

**VIESMANN**



# Product Quick Reference Guide 2016

VITOCROSSAL

VITODENS

VITOSOL

VITOROND

VITOFLEX

VITOCCELL

**Heating Systems** ◀

**Industrial Systems**

**Refrigeration Systems**



- Simple installation with no primary/secondary piping requirements
- Greater efficiency through Vitotronic 300 control with outdoor reset capabilities
- Premix Burner for optimal efficiency at all modulation ranges
- Extremely quiet operation
- LP kit included
- Viessmann made 316 Ti stainless steel Inox-crossal large heat exchanger
- Easy field commissioning - simplified burner startup.
- Limited 10 year warranty on heat exchanger

## Vitocrossal 200-CM2

Model: VITOCROSSAL 200, CM2		186	246	311	400	500	620	620TX
<b>Combustion Efficiency</b>	%	95	95	95	95.1	95.1	95.1	95.1
<b>Thermal Efficiency</b>	%	97	97	97	95	95	95	95
<b>Minimum Input (NG)</b>	MBH	133	175	222	287	358	450	450
<b>Maximum Input (NG)</b>	MBH	633	878	1112	1445	1800	2245	1999
<b>Output*</b>	MBH	643	851	1078	1372	1710	2132	1899
<b>Net AHRI Rating</b>	MBH	559	740	937	1193	1487	1854	1651
<b>Overall Dimension†</b>								
Width	inches	36.5	36.5	36.5	42.4	42.4	44.3	44.3
Height	inches	66.0	66.0	66.0	65.6	65.6	68.75	68.75
Depth (length)	inches	73.0	73.0	73.0	89.5	95.6	100.7	100.7
<b>Weight (burner control and insulation)</b>	lbs	726	759	792	1495	1662	1929	1929
<b>Boiler Water Content</b>	USG	81	77	74	104	112	131	131
<b>Heat Exchanger Surface</b>	ft. <sup>2</sup>	73.2	90.4	114.1	166.6	208.6	234.0	234.0
<b>Maximum Operating Pressure</b>	psig	73	98.8	121.5	75	75	75	75
<b>Flue Outlet Size</b>	diameter	8.0	8.0	8.0	10	10	10	10
<b>Power Consumption at max input in W (watts) NG</b>	watts	225	278	368	540	700	900	801



- 2 to 8 boilers in a single cascade
- Complete primary loop system in this package
- Vitotronic 300-K control with outdoor reset function and integration with BMS (additional components required)
- Outstanding performance Lambda Pro combustion management system
- Limited 10 year warranty on the heat exchanger
- Maximum efficiency with high turndown that precisely matches load
- Flexible installation with multiple manifold configurations: floor standing, corner, or back-to-back
- Ideal for small or difficult-to access boiler rooms or facilities with narrow halls and stairwells
- All serviceable components easily accessible from the front
- No pipe or manifold sizing required
- Offered in packaged system for savings in labor and time
- Common venting up to four boilers

## Vitodens 200-W Cascade Systems

Model: VITODENS 200-W, Cascade System		B2HB			B2HA			
Model		45	57	80	88	100	112	150
<b>Minimum Input (single boiler)*</b>	MBH	32	32	71	71	71	113	113
<b>Maximum Input (single boiler)*</b>	MBH	160	199	285	311	352	399	530
<b>Minimum Input (Multiple of 8)*</b>	MBH	32	32	71	71	71	113	113
<b>Maximum Input (Multiple of 8)*</b>	MBH	1280	1592	2280	2488	2816	3192	4240
<b>Weight (single boiler)</b>	lbs	210	210	194	194	194	298	298





## Vitocrossal 300, CA3 gas fired condensing boiler

Model: VITOCROSSAL 300CA3		CA3 2.5**	CA3 3.0**	CA3 3.5**	CA3 4.0**	CA3 5.0**	CA3 6.0**
<b>BTS 2000 Efficiency</b>	%	≥96	≥96	≥96	≥96	≥96	≥96
<b>Minimum Input (NG)</b>	MBTu	250	300	300	400	300	400
<b>Maximum Input (NG)</b>	MBTu	2500	3000	3500	4000	5000	6000
<b>Output*</b>	MBTu	2400	2880	3360	3840	4800	5760
<b>Overall Dimension assembled*</b>							
Width	inches	34	39	39	39	39	39
Height	inches	79	79	84	84	84	84
Depth (Length)	inches	94	94	102	102	138	138
<b>Overall Dimension disassembled**</b>							
Width	inches	32	32	37	37	37	37
Height	inches	77	77	79	79	79	79
Depth (Length)	inches	89	89	97	97	133	133

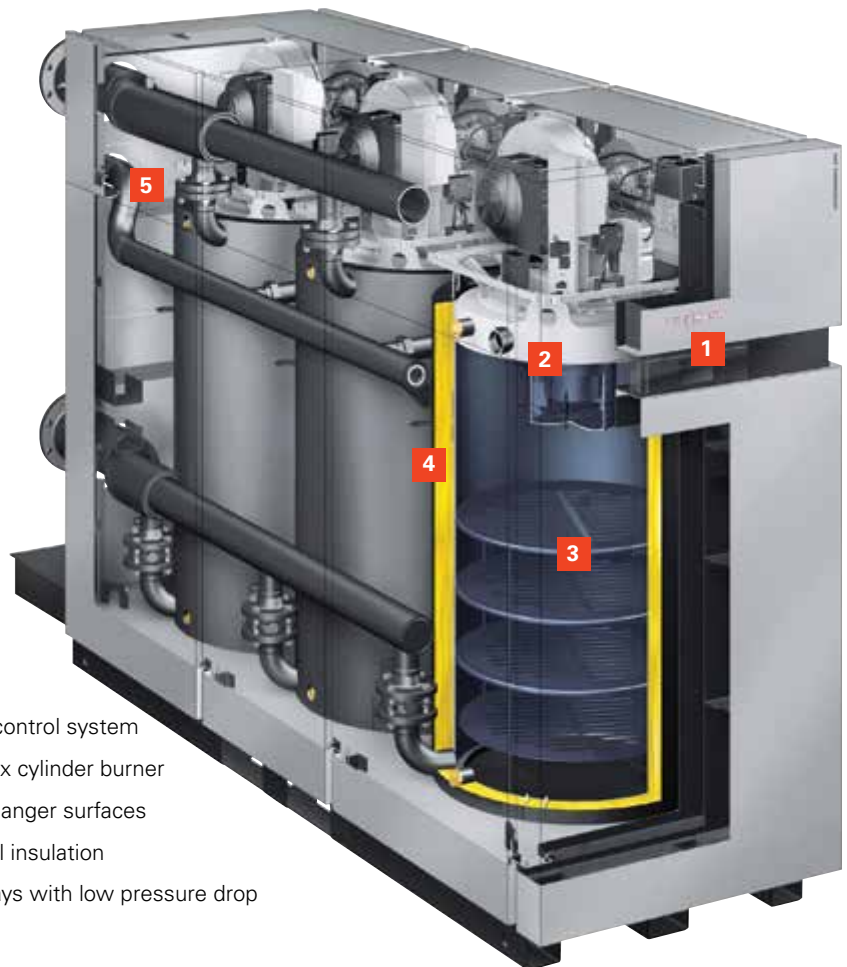
\* Target efficiency rating

\*\* Available in April 2017

+ Includes boiler with burner, boiler panels, thermal insulation, boiler control unit and electrical connection box

++ Disassembled top section and side panels

- Low emissions and quiet operation from fully-modulating Viessmann pre-mix cylinder burners (up to 3)
- Total burner modulation turndown ratio of up to 15:1 precisely matches load per boiler
- The fully assembled boiler simplifies installation and commissioning
- Flexibility for venting through the sidewall or chimney applications up to 200 ft. sealed combustion or room dependent
- Common venting up to four boilers\*\*
- Gas fuel flexibility (NG/LPG Dual Fuel\*\*\*)
- Low inlet gas pressure capability as low as 4" W.C. (NG) for compatibility with a range of supply pressures
- Large water content extends burner run time and reduces cycling
- No dedicated boiler pump required due to extremely low water pressure drop through heat exchanger\*
- Vitotronic 300 GW6C control system can be used as a single boiler control or as a cascade primary/secondary control system
- Seamless integration with building management systems



### Vitocrossal 300, CA3

- 1 Vitotronic 300, GW6C control system
- 2 Fully-modulating pre-mix cylinder burner
- 3 Inox-Lamellar heat exchanger surfaces
- 4 Highly effective thermal insulation
- 5 Wide water passageways with low pressure drop

\* Contact your Viessmann Representative for boiler pump and low-loss header requirements in multiple-boiler installations

\*\* Available Sept. 2016 in accordance with local codes and regulations of authorities having jurisdiction

\*\*\* Dual fuel combination of NG/LPG coming April 2017



- All-in one space-heating and DHW
- 120 volt with NPT connections
- High performance with fast heat-up time
- LP kit included
- With Vitotronic 200 Control
- Viessmann made 316 Ti stainless steel Inox-radial heat exchanger
- Self calibrating. Easy-Start up
- Limited Lifetime warranty on heat exchanger



## Vitodens-222F

Model No.	Input (MBH)	Depth (inches)	Width (inches)	Height (inches)	Weight (lbs)	Flue Collar (inches)
<b>B2TB - 19</b>	12-68	23 ½	23 ⅝	64.0	278	2 ⅜
<b>B2TB - 35</b>	19-125	23 ½	23 ⅝	64.0	278	2 ⅜



- Wall-mounted, advanced technology gas-fired condensing boiler
- 120 volt with NPT connections
- High performance with fast heat-up time
- LP kit included
- With Vitotronic Control
- Built-in weather-responsive space heating capability
- Viessmann made 316 Ti stainless steel Inox-radial heat exchanger
- Self calibrating. Easy-Start up
- Limited Residential lifetime/Commercial 10 year heat exchanger warranty
- B2HB 19 to B2HB 57 reach AFUE 95%



## Vitodens-200W

Model No.	Input (MBH)	Depth (inches)	Width (inches)	Height (inches)	Weight (lbs)	Flue Collar (inches)
<b>B2HB - 19</b>	12-68	15.7	17 ¾	41	110	2 ⅜
<b>B2HB - 26</b>	19-94	15.7	17 ¾	41	110	2 ⅜
<b>B2HB - 35</b>	19-125	15.7	17 ¾	41	110	2 ⅜
<b>B2HB - 45</b>	32-160	21	19	43 ½	210	3 ¼
<b>B2HB - 57</b>	32-199	21	15.7	43 ½	210	3 ¼
<b>B2HA - 80</b>	71-285	21	19	43 ½	194	4 ⅜
<b>B2HA - 88</b>	71-311	21	19	43 ½	194	4 ⅜
<b>B2HA - 100</b>	71-352	21	19	43 ½	194	4 ⅜
<b>B2HA - 112</b>	113-399	27	23 ⅝	44 ½	298	4 ⅜
<b>B2HA - 150</b>	113-530	27	23 ⅝	44 ½	298	4 ⅜



- Wall-mounted, gas-fired condensing boiler
- Viessmann made 316 Ti stainless steel Inox-radial heat exchanger
- Built in weather-responsive space heating capability
- Compact and whisper-quiet
- On-demand DHW with optional Combi PLUS kit (WB1B only)
- Lifetime warranty on heat exchanger
- LP kit included
- Up to 3.6 GPM of on-demand domestic hot water (DHW)
- Built in DHW temperature and flow sensors
- Eliminates need for DHW tank in apartments, condos, cottages, single family homes or install where space is at a premium
- Certified to NSF / ANSI 372 for low lead content

## Vitodens-100

Model No.	Input	Depth (inches)	Width (inches)	Height (inches)	Weight (lbs)	Flue Collar (inches)
<b>WB1B-26</b>	37-91	14 ⅞	15 ¾	28 ½	78	2 ⅜
<b>WB1B-35</b>	37-118	14 ⅞	15 ¾	28 ½	78	2 ⅜



## Combi PLUS

Model No.	DHW Temp (°F / °C)	Cont. Draw Rate (USG/h)	Depth (inches)	Width (inches)	Height (inches)	Weight (lbs)	Min./Max. Dist. from Boiler (inches)
<b>WB1B-26</b>	140 / 60	99	9 ¾	17	8 ¾	25	11 ½ / 36
<b>WB1B-35</b>	140 / 60	147	9 ¾	17	8 ¾	25	11 ½ / 36

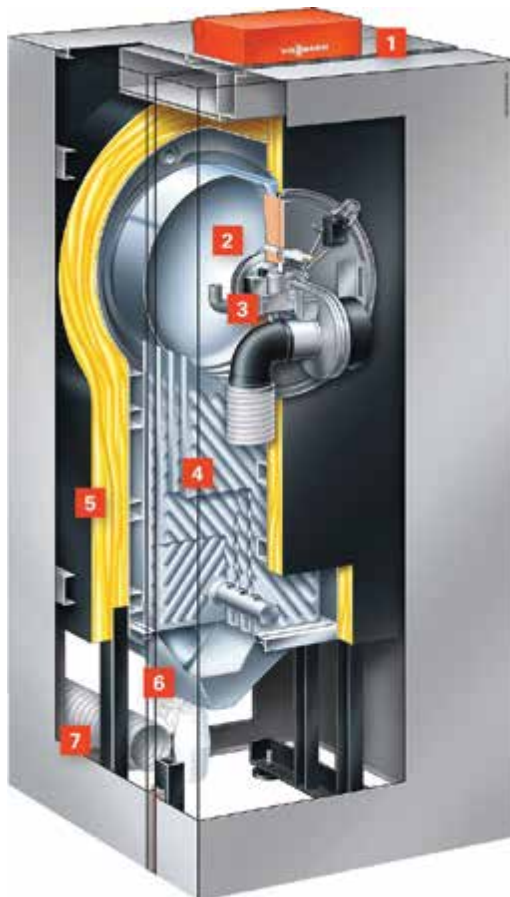




- Compact, floor-standing gas condensing boiler from 19-199 MBH.
- Multi-boiler installation with 8 boilers up to 1592 MBH.
- High efficiency of 95% AFUE on all models.
- High temperature operation of up to 190°F.
- Inox-Crossal heat transfer surface – 316 Ti stainless steel heat exchanger.
- No dedicated boiler pump or primary/secondary piping required.
- High water volume reduces wasteful burner cycling.
- Self-calibrating Lambda Pro combustion management system ensures optimal combustion efficiency at all times regardless of gas/air quality.
- Easy conversion from natural gas to liquid propane with no orifice change.
- Multiple venting options and configurations with vent lengths up to 198'. AFUE 95%

## Vitocrossal 300, CU3A

Model: VITOCROSSAL 300, CU3A		26	35	45	57
<b>AFUE</b>	%	95	95	95	95
<b>Minimum Input (NG)</b>	MBH	19	25	43	43
<b>Maximum Input (NG)</b>	MBH	94	125	160	199
<b>Net AHRI Rating</b>	MBH	76	101	129	161
<b>Overall Dimension†</b>					
Width	inches	26	26	26	26
Height	inches	67	67	67	67
Depth (Length)	inches	27	31.5	31.5	31.5
<b>Weight</b>	lbs	269	275	352	352
<b>Boiler Water Content</b>	USG	13.5	13	18.8	18.8
<b>Heat Exchanger Surface</b>	ft. <sup>2</sup>	16.7	20.7	34.1	34.1
<b>Maximum Operating Pressure</b>	psig	30	30	30	30
<b>Minimum Gas Supply Pressure</b>					
Natural Gas	"w.c.	4	4	4	4
Liquid Propane Gas	"w.c.	10	10	10	10
<b>Boiler water temperature maximum</b>					
Adjustable high limit (AHL) range space heating (steady state)	°F	190°F	190°F	190°F	190°F



### Vitocrossal 300, CU3A

- 1 Vitotronic 200 control KW6B with graphic user interface
- 2 Water-cooled stainless steel combustion chamber
- 3 Modulating MatriX dome gas burner
- 4 Stainless steel Inox-Crossal heat exchanger
- 5 Highly effective thermal insulation
- 6 Flue gas collector with condensate drain pipe
- 7 Combustion air inlet connection



- A premium series and high performance heat pipe vacuum tube collector
- Vertical or horizontal installation on sloped or flat roof, on walls
- Best performance in colder climates
- For medium to high temperature applications (13.6 ft<sup>2</sup> version) for installation on balcony railings or walls
- For use in closed loop systems

### Vitosol 200-T, SP2A

Model No.	No. of Tubes	Absorber Surface (ft <sup>2</sup> )	Depth (inches)	Width (inches)	Height (inches)	Weight (lbs)
<b>SP2A 13.6 ft<sup>2</sup></b>	10	13 ½	6	34 ¾	88 ¼	73
<b>SP2A 16.3 ft<sup>2</sup></b>	12	16 ¼	6	41 ½	88 ¼	86
<b>SP2A 32.6 ft<sup>2</sup></b>	24	32 ½	6	81	88 ¼	174



- Premium flat plate solar collector
- Free-standing or flat/sloped roof installation
- Additional insulation on side and back for higher output in cold climates
- Quick-connect fittings for installation of up to 12 collectors in series
- For use in closed loop systems

### Vitosol 200-F

Model No.	Absorber Surface (ft <sup>2</sup> )	Depth (inches)	Width (inches)	Height (inches)	Weight (lbs)
<b>SV2C</b>	25	3 ½	41 ¾	93 ¾	90
<b>SH2C</b>	25	3 ½	93 ¾	41 ¾	90



- A premium series and high performance heat pipe vacuum tube collector
- Large diameter tubes for greater rotation
- Vertical or horizontal installation on sloped or flat roofs
- Medium to high temperature applications
- Best performance in colder climates
- For use in closed loop systems

### Vitosol 200-T, SPE

Model No.	No. of Tubes	Absorber Surface (ft <sup>2</sup> )	Depth (inches)	Width (inches)	Height (inches)	Weight (lbs)
<b>SPE 17.5 ft<sup>2</sup></b>	9	17 ½	7	48	89	126
<b>SPE 35 ft<sup>2</sup></b>	18	35	7	94	89	249



## Vitosol DHW Solar Pack



Vitosol 200-F single collector	Type	SVK
<b>Absorber area</b>	ft <sup>2</sup>	21.6
<b>Gross area</b>	ft <sup>2</sup>	23.5
<b>Aperture area</b>	ft <sup>2</sup>	21.7
<b>Dimensions</b>		
Width	inch	41.6
Height	inch	81.3
Depth	inch	2.8
<b>Weight</b>	lbs	81.6



- Economy residential SDHW package for single family home
- Two flat plate collectors for sloped roof installation
- Solar tank package with built-in pump station and solar control unit
- Quick connect fittings for simple and fast installation
- Compact single pallet shipment
- For use in closed loop systems
- Certified according to OG300 guidelines by the Solar Rating Certification Corporation (SRCC)



Vitocell 100-W	Type	CVBA	CVSA
<b>Hot water tank capacity</b>	gal	66	69
<b>Number of coils</b>	MBH	2	1
<b>Dimensions</b>			
Diameter	inch	24.8	25.6
Height	inch	58.6	58.6
<b>Weight (with Solar-Divicon)</b>	lbs	273.4	275.6
<b>Auxiliary heating</b>		Top coil	4.5 kW Electric element

Solar Divicon		
<b>Solar pump</b>		Grundfos 15-68
<b>Solar control</b>		Delta sol-BX
<b>Flowmeter range</b>	gpm	0.5-4
<b>Pressure relief valve</b>	psig	87



- Vertical domestic hot water tank
- 316Ti stainless steel hygienic tank and coil construction
- 1¼" diameter coil
- High-performance insulation
- 4" clean-out opening
- Lifetime warranty for residential applications
- Eight-year commercial warranty

## Vitocell-V 300

Model No.	Capacity (USG)	Depth (inches)	Height (inches)	Weight (lbs)
<b>EVI-53</b>	53	25 ½	56	168
<b>EVI-79</b>	79	27 ¾	70	220
<b>EVI-119</b>	119	38 ½	68½	245



- Horizontal domestic hot water tank
- 316Ti stainless steel hygienic tank and coil construction
- 1¼" diameter coil
- High-performance insulation
- Stackable (max. 3)
- 4" clean-out opening
- Lifetime warranty for residential applications
- Eight-year commercial warranty

## Vitocell-H 300

Model No.	Capacity (USG)	Depth (inches)	Width (inches)	Height (inches)	Weight (lbs)
<b>EHA-42</b>	42	42 ¼	25 ¼	25 ¾	168
<b>EHA-53</b>	53	48 ¾	25 ¼	25 ¾	185
<b>EHA-92</b>	92	62 ½	32 ¾	31	379
<b>EHA-119</b>	119	65	35 ¾	35	421



- Vertical dual-coil domestic hot water tank for use with solar water heating and boiler
- 316Ti stainless steel hygienic tank and coil construction
- 1¼" diameter coil
- High-performance insulation
- 4" clean-out opening
- Lifetime warranty for residential applications
- Eight-year commercial warranty

## Vitocell-B 300

Model No.	Capacity (USG)	Depth (inches)	Height (inches)	Weight (lbs)
<b>EVB-79</b>	79	27 ¾	70	251
<b>EVB-119</b>	119	38 ¾	68 ½	275



- Vertical domestic hot water tank
- Glass-lined steel construction
- 1" diameter coil
- High-performance insulation

## Vitocell-V 100

Model No.	Capacity (USG)	Depth (inches)	Height (inches)	Weight (lbs)
<b>CVA-42</b>	42	24	47	190
<b>CVA-53</b>	53	24	55 ½	214
<b>CVAA-79</b>	79	29 ¼	68 ¼	333
<b>CVA-119</b>	119	36 ¼	72 ½	399



- Vertical dual-coil domestic hot water tank for use with solar water heating and boiler
- Glass-lined steel construction
- 1" diameter coil
- High-performance insulation
- "EcoLogo" certified

## Vitocell-B 100

Model No.	Capacity (USG)	Depth (inches)	Height (inches)	Weight (lbs)
<b>CVBB-79</b>	79	29 ¼	68 ¼	352
<b>CVB-119</b>	119	36 ¼	76 ¾	452





- State of the art biomass boilers from 0.5 to 1.8 MMBtuh
- Unique Pyrot rotational combustion technology in a compact footprint
- Burns wood pellets and wood chips to 30% moisture content
- Exhaust gas recirculation for dry fuels standard
- Available with full automation to facilitate operation, minimize emissions and maximize efficiency
- Custom engineered for your application: contact us directly to request a biomass boiler design and quotation



## Pyrot (Vitoflex RF)

Model No.	RF-150	RF-220	RF-300	RF-400	RF-540	
<b>Output</b> MBH kW						
	Max	512	751	1024	1365	1843
	Min	150	220	300	400	540
	154	205	273	341	478	
<b>Efficiency</b>	85% <sup>†</sup>					
<b>Max Operating Pressure</b>	30 or 60 psig					
<b>Dimensions (inches)</b>						
Width	41 3/8	52 3/8	52 3/8	62	62	
Height	71 7/8	82 1/16	82 1/16	95 3/8	98 1/8	
Depth (Length)	119 1/2	120 1/2	134 1/16	136 1/8	145 1/16	

† Based on the higher heating value of the fuel.



- State of the art biomass boilers from 1.3 to 4.2 MMBtuh
- Classic Pyrotec design with large industrial fuel grate suitable for a variety of fuels
- Burns pellets and wood chips up to 50% moisture content
- Exclusive automatic exhaust gas recirculation to automatically adjust to different fuels
- Multi-cyclone flue gas de-duster standard
- Available with full automation to facilitate operation, minimize emissions and maximize efficiency
- Custom engineered for your application: contact us directly to request a biomass boiler design and quotation



## Pyrotec (VitoflexUF)

Model No.	UF-390	UF-530	UF-720	UF-950	UF-1250	
<b>Output</b> MBH kW						
	Max	1331	1808	2457	3242	4265
	Min	390	530	720	950	1250
	334	450	614	812	1065	
<b>Efficiency</b>	85% <sup>†</sup>					
<b>Max Operating Pressure</b>	30 or 60 psig					
<b>Dimensions (inches)</b>						
Width	50 1/8	50 1/8	54 3/8	63 1/2	63 1/2	
Height	93 5/8	100	111 5/8	119 1/2	127 1/8	
Depth (Length)	117 1/2	137 1/8	140 5/8	137 1/2	160	

† Based on the higher heating value of the fuel.



Biomass Viessmann Biomass Boilers represent the global state of the art in burning wood pellets and wood chips for heating. The Pyrot series from 0.5 to 1.8 MMBtuh burns pellets and chips to 30% moisture content. The Pyrotec series from 1.3 to 4.2 MMBtuh burns pellets and chips up to 50% moisture content. All models and fuel systems are custom engineered for your application and include full automation to facilitate operation, minimize emissions and maximize efficiency. Contact us directly to request a biomass boiler design and quotation.



- Oil-fired cast iron boiler.
  - Triple-pass heat exchanger.
  - On/off control standard; available Vitotronic weather-responsive control"
  - Clean-combustion Beckett or Riello burner
  - Limited 20-year warranty on cast-iron sections
  - Sidewall venting kit available for VR1-22, VR1-27 and VR1-33
- \* Includes burner and stainless steel combustion chamber

## Vitorond-100

Model No.	Output (MBH)	Depth* (inches)	Width (inches)	Height (inches)	Weight (lbs)	Flue Collar (inches)
<b>VR1-22</b>	91	38 ½	19 ¾	33	363	5
<b>VR1-27</b>	105	44	19 ¾	33	445	5
<b>VR1-33</b>	140	44	19 ¾	33	447	5
<b>VR1-40</b>	161	36	22 ½	39 ¾	492	6
<b>VR1-50</b>	196	37 ½	22 ½	39 ¾	608	6
<b>VR1-63</b>	245	42 ½	22 ½	39 ¾	725	6



### VD2

- Eutectoplex gray cast iron heat exchanger promotes uniform heat transfer and water flow while eliminating stress fractures and internal condensation.
- Modulating sectional design allows for transport into difficult-to-access boiler rooms.
- Simple, quick assembly of the individual cast iron sections is achieved with a double-groove seal.
- Clean, low-emission combustion through the triple-pass design.
- Cleaning access is facilitated by a hinged (left or right) swing-open combustion chamber door.
- Economical and safe operation of the heating system with Vitotronic boiler and heating system control which can be tailored to all known control strategies and applications.

## Vitorond-200

Model No.	Output (MBH)	Depth* (inches)	Width (inches)	Height (inches)	Weight (lbs)	Flue Collar (inches)
<b>VD2A-125</b>	433	35 ½	40 ½	58 ½	1201	8
<b>VD2A-160</b>	553	42 ¼	40 ½	58 ½	1441	8
<b>VD2A-195</b>	672	49	40 ½	58 ½	1675	8
<b>VD2A-230</b>	794	55 ½	40 ½	58 ½	1874	8
<b>VD2A-270</b>	932	62 ¼	40 ½	58 ½	2127	8

### VD2A

- Modulating boiler water temperature closely matches system requirements and ensures consistent, maximum efficiency.
- Therm-Control low-temperature protection logic and Vitotronic controls eliminate the need for a shunt pump.
- Eutectoplex gray cast iron heat exchanger promotes uniform heat transfer and water flow while eliminating stress fractures and internal condensation.
- Low emission combustion is achieved by the boiler's triple-pass design.
- Simple, quick assembly of the individual cast iron sections.
- Easy cleaning access via the left-or right-swing combustion chamber door.
- Standardized LON BUS integrates into building management