

## Commercial Condensing Boilers

**VITODENS® 200**, Cascade Systems

**VITOCROSSAL® 200**, CM2

**VITOCROSSAL® 300**, CA3B



### **Vitodens 200 Cascade System**

Cascade MBH Side: 160 - 4,240 MBH  
Cascade: up to 8 boilers,



### **Vitocrossal 200, CM2**

Single Boiler: 663 - 2,245 MBH  
Cascade: up to 8 boilers.



### **Vitocrossal 300, CA3B**

Single Boiler: 2,500-6,000 MBH  
Cascade: Project Specific



# VITODENS® 200, Cascade Systems

Prefabricated multiple boiler system with Vitodens 200-W gas-fired condensing boilers. Rated input: up to 4,240 MBH

The Vitodens 200-W cascade systems are ideal for small or difficult-to-access boiler rooms or facilities with narrow halls and stairwells. These cascade systems offer flexible installation with multiple manifold configurations: wall-mounted, floor standing, corner or back-to-back. A right or left-mount low-loss header acts as hydraulic break and helps eliminate air and debris.

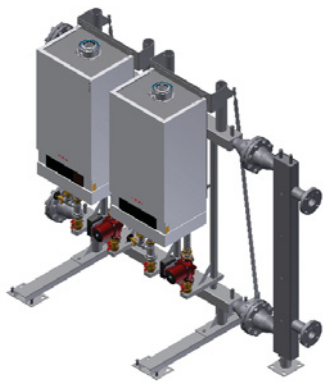
The Vitodens 200-W Cascade System packages include: primary loop manifold, primary/secondary flow decoupler (low loss header), boiler pumps, condensation neutralization kit, boiler plant cascade control, and floor mounted boiler installation kit.



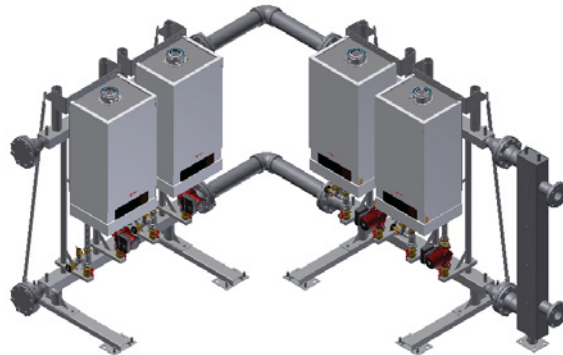
## Technical Data

Model	B2HB				B2HA			
	160	199	285	311	352	399	530	
Min.- Max. Input (single boiler)*	MBH 32 - 160	32 - 199	71 - 285	71 - 311	71 - 352	113 - 399	113 - 530	
Min.- Max. Input (multiple of 8)*	MBH 32 - 1,280	32 - 1,592	71 - 2,280	71 - 2,488	71 - 2,816	113 - 3,192	113 - 4,240	
Weight (single boiler)	lbs 210	210	194	194	194	298	298	

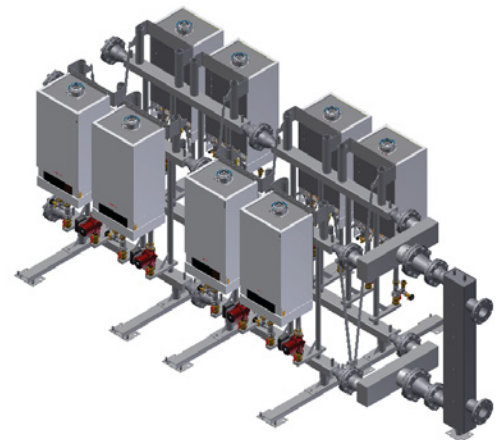
\* Input based on natural gas



2-boiler cascade system



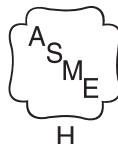
4-boiler cascade system in corner configuration



8-boiler cascade system in back-to-back configuration



Energy Verified



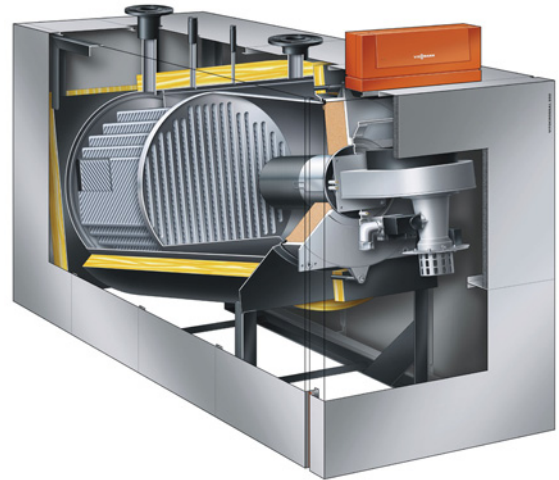
Technical information subject to change without notice.

# VITOCROSSAL® 200, CM2

Gas-fired condensing boiler with fully-modulating pre-mix cylinder burner and 316Ti stainless steel fire-tube heat exchanger. Rated input: 133 to 2,245 MBH (single) / 17,960 MBH (cascade)

Benefits of this product include:

- Low inlet gas pressure capability as low as 4" w.c. (NG) provides compatibility with a range of supply pressures
- Burner modulation range of 5:1 allows to precisely match the load in combination with high water mass design of the boiler
- Optional low NOx certified by SCAQMD Natural Gas Models available
- All models are certified by AHRI



## Technical Data

Model		CM2-186	CM2-246	CM2-311	CM2-400	CM2-500	CM2-620*
Combustion Efficiency*	%	95	95	95	95.1	95.1	95.1
Thermal Efficiency*	%	97	97	97	95	95	95
Minimum Input (NG)	MBH	131	175	222	287	358	450
Maximum Input (NG)	MBH	663	878	1,112	1,445	1,800	2,245
Output†	MBH	643	851	1,078	1,372	1,710	2,132
Net AHRI Rating	MBH	559	740	937	1,193	1,487	1,854
<b>Overall Dimensions†</b>							
Width	in.	36 ½	36 ½	36 ½	42 ¾	42 ¾	44 ¾
Height	in.	66	66	66	65 ¾	65 ¾	68 ¾
Length	in.	73	73	73	89 ½	95 ¾	100 ¾
Weight (Dry weight of single boiler, complete with the burner, control and insulation)	lbs.	726	759	792	1,495	1,662	1,929
Boiler Water Content	USG	81	77	74	104	112	131
Heat Exchanger Surface Area	ft. <sup>2</sup>	72.9	98.8	121.5	166.6	208.6	234
Maximum Operating Pressure	psig	75	75	75	75	75	75
Flue Outlet Size (Internal Diameter)	in.	8	8	8	10	10	10
Power Consumption	W	225	278	368	540	700	900

\* Tested to AHRI Testing Standard Method to Determine Efficiency of Commercial Space Heating Boilers, BTS-2000.

\*\* All products on this table are certified to meet or exceed SCAQMD standards with the exception of CM2-620.

CM2-620TX is certified.

† Includes boiler with burner, boiler panels, thermal insulation, boiler control unit and electrical connection box. Note:

For high altitude installations (5,000 to 10,000 ft.), the input will have an altitude de-rating of 15% for 5,000 ft. and 18% for 10,000 ft.

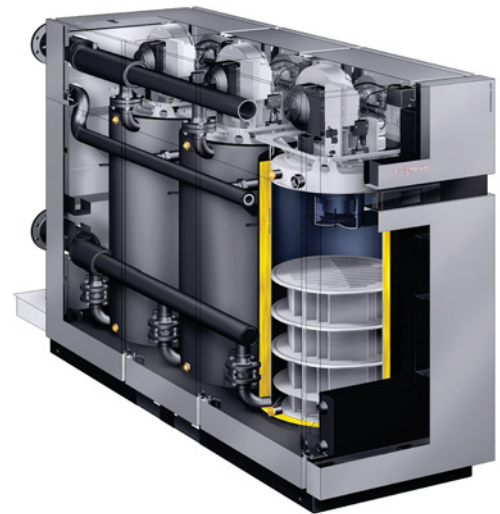


# VITOCROSSAL® 300, CA3B

CA3B Series high-efficiency, gas-fired condensing boilers with multiple burner design. The Inox-Lamellar fire-tube style heat exchangers of the CA3B boilers are made of 316Ti grade Stainless Steel. Rated input: 2,500 to 6,000 MBH

Benefits of this product include:

- Low inlet gas pressure capability as low as 4" w.c. (NG) provides compatibility with a range of supply pressures
- Dual Fuel models offer easy changeover from NG to LP with a simple turn of a key
- Low emissions and quiet operation from fully-modulating Viessmann pre-mix cylinder burners (up to 3)
- Can be disassembled and reassembled\* (Refer to Viessmann's technical CA3B Disassembly and Reassembly instructions)



## Technical Data

Model		2.5	3.0	3.5	4.0	5.0	6.0
Minimum Input (NG)	MBH	250	300	300	400	300	400
Minimum Input (LPG)	MBH	495	495	495	660	495	660
Maximum Input	MBH	2,500	3,000	3,500	4,000	5,000	6,000
Output	MBH	2402	2883	3363	3844	4805	5766
Combustion Efficiency *	%	94.1	94.1	94.1	94.1	94.1	94.1
Thermal Efficiency *	%	96.1	96.1	96.1	96.1	96.1	96.1
Maximum Operating Pressure	psig	160	160	160	160	160	160
Power Requirements	Voltage	120	120	120	120	208†	208†
	Phase	1	1	1	1	3	3
	Hz	60	60	60	60	60	60
	Amp.	20	20	20	20	20	20

CA3B Single Fuel (SF)							
<b>Overall Dimensions Assembled</b>							
Width	in.	34	34	39 ½	39 ½	39 ½	39 ½
Height	in.	78 ¾	78 ¾	84	84	84	84
Length	in.	88 ¾	88 ¾	99 ½	99 ½	136	136
Dry Weight (burner, control, insulation, and jacketing)	lbs	4233	4233	4696	4806	6261	6894
Boiler Water Content	USG	108	108	151	143	227	218
Heat Exchanger Surface ft. <sup>2</sup>	ft. <sup>2</sup>	142.7	142.7	170.2	192.5	244.1	288.8
Flue Outlet Size	dia	10	10	12	12	16	16

CA3B Dual Fuel (DF)							
<b>Overall Dimensions Assembled</b>							
Width	in.	39 ¾	39 ¾	39 ¾	39 ¾	39 ¾	39 ¾
Height	in.	84	84	84	84	84	84
Length	in.	99 ½	99 ½	99 ½	99 ½	136	136
Dry Weight (burner, control, insulation, and jacketing)	lbs	4641	4641	4751	4861	6325	6958
Boiler Water Content	USG	158	158	151	143	227	218
Heat Exchanger Surface ft. <sup>2</sup>	ft. <sup>2</sup>	147.9	147.9	170.2	192.5	244.1	288.8
Flue Outlet Size	dia	12	12	12	12	16	16

\* Tested to ANSI/AHRI standard 1500 Performance Rating of Commercial Space Heating Boilers / DOE Test Procedure 81 FR 89276 / U.S. Standards ANSI Z21.13/CSA 4.9 / AHRI, BTS-2000 Testing Standard Method to determine the efficiency of Commercial Heating Boilers.

† Requires 208Y/120VAC - 3 phase - 60 Hz - 4 wire (L1, L2, L3, N, G) power supply.

