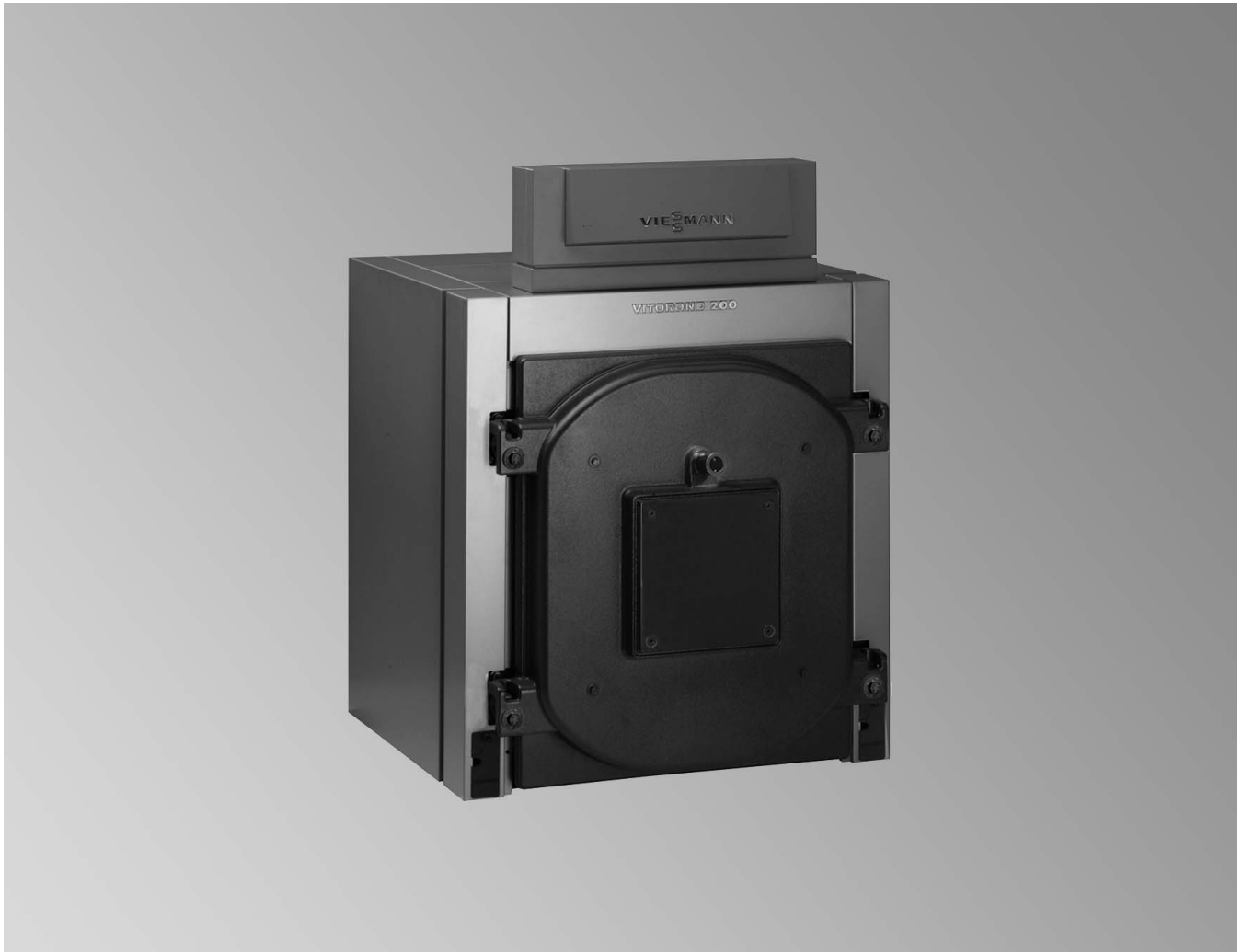


Datasheet

For part no. and prices: see pricelist



File in:
Vitotec folder, register 22



VITOROND 200 Type VD2E

Low temperature oil/gas fired boiler
Three-pass boiler in individual cast iron sections
For operation with modulating boiler water temperature

Benefits

- Economical and environmentally friendly through modulating boiler water temperature.
Standard efficiency for operation with fuel oil:
86 % (H_s)/92 % (H_i).
Standard efficiency improved by up to 12% due to the utilisation of condensing technology, with stainless steel Vitotrans 300 flue gas/water heat exchanger.
- Three-pass boiler – enabling clean combustion with low nitrogen oxide emissions.
- No minimum water flow rate requirement, excellent natural circulation, even without boiler circuit pump.
- Eutectoplex heating surface for high operational reliability and a long service life.
The homogeneous structure of the special eutectic cast iron provides an even thermal transfer and prevents stress fractures.
The shape and geometry of the cast sections provide specific water routing and even temperature distribution, which improves the operational reliability.
- Integral Therm-Control start-up system for easy hydraulic connections – a shunt pump and a return temperature raising facility are not required.
- Fastfix assembly system for rapid and simple installation.
- Easy installation even in tight spaces through sectional design and low transport weight of individual sections.
- Fast and straightforward assembly of individual cast iron sections through tongue & groove system with resilient seal for permanent hot gas soundness.
- Easy cleaning – pivoting the burner door makes the combustion chamber and hot gas flues easily accessible from the front.
- Economical and safe operation of heating systems through the digital Vitotronic control system with communication capability. Tailored to every need, covering all known control strategies and applications. Standardised LON BUS for complete integration into building management systems. Optional integration into the Vitocontrol control panel.
- Optional combination with hygienic Vitocell 100 DHW cylinders with Ceraprotect enamel coating or the stainless steel Vitocell 300.

Specification

Specification

Rated output	kW	190	230	270	320
	kcal/h	163400	197800	232200	275200
Rated thermal load	kW	210	254	298	354
CE designation		CE-0085 BS 0005 CE-0085			
- according to the Efficiency Directive - according to the Gas Equipment Directive					
Number of sections		5	6	7	8
Permissible flow temperature (= safety temperature)	°C	110			
Permissible operating pressure	bar	6	6	6	6
Pressure drop on the hot gas side	Pa	120	180	160	230
	mbar	1.2	1.8	1.6	2.3
Boiler body dimensions					
Length (dimension f) *1	mm	840	1010	1180	1350
Width (dimension d)	mm	790	790	790	790
Height (dimension c)	mm	865	865	865	865
Section dimensions					
Front section with boiler door	mm	885 × 790 × 290			
Centre section	mm	860 × 680 × 170			
Rear section with flue gas header	mm	885 × 860 × 270			
Total dimensions					
Total length (dimension g)	mm	1075	1240	1410	1580
Total width (dimension e)	mm	860	860	860	860
Total height with control unit (dimension b)	mm	1210	1210	1210	1210
Maintenance height (control unit) (dimension a)	mm	1400	1400	1400	1400
Foundations					
Length	mm	900	1070	1240	1410
Width	mm	860	860	860	860
Weight	kg	650	760	840	950
Boiler body					
Total weight	kg	690	800	895	1015
Boiler with thermal insulation and boiler control unit					
Content boiler water	litres	154	186	217	249
Boiler connections					
Boiler flow and return	PN 6 DN	65	65	65	65
Safety flow *2	PN 6 DN	40	40	40	40
Drain	R	1"	1"	1"	1"
Flue gas parameters *3					
Temperature (at boiler water temperature 60 °C)					
– at rated output	°C	200	200	200	200
– at partial load	°C	140	140	140	140
Temperature (at boiler water temperature 80 °C)	°C	210	210	210	210
Mass flow rate for fuel oil EL and natural gas					
– at rated output	kg/h	324	390	457	542
– at partial load	kg/h	195	243	274	325
Required draught	Pa/mbar	0	0	0	0
Flue gas connection	Ø mm	200	200	200	200
Standard efficiency at heating system temp. 75/60 °C (for operation with fuel oil)	%	86 (H _s)/92 (H _i)			
Standby loss $q_{B,70}$	%	0.38	0.28	0.25	0.25

*1 With boiler door and flue outlet removed.

*2 Connections to the boiler connection set (accessories).

*3 Values for calculating the size of the flue system to EN 13384 relative to 13% CO₂ for fuel oil EL and 10% CO₂ for natural gas. Flue gas temperatures measured as gross values at 20 °C combustion air temperature.

The details for partial load refer to an output of 60% of rated output. Calculate the flue gas mass flow rate accordingly when the partial load differs from that stated above (subject to the burner mode).