# Installation instructions



for contractors

Vitomax 200-LW Type M62A Oil/gas low pressure hot water boilers Rated output 2.3 to 6.0 MW



# VITOMAX 200-LW



5712 779 GB 3/2009

## 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 designed for qualified personnel.

- Work on gas appliances must only be carried out by a qualified gas fitter.
- Work on electrical equipment must only be carried out by a qualified electrician.

#### Regulations

Observe the following when working on this system

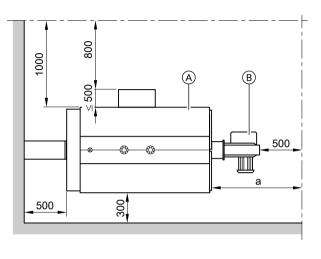
- all legal instructions regarding the prevention of accidents,
- all legal instructions regarding environmental protection,
- the Code of Practice of relevant trade associations,

- all current safety regulations as defined by DIN, EN, DVGW, TRGI, TRF, VDE and all locally applicable standards.
- Gas Safety (Installation & Use) Regulations
  - the appropriate Building Regulation either the Building regulations, the Building Regulation (Scotland), Building Regulations (Northern Ireland),
  - the Water Fittings Regulation or Water Bylaws in Scotland,
  - the current I.E.E. Wiring Regulations.

#### Working on the system

- Isolate the system from the power supply and check that it is no longer 'live',
   e.g. by removing a separate fuse or by means of a mains isolator.
- Safeguard the system against unauthorised reconnection.
- When using gas as fuel, also close the main gas shut-off valve and safeguard against unauthorised reopening.

## **Clearance dimensions**



(A) Boiler

B Burner

Dimensions in brackets are minimum clearances

Boiler size		1	2	3	4	5
Rated output	MW	2.3	2.8	3.5	4.5	6.0
а	mm	2000	2600	2600	3300	4000

Dim. a: This space in front of the boiler should be available to enable the turbulators, if installed, to be removed, and for cleaning the hot gas pipes.

## **Boiler handling**

## Note

Observe all relevant accident prevention regulations. Only use the marked fixing points.

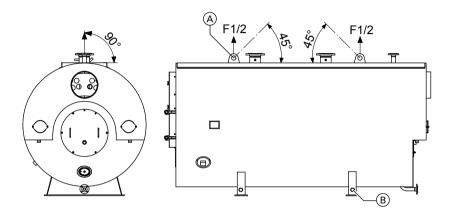
## 1. Lifting the boiler

Use lifting eyes A (O 80 mm) or lifting points C on the boiler base (only possible with alternative version).

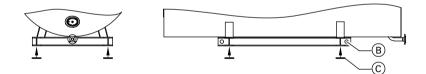
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## Boiler handling (cont.)

- 2. Moving the boiler (Only possible with alternative version.) Fit steel castors underneath base rail ⓒ.
- **3.** Secure the pulling equipment to pulling eyes (B) (Ø 80 mm).



## Alternative boiler support



# Boiler positioning and adjustment

Level the boiler.

## Connecting on the water side



## Danger

Opening the boiler connections whilst the boiler is under pressure can lead to a high risk of severe personal injury. Only open the connections on the water side after the boiler has been depressurised.

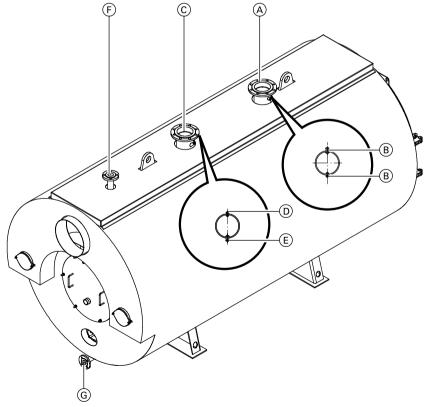
#### Note

The boiler is only suitable for pumped water heating systems. Install all pipe connections free of load and torque stresses.

- Thoroughly flush the system (especially when connecting the boiler to an existing system).
- 2. Make all necessary connections.

### Please note

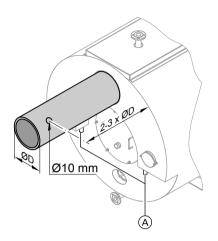
Unsuitable water quality can damage the boiler body. Only fill the boiler with water that complies with the "Water quality guidelines" (see service instructions).



# Connecting on the water side (cont.)

A	Boiler return		
	for permiss. operating pressure 6 and 10 bar	at 2.3 and 2.8 MW	DN 150 PN 16
		at 3.5 and 4.5 MW	DN 200 PN 16
		at 6.0 MW	DN 250 PN 16
	for permiss. operating pressure 16 bar	at 2.3 and 2.8 MW	DN 150 PN 40
		at 3.5 and 4.5 MW	DN 200 PN 25
		at 6.0 MW	DN 250 PN 25
B	Fem. connection for additional control equipment		R 1⁄2
$\overline{\mathbb{C}}$	Boiler flow		
	for permiss. operating pressure 6 and 10 bar	at 2.3 and 2.8 MW	DN 150 PN 16
		at 3.5 and 4.5 MW	DN 200 PN 16
		at 6.0 MW	DN 250 PN 16
	for permiss. operating pressure 16 bar	at 2.3 and 2.8 MW	DN 150 PN 40
		at 3.5 and 4.5 MW	DN 200 PN 25
		at 6.0 MW	DN 250 PN 25
			DIN 2001 IN 20
D	Fem. connection for safety tempera- ture limiter		R <sup>1</sup> / <sub>2</sub>
D			
Ē	ture limiter		
	ture limiter (horizontal female connection)		R 1⁄2
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat	at 2.3 MW	R 1⁄2
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector		R ½
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector	at 2.3 MW	R ½ R ½ DN 50 PN 16
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector	at 2.3 MW at 2.8 to 4.5 MW at 6.0 MW at 2.3 MW	R ½ R ½ DN 50 PN 16 DN 65 PN 16
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector for permiss. operating pressure 6 bar	at 2.3 MW at 2.8 to 4.5 MW at 6.0 MW	R ½ R ½ DN 50 PN 16 DN 65 PN 16 DN 80 PN 16
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector for permiss. operating pressure 6 bar for permiss. operating pressure 10 bar	at 2.3 MW at 2.8 to 4.5 MW at 6.0 MW at 2.3 MW at 2.8 and 3.5 MW at 4.5 and 6.0 MW	R ½ R ½ DN 50 PN 16 DN 65 PN 16 DN 80 PN 16 DN 40 PN 40 DN 50 PN 16 DN 50 PN 16 DN 65 PN 16
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector for permiss. operating pressure 6 bar	at 2.3 MW at 2.8 to 4.5 MW at 6.0 MW at 2.3 MW at 2.8 and 3.5 MW at 4.5 and 6.0 MW at 2.3 MW	R ½ R ½ DN 50 PN 16 DN 65 PN 16 DN 80 PN 16 DN 40 PN 40 DN 50 PN 16 DN 50 PN 16 DN 65 PN 16 DN 65 PN 16 DN 32 PN 40
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector for permiss. operating pressure 6 bar for permiss. operating pressure 10 bar	at 2.3 MW at 2.8 to 4.5 MW at 6.0 MW at 2.3 MW at 2.8 and 3.5 MW at 4.5 and 6.0 MW at 2.3 MW at 2.8 and 3.5 MW	R ½ R ½ DN 50 PN 16 DN 65 PN 16 DN 80 PN 16 DN 40 PN 40 DN 50 PN 16 DN 65 PN 16 DN 65 PN 16 DN 32 PN 40 DN 40 PN 40
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector for permiss. operating pressure 6 bar for permiss. operating pressure 10 bar	at 2.3 MW at 2.8 to 4.5 MW at 6.0 MW at 2.3 MW at 2.8 and 3.5 MW at 4.5 and 6.0 MW at 2.3 MW at 2.8 and 3.5 MW at 2.8 and 3.5 MW at 4.5 MW	R <sup>1</sup> / <sub>2</sub> R <sup>1</sup> / <sub>2</sub> DN 50 PN 16 DN 65 PN 16 DN 65 PN 16 DN 40 PN 40 DN 50 PN 16 DN 32 PN 40 DN 32 PN 40 DN 40 PN 40 DN 50 PN 40
Ē	ture limiter (horizontal female connection) Fem. connection for thermostat Safety valve connector for permiss. operating pressure 6 bar for permiss. operating pressure 10 bar	at 2.3 MW at 2.8 to 4.5 MW at 6.0 MW at 2.3 MW at 2.8 and 3.5 MW at 4.5 and 6.0 MW at 2.3 MW at 2.8 and 3.5 MW	R ½ R ½ DN 50 PN 16 DN 65 PN 16 DN 80 PN 16 DN 40 PN 40 DN 50 PN 16 DN 65 PN 16 DN 65 PN 16 DN 32 PN 40 DN 40 PN 40

## Connection on the flue gas side



(A) Condensate drain

Boiler size		1	2	3	4	5
Rated output	MW	2.3	2.8	3.5	4.5	6.0
Flue outlet						
-external	$\oslash$ mm	410	460	510	560	660
<ul> <li>internal</li> </ul>	$\oslash$ mm	400	450	500	550	650

1. Connect the flue outlet with the shortest possible run to the flue gas system using slightly inclined flue pipes. Avoid sharp bends.

## Note

Connect flue pipes to the boiler free of load or torque stresses.

- Locate the test port (approx. 10 mm Ø) at a distance of two to three times the diameter of the flue pipe behind the flue outlet in the on-site flue pipe.
- 3. Seal flue pipe.

## Note

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Flue pipe joints must be gas-tight.

- 4. Insulate the flue pipe.
- 5. Prevent the return of condensate created inside the flue gas system by suitable measures (condensate trap).



## Danger

Risk of poisoning through escaping flue gas. Condensate drain connectors (A) (see page 7) must be closed when not in use.

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## Preparing the control unit installation

#### Note

For the Vitomax 200-LW, the Vitotronic is an accessory.



Installation instructions for control unit mounting panel

## Equipment for control and limitation

For boilers with a Vitotronic control unit or Vitocontrol control panel:

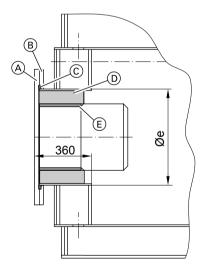


Separate documentation

## **Burner installation**



Separate burner documentation.



## Burner installation (cont.)

Boiler size		1	2	3	4	5
		Burner connection dimensions				
Minimum burner	mm	360				
head length						
Max. burner head	$\oslash$ mm	420	420	520	520	590
diameter						
dimension e						

 Secure burner plate (A) for the burner installation together with seal ring (C) to boiler flange (B).

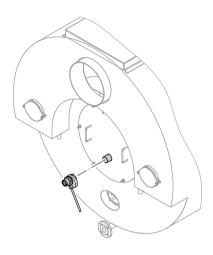
### Note

If the burner plate (delivered separately) was not pre-drilled at the factory, drill the burner fixing holes into the burner plate and cut out the aperture for the burner head. For the max. burner head diameter, see the table.

2. Secure the burner to the burner plate.

- 3. Trim thermal insulation (D) in accordance with the burner head diameter (see separate documentation in insulation ring pack).
- Seal annular gap (if present) between burner head and thermal insulation block with heat-resistant insulation material (E) (in the flame tube pack).
- 5. Run the electrical cable/leads and the fuel oil line etc. in a loop.

# Sight glass installation



Fit lockable sight glass to cleaning cover (back of boiler).

# Commissioning

Boiler operating and service instructions and separate burner documentation.

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