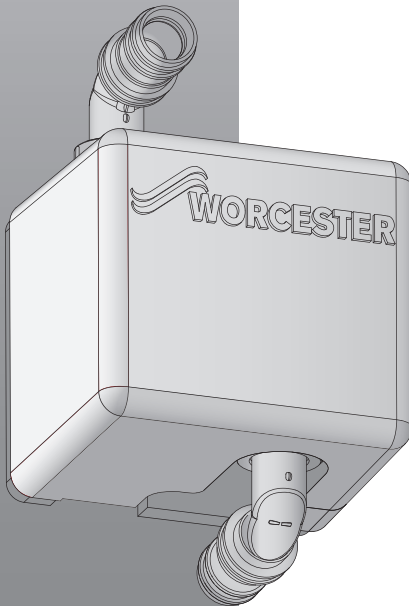


INSTALLATION INSTRUCTIONS

GREENSTAR EXTERNAL 500ML SIPHON

CondenseSure Siphon

ALL GREENSTAR GAS AND OIL COMBINATION, SYSTEM AND REGULAR
CONDENSING BOILERS



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WORCESTER
Bosch Group

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1 SYMBOLS AND SAFETY PRECAUTIONS

1.1 EXPLANATION OF SYMBOLS

WARNING SYMBOLS



Safety instructions in this document are framed and identified by a warning triangle which is printed on a grey background.

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 personal injury.
- **CAUTION** indicates possible personal injury.
- **WARNING** indicates possible severe personal injury.

IMPORTANT INFORMATION



Notes contain important information in cases where there is no risk of personal injury or material losses and are identified by the symbol shown on the left. They are bordered by horizontal lines above and below the text.

ADDITIONAL SYMBOLS

Symbol	Meaning
1.	a numbered step in an action sequence
▶	a step in an action sequence
→	Cross reference to another part of the document
•	a list entry
–	a list entry (second level)

Table 1 Additional symbols

1.2 FITTING AND MODIFICATIONS

Only a competent engineer can fit the CondenseSure siphon, in accordance with the Gas Safety (Installation and Use) Regulations.

- Condensate pipe work should be routed and installed as per the instructions in the boiler installation manual.

Any misuse or unauthorised modifications to the boiler, flue or associated accessories and heating system will invalidate the warranty.

- Do not modify the boiler or flue system in any way.

Worcester, Bosch Group accepts no liability arising from any such actions. This does not affect your statutory rights.

2 GENERAL INFORMATION

2.1 CONDENSESURE SIPHON

The Worcester CondenseSure siphon has been designed and tested for installation with a Greenstar gas or oil condensing boiler.

The siphon will prevent the freezing of a three metre long 32mm diameter straight uninsulated externally run condensate discharge pipe at external weather temperatures of up to -15 °C.

Tests over a sustained period of 48 hours at -15 °C revealed that the condensate pipe did not freeze under these conditions when the siphon was installed around the central heating pipe, (as demonstrated in the installation section). The condensate discharge pipe must have a fall of at least 2.5°.

To maximise the effectiveness of this product the installer should:

- Keep the external pipework as short as possible.
- Ensure a fall of at least 2.5° over horizontal sections.
- Minimise the number of bends and connectors.
- Remove burrs after cutting pipe.
- Remove surplus solvent from the interior of the pipe.



There is no benefit to be gained by installing a CondenseSure Siphon in a boiler installation, oil or gas, that already incorporates a condensate pump.

This also includes the Greenstar Highflow and Greenstar CDi FS (Floor Standing) boilers that have a built-in condensate pump.

2.2 SIPHON KIT PARTS

The CondenseSure siphon kit comprises the following items:

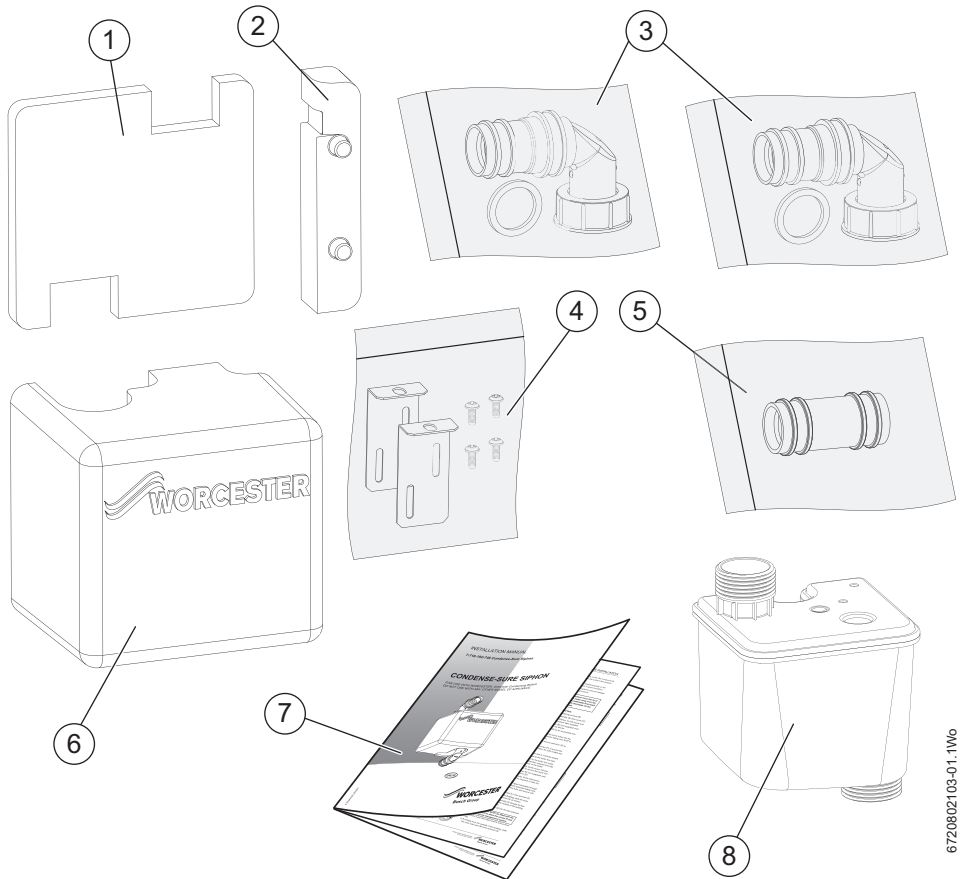


Fig. 1 CondenseSure siphon kit

- [1] Foam backing with double-sided tape
- [2] Foam insert
- [3] 90° Elbow with short rubber connector
- [4] Mounting kit
- [5] Longer rubber connector
- [6] Foam cover
- [7] Installation manual
- [8] Siphon body

OVERALL DIMENSIONS

The overall dimensions of the siphon assembly are: 147mm wide x 135mm high x 115mm deep.

3 MOUNTING THE SIPHON

3.1 MOUNTING OPTIONS

The CondenseSure siphon is designed to be mounted under a condensing boiler. The siphon is designed to clip around the CH flow pipe from the boiler and thereby use some of the heat from that pipe to warm the condensate.

The siphon can also be mounted on the wall, away from the boiler, in the condensate pipe work, however the effectiveness of the unit is slightly reduced.

The siphon can be mounted in one of two ways:

- Close coupled to a combination, system or regular boiler.
- Wall mounted.

3.1.1 CLOSE COUPLED TO THE BOILER

Fit the siphon directly underneath the boiler and connect into the boiler's siphon discharge pipe.

- ▶ Fit the top and bottom mounting brackets to the siphon body, do not tighten the screws completely. Allow the brackets to slide on the screws.
- ▶ Fit the top elbow to the siphon.
- ▶ Fit the siphon on the CH flow pipe and ensure the siphon clips in place on the pipe.
- ▶ Position the siphon so that the top elbow coincides with the boiler's siphon discharge pipe.
- ▶ Mark through the mounting brackets on to the wall.
- ▶ Slide the siphon down the pipe and drill suitable mounting holes in the wall.
- ▶ Fit the wall plugs into the mounting holes.
- ▶ Slide the siphon back up the pipe into the mounting position.

1. Remove the backing off the double-sided tape on the foam backing (1) and slide the foam behind the pipes in-line with the siphon.
2. Using the two screws provided, attach the siphon to the wall.
Tighten the mounting screws, top and bottom, on the siphon body.
3. For System and Regular boilers, ensure that the foam insert (4) is fitted to the foam cover (5) and mount the cover over the siphon.
For Combi boilers remove the foam insert (4) from the foam cover (5) and mount the cover over the siphon.

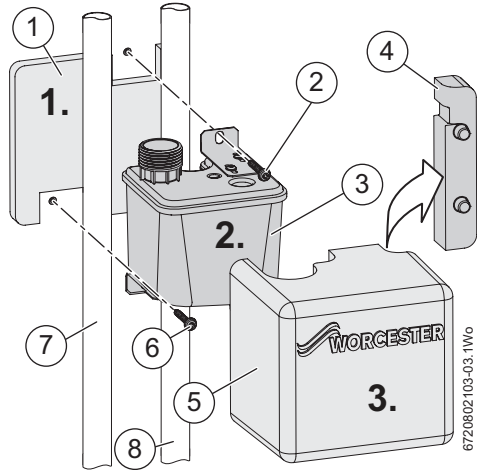


Fig. 2 Fitting to a combination boiler

- [1] Foam backing with double-sided tape
- [2] Siphon mounting screw
- [3] Condense Sure siphon body
- [4] Foam insert
- [5] Foam cover
- [6] Siphon mounting screw
- [7] CH flow pipe
- [8] Combination boiler DHW outlet pipe

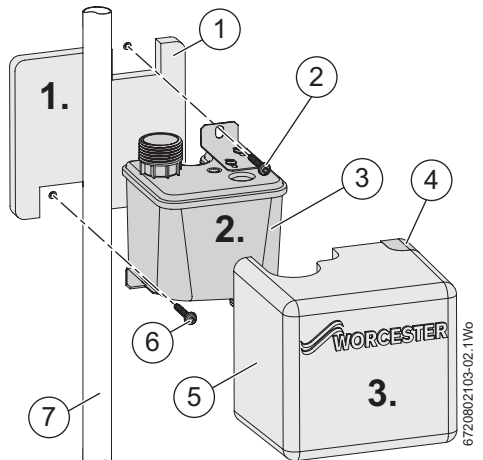


Fig. 3 System and regular boilers

3.1.2 WALL MOUNTED

If it is not convenient or possible to mount the siphon directly under the boiler, the siphon can be mounted anywhere in the condensate line. The siphon must be mounted inside the property.

- ▶ Find a suitable position inside the property to mount the siphon, preferably close to the condensate pipe work.
- ▶ Attach the “L” shaped mounting brackets to the top and bottom of the siphon.
- ▶ Do not tighten the screws fully, allow the bracket to slide in their slots.
- ▶ Position the siphon on the wall and mark on the wall where the brackets will be secured.
- ▶ Drill suitable holes to accept the wall plugs and use the screws provided to secure the siphon to the wall.
- ▶ Tighten the screws secure the brackets to the siphon
- ▶ Cut the condensate pipe work and plumb the pipes to and from the siphon.
- ▶ The elbow connectors can be swivelled through 180° to accommodate the pipe work connections, refer to figure 5.
- ▶ The elbows can also be modified for straight connections, refer to the paragraph “Modifying the elbow” on page 6.
- ▶ Ensure the foam insert (4) is fitted to the foam cover (5).
- ▶ Fit the foam cover over the siphon as shown in figure 4.

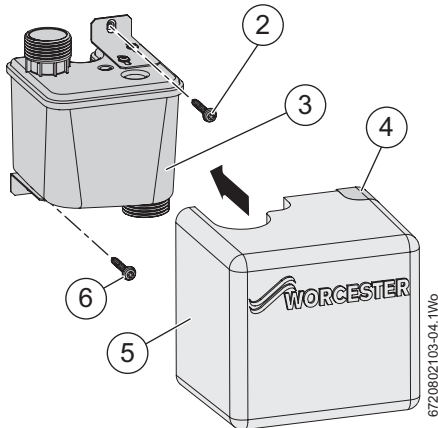


Fig. 4 Wall mounting

- [2] Siphon mounting screw
- [3] Condense Sure siphon body
- [4] Foam insert
- [5] Foam cover
- [6] Siphon mounting screw

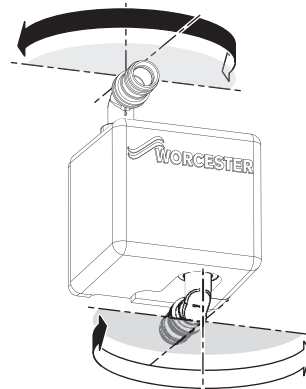


Fig. 5 Elbow swivelling range

3.1.3 SIPHON CONNECTIONS

CONNECTION TO THE BOILER

When mounting under the boiler, the rubber connector from the top elbow of the siphon may reach to the boiler discharge pipe, or a longer connector may be required and is provided if necessary.

- ▶ If fitting to an existing boiler installation, disconnect the 22mm pipe from the boiler discharge pipe.
1. Remove the standard connector if the longer version is required.
 2. Fit the rubber connect on to the siphon elbow.
 3. Fit the rubber connect on to the boiler discharge pipe.
 4. Secure the connection with the clip provided.

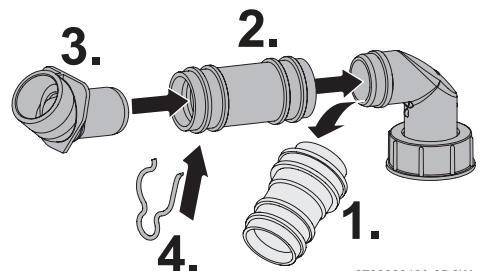


Fig. 6 Boiler connection

OTHER TYPES OF CONNECTION TO BOILERS

When mounting under some boilers, a short piece of 22mm pipe may be required to make the connection from the siphon to the condensate discharge from the boiler.

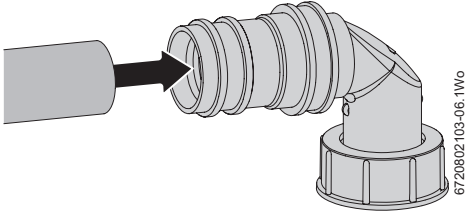


Fig. 7 General boiler connection

CONDENSATE DISPOSAL CONNECTION

- ▶ Connect the 22mm condensate disposal pipe to the bottom rubber connector on the siphon.
- ▶ If fitting the siphon to an existing installation, shorten the 22mm condensate disposal pipe as required.

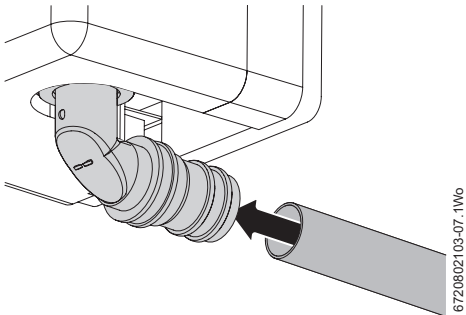


Fig. 8 Condensate disposal pipe work

MODIFYING THE ELBOW

The elbow can be modified to be a straight connector if the siphon is being installed away from the boiler.

1. Remove the rubber connector from the elbow.
 2. Remove the elbow from the siphon and using a suitable hacksaw cut the elbow just above the small lugs. Cut the elbow as square as possible.
 3. Fit the rubber connector over the modified elbow, ensuring that the connector engages with the two lugs.
- ▶ Ensure that the connector gives a water tight seal.
 - ▶ Both elbows can be modified as straight connectors if the installation requires.

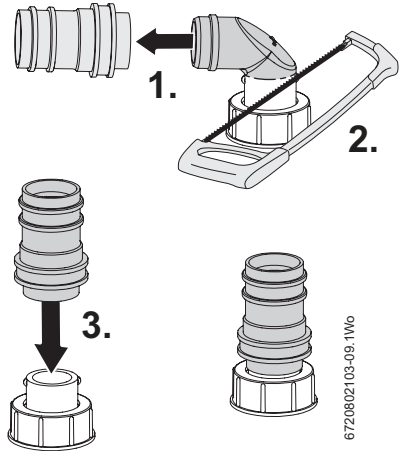


Fig. 9 Elbow modification

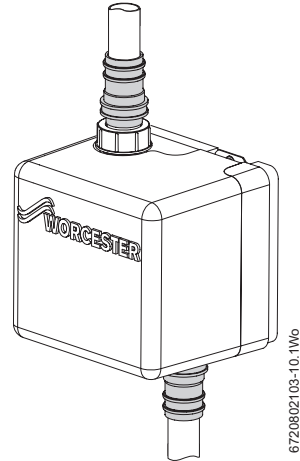


Fig. 10 Straight connections

NOTES

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