Installation instructions
for contractors

Vitoplex 200
Type SX2A, 700 to 1950 kW
Oil/gas boiler

Dispose after installation.
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.

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
- All current safety regulations as defined by DIN, EN, DVGW, TRGI, TRF, VDE and all locally applicable standards
  - ÖNORM, EN, ÖVGW G K directives, ÖVGW-TRF and ÖVE
  - SEV, SUVA, SVGW, SVTI, SWKI, VKF and EKAS guideline 1942: LPG, part 2

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.
- Where gas is used as the fuel, close the main gas shut-off valve and safeguard it against unintentional reopening.
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Disposal of packaging

Please dispose of packaging waste in line with statutory regulations.

DE: Use the disposal system organised by Viessmann.
AT: Use the ARA statutory disposal system (Altstoff Recycling Austria AG, licence number 5766).
CH: Packaging waste is disposed of by the HVAC contractor.

Symbols

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>📚</td>
<td>Reference to other document containing further information</td>
</tr>
<tr>
<td>🚭</td>
<td>Step in a diagram: The numbers correspond to the order in which the steps are carried out.</td>
</tr>
<tr>
<td>⚠️</td>
<td>Warning of material losses and environmental pollution</td>
</tr>
<tr>
<td>⚡</td>
<td>Live electrical area</td>
</tr>
<tr>
<td>⚠️</td>
<td>Pay particular attention.</td>
</tr>
<tr>
<td>🎧</td>
<td>Component must audibly click into place. or Acoustic signal</td>
</tr>
<tr>
<td>✡️</td>
<td>Fit new component. or In conjunction with a tool: Clean the surface.</td>
</tr>
<tr>
<td>🗑️</td>
<td>Dispose of component correctly.</td>
</tr>
<tr>
<td>❌</td>
<td>Dispose of component at a suitable collection point. Do not dispose of component in domestic waste.</td>
</tr>
</tbody>
</table>

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.
**Intended use** (cont.)

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 200, type SX2A
- Fuels: Fuel oil and natural gas
- Rated heating output 700 to 1950 kW
- Permiss. operating pressure 6 bar (0.6 MPa)

**System examples**

Available system examples: See [www.viessmann-schemes.com](http://www.viessmann-schemes.com).
Clearance dimensions

**Fig. 1**

Dimensions in brackets are minimum dimensions, e.g. 50 mm, if control unit (⑧) is mounted on the opposite side.

**Fig. 2**

① Boiler
② Burner
③ Anti-vibration boiler supports (accessories)
④ Boiler control unit

<table>
<thead>
<tr>
<th>Rated heating output</th>
<th>kW</th>
<th>700</th>
<th>900</th>
<th>1100</th>
<th>1300</th>
<th>1600</th>
<th>1950</th>
</tr>
</thead>
<tbody>
<tr>
<td>a&lt;sup&gt;1&lt;/sup&gt;</td>
<td>mm</td>
<td>2000</td>
<td>2200</td>
<td>2000</td>
<td>2200</td>
<td>2650</td>
<td></td>
</tr>
<tr>
<td>b</td>
<td>mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Anti-vibration boiler supports

<table>
<thead>
<tr>
<th>Permissible load</th>
<th>kg</th>
<th>3000</th>
<th>3105</th>
<th>4000</th>
<th>4668</th>
<th>6004</th>
</tr>
</thead>
<tbody>
<tr>
<td>c (front) / number</td>
<td>mm/pce</td>
<td>750/2</td>
<td>500/2</td>
<td>500/2</td>
<td>667/2</td>
<td>834/2</td>
</tr>
<tr>
<td>c (back) / number</td>
<td>mm/pce</td>
<td>750/2</td>
<td>334/2</td>
<td>334/2</td>
<td>500/2</td>
<td>667/2</td>
</tr>
<tr>
<td>d</td>
<td>mm</td>
<td>30</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>e (unstressed)</td>
<td>mm</td>
<td></td>
<td></td>
<td>42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e (stressed)</td>
<td>mm</td>
<td></td>
<td></td>
<td>37</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> Maintain this space in front of the boiler to enable the removal of turbulators or for cleaning hot gas flues.
The thermal insulation and casing are supplied in 3 packs. The following is a list of components in the individual packs.

**Thermal insulation pack 1**

![Diagram of thermal insulation components]

*Fig. 3*

1. Thermal insulation mat, back
2. Thermal insulation jacket
3. Side panel
Thermal insulation components (cont.)

Thermal insulation pack 2

Fig. 4

3 Side panel  
4 Cover panel top back  
5 Thermal insulation mat, back left  
6 Thermal insulation mat, back right  
7 Back panel, bottom  
8 Cable trunking retainer  
9 Thermal insulation jacket, centre  
10 Mounting bracket fascia  
11 Mounting bracket  
12 Mounting bracket rear  
13 Side panel, control unit  
14 Front panel, bottom  
15 Thermal insulation mat, front  
16 Thermal insulation mat, front right  
17 Thermal insulation mat, front left  
18 Front/back panel, top  
19 Cover panel top front
Thermal insulation pack 3

Fig. 5

- Rail, back left
- Cover, sensor coupling
- Rail, back right
- Cable trunking, lower section
- Cable trunking, upper section
- Bag of burner cables
- Rail, front right

- Rail, front left
- Centre rail, 2 pce
- Bag of small parts
- Strain relief
- Spring hooks
- Wing screw
- Screws
Components in the combustion chamber

Fig. 6

35 Plastic hose
36 Hose nozzle
37 Sight glass frame
38 Sight glass
39 Sight glass frame gasket
40 Bag of adjusting screws
Siting and levelling the boiler

Required materials:
- Adjusting screws from the combustion chamber

Fig. 7

1. Insert adjustable screws (A) into the base rails. Position a plate, e.g. a flat steel strip, underneath each adjusting screw to distribute the load evenly.

2. Level the boiler horizontally. No special foundations are required.

Note
We recommend installing the boiler on anti-vibration boiler supports (C) (see page 6).

Anti-vibration boiler supports
Floor undulations must not be greater than 1 mm to ensure that the spring elements are loaded evenly. Position the boiler supports underneath the boiler by placing them centrally under the base rails. When setting the boiler down less than square on, a boiler support can temporarily be overloaded. To aid installation, support the boiler on timbers (≥ 35 mm). Position these at the front, centre and end of each boiler support.
Changing the boiler door opening

By repositioning bolts A the door can be hinged on the right.

Note
During installation observe the following: When the boiler door is closed, sealing frame B must press centrally onto gasket D of the boiler door (see detail). If necessary, align mounting bracket C.

Combustion chamber sight glass

Mounting the combustion chamber sight glass

The sight glass casing with accessories is supplied inside the combustion chamber.
2. Only for burners with ventilation connection:
Connect plastic hose A with the sight glass and the fan part of the burner (test port for "static burner pressure").

**Closing off the sight glass aperture on burners without ventilation connection**

On burners without ventilation connection for sight glass, the sight glass aperture in the boiler door is closed off with a plug. The sight glass only serves to cover the aperture.

⚠️ **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.

1. Check that the plug is a precise fit. If necessary, enlarge hole in insulation block.
2. Apply adhesive all around the plug. Insert plug.

*Note*
*Adhesive drying time: 24 hours*

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**Connections on the heating water side**

*Note*
*Install all pipe connections free of load and torque stress.*

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**Fig. 12**

- **A** Drain, R 1¼
- **B** Female connection for condensate drain, R ½
- **C** Female connection for boiler water temperature sensor, high limit safety cut-out and temperature controller, R ¾
- **D** Boiler flow
  - 700 and 900 kW: DN 100
  - 1100 and 1300 kW: DN 125
  - 1600 and 1950 kW: DN 150
- **E** Female connection for high limit safety cut-out, R ½ (in place of flash trap)
Connections on the heating water side (cont.)

**F** Safety connection (safety valve), see chapter "Making the safety connection and checking tightness"

**G** Boiler return
- 700 and 900 kW: DN 100
- 1100 and 1300 kW: DN 125
- 1600 and 1950 kW: DN 150

**H** Female connection for fitting assembly, R ½

Making the safety connection and testing for tightness

Install the safety lines.

**Safety connection**

<table>
<thead>
<tr>
<th>Power Range</th>
<th>Connection Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>700 and 900 kW</td>
<td>DN 50 PN 16</td>
</tr>
<tr>
<td>1100 to 1950 kW</td>
<td>DN 65 PN 16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressure Type</th>
<th>Pressure Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Permiss. operating</td>
<td>6 bar (0.6 MPa)</td>
</tr>
<tr>
<td>Test</td>
<td>9 bar (0.9 MPa)</td>
</tr>
</tbody>
</table>

**Note**
Equip the boiler with a safety valve that is correctly sized and suitable for heating systems.

**Please note**
Unsuitable water quality can damage the boiler body.
Only fill the boiler with water that complies with the "Water quality requirements" (see service instructions).

Fitting the thermal insulation

**Note**
Small parts and burner cables are supplied in separate bags inside thermal insulation pack 3.

**Required parts**
- Parts from thermal insulation pack 1
  - Thermal insulation jackets
  - Side panels
- Parts from thermal insulation pack 2
  - Thermal insulation jacket, centre
- Parts from thermal insulation pack 3
  - Rail, back left
  - Rail, back right
  - Spring hooks
  - Wing screws
  - Rail, front right
  - Rail, front left
  - Centre rails
Boiler body thermal insulation

Note
Remove bag B containing the type plate and keep safe. This will be required later. Check that the serial number on the type plate matches the serial number stamped into the back panel of the boiler.

1. Black side outwards

2. Remove thermal insulation jacket from the upper boiler cover.

3. Connect the thermal insulation jacket with an overlap.
Wing screws in the top and base rails

Wing screws are inside the small parts bag in thermal insulation pack 3.

**Fig. 14**

A Top rail
B Base rail
Fitting the thermal insulation (cont.)

Front and back rails

Rails are supplied in thermal insulation pack 3.

Fig. 15

Note
The front rails are equipped with trim strips A.
Centre rail

Rails are supplied in thermal insulation pack 3.

Fig. 16
Aligning the rails

Side panels are supplied in thermal insulation packs 1 and 2.

**Fig. 17**

Align side panels in parallel (see enlarged diagram).
Align and secure the rails.
After aligning the rails, remove all side panels again.

Mounting the control unit

Control unit mounting bracket, control unit back section and burner cables

Required materials
- Parts from thermal insulation pack 2
  - Mounting bracket
  - Mounting bracket rear
  - Side panel, control unit

Parts from thermal insulation pack 3
- Cover to protect the measuring probes from thermal insulation pack 3
- Bag with burner cables from thermal insulation pack 3
- Strain relief fittings from thermal insulation pack 3
Mounting the control unit (cont.)

Fig. 19

A Side panel, control unit

Hook side panels into the slots provided, starting at the bottom and working upwards. Control unit A is mounted on the side panel. The side panel features cable entries. The side panel can be hooked in at the centre or at the top. It may be fitted on the r.h. or l.h. side of the boiler.

Note
Burner cables are supplied in the thermal insulation pack.

Control unit back connections

Boiler control unit installation instructions
The components that make up the controller mounting bracket are supplied in thermal insulation pack 2; the strain relief fitting can be found in thermal insulation pack 3.

**Fig. 20**

A Strain relief
Mounting the control unit (cont.)

Cover for sensor female connection is supplied in thermal insulation pack 3.

Fig. 21

③ Cover
(included with the thermal insulation, install to protect the measuring probes)

Please note
Damaged capillary tubes ④ result in incorrect measuring probe functions.
Never kink the capillary tubes.
Mounting the control unit (cont.)

Remaining side panels

Side panels are supplied in thermal insulation packs 1 and 2.

![Diagram of side panels](image)

Fig. 22

Cable trunking

**Required materials**

- Parts from thermal insulation pack 2
  - Cable trunking retainer
  - Mounting bracket fascia

- Parts from thermal insulation pack 3
  - Cable trunking, lower section
  - Cable trunking, upper section
  - Screws
4. After connecting the cables and leads, secure mounting bracket fascia (6) to the mounting bracket.

Fitting additional thermal insulation

Front thermal insulation and front panels

Required materials

- Parts from thermal insulation pack 2
  - Front panel, bottom
  - Thermal insulation mat, front
  - Thermal insulation mat, front right
- Thermal insulation mat, front left
- Front/back panel, top

Parts from thermal insulation pack 3
- Screws
Fitting additional thermal insulation (cont.)

**Thermal insulation (back) and back panels**

**Required materials**

- Parts from thermal insulation pack 1
  - Thermal insulation mat

- Parts from thermal insulation pack 2
  - Spring hooks
  - Screws

- Parts from thermal insulation pack 3
  - Thermal insulation mat, back left
  - Thermal insulation mat, back right
  - Back panel, bottom
  - Front/back panel, top
Fitting additional thermal insulation (cont.)

Fig. 25

Information on A
For the l.h and r.h rear thermal insulation mats a back panel retrofit kit can be ordered (accessory).

Covers

Required materials
Parts from thermal insulation pack 2
- Cover panel top back
- Cover panel top front

Parts from thermal insulation pack 3
- Screws
Fitting additional thermal insulation (cont.)

Fig. 26

Type plate

Fig. 27

A Type plate
B Vitoplex 200 logo
Fitting additional thermal insulation (cont.)

**Note**
If replacing the side panel on which the type plate is fitted, order a new type plate, quoting the serial number.

Connections on the flue gas side

![Diagram of connections on the flue gas side](image)

**Fig. 28**

1. Connect the flue outlet with the shortest possible run to the chimney and maintain a slight incline.

<table>
<thead>
<tr>
<th>Rated heating output</th>
<th>External diameter, flue outlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>700 and 900 kW</td>
<td>298 mm</td>
</tr>
<tr>
<td>1100 and 1300 kW</td>
<td>348 mm</td>
</tr>
<tr>
<td>1600 and 1950 kW</td>
<td>398 mm</td>
</tr>
</tbody>
</table>

2. Create a test port.

3. Seal in and thermally insulate the flue pipe (all connections/joints must be gas-tight).

4. When operating with gas, remove the dummy plug in order to allow condensate generated during the cold start to drain off. Connected components that carry condensate must be flue gas-tight and resistant to high temperatures and condensate.

**Note**
Connect the boiler to a moisture-resistant flue system if operating with a modulating boiler water temperature.

Mounting the burner

![Diagram of mounting the burner](image)

**Fig. 29**

Separate burner documentation
### Mounting the burner (cont.)

<table>
<thead>
<tr>
<th>Rated heating output</th>
<th>kW</th>
<th>700/900</th>
<th>1100/1300</th>
<th>1600/1950</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a</strong> Ø mm</td>
<td>350</td>
<td>400</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>b</strong> Ø mm</td>
<td>400</td>
<td>490</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>c</strong> Number/thread</td>
<td></td>
<td>6 x M 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>d</strong> mm</td>
<td>525</td>
<td>580</td>
<td>640</td>
<td></td>
</tr>
<tr>
<td><strong>e</strong> mm</td>
<td>785</td>
<td>885</td>
<td>970</td>
<td></td>
</tr>
<tr>
<td><strong>f</strong> °</td>
<td>15</td>
<td>30</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>g</strong> mm</td>
<td>75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>h</strong> mm</td>
<td>150</td>
<td>170</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Danger
Fibre dust can be produced if working with high-temperature insulation materials that contain zirconium or aluminium silicate ceramic fibres. 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.

1. Cut out the thermal insulation mat in the boiler door to suit the flame tube diameter.

**Note**
*The flame tube must protrude from the thermal insulation of the boiler door.*
*To safeguard perfect operation, maintain the required minimum flame tube length. See the burner manufacturer’s details.*

2. After mounting the burner, seal the annular gap between the flame tube and the thermal insulation block with the flame tube gasket supplied.

**Note**
*Failure to observe these instructions can result in damage to the boiler door through excessively high temperatures.*

3. Close the boiler door. Tighten the screws cross-wise (torque 25 Nm).

### Pressure switch

**Pressure switch**

The pressure switch is a safety accessory and is required for every boiler to EN 303 with pressure-jet burners to EN 676 (third party burners) for shutting down the burner in case of flue gas back pressure/condensate banked up in the boiler/flue system. The adjustable, interlocking pressure switch is connected to the control unit safety chain, and to an additional pressure measuring connector for “combustion chamber pressure”. The control unit safety chain is connected in series to the maximum pressure switch, the minimum pressure switch and the high limit safety cut-out. A setting of approx. 2 mbar above the actual combustion room pressure in full load operation ensures the burner will shut down used in the event of a fault. The pressure is measured in full load operation upstream of the pressure switch.

**Note**
*The pressure measuring hose is likewise connected to the combustion chamber sight glass.*

**Installation instructions for “pressure switch set”**
Commissioning information

Service instructions for boiler and boiler control unit plus separate burner documentation