

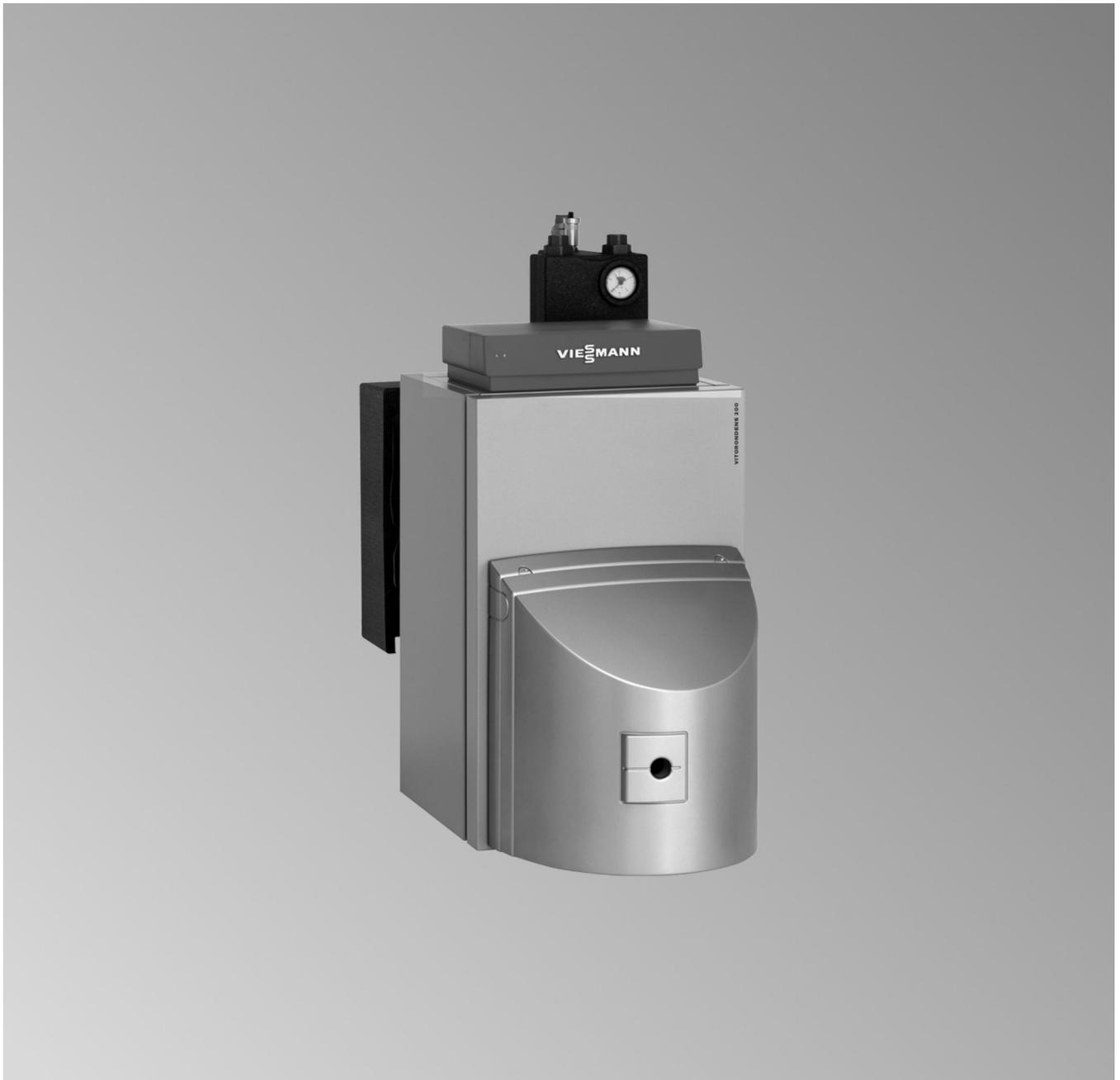
Installation instructions for contractors

VIESSMANN

Vitorondens 200-T
Type BR2A, 20.2 to 53.7 kW
Oil Unit condensing boiler



VITORONDENS 200-T



Safety instructions

-  Please follow these safety instructions closely to prevent accidents and material losses.

Safety instructions explained

-  **Danger**
This symbol warns against the risk of injury.

-  **Please note**
This symbol warns against the risk of material losses and environmental pollution.

Note

Details identified by the word "Note" contain additional information.

Target group

These instructions are exclusively intended for qualified contractors.

- Work on gas installations may only be carried out by a registered gas fitter.
- Work on electrical equipment may only be carried out by a qualified electrician.

Regulations to be observed

- National installation regulations
- Statutory regulations for the prevention of accidents
- Statutory regulations for environmental protection
- Codes of practice of the relevant trade associations
- Relevant country-specific safety regulations

Working on the system

- Where gas is used as the fuel, close the main gas shut-off valve and safeguard it against unintentional reopening.
- Isolate the system from the power supply, e.g. by removing the separate fuse or by means of a main switch, and check that it is no longer live.
- Safeguard the system against reconnection.
- Wear suitable personal protective equipment when carrying out any work.



Danger

Hot surfaces and fluids can result in burns or scalding.

- Before maintenance and service work, switch off the appliance and let it cool down.
- Never touch hot surfaces on the boiler, burner, flue system or pipework.

- ! **Please note**
 - Electronic assemblies can be damaged by electrostatic discharge. Before beginning work, touch earthed objects, such as heating or water pipes, to discharge any static.

Repair work

- ! **Please note**
 - Repairing components that fulfil a safety function can compromise the safe operation of the system. Faulty components must be replaced with original spare parts.

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Disposal of packaging

Please dispose of packaging waste in line with statutory regulations.

Symbols

Symbol	Meaning
	Reference to other document containing further information
	Step in a diagram: The numbers correspond to the order in which the steps are carried out.
	Warning of personal injury
	Warning of material losses and environmental pollution
	Live electrical area
	Pay particular attention.
	<ul style="list-style-type: none"> ▪ Component must audibly click into place. or ▪ Acoustic signal
	<ul style="list-style-type: none"> ▪ Fit new component. or ▪ In conjunction with a tool: Clean the surface.
	Dispose of component correctly.
	Dispose of component at a suitable collection point. Do not dispose of component in domestic waste.

Intended use

The appliance is intended solely for installation and operation in sealed unvented heating systems that comply with EN 12828, with due attention paid to CECS 215-2017 and the associated installation, service and operating instructions. It is only designed for heating up heating water that is of potable water quality.

Intended use presupposes that a fixed installation in conjunction with permissible, system-specific components has been carried out.

The appliance is intended exclusively for domestic or semi-domestic use; even users who have not had any instruction are able to operate the appliance safely.

Commercial or industrial usage for a purpose other than heating the building or DHW shall be deemed inappropriate.

Any usage beyond this must be approved by the manufacturer in each individual case.

Incorrect usage or operation of the appliance (e.g. the appliance being opened by the system user) is prohibited and will result in an exclusion of liability. Incorrect usage also occurs if the components in the heating system are modified from their intended use (e.g. if the flue gas and ventilation air paths are sealed).

Product information

Oil condensing boiler with stainless steel Inox-Radial heat exchanger with the following features:

- Cast sections with flexible gaskets for durable sealing on the hot gas side
- High operational reliability and a long service life thanks to Eutectoplex heating surface
- Modulating boiler water temperature
- Vitotronic control unit with plain text and graphic display

Type plate

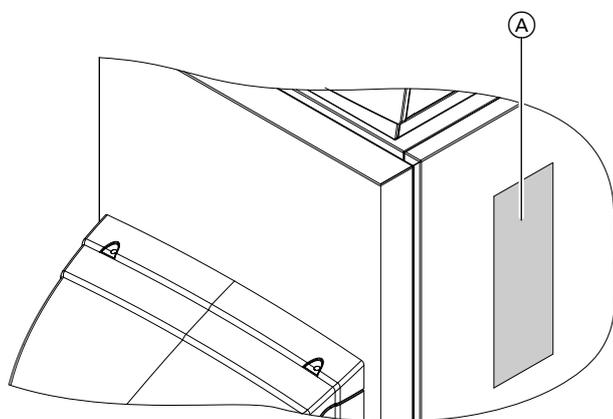


Fig. 1

- Ⓐ Type plate with QR code on the side panel

Depending on the installation position, attach the type plate of the heat generator to the left or right side panel.

The type plate contains extensive product information and an appliance-specific **QR code marked with "i"** for direct access to product-specific information and product registration on the internet.

The QR code contains the credentials for the registration and product information portal, and the 16-digit serial number.

Siting

Clearance dimensions

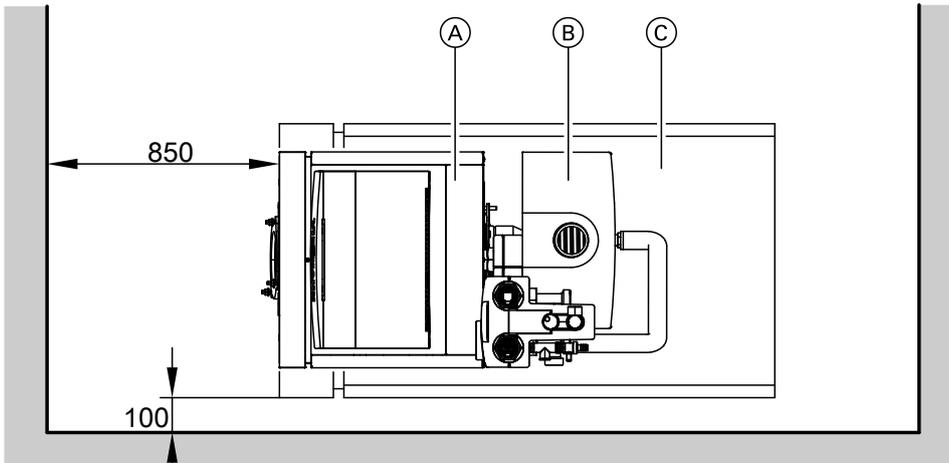


Fig. 2

- Ⓐ Boiler
- Ⓑ Heat exchanger
- Ⓒ DHW cylinder

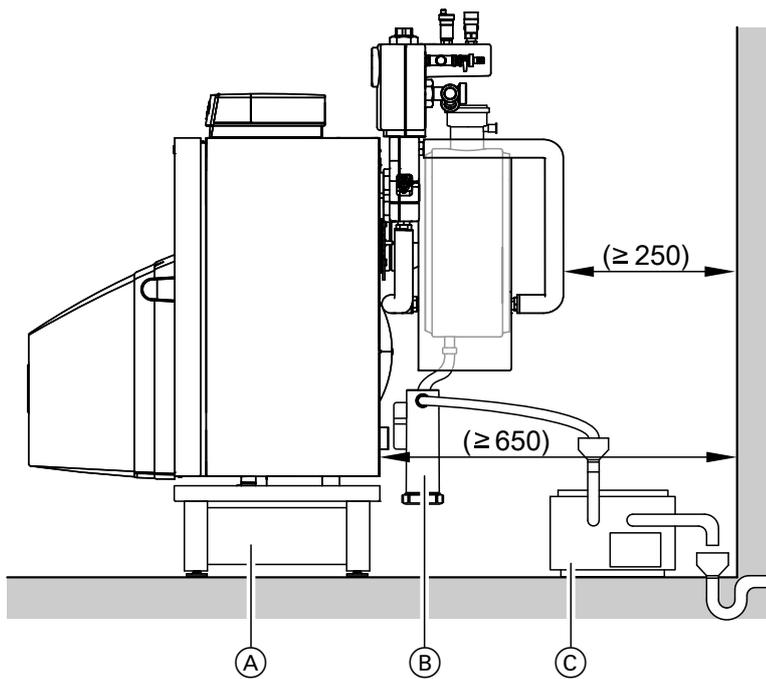


Fig. 3

- Ⓐ Plinth (accessories)
- Ⓑ Trap
- Ⓒ Neutralising system (accessories)

Overview of connections

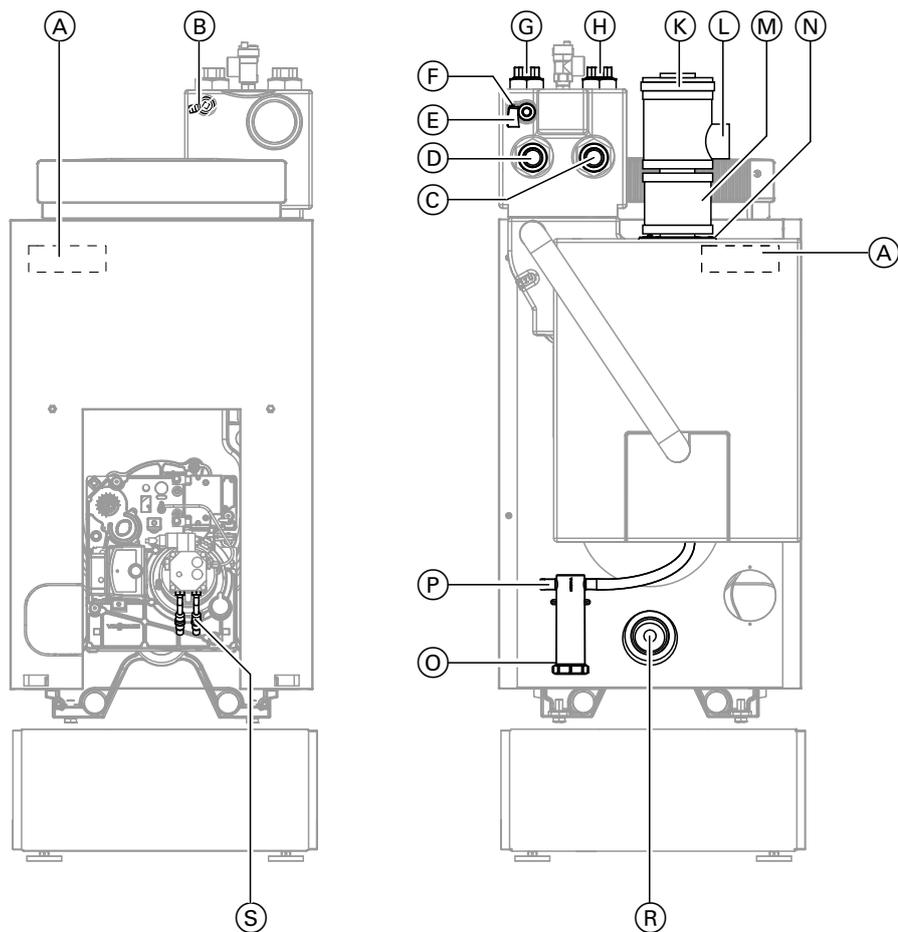


Fig. 4

- | | |
|--|--|
| Ⓐ Wiring area | Ⓚ Boiler flue connection (accessories) |
| Ⓑ Air vent valve | Ⓛ Ventilation air connector |
| Ⓒ Cylinder flow and heating flow G 1½ | For room sealed operation |
| Ⓓ Cylinder return and heating return G 1½ | Ⓜ Silencer (accessories) |
| Ⓔ Boiler fill valve | Ⓝ Flue gas connection |
| Ⓕ Connection for diaphragm expansion vessel (tee Rp ½) | Ⓞ Trap |
| Ⓖ Heating return | Ⓟ Condensate drain |
| ▪ Flat gasket connection: G 1½ | Ⓠ Drain |
| ▪ Connection with the threaded inserts supplied: Rp 1 | Ⓡ Oil line connection |
| Ⓗ Heating flow | |
| ▪ Flat gasket connection: G 1½ | |
| ▪ Connection with the threaded inserts supplied: Rp 1 | |

Installing and aligning the boiler

Siting without DHW cylinder

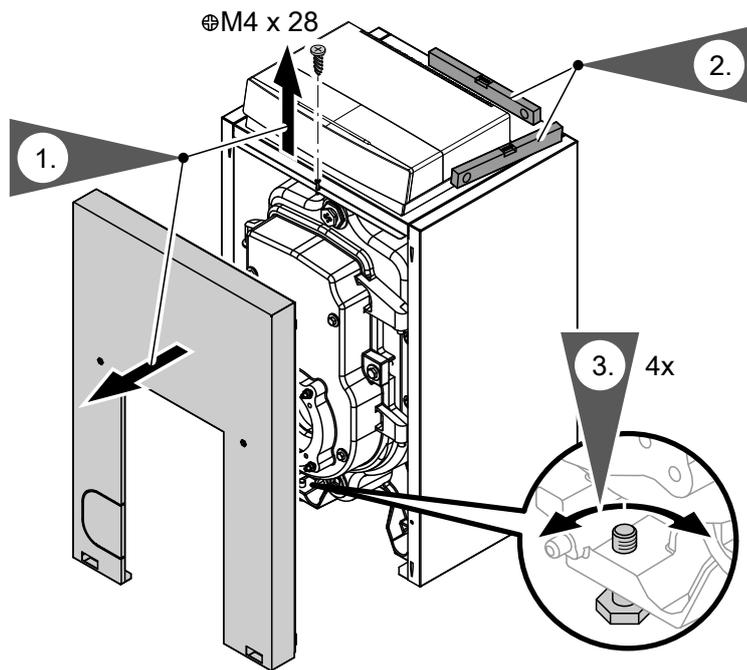


Fig. 5

Align the boiler with a slight incline towards the back.

Siting on a plinth



Installation instructions on the plinth packaging

Installation on a DHW cylinder

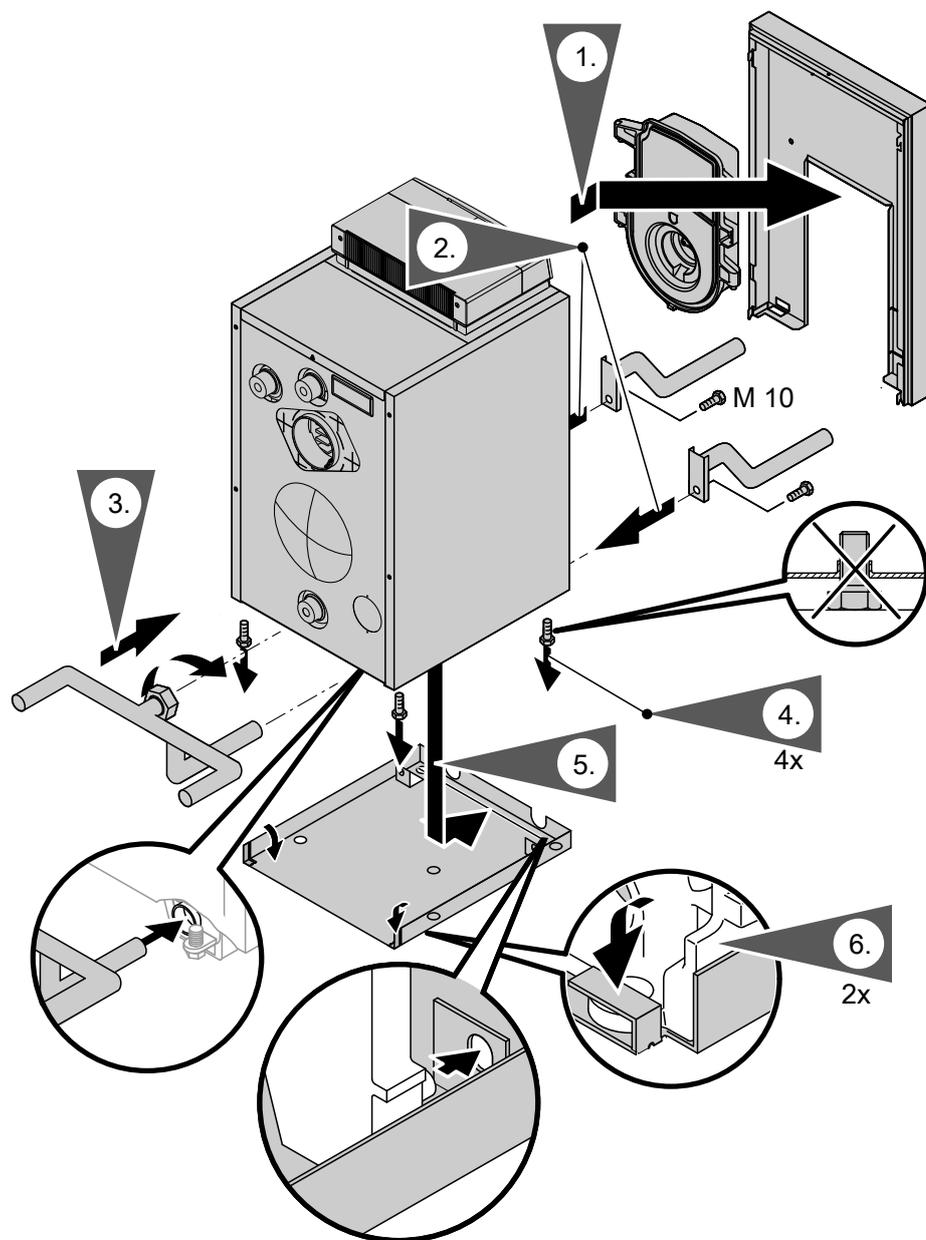


Fig. 6

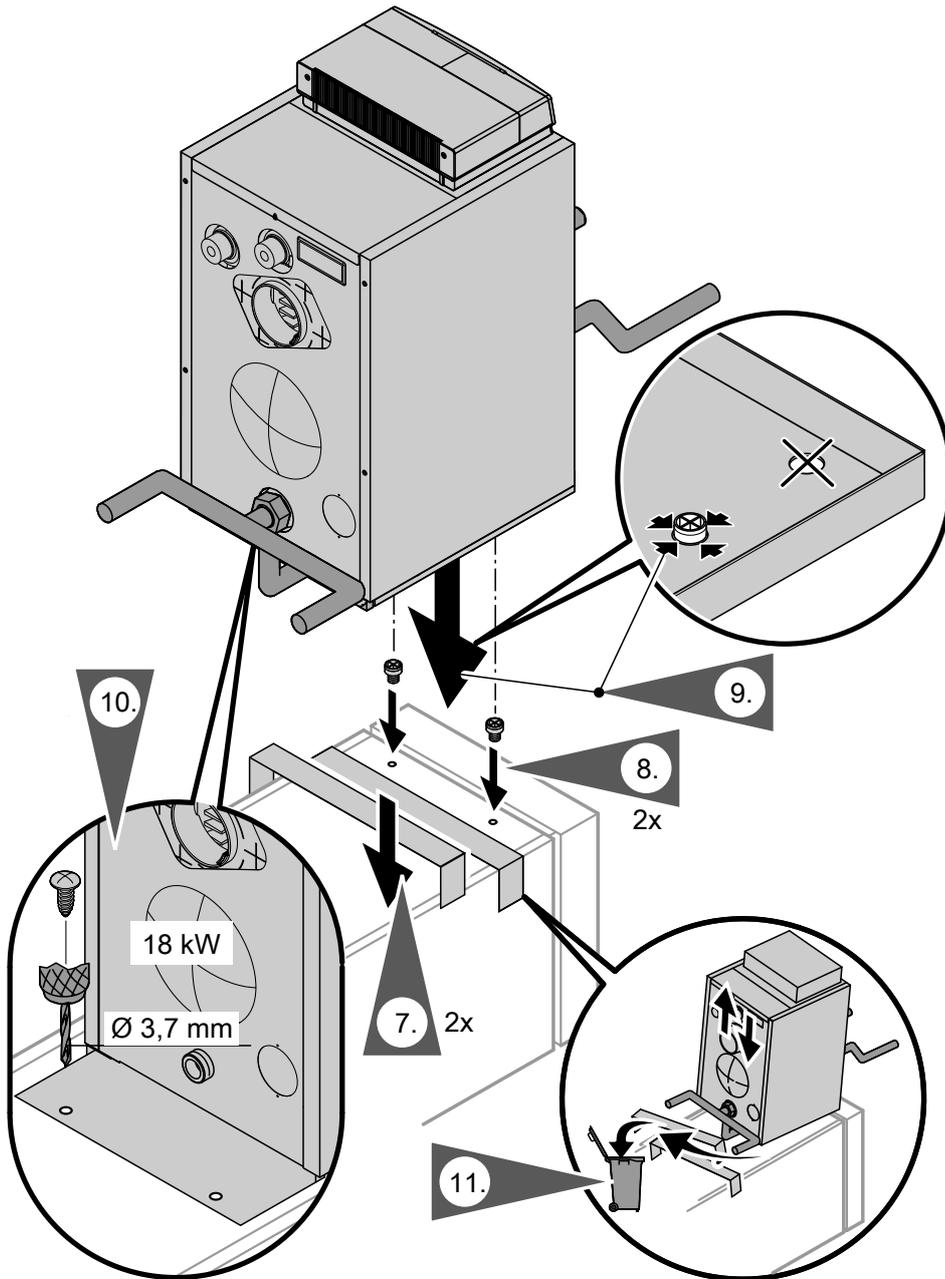


Fig. 7

Repositioning the boiler door hinge

In the delivered condition, the boiler door is fitted so it opens to the left. Reposition the hinges if required.

Relocating the boiler door hinge (cont.)

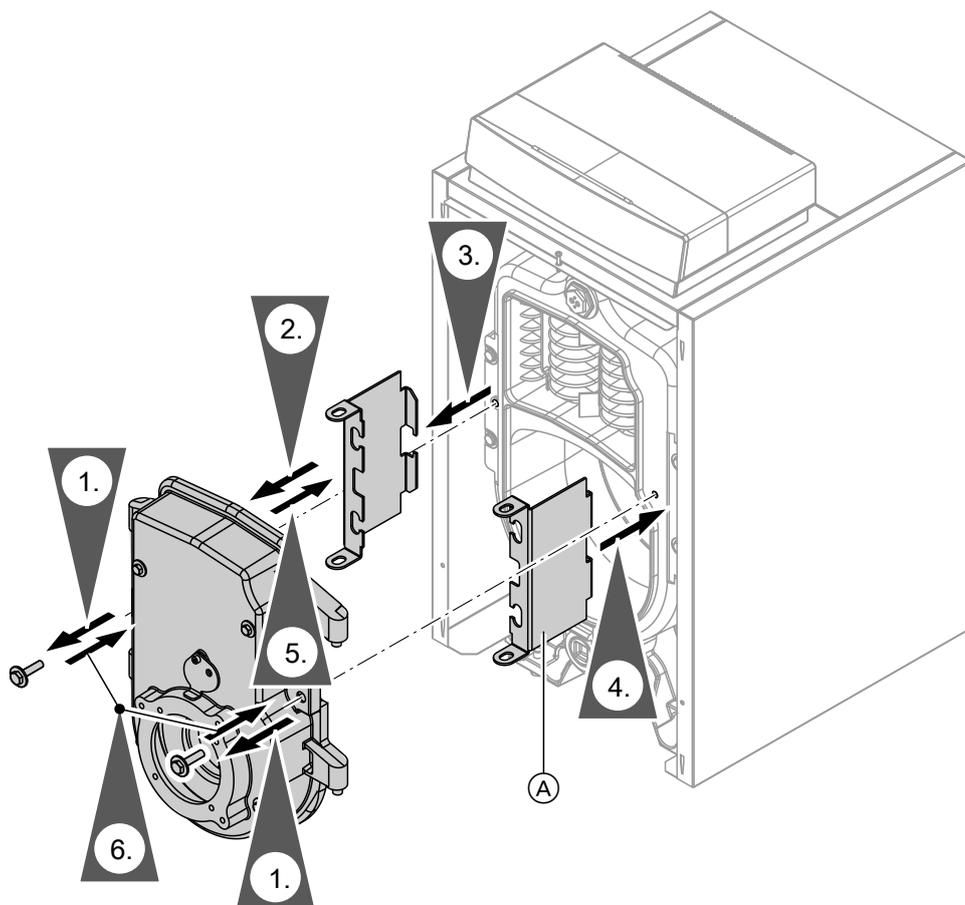


Fig. 8

Ⓐ Hinge bracket

Installing the heat exchanger on the boiler

Preparations for installation

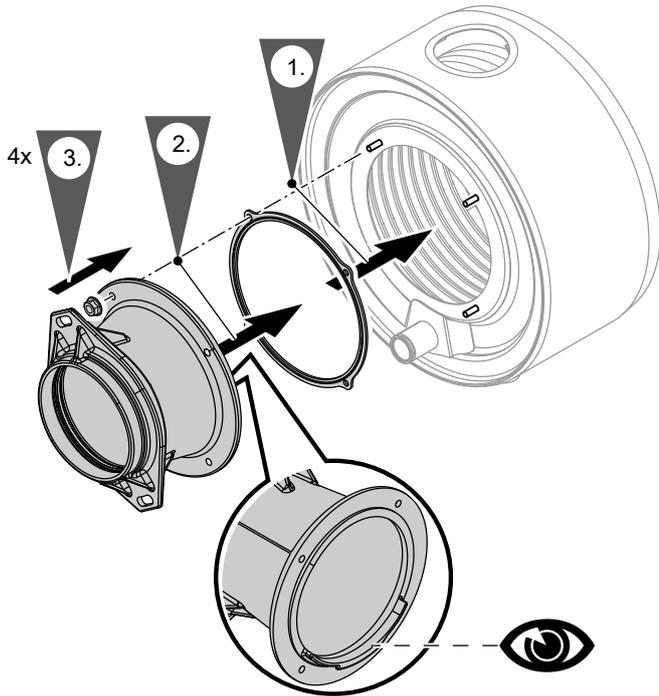


Fig. 9

Boiler flow/return distributor

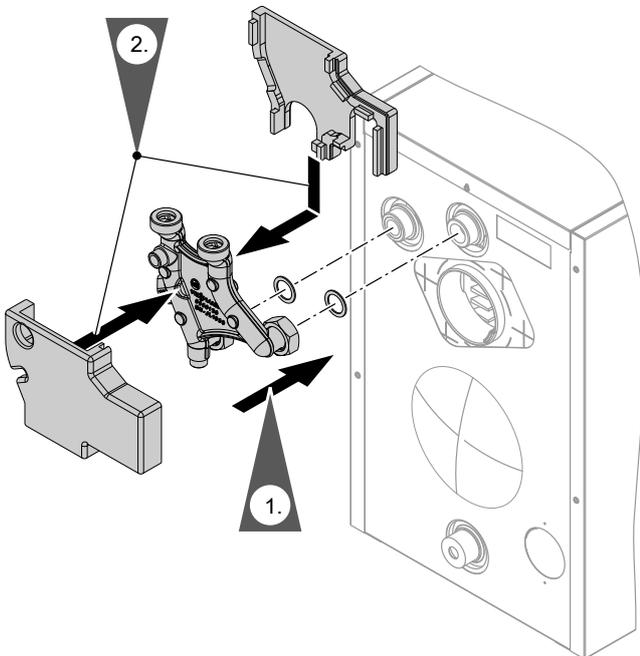


Fig. 10

Note

The return injector nozzle must be fitted in the boiler return.

Heat exchanger with flue gas connection

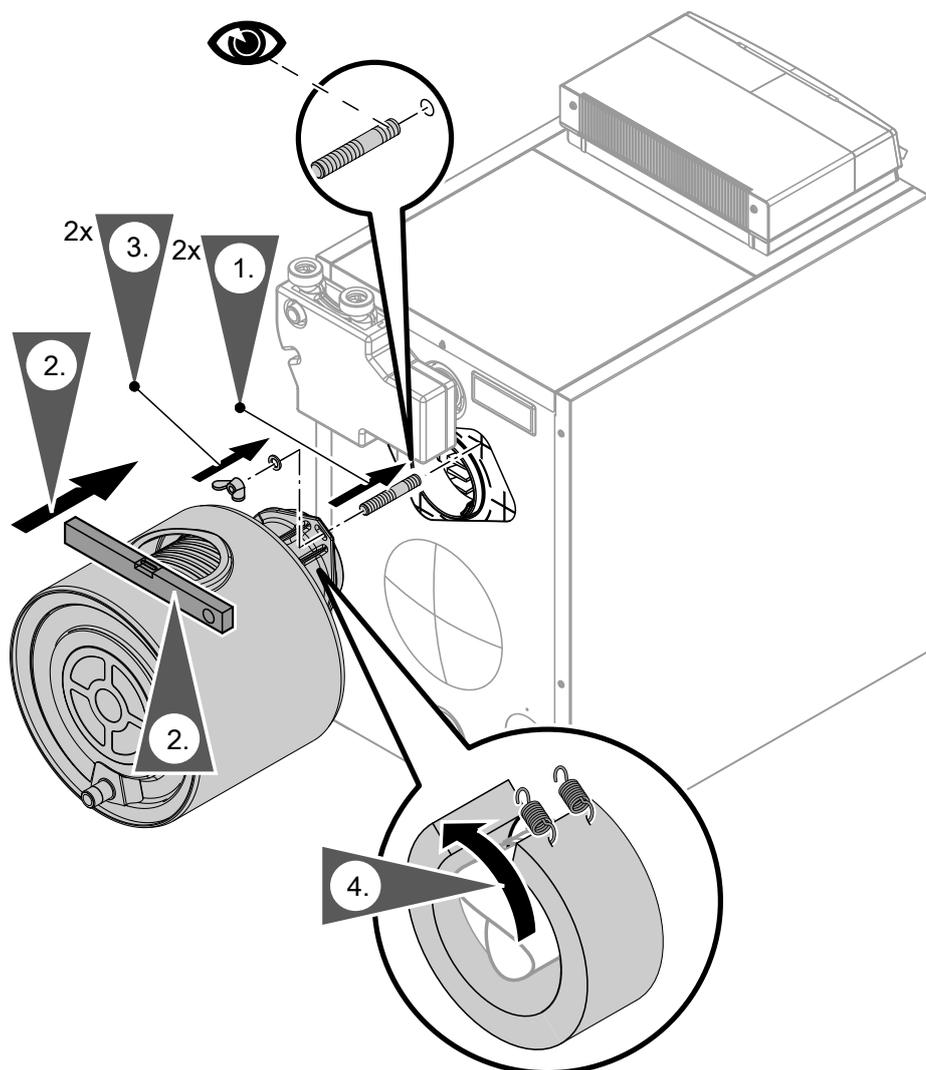


Fig. 11

Fitting the thermal insulation

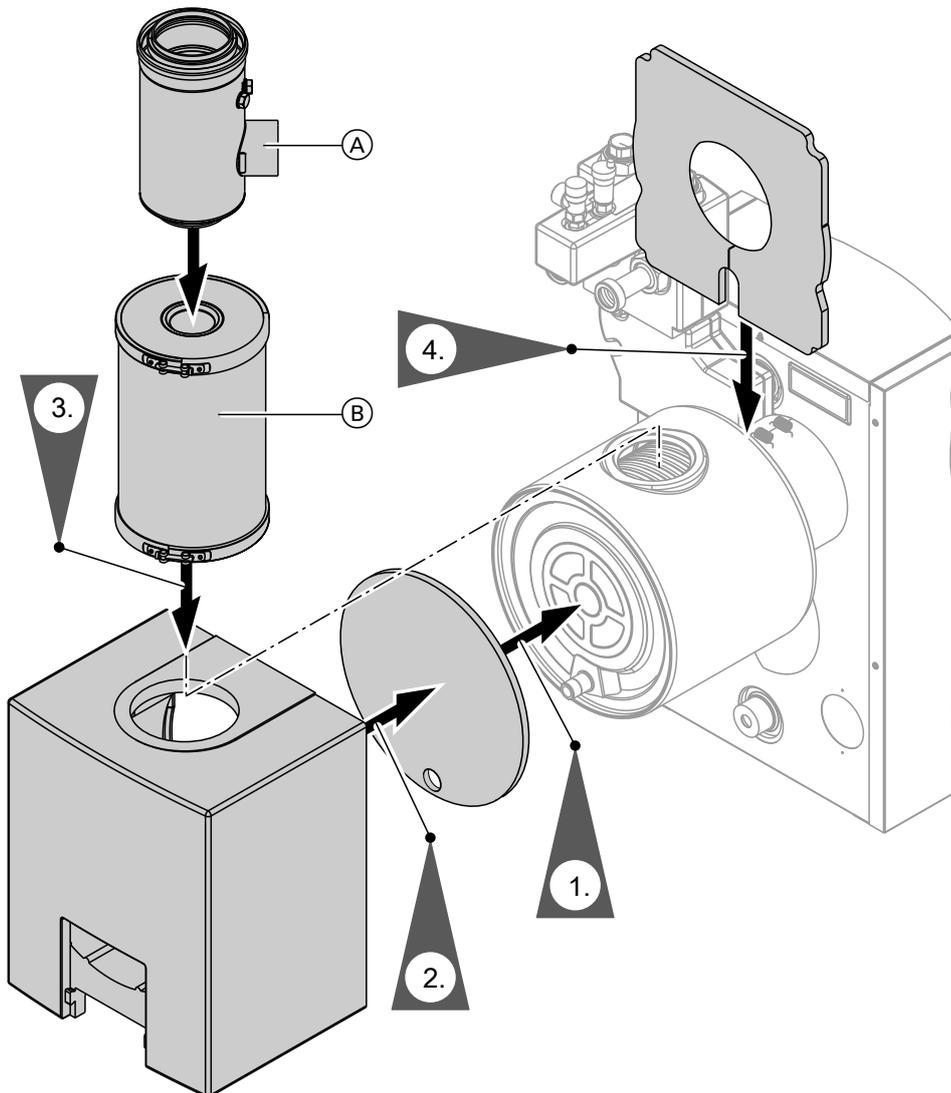


Fig. 12

- Ⓐ Boiler flue connection (accessories)
Only in room sealed operation with coaxial balanced flue
- Ⓑ Silencer (accessories)

Note

Affix silencer Ⓑ to the thermal insulation of the heat exchanger using self-adhesive hook and loop strips (included in standard delivery of silencer).

Installing the heat exchanger on the boiler (cont.)

Press the thermal insulation mat into the heat exchanger thermal insulation casing.

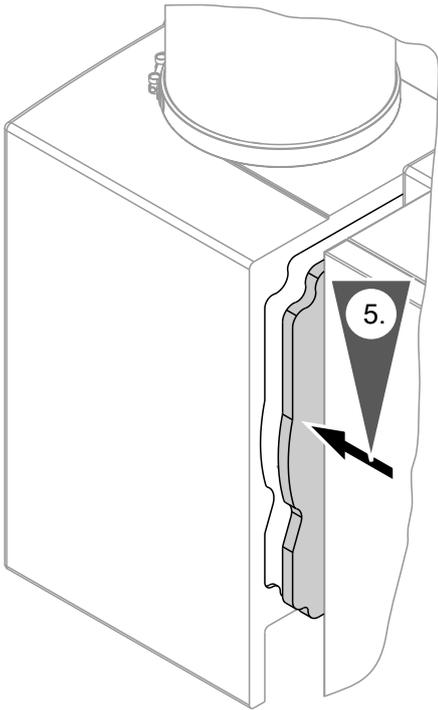


Fig. 13

Fitting the pipework

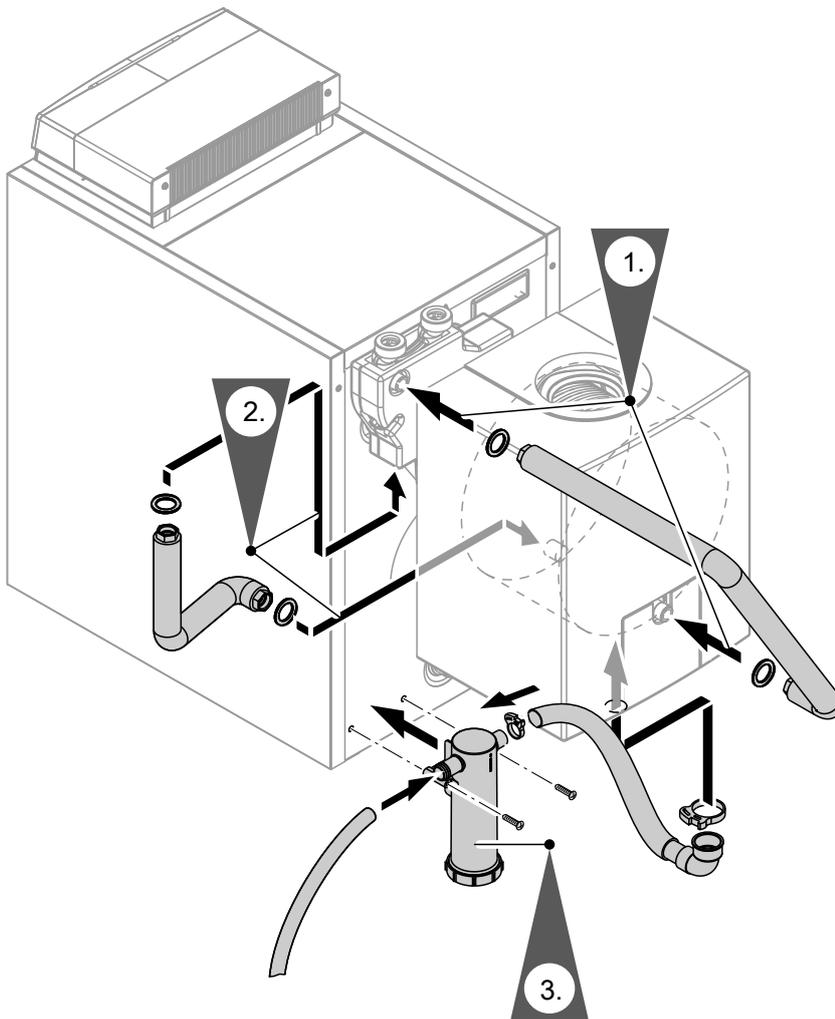


Fig. 14

- Manually bend the flexible pipe into the required shape.
- Fit all connections on the heating water side with suitable flat gaskets.
- Tighten the fittings with a torque of 15 Nm.
- Seal the opening in the heat exchanger thermal insulation with the cover provided.

Note

*The trap and connection hose are included in the packaging of the heat exchanger.
Never grease or oil the siphon fitting and gaskets.*



Trap installation information

Installing the condensate connection

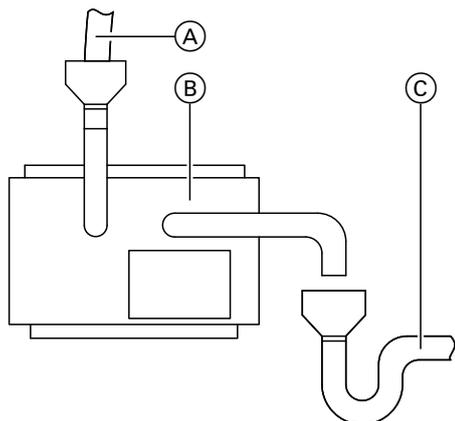


Fig. 15

- Ⓐ Inlet from the boiler
- Ⓑ Neutralising system or active charcoal filter
- Ⓒ Drain to waste water system

Connect the condensate pipe to the drain network by the shortest route, with a constant fall and a pipe vent. Install a neutralising system if required.

Note

- *ATV-DVWK-A 251 permits boiler use without a neutralising system when operating with low sulphur fuel oil DIN 51605-EL-1 (sulphur content ≤ 50 mg/kg).*
- *If no neutralising system is connected, use the active charcoal filter (accessories).*

Connections on the heating water side

Flow and return

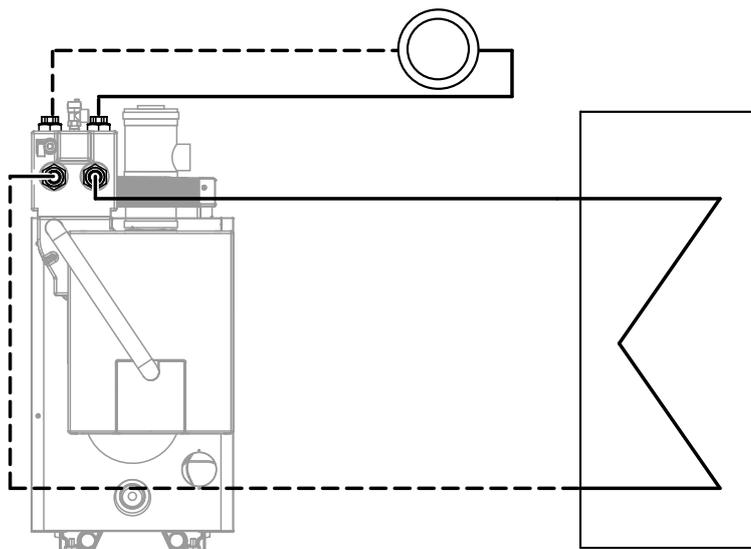


Fig. 16

The flow and return pipes with the heat exchanger connection are fitted to the boiler. All consumers must be connected to this, so that the heat exchanger will receive a heating water flow under all operating conditions.

Note

- *Connect the heating circuits and DHW cylinder to the common flow and return.*
- *Never connect any consumers to the remaining connectors available at the back of the boiler.*

Filling connection

Fill the system via the fill valve at the safety equipment block (accessories) or via the on-site connection in the return.

Making the safety connections

Permiss. operating pressure: 3 bar (0.3 MPa)
 Test pressure: 4 bar (0.4 MPa)

Minimum cross-sections

- Safety valve inlet connection
20.2 to 53.7 kW: DN 15 (R ½)
- Safety valve discharge pipe
20.2 to 53.7 kW: DN 20 (R ¾)
- Pipe to the expansion vessel
20.2 kW: DN 12 (R ½)
24.6 to 53.7 kW: DN 20 (R ¾)

Low water indicator

Tests have verified that the low water indicator specified by EN 12828 is not required.

Note

Equip boilers with a safety valve that is type-tested to TRD 721 and is marked according to the system version.

Installing the safety equipment block (accessories) and making connections on the heating water side

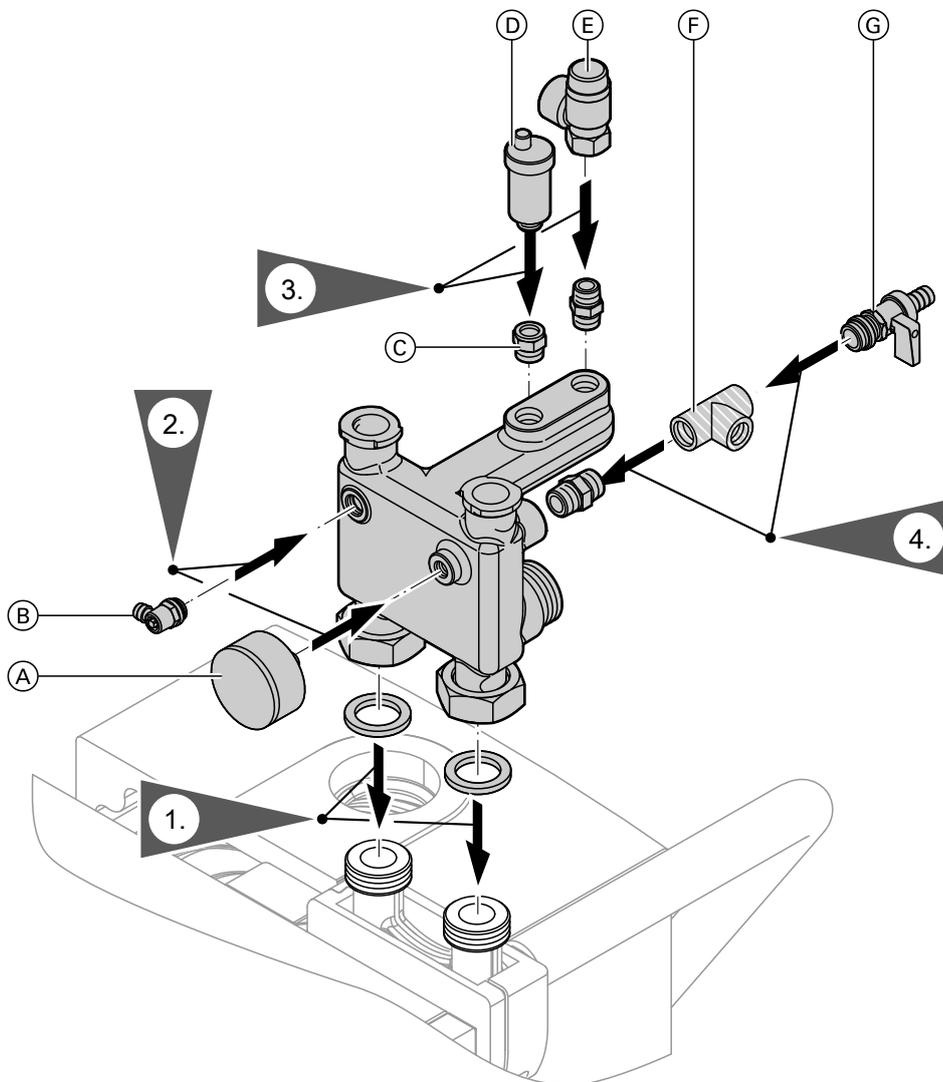


Fig. 17

- | | |
|---------------------------------|---|
| (A) Pressure gauge | (E) Safety valve |
| (B) Air vent valve | (F) Tee Rp ½ (if the expansion vessel is to be fitted here) |
| (C) Automatic shut-off valve | (G) Boiler fill valve |
| (D) Quick-action air vent valve | |

Installing the safety equipment block... (cont.)

Note

Counterhold the safety equipment block when tightening the fittings.

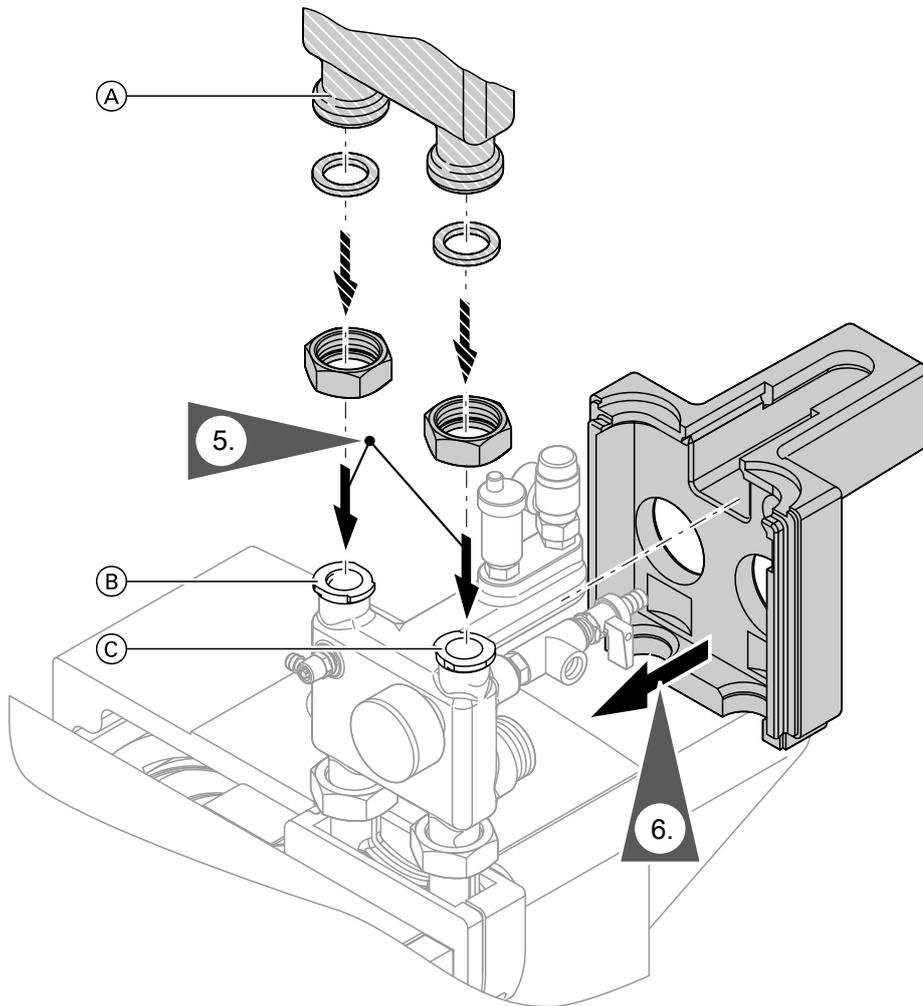


Fig. 18

- Ⓐ Heating circuit connections with fittings or Divicon heating circuit distributor (accessories)
- Ⓑ Heating flow
- Ⓒ Heating return

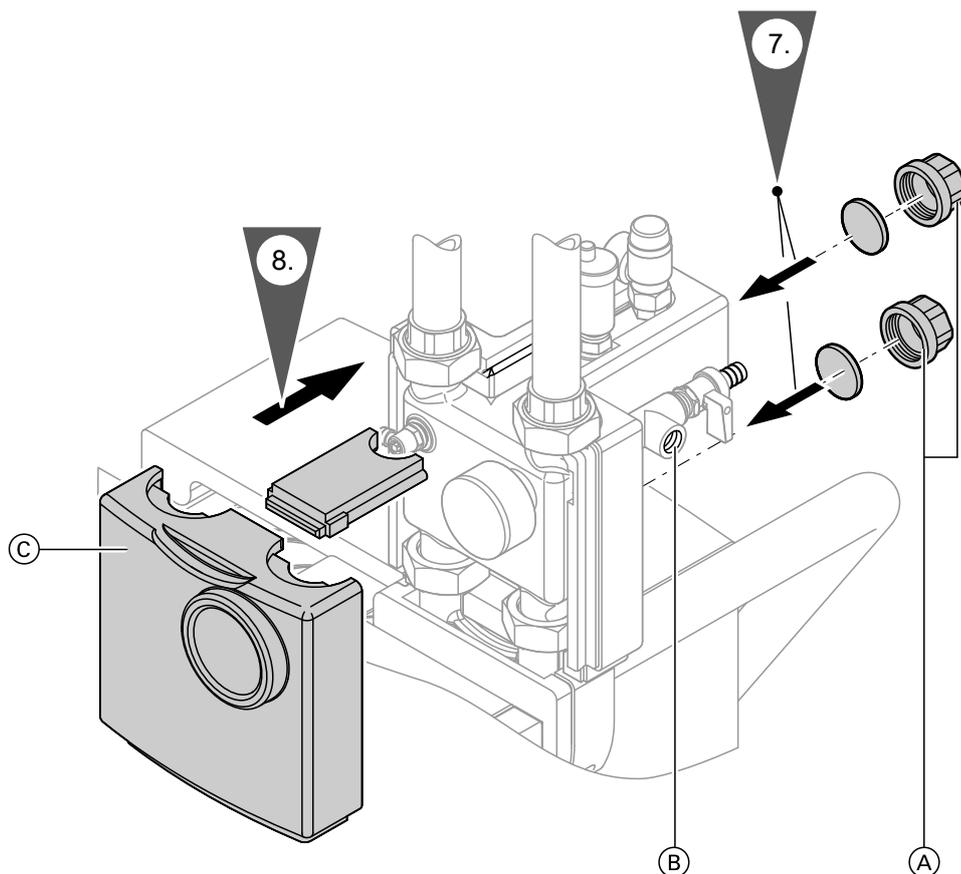


Fig. 19

- (A) Caps G 1½ (if no DHW cylinder is to be connected)
- (B) Expansion vessel connection

Note

Fit front thermal insulation (C) only after the system has been filled and tested for leaks.



Service instructions

Electrical connections

- ! **Please note**
Damaged capillary tubes will result in sensor malfunctions.
Never kink the capillary tubes.



For opening the control unit and its connections, see the boiler control unit installation instructions

Note

- Power supply plug 40 and the outside temperature sensor*1 are packed together with the parts for mounting the control unit and can be found below the "back top panel" of the boiler thermal insulation.
- Contrary to the statement in the control unit installation instructions, the coding card is already fitted at the factory.

- ! **Please note**
Cables/leads can be damaged by hot components.
Cables/leads must not come into contact with any hot components once installation work has been completed.

- Bundle and route 230 V cables (A) and LV leads (B) separately.
- **Secure** all cables with the cable ties supplied.
- Use cable ties (snap hooks) to additionally secure the burner cable at hole (C) on the **inside** of the side panel; on the r.h. or l.h. side panel depending on whether the burner is fitted on the right or left.

*1 Only in conjunction with Vitotronic 200

20.2 and 24.6 kW

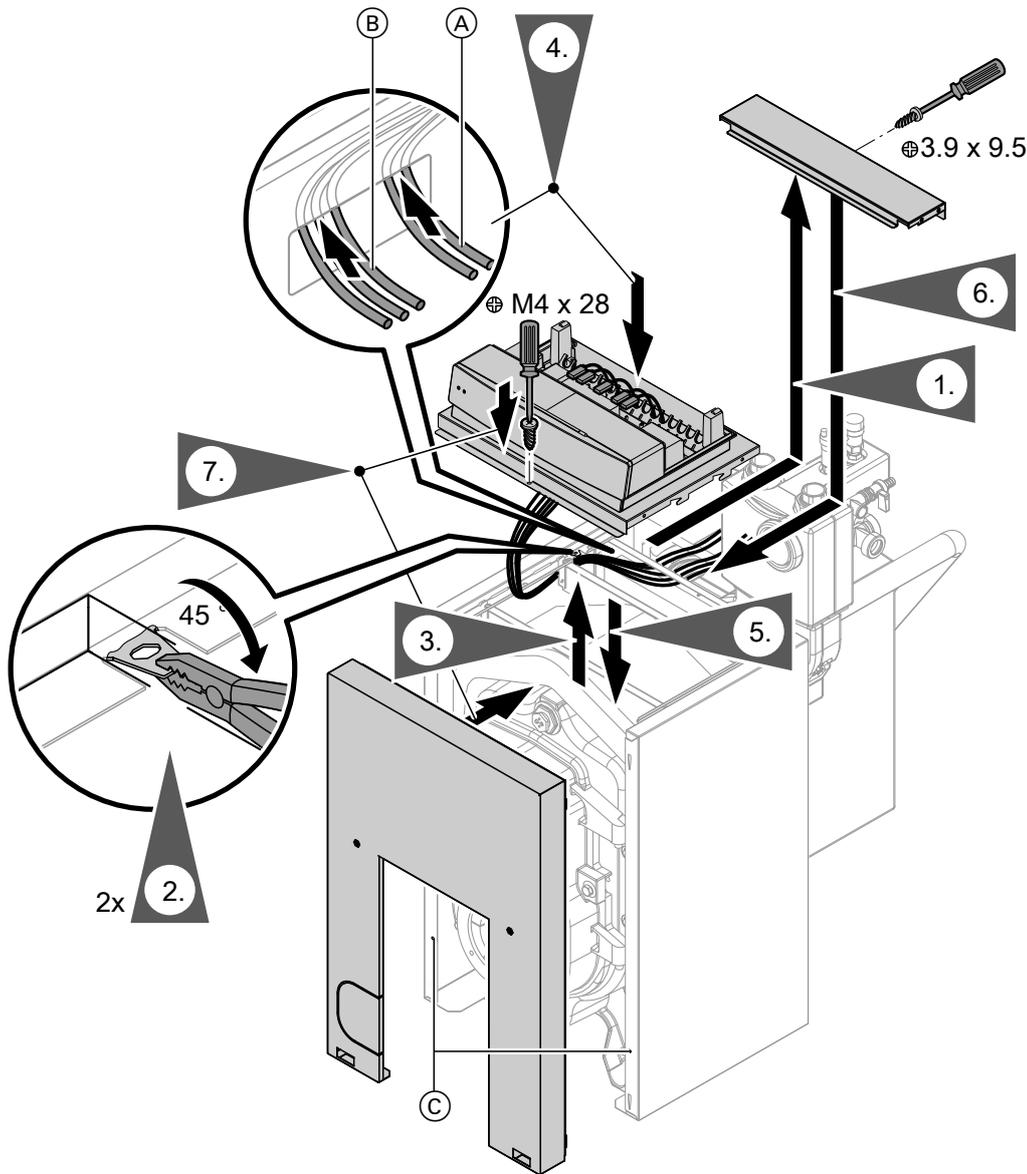


Fig. 20

- Ⓐ 230 V cables
- Ⓑ LV leads
- Ⓒ Holes for securing the burner cable

Specification

Rated heating output							
$T_F/T_R = 50/30\text{ °C}$	kW	20.2	24.6	28.6	35.4	42.8	53.7
$T_F/T_R = 80/60\text{ °C}$	kW	18.8	22.9	27.0	33.0	40.0	50.0
CE designation	CE-0035 CL 102						
Power consumption^{*2} at							
▪ 100 % of rated heating output	W	226	215	235	235	340	340
▪ 30 % of rated heating output	W	60	66	73	80	113	113
Available draught^{*3}							
	Pa	100	100	100	100	100	100
	mbar	1.0	1.0	1.0	1.0	1.0	1.0
Transport dimensions (incl. thermal insulation)							
Length	mm	508	508	645	645	782	782
Width	mm	360	360	360	360	360	360
Height	mm	766	766	766	766	766	766
Overall dimensions							
Total length (incl. heat exchanger and thermal insulation)	mm	1226	1226	1362	1362	1662	1662
Total width	mm	500	500	500	500	500	500
Total height	mm	940	940	940	940	940	940
Plinth height	mm	250	250	250	250	250	250
Weight boiler body	kg	89	89	120	120	152	152
Total weight	kg	147	147	184	184	224	224
Boiler incl. thermal insulation, heat exchanger, burner and boiler control unit							
Flue gas temperature^{*4}							
▪ At a return temperature of 30 °C	°C	32	34	37	39	36	40
▪ At a return temperature of 60 °C	°C	62	63	65	67	64	67

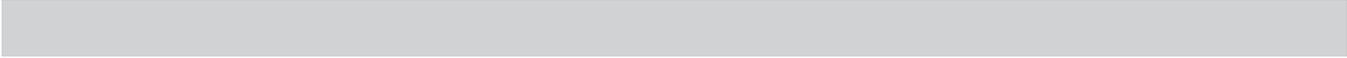
^{*2} Standard parameter (in conjunction with Vitoflame 300 blue flame oil burner).

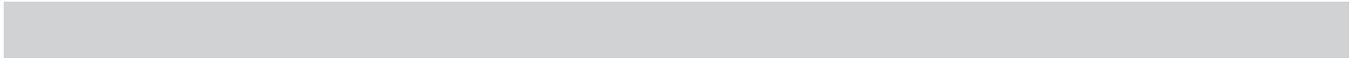
^{*3} Observe when sizing the chimney.

^{*4} Flue gas temperatures as average gross values to EN 304 (captured with 5 thermocouples) at 20 °C combustion air temperature.

Keyword index

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5624305 Subject to technical modifications.