

Service instructions
for contractors

VIESSMANN


Vitoplex 300
Type TX3A, 90 to 500 kW
Oil/gas boiler




VITOPLEX 300




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.
- 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

- 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 mains isolator, and check that it is no longer live.
- Safeguard the system against reconnection.
- Wear suitable personal protective equipment when carrying out any work.

Safety instructions (cont.)**Danger**

Hot surfaces and fluids can lead to 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 pipe-work.

**Please note**

Electronic assemblies can be damaged by electrostatic discharge. Prior to commencing 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 gas


-  **Danger**
Escaping gas can lead to explosions which may result in serious injury.
- Do not smoke. Prevent naked flames and sparks. Never switch lights or electrical appliances on or off.
 - Close the gas shut-off valve.
 - Open windows and doors.
 - Evacuate any people from the danger zone.
 - Notify your gas or electricity supply utility from outside the building.
 - Have the power supply to the building shut off from a safe place (outside the building).

If you smell flue gas


-  **Danger**
Flue gas can lead to life threatening poisoning.
- Shut down the heating system.
 - Ventilate the installation site.
 - Close 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 electrocution. 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.

Condensate

-  **Danger**
Contact with condensate can be harmful to health. Never let condensate touch your skin or eyes and do not swallow it.

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. Inform 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.

Extractors

Operating appliances that exhaust 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.

Safety instructions (cont.)**Danger**










The simultaneous operation of the boiler and appliances that exhausts 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 only intended to be installed and operated in sealed unvented heating systems that comply with EN 12828, with due attention paid to the associated installation, service and operating instructions as well as the details in the datasheet. It is only designed for the heating up of heating water.

Commercial or industrial usage for a purpose other than the heating up of heating water shall be deemed inappropriate.

Intended use presupposes that a fixed installation in conjunction with permissible components designed for this purpose has been carried out.

Every other use will be deemed to be inappropriate. Any resulting losses are excluded from the manufacturer's liability.

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

Intended use also includes the adherence to maintenance and inspection intervals.

Product information

Vitoplex 300, type TX3A

- Fuels: Fuel oil and natural gas
- Permissible operating pressure 4 bar (0.4 MPa)
- Rated heating output 90 to 500 kW

System examples

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

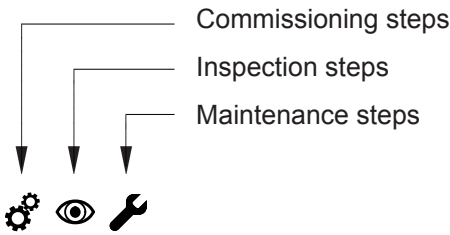
Spare parts lists

Information about spare parts can be found at www.viessmann.com/etapp or in the Viessmann spare part app.





Steps - commissioning, inspection and maintenance




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Commissioning the system

 Operating and service instructions for the control unit and the burner

1. Check that the internal pipes are fully inserted into the hot gas flues; open the boiler door for this. See chapter "Inserting the internal pipes", page 13.
 2. Check that the ventilation air aperture in the installation room is open.
 3. Fill the heating system with water and vent the system.
Permissible operating pressure: 4 bar (0.4 MPa)
- !** **Please note**
Unsuitable water quality can damage the boiler body.
Operate boilers only with softened water. Observe the instructions in chapter "Water quality requirements". See page 19.
4. Enter the amount of fill water and water hardness into the water quality table in the appendix on page 22.
 5. Check the system pressure.
 6. Check the oil level or the gas supply pressure.
 7. Open the flue gas damper (if installed).
 8. Check that the cleaning aperture on the flue outlet is closed.
 9. Open the shut-off valves in the oil or gas line.

10. Switch ON the mains isolator, the switch for the heating circuit pump and the burner ON/OFF switch, in that order. Observe the burner manufacturer's operating instructions.
11. The dew point range must be cleared as quickly as possible. To do so, prevent any heat supply to the consumers when heating the system from cold. This also applies when restarting after maintenance and cleaning work.

! **Please note**
During boiler heat-up, unpleasant fumes and odours can result from outgassing from the thermal insulation, the thermal block and the paint.
Ventilate the room during commissioning.

12. Once the flow temperature has been reached, successively switch on the heat consumers. Switch the burner over to automatic mode.

! **Please note**
When checking CO levels in the flue gas, internal outgassing from the thermal block can result in higher values.
Continue to operate the boiler until a decline can be clearly recognised.

13. Check all gaskets and plugs, and retighten if necessary.

14. Check the boiler door and cleaning cover after approx. 50 hours run. Tighten the screws.



Shutting down the system

! **Danger**
Opening the connections on the heating water side whilst the boiler is under pressure can result in injuries.
First depressurise the boiler.
Only drain the boiler with a suction pump when the air vent valve is open.



Closing the Vitoair draught stabiliser (if installed)

1. Start the burner.
2. With the pre-purge running, shut down the system. The control disk will then be closed.



Opening the boiler door and cleaning cover

Note
On gas burners, disconnect the gas supply pipe.



Opening the boiler door and cleaning cover (cont.)

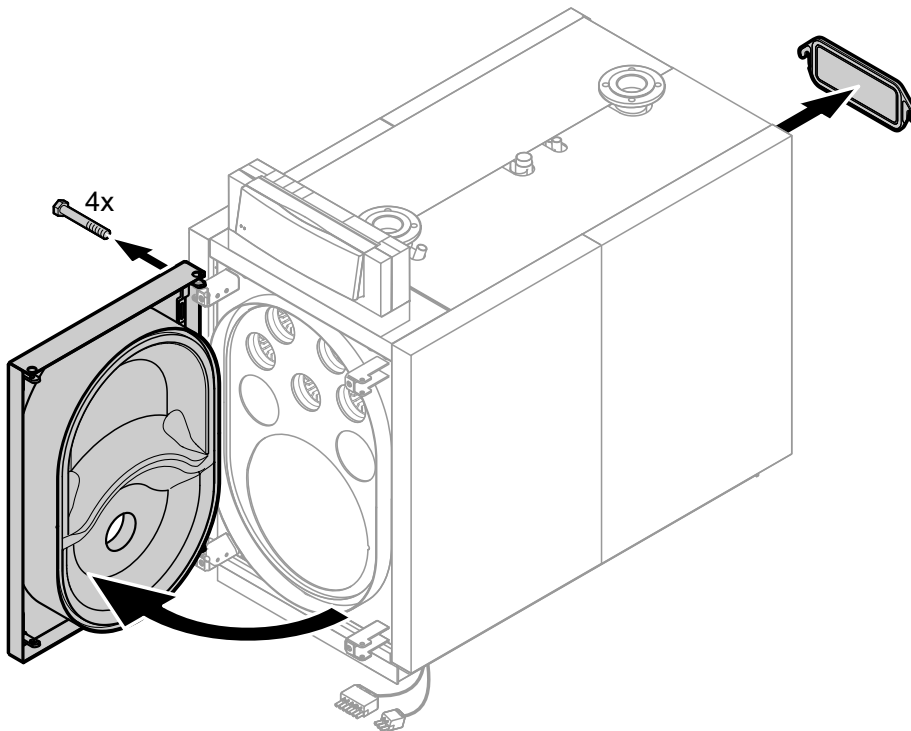


Fig. 1



Cleaning the internal pipes, heating surface, flue outlet and flue pipe

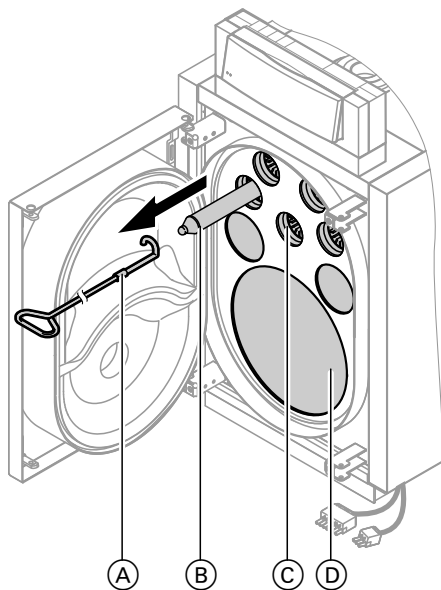


Fig. 2

1. Remove internal pipes (B) with internal pipe extractor (A).
2. Clean flues (C) and combustion chamber (D) with the brush. Remove combustion residues with a vacuum cleaner.





Cleaning the internal pipes, heating surface,... (cont.)

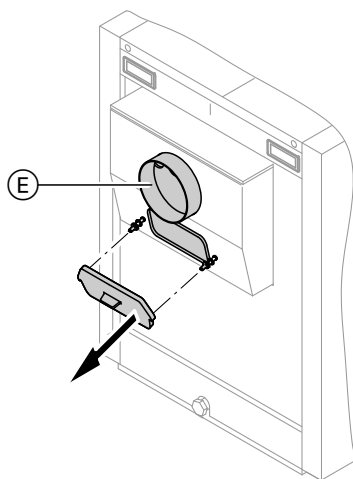


Fig. 3

3. Remove combustion residues from the flue pipe and the flue outlet through cleaning aperture (E) in the flue outlet using a vacuum cleaner.



Checking all gaskets and packing cords on the flue gas side



Danger

Leaks can result in a risk of poisoning through escaping gas.
Check gaskets carefully.



Checking the thermal insulation components on the boiler door

If work needs to be carried out on the thermal insulation, observe the following:



Danger

When working with high temperature insulating materials that contain zirconium or aluminium silicate ceramic fibres, fibre dust may develop. This fibre dust can be harmful to health. Only trained personnel may adjust or replace the insulation. Wear suitable protective clothing, especially breathing equipment and safety goggles.



Inserting the internal pipes

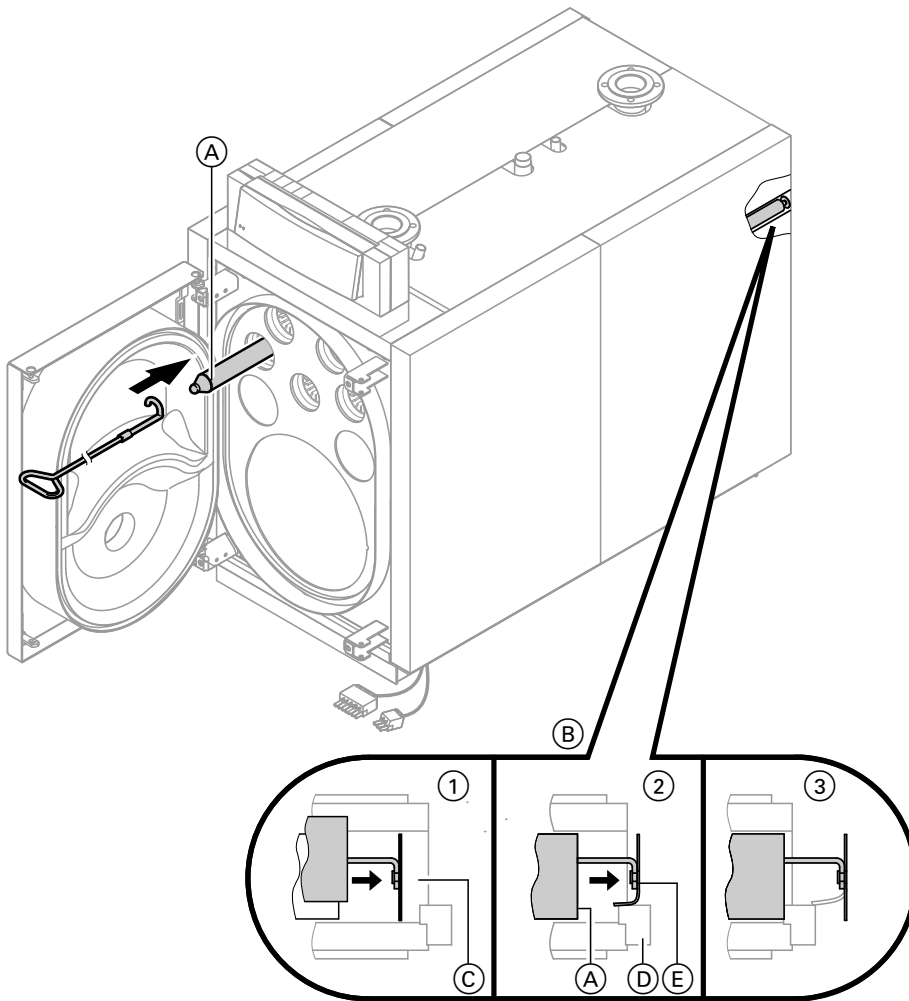


Fig. 4

- (A) Insert internal pipes as far as they will go.
- (B) Only for 500 kW
- (C) Hot gas flue
- (D) Resistor
- (E) Spring clip



Securing the boiler door and cleaning cover

Note

On gas burners, mount the gas supply pipe.



Danger

Escaping gas leads to a risk of explosion. Check all gas connections for leaks.



Securing the boiler door and cleaning cover (cont.)

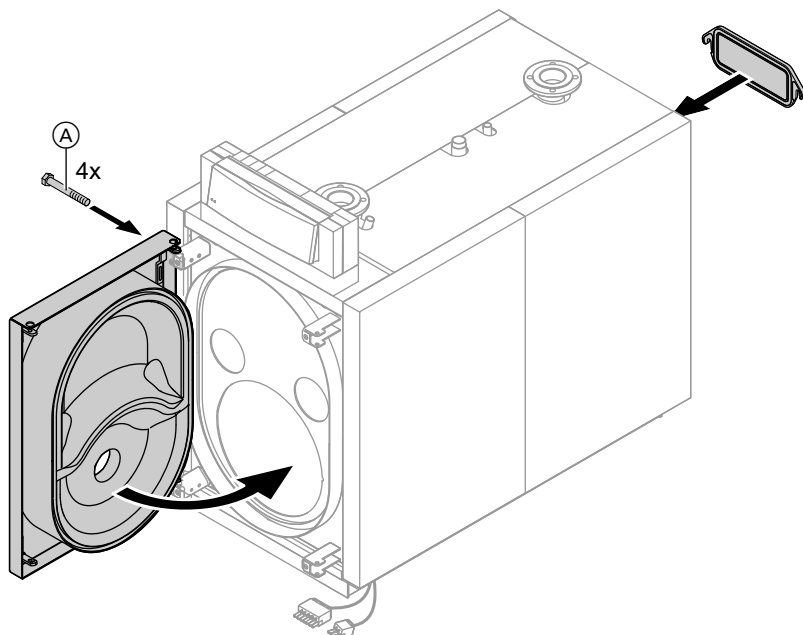


Fig. 5

Tighten screws (A) crosswise (torque 25 Nm).



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




Checking the function of safety equipment

Check the safety valves, the water level and pressure limiters in accordance with manufacturer's details.




Checking the function of the pressure switch

 Installation instructions in the "pressure switch set"



Checking the expansion vessel and system pressure

 Expansion vessel manufacturer's documentation

Note
Carry out this test on a cold system.



Checking the expansion vessel and system... (cont.)

Expansion vessel

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.

Note

The pre-charge pressure of the expansion vessel (p_0) is made up of the static system pressure (p_{St}) (= static head) and a supplement ($p_0 = p_{St} + \text{supplement}$).

The supplement depends on the high limit safety cut-out setting. The following high limit safety cut-out settings apply

- 100 °C: 0.2 bar (0.02 MPa)
- 110 °C: 0.7 bar (0.07 MPa).

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 (0.01 to 0.02 MPa) higher.
The static pressure corresponds to the static head.
3. Top up with softened water until the charge pressure of the cooled system is 0.1 to 0.2 bar (0.01 to 0.02 MPa) higher than the pre-charge pressure of the expansion vessel.
Permiss. operating pressure: 4 bar (0.4 MPa)
For water quality requirements, see page 19.

Pump controlled pressure maintaining systems



Please note

Pressure fluctuations may cause damage to the boiler or to other system components. In heating systems with automatic pressure maintaining systems, provide individual protection by installing a diaphragm expansion vessel for each boiler. This applies in particular to pump controlled pressure maintaining systems with integral deaeration.

This reduces the frequency and level of pressure fluctuations. This in turn contributes significantly to improved operational reliability and a longer service life of the system components.



Please note

The ingress of oxygen can result in system damage as a consequence of oxygen corrosion. Only use pump controlled pressure maintaining systems that are sealed against corrosion. The pressure maintaining systems must be protected against oxygen ingress into the heating water. Pump controlled pressure maintaining systems with atmospheric deaeration through cyclical pressure release bring about central post-ventilation of the heating system. They do not provide oxygen removal in the sense of corrosion protection as described in VDI 2035 Part 2.

Boiler output	kW	Up to 300	Up to 500
Expansion vessel	l	50	80

Carry out all checks in accordance with the manufacturer's instructions. Limit pressure fluctuations to the lowest possible differential. Cyclical pressure fluctuations and more significant pressure differentials point towards a system fault. Immediately remedy such faults, otherwise other heating system components may suffer damage.



Checking the setting of the temperature controller if a building management system is used (DCC system)



Please note

Shutting down from full load can result in high material stress and material damage to the boiler.

If a system with a higher ranking building management system takes over the temperature control of the boiler, adjust the settings at the temperature controller TR. Set the electronic temperature controller TR to at least 10 K below the mechanical temperature controller TR of the Vitotronic.



Checking electrical plug-in connections and cable grommets for firm seating



Checking the thermal insulation



Checking the water quality

Observe the instructions in chapter "Water quality requirements".

Enter the amount of top-up water and the total hardness of the feed and boiler water into the table in the appendix on page 22.

The total hardness of the feed and top-up water must not exceed 0.11 °dH (total value of alkaline earths $\leq 0.02 \text{ mol/m}^3$). The pH value should be between 9 and 10.5.



Cleaning the sight glass in the boiler door

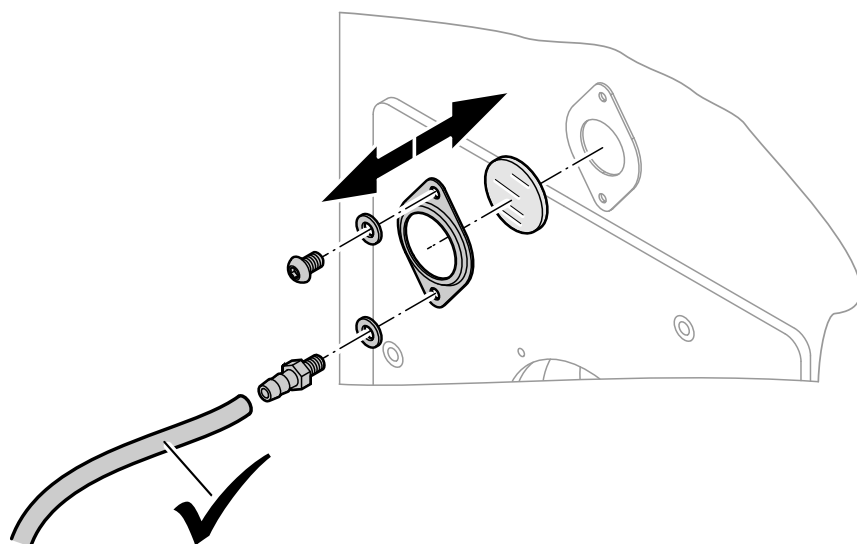


Fig. 6

Check the gaskets and hose connection for leaks.



Checking the mixer for ease of operation and tightness

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



Checking the function of the return temperature raising facility (if installed)



Checking the installation room ventilation



Checking the flue pipe for leaks




Checking the Vitoair draught stabiliser (if installed)

Release the latch on the control disc.

The control disc must swing freely during burner operation.



Adjusting the burner

 Burner service instructions or separate documentation from the burner manufacturer

Adjust the maximum oil or gas throughput of the burner to the rated boiler heating output.

Rated heating output	Pressure drop on the hot gas side		
	kW	Pa	mbar
90	40	0.4	
115	60	0.6	
140	80	0.8	
180	100	1.0	
235	200	2.0	

Rated heating output	Pressure drop on the hot gas side		
	kW	Pa	mbar
300	200	2.0	
390	200	2.0	
405	250	2.5	
500	330	3.3	

To protect the system against dew point corrosion, burner stage 2 (full heating output) must be set to the rated boiler heating output. It must remain switched on, even during the summer months (burner stage 2 on constant standby).

Partial load operation

Set the minimum heating output for the base load stage according to the conditions of the flue system. Note that the flue system must be suitable for the low flue gas temperatures that may occur.

This extends the service life and reduces running costs.

In the event of frequent cycling in standby mode and for partial loads below 40 %

- Insulate the flue gas collector.
- Install a motorised flue gas damper.
- Set the minimum runtime for the burner to 10 minutes.

Operation with burner load ≥ 60 %

The minimum boiler water temperature for oil operation is 40 °C and for gas operation 50 °C.

To protect the boiler, the minimum heating output at the base load stage is set to 60 % of rated heating output.

Rated heating output	Minimum heating output to be set (burner stage 1)	
	kW	kW
90	54	
115	69	
140	84	

Rated heating output	Minimum heating output to be set (burner stage 1)	
	kW	kW
180	108	
235	141	
300	180	
390	234	
405	243	
500	300	





Adjusting the burner (cont.)

The base load stage requires a minimum flue gas temperature, the value of which is subject to the design of the flue system.

Operation with burner load $\geq 40\%$ and $< 60\%$

The minimum system temperatures (flow/return) are 50/40 °C for oil operation and 60/50 °C for gas operation.

Operation with burner load $< 40\%$

The minimum system temperatures (flow/return) are 55/50 °C for oil operation and 65/60 °C for gas operation.



Instructing the system user

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



Operating and service documents

1. Complete and detach the customer registration card:
 - Hand the system user this part for safekeeping.
 - Retain the heating contractor's part.
2. File all parts lists, operating and service instructions in the folder and hand this over to the system user.
The installation instructions are no longer required after the installation and, therefore, do not need to be retained.

Water quality requirements

Note

Observing the following requirements is necessary to safeguard your warranty rights.

The warranty excludes damage due to corrosion and scaling.

Prevention of damage due to scaling

Prevent excessive scale build-up (calcium carbonate) on the heating surfaces. For heating systems with operating temperatures up to 100 °C, guideline VDI 2035-1 "Prevention of damage in water heating installations - Scale formation in domestic hot water supply installations and water heating installations" applies together with the following standard values. See the explanations in the original text of the guideline.

Total heating output kW	Total alkaline earths mol/m ³	Total hardness °dH
> 200 to ≤ 600	≤ 1.5	≤ 8.4

The standard values assume the following:

- The total volume of fill and top-up water will not exceed 3 times the water capacity of the heating system during its service life.
- The specific system volume is less than 20 l/kW heating output. In multi boiler systems, apply the output of the smallest boiler.
- All measures to prevent corrosion on the water side in accordance with VDI 2035-2 have been implemented.

Soften the fill and top-up water in heating systems operating under the following conditions:

- The total of alkaline earths in the fill and top-up water exceeds the standard value.
- Higher fill and top-up water volumes are expected.
- The specific system volume is greater than 20 l/kW heating output. In multi boiler systems, apply the output of the smallest boiler.
- In systems > 50 kW, install a water meter to capture the amount of fill and top-up water. Enter the volume of fill water and the water hardness into the boiler maintenance checklists.
- For systems with a specific system volume greater than 20 l/kW heating output, apply the requirements of the next highest category of total heating output (in accordance with the table). In multi boiler systems, apply the output of the smallest boiler. In case of severe excess (> 50 l/kW), soften the water down to a total of alkaline earths of ≤ 0.02 mol/m³ (overall hardness < 0.11 °dH).

Operating information:

- During expansion or repair work, only drain the pipe-work sections necessary.
- Check, clean and activate filters, dirt traps and other blow down or separating facilities in the heating water circuit frequently after commissioning and in new installations. Thereafter check and maintain these facilities as required, depending on the type of water treatment applied (e.g. water softening)
- **No further** steps are required during commissioning if you fill the heating system **with fully softened water**.
If the heating system is filled, **not with fully softened water**, but with water that meets the requirements in the above table, **also observe the following during commissioning**:
 - Commission the system step by step with a high heating water flow rate, starting with the lowest boiler output. This prevents localised concentration of limescale deposits on the heating surfaces.
 - In multi boiler systems, start all boilers simultaneously to prevent the total amount of limescale deposits settling in the heat exchanger of just one boiler.
 - Where water treatment is required, treat even the first fill of the heating system prior to commissioning. This also applies to any subsequent filling, e.g. when adding top-up water or after a repair, or for any system expansion.

The build-up of limescale deposits on the heating surfaces will be minimised if these instructions are followed.

Failure to observe the requirements of guideline VDI 2035 can result in damaging limescale deposits. In such cases, the service life of the installed boilers will, most often, already have been reduced.

Water quality requirements (cont.)

Removing the limescale deposits is one option for restoring operational viability. This measure must be carried out by a qualified contractor. Inspect the heating system for possible damage prior to returning it into use. It is essential that incorrect operating parameters are corrected to prevent renewed excessive scaling.

Prevention of damage due to corrosion on the water side

The corrosion resistance of ferrous materials on the heating water side of heating systems and heat generators depends on the absence of oxygen in the heating water. The oxygen introduced into the heating system with the first fill and subsequent top-ups reacts with the system materials without causing damage.

The characteristic blackening of the water after a certain time in operation indicates that there is no more free oxygen present. In accordance with the technical rules and in particular guideline VDI 2035-2, we recommend that heating systems are designed and operated so that a constant ingress of oxygen into the heating water is prevented.

During operation, oxygen can only enter due to:

- Open expansion vessels receiving a flow
- Negative pressure in the system
- Gas-permeable components

Correctly sized sealed unvented systems operating at the correct pressure, e.g. systems with expansion vessel, offer good protection against the ingress of airborne oxygen.

Under all operating conditions and at all points in the heating system, including the intake side of the pump, the pressure must be higher than atmospheric pressure. Check the pre-charge pressure of the expansion vessel at least during the annual service. For pressure maintaining systems, see chapter "Checking the expansion vessel and system pressure".

Avoid the use of permeable components, e.g. permeable plastic pipes in underfloor heating systems. Provide system separation if such components are nevertheless used. This system separation must separate the water flowing through the plastic pipes from other heating circuits, e.g. from the boiler, by the provision of a corrosion-resistant heat exchanger.

No further anti-corrosion measures are required for sealed unvented hot water heating systems, subject to the above points being observed. However, take additional precautions where there is a risk of oxygen ingress, for example by adding oxygen binder sodium sulphite (5 to 10 mg/l into the excess). The pH value of the heating water should be between 8.2 and 9.5. Different conditions apply to systems that include aluminium components.

Where chemicals are used as part of the corrosion protection, we recommend that the manufacturer of the chemicals issues a certificate of suitability of the additives with regard to the boiler materials and the materials of other components. We recommend you refer questions regarding water treatment to a qualified contractor.

For further details, see guideline VDI 2035-2 and EN 14868.

Using antifreeze in boilers

Viessmann boilers are designed and built for water as a heat transfer medium. To protect boiler systems from frost, it may be necessary to treat the boiler water or circulating water with antifreeze.

When doing so, observe the following:

- In general, follow the specifications given by the antifreeze manufacturer.
- The properties of antifreeze and water are very different.
- The temperature stability of the antifreeze must be sufficient for the particular application.
- Check the compatibility with sealing materials. If other sealing materials are used, take this into account when designing the system.

- Antifreeze developed especially for heating systems contains inhibitors and buffer substances for corrosion protection as well as glycol. When using antifreeze, always observe the manufacturer's instructions regarding minimum and maximum concentrations.
- The concentration must never fall below the prescribed minimum level, subject to the required frost protection temperature. Check and adjust the pH value and frost protection (measure the density) regularly, at least once a year, according to the manufacturer's instructions.

Using antifreeze in boilers (cont.)

- Check with the relevant supplier whether antifreeze may affect system components that are not part of the boiler, such as pumps, electrically and pneumatically driven valves, other types of valves, gaskets, etc.
- If the system is filled with antifreeze, it must be marked accordingly.
- If a boiler system is changed to operate without antifreeze, flush the system in order to remove all traces of the antifreeze.
- The quality of the boiler water and feedwater must meet the requirements of Directive VDI 2035.
- The systems must be designed as sealed unvented systems, as the antifreeze inhibitors decrease rapidly if airborne oxygen is allowed to enter.
- Diaphragm expansion vessels must comply with DIN 4807 [or local regulations].
- Solder connections should preferably be made with Ag or Cu hard solder. If liquids containing chlorides are used for soft soldering, any deposits must be removed from the circuit afterwards through thorough flushing. A higher chloride content in the heat transfer medium can cause corrosion damage.
- Only use oxygen diffusion-resistant hoses or metal hoses for flexible connections.
- Never equip the system on the primary side with zinc-plated heat exchangers, containers or pipes as zinc can be corroded by glycol/water mixtures.
- To avoid the risk of corrosion, ensure that there is no difference in electrical potential between system components that are in contact with antifreeze.
- Route all pipes in such a way that circulation cannot be interrupted by gas cushions or deposits.
- The water circuit must always be filled up to the highest point with the heat transfer medium.
- After filling, ensure there are no more air cushions in the system. When the temperature falls, gas cushions form negative pressure and this can draw air into the system.
- After initial filling and commissioning, but after 14 days at the latest, clean the integral dirt trap so the heat transfer medium can flow freely.
- Following any losses through leaks or drawing off, top up the antifreeze solution according to the concentration already in place. Establish the volume of antifreeze as a check.

Maintenance/service (cont.)

	Maintenance/service	Maintenance/service	Maintenance/service
Date:			
By:			

	Maintenance/service	Maintenance/service	Maintenance/service
Date:			
By:			

Specification

Specification

Rated heating output	kW	90	115	140	180	235	300	405	500
Rated heat input	kW	97	124	151	194	254	323	436	538
Permiss. flow temperature (= safety temperature)	°C	110 (up to 120 °C on request)							
Permiss. operating pressure	bar	4							
	kPa	400							
Pressure drop on the hot gas side	Pa	40	60	80	100	200	200	250	330
	mbar	0.4	0.6	0.8	1.0	2.0	2.0	2.5	3.3
Boiler body dimensions									
Length excl. boiler door	mm	1215	1420	1405	1600	1820	1820	1865	2010
Width	mm	575	575	650	650	730	730	865	865
Height (incl. connectors)	mm	1145	1145	1180	1180	1285	1285	1455	1455
Overall dimensions									
Length excl. burner	mm	1300	1500	1485	1680	1905	1905	1945	2090
Length incl. burner and hood	mm	1700	1905	1910	2110	2330	2330	–	–
Width	mm	755	755	825	825	905	905	1040	1040
Height incl. control unit	mm	1315	1315	1350	1350	1460	1460	1625	1625
Maintenance height (control unit)	mm	1485	1485	1520	1520	1630	1630	1795	1795
Foundation									
Length	mm	1000	1200	1200	1400	1650	1650	1650	1800
Width	mm	760	760	830	830	900	900	1040	1040
Combustion chamber diameter	mm	380	380	400	400	480	480	570	570
Combustion chamber length	mm	800	1000	1000	1200	1400	1400	1400	1550
Weight									
Boiler body	kg	350	394	460	490	650	742	940	1110
Weight incl. thermal insulation and boiler control unit	kg	395	440	510	540	710	802	1075	1295
Weight incl. thermal insulation, boiler control unit and burner	kg	420	464	540	570	740	832	–	–
Capacity boiler water	litres	170	210	250	290	470	430	590	630
Boiler connections									
Boiler flow and return	PN 6 DN	65	65	65	65	65	80	100	100
Safety connection (safety valve)	R	1¼	1¼	1¼	1¼	1¼	1¼	1½	1½
Drain	R	1¼	1¼	1¼	1¼	1¼	1¼	1¼	1¼
Flue gas parameters*¹									
Temperature (at 60 °C boiler water temperature)									
– At rated heating output	°C	160							
– At partial load	°C	105							

*¹ Values for calculating the size of the flue system to EN 13384, relative to 13 % CO₂ for fuel oil EL and 10 % CO₂ for natural gas.

Flue gas temperatures as actual gross values at 20 °C combustion air temperature.

The details for partial load refer to an output of 60 % of rated heating output. If the partial load differs (depending on operating mode), calculate the flue gas mass flow rate accordingly.

Specification (cont.)

Rated heating output	kW	90	115	140	180	235	300	405	500
Temperature (at 80 °C boiler water temperature)	°C	175							
Flue gas mass flow rate		1.5225 x combustion output in kW							
– For natural gas	kg/h	1.5 x combustion output in kW							
– For fuel oil EL	kg/h	0							
Required draught	Pa/ mbar	0							
Flue gas connection									
Nominal diameter	∅ mm	180	180	200	200	200	200	250	250
External	∅ mm	178	178	198	198	198	198	248	248
Standard seasonal efficiency [to DIN]									
(for operation with fuel oil/ natural gas)	%	90 (H _s) [gross cv]							
At heating system temperature 75/60 °C									
Standby loss q _{B,70}	%	0.40	0.37	0.32	0.34	0.37	0.29	0.25	0.23
Rated heating output									
Boiler with Vitotrans 300									
– Gas operation	kW	98.7	126.1	152.7	197.1	257.2	328.5	435.2	543.7
– Oil operation	kW	95.8	122.5	148.8	191.7	250.3	319.5	429.5	529.9
Pressure drop on the hot gas side									
Boiler with Vitotrans 300	Pa	105	125	165	185	300	300	355	435
	mbar	1.05	1.25	1.65	1.85	3.00	3.00	3.55	4.35

Decommissioning 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.

EU Declaration of Conformity

Vitoplex 300, type TX3A

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

This product meets the requirements of the Efficiency Directive (92/42/EEC).

As part of the energy efficiency assessment of heating and ventilation systems to DIN V 4701-10, as required by the EnEV [Germany], the determined product characteristics can be used to calculate system values for the product (see specification table).

Manufacturer's certificate according to BImSchV

Vitoplex 300, type TX3A

We, Viessmann Werke GmbH & Co. KG, D-35107 Allendorf, confirm that this product meets the following required conditions:

In accordance with the 1st German Immissions Ordinance (BImSchV)

- NO_x limits according to paragraph 6 (1)
- Flue gas loss of no more than 9 % according to paragraph 10 (1)
- Standard seasonal efficiency [to DIN] of at least 94 % in accordance with paragraph 6 (2)

In accordance with the 44th German Immissions Ordinance (BImSchV)

- Flue gas loss of no more than 9 % according to paragraph 17 (1)
- NO_x limits according to paragraph 12 (1)
- NO_x limits according to paragraph 14 (1)

Allendorf, 1 September 2020

Viessmann Werke GmbH & Co. KG



Authorised signatory Reiner Jansen
Head of Strategic Quality Management

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