


Vitorondens 200-T
Type J2RA, 67.6 to 107.3 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.

Note

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

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

Target group

These instructions are exclusively intended for qualified contractors.

- Work on electrical equipment may only be carried out by a qualified electrician.
- The system must be commissioned by the system installer or a qualified person authorised by the installer.

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

Safety instructions for working on the system

Working on the system

- Isolate the system from the power supply (e.g. by removing the separate fuse or by means of a mains isolator) and check that it is no longer live.
- Safeguard the system against reconnection.



Danger

Hot surfaces can cause burns.

- 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.

Safety instructions (cont.)

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

Repair work

- !** **Please note**
 Repairing components that fulfil a safety function can compromise the safe operation of the system. Replace faulty components only with genuine Viessmann spare parts.

Auxiliary components, spare and wearing parts

- !** **Please note**
 Spare and wearing parts that have not been tested together with the system can compromise its function. Installing non-authorised components and making non-approved modifications or conversions can compromise safety and may invalidate our warranty. For replacements, use only original spare parts supplied or approved by Viessmann.

Safety instructions for operating the system**If you smell flue gas**

- !** **Danger**
 Flue gas can lead to life threatening poisoning.
- Shut down the heating system.
 - Ventilate the installation site.
 - Close the doors to living spaces to prevent flue gases from spreading.

What to do if water escapes from the appliance

- !** **Danger**
 If water escapes from the appliance there is a risk of electric shock. Switch OFF the heating system at the external isolator (e.g. fuse box, domestic distribution board).
- !** **Danger**
 If water escapes from the appliance there is a risk of scalding. Never touch hot heating water.

Flue systems and combustion air

Ensure that flue systems are clear and cannot be sealed, for instance due to accumulation of condensate or other external causes. Ensure an adequate supply of combustion air. Instruct system users that subsequent modifications to the building characteristics are not permissible (e.g. cable/pipe-work routing, cladding or partitions).

- !** **Danger**
 Leaking or blocked flue systems, or an inadequate supply of combustion air can cause life threatening poisoning from carbon monoxide in the flue gas. Ensure the flue system is in good working order. Vents for supplying combustion air must be non-sealable.

Safety instructions (cont.)

Extractors

Operating appliances that extract air to the outside (extractor hoods, extractors, air conditioning units, etc.) can create negative pressure. If the boiler is operated at the same time, this can lead to a reverse flow of flue gas.












Danger

The simultaneous operation of the boiler and appliances that extract air to the outside can result in life threatening poisoning due to a reverse flow of flue gas. Fit an interlock circuit or take suitable steps to ensure an adequate supply of combustion air.







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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 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.

The steps in connection with commissioning, inspection and maintenance are found in the "Commissioning, inspection and maintenance" section and identified as follows:

Symbol	Meaning
	Steps required during commissioning
	Not required during commissioning
	Steps required during inspection
	Not required during inspection
	Steps required during maintenance
	Not required during maintenance

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 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.

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).

System examples

Available system examples: See www.viessmann-schemes.com.

Spare parts lists

Information about spare parts can be found on the Viessmann spare parts app.





Steps - commissioning, inspection and maintenance

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Filling and commissioning the heating system



Operating instructions, service instructions – control unit and burner

1. Check that the ventilation air aperture in the installation room is open.
2. Check the pre-charge pressure of the expansion vessel.
If the pre-charge pressure of the expansion vessel is lower than the static system pressure, top up with sufficient nitrogen to raise the pre-charge pressure higher (0.1 to 0.2 bar/10 to 20 kPa) than the static system pressure.
The static pressure corresponds to the static head.

3. Open the check valves.

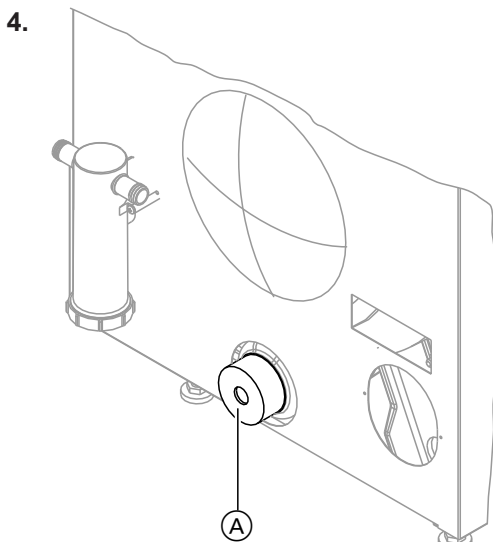


Fig. 1

Ⓐ Filling/draining

Fill the heating system with water and vent it until the charge pressure is higher (0.1 to 0.2 bar/10 to 20 kPa) than the pre-charge pressure of the expansion vessel (see page 19).

Permiss. operating pressure: 3 bar (0.3 MPa)

Note

Let the heating circuit pump run whilst filling in order to vent the indirect coils.

5.

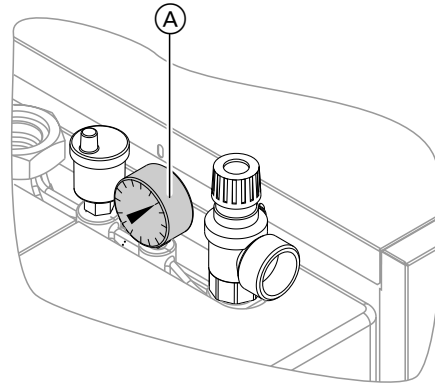


Fig. 2

Mark the charge pressure at pressure gauge Ⓐ.

6. Return the check valves to their operating position.
7. Open the oil shut-off valves.
8. Fill trap with water (see page 18).

Fill water

According to EN 1717 with DIN 1988-100, as a heat transfer medium for DHW heating, the heating water must meet fluid category ≤ 3 . This requirement is met if water of potable quality is used as heating water. For example, if additives are used, the additive manufacturer must specify which category the treated heating water comes under.



Filling and commissioning the heating system (cont.)

- ! Please note**
- Unsuitable fill water increases the level of deposits and corrosion and may lead to appliance damage.
 - Flush the heating system thoroughly before filling.
 - Only use fill water of potable water quality.
 - Special antifreeze suitable for heating systems can be added to the fill water. The antifreeze manufacturer must verify its suitability.
 - Fill and top-up water with a water hardness in excess of the following values must be softened, e.g. with a small softening system for heating water.

Total permissible hardness of the fill and top-up water

Total heating output kW	Specific system volume		
	< 20 l/kW	≥ 20 l/kW to < 50 l/kW	≥ 50 l/kW
≤ 50	≤ 3.0 mol/m ³ (16.8 °dH)	≤ 2.0 mol/m ³ (11.2 °dH)	< 0.02 mol/m ³ (0.11 °dH)
> 50 to ≤ 200	≤ 2.0 mol/m ³ (11.2 °dH)	≤ 1.5 mol/m ³ (8.4 °dH)	< 0.02 mol/m ³ (0.11 °dH)
> 200 to ≤ 600	≤ 1.5 mol/m ³ (8.4 °dH)	≤ 0.02 mol/m ³ (0.11 °dH)	< 0.02 mol/m ³ (0.11 °dH)
> 600	< 0.02 mol/m ³ (0.11 °dH)	< 0.02 mol/m ³ (0.11 °dH)	< 0.02 mol/m ³ (0.11 °dH)



Venting the heating system



Shutting down the system



Draining the heating system (if required)

Drain at filling/draining connector (A).

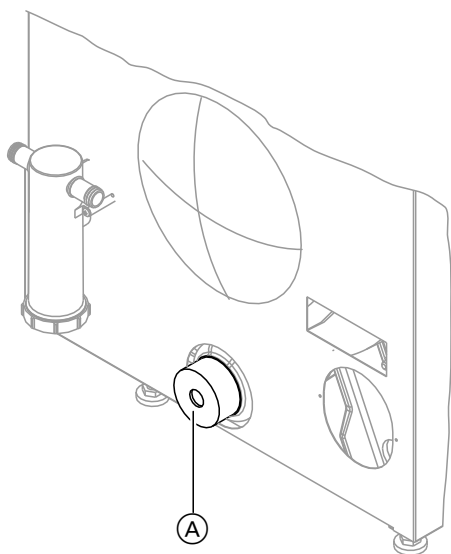


Fig. 3

(A) Filling/draining



Opening the boiler door

Note

If the sound insulation set (accessories) is installed, detach the air supply hose from the burner before opening the boiler door.

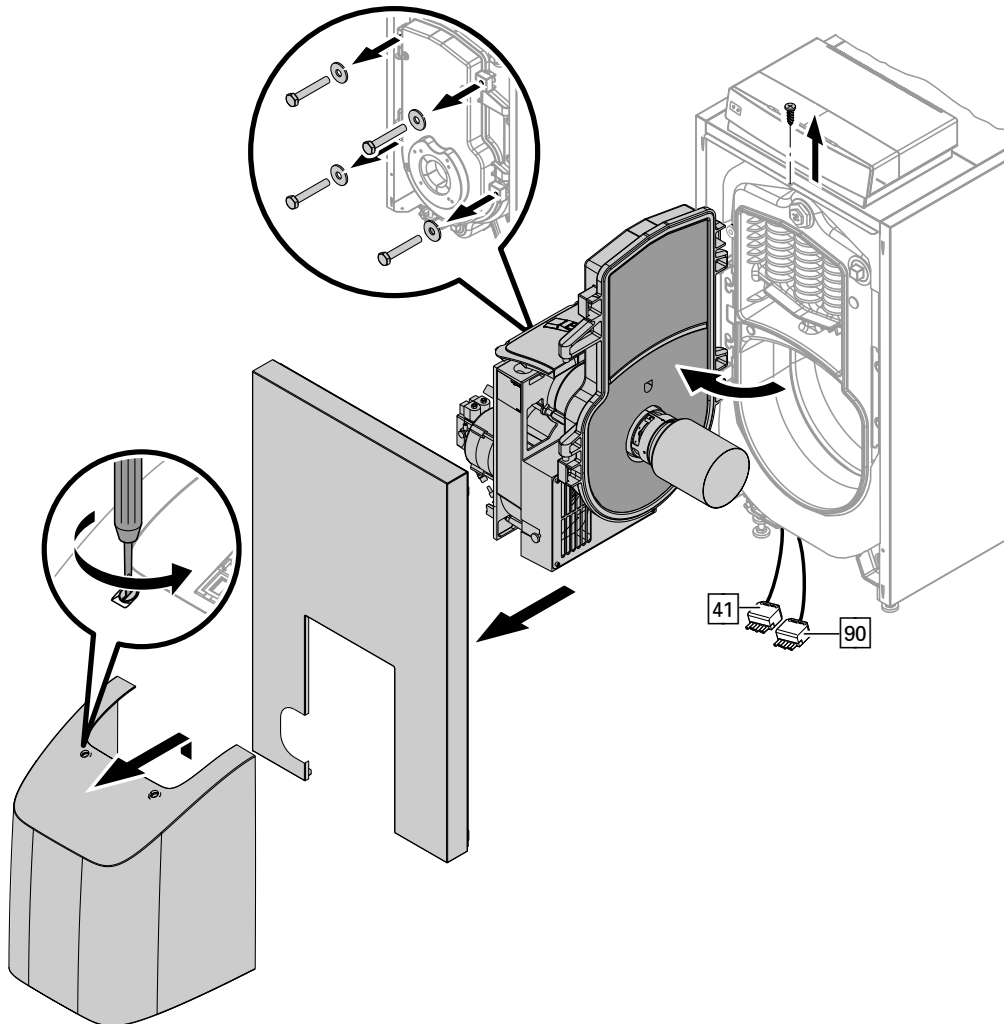


Fig. 4



Cleaning the boiler heating surfaces

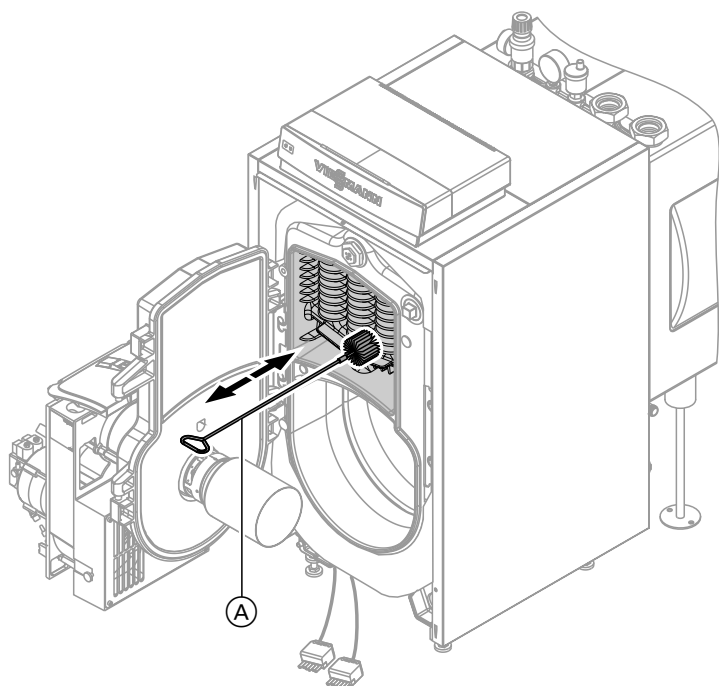


Fig. 5

Ⓐ Cleaning brush (accessories)

1. Clean the boiler heating surfaces with cleaning brush and vacuum cleaner.
2. Remove stubborn soot deposits with alkaline agents containing surfactant additive (e.g. Fauch 400^{*1}).

Note

- Ensure that no cleaning agent gets between the boiler body and the thermal insulation.
- Only use solvent-free cleaning agents.



Manufacturer's instructions about the cleaning agent



Checking the gaskets and thermal insulation sections

1. Check gaskets and packing cords in the boiler door for damage.
2. Check the thermal insulation sections of the boiler door for damage.
3. Replace any damaged components.
4. If a sound insulation set (accessories) is connected: Check the exterior grille of the vent on the back of the boiler and clean if required.

^{*1} Manufacturer: Hebro Chemie GmbH, Rostocker Strasse 40, D-41199 Mönchengladbach



Fitting the boiler door

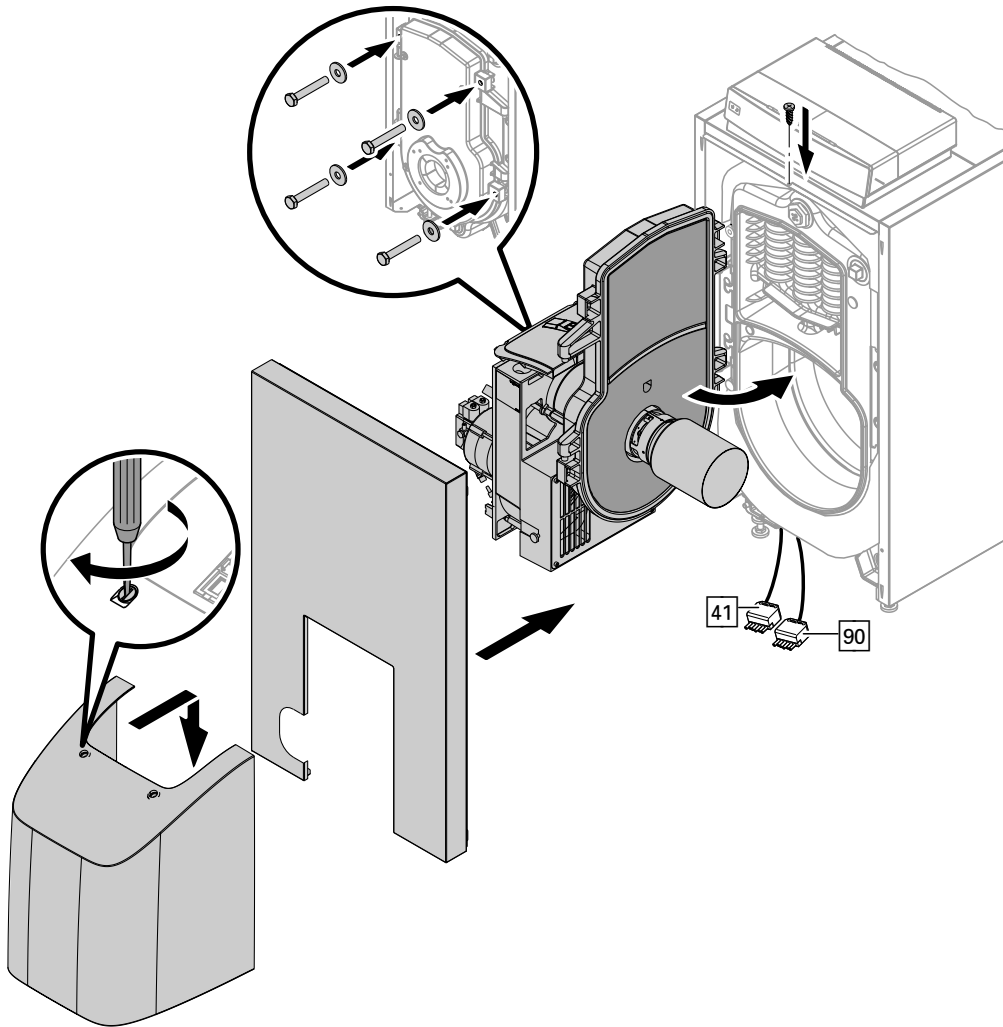


Fig. 6

Note

If the sound insulation set (accessories) is installed, re-attach the air supply hose to the burner.



Separating the neutralising system (if installed) from the boiler and connecting the drain hose

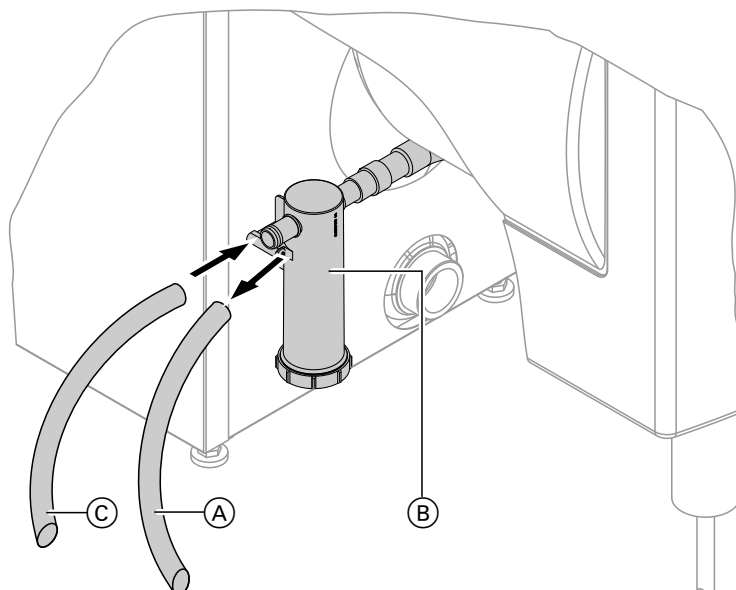


Fig. 7

1. Separate hose (A) to the neutralising system from trap (B).
2. Connect drain hose (C) to the condensate drain of the trap and run to a drainage system.



Checking the neutralising system (if installed)

1. Check the pH value of the condensate downstream of the neutralising system with a pH test strip. Replace the granulate if the pH value is < 6.5.
2. Reinstall the neutralising system in reverse order.

Note

Part no. for pH test strips: 9517 678.

Observe the neutralising system manufacturer's instructions.



Checking the connection on the flue gas side for leaks

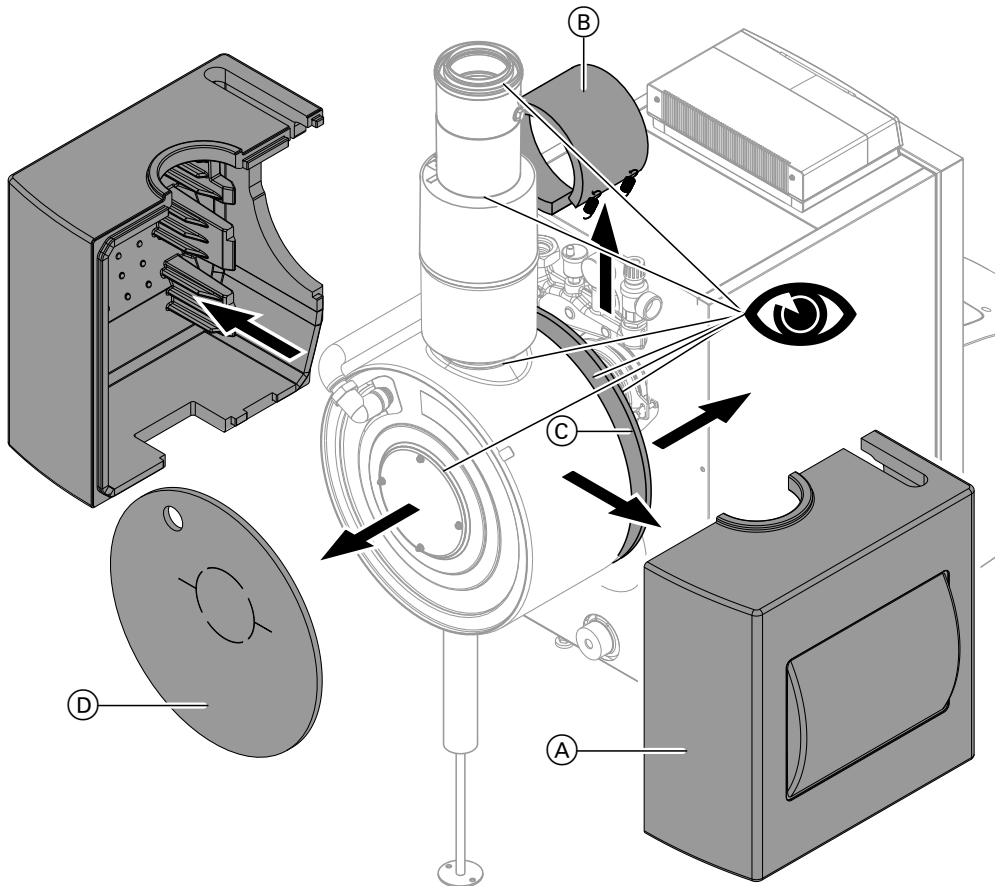


Fig. 8

Note

Traces of condensate indicate a leak.

1. Remove thermal insulation hood (A).
2. Remove thermal insulation strip (B) and pull thermal insulation mat (C) out a little.
3. Remove mat (D).
4. Check the heat exchanger fixings are firmly seated.
5. Check all sealing points on the heat exchanger, boiler flue connection and flue system.



Removing the cover from the heat exchanger

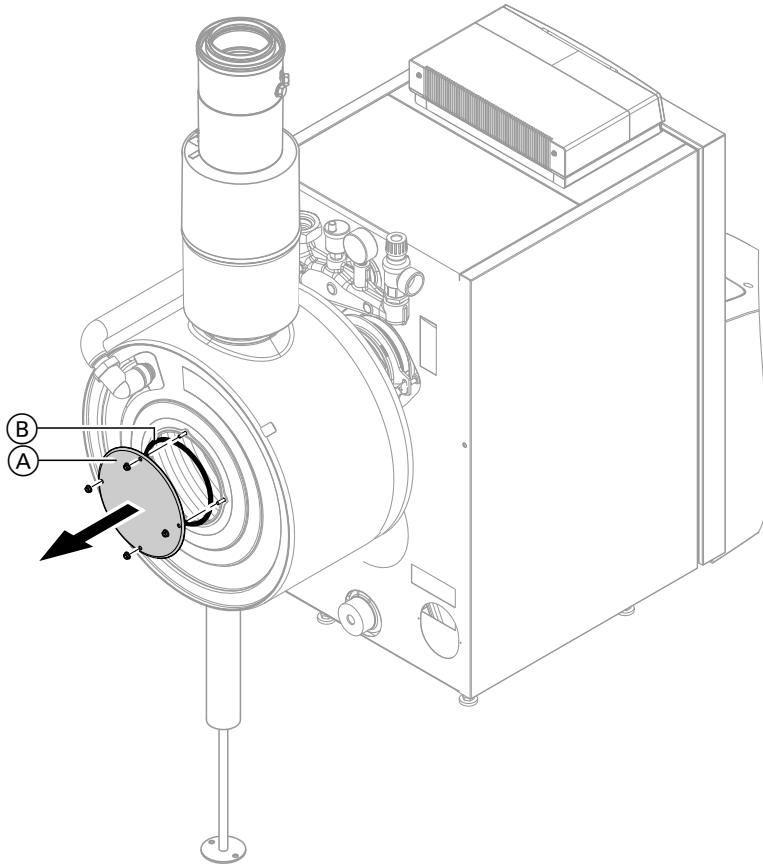


Fig. 9

1. Remove heat exchanger cover (A) by undoing the 4 hexagon nuts.
2. Remove gasket (B) and clean the sealing face.



Cleaning the heat exchanger

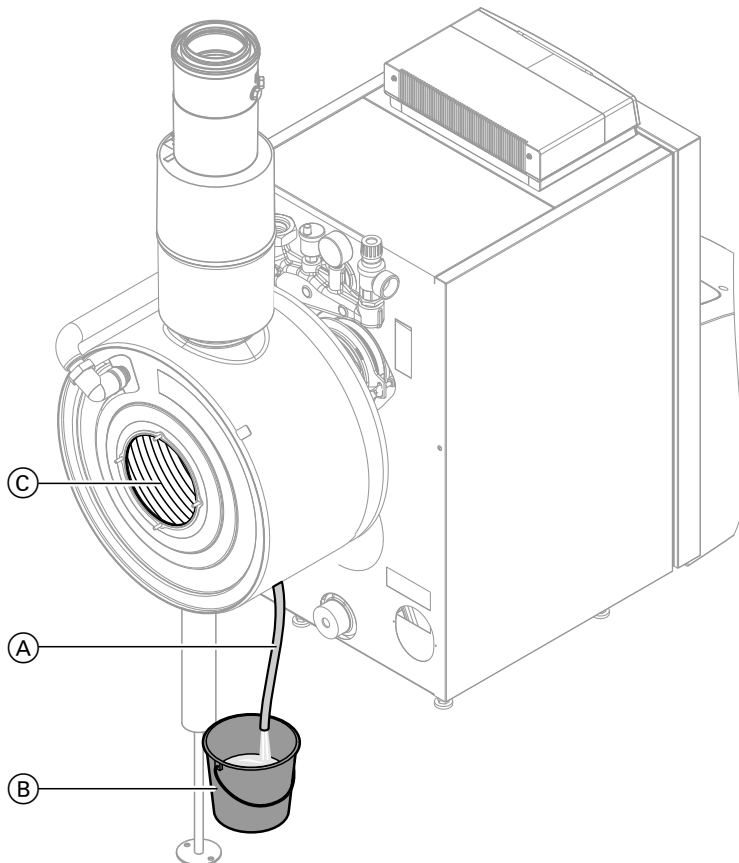


Fig. 10

1. Detach condensate hose (A) from the trap and drain into a suitable container (B).
2. Using a cleaning spatula, loosen heavy deposits on the heat exchanger coils and gaps via cleaning aperture (C) and remove with a vacuum cleaner. Then flush out the heat exchanger with a powerful jet of water.
3. Coat the heat exchanger coils with cleaning agent (e.g. Fauch 400/410) through cleaning aperture (C) and proceed in accordance with the cleaning agent manufacturer's instructions. Flush the heating surface of the heat exchanger thoroughly with water to remove loosened residues from the heat exchanger.



Please note

Prevent stainless steel components that come into contact with hot gas from being scratched or otherwise damaged. Prevent stainless steel components that come into contact with hot gas from contact with pure iron, as corrosion damage can result. Never use a wire brush or sharp objects. If necessary, use plastic brushes or the Viessmann cleaning spatula.

Note

Viessmann cleaning spatula: Part no. 7840 112

When using cleaning agents, please note:

- Combustion residues may create thin, yellow-brown surface stains as well as hard deposits. These may only become visible after the soot deposits have been removed.
 - Use slightly acidic, chloride-free cleaning agents based on phosphoric acid to remove surface stains and hard deposits (e.g. Antox 75 E).
 - Only use solvent-free cleaning agents.
4. Refit the heat exchanger components in reverse order.

Note

Tighten the hexagon nuts on the cover of cleaning aperture (C) evenly and diagonally.
Torque: 5 Nm

Commissioning, inspection, maintenance



Cleaning the condensate drain pipe and trap and reconnecting to the drainage system

1. Before installation, check the stench trap and condensate drain for contamination and clean if required.



Danger

Escaping flue gas poses a risk to health. Always connect the condensate drain with a stench trap to prevent flue gas escaping.

2. Check that the hoses are routed without kinks and that the condensate can drain freely.

Note

Always route the condensate pipe with a constant fall.

3. Check the neutralising system (accessories).



Neutralising system installation and operating instructions



Filling the trap with water

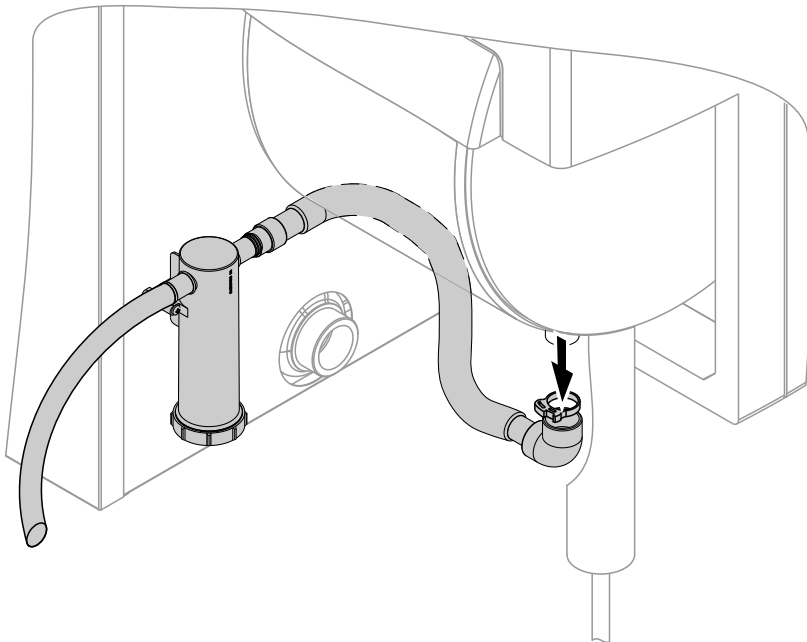


Fig. 11

Remove the supply hose (to the trap) from the boiler condensate drain and fill with a little water.



Checking connections and sensor well on the heating water side for tightness



Checking the function of the safety equipment



Checking the expansion vessel and system pressure

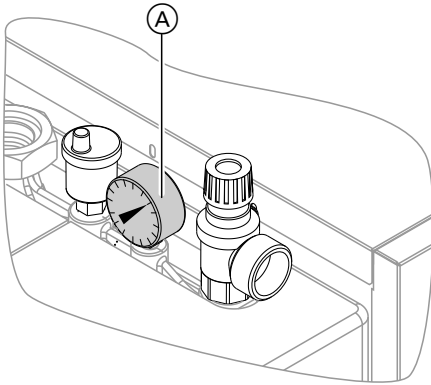


Fig. 12

Ⓐ Pressure gauge

Note

Please observe expansion vessel manufacturer's instructions.

Carry out this test on a cold system.

1. Drain the system until the pressure gauge indicates "0" or close the cap valve on the expansion vessel and reduce the pressure in the expansion vessel.
2. If the pre-charge pressure of the expansion vessel is lower than the static system pressure, top up with nitrogen until the pre-charge pressure is 0.1 to 0.2 bar (10 to 20 kPa) higher.
3. Top up with water until the charge pressure of the cooled system is 0.1 to 0.2 bar (10 to 20 kPa) higher than the pre-charge pressure of the expansion vessel.
Permiss. operating pressure: 3 bar (0.3 MPa)



Checking the thermal insulation for firm seating



Checking the mixer for ease of operation and leaks

1. Remove the motorised lever from the mixer handle and check the mixer for ease of operation.
2. Check the mixer for tightness. Replace the O-rings if the mixer leaks.
3. Click the motorised lever into place.



Adjusting the burner



Burner service instructions



Instructing the system user

The installer should instruct the user in the operation of the system.



Commissioning/service reports

Commissioning/service reports

	Commissioning	Maintenance/service	Maintenance/service
Date:			
By:			

	Commissioning	Maintenance/service	Maintenance/service
Date:			
By:			

	Commissioning	Maintenance/service	Maintenance/service
Date:			
By:			

	Commissioning	Maintenance/service	Maintenance/service
Date:			
By:			

	Commissioning	Maintenance/service	Maintenance/service
Date:			
By:			

Specification

Rated heating output				
$T_F/T_R = 50/30 \text{ °C}$	kW	67.6	85.8	107.3
$T_F/T_R = 80/60 \text{ °C}$	kW	63	80	100
CE designation		CE-2456 CL102		
Power consumption^{*2} at				
▪ 100 % of rated heating output	W	577	577	577
▪ 30 % of rated heating output	W	274	274	274
Available draught^{*3}				
	Pa	100	100	100
	mbar	1	1	1
Flue gas temperature^{*4}				
▪ At a return temperature of 30 °C	°C	38	38	38
▪ At a return temperature of 60 °C	°C	64	64	64

^{*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.

Shutdown and disposal

Final decommissioning and disposal

Viessmann products can be recycled. Components and substances from the system are not part of ordinary household waste.

For decommissioning the system, isolate the system from the power supply and allow components to cool down where appropriate.
All components must be disposed of correctly.

Declaration of conformity

We, Viessmann Werke GmbH & Co. KG, D-35107 Allendorf, declare as sole responsible body that the named product complies with the European directives and supplementary national requirements in terms of its design and operational characteristics.

Using the serial number, the full Declaration of Conformity can be found on the following website:

www.viessmann.co.uk/eu-conformity

Manufacturer's declaration

This product meets the requirements of the Efficiency Directive (92/42/EEC) for **condensing boilers**.

Manufacturer's certificate according to the 1st BImSchV [Germany]

We, Viessmann Werke GmbH & Co. KG, D-35107 Allendorf, confirm that the following product meets the NO_x limits specified by the first BImSchV paragraph 6 (1) [Germany]:

Vitorondens 200-T oil Unit condensing boiler

Allendorf, 8 January 2018

Viessmann Werke GmbH & Co. KG



Authorised signatory Reiner Jansen
Head of Strategic Quality Management

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Viessmann Werke GmbH & Co. KG
 D-35107 Allendorf
 Telephone: +49 6452 70-0
 Fax: +49 6452 70-2780
 www.viessmann.com



Viessmann Limited
 Hortonwood 30, Telford
 Shropshire, TF1 7YP, GB
 Telephone: +44 1952 675000
 Fax: +44 1952 675040
 E-mail: info-uk@viessmann.com

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