

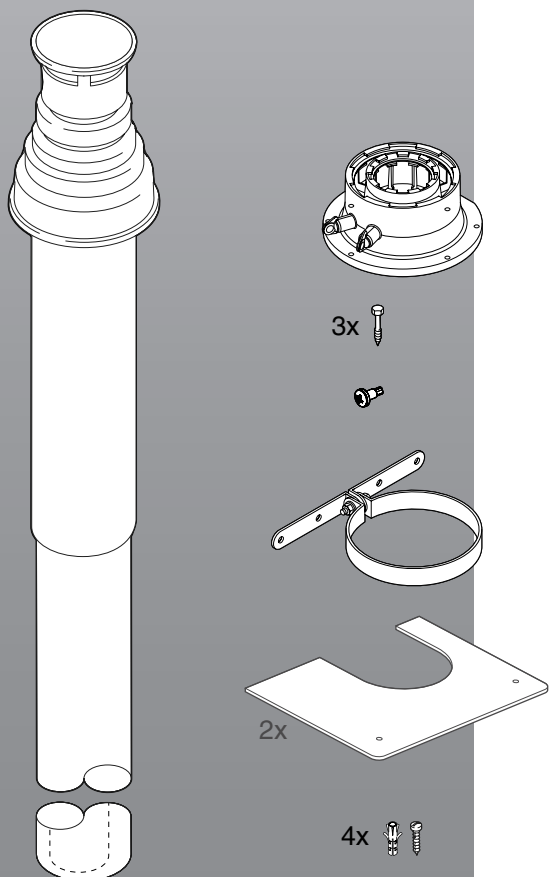
# INSTALLATION INSTRUCTIONS FOR FLUE KIT

VERTICAL FLUE TERMINAL ASSEMBLY Ø 60/100 MM

## 7 719 002 430

FOR GAS CONDENSING APPLIANCES:

**GREENSTAR CDi COMBI/SYSTEM/REGULAR, GREENSTAR Si,  
GREENSTAR i JUNIOR/i SYSTEM, GREENSTAR Ri**



6 720 611 739-00.20



# CONTENTS

---

<b>1</b>	<b>Symbols and safety precautions</b> .....	<b>3</b>
1.1	Explanation of symbols .....	3
1.2	Safety precautions .....	3

---

<b>2</b>	<b>installation regulations</b> .....	<b>4</b>
----------	---------------------------------------	----------

---

<b>3</b>	<b>Use</b> .....	<b>5</b>
3.1	General .....	5
3.2	Standard specifications .....	5

---

<b>4</b>	<b>Examples of installation of vertical flue with roof exit</b> .....	<b>6</b>
4.1	Straight flue without bends .....	6
4.2	Straight flue with two 45°-bends .....	6
4.3	Straight flue with two 90°-bends .....	7

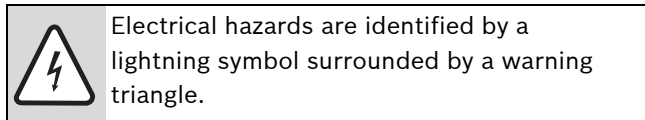
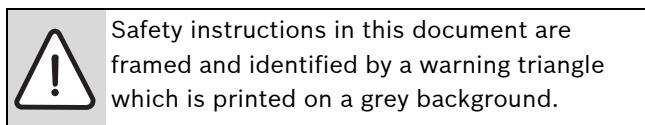
---

<b>5</b>	<b>Mounting</b> .....	<b>8</b>
5.1	Notes on fitting .....	8
5.2	Roof-exit clearances .....	8
5.2.1	Flat roof .....	8
5.2.2	Inclined roof .....	8
5.3	Fitting the flue .....	9
5.3.1	Adaptor .....	9
5.3.2	Vertical Flue Terminal Assembly .....	10
5.3.3	Clamp .....	11
5.3.4	Fire stop plate .....	11

# 1 SYMBOLS AND SAFETY PRECAUTIONS

## 1.1 EXPLANATION OF SYMBOLS

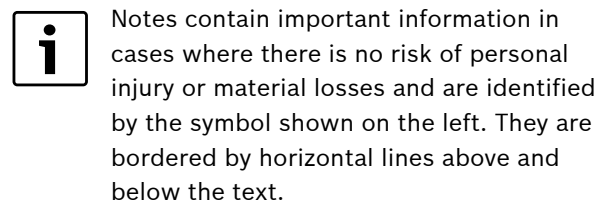
### WARNING SYMBOLS



Signal words indicate the seriousness of the hazard in terms of the consequences of not following the safety instructions.

- **NOTICE** indicates possible damage to property or equipment, but where there is no risk of injury.
- **CAUTION** indicates possible injury.
- **WARNING** indicates possible severe injury.
- **DANGER** indicates possible risk to life.

### IMPORTANT INFORMATION



### ADDITIONAL SYMBOLS

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

Tab. 1

## 1.2 SAFETY PRECAUTIONS

### IF YOU SMELL GAS

- ▶ **Do not** smoke or strike matches.
- ▶ **Do not** turn electrical switches **ON** or **OFF**.
- ▶ Put out naked flames.
- ▶ Open doors and windows.
- ▶ Keep people away from the affected area.
- ▶ Turn off the control valve at the meter.
- ▶ Call your gas company.

-or-

- ▶ Call emergency number 0800 111 999.

### IF YOU SMELL FUMES FROM THE APPLIANCE

- ▶ Switch off the appliance.
- ▶ Open windows and doors.
- ▶ Inform your heating engineer.

### INSTALLATION INSTRUCTIONS

Please read these instructions carefully before starting installation. If you are in any doubt contact Worcester Technical Support.

These installation instructions must be read in conjunction with the appliance manual.

Please leave these instructions with the user or at the gas meter after installation or servicing.

Distance learning and training courses are available from Worcester, Bosch Group.

### BENCHMARK

Please leave these instructions with the completed Benchmark Checklist (or a certificate confirming compliance with IS 813, EIRE only) with the owner after installation or servicing.

The Benchmark Checklist can be found in the back two pages of the appliance installation manual.

### FITTING AND MODIFICATIONS

Fitting the flue system to the appliance must be carried out by a GAS SAFE registered, competent person in accordance with these installation instructions and the current Gas Safety Regulations (Installation and Use).

Flue systems must not be modified in any way other than as described in the fitting instructions. Any misuse or unauthorised modifications to the appliance, flue or associated components and systems will invalidate the warranty. The manufacturer accepts no liability arising from any such actions, excluding statutory rights.

- ▶ Position the flue terminal in such a way so that combustion products do not enter the building or cause a nuisance.
- ▶ Position the flue in such a way so the flue does not cause an obstruction.
- ▶ Ensure the flue terminal is not obstructed and combustion products can discharge without hindrance.
- ▶ Fit the flue according to the regulations and standards.

### SERVICING

Advise the user to have the system serviced annually by a GAS SAFE registered, competent person using approved spares, to help maintain the economy, safety and reliability of the appliance.

The service engineer must complete the Service Record on the Benchmark Checklist after each service.

## 2 INSTALLATION REGULATIONS

---



### Current Gas Safety Regulations (Installation and Use):

Failure to install flue systems correctly could lead to prosecution.

All flue systems and associated components must be installed by a GAS SAFE registered, competent person in accordance with the following regulations.

---

Relevant regulations:

- Gas Safety Regulations 1998 (Installation and Use)
- Building Regulations
- Building Regulations (Northern Ireland)
- Building Standards (Scotland) (Consolidation)
- IS 813 (Eire)
- IGE “Gas Installation in Timber Frame Buildings”
- Any other local requirement

The relevant British Standards to be followed, include:

- BS5440:1  
Flues and ventilation for gas appliances of rated heating not exceeding 70 kW (net): Flues
- BS5440:2  
Flues and ventilation for gas appliances of rated heating not exceeding 70 kW (net): Air Supply
- BS7698  
Installation of gas fired appliances of rated input up to 70 kW (net)

If no specific instruction is given, refer to the British Standard Codes of Practice.

## 3 USE

### 3.1 GENERAL

The installation of a gas condensing appliance must be in accordance with the relevant British Standard, the relevant Building Regulations and any local rules.

The surface temperature of the flue is below 85 °C. Therefore the distance from a combustible building material is kept to a minimum of 5 mm.

#### FLUEING TO C<sub>33</sub>:

The flue gas accessory is part of CE approval when discharging flue gas according to C<sub>33</sub>. For this reason, only the original flue gas accessories may be used.

All illustration dimensions are shown in mm unless stated otherwise.

### 3.2 STANDARD SPECIFICATIONS

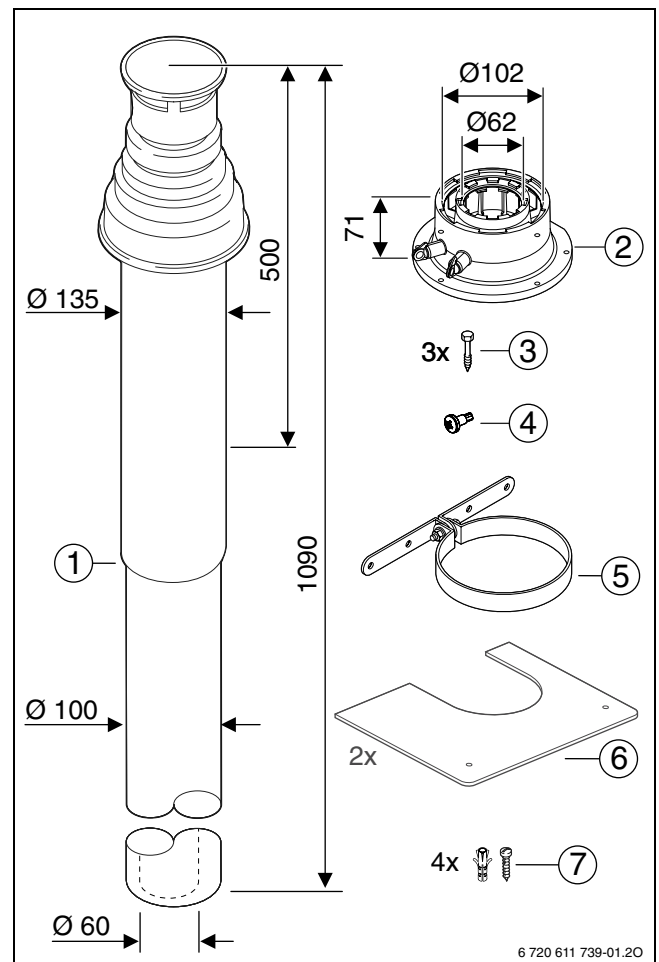


Fig. 1

- 1 Vertical Flue Terminal Assembly 7 719 002 430
- 2 Adaptor Ø 60/100 mm
- 3 Screws
- 4 Securing screws
- 5 Clamp
- 6 Fire stop plate
- 7 Screws and wall plugs

## 4 EXAMPLES OF INSTALLATION OF VERTICAL FLUE WITH ROOF EXIT

### 4.1 STRAIGHT FLUE WITHOUT BENDS

Appliances	$L_{max}$
GREENSTAR 24i/28i JUNIOR GREENSTAR 25Si/30Si GREENSTAR 12i/15i/18i/24i SYSTEM GREENSTAR 12 Ri/15 Ri/18 Ri/24 Ri	6.4 m
GREENSTAR 27CDi	11.5 m
GREENSTAR 30CDi GREENSTAR 37CDi	8.0 m
GREENSTAR 40CDi REGULAR GREENSTAR 42CDi	7.5 m
GREENSTAR 30CDi SYSTEM/REGULAR	9.4 m

Tab. 2

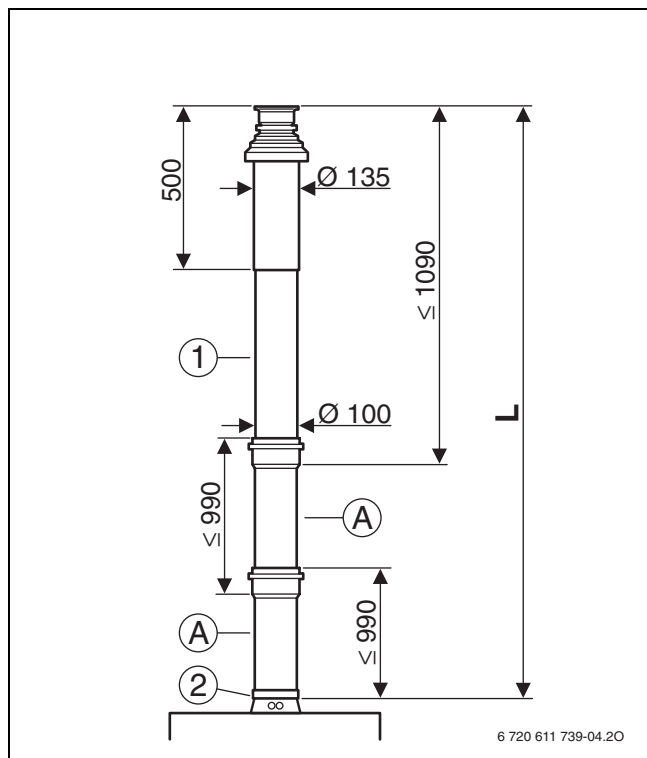


Fig. 2

- 1 Vertical Flue Terminal Assembly
- 2 Adaptor Ø 60/100 mm
- A Extension

### 4.2 STRAIGHT FLUE WITH TWO 45°-BENDS

Appliances	$L_{max}$
GREENSTAR 24i/28i JUNIOR GREENSTAR 25Si/30Si GREENSTAR 12i/15i/18i/24i SYSTEM GREENSTAR 12 Ri/15 Ri/18 Ri/24 Ri	4.4 m
GREENSTAR 27CDi	10.0 m
GREENSTAR 30CDi GREENSTAR 37CDi	6.5 m
GREENSTAR 40CDi REGULAR GREENSTAR 42CDi	6.0 m
GREENSTAR 30CDi SYSTEM/REGULAR	7.9 m

Tab. 3

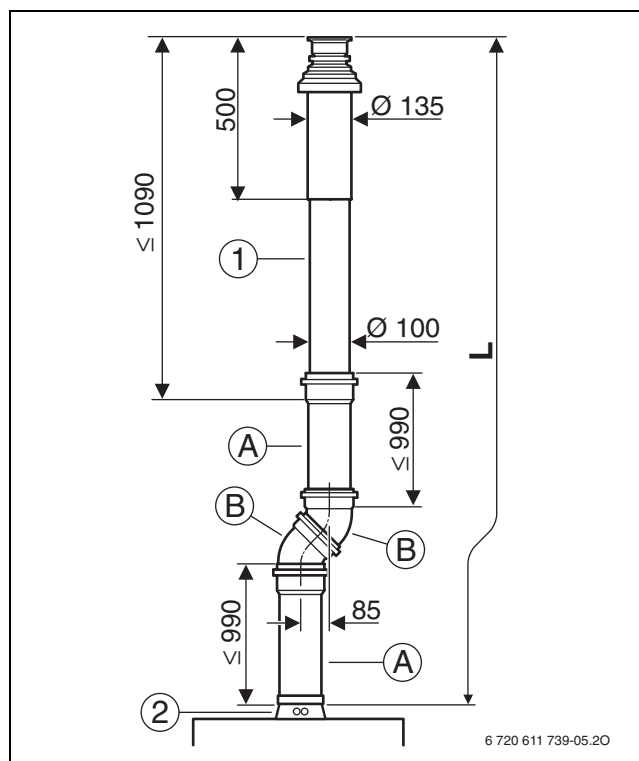


Fig. 3

- 1 Vertical Flue Terminal Assembly
- 2 Adaptor Ø 60/100 mm
- A Extension
- B 45° bend

4.3 STRAIGHT FLUE WITH TWO 90°-BENDS

Appliances	L <sub>max</sub>
GREENSTAR 24i/28i JUNIOR GREENSTAR 25Si/30Si GREENSTAR 12i/15i/18i/24i SYSTEM GREENSTAR 12 Ri/15 Ri/18 Ri/24 Ri	2.4 m
GREENSTAR 27CDi	8.5 m
GREENSTAR 30CDi GREENSTAR 37CDi	5.0 m
GREENSTAR 40CDi REGULAR GREENSTAR 42CDi	4.5 m
GREENSTAR 30CDi SYSTEM/REGULAR	6.4 m

Tab. 4

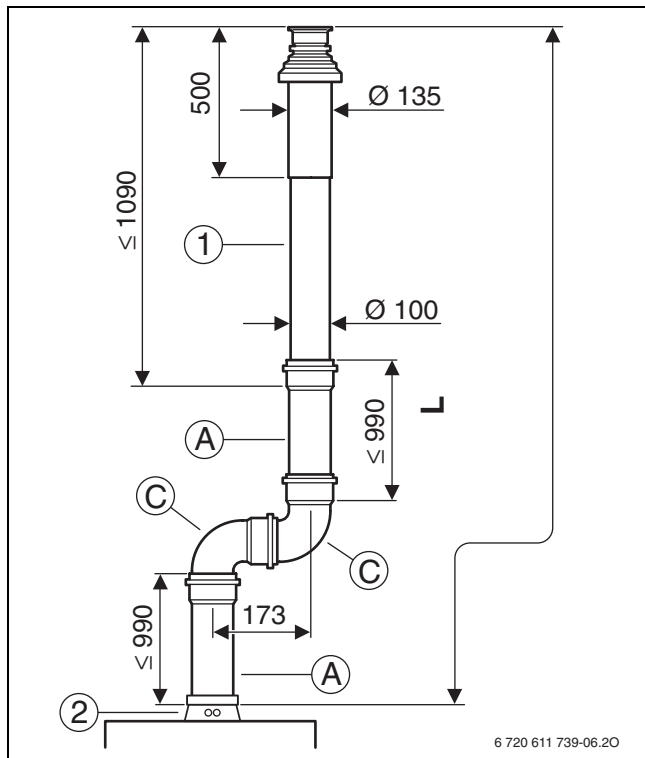


Fig. 4

Key to Fig. 4, 5 and 6:

- 1 Vertical Flue Terminal Assembly
- 2 Adaptor Ø 60/100 mm
- A Extension
- C 90° bend

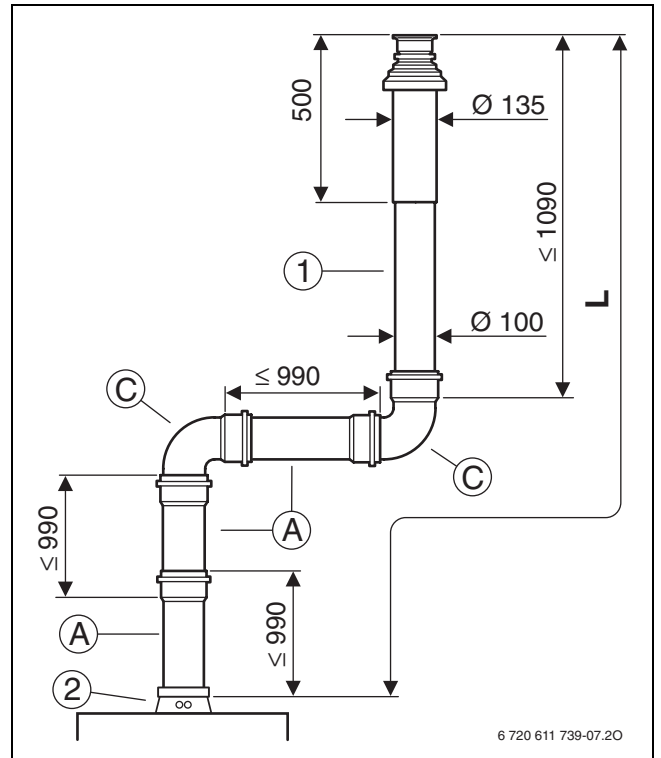


Fig. 5

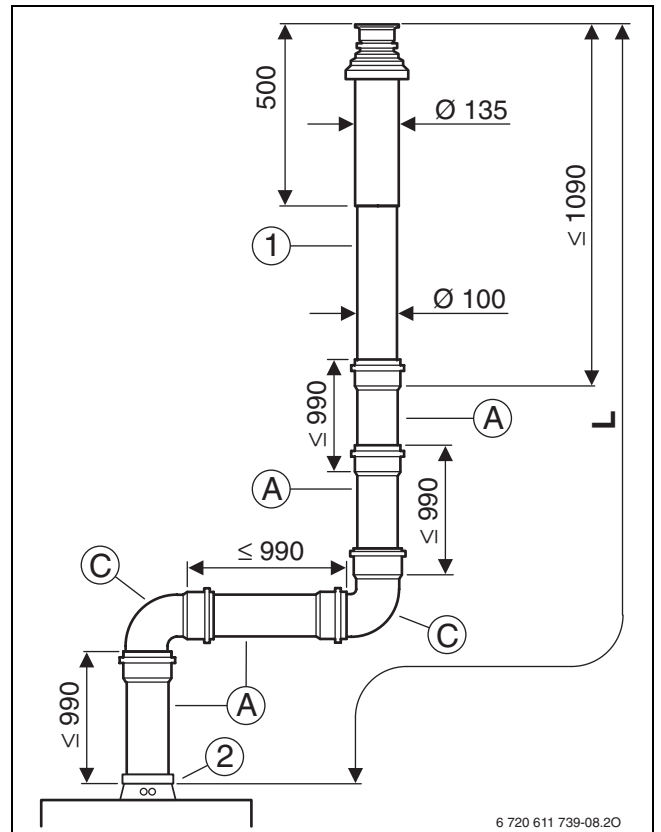


Fig. 6

## 5 MOUNTING

### 5.1 NOTES ON FITTING

- The vertical flue (7 719 002 430) can be extended at any point between the adaptor [2] and the flue terminal assembly [1] using the flue kits “bend 45°”, “bend 90°” or “extension”.
- For flue pipe maximum and equivalent lengths with the usage of bends refer to the installation instructions with the appliance.
- Horizontal flue sections should be fitted with an incline of 3° (= 5,2 %, 5,2 cm per meter) in the direction of flow of the flue gases.

### 5.2 ROOF-EXIT CLEARANCES

#### 5.2.1 FLAT ROOF

	Combustible building material	Non-combustible building material
X	≥ 1500 mm	≥ 500 mm

Tab. 5

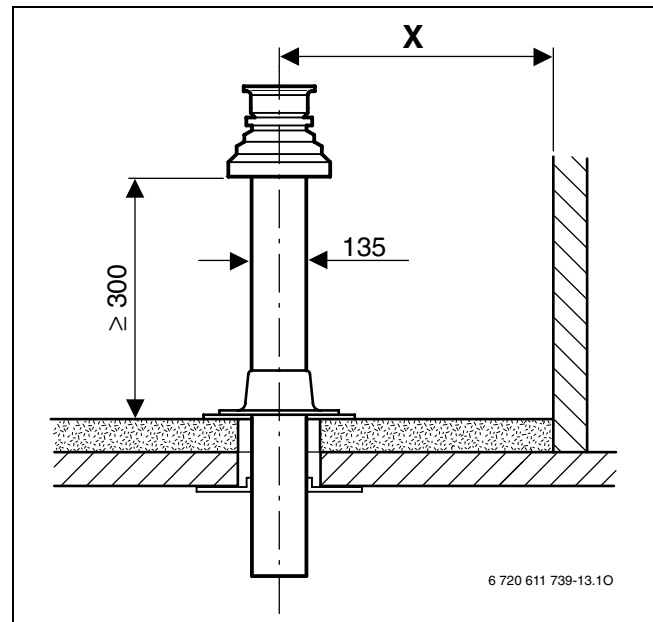


Fig. 7

#### 5.2.2 INCLINED ROOF

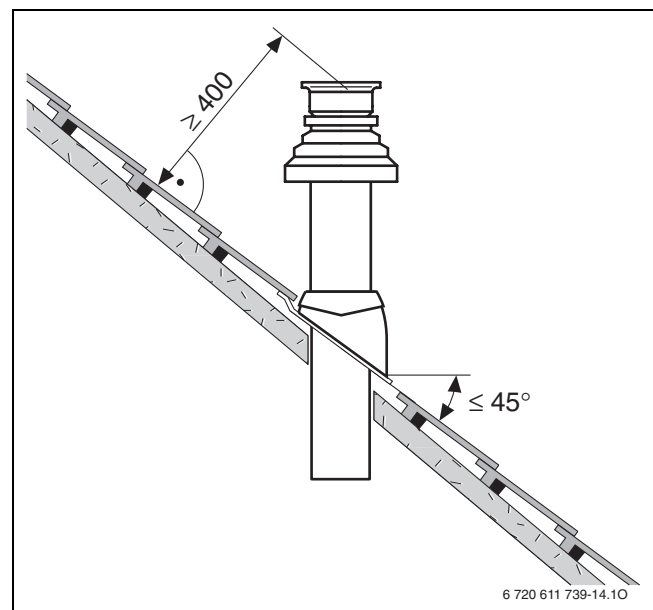


Fig. 8



### 5.3 FITTING THE FLUE

#### 5.3.1 ADAPTOR

- ▶ Grease the flue-pipe seal of the adaptor with solvent-free grease (e.g. Vaseline).
- ▶ Unscrew the screws around the flue connection on the air box.

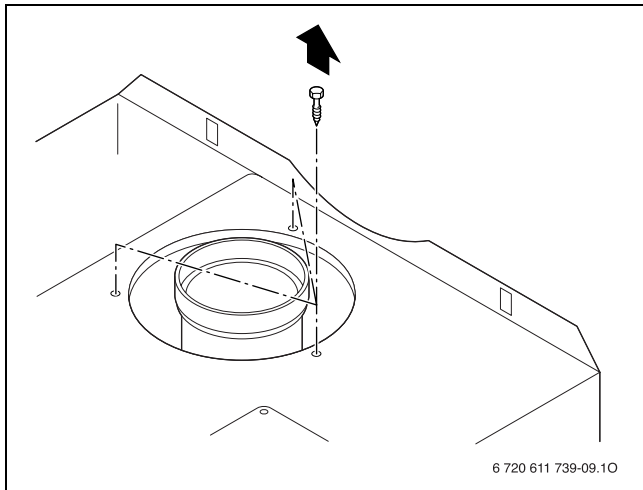


Fig. 9

- ▶ Align adaptor so that the flue testing points are facing forwards.
- ▶ Fix adaptor [2] in place using screws [3] of 7 719 002 430.

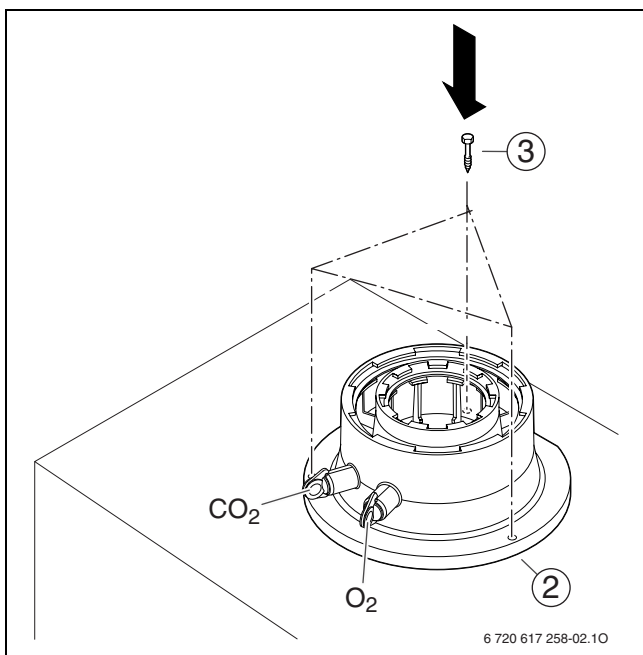


Fig. 10

- 2 Adaptor
- 3 Screw

- ▶ Connect rest of flue (7 719 002 430, “bend 45°”, “bend 90°”, “extension”) to adaptor [2] and secure with screw [4].

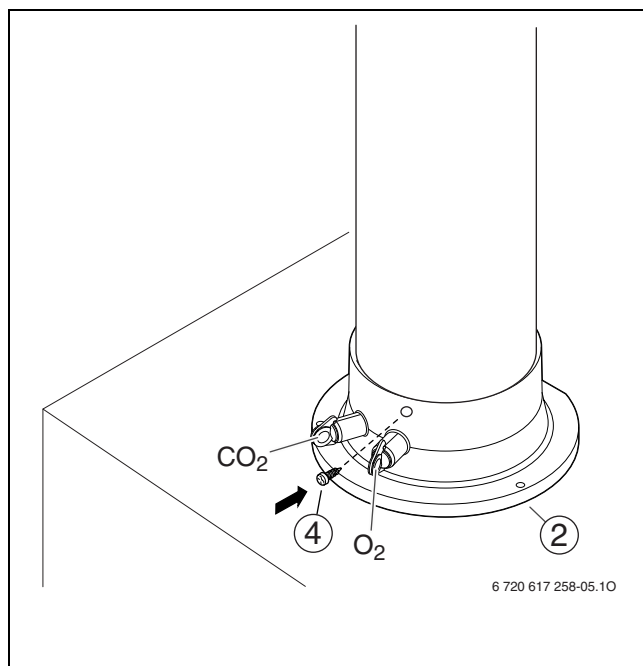


Fig. 11

- 2 Adaptor
- 4 Securing screw

5.3.2 VERTICAL FLUE TERMINAL ASSEMBLY

- ▶ Determine the length  $L_V$  of the air pipe.

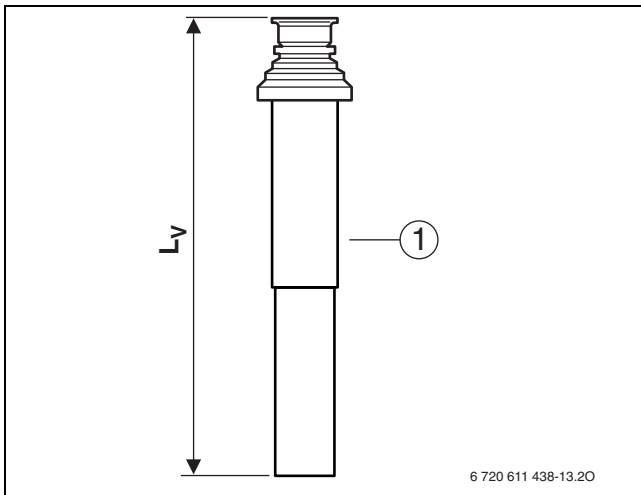


Fig. 12

1 Vertical Flue Terminal Assembly

- ▶ Cut off the **air pipe** at a right angle, deburr the cut edges and clean.
- ▶ Determine the length  $L_A = L_V + 50$  mm of the flue pipe.

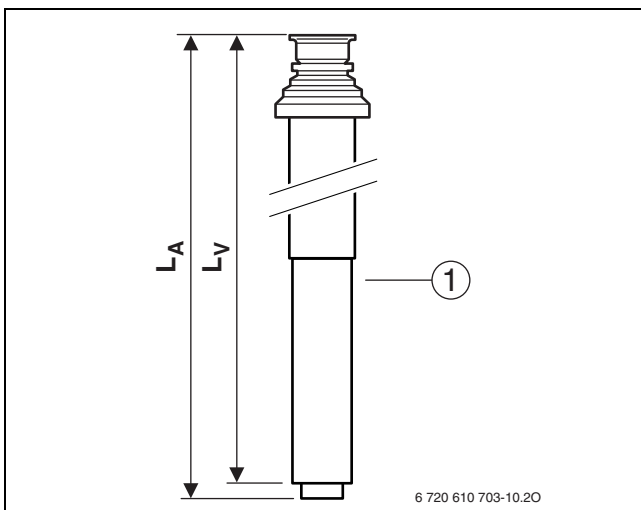


Fig. 13

1 Vertical Flue Terminal Assembly

- ▶ Cut off the **flue pipe** at a right angle, deburr the cut edges and clean.
- ▶ Lightly grease the seals on the sleeves with a solvent-free grease (e.g. Vaseline).

- ▶ Fit pipes together by twisting and pushing home as far as possible secure with screw.

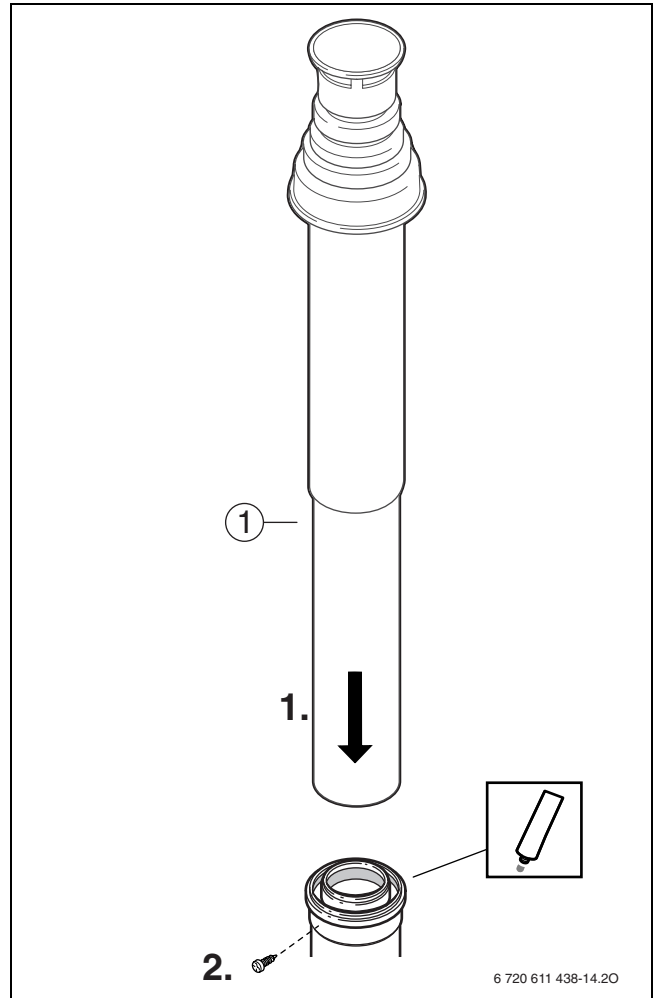


Fig. 14

1 Vertical Flue Terminal Assembly

**5.3.3 CLAMP**

If necessary

- Fix the vertical flue terminal assembly with the clamp.

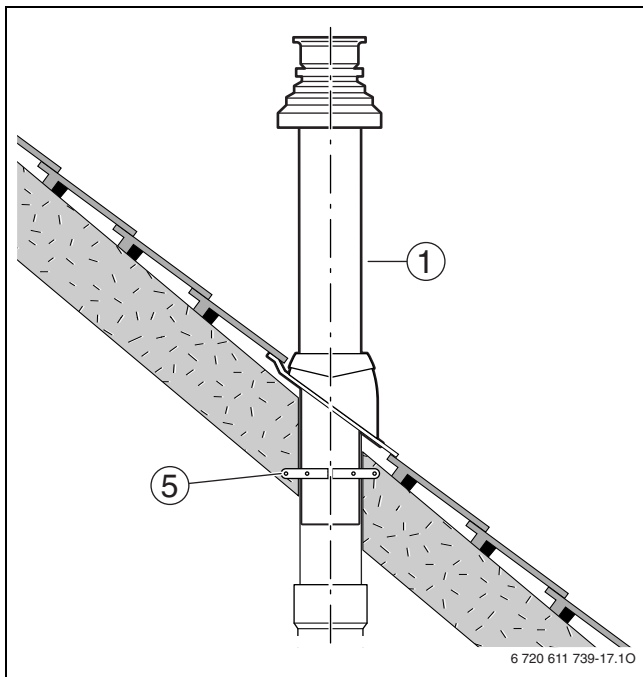


Fig. 15

- 1 Vertical Flue Terminal Assembly
- 5 Clamp

**5.3.4 FIRE STOP PLATE**

If necessary

- Mount the fire stop plate.

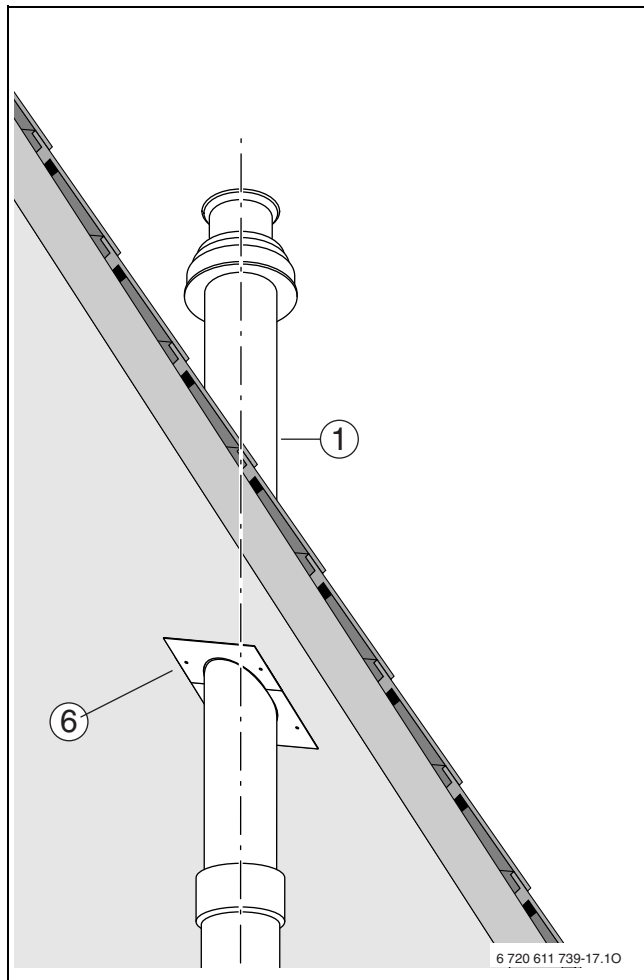


Fig. 16

- 1 Vertical Flue Terminal Assembly
- 6 Fire stop plate

## CONTACT INFORMATION

### WORCESTER, BOSCH GROUP:

TECHNICAL:	08705 266241
SERVICE:	08457 256206
SPARES:	01905 752571
LITERATURE:	01905 752556
TRAINING:	01905 752526
SALES:	01905 752640
WEBSITE:	<a href="http://worcester-bosch.co.uk">worcester-bosch.co.uk</a>

Worcester, Bosch Group  
Cotswold Way, Warndon, Worcester WR4 9SW.  
Tel. 01905 754624 Fax. 01905 754619  
Worcester, Bosch Group is a brand name of Bosch Thermotechnology Ltd.  
[worcester-bosch.co.uk](http://worcester-bosch.co.uk)

6 720 611 739



**WORCESTER**  
**Bosch Group**