

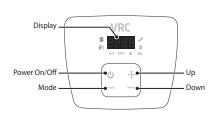


# REVOLUTION CONDENSING **COMBI-BOILERS**

## **Specification Sheet**

### **VRC Model (Condensing Combi-Boiler)**





#### Certified design according to ANSI Z21.13 - CSA 4.9-2017 standards for indoor residential applications

Gas Input Ranges (Space Heating / DHW)

VRC-80 - 80,000 (155,000 for DHW) to 19,900 BTUh

VRC-100 - 100,000 (180,000 for DHW) to 19,900 BTUh

VRC-120 - 120,000 (199,000 for DHW) to 19,900 BTUh

VRC-140 - 140,000 (199,000 for DHW) to 19,900 BTUh

Hot Water Flow Rate Capacity (\* based on 67°F temperature rise)

VRC-80 - 4 0 GPM

VRC-100 - 4.7 GPM

VRC-120/140 - 5.2 GPM

- Dual Primary and Secondary Stainless Steel Heat Exchangers for optimum efficiency
- Stainless steel Flat Plate Heat Exchanger for DHW
- **Domestic Hot Water Priority**
- Compatible with 2" PVC vent up to 60ft\*\* and 3" PVC vent up to 150 ft\*\* (\*\*with no elbows)
- Built-in Control Panel allows adjustment of temperature and boiler functions including Outdoor Reset Curve setting, heating setback, Integrated Low Water Safety Control, water fill pressure, and output capacity.
- Available with Wi-Fi Control
- Internal Circulation Pump(UPS 15-78) comes included with a primary circulation pump and air vent for added value and convenience
- Temperature Options two boiler setpoints: hydronic heating temperature setting range from 82°F up to 180°F and from 86°F to 140°F for DHW temperatures
- Outdoor Reset Sensor when installed with an VRC model, the unit controls will sense outdoor ambient temperatures and adjust the boiler operation for maximum comfort and efficiency
- **AFUE Ratings** VRC-80 / 100 / 120 / 140 - 95.0% (NG/LP)
- Compatible with Natural Gas(NG) and Propane (LPG)\*\*\* (\*\*\*requires installation of included Field Conversion Kit by a qualified service agency)
- Certified by CSA, ASME, NSF/ANSI 372 for Low Lead (DHW only)
- 10-Year Heat Exchanger and 5-Year Parts Warranty (Residential) 5-Year Heat Exchanger and 3-Year Parts Warranty (Commercial)

## Optional accessories



Cascade communication cable (3130846)



Vent

→1" (25 mm) min.

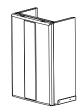
Maintain 12"

(300 mm) min.

Plumb easy valve set (2040172)



Outdoor temperature sensor (2081140)



Pipe Cover (31602485)









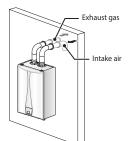




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Location:		
Engineer:		
Wholesaler:		
wholesaler.		
Contractor:		
Model No.:		
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Submittes to:		







Direct Vent (Indoor)



Non-Direct Vent (Indoor)

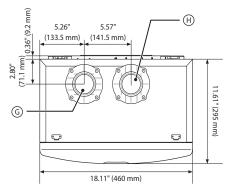
Direct Vent Concentric Termination (Indoor)

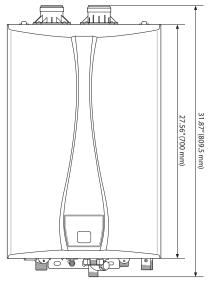
Combustion air

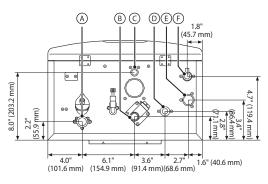


**Direct Vent Termination** (Indoor)

#### **Dimensions**







	Description	Diameter		
A	Space heating Return	1" NPT		
B	Cold water inlet	3/4" NPT		
0	Condensate Outlet	1/2" NPT		
(D)	Hot water Outlet	3/4" NPT		
E	Space heating Supply	1" NPT		
F	Gas Inlet	3/4" NPT		
G	Exhaust Vent	2"		
$\mathbb{H}$	Air inlet	2"		

### **Specification**

MODEL		VRC-80	VRC-100	VRC-120	VRC-140	
Heat Capacity (Input)	Space H	leating	19,900– 80,000 BTU/H	19,900– 100,000 BTU/H	19,900– 120,000 BTU/H	19,900– 140,000 BTU/H
	Domestic	Hot Water	19,900– 155,000 BTU/H	19,900– 180,000 BTU/H	19,900– 199,000 BTU/H	19,900– 199,000 BTU/H
Flow Rate (DHW)	45°F (25°C)	Temp Rise	6.0GPM (23LPM)	6.9GPM (26LPM)	7.7GPM (29LPM)	7.7GPM (29LPM)
	67°F (37°C)	Temp Rise	4.0GPM (15LPM)	4.7GPM (18LPM)	5.2GPM (20LPM)	5.2GPM (20LPM)
AFUE	Natur (prop		95.0% (95.0%)	95.0% (95.0%)	95.0% (95.0%)	95.0% (95.0%)
Dimensions (W x D x H)		18.1" x 27.6" x 11.6" (460 mm x 700 mm x 295 mm)				
Installation Type		Indoor wall-hung				
Venting Type		Forced draft direct vent				
Ignition		Electronic ignition				
Water Pressure (Hydronic/DHW)		12~30psi/15~150 psi				
Supply Pressure	Natur	al Gas	3.5" – 10.5" WC			
Propa		ane	8" – 13" WC			
Minimum Flow Rate (DHW)		0.5GPM(2.0LPM)				
Temperature Range	Space H	leating	82°F – 180°F(27°C – 82°C)			
remperature nange	DH	IW	86°F – 140°F(31°C – 60°C)			
Connection Sizes	Space heating Supply/Return		1" NPT			
	Cold water Inlet		3/4" NPT			
	Hot Wate	er Outlet	3/4" NPT			
	Gas Inlet		3/4" NPT			
Power Supply	Main Supply 120V AC, 60 Hz / use less than 5 AMP				Р	
Materials	Primary Heat Exchanger		Stainless steel			
Materials	Secondary Heat Exchanger					
	Exhaust/Intake		2" or 3" PVC, CPVC, Polypropylene 2" or 3" Special gas vent type BH (Class II, A/B/C)			
Venting	Length	2"	60ft(18.3m)			
		3"	150ft(45.7m)			
Vent Clearances		0" to combustibles				
Safety Devices		Flame rod, APS, Over heat preventer, Low water cut off switch, Exhaust temperature high limit sensor, Power surge fuse				

Gas-fired, Combination, condensing, wall-mounted boiler(s) shall be direct vent VRC Series models as manufactured by Vesta.DS, Inc. and are certified by CSA Group to the latest edition of ANSI standard Z21.13/ CSA 4.9. Combination Boilers(s) shall have a 10-year limited Heat Exchanger warranty and 5-year limited Parts warranty (5-year Heat Exchanger and 3-year Parts for commercial use) per Vesta.DS, Inc Limited Warranty. Unit(s) shall be designed to burn natural gas and can be used with propane when a Field Conversion Kit is installed. Combination Boilers(s) shall have a nominal flow rate capacity of GPM/GPH at °F rise with rated BTU/hr. Combination Boilers(s) shall be vented with 2" PVC/CPVC vent pipe at a distance not to exceed 60' (or equivalent) with each elbow equal to 8' of pipe length or 3" PVC/CPVC vent pipe at a distance of 150' (or equivalent) with each elbow equal to 5' of pipe length. Combination Boiler(s) is rated for 150 PSI working water pressure for DHW (30 PSI Heating) . Gas supply pressure shall be 3.5 "to 10.5" WC for natural gas and 8.0" to 13.0" WC for propane. Unit(s) shall have a steel case, dual stainless-steel heat exchangers, Stainless Steel flat plate heat exchanger, eco premixed burner, negative pressure gas valve, TDR Damper, 3/4" inlet gas connection, 3/4" DHW brass inlet/outlet water connection, and 1" brass inlet/outlet heating connections. The VRC-80, VRC-100, VRC-120, & VRC-140 models weighs 95 lbs. Unit(s) shall include features such as an adjustment for different vent lengths, & temperature lockout. All VRC models shall include an internal heating circulation pump and flat plate heat exchanger. The combination boilers(s) shall be controlled by an internal circuit board that monitors the Heating/DHW inlet and outlet temperatures with installed thermistors. Unit(s) shall include safety features such as flame sensor system, high limit sensors, overheat prevention device, freeze protection mode, and fan motor rotation detector. The Combination Boilers(s) exceeds the energy efficiency requirements of ASHRAE 90.1-2013.

<sup>\*</sup> VESTA.DS reserves the right to change specifications at any time without prior notice.