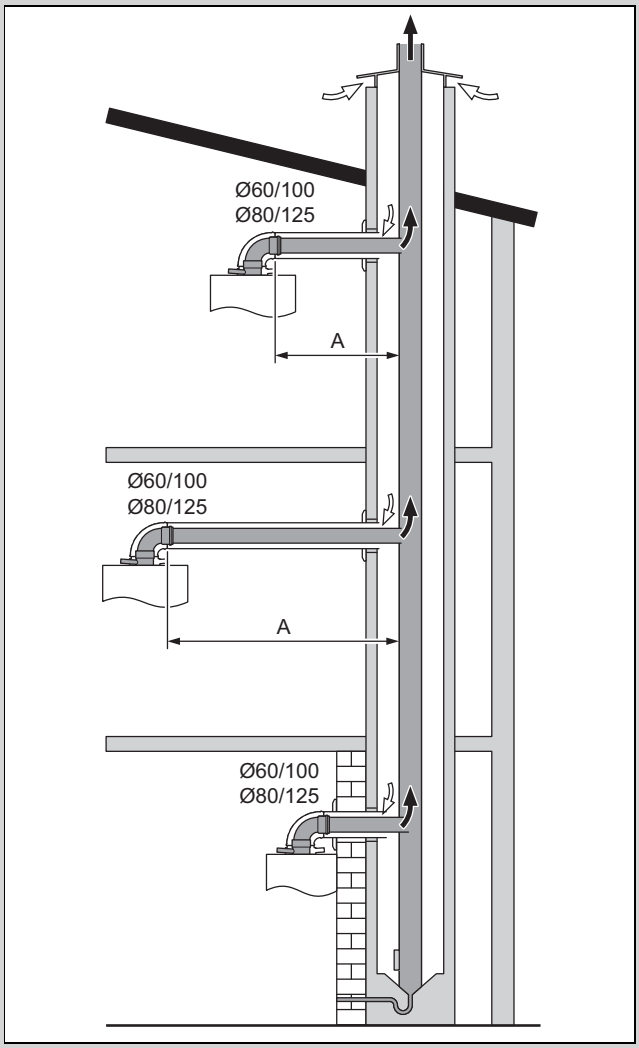
System article number: 0010039995 Room-sealed Round shaft: At least 130 mm Square shaft: At least 120 x 120 mm		
Group	**$(A+B)_{max}$ [m]**	**Number of 87° elbows**
1 + 3	11	2
2 + 4	13	2

System article number: 0010039995 Room-sealed Round shaft: At least 150 mm Square shaft: At least 130 x 130 mm		
Group	**$(A+B)_{max}$ [m]**	**Number of 87° elbows**
1 + 3	13	2
2 + 4	16	2

System article number: 0010039995 Room-sealed Round shaft: At least 180 mm Square shaft: At least 140 x 140 mm		
Group	**$(A+B)_{max}$ [m]**	**Number of 87° elbows**
1 + 3	20	2
2 + 4	26	2

3.3 Installing the shaft connection on the air/flue system

Validity: Air/flue pipe, 60/100 mm diameter OR Air/flue pipe, 80/125 mm diameter



1. For this type of installation, connect the boiler to natural draught chimneys only.
   ▽ Condensate from multi-configuration chimney systems must not drain into the boiler.
2. Check the dimensions of the chimney and, in doing so, observe the chimney sweep approvals.
3. Start setting up the system using Installing the connection on the air/flue system (→ Page 24) while taking the relevant pipe length tables into consideration.

Validity: Air/flue pipe, 60/100 mm diameter

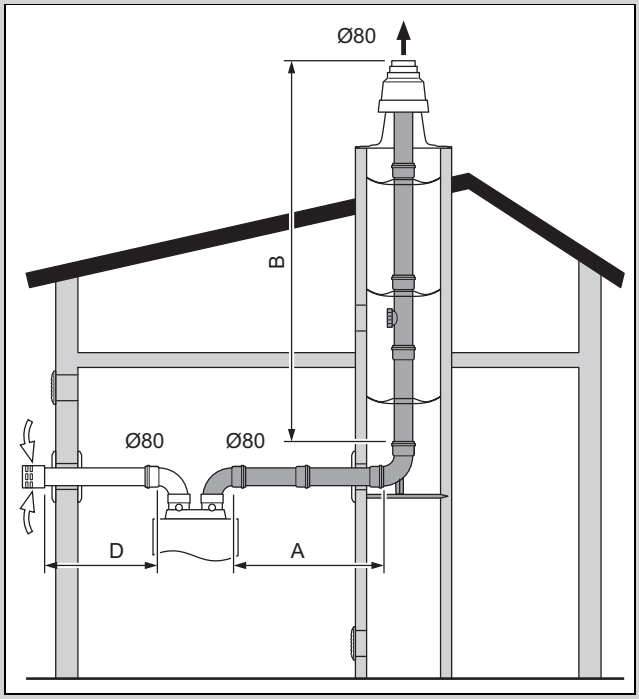
System article number: 0020285764		
Group	**A_{max} [m]**	**Number of 87° elbows**
All	3	3

Validity: Air/flue pipe, 80/125 mm diameter

System article number: 0020268002 + 0020268010		
Group	**A_{max} [m]**	**Number of 87° elbows**
All	3	3

3.4 Installing the shaft connection on the rigid flue pipework, 80 mm diameter (PP), with separate air supply

Validity: 80 mm diameter



1. Start setting up the system by installing the rigid flue pipework (→ Page 17) while taking the relevant pipe length tables into consideration.

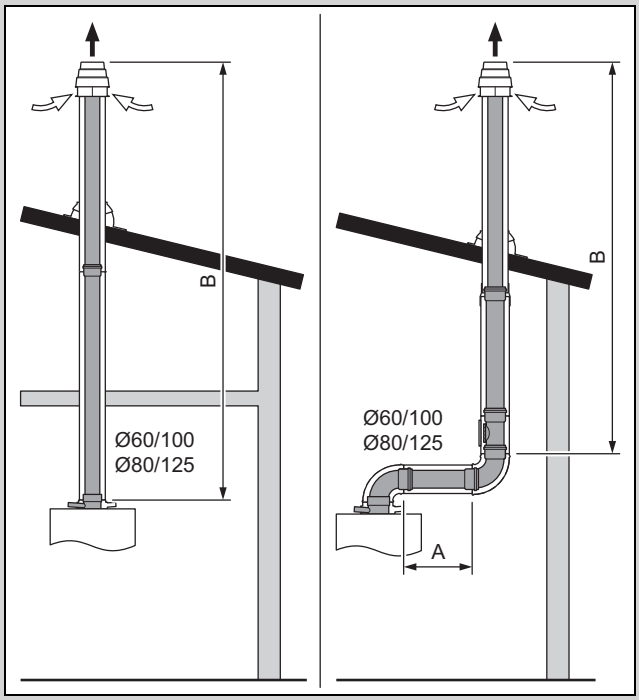
   Validity: Air/flue pipe, 80/80 mm diameter

System article number: 0020268032 Room-sealed Round shaft: At least 140 mm Square shaft: At least 120 x 120 mm				
Group	**$(A+B+D)_{max}$ [m]**	**B_{max} [m]**	**D_{max} [m]**	**Number of 87° elbows**
1 + 3	24	22	12	1
2 + 4	30	28	15	1

2. Install the connection to the rigid flue pipework (PP). (→ Page 17)
3. Install the shaft/wall connection for the air supply. (→ Page 18)
   ◁ The tops for the combustion air supply and flue gas extraction must not be installed on opposite walls of the building.

3.5 Installing the vertical roof duct through flat and pitched roofs

Validity: Air/flue pipe, 60/100 mm diameter OR Air/flue pipe, 80/125 mm diameter



► Start setting up the system using Installing the roof duct for pitched roofs/flat roofs (→ Page 21) while taking the relevant pipe length tables into consideration.

Validity: Air/flue pipe, 60/100 mm diameter

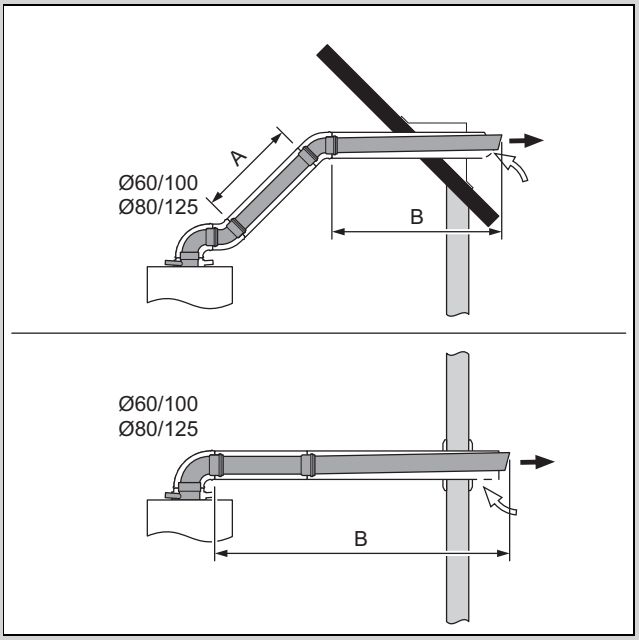
System article number: 0020268027 Room-sealed		
Group	**$(A+B)_{max}$ [m]**	**Number of 87° elbows**
All	10	-

Validity: Air/flue pipe, 80/125 mm diameter

System article number: 0020268028 Room-sealed		
Group	**$(A+B)_{max}$ [m]**	**Number of 87° elbows**
1 + 3	16	–
2 + 4	20	–

3.6 Installing horizontal wall/roof ducts

Validity: Air/flue pipe, 60/100 mm diameter OR Air/flue pipe, 80/125 mm diameter



- Start setting up the system using Installing the horizontal wall/roof duct (→ Page 22) while taking the relevant pipe length tables into consideration.

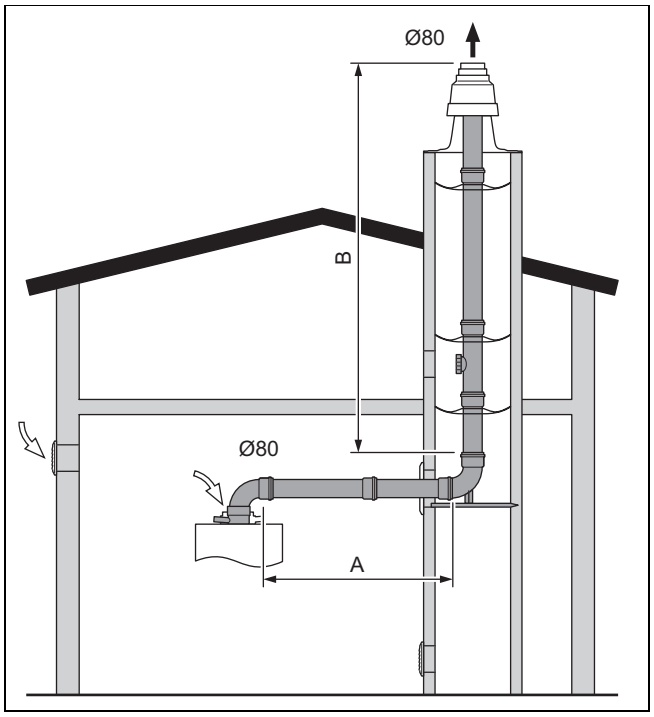
Validity: Air/flue pipe, 60/100 mm diameter

System article number: 0020268005 Room-sealed		
Group	**$(A+B)_{max}$ [m]**	**Number of 87° elbows**
1 + 2	9	1
3 + 4	6	1

Validity: Air/flue pipe, 80/125 mm diameter

System article number: 0020268001 Room-sealed		
Group	**$(A+B)_{max}$ [m]**	**Number of 87° elbows**
1 + 3	16	1
2 + 4	20	1

3.7 Installing the shaft connection on the rigid flue pipework, 80 mm diameter (open-flued)



1. Start setting up the system by installing the rigid flue pipework (→ Page 17) while taking the relevant pipe length tables into consideration.

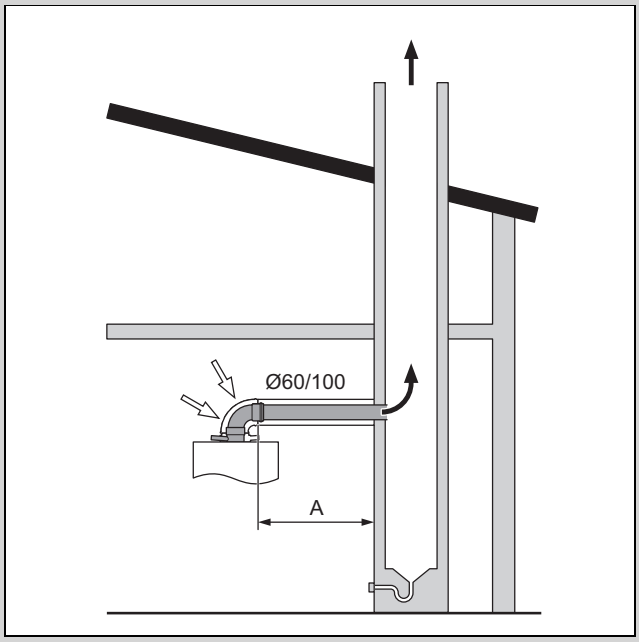
Validity: 80 mm diameter

System article number: 0020268032 Open-flued		
Group	**$(A+B)_{max}$ [m]**	**Number of 87° elbows**
1 + 3	23	2
2 + 4	28	2

2. Install the connection to the rigid flue pipework (PP). (→ Page 17)

3.8 Installing the shaft connection on the flue pipework for negative pressure

Validity: Air/flue pipe, 60/100 mm diameter



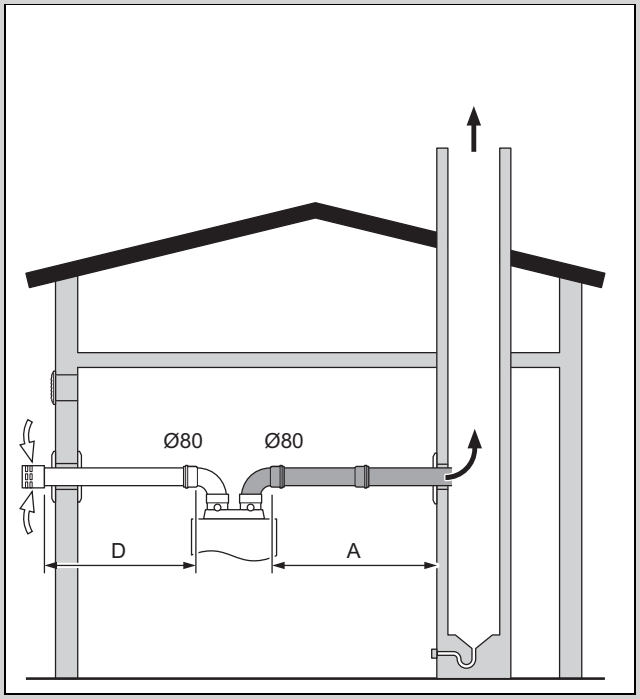
► Start setting up the system using Installing the shaft connection on the flue pipework for negative pressure (→ Page 25) while taking the relevant pipe length tables into consideration.

System article number: 0020285764		
Group	**A_{max} [m]**	**Number of 87° elbows**
All	3	3

▽ Condensate from multi-configuration chimney systems must not drain into the boiler.

3.9 Installing the shaft connection on the flue pipework for negative pressure with separate air supply

Validity: Air/flue pipe, 80/80 mm diameter



1. Start setting up the system using Installing the shaft connection on the flue pipework for negative pressure (→ Page 25) while taking the relevant pipe length tables into consideration.

System article number: 0020268032, 0020285765 Room-sealed Round shaft: At least 140 mm Square shaft: At least 120 x 120 mm			
Group	**A_{max} [m]**	**D_{max} [m]**	**Number of 87° elbows**
All	3	15	5

2. Install the horizontal flue pipework and, if required, the air pipe. (→ Page 18)

4 Certified air/flue pipes and components

The following tables list the air/flue pipes that are permitted as part of the system certification, along with their certified components.

The following tables within this section refer to the grouping below.

Not all air/flue pipes and components are offered in your country.

4.1 Air/flue pipe, 60/100 mm diameter

Validity: Air/flue pipe, 60/100 mm diameter

4.1.1 System overview

System group	Article number	Air/flue pipe
A	0020268027	Vertical roof duct
B	0020268005	Horizontal wall/roof duct
C	0020285764	Concentric shaft connection on the air/flue pipes Concentric shaft connection on flue pipework for negative pressure
D	0010039994	Concentric shaft connection on the air/flue pipes, 80 mm diameter

4.1.2 Components

	Article number	A	B	C	D
System, concentric (PP), 60/100 mm diameter					
Connector for air/flue pipe	0010031048	X		X	X
Extension (PP), concentric, 0.5 m	0020268009	X	X	X	X
Extension (PP), concentric, 1.0 m	0020268011	X	X	X	X
Extension (PP), concentric, 2.0 m	0020268013	X	X	X	X
Elbow (PP), concentric (2 pcs), 45°	0020268007	X	X	X	X
Elbow (PP), concentric, 87°	0020268006	X	X	X	X
Inspection opening (PP), 0.25 m	0020285766	X	X	X	X
Elbow (PP), concentric, 87°, with inspection opening (for room-sealed operation)	0020285768	X	X	X	X
Inspection-opening cover with air intake port (for open-flued operation in combination with 0020285768)	0020285769			X	X
Pipe clamp, 140 mm (5 pcs), 100 mm diameter	0020268017	X	X	X	X
System flue pipework (PP), rigid, 80 mm diameter					
Extension, flue pipework (PP), 0.5 m	0020268029				X
Extension, flue pipework (PP), 1.0 m	0020268030				X
Extension, flue pipework (PP), 2.0 m	0020268031				X
Elbow, flue pipework (PP), 45°	0020268033				X
Spacer (7 pcs), 80 mm diameter	0020285771				X
Shaft top for the rigid flue pipework	0020285772				X
Cross-system flue components					
Universal tile, pitched roof (natural/black)	0020285774	X			

4.2 Air/flue pipe, 80/125 mm diameter

Validity: Air/flue pipe, 80/125 mm diameter

4.2.1 System overview

System group	Article number	Air/flue pipe
A	0020268028	Vertical roof duct
B	0020268001	Horizontal wall/roof duct
C	0020268002 + 0020268010	Concentric shaft connection on the air/flue pipes
D	0010039995	Concentric shaft connection on the air/flue pipes, 80 mm diameter

4.2.2 Components

	Article number	A	B	C	D
System, concentric (PP), 80/125 mm diameter					
Connector for air/flue pipe	0010031049	X		X	X
Extension (PP), concentric, 0.5 m	0020268010	X	X	X	X
Extension (PP), concentric, 1.0 m	0020268012	X	X	X	X
Extension (PP), concentric, 2.0 m	0020268014	X	X	X	X
Elbow (PP) (2 pcs), concentric, 45°	0020268003	X	X	X	X
Elbow (PP), concentric, 87°	0020268002	X	X	X	X
Inspection opening (PP), 0.25 m	0020285775	X	X	X	X
Elbow (PP) with inspection opening, concentric, 87° (for room-sealed operation)	0020285777	X	X	X	X
Pipe clamp (5 pcs), 125 mm diameter	0020268018			X	X
System flue pipework (PP), rigid, 80 mm diameter					
Extension, flue pipework (PP), 0.5 m	0020268029				X
Extension, flue pipework (PP), 1.0 m	0020268030				X
Extension, flue pipework (PP), 2.0 m	0020268031				X
Elbow, flue pipework (PP), 45°	0020268033				X
Spacer (7 pcs), 80 mm diameter	0020285771				X
Shaft top for the rigid flue pipework	0020285772				X
Cross-system flue components					
Universal tile, pitched roof (natural/black)	0020285774	X			

4.3 System overview, 80/80 mm diameter

Validity: Air/flue pipe, 80/80 mm diameter

4.3.1 System overview

System group	Article number	Air/flue pipe
A	0020268032	Elbow
B	0020285924 + 0020285765	Shaft connection to the flue pipework for negative pressure

4.3.2 Components

Components	Article number	A	B
System flue pipework (PP), rigid, 80 mm diameter			
Connector for air/flue pipe	0010031050	X	X
Extensions, flue pipework (PP), 0.5 m	0020268029	X	X
Extensions, flue pipework (PP), 1.0 m	0020268030	X	X
Extensions, flue pipework (PP), 2.0 m	0020268031	X	X
Elbow, flue pipework (PP), 45°	0020268033	X	X
Elbow, flue pipework (PP), 87°	0020268032	X	X
Spacers (7 pcs)	0020285771	X	X
Inspection T-piece (PP), 87°	0020285781	X	X
Pipe clamps (5 pcs)	0020268016	X	X
Shaft top for the rigid flue pipework	0020285772	X	X

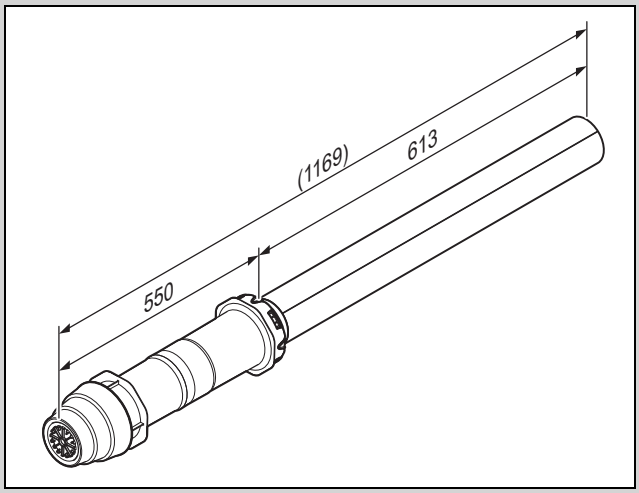
5 Scope of delivery for air/flue pipes

5.1 Air/flue pipe, 60/100 mm diameter

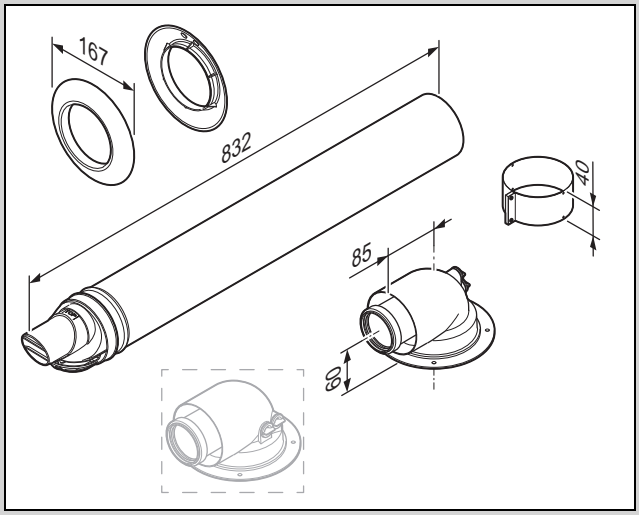
Validity: Air/flue pipe, 60/100 mm diameter

5.1.1 Scope of delivery

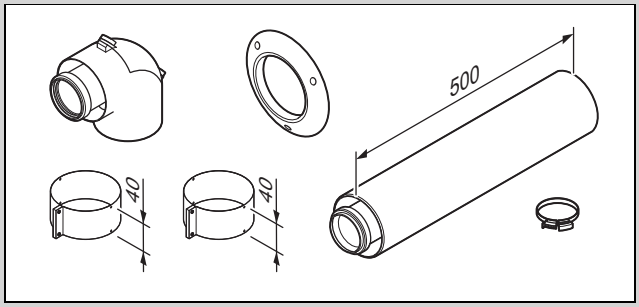
0020268027



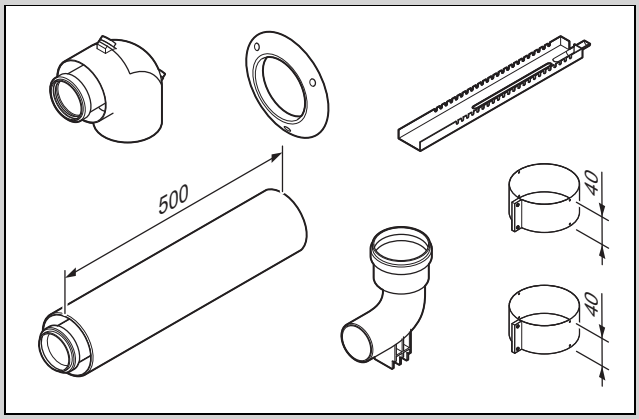
0020268005



0020285764



0010039994

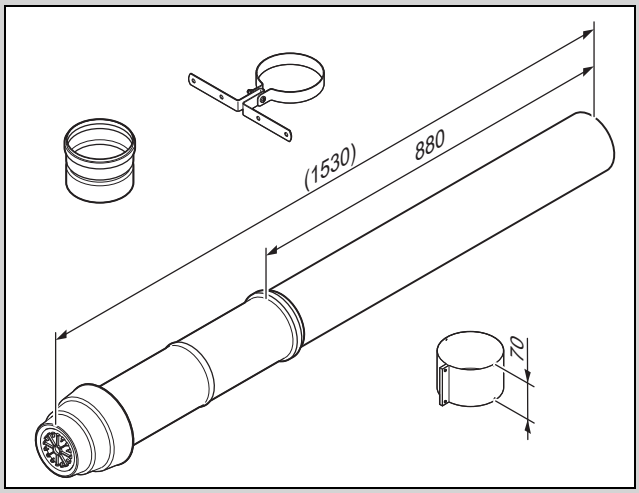


5.2 Air/flue pipe, 80/125 mm diameter

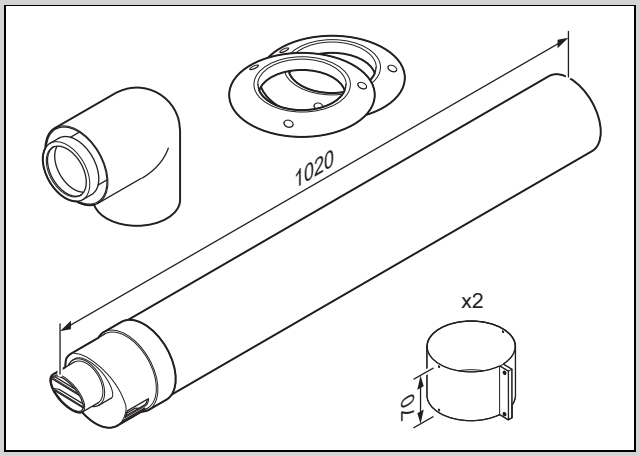
Validity: Air/flue pipe, 80/125 mm diameter

5.2.1 Scope of delivery

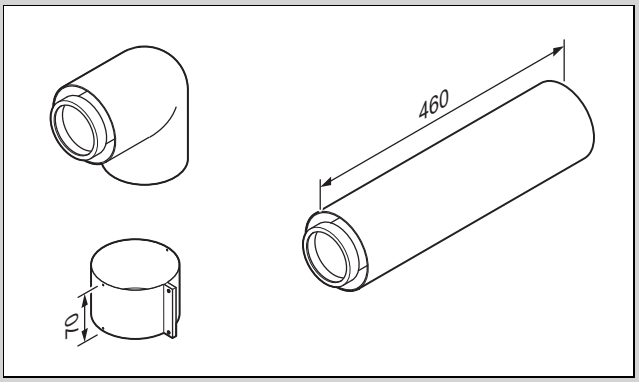
0020268028



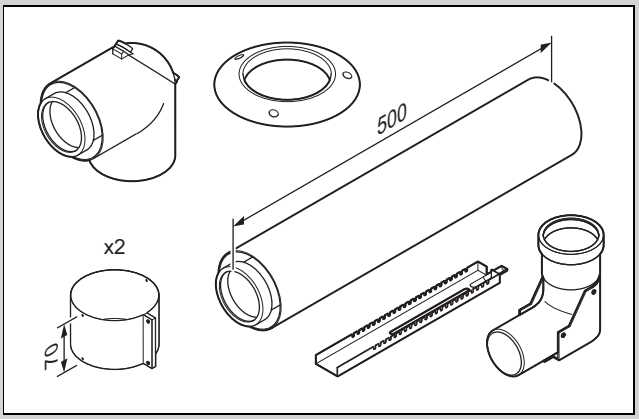
0020268001



0020268002 and 0020268010



0010039995

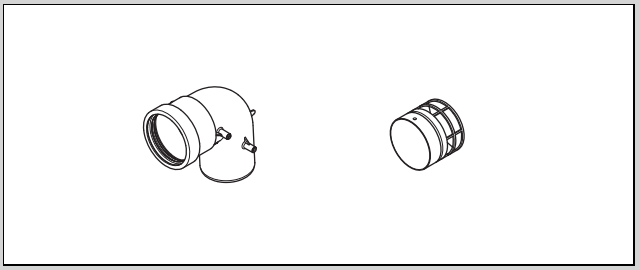


5.3 Air/flue pipe, 80/80 mm diameter

Validity: Air/flue pipe, 80/80 mm diameter

5.3.1 Scope of delivery

0020285924 and 0020285765



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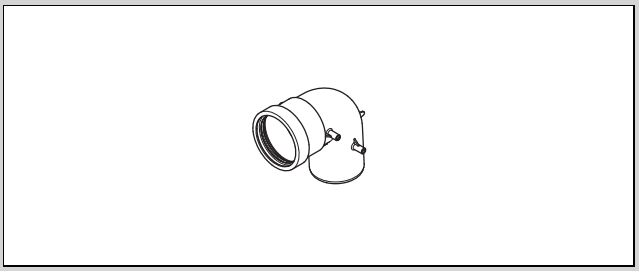


6 Set-up

Caution.

Risk of product malfunction caused by an insufficient supply of fresh air.

In open-flued operation, a sufficient supply of fresh air must be ensured.

- ► Establish either a direct opening of 150 cm² to the outside or a combustion air supply through a natural ventilation airflow network with sufficient yield.
- ► Keep all supply air openings free of obstruction, otherwise, there can be no guarantee that the product will function without problems.

Caution.

Risk of material damage caused by low temperatures.

In the case of temperatures below 0 °C and in unheated rooms, the flexibility of the flue pipework is reduced.

- ► Transport the flue pipework to the roof carefully.
- ► Before the installation, check all of the parts for damage.

Caution.

Risk of material damage caused by incorrect installation.

If the pipes are joined incorrectly, this may lead to the seals becoming damaged.

- ► Always join the pipes together using a circular motion.

6.1 Notes on the system installation

Installing the air/flue pipe involves installing the flue pipework in the shaft, the shaft top, the shaft extension, the shaft connection and the product connection.

The section "Installing the flue pipework in the shaft" refers to all other work that needs to be carried out.

6.2 General conditions for the installation

6.2.1 Technical properties of the air/flue systems from the manufacturer for condensing products

Technical feature	Description
Temperature resistance	Adapted to the maximum flue gas temperature of the product.

Technical feature	Description
Leak-tightness	Adapted to the product for use in buildings and outdoors. A leak-tightness test must be carried out at a test pressure of 200 Pa. At a diameter of 50 mm, a test pressure of 1500 Pa must be used for the test.
Condensate resistance	For gas and oil fuels
Corrosion resistance	Adapted to the gas and oil condensing boiler
Clearance from combustible materials	– Concentric air/flue pipework: No clearance required – Non-concentric flue pipework: 5 cm
Installation site	In accordance with the installation instructions
Resistance to fire	Normal level of flame resistance (in accordance with EN 13501-1 Class E)
Fire resistance duration	None: The external pipe of the concentric air/flue pipe are not flammable. A required fire resistance duration is provided by shafts within the building.

6.2.2 Requirements for the shaft for the air/flue pipe

Air/flue pipes from the manufacturer do not have any fire resistance (direction of operation from the outside to the inside).

If the air/flue pipe is guided through parts of a building that require a level of fire resistance, a shaft must be installed. The shaft must ensure the fire resistance (direction of operation from the outside to the inside) that is required for the building parts through which the flue system is guided. The required fire resistance must demonstrate a suitable classification (brick partition and heat insulation) and be sufficient for the building's requirements.

An existing chimney that was used for the flue system usually meets these requirements and can be used as a shaft for the air/flue pipe.

The gas tightness of the shaft must comply with the test pressure class N2 in accordance with EN 1443.

An existing chimney that was used for the flue system usually meets these requirements and can be used as a shaft for the air pipe.

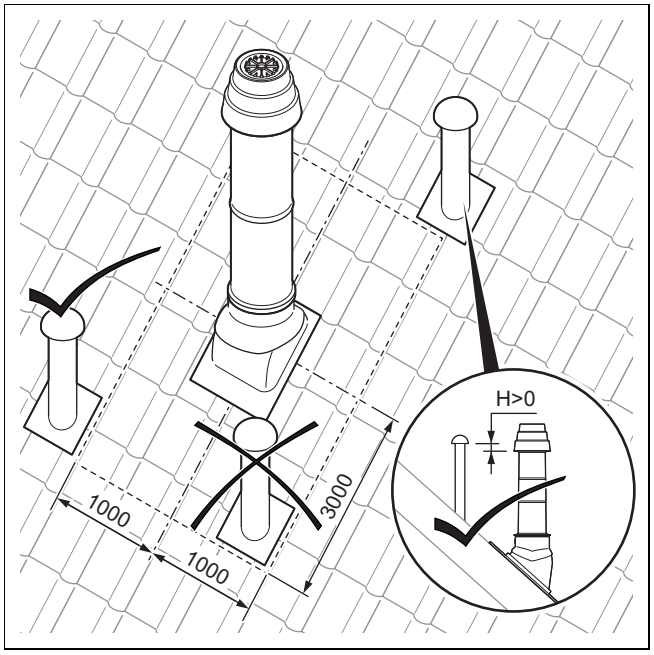
If the shaft is used for combustion air supply, this must be designed and, in particular, insulated in such a way that no moisture (caused by the cooling of the shaft by cold combustion air penetrating from the outside) can penetrate the exterior of the shaft.

An existing chimney that was used for the flue system usually meets these requirements and can be used as a shaft for combustion air supply without the need for additional heat insulation.

6.2.3 Routing the air/flue pipe

- ► Ensure that the air/flue pipe is routed as short and straight as possible.
- ► Do not arrange several elbows or inspection elements immediately after each other.
- ► Do not route the air/flue pipe and the potable water line in the same shaft.
- ► Ensure that the flue gas route can be checked and, if required, cleaned along its entire length.
- ► Ensure that the air/flue pipe can be removed again with minimal effort (no time-consuming structural or cementing work in the living area, but screwed-in casing instead).

6.2.4 Installing the terminal for the flue system



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

- ► Observe the minimum clearances for room-sealed operation in accordance with the illustration.
- ► 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).

6.2.5 Disposing of condensate

- ► When disposing of the condensate into the public wastewater system, observe the local regulations.
- ► Use only corrosion-resistant piping material for the condensate discharge pipe.

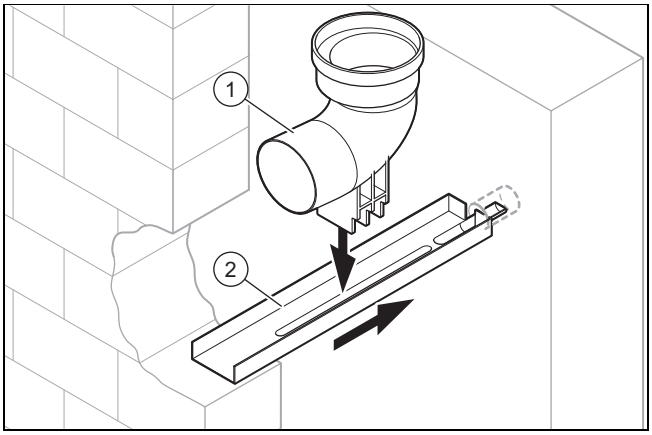
6.3 Clearance between combustible materials and the components

On individually connected products, it is not necessary to leave any clearance between the concentric air/flue pipe and/or the corresponding extension and components made from combustible materials.

6.4 General work for installing the flue pipework in the shaft

6.4.1 Installing mounting rails and support elbows

1. Determine the installation site.



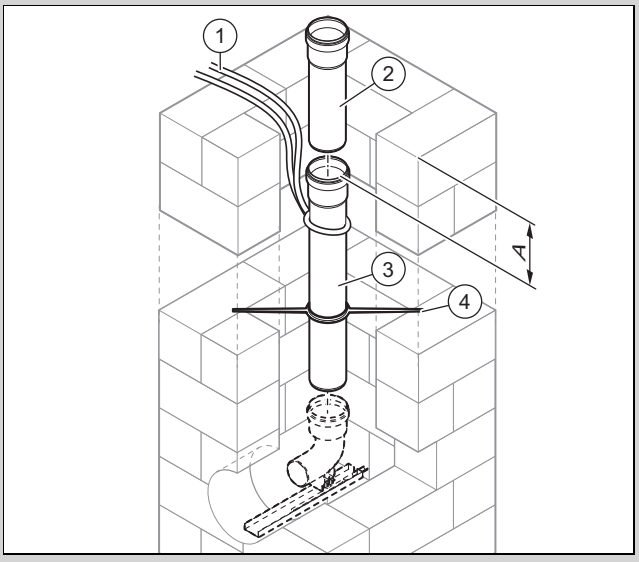
2. Mortise a sufficiently large breakthrough into the shaft side.
3. Drill a hole into the opposite shaft side.
4. If required, shorten the mounting rail **(2)**.
5. Secure the support elbow **(1)** on the mounting rail in such a way that, after installation, the flue pipework is arranged in the centre of the shaft.
6. Insert the mounting rail with the support elbow into the shaft.

6.5 Installing the flue pipework in the shaft

6.5.1 Installing the rigid flue pipework

Validity: 80 mm diameter

1. Install the mounting rail and support elbow. (→ Page 17)



2. Use a line **(1)** to lower the first flue pipe **(3)** down far enough until you can insert the next flue pipe.
3. In distances of max. 5 m, slide a spacer **(4)** onto each of the flue pipes. Do not use any spacers in shafts with a diameter between 113 mm and 120 mm or with a side length between 100 mm and 110 mm.
4. If you have inserted an inspection opening in the rigid flue pipework, install one spacer behind and one in front of the inspection opening.
5. Continue joining the flue pipes together repeatedly (sleeve-side points upwards) until you can insert the lowest flue pipe in the support elbow and the uppermost flue pipe **(2)** permits the installation of the shaft top.

   Condition: Uppermost stainless steel flue pipe

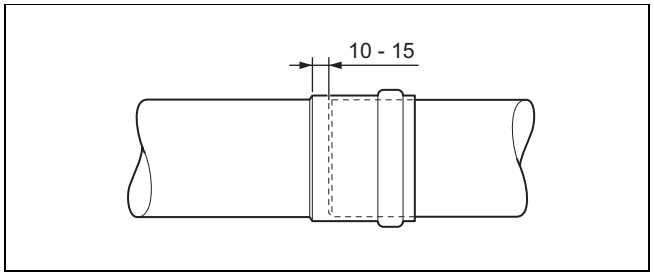
   – Clearance **(A)**: ≥ 400 mm

   Condition: Uppermost PP flue pipe

   – Clearance **(A)**: ≥ 100 mm
6. Remove the line from the shaft.
7. Install the plastic shaft top or stainless steel shaft top for the rigid flue pipework.
8. Install the shaft connection for open-flued operation (→ Page 23) or the shaft connection for room-sealed operation (→ Page 24).
9. Connect the product to the air/flue pipe. (→ Page 29)

6.5.2 Installing the connection on the rigid/flexible flue pipework, 80 diameter (PP)

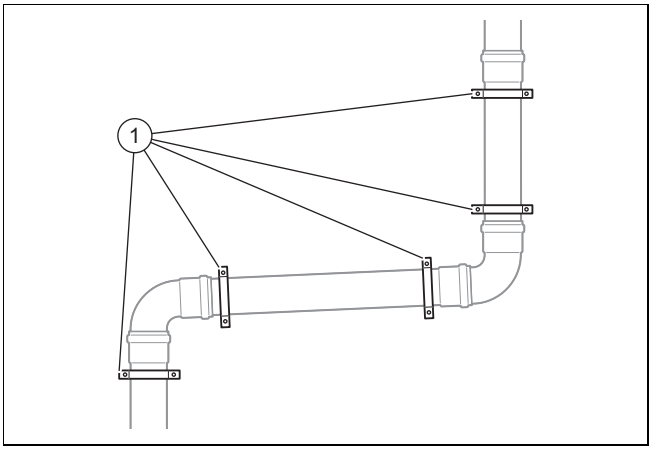
- ► Maintain the clearance between the flue system and components made of combustible materials.
  – Minimum clearance: 50 mm
- ► Inside buildings, install the flue pipework only in rooms that are constantly aerated.
  – Clear cross-section of the opening: ≥ 150 cm²
  – If it is not possible to sufficiently aerate the rooms, select the concentric air/flue pipe.
- ► If you do not use the shaft for the combustion air supply, the flue pipework in the shaft must be ventilated from behind across the entire length and the entire scope. For this, you must install a ventilation opening in the shaft.
  – Cross-section of the ventilation opening: ≥ 150 cm²
- ► Install the horizontal flue pipe to the product with a downward gradient.
  – Downward gradient to the product: ≥ 3° (50 mm per 1 m of pipe length)
- ► Route the horizontal air pipe to the outside of the building with a downward gradient.
  – Downward gradient of the air pipe, outwards: ≥ 2° (30 mm per 1 m of pipe length)



- ► When placing the pipes between the product and the vertical section of the flue pipework, do not place them as far as they can go.

6.5.2.1 Installing the horizontal flue gas and air pipe

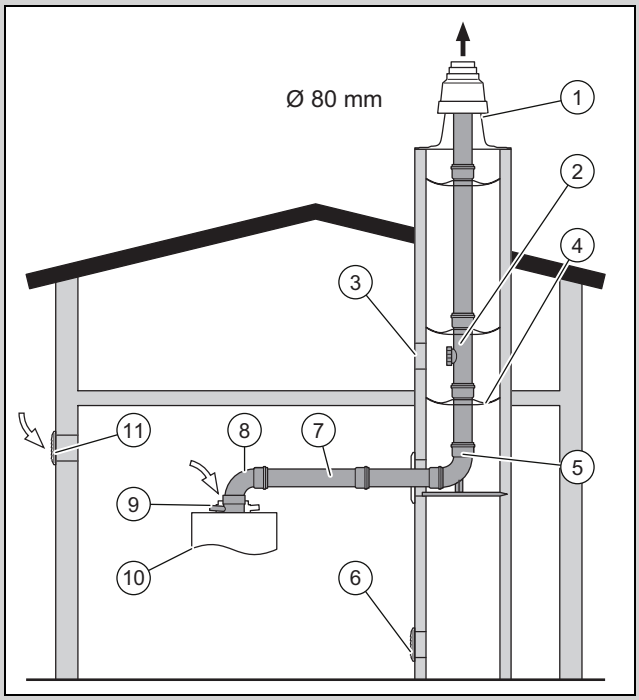
1. Install the extensions starting from the shaft or external wall and working towards the product.
2. If necessary, use a saw to shorten the extensions.



3. Before and after each elbow, install a clamp **(1)** on the extension directly next to the sleeve.
4. Lastly, insert the elbows or the inspection T-pieces for the air pipe and the flue pipework into the corresponding connections on the product.

6.5.2.2 Shaft connection to 80 diameter (PP) rigid flue pipework (open-flued operation)

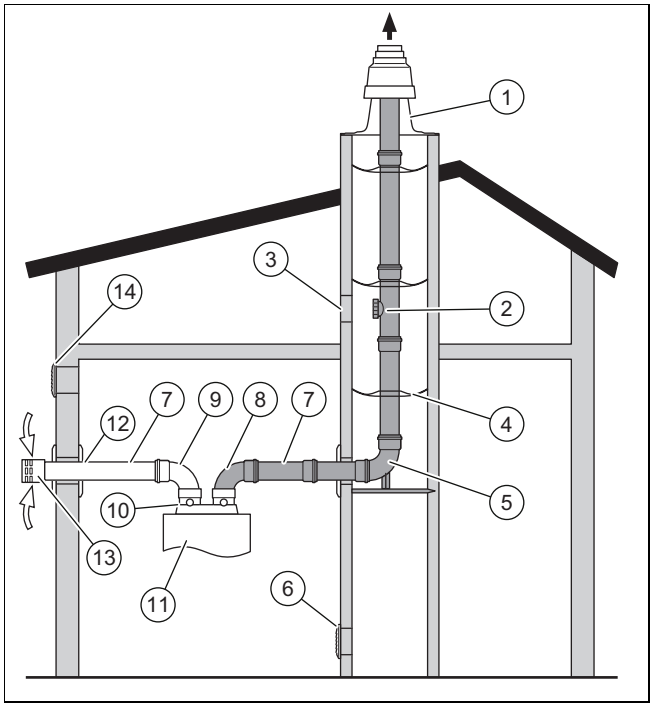
Validity: 80 mm diameter



1	Shaft top	6	Ventilation opening in the shaft
2	Extension with inspection opening	7	Straight extensions
3	Shaft inspection opening	8	87° elbow
4	Spacer	9	Product connection
5	Support elbow with mounting rail	10	Product
		11	Aerating the room

1. If required, replace the connector for the air/flue pipe (see the product's instructions).
2. Install the rigid flue pipework, 80 diameter. (→ Page 17)
3. Place a flue pipe on the support elbow.
4. Secure the flue pipe with mortar and leave the mortar to harden.
5. Install the horizontal flue pipework. (→ Page 18)
6. Install the product as described in the product's installation instructions.
7. If required, replace the connector for the air/flue pipe (see the product's instructions).
8. Connect the inspection elbow to the connector for the air/flue pipe.
9. Connect the inspection elbow to the extension for the flue pipework.

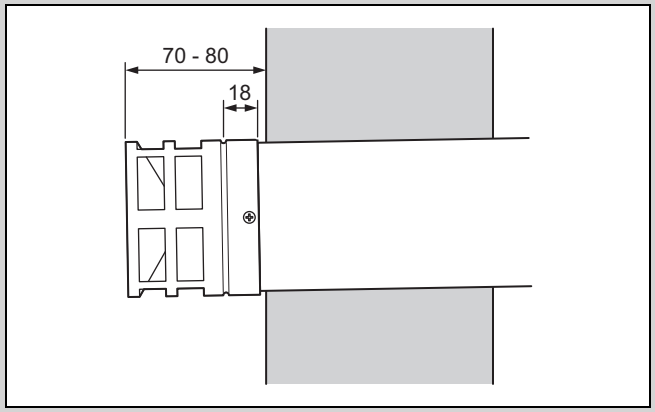
6.5.2.3 Installing the 80 mm diameter wall connection for the air supply (room-sealed operation)



1	Shaft top	7	Straight extensions
2	Extension with inspection opening	8	87° elbow or 87° inspection T-piece
3	Shaft inspection opening	9	45° elbow
4	Spacer	10	Product connection
5	Support elbow with mounting rail	11	Product
6	Ventilation opening in the shaft	12	Air pipe
		13	Wind guard
		14	Aerating the room

1. Determine the installation site.
2. Mortise a sufficiently large breakthrough from the external wall.

Condition: Combustion air supply from the external wall



- ► Remove the sleeve from the air pipe on which the wind guard **(13)** is installed.
- ► Slide the wind guard approx. 20 mm onto the air pipe **(12)**.
- ► Secure the wind guard using the supplied bolt.

3. Secure the air pipe from the inside and outside of the external wall and/or on the shaft using mortar, and leave the mortar to harden.
4. Install one collar each on the inside and outside of the external wall and/or on the shaft.
5. Install the horizontal flue pipework and, if required, the air pipe. (→ Page 18)

6.6 Installing the shaft tops

Caution.

Risk of material damage caused by thermal expansion of the rigid flue pipework.

As a result of thermal expansion of the rigid flue pipework, the hood may occasionally rise by up to 200 mm.

- ► Ensure that the necessary free space is available above the hood.

Caution.

Risk of material damage caused by thermal expansion of the rigid flue pipework.

The rigid flue pipework may shorten when it is cooled.

- ► Do not place the rain hood directly onto the guide lugs. Leave approximately 20 mm clearance below.

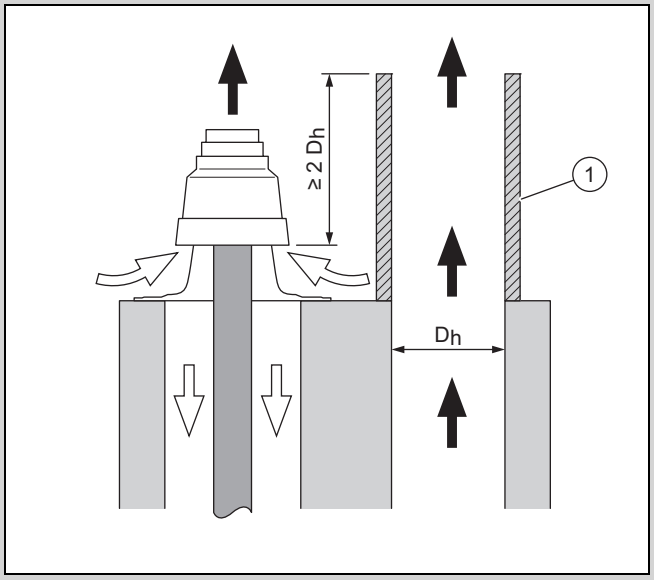
6.6.1 Installing the top on an adjacent chimney

If the terminal on the air/flue system is adjacent to a neighbouring air/flue system, the high temperatures from the smoke/flue gas, dirt particles or burning soot may damage the product and the shaft top.

- ► Install the shaft top and, if required, use a top to raise the adjacent air/flue system.

6.6.1.1 Installing the top on an adjacent flue system that is not resistant to burning soot

Condition: Top on adjacent flue system possible, PP shaft top



- ► Note the height of the top **(1)**, as shown in the illustration.

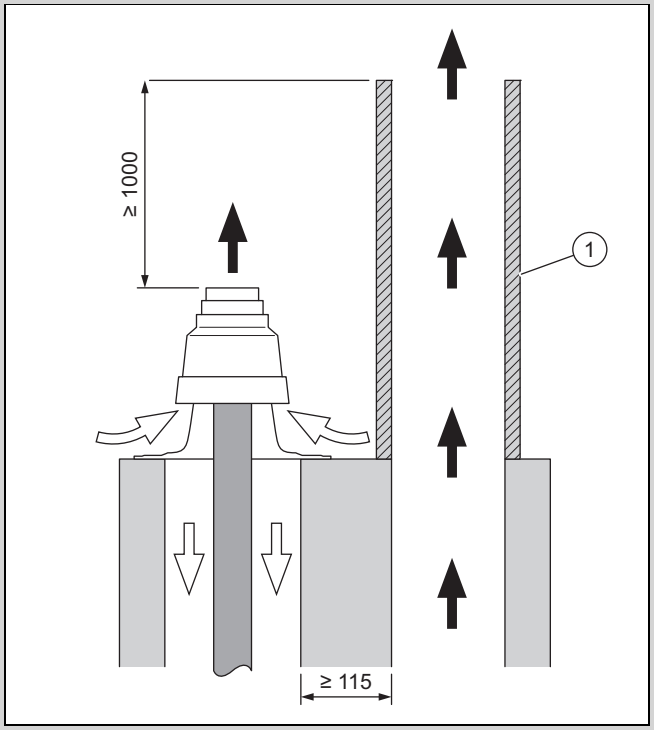
Condition: Top on adjacent flue system not possible, PP shaft top

- ► Install an air/flue pipe for open-flued operation.

6.6.1.2 Installing the top on an adjacent flue system that is resistant to burning soot

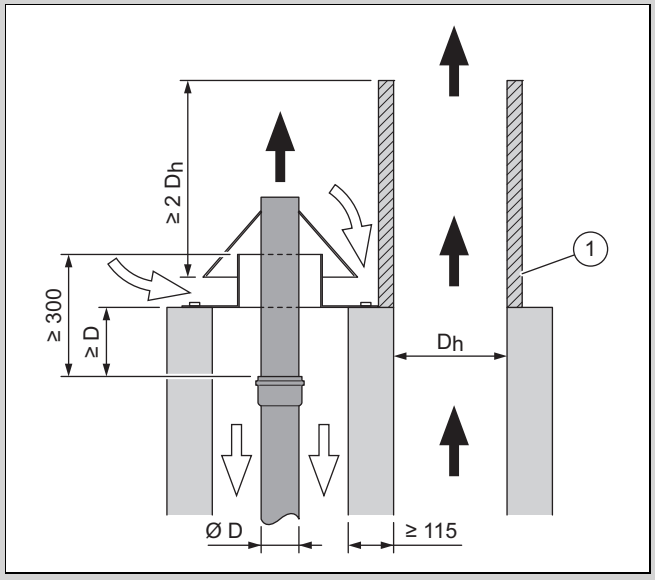
- ► Note the common wall thickness of the shaft and adjacent flue system.
  - – Wall thickness: ≥ 115 mm

Condition: Top on adjacent flue system possible, PP shaft top



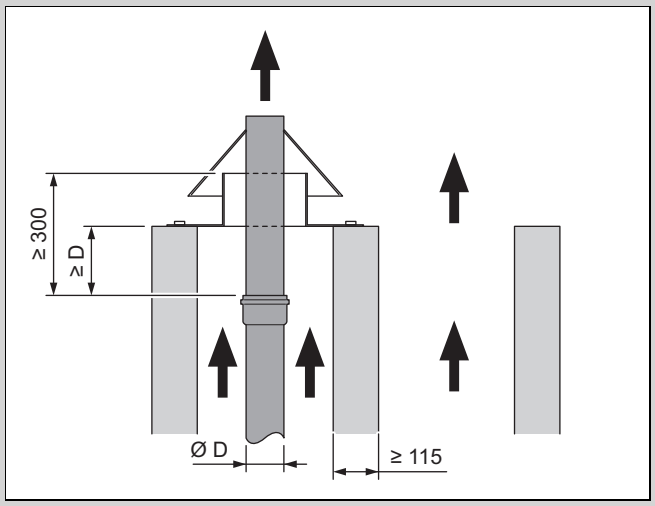
- ► Note the height of the top **(1)**, as shown in the illustration.

Condition: Top on adjacent flue system possible, Shaft top and uppermost stainless steel flue pipe



► Note the height of the top **(1)**, as shown in the illustration.

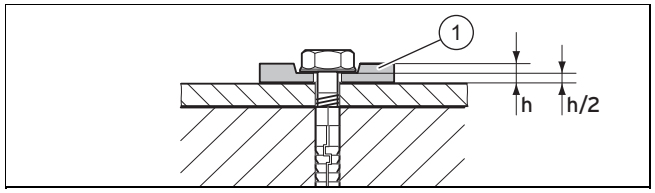
Condition: Top on adjacent flue system not possible



► Install an air/flue pipe for open-flued operation.
► Install the shaft top and the uppermost stainless steel flue pipe.

6.6.2 General work for installing the shaft top

6.6.2.1 Installing the plastic/stainless steel foot of the shaft top

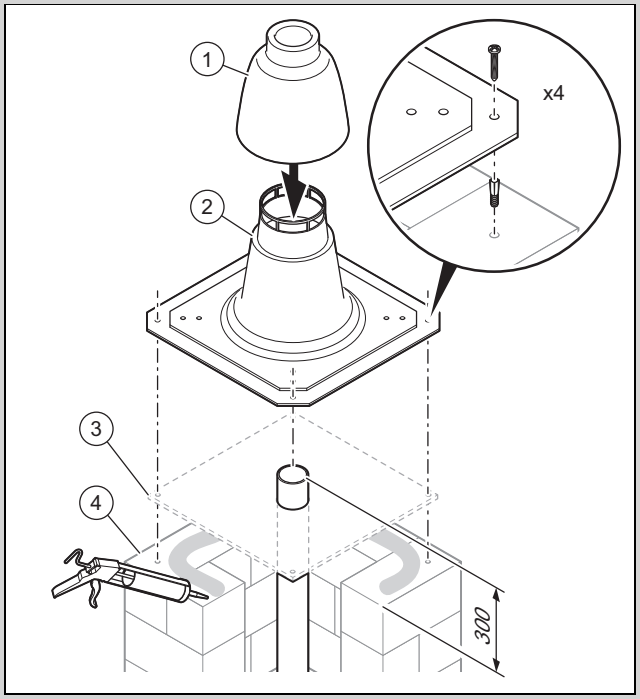


1. Install the foot of the shaft top using four screws and flexible washers **(1)** in each case.
2. Press the washer in halfway (h/2).
3. If required, you can use a saw to shorten the foot of the shaft top.

6.6.3 Installing the plastic (PP) shaft top, 80 diameter

Validity: 80 mm diameter

1. Observe all warnings regarding installing the shaft tops and all subsequent information regarding installing the tops on adjacent chimneys (→ Page 19).



2. If required, remove the sleeve from the uppermost flue pipe and shorten the pipe to the required length.
3. Deburr the flue pipe.
4. Seal the edge of the opening of the shaft **(4)** with silicone.

Condition: Concentric flue pipework

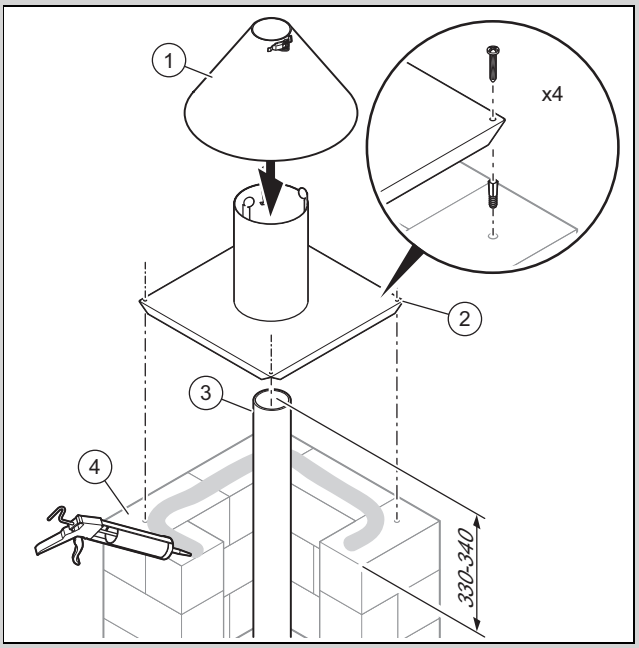
► Install the seal plate **(3)** at the edge of the opening.

5. Secure the foot **(2)** for the shaft top (→ Page 20).
   – Flue pipe overhang: 60 mm
6. Press the hood **(1)** for the shaft top into the upper end of the rigid flue pipework.

6.6.4 Installing the stainless steel shaft top on the rigid flue pipework, 80 diameter

Validity: 80 mm diameter

1. Observe all warnings regarding installing the shaft tops and all subsequent information regarding installing the tops on adjacent chimneys (→ Page 19).



2. Shorten the stainless steel pipe **(3)**.
   – Material of the last flue pipe: Stainless steel
   – Flue pipe overhang: 330 to 340 mm
3. Insert the stainless steel pipe.
4. Seal the edge of the terminal **(4)** of the shaft with silicone.
5. Put the foot **(2)** of the shaft top over the flue terminal and place the foot of the shaft top on the shaft.
6. Use four wall plugs and four screws to secure the foot of the shaft top.
7. Install the rain hood**(1)**.
8. If required, you can use tin snips to shorten the foot of the shaft top.

6.7 Installing the wall/roof duct

6.7.1 Vertical roof duct, 60/100 mm diameter or 80/125 mm diameter

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.

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

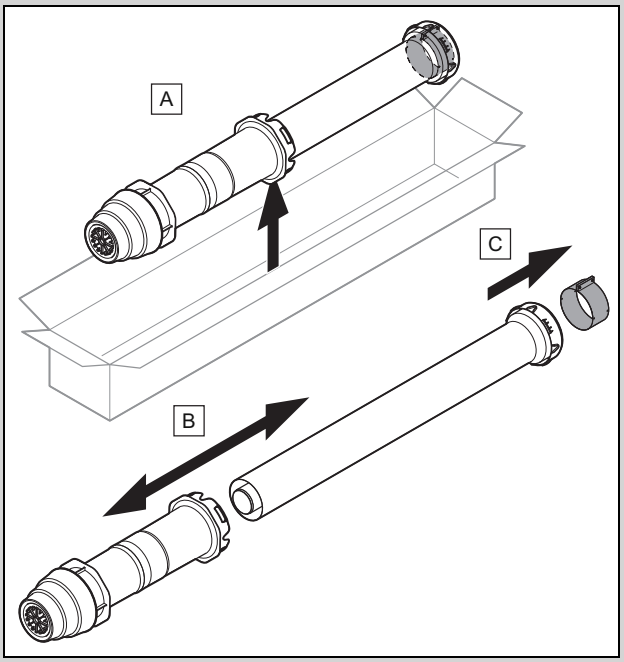
As a result of improper installation, water may penetrate the building and cause material damage.

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

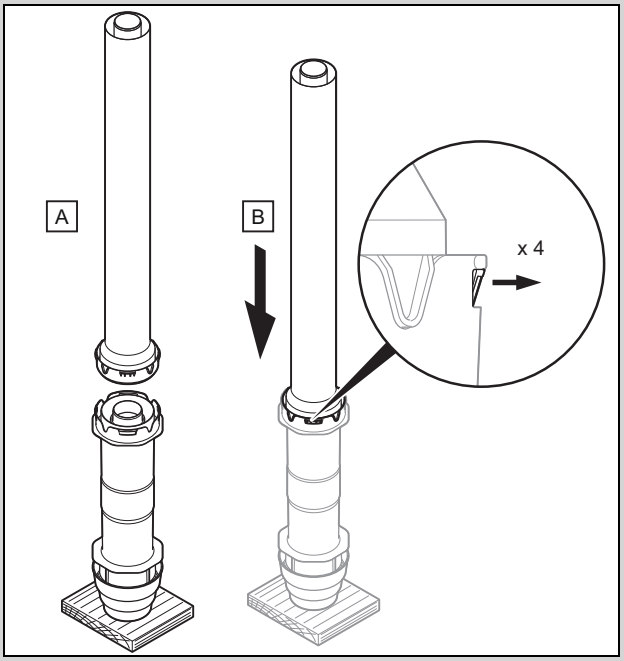
6.7.1.1 Installing the vertical roof duct

1. Determine the installation site for the roof duct.

Validity: Air/flue pipe, 60/100 mm diameter

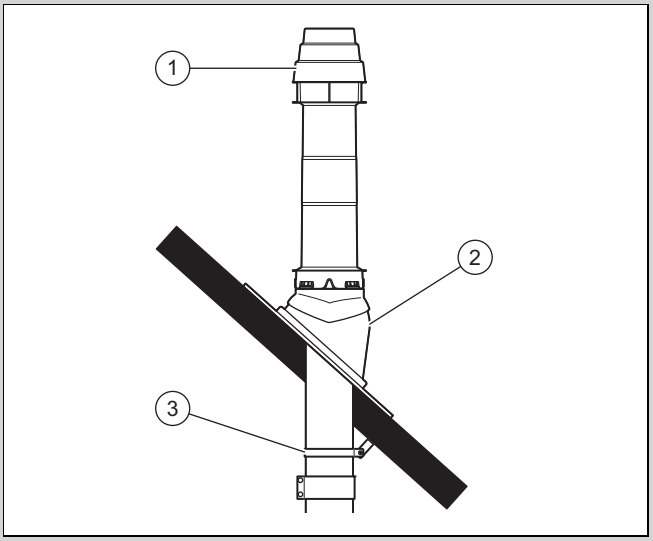


► Take the vertical roof duct out of the packaging and pull the individual parts apart, as shown in the figure.



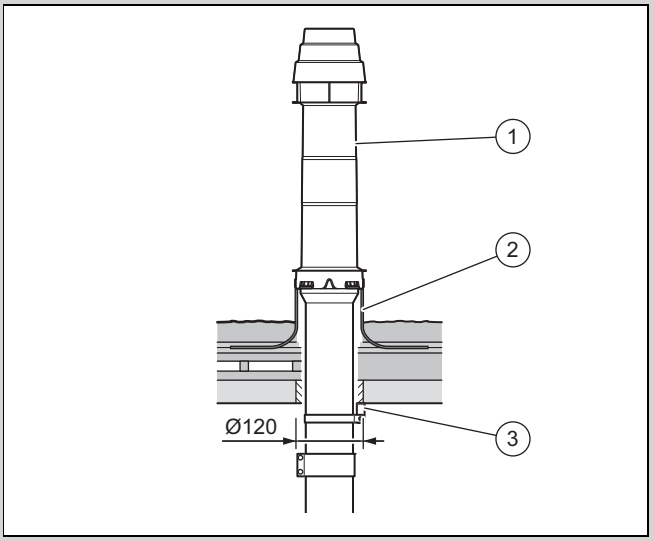
► Install the vertical roof duct together in such a way that it audibly clicks into place.

Condition: Pitched roof



- ► Insert the pantile **(2)**.
- ► Insert the vertical roof duct **(1)** through the pantile from above and push the roof duct down until it is flush.

Condition: Flat roof



- ► Insert the flat roof penetration collar **(2)**.
- ► Glue the flat roof penetration collar in place.
- ► Insert the roof duct **(1)** through the flat roof penetration collar from above and push the roof duct down until it is flush.

2. Align the roof duct vertically.
3. Secure the roof duct to the roof construction using the fixing bracket **(3)**.

Validity: Air/flue pipe, 80/125 mm diameter

- ► Install the 110 mm diameter transition piece onto 125 mm diameter.

4. If required, install the extensions (→ Page 25) and, if necessary, the elbows while taking into consideration the calculations for the offset. (→ Page 26)
5. Install the partition. (→ Page 25)
6. If required, connect all of the pipe joints using air pipe clamps. (→ Page 27)
7. Connect the product to the air/flue pipe. (→ Page 29)

6.7.2 Horizontal wall/roof duct, 60/100 mm diameter or 80/125 mm diameter

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.

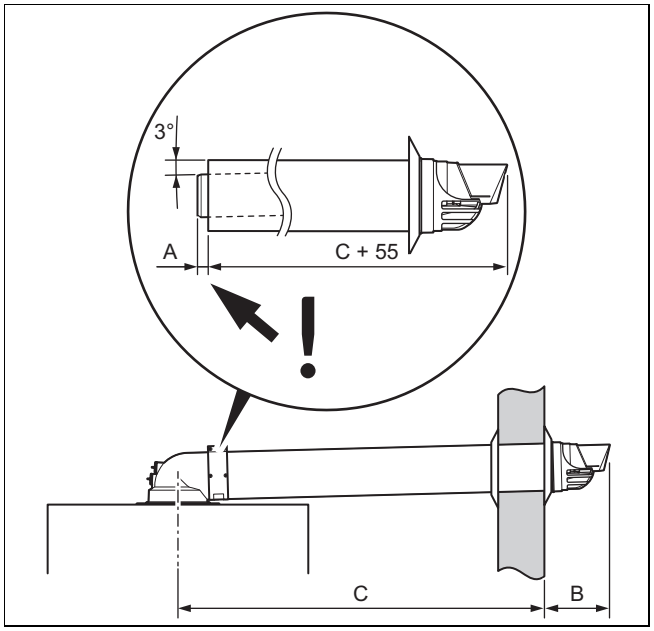
Condensate that collects inside the flue in certain areas can damage the flue pipework seals.

- ► Route the horizontal flue pipe with a downward gradient of 3° to the heat generator (50 mm for each 1 m pipe length).
- ► In doing so, note that the air/flue pipe must be centred in the wall hole.

When installing close to a light source, the end user must regularly clean the terminal of dirt caused by flying insects. The competent person must inform the end user about this cleaning work.

The minimum dimensions for the dormer's height and width is: 300 mm × 300 mm.

6.7.2.1 Installing the horizontal wall duct



1. Observe the length specifications for installing the air/flue pipework.

Validity: Air/flue pipe, 60/100 mm diameter

A	B
13 mm	140 mm

Validity: Air/flue pipe, 80/125 mm diameter

A	B
15 mm	150 to 155 mm

2. Drill a wall breakthrough into the external wall.

Validity: Air/flue pipe, 60/100 mm diameter

Condition: Wall duct not accessible from outside

– Core diameter: 125 mm

Validity: Air/flue pipe, 60/100 mm diameter

Condition: Wall duct accessible from outside

– Core diameter: 110 mm

Validity: Air/flue pipe, 80/125 mm diameter

– Core diameter: 130 mm

3. If required, shorten the flue pipe and the air pipe by the same length when they are assembled.

Validity: Air/flue pipe, 60/100 mm diameter

Condition: Preinstalled external collar fits through the wall breakthrough

- ► Install the external collar between the plastic lug and the air pipe's bead.
- ► Slide the air/flue pipe 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.

Condition: Preinstalled external collar does not fit through the wall breakthrough

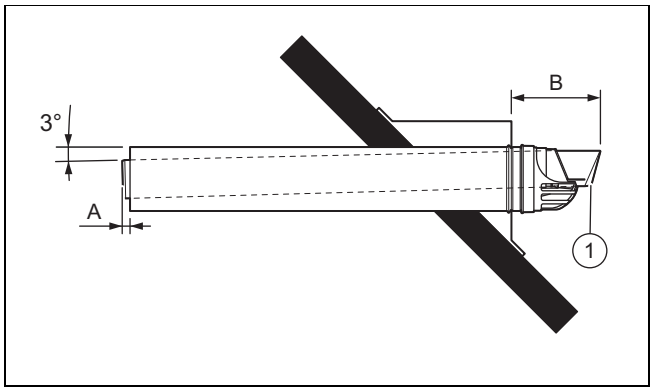
- ► Slide the air/flue pipe through the wall.
- ► Install the external collar.

Validity: Air/flue pipe, 80/125 mm diameter

- ► Slide the air/flue pipe through the wall.
- ► Install the external collar on the external wall.

4. Secure the air/flue pipe with mortar and leave the mortar to harden.
5. Install the wall collar on the inside of the wall.
6. Connect the product to the horizontal wall/roof duct. (→ Page 28)

6.7.2.2 Installing the horizontal roof duct



1. Observe the length specifications for installing the air/flue pipework.

Validity: Air/flue pipe, 60/100 mm diameter

A	B
13 mm	140 mm

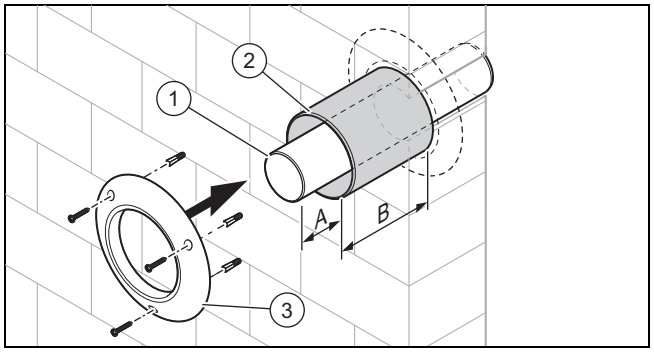
Validity: Air/flue pipe, 80/125 mm diameter

A	B
15 mm	150 to 155 mm

2. Insert the air/flue pipe **(1)** without the external collar into the dormer.
   – Minimum dimensions of the dormer: 300 mm × 300 mm (height × width)
3. Connect the product to the horizontal wall/roof duct. (→ Page 28)

6.8 Installing the shaft connection

6.8.1 Installing the shaft connection for open-flued operation



1. Shorten the flue pipe **(1)** to the relevant length and place the flue pipe onto the support elbow.

Validity: Air/flue pipe, 60/100 mm diameter

A	B
13 mm	25 mm

2. Secure the flue pipe with mortar and leave the mortar to harden.
3. Shorten the air pipe **(2)** to the appropriate length. When doing so, do not cut off the end with the locking mechanism, because the locking mechanism, the wall collar and the air pipe clamp are used as centring aids.
4. Slide the air pipe over the flue pipe until it reaches the wall.
5. Install the wall collar **(3)**.

Caution.

Risk of damage to the structure of the building.

Damaged flue pipework may cause condensate to escape and moisture to enter the shaft.

- ► Install an air inlet opening at the lower end of the shaft (opening cross-section: For flue pipework ≥ 80 diameter, at least 125 cm²).

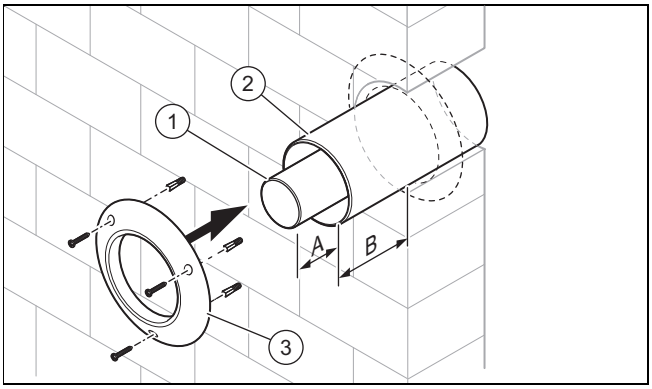
6. Install a sufficiently large air inlet opening on the lower end of the shaft and observe the minimum dimensions.

Condition: ≥ 80 diameter flue pipework

– Air inlet opening: ≥ 125 cm²

7. Replace the closed inspection-opening cover on the 87° elbow with the cover with air intake port.

6.8.2 Installing the shaft connection for room-sealed operation



1. Shorten the flue pipe **(1)** to the relevant length and place the flue pipe onto the support elbow.

Validity: Air/flue pipe, 60/100 mm diameter

A	B
13 mm	25 mm

2. Place the flue pipe on the transition elbow.
3. Shorten the air pipe **(2)** to the appropriate length. When doing so, do not cut off the end with the locking mechanism, because the locking mechanism, the wall collar and the air pipe clamp are used as centring aids.
4. Slide the air pipe over the flue pipe into the shaft until it ends flush with the shaft's internal wall.
5. Secure the air pipe with mortar and leave the mortar to harden.
6. Install the wall collar **(3)**.

6.8.3 Installing the concentric shaft connection on the air/flue system for negative pressure

Caution.

Risk of damage to the product.

There must not be any excess pressure in the vertical section of the flue system, because, in this case, the burner may pulse and the product may become damaged. The product is not suitable for this mode of operation and has not been checked.

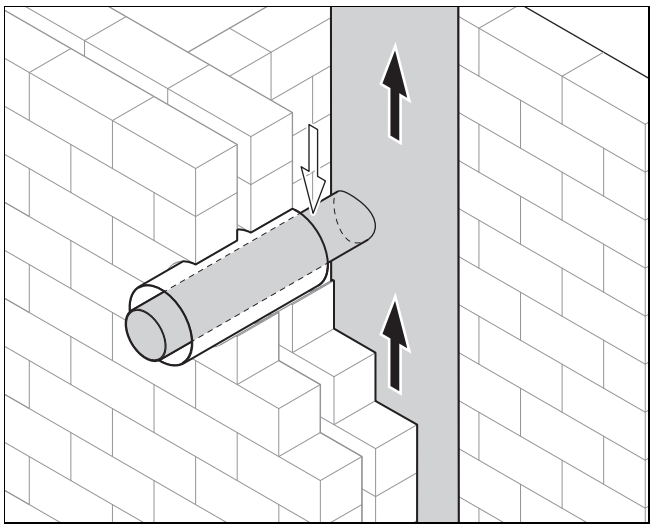
- ► Provide evidence of the functional reliability of the vertical flue pipework in accordance with EN-13384 using the specifications for flue gas temperature and flue gas mass flow rate from the installation instructions for the product.

Caution.

Risk of material damage to the structure of the building!

The static function and fire-protective function of the shaft wall may be impaired by fastenings.

- ► Do not attach any fastenings using screws, wall plugs, etc. directly to the shaft wall of the air/flue system.
- ► Do not attach fastenings to primary walling or sideways to the wall.
- ► Observe the specifications provided by the manufacturer of the air/flue system.



1. Establish a connection for room-sealed operation at the air/flue system while taking into consideration the connection height for the product (including the connector for the air/flue pipe and elbow), as described in the installation instructions for the product.

Condition: Ceramic air/flue system with flue spigot

- ► Insert the concentric flue pipe with sleeve in such a way that the flue pipe is locked using the spacer in the air pipe during this installation.

Condition: Ceramic air/flue system without flue spigot

- ► Disconnect the sleeve from the flue pipe.
- ► When shortening the air pipe, ensure that you do not cut the end with the spacer.
- ► Clamp the supplied fixing clamp around the flue pipe in such a way that the flue pipe is supported after it is inserted into the air/flue system's flue sleeve on the spacer of the air pipe.

Condition: Air/flue system with metal flue pipework with flue spigot

- ► Insert the concentric flue pipe with sleeve in such a way that the flue pipe is locked using the spacer in the air pipe during this installation.

Condition: Air/flue system with metal flue pipework and shaft made from mineral building materials without flue spigot

- ► Secure the air pipe with mortar seal the shaft.

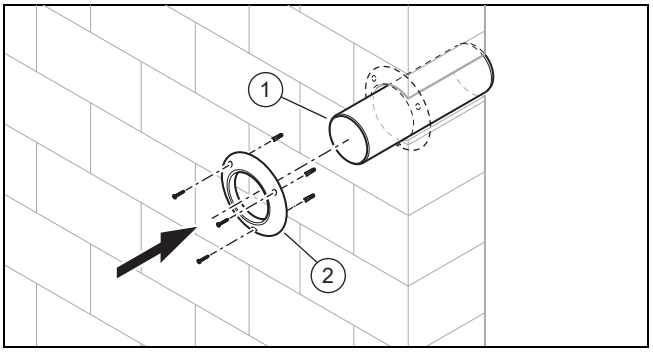
6.8.4 Installing the shaft connection on flue pipework for negative pressure

Danger!

Risk of poisoning due to escaping flue gas.

In the event of excess pressure in the vertical part of the flue pipework, flue gas may flow into a product that is not operating. The products are not suitable for this mode of operation and have not been checked.

- ► Provide evidence of the functional reliability of the vertical flue pipework in accordance with EN-13384 using the specifications for flue gas temperature and flue gas mass flow rate from the installation instructions for the product.



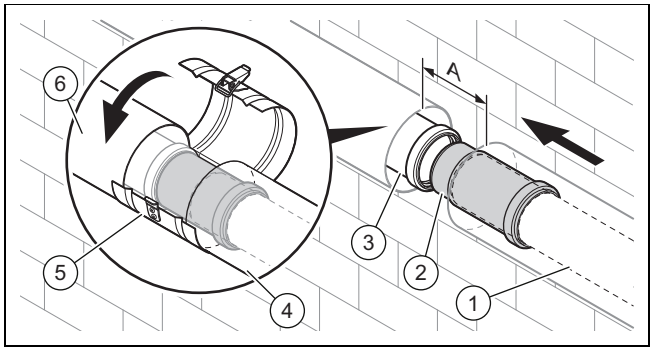
1. Observe the connection height for the product (including the connector for the air/flue pipe and elbow).
2. Drill an opening for 80 mm diameter flue pipework in the vertical part of the flue pipework.
3. Shorten the flue pipe.
   – To ensure that the flue pipe fits into the wall opening, you must separate the sleeve when shortening the flue pipe.
4. Insert the flue pipe **(1)** into the wall and seal it using suitable materials.
5. Install the wall collar **(2)**.
6. Connect the product to the flue pipe for negative pressure. (→ Page 29)

6.9 Establishing the connection between the product and the supply air/flue connection

6.9.1 Installing the partition

Note

The partition provides for straightforward installation and disconnection of the air/flue pipe to/from the product. The partition can be installed vertically or horizontally.



1. Slide the partition **(2)** onto the flue pipe as far as it goes **(1)**.
2. Pull the partition back far enough from the flue pipe so that the inserting end of the partition sits in the sleeve of the flue pipe **(3)**.

   Validity: Air/flue pipe, 60/100 mm diameter

   – Clearance A: 100 to 110 mm

   Validity: Air/flue pipe, 80/125 mm diameter

   – Clearance A: 82 to 90 mm
3. Connect the air pipes **(4)** and **(6)** with the partition's air pipe clamp **(5)**.

6.9.2 Installing extensions

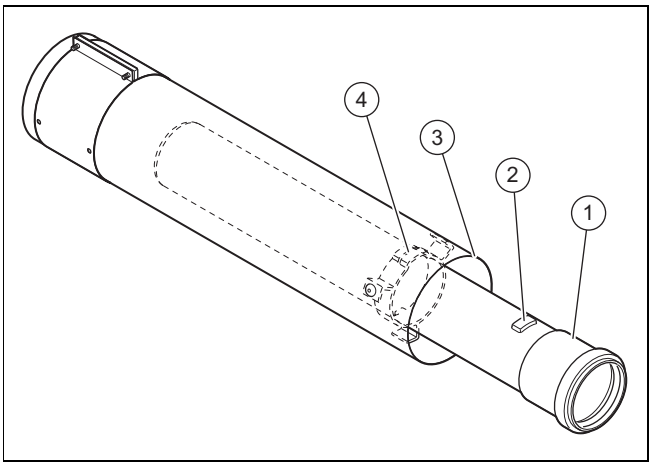
Danger!

Risk of poisoning due to escaping flue gas in the event of improper installation.

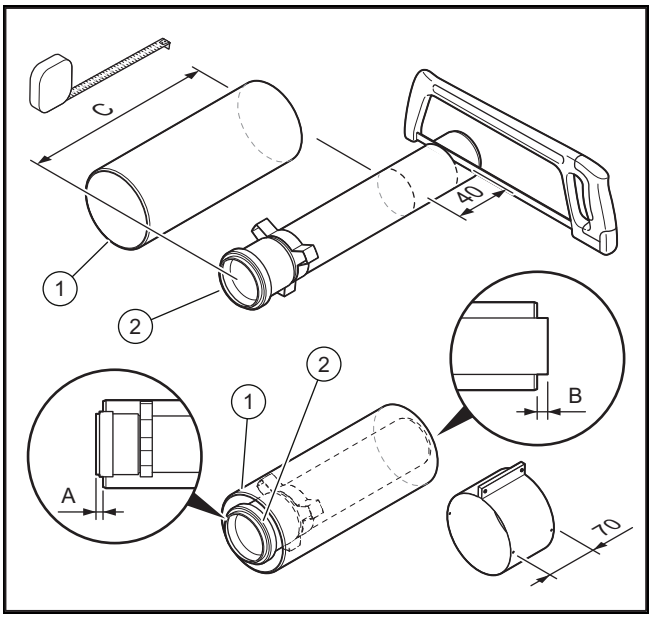
Due to the incorrect installation of the flue pipes/seals and missing fastenings on the wall/ceiling, flue gases may escape.

- ► Only use water or commercially available soft soap, if necessary, to assist with the installation.
- ► When installing the pipes, make absolutely sure that the seals are correctly seated (do not install any damaged seals).
- ► Deburr and chamfer the pipes before installing them so that the seals are not damaged. Dispose of the shavings.
- ► Do not fit any pipes that are dented or damaged in any other way.
- ► 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.
- ► Lock the flue pipe in the spacer of the air pipe.

► When connecting to façade systems, ensure there is sufficient weather and UV protection.



1. Rotate the flue pipe **(1)** until the plastic lug **(2)** comes loose from the spacer **(4)**.
2. Pull the flue pipe out of the air pipe **(3)**.
3. First, measure the required air pipe length and then use this to calculate the corresponding flue pipe length in each case.
   – Length of the flue pipe: Length of the air pipe + 40 mm



4. Observe the length specifications for shortening the extension.

Validity: Air/flue pipe, 60/100 mm diameter

A	B	C
27 mm	13 mm	≥ 80 mm

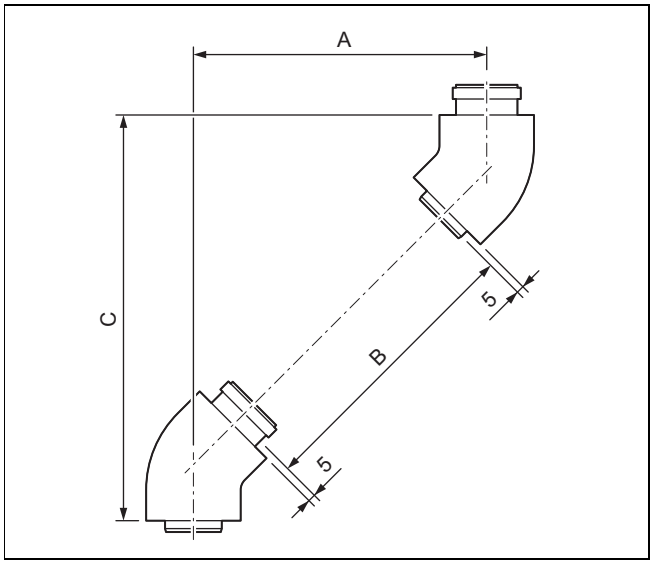
Validity: Air/flue pipe, 80/125 mm diameter

A	B	C
25 mm	15 mm	≥ 100 mm

5. Use a saw or tin snips to shorten the pipes.
6. Lock the flue pipe **(2)** inside the air pipe again **(1)**.

6.9.3 Calculating the offset dimensions for the air/flue pipework

6.9.3.1 Calculating the offset dimensions of 45° elbows (air/flue pipework)



A Offset
B Length of the air pipe
C Height

Validity: Air/flue pipe, 60/100 mm diameter

Formula
B = (A × 1.41) − 130 mm C = A + 120 mm Length of the flue pipe = B + 40 mm

Restrictions	
	Offset (A)
Without extension	90 to 100 mm
With extension	160 to 800 mm
not possible	106 to 154 mm

Example
Required offset (A): 450 mm B = 450 mm × 1.41 − 130 mm =504 mm C = 450 mm + 120 = 570 mm Length of the flue pipe = 504 + 40 mm = 544 mm

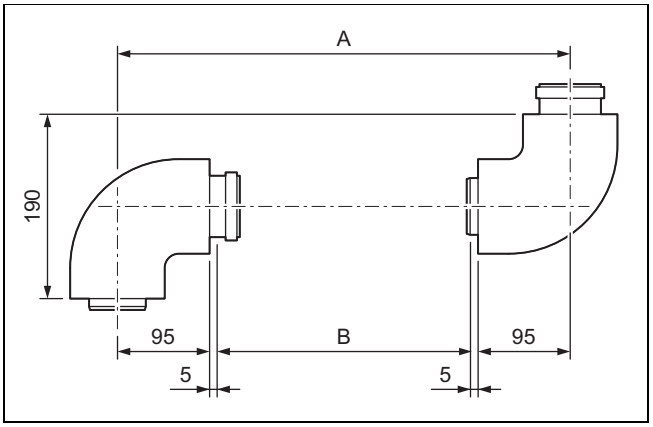
Validity: Air/flue pipe, 80/125 mm diameter

Formula
B = (A × 1.41) − 130 mm C = A + 120 mm Length of the flue pipe = B + 40 mm

Restrictions	
	Offset (A)
Without extension	85 to 100 mm
With extension	170 to 730 mm
not possible	101 to 169 mm

Example
Required offset (A): 300 mm B = 300 mm × 1.41 − 130 mm = 293 mm C = 300 mm + 120 = 420 mm Length of the flue pipe = 293 + 40 mm = 333 mm

6.9.3.2 Calculating the offset dimensions of 87° elbows (air/flue pipework)



A Offset
B Length of the air pipe
C Height

Validity: Air/flue pipe, 60/100 mm diameter

Formula
B = A − 200 mm Length of the flue pipe = B + 40 mm

Restrictions	
	Offset (A)
Without extension	190 to 200 mm
With extension	271 to 800 mm
not possible	201 to 264 mm

Example
Required offset (A): 350 mm B = 350 mm − 200 mm = 150 mm Length of the flue pipe = 150 mm + 40 mm = 190 mm

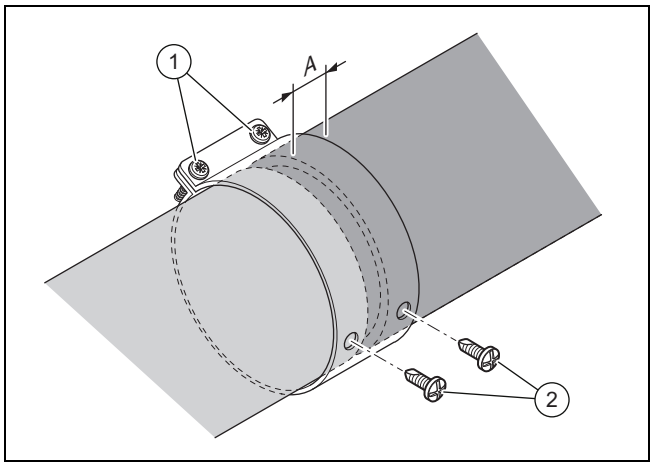
Validity: Air/flue pipe, 80/125 mm diameter

Formula
B = A − 200 mm Length of the flue pipe = B + 40 mm

Restrictions	
	Offset (A)
Without extension	190 to 200 mm
With extension	300 to 960 mm
not possible	201 to 299 mm

Example
Required offset (A): 400 mm B = 400 mm − 200 mm = 200 mm Length of the flue pipe = 200 mm + 40 mm = 240 mm

6.9.4 Installing the air pipe clamps



Danger!

Risk of poisoning due to escaping flue gas.

Flue gas may escape through the damaged flue pipe or through pipes that have not been securely connected to each other.

- ► Secure the clamps and air pipes using the supplied bolts.
- ► Ensure that the flue pipe is not damaged when tightening screwed connections.

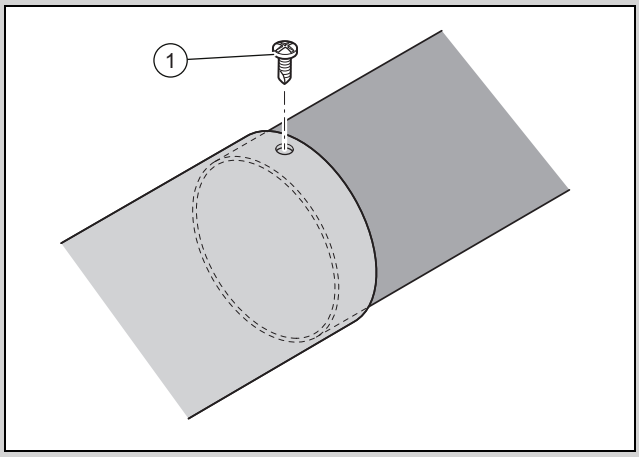
1. Slide the air pipes together.
   – Distance between the air pipes: 0 to 5 mm
2. Observe the minimum clearance between the edge of the pipe clamp and the air pipe.

Air pipe clamp	A_{min} [mm]
70 mm	30
48 mm	15
40 mm	15

3. Slide the central air pipe clamp over the pipe joint of the air pipes and tighten the screws **(1)**.
4. Screw in the self-tapping locking screws **(2)**.

6.9.5 Securing the telescopic extension

Validity: Air/flue pipe, 60/100 mm diameter



Danger!
Risk of poisoning due to escaping flue gas.

Flue gas can escape if the flue pipe is damaged.

► Ensure that the flue pipe is not damaged when tightening screwed connections.

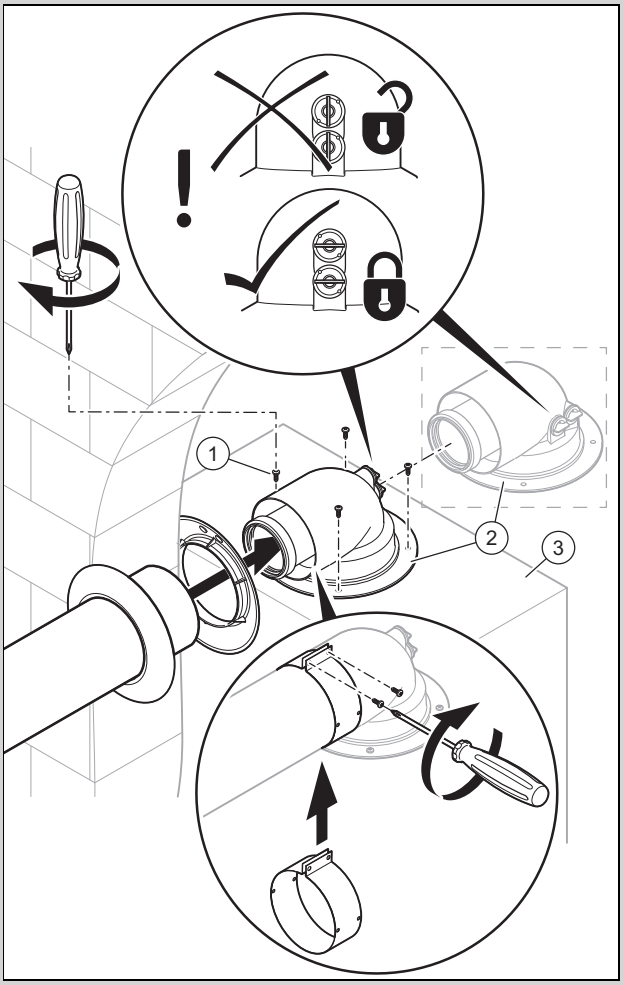
1. Slide the air pipes above each other.
2. Use the locking screws **(1)** to screw the air pipes.

6.10 Connecting the product

6.10.1 Connecting the product to the horizontal wall/roof duct

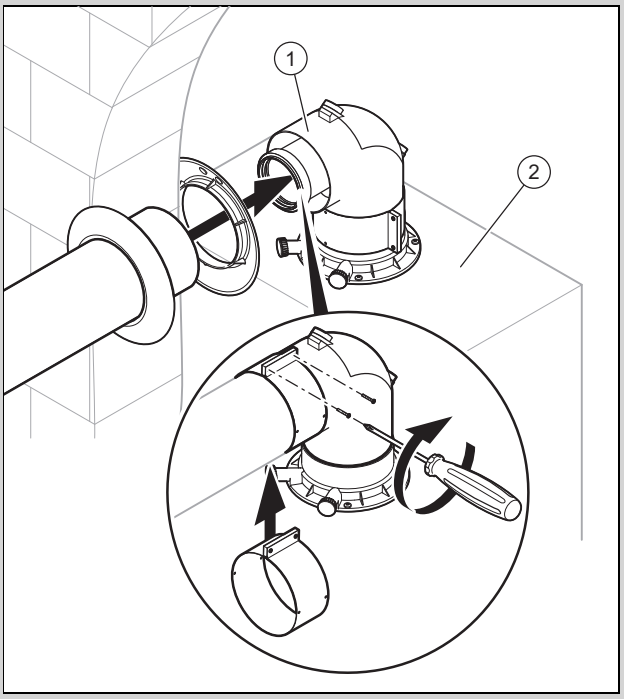
1. Install the product as described in the product's installation instructions.

Validity: Air/flue pipe, 60/100 mm diameter



► Install the 87° elbow **(2)** on the product **(3)** using the four screws **(1)**.

Validity: Air/flue pipe, 80/125 mm diameter



► Install the air pipe clamp with the notch directly on the 87° elbow **(1)** and the 87° elbow on the connector.
► Install the connector on the product **(2)**.

Condition: Product directly on the primary walling

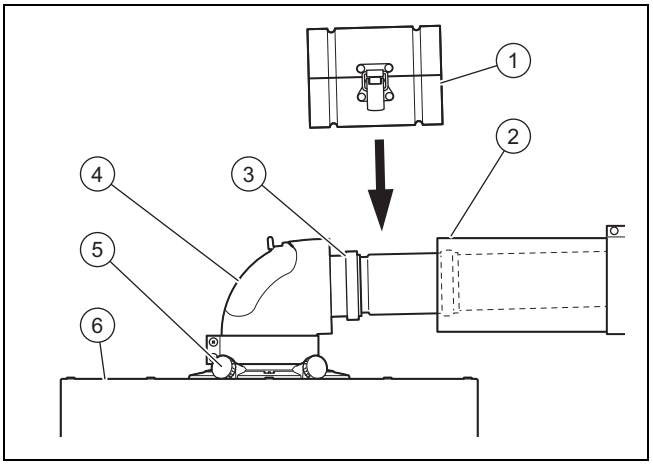
► Connect the elbow to the air/flue pipe.

Condition: Product at a distance from the primary walling

► Connect the elbow to the extension. (→ Page 25)
► Connect the extension to the air/flue pipe.

2. Connect all of the pipe joints with air pipe clamps. (→ Page 27)
3. Ensure that the test openings on the 87° elbow are completely sealed.

6.10.2 Connecting the product to the air/flue pipe



1. Install the product **(6)** as described in the product's installation instructions.
2. Install or, if required, replace the connector **(5)** for the air/flue pipe (see the product's instructions).
3. Connect the elbow **(4)** to the connector for the air/flue pipe.

Condition: Product directly on the primary walling

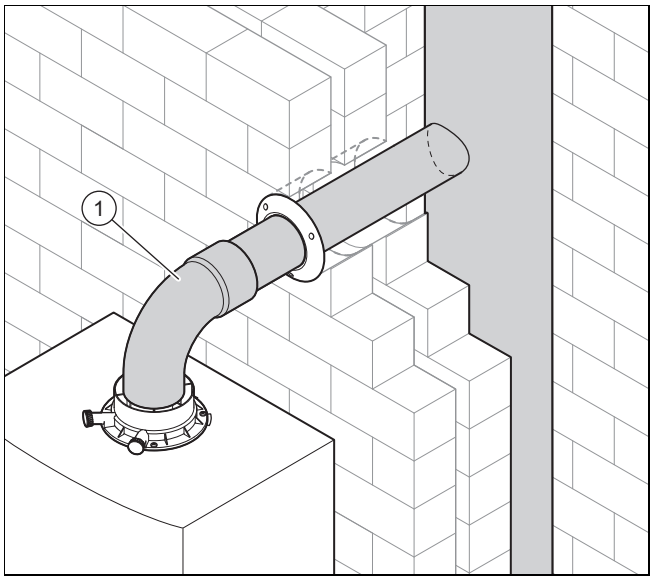
► Connect the elbow to the flue pipework without partition.

Condition: Product at a distance from the primary walling

► Install the partition **(3)** on the extension **(2)**. (→ Page 25)

4. Connect the extension to the flue pipework.
5. Connect the partition to the elbow.
6. Install the air pipe clamp **(1)** for the partition.
7. Connect all of the pipe joints with air pipe clamps. (→ Page 27)
8. During open-flued operation, replace the closed inspection-opening cover on the 87° elbow with the appropriate cover with air intake port for 60/100 mm or 80/125 mm diameter.

6.10.3 Connecting the product to the flue pipe for negative pressure



1. Install the product as described in the product's installation instructions.
2. Connect the 87° elbow**(1)** to the product connection and the flue pipe.

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