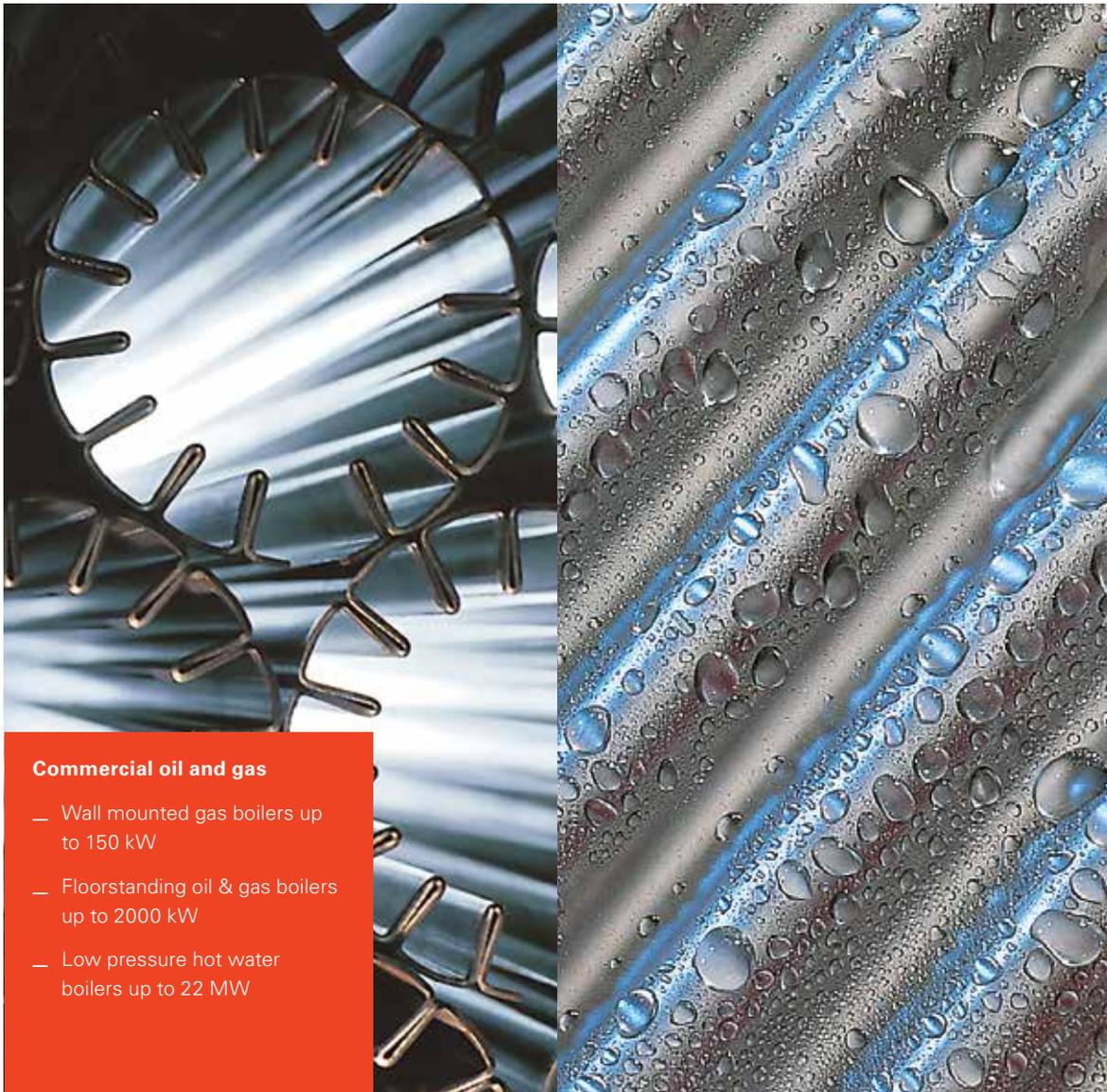




## Oil/gas boilers and low pressure hot water boilers up to 22 MW



### **Commercial oil and gas**

- Wall mounted gas boilers up to 150 kW
- Floorstanding oil & gas boilers up to 2000 kW
- Low pressure hot water boilers up to 22 MW



## Futureproof and efficient heating technology for all requirements

In industrialised Western nations, heat generation in residential and commercial buildings accounts for the largest proportion of energy consumption – and at the same time offers the greatest savings potential. Advanced and energy efficient heating systems from Viessmann are in use around the world, not only in many private households, but also in numerous major international projects. There, they make an important contribution to the sustainable protection of finite energy reserves.

In such projects, Viessmann successfully overcomes the most diverse challenges facing advanced heating technology by offering innovative solutions – in historical listed buildings, highly productive industrial complexes and the large scale residential and commercial arena.

Viessmann's comprehensive product range for commercial applications comprises efficient energy systems for the economic provision of heat, steam, refrigeration and power. All fuel types can be utilised for such systems – gas, oil, biomass and solar energy, as well as heat from the ground, outdoor air or waste heat generated by production processes.

Control technology components, as well as remote monitoring and control, are similarly part of our comprehensive range, as are extensive services ranging from engineering to commissioning and service.





6



10

**6 GAS CONDENSING BOILERS UP TO 150 kW**

Vitodens 200-W wall mounted gas condensing boilers up to 150 kW. Cascade up to 594 kW (900 kW for the 150 kW model).

**10 GAS CONDENSING BOILERS UP TO 1000 kW**

Vitocrossal floor standing gas condensing boilers up to 1000 kW. Cascade up to 8000 kW.



22



40

**22 OIL/GAS BOILERS UP TO 2000 kW**

Floor standing gas and oil boilers up to 2000 kW.

**40 DHW CYLINDERS UP TO 500 LITRES**

Vitocell single and twin coil DHW cylinders up to 500 litres.



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**42 LOW PRESSURE HOT WATER BOILERS UP TO 22 MW**

Vitomax low pressure hot water boilers up to 22 MW.

**46 SYSTEM TECHNOLOGY**

Perfectly matching system technology from Viessmann offers maximum reliability, flexibility and efficiency.

**56 ATTRACTIVE SERVICES FOR OUR TRADE PARTNERS**

Find out more about engineering aids and training offers, as well as our customer service and online systems.



56



## VITODENS

The Vitodens 200-W is a wall hung gas condensing boiler for commercial applications, available in 49, 60, 80, 99, 120, 150 kW models.

The Vitodens 200-W high output gas condensing boiler is one of the most efficient and reliable boilers for commercial use. Exceptional performance and careful design combine to offer maximum flexibility, whilst a range of advanced features and functions make installation, fault-finding and servicing easy.

### **Designed for high efficiency and low emissions**

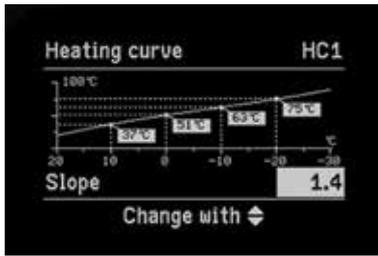
The Vitodens 200-W is designed for maximum efficiency and reliability and features a high efficiency pump as standard along with options for weather compensation and cascade, with gross efficiency of up to 98%. In addition, the 200-W has low NO<sub>x</sub> and CO<sub>2</sub> emissions thanks to the patented stainless steel Matrix cylinder burner.



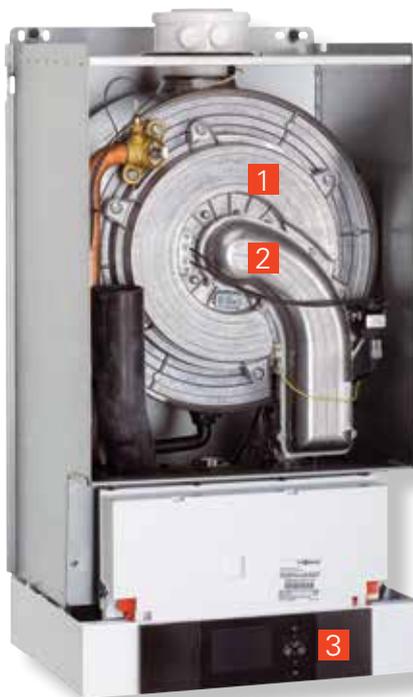
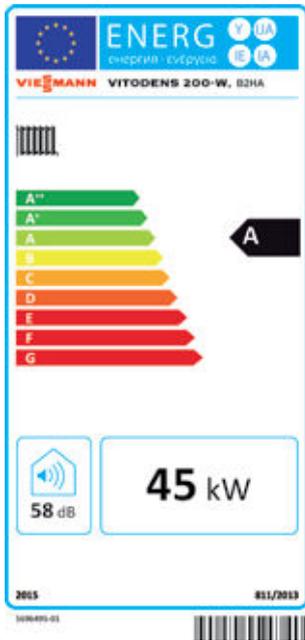
**Vitodens 200-W**  
49 to 99 kW models  
Cascade 2,3,4,5 or 6 boilers up to 594 kW



**Vitodens 200-W**  
120 to 150 kW models  
Cascade 2,3,4, or 6 boilers up to 900 kW



Example: Vitotronic 200 HO1B heating curve



### Intelligent Lambda Pro combustion control system for optimum efficiency and performance

The Lambda Pro combustion control is designed to work efficiently irrespective of gas quality – a factor which will become increasingly important as international gas supplies become less reliable. The Lambda Pro combustion controller works alongside the burner to constantly monitor the air to gas ratio. Instead of the gas/air mix remaining fixed from commissioning, the mix is self-adjusting as required, to maintain optimum boiler efficiency in relation to the gas quantity – in a similar way to the fuel management system in a car engine. The control also replaces the traditional gas valve control and changing to LPG takes just a few seconds – with no changing of any parts.

### Modulating MatriX pre-mix burner

Developed by Viessmann, the stainless steel MatriX pre-mix burner, burns with thousands of tiny flames instead of one large one, distributing heat cleanly and efficiently to the heat exchanger. With a modulation range of 1:5 the heat

demand is optimised and maximum efficiency levels are achieved. The extremely low NOx and CO emissions meet and exceed all national clean air regulations and guidelines. The stainless steel MatriX mesh ensures long term reliability.

### Inox-Radial heat exchanger

As with all Viessmann wall-hung boilers, the Vitodens 200-W features Viessmann's unique stainless steel Inox-Radial heat exchanger, designed for long term reliability, high performance and self-cleaning. The design of the heat exchanger ensures high heat transfer through laminar hot gas flow across defined gaps. High corrosion resistance is maintained by the use of high grade stainless steel 1.4571 and thick walls. This component is so reliable that it comes with a 10 year warranty against corrosion.

### Advanced controls

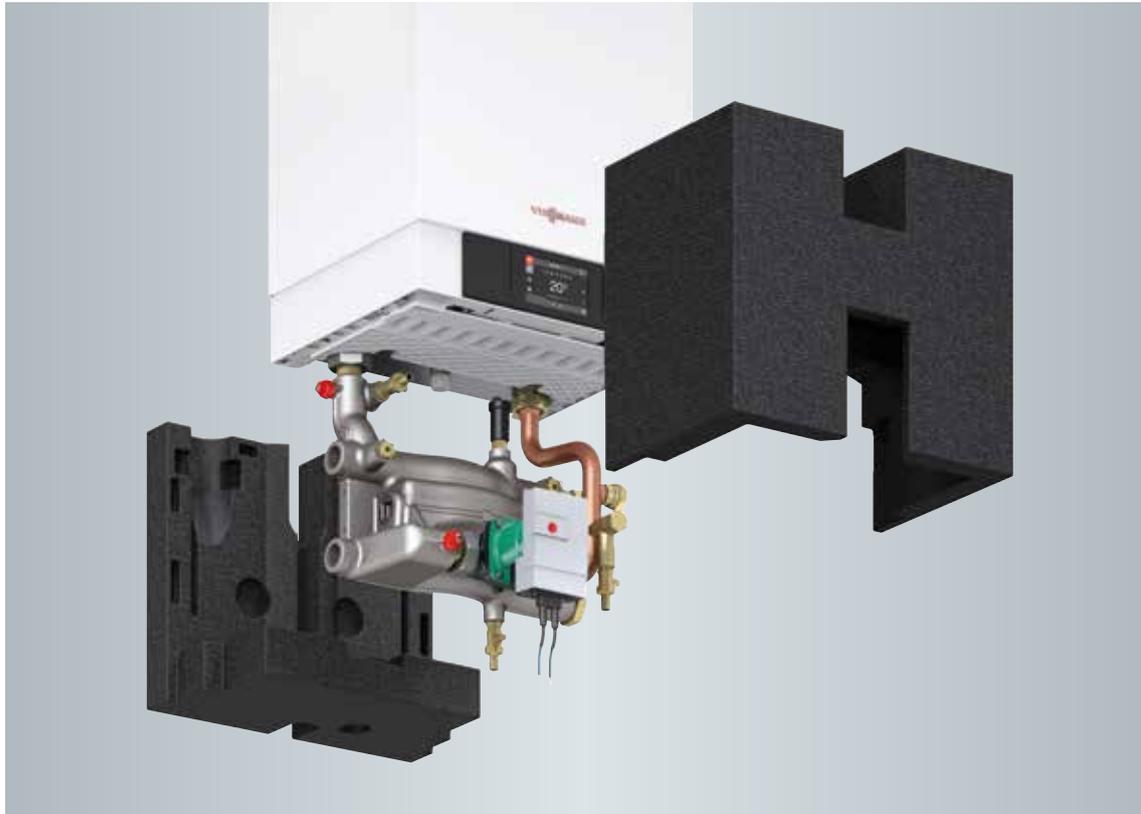
The Vitodens 200-W is equipped with features and functions to make installation, maintenance and servicing easy. These include in-built software for remote data communication and monitoring, additional heating circuits, a solar/heat pump interface, safety monitor sensors and automatic commissioning functions.

### Comprehensive warranties for complete assurance

The Vitodens 200-W comes with a 2 year comprehensive warranty as standard, and the option for a 5 year comprehensive warranty if fitted by a Viessmann Trained Installer. A 10 year extended warranty option is also available when registered through the Viessmann Installer Portal ([www.viessmanninstallerportal.co.uk](http://www.viessmanninstallerportal.co.uk)).

### VITODENS 200-W 49 to 150 KW

- 1 Inox-Radial heat exchanger
- 2 MatriX cylinder burner
- 3 Vitotronic 200 control



Vitodens 200-W with new pump connection set, for single boilers from 49 to 150 kW



Inox-Radial heat exchanger – durable and efficient

## 10 Year Warranty

on all stainless steel heat exchangers for  
gas condensing boilers up to 150 kW

### TAKE ADVANTAGE OF THESE BENEFITS

- + Gross efficiency up to 98%
- + NO<sub>x</sub> <24mg/kWh (2 Credit Points) in line with 'BREEAM UK New Construction 2018 – Technical Manual' assessment criteria
- + Modulation range of 1:5
- + Up to 4 Bar operating pressure (6 Bar on 120 & 150 kW)
- + Lambda Pro combustion controller ensures high efficiency even with fluctuations in gas composition and air pressure
- + High operational reliability
- + Modulating pre-mix Matrix burner
- + Lambda Pro combustion control
- + Optional weather compensation
- + Easy and fault-free commissioning
- + Boilers up to 150 kW suitable for natural gas or LPG (no conversion kit required – simple gas valve adjustment)
- + Noise emissions of less than 32dB (A) in part load
- + High efficiency pump as standard
- + Easy integration with renewable energy technologies
- + All serviceable parts accessible from the front
- + Compact dimensions for easy handling
- + Hydraulic low loss header with integrated deaerator
- + 2 year comprehensive warranty as standard, 5 year comprehensive warranty if fitted by a Viessmann Trained Installer
- + 10 year extended warranty option when registered through the Viessmann Installer Portal ([www.viessmanninstallerportal.co.uk](http://www.viessmanninstallerportal.co.uk))

For specification, see page 20



## VITOCROSSAL

Advanced condensing technology makes the Vitocrossal an economical condensing boiler that is suitable for many different applications.

The Vitocrossal range, from 80 to 1000 kW, offers a perfect solution for every application – from heating apartment buildings and public or commercial premises, through to generating heat in local heating networks.

### Advanced condensing technology

The stainless steel Inox-Crossal heat exchanger provides ideal conditions for utilising condensing technology. This smooth stainless steel heat exchanger lets the condensate created by the condensing process simply run off downwards. This creates a permanent self-cleaning effect, thus ensuring that the condensing technology is utilised at a consistently high level, resulting in a longer service life and reducing maintenance requirements.

Vitocrossal gas condensing boilers can be equipped at the factory with a MatriX radiant burner or MatriX cylinder burner, and the Vitocrossal 200 (type CRU) with a MatriX disc burner.

The highly effective heat transfer and the high condensation rate enable standard seasonal efficiency [to DIN] of up to 98% ( $H_g$ ) [gross cv] to be achieved. These high levels of standard seasonal efficiency are the result of the countercurrent principle related to hot gas and boiler water, along with intensive turbulence of the hot gases as they pass through the heat exchanger.



**Vitocrossal 200**  
Type CRU  
Gas condensing boiler with MatriX disc burner,  
800 and 1000 kW



**Vitocrossal 200**  
Type CM2  
Gas condensing boiler with MatriX cylinder burner,  
400 to 620 kW



**Vitocrossal 200**  
Type CM2C  
Gas condensing boiler with MatriX radiant burner  
(up to 142 kW) and MatriX cylinder burner (from  
186 kW), 87 to 311 kW



**Vitocrossal 100**  
Type CI  
Gas condensing boiler with MatriX cylinder burner,  
80 to 318 kW (Twin cascade up to 636 kW)



#### Vitotronic 200

Intuitive operation via large colour touchscreen



Compact MatriX disc burner

The Vitocrossal 200 gas condensing unit (type CRU) with outputs of 800 and 1000 kW has numerous improvements compared to its predecessor. The extended modulation range of down to 1:6 and significantly smaller dimensions are particularly noteworthy. This makes installation considerably easier, for example in modernisation projects, where the replacement of powerful boilers is often only possible to a limited extent due to space restrictions.

#### Compact dimensions thanks to MatriX disc burner

The new MatriX disc burner is one of the key factors that enables the reduced dimensions. It can be operated with gas type E or LPG. The boiler can be operated in either open flue or room sealed mode.

The proven Inox-Crossal heat exchanger is used in the Vitocrossal 200 (type CRU). Despite its compact dimensions, the gas condensing boiler can be delivered to the customer in sections to facilitate handling on site.

#### Intuitive operation via large colour touchscreen

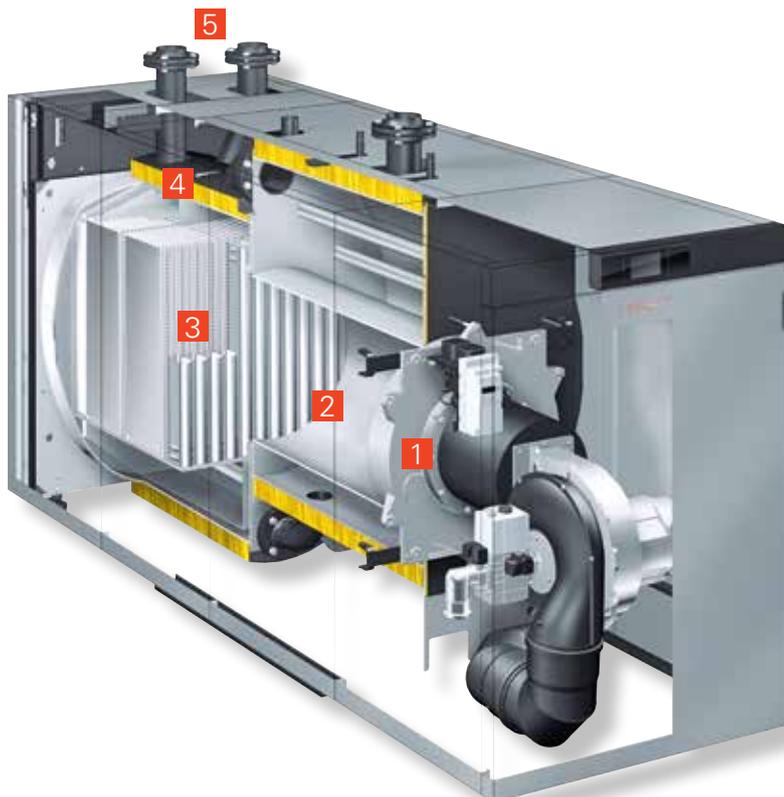
The new Vitotronic control unit integrated into the gas condensing boiler has a large colour touchscreen and is easy and intuitive to use. An assistant function helps with commissioning. A cascade function for up to eight boilers with a total output of 8000 kW is already integrated into the control unit.

The condensing boiler can be connected directly to Vitodata using our proven Vitocom interfaces. This option opens up additional services to the contractor, to ensure trouble-free operation of the system.

Energy consumption can be clearly visualised via Vitocom and the energy cockpit.

#### Extremely convenient to service

The Vitocrossal 200 also impresses with its extremely convenient servicing. The front part of the boiler cover can be slightly raised by means of a gas spring. The side panels can be removed quickly and easily, providing unhindered access to the MatriX disc burner, which can be simply pivoted out to the side. This ability to pivot the burner is a unique feature; service and maintenance do not require any additional tools and are straightforward to carry out.



#### VITOCROSSAL 200 CRU

- 1 MatriX disc burner
- 2 Stainless steel combustion chamber
- 3 Inox-Crossal heat exchanger
- 4 Highly effective thermal insulation
- 5 Two return connectors



Extremely easy to service and maintain thanks to removable side panels and hinged boiler cover.



MatriX disc burner for particularly quiet and environmentally responsible operation with a modulation range down to 1:6

#### TAKE ADVANTAGE OF THESE BENEFITS

- + Gas condensing units, 800 and 1000 kW
- + Standard seasonal efficiency [to DIN]: up to 98% ( $H_g$ ) [gross cv]
- +  $NO_x < 24 \text{ mg/kWh}$  (2 Credit Points) in line with 'BREEAM UK New Construction 2018 – Technical Manual' assessment criteria
- + Suitable for gas type E and LPG
- + The stainless steel, corrosion-resistant Inox-Crossal heat exchanger ensures high operational reliability and a long service life – for highly effective heat transfer and a high condensation rate
- + Self-cleaning effect due to smooth stainless steel surface
- + MatriX disc burner for particularly quiet and environmentally responsible operation with a modulation range down to 1:6
- + Either open flue or room sealed operation
- + Low space requirement due to shortened combustion chamber and compact heat exchanger module
- + Long burner runtimes due to wide modulation range and large water content
- + Low power consumption (no minimum flow rate and no boiler circuit pump due to large water content)
- + Vitotronic control unit with colour touchscreen and energy cockpit as standard
- + Vitotronic 300 with integral cascade function for up to 8 boilers
- + Quiet operation thanks to new MatriX disc burner and optional room sealed operation
- + Integral LAN interface for internet communication and integral WLAN for service interface

For specification, see page 20



Inox-Crossal heat exchanger for highly effective heat transfer and condensation rate

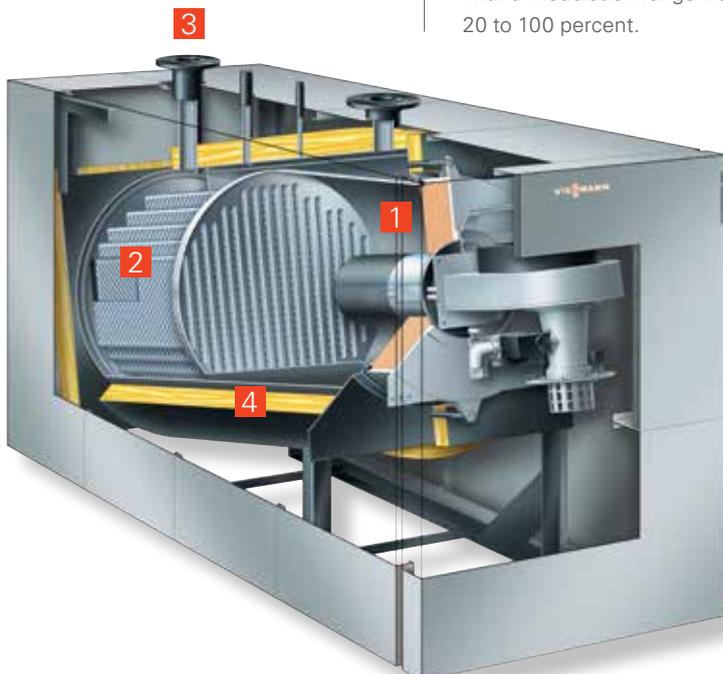
The Vitocrossal 200, type CM2, is a floorstanding gas condensing boiler, available from 400 to 620 kW. As a single or multi boiler system, it is as suitable for residential complexes as for local heating networks, larger public and commercial buildings and industrial plants.

#### Advanced condensing technology

The stainless steel Inox-Crossal heat exchanger provides ideal conditions for utilising condensing technology. The smooth stainless steel heat exchanger allows the condensate created by the condensing process to simply run off downwards. Combined with the smooth stainless steel surface, this creates a permanent self-cleaning effect, thus ensuring that the condensing technology is utilised at a permanently high level, resulting in a longer service life whilst also reducing the maintenance effort.

The highly effective heat transfer and high condensation rate enable standard seasonal efficiency [to DIN] up to 98% ( $H_s$ ) [gross cv] / 109% ( $H_n$ ) [net cv] to be achieved.

Vitocrossal 200 gas condensing boilers are available factory fitted with a MatriX cylinder burner, with a modulation range from 20 to 100 percent.



#### Convenient and powerful Vitotronic control unit

The economical and safe operation of your heating system is ensured by the Vitotronic control system with communication capability. The powerful Vitotronic 300 control unit is now fitted to the side of the boiler for even easier operation. Up to four boilers with modulating boiler water temperature can be regulated, as can systems with one or two heating circuits with optional mixers.

#### Room sealed operation

Room sealed operation is an option, and allows flexible installation of the condensing boiler inside the building.



MatriX cylinder burner

#### VITOCROSSAL 200 CM2

- 1 Stainless steel combustion chamber
- 2 Stainless steel Inox-Crossal heat exchanger
- 3 Return connectors
- 4 Highly effective thermal insulation

**VITOCROSSAL 200 CM2**  
400 to 620 kW



Vitocrossal 200, 400 to 620 kW



Weather-compensated boiler and heating circuit control unit Vitotronic 300, type GW4B

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Single boiler system with condensing technology, rated heating output 400 to 620 kW (at a heating water temperature of 50/30 °C) rated heating output 370 to 575 kW (at a heating water temperature of 80/60 °C)
- + Standard seasonal efficiency [to DIN] up to 98% ( $H_s$ ) [gross cv] / 109% ( $H_f$ ) [net cv]
- + NOx <24mg/kWh (2 Credit Points) in line with 'BREEAM UK New Construction 2018 – Technical Manual' assessment criteria
- + Inox-Crossal heat exchanger for highly effective heat transfer and high condensation rate
- + Smooth stainless steel surfaces create self-cleaning effect
- + Clean combustion thanks to low combustion chamber loading and straight-through combustion chamber design
- + MatriX cylinder burner for particularly quiet and environmentally responsible operation with a modulating range of 20 to 100%
- + Either open flue or room sealed operation
- + All hydraulic connections on the system side can be made from above
- + Easy-to-operate Vitotronic control unit with plain text and graphic display

For specification, see page 21

The Vitocrossal 200 (type CM2C) gas condensing boiler with an output of 87 to 311 kW sets benchmarks in maintenance and service. The proven MatriX radiant burners (up to 142 kW) and MatriX cylinder burners (from 186 kW) enable operation with gas types E, L, LL, and from 186 kW with LPG, as well as modulation down to 20 percent. The Vitotronic control unit integrated into the boiler has a large colour touchscreen and is easy and intuitive to use. An assistant function helps with commissioning.

#### Advanced condensing technology

The stainless steel Inox-Crossal heat exchanger provides ideal conditions for utilising condensing technology. This smooth stainless steel heat exchanger lets the condensate created by the condensing process simply run off downwards. This creates a permanent self-cleaning effect, thus ensuring that the condensing technology is utilised at a consistently high level, resulting in a longer service life and reducing maintenance requirements.

#### Extremely convenient to service

The Vitocrossal 200 also impresses with its extremely convenient servicing. The gas spring enables the front part of the boiler cover to be easily raised. The side panels can be pushed back, allowing unobstructed access to the MatriX burner.

#### Integral cascade function for up to eight units

The Vitocrossal 200 is the ideal boiler for apartment buildings and commercial enterprises. The cascade function integrated in the Vitotronic control unit enables multi boiler systems with up to eight boilers.

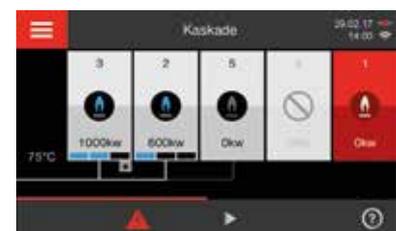
For multi boiler systems with two units, Viessmann supplies prefabricated system pipework and flue gas headers made from stainless steel. The heating centre uses tried and tested condensing technology components from Viessmann, such as the Inox-Crossal heat exchanger and the MatriX radiant or MatriX cylinder burner. The boiler can be operated in either open flue or room sealed mode.

#### Convenient Vitotronic control unit

The Vitotronic control unit with a large colour touchscreen enables quick commissioning using the assistant function; operation is straightforward as well.

Functionality has been significantly improved. This includes:

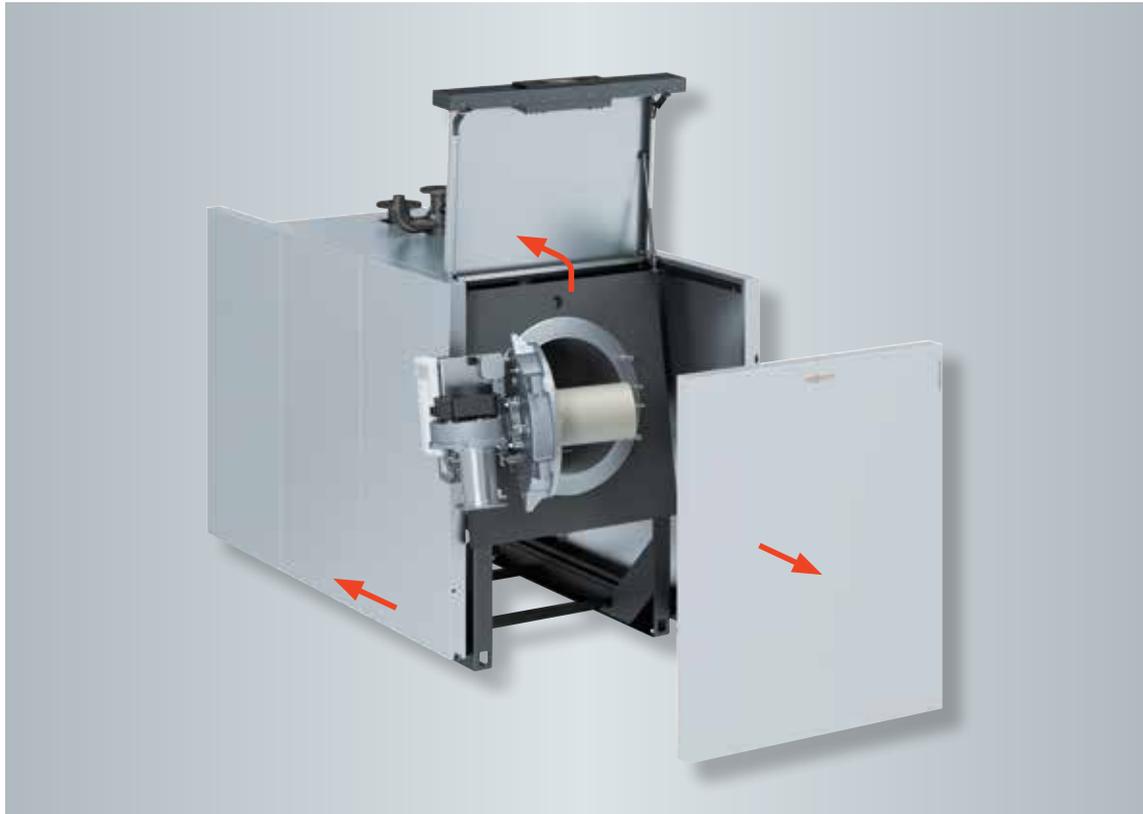
- LAN interface for internet connectivity
- Service interface (WLAN) for Vitosoft 300 for commissioning and service
- Assistant function to aid commissioning
- Remote reset via programming unit in boiler control unit
- Energy cockpit shows energy consumption rates and histograms
- Two return connectors for hydraulic connection optimised for condensing technology (optional)
- New design concept for ease of maintenance and service
- Vitogate 300 as an interface for integration into building management systems



Vitotronic 300 integral cascade control

#### VITOCROSSAL 200 CM2C

- 1 Vitotronic control unit with colour touchscreen and commissioning assistant
- 2 MatriX cylinder burner
- 3 Inox-Crossal heat exchanger
- 4 Highly effective thermal insulation
- 5 Two return connectors



Extremely easy to service and maintain thanks to sliding side panels and hinged boiler cover



Vitotronic 200 integral control unit for boiler units

#### TAKE ADVANTAGE OF THESE BENEFITS

- + Gas condensing boilers, 87 to 311 kW
- + Standard seasonal efficiency [to DIN]: up to 98% ( $H_g$ ) [gross cv]
- + NO<sub>x</sub> <24mg/kWh (2 Credit Points) in line with 'BREEAM UK New Construction 2018 – Technical Manual' assessment criteria
- + The stainless steel, corrosion-resistant Inox-Crossal heat exchanger ensures high operational reliability and a long service life – for highly effective heat transfer and a high condensation rate
- + Self-cleaning effect due to smooth stainless steel surface
- + Low combustion chamber loading and straight-through design for clean combustion
- + MatriX cylinder burner for particularly quiet and environmentally responsible operation with a modulation range down to 1:5
- + Either open flue or room sealed operation
- + All hydraulic connections can be made from above
- + Two return connectors for hydraulic connection optimised for condensing technology (optional)
- + Easy to operate Vitotronic control unit with colour touchscreen
- + Integral LAN interface for internet communication and integral WLAN for service interface
- + New design concept for ease of maintenance and service

For specification, see page 21

The Vitocrossal 100 (CI) is a gas condensing unit for universal application with an output of 80 to 318 kW. Its very good price/performance ratio makes this heating centre a particularly economical solution for both residential buildings and commercial enterprises.

It features the enhanced Inox-Crossal heat exchanger with a robust MatriX cylinder burner. The modulation range down to 1:5 in conjunction with a large water content enable long burner runtimes and low energy consumption.

#### Complete and compact

The Vitocrossal 100, excluding casing, measures just 680 millimetres wide, making it ideal for modernisation projects. When replacing older systems in particular, the space available for manoeuvring is often restricted.

The heat generator can be ordered as a complete unit or with individual components delivered separately. As a complete unit, it is pre-wired and pre-installed at the factory. This significantly reduces installation time and effort at the installation location.

#### Lambda Pro Control reduces costs

The integral Lambda Pro Control combustion controller automatically matches the burner to the natural gas type (E, L, LL) and ensures consistently high and efficient combustion quality with low emissions. The Vitocrossal 100 is suitable for open flue or room sealed operation.

#### Proven Vitotronic control unit

The integral Vitotronic control unit enables quick commissioning and straightforward operation. With the Vitocom (optional), the boiler can be conveniently controlled via the internet with an app, as is the case with other Viessmann boilers.

#### Advanced condensing technology

The heat exchangers have been designed to combine minimal dimensions with a low weight. The stainless steel heat exchanger provides ideal conditions for utilising condensing technology. The smooth stainless steel heat exchanger allows the condensate created by the condensing process to simply run off downwards. Combined with the smooth stainless steel surface, this creates a permanent self-cleaning effect, which ensures permanently high efficiency, increases the service life and reduces the maintenance effort.



#### VITOCROSSAL 100 CI

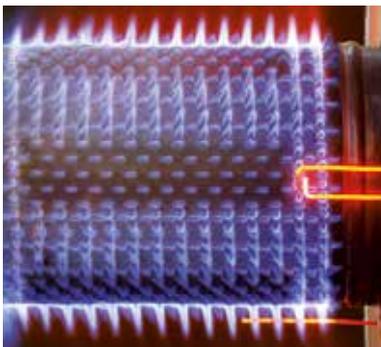
- 1 Vitotronic control unit
- 2 MatriX cylinder burner
- 3 Enhanced Inox-Crossal heat exchanger
- 4 Highly effective thermal insulation

## VITOCROSSAL 100

80 to 318 kW, cascade up to 636 kW



Straightforward cascade solution in a single casing, from 400 to 636 kW



MatriX cylinder burner

### TAKE ADVANTAGE OF THESE BENEFITS

- + Gas condensing units, 80 to 318 kW
- + Straightforward twin boiler solution in a single casing, from 240 to 636 kW
- + NO<sub>x</sub> <24mg/kWh (2 Credit Points) in line with 'BREEAM UK New Construction 2018 – Technical Manual' assessment criteria
- + Pre-installed unit: quick and simple installation thanks to fully wired and pre-assembled components
- + Minimal dimensions for easy handling: boiler is 680 mm wide when dismantled
- + Standard seasonal efficiency [to DIN]: up to 98% (H<sub>2</sub>) [gross cv]
- + For gas types: natural gas (E, L, LL)
- + Self-cleaning Inox-Crossal heat exchanger for consistently high efficiency
- + Modulating MatriX cylinder burner with a long service life thanks to stainless steel MatriX gauze – resistant to high temperature loads
- + Robust operation and a long service life, modulation down to 1:5 and long burner runtimes with a low cycling frequency
- + Consistently high efficiency in case of changing gas qualities thanks to Lambda Pro Control combustion controller
- + Good accessibility to all components for ease of service and maintenance
- + Proven Vitotronic control unit with user prompts and plain text display
- + Low power consumption as boiler circuit pump and large water content are unnecessary
- + Quiet operation through integral MatriX cylinder burner
- + Optional Vitocom interface for control via the internet

For specification, see page 21



### VITODENS 200-W, GAS CONDENSING BOILER

<b>When operating with natural gas</b>							
<b>gas</b>							
$T_f/T_R = 50/30^\circ\text{C}$	kW	12.0-49.0	12.0-60.0	20.0-80.0	20.0-99.0	32.0-120.0	32.0-150.0
$T_f/T_R = 80/60^\circ\text{C}$	kW	10.9-45.0	10.9-55.2	18.2-74.1	18.2-90.9	29.1-110.9	29.0-136.0
<b>When operating with LPG P</b>							
$T_f/T_R = 50/30^\circ\text{C}$	kW	17.0-49.0	17.0-60.0	30.0-80.0	30.0-99.0	32.0-120.0	32.0-150.0
$T_f/T_R = 80/60^\circ\text{C}$	kW	15.5-45.0	15.5-55.2	27.3-74.1	27.3-90.9	29.1-110.9	29.0-136.0
<b>Rated heat input when operating with natural gas</b>							
	kW	11.2-45.7	11.2-56.2	18.8-75.0	18.8-92.9	30.0-113.3	30.0-142.0
<b>Rated heat input when operating with LPG P</b>							
	kW	16.1-45.7	16.1-56.2	28.1-75.0	28.1-92.9	30.3-113.3	30.0-142.0
<b>Gas supply pressure</b>							
Natural gas	mbar	17	17	17	17	17.4	17.4
LPG	mbar	32	32	32	32	32	32
<b>Max. permissible gas supply pressure*<sup>1</sup></b>							
Natural gas	mbar	25.0	25.0	25.0	25.0	25.0	25.0
LPG	mbar	57.5	57.5	42.5	42.5	57.5	57.5
<b>Sound power level (Details to EN ISO 15036-1)</b>							
At partial load	dB(A)	39	39	39	39	40	40
At rated heating output	dB(A)	58	67	56	59	54	60
<b>Power consumption (delivered condition)</b>							
	W	48	69	45	66	73	88
<b>Weight</b>							
	kg	65	65	83	83	130	130
<b>Heat exchanger capacity</b>							
	l	7.0	7.0	12.8	12.8	15.0	15.0
<b>Max. flow temperature</b>							
	$^\circ\text{C}$	81	81	81	81	85	85
<b>Max. flow rate</b>							
	l/h	3500	3500	5700	5700	7165	8600
Limit for the use of hydraulic separation							
<b>Nominal circulation water volume at <math>T_f/T_R = 80/60^\circ\text{C}</math></b>							
	l/h	1748	2336	3118	3909	4900	5850
<b>Permiss. operating pressure</b>							
	bar	4	4	4	4	6	6
	MPa	0.4	0.4	0.4	0.4	0.6	0.6
<b>Dimensions</b>							
Length	mm	380	380	530	530	690	690
Width	mm	480	480	480	480	600	600
Height	mm	850	850	850	850	900	900
<b>NOx Level*</b>				<24mg/kWh (2 Credit Points)			



### VITOCROSSAL 200, TYPE CRU GAS CONDENSING BOILER

<b>Rated heating output 50/30<math>^\circ\text{C}</math></b>		kW	133 – 800	167 – 1000
<b>Rated heating output 80/60<math>^\circ\text{C}</math></b>		kW	121 – 727	152 – 909
<b>Dimensions</b>				
Length	mm	3187	3389	
Width	mm	1060	1060	
Height	mm	1676	1676	
<b>Weight</b>		kg	1435	1492
<b>Boiler water capacity</b>		litres	1150	1180
<b>NOx Level*</b>				<24mg/kWh (2 Credit Points)

\* NOx in line with 'BREEAM UK New Construction 2018 – Technical Manual' assessment criteria

**VITODENS 200 / VITOCROSSAL 200 CRU/CM2/CM2C  
VITOCROSSAL 100 CI**



**VITOCROSSAL 200, TYPE CM2 GAS CONDENSING BOILER**

<b>Rated heating output 50/30°C</b>	kW	80 – 400	100 – 500	124 – 620
<b>Rated heating output 80/60°C</b>	kW	74 – 370	92 – 460	115 – 575
<b>Dimensions</b>				
Length	mm	2230	2385	2525
Width (incl. control unit)	mm	1245	1245	1295
Height	mm	1480	1510	1580
<b>Weight</b>	kg	597	687	758
<b>Boiler water capacity</b>	litres	402	430	503
<b>NOx Level*</b>		<24mg/kWh (2 Credit Points)		



**VITOCROSSAL 200, TYPE CM2C GAS CONDENSING BOILER**

<b>Rated heating output 50/30°C</b>	kW	29 – 87	38 – 115	47 – 142	37 – 186	62 – 246	62 – 311
<b>Rated heating output 80/60°C</b>	kW	26 – 80	35 – 105	43 – 130	34 – 170	56 – 225	57 – 285
<b>Dimensions</b>							
Length	mm	1774	1774	1774	1793	1793	1793
Width	mm	810	810	810	910	910	910
Height	mm	1178	1178	1178	1277	1277	1277
<b>Weight</b>	kg	381	387	389	433	448	461
<b>Boiler water capacity</b>	litres	225	225	221	306	292	279
<b>NOx Level*</b>		<24mg/kWh (2 Credit Points)					



**VITOCROSSAL 100, TYPE CI GAS CONDENSING BOILER**

<b>Rated heating output 50/30°C</b>	kW	80	120	160	200	240	280	318
<b>Rated heating output 80/60°C</b>	kW	74	110	146	184	220	258	291
<b>Dimensions</b>								
Length	mm	745	875	875	980	980	1090	1090
Width	mm	750	750	750	750	750	750	750
Height	mm	1500	1500	1500	1500	1500	1500	1500
<b>Handling dimensions</b>	Ø mm	680	680	680	680	680	680	680
<b>Weight</b>	kg	238	295	295	340	340	385	385
<b>Boiler water capacity</b>	litres	65	103	103	145	145	180	180
<b>NOx Level*</b>		<24mg/kWh (2 Credit Points)						



<b>Rated heating output 50/30°C</b>	kW	240	320	400	480	560	636
<b>Rated heating output 80/60°C</b>	kW	220	292	368	440	516	582
<b>Dimensions</b>							
Length	mm	875	875	980	980	1090	1090
Width	mm	1500	1500	1500	1500	1500	1500
Height	mm	1500	1500	1500	1500	1500	1500
<b>Weight</b>	kg	590	590	680	680	770	770
<b>NOx Level*</b>		<24mg/kWh (2 Credit Points)					

\* NOx in line with 'BREEAM UK New Construction 2018 – Technical Manual' assessment criteria



## VITORADIAL 300-T

Condensing technology for medium sized and industrial/commercial boilers.

### **Vitoradial 300-T compact oil/gas condensing boiler**

The Vitoradial 300-T condensing boiler is extremely compact and is supplied as a unit with a downstream flue gas/water heat exchanger and a Vitoflame 100 pressure-jet burner (up to 335 kW).

### **High efficiency with two-stage heat recovery**

The Vitoradial 300-T condensing boiler is an innovative combination of the Vitoplex 300 low temperature boiler with an Inox-Radial heat exchanger directly attached to it for utilising condensing technology.

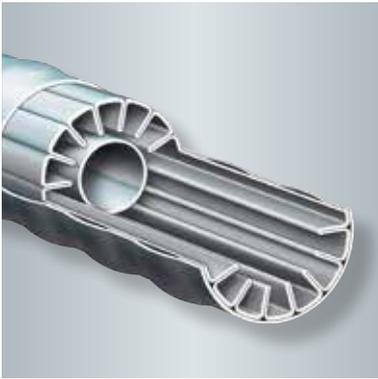
The proven multi layered convection heating surfaces, combined with the corrosion-resistant Inox-Radial heat exchanger fitted downstream of the boiler, enable highly efficient two-stage heat generation and recovery. The Vitoradial 300-T is suitable for operation with all commercially available types of extra light (EL) fuel oil or natural gas.



Vitoradial 300-T condensing boiler, 101 to 545 kW



The Inox-Radial heat exchanger guarantees the highest levels of efficiency and a long service life



Multi layered convection heating surface

### Compact yet powerful

The compact design with low build height makes the Vitoradial 300-T an ideal choice when modernising heating centres. It is supplied as a unit with a downstream Inox-Radial heat exchanger.

### Triplex pipes for 2.5 times larger heating surface

The multi layered convection heating surfaces of the Vitoradial 300-T comprise telescopic steel pipes pressed together for heat transfer. The inner pipe, surrounded by folded linear fins, provides a heating surface 2.5 times greater than that of smooth pipes. Heat transfer occurs proportionately due to the different gaps between the press points, so the back area of the triplex pipes transfers less heat to the boiler water, as the combustion gases circulating here are no longer quite as hot. This way, the surface temperature remains above the dew point, the formation of condensate is counteracted and corrosion damage is prevented.

### Utilising condensing technology with the Inox-Radial heat exchanger

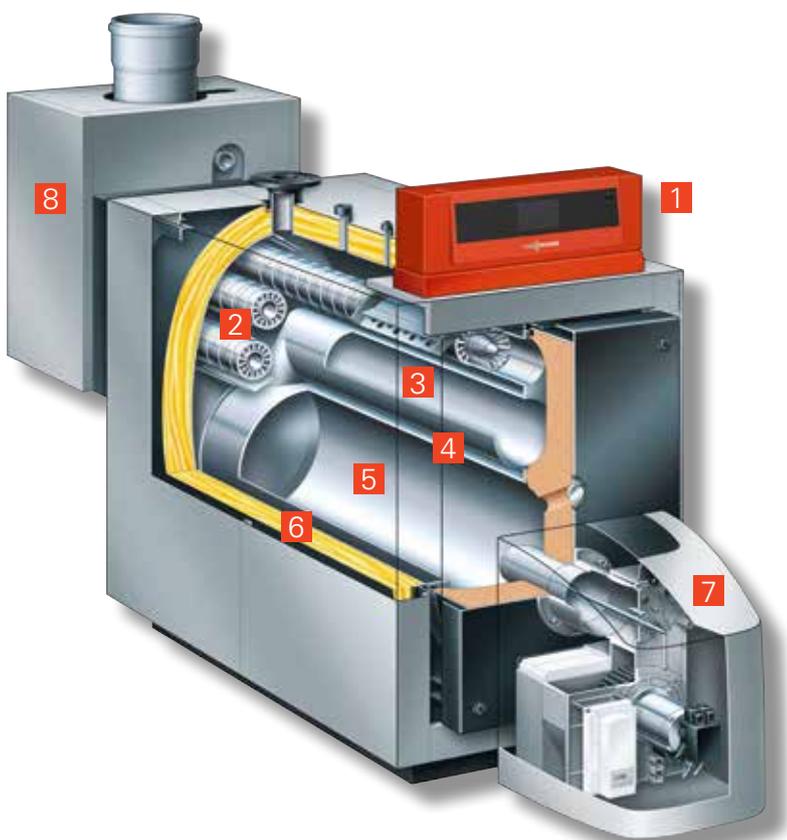
The downstream Inox-Radial heat exchanger makes it feasible to utilise highly efficient condensing technology, even with mid-segment boiler systems, such as the Vitoradial 300-T. The efficiency is raised by eight percent to 97 percent ( $H_g$ ) [gross cv].

This principle ensures that combustion and condensation occur in physically separate locations and the combustion gases condense without leaving any residues behind. In practice, this means standard service intervals for cleaning the combustion chamber and low maintenance costs.

The Vitoradial 300-T is available for an output range of up to 545 kW. The Inox-Radial heat exchanger is highly efficient and made from stainless steel. This prevents the risk of corrosion through acidic condensate.

### Convenient and highly capable Vitotronic control unit

The Vitotronic control unit with a large colour touchscreen enables quick commissioning using the assistant function; operation is straightforward as well. The boiler can be connected directly to the internet for remote monitoring via the integral LAN interface. The Vitosoft 300 service tool communicates directly via WLAN. Energy consumption can be clearly visualised on the control unit's energy cockpit.



### VITORADIAL 300-T

- 1 Vitotronic control unit with colour touchscreen
- 2 Third hot gas pass (as multi layered convection heating surface)
- 3 Hot gas flue (second pass)
- 4 Wide water galleries
- 5 Combustion chamber (first pass)
- 6 Highly effective thermal insulation
- 7 Vitoflame 100, unit pressure-jet oil burner
- 8 Inox-Radial heat exchanger

**VITORADIAL 300-T**  
101 to 545 kW



Vitoradial 300-T, 101 to 335 kW



Vitoradial 300-T, 425 to 545 kW

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Oil/gas condensing boilers, 101 to 545 kW
- + Standard seasonal efficiency [to DIN] for operation with fuel oil: 97% ( $H_g$ ) [gross cv]
- + Inox-Radial heat exchanger for condensing hot gases, matched to the compact boiler
- + Complete with heat exchanger pipework and pump, matched to the respective heating output of the boiler
- + Long burner runtimes and fewer switching intervals due to large water content protect the environment
- + Economical and reliable operation of the heating system is ensured by the digital Vitotronic control unit with communication capability
- + Integral Therm-Control start-up system for easy hydraulic connection – no shunt pump or return temperature raising facility required
- + No low water indicator required – further cost savings
- + Compact design for easy handling and low build height – important in modernisation projects
- + Easy to operate Vitotronic control unit with colour touchscreen
- + Integral LAN interface for internet communication and integral WLAN for service interface

For specification, see page 38



## VITORONDENS 200-T

Compact, affordable cast iron oil condensing boiler for modernisation projects.

The Vitorondens 200-T is a floorstanding cast iron oil condensing boiler with an attractive price/performance ratio. Their dimensions are impressively compact and they are particularly suitable for modernisation projects.

DHW cylinders from Viessmann's comprehensive product range are available for the Vitorondens 200-T.

Combining the durable Eutectoplex heating surface with the downstream Inox-Radial heat exchanger made from stainless steel separates combustion and condensation effectively. The benefit lies in the fact that the combustion residues remain in the combustion chamber, whilst the combustion gases can condense in the heat exchanger without leaving any residues behind.



Vitorondens 200-T, 20.2 to 53.7 kW



Inox-Radial heat exchanger – durable and efficient

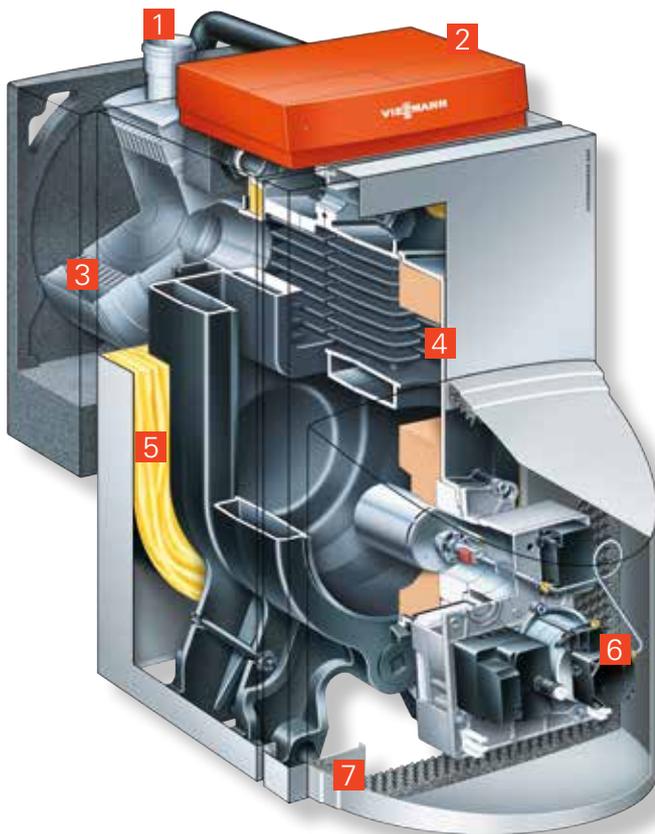


The Eutectoplex heating surface guarantees a long service life and a high degree of operational reliability.

The Vitoflame 300 blue flame oil burner is designed for all commercially available EL-type fuel oils, and ensures particularly clean, environmentally responsible and efficient combustion. As an option, up to ten percent bio-oil can be added to the fuel oil. In addition a Kerosene conversion kit is available for selected models.

#### Easy and convenient control

The Vitotronic 200 control unit with plain text display and graphic support enables easy, self-explanatory operation with user prompts. The Vitotronic enables the convenient control of heating systems with one heating circuit without mixer and up to two heating circuits with mixer.



#### VITORONDENS 200-T

- 1 Flue outlet
- 2 Boiler controls
- 3 Secondary heat exchanger
- 4 Primary heat exchanger
- 5 Thermal insulation
- 6 Burner
- 7 Sound insulation

**VITORONDENS 200-T**  
20.2 to 107.3 kW



Vitorondens 200-T, 20.2 to 107.3 kW



Vitorondens 200-T with output ranging from 67.6 to 107.3 kW (Burner cover only with Vitoflame burner)

**TAKE ADVANTAGE OF THESE BENEFITS**

- + Affordable cast iron oil condensing boilers for modernisation projects
- + Standard seasonal efficiency [to DIN]: up to 97% (H<sub>g</sub>) [gross cv] /103% (H<sub>i</sub>) [net cv]
- + Proven components (Eutectoplex heating surface) for high operational reliability and a long service life
- + Downstream stainless steel Inox-Radial heat exchanger that cleans itself
- + Clean combustion thanks to the Vitoflame 300 blue flame oil burner
- + Jet Flow system for optimum heating water distribution
- + Flexible installation through balanced (up to 53.7 kW) or open flue operation
- + Easy-to-operate Vitotronic control unit with plain text and graphic display
- + All commercially available EL-type fuel oils can be used. Also for fuel oil to DIN 51603-6-EL A Bio 10: low sulphur fuel oil EL with up to 10% bio-components (FAME)
- + Quiet operation through external flue gas silencer option
- + Time savings during installation, as thermal insulation and control unit are prefitted with the Vitorondens 200-T (up to 53.7 kW)
- + Easy handling as the Vitorondens 200-T (from 67.6 to 107.3 kW) components are delivered separately. The boiler body is delivered as a block, whilst thermal insulation, downstream heat exchanger and control unit are fitted on site
- + Kerosene can be used on selected models with a conversion kit

For specification, see page 38



## **VITOPLEX VITOROND**

Proven Viessmann quality up to 2000 kW for oil and gas with high standard seasonal efficiency [to DIN].

The comprehensive range from Viessmann covers every demand for innovative heating technology. Here, you can find the exact solution to suit your needs with regard to building services, convenience and budgetary constraints.

The versatility of the Vitoplex range, which in terms of technology and price is divided into the 300 and 200 categories, ensures that the perfect solution is available for every demand and budget. One thing that all products share is the top quality for which Viessmann is renowned.

The Vitorond 200 comes into its own where the boiler needs to be installed under demanding spatial conditions.



### **Vitoplex 300**

Low temperature oil/gas boiler, three-pass design, 405 to 2000 kW



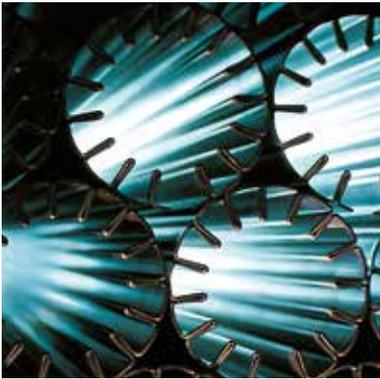
### **Vitoplex 200**

Low temperature oil/gas boiler, three-pass design, 440 to 1950 kW



### **Vitorond 200**

Low temperature oil/gas boiler, three-pass design, 440 to 1080 kW



The triplex pipes offer a heating surface that is 2.5 times greater than that of standard pipes

The Vitoplex 300 three-pass boiler, with its proven multi layered convection heating surfaces, offers particularly economical, clean and reliable operation.

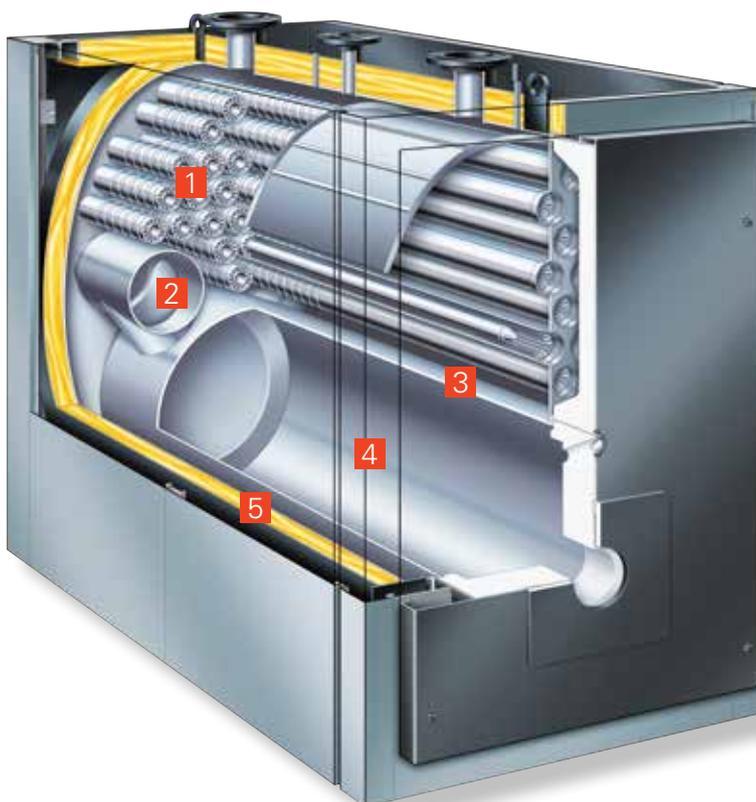
#### Multi layered convection heating surfaces made from triplex pipes

The multi layered convection heating surfaces of the Vitoplex 300 comprise telescopic steel pipes pressed into each other for heat transfer. The inner pipe, surrounded by folded linear fins, provides a heating surface 2.5 times greater than that of smooth pipes.

Heat transfer occurs proportionately due to the different gaps between the press points, so the back area of the triplex pipes transfers less heat to the boiler water, as the combustion gases circulating here are no longer quite as hot. This way, the surface temperature remains above the dew point, the formation of condensate is counteracted and corrosion damage is prevented.

#### Convenient and highly capable Vitotronic control unit

The Vitotronic control unit with a large colour touchscreen enables quick commissioning using the assistant function; operation is straightforward as well. The boiler can be connected directly to the internet for remote monitoring via the integral LAN interface. The Vitosoft 300 service tool communicates directly via WLAN. Energy consumption can be clearly visualised on the control unit's energy cockpit.



#### VITOPLEX 300 405 to 2000 KW

- 1 Third hot gas pass (as multi layered convection heating surface)
- 2 Hot gas flue (second pass)
- 3 Wide water galleries
- 4 Combustion chamber (first pass)
- 5 Highly effective thermal insulation



Vitotronic 200 (type CO1E) with colour touchscreen for weather-compensated mode

#### TAKE ADVANTAGE OF THESE BENEFITS

- + Low temperature oil/gas boilers, 405 to 2000 kW
- + Multi layered convection heating surfaces for high operational reliability and a long service life
- + Standard seasonal efficiency [to DIN] with fuel oil: 90% ( $H_s$ ) [gross cv]
- + Optional stainless steel flue gas/water heat exchanger for higher standard seasonal efficiency [to DIN], utilising the condensing effect
- + Three-pass boiler with low combustion chamber loading, resulting in clean combustion with low emissions
- + The integral Therm-Control start-up system replaces the shunt pump or constant return temperature raising facility, saving installation time and costs
- + From 620 kW with a walk-on boiler cover for easier installation and maintenance
- + Easy to operate Vitotronic control unit with colour touchscreen
- + Integral LAN interface for internet communication and integral WLAN for service interface
- + Economical and reliable operation of the heating system through the Vitotronic control system with communication capability which, in conjunction with the Vitogate 300 (accessory), enables integration into building management systems

For specification, see page 39

The compact Vitoplex 200 steel boiler is available from 440 to 1950 kW. Over its entire output range, this three-pass boiler offers the right conditions for environmentally responsible and clean combustion. A wide range of burners can be easily adapted for use with this boiler. The Vitoplex 200 is a three-pass boiler with low combustion chamber loading. Consequently, it delivers clean combustion with particularly low nitrogen oxide emissions.

#### Optimum combustion and low emissions

Pressure-jet oil/gas burners from ELCO and Weishaupt are already fully adjusted and wired for the full output range. This ensures optimum combustion with low emissions.

#### Therm-Control saves installation time and costs

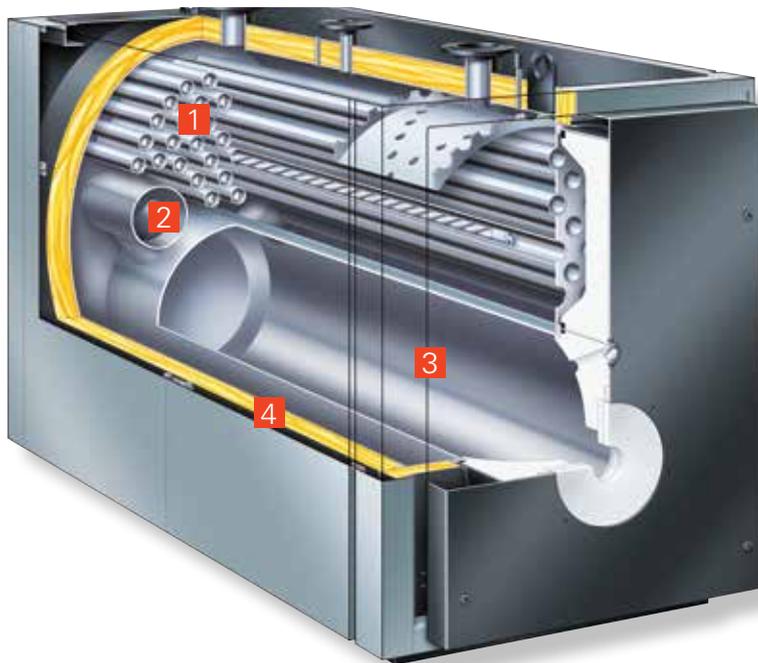
No minimum heating water flow rate is required because of the wide water galleries. This simplifies the hydraulic connection. Therm-Control in the output range from 440 to 560 kW also makes return temperature raising facilities superfluous. This saves installation time and additional outlay.

#### Convenient and highly capable Vitotronic control unit

The Vitotronic control unit with a large colour touchscreen enables quick commissioning using the assistant function; operation is straightforward as well. The boiler can be connected directly to the internet for remote monitoring via the integral LAN interface. The Vitosoft 300 service tool communicates directly via WLAN. Energy consumption can be clearly visualised on the control unit's energy cockpit.

#### A neat fit even when space is tight

The Vitoplex 200 three-pass boiler is easy to handle and saves space, while the walk-on boiler cover (from 700 kW) facilitates installation and maintenance.



**VITOPLEX 200**  
440 to 1950 KW

- 1 Hot gas flue (third pass)
- 2 Hot gas flue (second pass – both sides)
- 3 Combustion chamber (first pass)
- 4 Highly effective thermal insulation



Display screen of the Vitotronic 100 boiler control unit (type CC1E) with colour touchscreen for constant temperature mode

#### TAKE ADVANTAGE OF THESE BENEFITS

- + Low temperature oil/gas boilers, 440 to 1950 kW
- + Economical and environmentally responsible through modulating boiler water temperature
- + Standard seasonal efficiency [to DIN] with fuel oil: 89% ( $H_s$ ) [gross cv]
- + Optional stainless steel flue gas/water heat exchanger for higher standard seasonal efficiency [to DIN], utilising the condensing effect
- + Three-pass boiler with low combustion chamber loading, resulting in clean combustion with low emissions
- + Wide water galleries and large water content provide good natural circulation and reliable heat transfer
- + Long burner runtimes and fewer switching intervals due to large water content protect the environment
- + Compact design for easy transportation to the boiler room – important in modernisation projects
- + Easy to operate Vitotronic control unit with colour touchscreen
- + Integral LAN interface for internet communication and integral WLAN for service interface
- + Economical and reliable operation of the heating system through the Vitotronic control system with communication capability which, in conjunction with the Vitogate 300 (accessory), enables integration into building management systems

For specification, see page 39



Cast section of the Vitorond 200, 440 to 1080 kW

Older buildings in particular often have narrow entrances which can make it difficult to transport a new boiler. With the Vitorond 200 sectional cast iron boiler, sections can be brought into the boiler room individually, where they can be easily assembled, in situ, with the aid of a compression tool.

#### **Eutectoplex heating surface for high operational reliability and a long service life**

The cast sections of the Vitorond 200 boilers are made from special eutectic cast iron with a homogeneous structure. The fine design of the graphite fins and the high level of material purity of the low phosphorous special cast iron increase its elasticity. The material, shape and geometry of the cast sections provide even cooling inside the mould during manufacture. This prevents structural stresses right from the start, resulting in high operational reliability and a long service life.

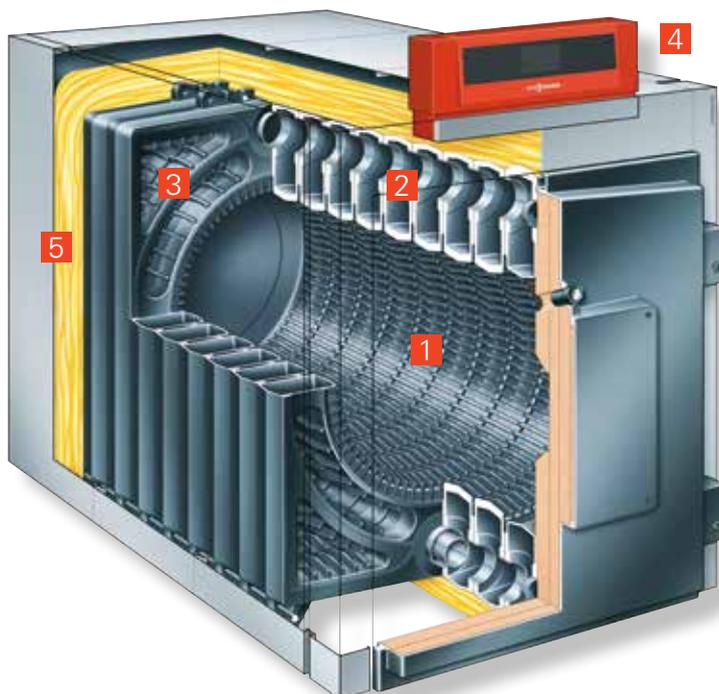
#### **Three-pass boiler with low emissions**

At the end of the combustion chamber, the hot gases flow onwards through four hot gas flues arranged symmetrically around the combustion chamber.

They then enter the four collectors of the third hot gas flue via the front section. At the back of the boiler, the four cooled hot gas streams are channelled to the chimney via the flue gas connection. The three-pass design reduces the dwell time of the hot gases in the high reaction temperature range. This results in reduced nitrogen oxide emissions.

#### **Convenient and highly capable Vitotronic control unit**

The Vitotronic control unit with a large colour touchscreen enables quick commissioning using the assistant function; operation is straightforward as well. The boiler can be connected directly to the internet for remote monitoring via the integral LAN interface. The Vitosoft 300 service tool communicates directly via WLAN. Energy consumption can be clearly visualised on the control unit's energy cockpit.



#### **VITOROND 200** 440 to 1080 KW

- 1** Combustion chamber (first pass)
- 2** Hot gas flue (second pass)
- 3** Hot gas flue (third pass)
- 4** Vitotronic 200 boiler and heating circuit control unit with colour touchscreen
- 5** Highly effective thermal insulation



#### TAKE ADVANTAGE OF THESE BENEFITS

- + Low temperature oil/gas boilers, 440 to 1080 kW
- + Economical and environmentally responsible through modulating boiler water temperature
- + Standard seasonal efficiency [to DIN] with fuel oil: 88% ( $H_g$ ) [gross cv]
- + Three-pass boiler – for clean combustion with low emissions
- + Eutectoplex heating surface for high operational reliability and a long service life the homogeneous structure of the special eutectic cast iron provides an even heat flux and prevents stress fractures
- + Fast and straightforward assembly of individual cast sections due to double groove system and resilient packing cord for permanent hot gas tightness
- + Straightforward handling thanks to sectional design and low transport weight of individual sections
- + Standard seasonal efficiency [to DIN] improved by up to 12% due to condensing technology with Vitotrans 300 stainless steel flue gas/water heat exchanger
- + Easy to operate Vitotronic control unit with colour touchscreen
- + Integral LAN interface for internet communication and integral WLAN for service interface
- + Economical and reliable operation of the heating system through the Vitotronic control system with communication capability which, in conjunction with the Vitogate 300 (accessory), enables integration into building management systems



### VITORADIAL 300-T, TYPE VR3 OIL CONDENSING BOILER

<b>Rated heating output 50/30°C</b>	kW	101	129	157	201	263	335
<b>Rated heating output 80/60°C</b>	kW	94	120	146	188	245	313
<b>Dimensions (overall)</b>							
Length	mm	2145	2345	2335	2680	2900	2900
Width	mm	755	755	825	825	905	905
Height	mm	1315	1315	1350	1350	1460	1460
<b>Weight</b>	kg	510	545	610	680	870	970
<b>Boiler water capacity</b>	litres	185	225	265	310	490	450



<b>Rated heating output 50/30°C</b>	kW			425			545
<b>Rated heating output 80/60°C</b>	kW			407			522
<b>Dimensions (overall)*</b>							
Length	mm			2509			2654
Width	mm			1040			1040
Height	mm			1689			1689
<b>Weight</b>	kg			1190			1305
<b>Boiler water capacity</b>	litres			600			650

\* Details excluding burner and hood



### VITORONDENS 200-T, OIL CONDENSING BOILER

<b>Rated heating output 50/30°C</b>	kW	20.2	24.6	28.9	35.4	42.8	53.7
<b>Rated heating output 80/60°C</b>	kW	18.8	22.9	27	33	40	50
<b>Dimensions</b>							
Length	mm	1226	1226	1362	1362	1662	1662
Width incl. control unit	mm	500	500	500	500	500	500
Height	mm	940	940	940	940	940	940
<b>Weight</b>	kg	147	147	184	184	224	224
<b>Boiler water capacity</b>	litres	A	A	A	A	A	A



<b>Rated heating output 50/30°C</b>	kW		67.6		85.8		107.3
<b>Rated heating output 80/60°C</b>	kW		63		80		100
<b>Dimensions</b>							
Length	mm		1704		1704		1704
Width incl. control unit	mm		600		600		600
Height	mm		1149		1149		1149
<b>Weight</b>	kg		348		348		348
<b>Boiler water capacity</b>	litres		A		A		A



### VITOPLEX 300, TYPE TX3A OIL/GAS LOW TEMPERATURE BOILER

<b>Rated heating output</b>	kW	405	500	620	780
<b>Dimensions (overall)*</b>					
Length	mm	1935	2080	2350	2350
Width (incl. control unit)	mm	1040	1040	1460	1460
Height	mm	1625	1625	1690	1690
<b>Weight</b>					
(boiler incl. thermal insulation and boiler control unit)	kg	1075	1295	1750	1990
<b>Boiler water capacity</b>	litres	600	630	965	900

**VITORADIAL 300, VITORONDENS 200  
VITOPLEX 300/200, VITOROND 200**

405 to 2000 kW

**VITOPLEX 300, TYPE TX3A OIL/GAS LOW TEMPERATURE BOILER (CONTINUED)**

<b>Rated heating output</b>	kW	1000	1250	1600	2000
<b>Dimensions (overall)*</b>					
Length	mm	2600	2600	3245	3245
Width (incl. control unit)	mm	1555	1555	1660	1660
Height	mm	1920	1920	2140	2140
<b>Weight</b>					
(boiler incl. thermal insulation and boiler control unit)					
	kg	2705	2860	3725	4205
<b>Boiler water capacity</b>	litres	1510	1440	2475	2315

\* Details excluding burner and hood



**VITOPLEX 200, TYPE SX2A OIL/GAS LOW TEMPERATURE BOILER**

<b>Rated heating output</b>	kW	440	560	700	900
<b>Dimensions (overall)*</b>					
Length	mm	1885	2030	2280	2580
Width	mm	1040	1040	1460	1460
Height	mm	1625	1625	1690	1690
<b>Weight</b>					
(boiler incl. thermal insulation and boiler control unit)					
	kg	960	1170	1725	1985
<b>Boiler water capacity</b>	litres	600	635	935	1325

<b>Rated heating output</b>	kW	1100	1300	1600	1950
<b>Dimensions (overall)*</b>					
Length	mm	2530	2750	3175	3175
Width	mm	1555	1555	1660	1660
Height	mm	1920	1920	2140	2140
<b>Weight</b>					
(boiler incl. thermal insulation and boiler control unit)					
	kg	2255	2485	3180	3760
<b>Boiler water capacity</b>	litres	1525	1690	2510	2420

\* Details excluding burner and hood



**VITOROND 200, TYPE VD2A OIL/GAS LOW TEMPERATURE BOILER**

<b>Rated heating output</b>	kW	440	500	560	630
<b>Dimensions (overall)*</b>					
Length	mm	1750	1880	2010	2140
Width	mm	1090	1090	1090	1090
Height	mm	1480	1480	1480	1480
<b>Weight</b>					
(boiler incl. thermal insulation and boiler control unit)					
	kg	2110	2260	2430	2580
<b>Boiler water capacity</b>	litres	303	331	359	387

<b>Rated heating output</b>	kW	700	780	860	950	1080
<b>Dimensions (overall)*</b>						
Length	mm	2270	2400	2530	2660	2790
Width	mm	1090	1090	1090	1090	1090
Height	mm	1480	1480	1480	1480	1480
<b>Weight</b>						
(boiler incl. thermal insulation and boiler control unit)						
	kg	2740	2910	3070	3220	3380
<b>Boiler water capacity</b>	litres	415	443	471	499	527

\* Details excluding burner and hood

The Vitocell 300 range of unvented hot water storage cylinders are indirectly heated cylinders designed for use with Vitodens system boilers and characterised by the use of heavy gauge quality stainless steel.

The addition of a 30 mm polyester fibre fleece and 13 mm vacuum panel top result in the 160 and 200 litre models having an Energy Efficiency Class rating of A+.



**Vitocell 300-V**  
(160 to 500 l)

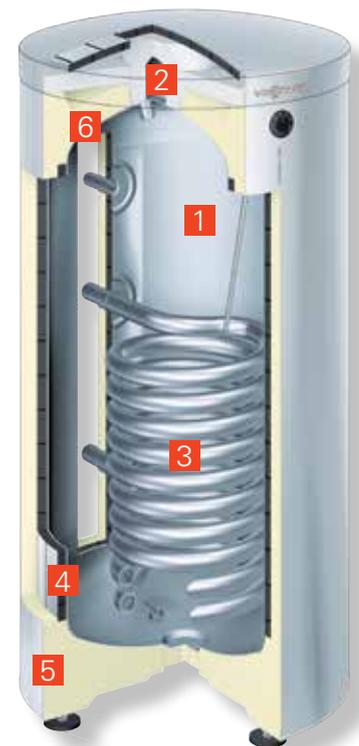


**Vitocell 300-V**  
Single coil cylinders

**VITOCCELL 300-V**

- 1 Stainless steel cylinder
- 2 Inspection and cleaning port
- 3 Large stainless steel heating coil
- 4 Vacuum panel
- 5 All-round thermal insulation made of polyurethane rigid foam
- 6 Polyester fibre fleece liner in the lid

**Vitocell 300-V**  
(160 to 200 l)



**VITOCCELL 300-V, SINGLE COIL**

<b>Volumes</b>	litres	160/200	160/200/300/500
<b>Material</b>		SS 1.4521	SS 1.4521
<b>Thickness/gauge</b>	mm	2.5 – 2.8	2.5 – 2.8
<b>Max. pressure</b>	bar	16	16
<b>Operating pressure</b>	bar	10	10
<b>Insulation</b>		PUR	PUR
<b>Heat loss in 24h</b>	kW/hr	0.75	0.91
<b>Dimensions</b>			
Height	mm	1189/1409	1189/1409/1734/1852
Width/diam.	mm	605	605
Overall width	mm	605/605	605/605/744/1084
<b>Immersion heater</b>	kW	3/6 (400V/230V)	3/6 (400V / 230V)
<b>Coil rating</b>	kW	35	35
<b>Weight</b>	kg	61.5/72.2	59.3/70.0/104.5/110.1
<b>Expansion vessel type</b>	litres	External vessel	External vessel
<b>Energy Efficiency Class</b>		A+	A

The Vitocell 300-B is a dual mode DHW cylinder with two indirect coils. Made from high alloy stainless steel, the Vitocell 300-B is a reliable and efficient solution for the integration of two energy sources. Available in two sizes, either 300 litres or 500 litres.

**VITOCELL 300-B**

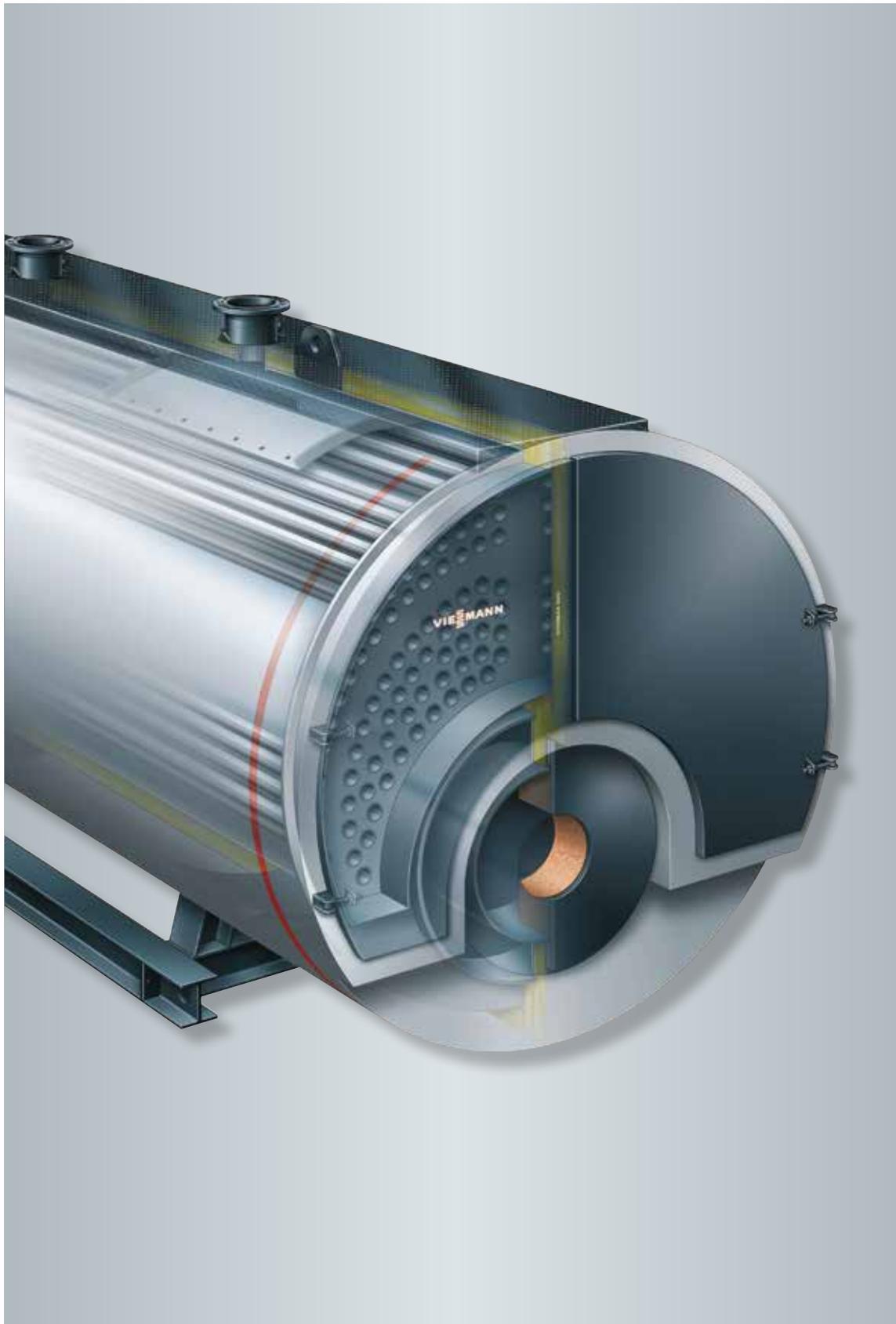
- 1 Stainless steel cylinder
- 2 Inspection and cleaning port
- 3 Large stainless steel heating coil
- 4 All-round thermal insulation made of polyurethane rigid foam



**Vitocell 300-B**  
Twin coil cylinders

**VITOCELL 300-B, TWIN COIL**

<b>Volumes</b>	litres	300	500
<b>Material</b>		SS 1.4571	SS 1.4571
<b>Thickness/gauge</b>	mm	2.8	2.8
<b>Max. pressure</b>	bar	16	16
<b>Operating pressure</b>	bar	10	10
<b>Insulation</b>		PUR	PUR
<b>Heat loss in 24h</b>	kW/hr	1.17	1.17
<b>Dimensions</b>			
Height	mm	1790	1790
Width/diam.	mm	633	633
Overall width	mm	700	700
<b>Immersion heater</b>	kW	2/6(400V)	3 (230V)
<b>Coil rating</b>	kW	54	54
<b>Weight</b>	kg	100	100
<b>Expansion vessel type</b>	litres	External vessel	External vessel



## VITOMAX LW

System solutions for  
economical hot water generation.

The energy efficient and clean provision of heat, as well as high operational reliability and plant availability, are essential requirements for heating centres in large buildings and industrial plants. This requires competent consultation, a comprehensive range of services and heat generators with design features that enable cost effective and futureproof heat generation.

Thanks to their design and configuration, Vitomax industrial/commercial boilers are best placed to meet individual customer requirements in a broad range of applications. The detailed design of Vitomax boilers and the company's vast experience in building industrial boilers ensure superior quality, high operational reliability and a long service life. The comprehensive product range from Viessmann includes hot water boilers up to 22 MW.

Viessmann industrial/commercial boiler technology means perfectly coordinated system design. This includes:

- Control and monitoring systems
- Instrumentation & control technology
- Pumps and valves
- Combustion systems with fuel supply
- Pressure maintaining systems
- Water treatment
- Pipework and flue systems



### **Vitomax LW**

Low pressure hot water boiler for oil or gas combustion

Output ranging from 0.65 to 22 MW

Permissible flow temperatures up to 110°C (120°C subject to individual test certification)

Permissible operating pressure 6, 10, 16 bar

Also in low NO<sub>x</sub> version (gas < 70 mg/m<sup>3</sup>, oil < 150 mg/m<sup>3</sup>)

The Vitomax LW is a low pressure hot water boiler for flow temperatures of up to 120°C, operating pressure of 6, 10 or 16 bar and a heating output ranging from 0.65 to 22 MW.

#### Hot water boilers also as low NOx versions

The three-pass boiler features low combustion chamber loading with clean combustion and low nitrogen oxide emissions. In gas operation, the low NOx series have NOx emissions of less than 70 mg/Nm<sup>3</sup>; in oil operation they are less than 150 mg/Nm<sup>3</sup>.

Low stress, space saving design ensures good natural circulation and reliable heat transfer. No additional boiler circuit pumps are required, making hydraulic connection significantly easier.

The pressure drop on the hot gas side is low, thanks to the optimum design of the heating surface and smoke tube.

The low stress design ensures a long service life by reducing thermal loads.

#### Proven and reliable technology

This is particularly pertinent for industrial and commercial enterprises, where new heating centres often have to be operational as quickly as possible, so that heat for production can be supplied on time.

#### All components matched to each other

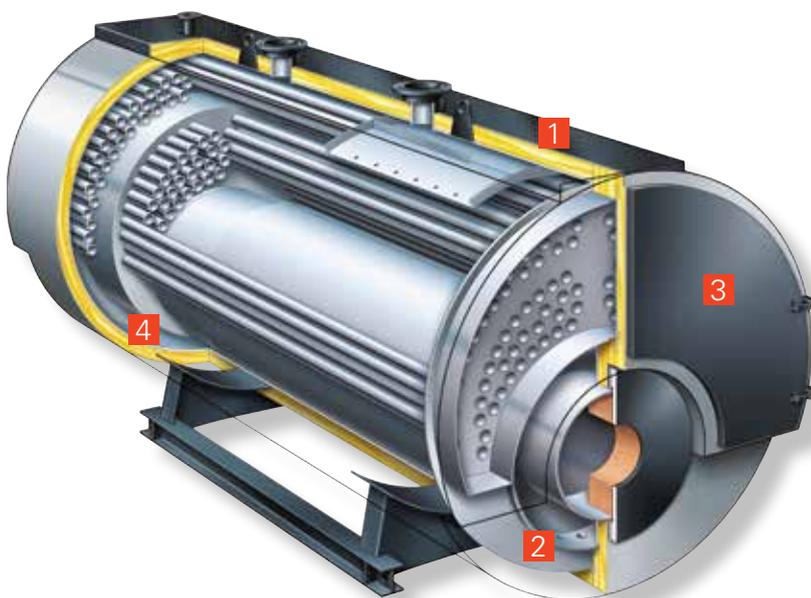
Systems such as the Vitomax LW low pressure hot water boiler offer a high degree of engineering and calculation assurance for industrial/commercial boiler plants. As well as guaranteeing the highest quality and flexibility, these systems also provide the assurance that all components are perfectly matched, for example through pre-assembled safety equipment for maximum temperatures of 110°C or 120°C.

Available accessories include a flue gas/water heat exchanger that can raise the boiler efficiency to levels of up to 95 percent. Return temperature raising facilities and flue gas components are further system options.

#### Easy to service with a high load bearing capacity

In continuous operation, Vitomax hot water boilers score highly because they are easy to service, thanks to their optional water-cooled burner entry point and rear reversing chamber without refractory linings. This dispenses with the need for a refractory lining drying process, significantly reducing commissioning and servicing times.

The load bearing boiler cover simplifies installation and maintenance, and protects the thermal insulation against damage.



#### VITOMAX LW

- 1 Walk-on cover for secure positioning and good accessibility to inspection ports and fittings in conjunction with a boiler control platform
- 2 Water-cooled burner entry point for low nitrogen oxide emissions (optional)
- 3 Easy to open cleaning doors without the need to remove the burner and fuel supply
- 4 Low stress, space saving design for good natural circulation and reduced thermal loads



Vitomax LW hot water boiler (2300 kW) and Vitoplex 200 low temperature boiler (700 kW)



Vitomax LW hot water boiler (2300 kW) and  
Vitoplex 200 low temperature boiler (700 kW)

#### TAKE ADVANTAGE OF THESE BENEFITS

- + Vitomax LW low pressure hot water boilers are available with an output range of 0.65 to 22 MW, with a permissible operating pressure of 6, 10 or 16 bar. There is also a low NO<sub>x</sub> version for areas with more stringent nitrogen oxide emission standards
- + Flexible deployment options for new build and modernisation on commercial, industrial and local authority sites
- + Depending on customer requirements, certification under the Gas Appliances Directive is available for permissible flow temperatures of up to 110°C, and under the Pressure Equipment Directive for permissible flow temperatures above 110°C
- + The ability to use different fuels including gas, EL fuel oil and heavy fuel oil further increases the flexibility of the Vitomax LW
- + Straightforward hydraulic connection and reliable heat transfer ensure a high degree of operational reliability
- + Low radiation losses due to optimum thermal insulation increase the efficiency of the boiler and thus contribute to fuel savings
- + The efficiency of the system is raised by condensing technology using a Vitotrans stainless steel flue gas/water heat exchanger, which makes efficient use of latent heat in the flue gas
- + Ease of servicing can be optimised by the number of sight and inspection ports, as well as options such as a water-cooled burner entry point and walk-on boiler cover
- + The Vitocontrol control panel ensures the ability to regulate all boiler-specific control equipment



Downstream Vitotrans 300 heat exchanger fitted to a Vitomax boiler

## Viessmann system technology ensures the highest operational reliability and efficiency

At Viessmann all components for a high performance heating system are supplied from a single source and are perfectly matched.

Today, medium sized and industrial/commercial boilers must not only offer the most advanced technology, reliability, system-specific solutions, optimum setting options and environmental responsibility, but also many services relating to boiler operation itself.

Viessmann system technology and accessories ensure that everything matches perfectly.

All our heating equipment components work together to guarantee the smooth operation of the entire heating system – from the boiler, burner, control unit and DHW cylinder, right down to the connections and radiators. Matching system solutions provide the highest possible level of operational reliability with optimised efficiency for every heating system.

**Matching system technology for low pressure hot water boilers**

Systems for low pressure hot water boilers offer a high degree of engineering and calculation assurance for industrial/commercial boiler plants.

**Condensing technology for medium sized and industrial/commercial boilers**

The Vitotrans 300 flue gas/water heat exchanger enables efficient use of the economic benefits of condensing technology, even with medium sized and industrial/commercial boilers.

**Control technology**

All Viessmann boilers are regulated by a Vitotronic – a control unit with communication capability. This means that the entire range of boilers utilises many standard components, identical installation steps and only a few, universal, spare parts. This results in considerably easier installation, operation, maintenance and service.

**Communication systems**

Viessmann offers innovative communication systems for data exchange between heating systems for all common standards, including hardwired and wireless, as well as across IP networks.

**DHW cylinders**

The Vitocell range of DHW cylinders is perfectly matched to our boilers. This is not only an advantage during installation, but also in terms of heating and DHW convenience. The wide range of DHW cylinders and heating water buffer cylinders enables Viessmann to meet every demand and aspiration for convenience in DHW heating and central heating backup.

**Solar thermal and photovoltaics**

Every boiler can be operated in conjunction with a solar thermal system, thereby saving valuable energy. For commercial applications, Viessmann offers suitable systems for the free harvesting of heat and power from solar energy.



Matching system technology



Vitotrans 300 flue gas/water heat exchanger



Vitotronic control units



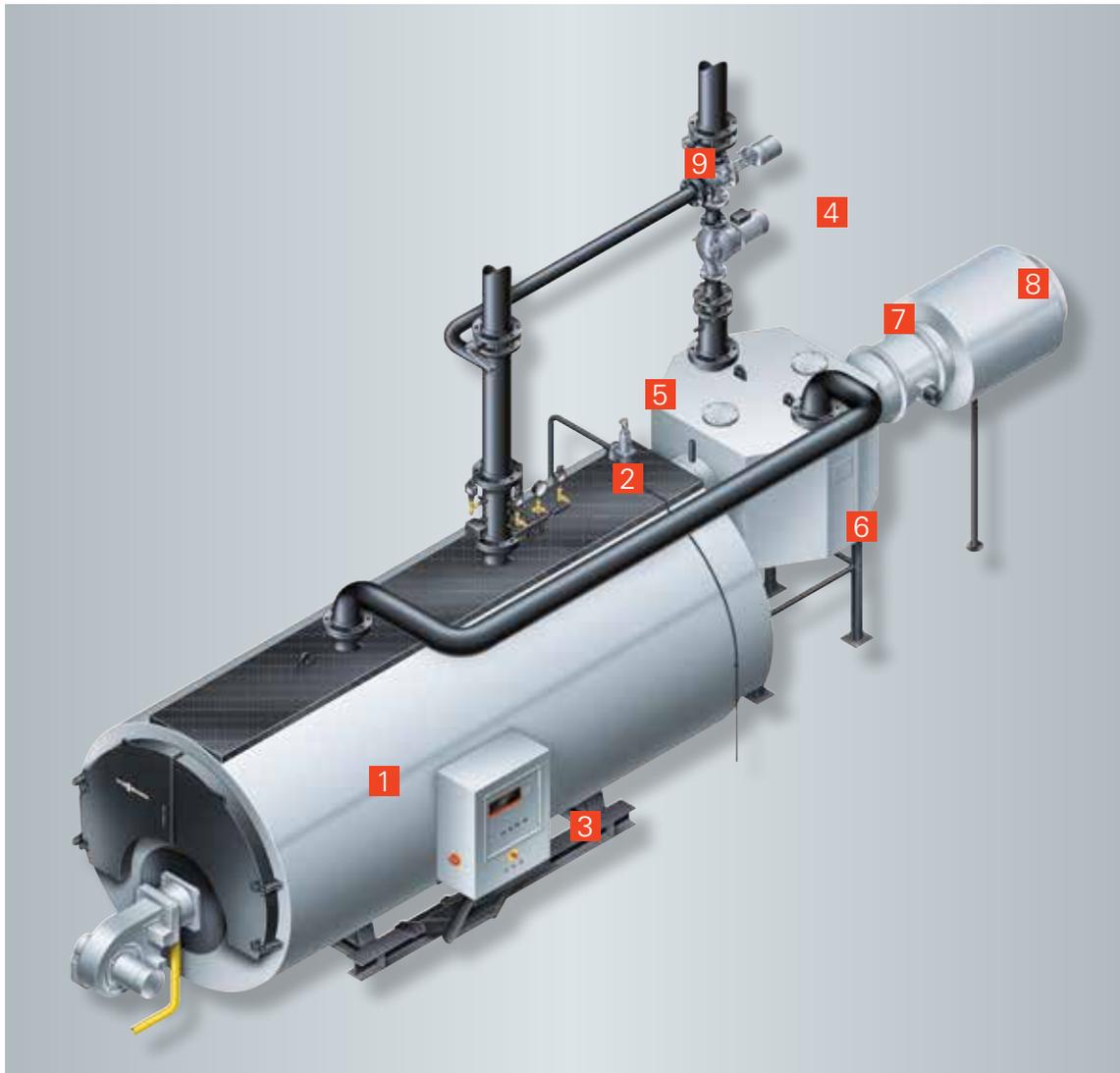
Communication systems



DHW cylinders



Solar thermal



**VITOMAX LW**  
SYSTEM TECHNOLOGY (OPTIONAL)

- 1 Boiler with burner
- 2 Intermediate flow piece with safety equipment
- 3 Control system and control panel
- 4 Boiler circuit pump
- 5 Safety valve
- 6 Flue gas/water heat exchanger
- 7 Flue gas damper
- 8 Flue gas silencer
- 9 3-way mixing valve (return temperature raising facility)

## Matching system technology for low pressure hot water boilers

As well as guaranteeing the highest quality and flexibility, these systems also provide the assurance that all components are perfectly matched.

Systems for Vitomax LW low pressure hot water boilers offer a high degree of engineering and calculation assurance for industrial/commercial boiler plants. As well as guaranteeing the highest quality and flexibility, these systems also provide the assurance that all components are perfectly matched. These components can be pre-assembled and pre-wired at the factory before delivery to the customer. This saves time and reduces errors on site.

### Flue gas/water heat exchangers improve efficiency

Vitotrans 100/200-LW flue gas/water heat exchangers, which can increase boiler efficiency to levels as high as 96 percent, are available as accessories. They can be combined with oil and gas burners.

### Container solutions

New heating centres for industrial and commercial enterprises frequently need to be operational in the shortest possible time. For speedy installation and commissioning, Viessmann is now able, on request, to offer complete Vitomax industrial/commercial boiler systems and Vitoplex boilers as pre-assembled containerised solutions, which are compact and easy to ship.

### TAKE ADVANTAGE OF THESE BENEFITS

- + Matching system solutions for the highest operational reliability
- + Efficiency levels of up to 96% help to save fuel and therefore increase the viability of the system
- + Standard appearance in the Viessmann design
- + Reduced time and effort for engineering
- + Straightforward extension with matching components is possible
- + Optional pre-assembled container systems



Vitotrans 200-LW flue gas/water heat exchanger



The Vitotrans 300 flue gas/water heat exchanger draws heat from the Vitomax boiler's hot flue gases and so improves efficiency.

## Condensing technology for medium sized and industrial/ commercial boilers

The Vitotrans 300 stainless steel flue gas/water heat exchanger reduces operating costs by utilising the condensing effect.

Rising fuel costs are of particular concern to users of medium sized and industrial/commercial boiler systems. The utilisation of condensing technology has a particularly high impact on the operating costs of these boiler systems. Energy-conscious condensing technology has, therefore, increased in significance.

Separate flue gas/water heat exchangers are used for larger systems or when retrofitting existing systems. They cool flue gases further so that the water vapour condenses. The latent condensation heat yielded and the low flue gas temperatures provide a significant boost to efficiency.

### Vitotrans 300

The Vitotrans 300 is a flue gas/water heat exchanger for utilising condensing technology with boilers in the output range from 80 to 6750 kW. The downstream connection allows the standard seasonal efficiency [to DIN] of the boiler to be increased by up to 11 percent.

- Straightforward hydraulic connection – either the entire volume of water or, to optimise the utilisation of condensing technology, a proportion of it may be routed through the heat exchanger
- Vitotrans flue gas/water heat exchangers with
  - Inox-Crossal heat exchanger for boilers from 405 to 2000 kW
  - Inox-Tubal heat exchanger for boilers from 1860 to 6750 kW

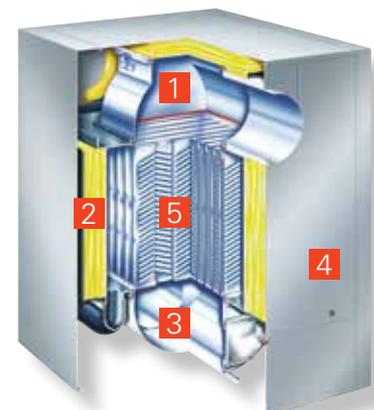
- Vertical Inox-Crossal and Inox-Tubal heat exchangers for high operational reliability and a long service life
  - By positioning the hot gas flues vertically, the condensate that forms can drip straight down, unimpeded. This prevents condensate concentration through re-evaporation
  - Smooth stainless steel surfaces create improved self-cleaning effect
  - Highly effective heat transfer and high condensation rate
- Neutralising systems matched to the flue gas/water heat exchangers

### TAKE ADVANTAGE OF THESE BENEFITS

- + High operational reliability and a long service life due to corrosion-resistant stainless steel. Stainless steel grade 1.4571 is suitable for gas operation and short-term use with EL fuel oil; stainless steel grade 1.4539 is suitable for continuous operation with EL fuel oil
- + Compact design – space saving installation immediately behind the boiler
- + Full flow, therefore maximum use of heat from flue gases without additional hydraulic effort



- 1 Large flue gas inlet
- 2 High grade thermal insulation
- 3 Flue gas outlet
- 4 Sheet steel casing in Vitosilver
- 5 Inox-Crossal heat exchanger





With their well designed electronic management system, Vitotronic control units ensure your heating system operates economically.



Vitocontrol 200-M multi mode system controller

## VITOTRONIC

From single to multi boiler systems with central control panels, Viessmann supplies perfectly matching solutions.

The Vitotronic control system with communication capability is an electronic management system for economical and reliable operation of the heating system. It is exemplary in its installation, operation and maintenance.

The proven and reliable Vitotronic control unit has been completely updated and aligned with the requirements of modern system communication. The colour touchscreen at the front of the boiler immediately catches the eye.

A wide range of control units is available for medium sized and industrial/commercial boilers. In addition to integral control units, such as those in the Vitocrossal 300 (CM3C) gas condensing boiler for example, there are also traditional versions that can be mounted on top of the boiler:

- Vitotronic 100 as a constant boiler control unit
- Vitotronic 200 as a weather-compensated single boiler control unit
- Vitotronic 300 as a weather-compensated boiler control unit with integral cascade function

All versions have an integral communication module with a LAN/WLAN interface for servicing and remote control. A mixer extension for two heating circuits with mixer is part of the standard delivery for the Vitotronic 300, and is available as an accessory for the Vitotronic 200.

### Integral cascade control

The integral cascade control function in the Vitotronic 300 boiler control unit for up to eight heat generators makes it easier to set up and operate multi boiler systems. The clear colour display screen shows the operating status of each individual boiler.

### Convenient heating circuit control

The Vitotronic 200-H is a weather-compensated heating circuit control unit for three heating circuits with mixer. If there are more heating circuits than this, up to 32 Vitotronic 200-H can be connected via LON. This means that systems with up to 96 heating circuits can easily be controlled.

### Vitocontrol multi mode system controller

The Vitocontrol is a powerful system controller with graphic user interface. It can display all output and consumption details of an energy system and can be individually adapted. The Vitocontrol 200-M is suitable for operating dual mode and triple mode heating systems with up to four heat generators with various combinations of oil/gas boilers, CHP units and solid fuel boilers.

### TAKE ADVANTAGE OF THESE BENEFITS

- + Less time and effort required for installation thanks to commissioning assistant
- + Straightforward system operation via intuitive programming unit with colour touchscreen
- + Burner reset via programming unit
- + WLAN interface for communication with Vitosoft 300 (SID1) service tool
- + Integral LAN interface for internet communication with Vitoguide
- + Integral cascade control for up to 8 single boilers
- + Energy cockpit for displaying energy consumption
- + Vitogate 300 interface for higher ranking BMS



Using the operating history in Vitoguide, it is possible to quickly identify whether boiler settings have been changed.

## Intelligent solutions for communication with medium sized and industrial/commercial boilers

Internet data communication enables an energy centre to be monitored at any time, and parameters to be adjusted for efficient operation.

From large residential complexes to utility buildings, Viessmann communication systems offer intelligent solutions for data communication with heating systems and building services that are a perfect match to the differing requirements of heating system operators, contractors and heat supply utilities.

### **Vitoguide for single boiler systems**

Vitoguide from Viessmann is the digital service centre for every contractor. This innovative solution for online monitoring of heating systems offers system users greater reassurance during operation and enables contractors to keep a constant eye on the energy systems they are supporting.

**Vitodata 300 for multi boiler systems**

The Vitocom 300 internet data communication module with Vitodata 300 is ideal for professional monitoring of larger residential properties or utility buildings. It is designed with heat supply utilities, contractors and municipal services in mind, as such customers value quick and reliable inspection, maintenance and optimisation of their heating systems.

Amongst the many control functions are options for setting switching times, operating programs, holiday programs and set values (level/slope), checking operating states and temperatures, and adjusting parameters. In addition, the system can display energy consumption and can be used for billing.

Faults can be reported to the service engineer responsible by SMS, fax or email using the integral service schedule.

**Vitocom 300 LAN**

The LAN version of the Vitocom 300 enables data transfer via DSL/Ethernet networks at speeds of up to 100 MB/s. The type of data encryption used here guarantees an optimum level of data security.

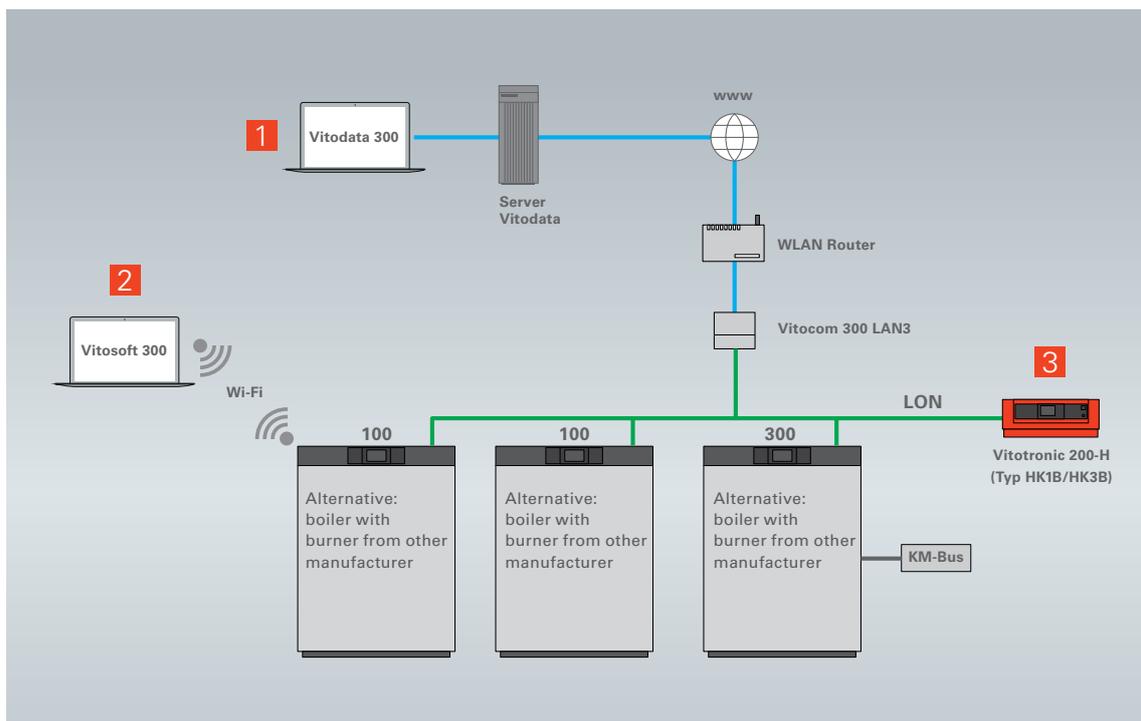
**Vitogate 300 interface for building automation**

Vitogate 300 is a solution for connecting boilers and heat pumps to a higher ranking building management system (BMS) via a standardised BACnet or Modbus protocol. Via the gateway, the heating system, with all its relevant components and operating parameters, can be visualised and operated from the control centre.

This gives system users the option to be kept up to date on the current status of their heating system and to make settings such as programming set room temperatures.

**MULTI BOILER SYSTEM – STANDARD FUNCTIONS FOR CONNECTIVITY AND REMOTE MONITORING**

- 1 Vitodata 300 for online monitoring
- 2 Vitosoft 300 for servicing the system via WLAN
- 3 Vitotronic 200-H (type HK1B/HK3B)





The Energy Centre and the Viessmann Academy in Allendorf

## Partnership with excellent prospects

The services offered by Viessmann in support of trade partners go back a long way.

The complete range of innovative and advanced heating equipment, of reliable and high quality, forms the basis for Viessmann's close partnership with the heating trade and its various bodies, ensuring lasting success in the market.

Trade and industry must cooperate to best utilise the opportunities the market offers. Attractive product services gain ever greater importance for manufacturer and trade alike.

Viessmann offers a comprehensive range that benefits the trade.

However, it is not all about technology. Many years of after-care and a guaranteed supply of spare parts are extremely important. These are provided by the Viessmann customer service department. Maintenance agreements are also available if required.

**Everything from a single source**

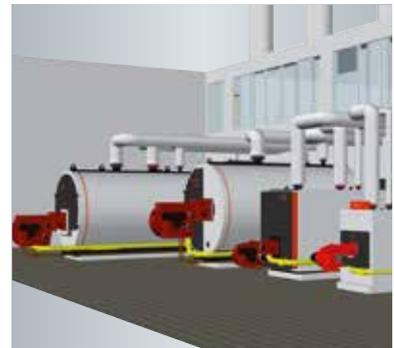
Viessmann offers everything for solution-focused cooperation:

- Consultation – comprehensive and competent
- Vitodesk engineering software – a complete software package for engineering and sizing heating systems, with 3D boiler room design including presentation and visualisation functions
- Manufacture according to country-specific requirements with short delivery times
- Equipment – safety accessories, burners, control panels, boiler platforms, flue gas/water heat exchangers, water treatment systems

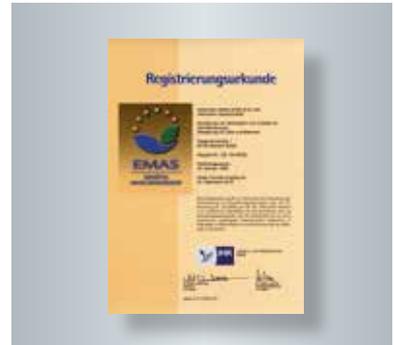
- Training and instruction at the information centre in Berlin
- Delivery and handling with our own vehicle equipped with a hoist, and a specialist team
- Commissioning anywhere in the world by expert engineers
- Service by qualified technical personnel
- Leasing – uncomplicated and flexible – businesses and local authorities can also lease their heating systems from Viessmann
- Responsibility for the environment – Viessmann is certified according to the Eco Audit EN ISO 14001 and EMAS. This covers the entire process, from manufacturing right through to disposal



Delivery of a Vitomax boiler to site



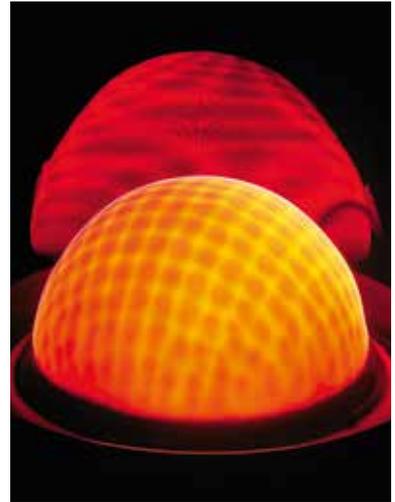
3D boiler room planning



All Viessmann products meet demanding environmental standards and are EMAS certified



Viessmann information centre, Berlin



## The company

Viessmann is one of the leading international manufacturers of efficient heating, industrial and refrigeration systems.

### Acting in a sustainable manner

As a family business Viessmann takes the long view and places great value on acting responsibly; sustainability is firmly enshrined in the company's principles. For Viessmann, sustainability in action means striking a balance between economy, ecology and social responsibility throughout the company; meeting current needs without compromising the quality of life of future generations.

With its strategic sustainability project, Viessmann demonstrates at its own head office in Allendorf (Eder) that the energy and climate policy goals set by the German government for 2050 can in fact be achieved today with the help of commercially available technology.

### The Viessmann comprehensive range

As environmental pioneer and technological trailblazer for the heating sector, Viessmann has for decades been supplying exceptionally clean and efficient systems for heating, refrigeration and decentralised power generation. Many of the company's developments are recognised as heating equipment milestones.

### Practical partnership

As part of its comprehensive range, Viessmann also offers a wide selection of complementary services. These services include a comprehensive training and further development programme for trade partners at the well equipped training facilities of the Viessmann Academy.

With its new digital services, Viessmann offers innovative solutions such as the operation and monitoring of heating systems by smartphone. Users benefit from greater reassurance and convenience, whilst contractors can keep a constant eye on the systems for which they are responsible.



German Sustainability Award for Production/Brand/Resource Efficiency



Energy Efficiency Award

## VISSMANN GROUP

### Company details

- + Established in: 1917
- + Employees: 12,100
- + Group turnover: 2.37 billion euros
- + Export share: 55 percent
- + 23 production companies in 12 countries
- + 74 countries with sales companies and branches
- + 120 sales offices worldwide

### Comprehensive range from the Viessmann Group

- + Boilers for oil or gas
- + Combined heat and power generation
- + Hybrid appliances
- + Heat pumps
- + Wood combustion technology
- + Plants for producing and upgrading biogas
- + Solar thermal
- + Photovoltaics
- + Electric heating and DHW systems
- + Refrigeration systems
- + Accessories

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Your trade partner: