



RCB500AN, RCB750AN, RCB1000AN

RINNAI COMMERCIAL BOILER (FLOOR-STANDING)



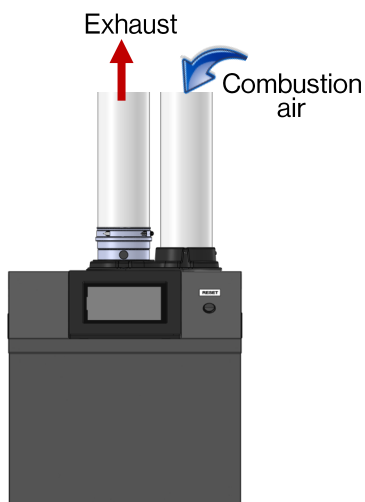
CERTIFIED TO ANSI Z21.13 - CSA 4.9

RINNAI COMMERCIAL BOILER

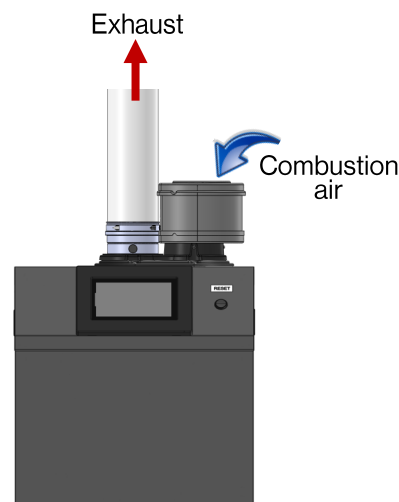
Appliance Type	Condensing Floor-Standing, Gas-Fired, Heat-Only (Solo) Boiler
Installation Type	Internal (Indoor) Commercial Applications
Model Numbers	RCB500AN, RCB750AN, RCB1000AN
Gas Types	Natural and Propane. IMPORTANT: Units ship as Natural Gas only. Propane Conversion Kits available as accessory (purchased separately).
Thermal Efficiency	97%
Certifications	ANSI Z21.13, CSA 4.9, ASME
Included with Purchase	• Boiler • Pressure and Temperature Gauge • Pressure Relief Valve: 75 PSI (5.2 bar) • Outdoor Temperature Sensor • Documentation: Installation and Operation Manual, User Manual, Warranty Card
Optional Accessories	Condensate Neutralizer, Air Inlet Filter, Cascade System Sensor, Gas Conversion Kit, BACnet Adapter, BACnet Adapter with Lon Works, Water Temperature High Limit, High and Low Gas Pressure Switches, and Low Water Cut-Off.

VENTING OPTIONS

Direct Vent



Non-Direct Vent (Room Air)

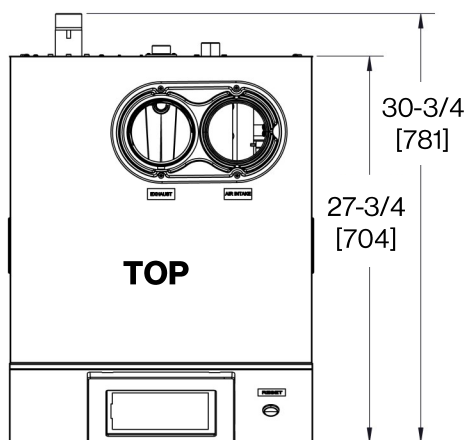
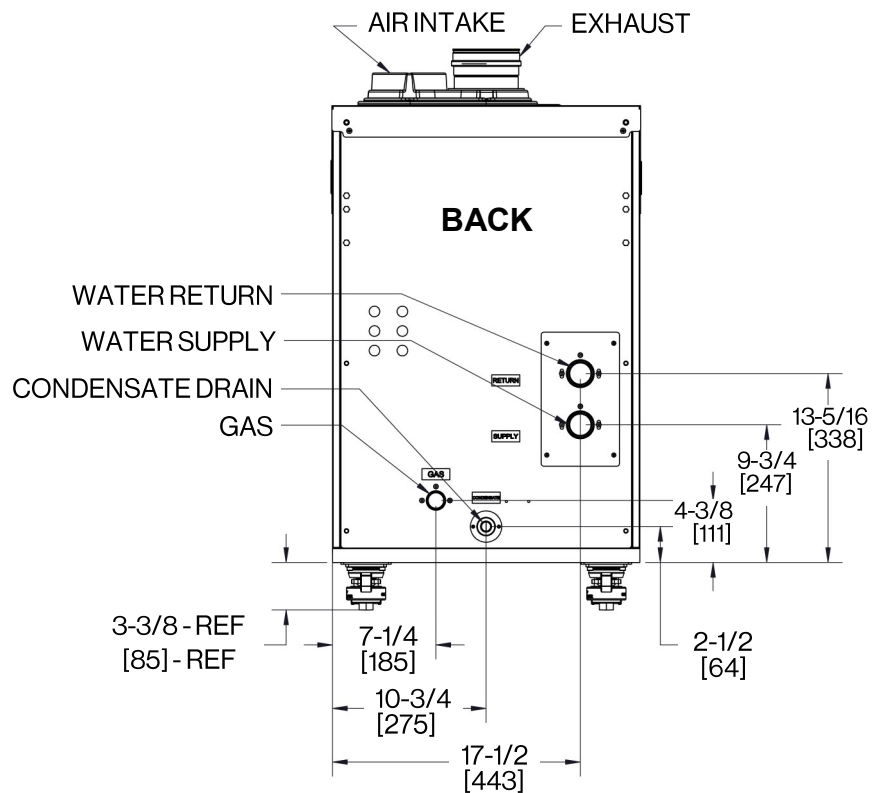
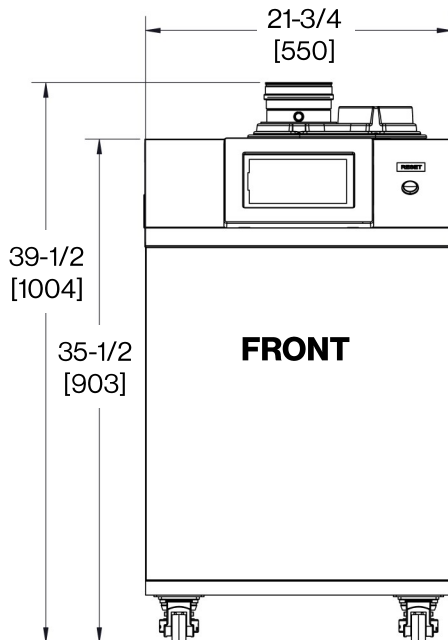


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RCB500AN Model

Dimensions (w, h, d): 21.75 in. x 39.5 in. x 30.75 in. (550 mm x 1004 mm x 781 mm)

Measurements: in. [mm]

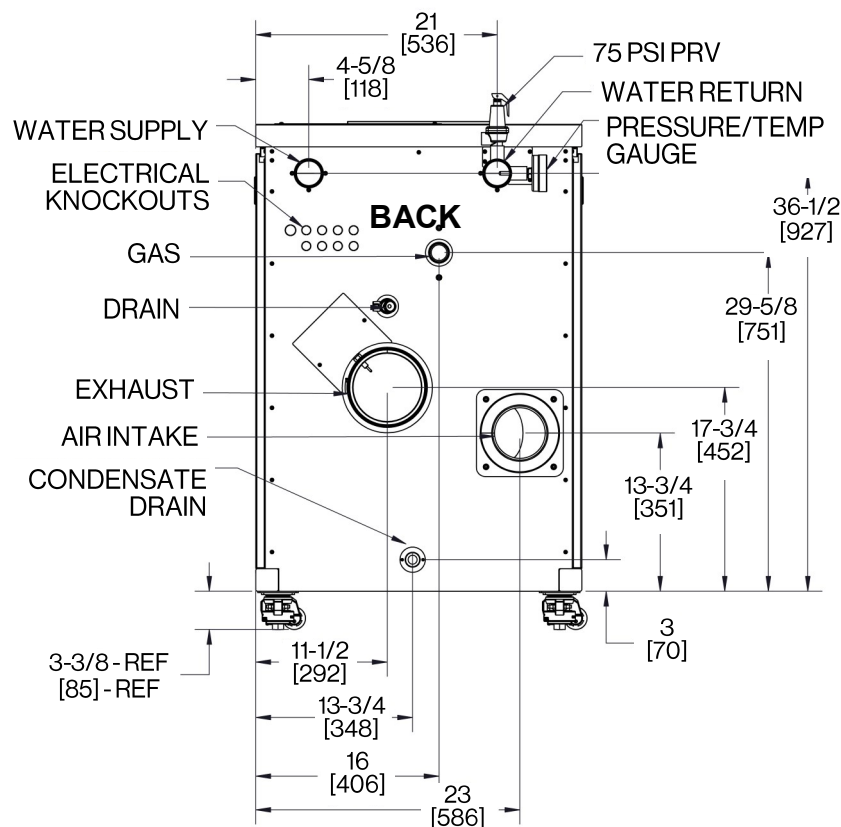
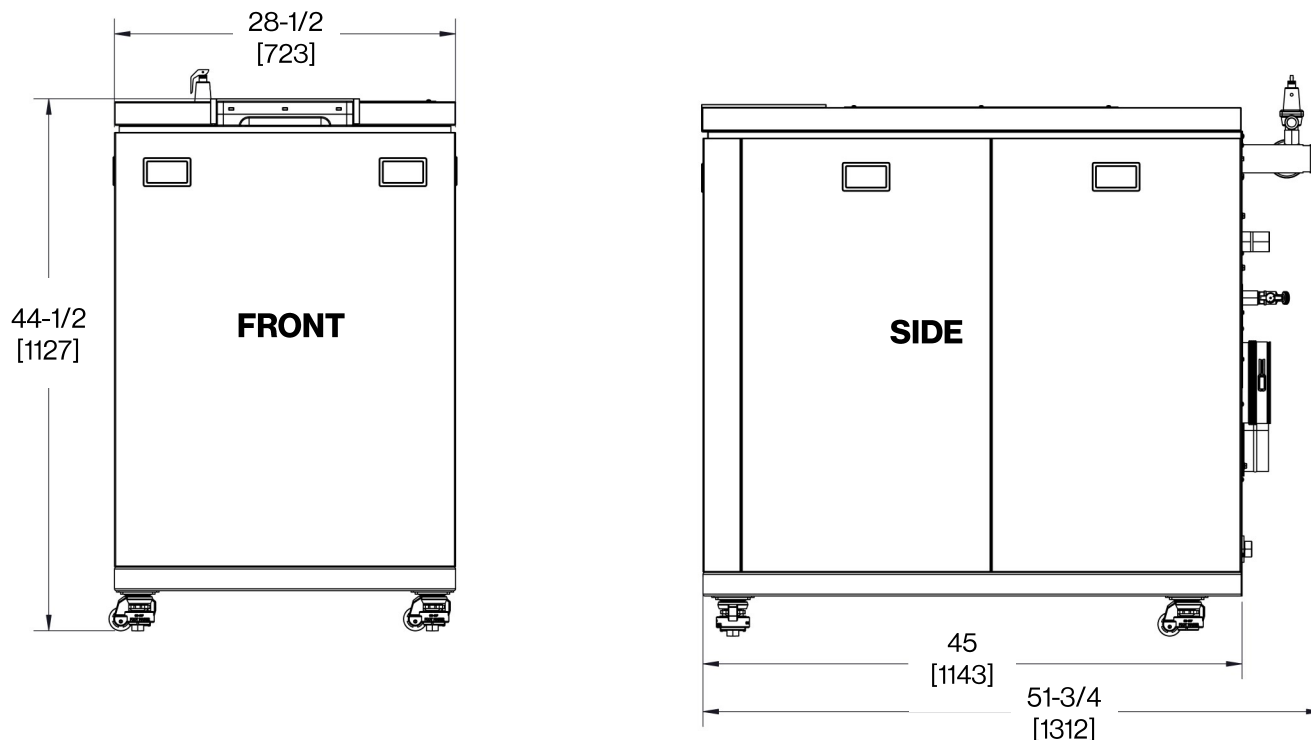


Connection	Connection Size	Minimum Pipe Size
Gas	1 in. NPT	1 in.
CH In (CH Return)	1-1/2 in. NPT	1-1/2 in.
CH Out (CH Supply)	1-1/2 in. NPT	1-1/2 in.
Condensate Drain	1 in. NPT	3/4 in.
Venting (Intake & Exhaust)	4 in. PVC/CPVC	4 in.

RCB750AN and RCB1000AN MODELS

Dimensions (w, h, d): 28.5 in. x 44.5 in. x 51.75 in. (723 mm x 1127 mm x 1312 mm)

Measurements: in. [mm]



Connection	Connection Size	Minimum Pipe Size
Gas	1-1/4 in. NPT	1-1/4 in.
CH In (CH Return)	2 in. NPT	2 in.
CH Out (CH Supply)	2 in. NPT	2 in.
Condensate Drain	1 in. NPT	3/4 in.
Venting (Intake & Exhaust)	6 in. PVC/CPVC	6 in.

TECHNICAL SPECIFICATIONS

Model		RCB500AN	RCB750AN	RCB1000AN
Ignition System		Direct Electronic Ignition		
Dimensions (Appliance) - In. (mm) - w, h, d		21.75 x 39.5 x 30.75 (550 x 1004 x 781)	28.5 x 44.5 x 51.75 (723 x 1127 x 1312)	
Weight (Appliance)		243 lb (110 kg)	525 lb (238 kg)	567 lb (257 kg)
Dimensions (Shipping) - In. (mm) - w, h, d		30 x 48 x 36 (770 x 1220 x 910)	38 x 57 x 60 (970 x 1450 x 1530)	
Weight (Shipping)		300 lb (136 kg)	591 lb (268 kg)	633 lb (287 kg)
Heat Exchanger Surface Area		36.8 sq ft	60.9 sq ft	75.4 sq ft
Gas Consumption (Btu/h)	Minimum	50,000	75,000	99,900
	Maximum	500,000	750,000	999,000
Temperature Setting	CH	(Minimum - Maximum) 86°F - 180°F (30°C - 82°C)		
	Indirect Tank (DHW)	104°F - 176°F (40°C - 80°C)		
Water Content		2.7 gal (10.1lt)	6.6 gal (24.8 lt)	8.1 gal (30.6 lt)
Water Pressure	CH	Minimum: 14.5 PSI (1 bar) Maximum Allowable Water Pressure (MAWP): 160 PSI (1103 kPa)		
	PRV	75 PSI (5.2 bar) (Pressure Relieve Valve included with system)		
Electrical Data	Normal	350 W	484 W	605 W
	Standby	10 W		
	Max Current	20 Amps		
	Fuse	Main Controller: 2 x 6.3 Amps Each Pump (Boiler, CH, DHW): 5 Amps		
Gas Supply Pressure ¹	Natural Gas	3.5 in. - 10.5 in. wc (0.87 - 2.61 kPa)		
	Propane	8.0 in. - 13.5 in. wc (1.99 - 3.36 kPa)		
Electric Connections		AC 120 Volts, 60 Hz		
Certifications		ANSI Z21.13, CSA 4.9, ASME		
Canada CRN		Y6325.2C	R5402.5C	
Warranty		Heat Exchanger: 10 Years. All Other Parts & Components: 1 Year. Reasonable Labor: 1 Year. See the “Rinnai Commercial Boiler Warranty” for Complete Details		
Venting 45° elbow is equivalent to 3 ft (1 m). 90° elbow is equivalent to 6 ft (2 m).	Options	• Direct Vent • Non-Direct Vent (Room Air)		
	Materials	PVC, CPVC, PP and Stainless Steel		
	Vent Size	4 in. PVC/CPVC	6 in. PVC/CPVC	
	Exhaust ²	Vent Run (Min-Max): 10 ft (3 m) - 140 ft (43 m)		
	Intake ²	Vent Run (Min-Max): 0 ft (0 m) - 140 ft (43 m)		
Maximum Installation Altitude		10,200 ft (3,109 m)		

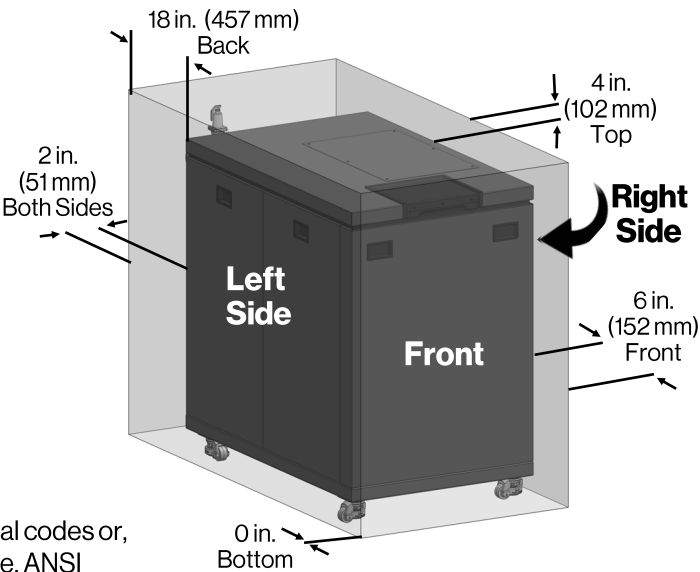
¹ Maximum gas supply pressure must not exceed the value specified by the manufacturer.

² RCB500AN Model ONLY: For altitudes above 2,000 ft (609 m), vent length is reduced to 110 ft (33 m).

Rinnai products are continually being updated and improved; therefore, specifications are subject to change without prior notice.

CLEARANCES

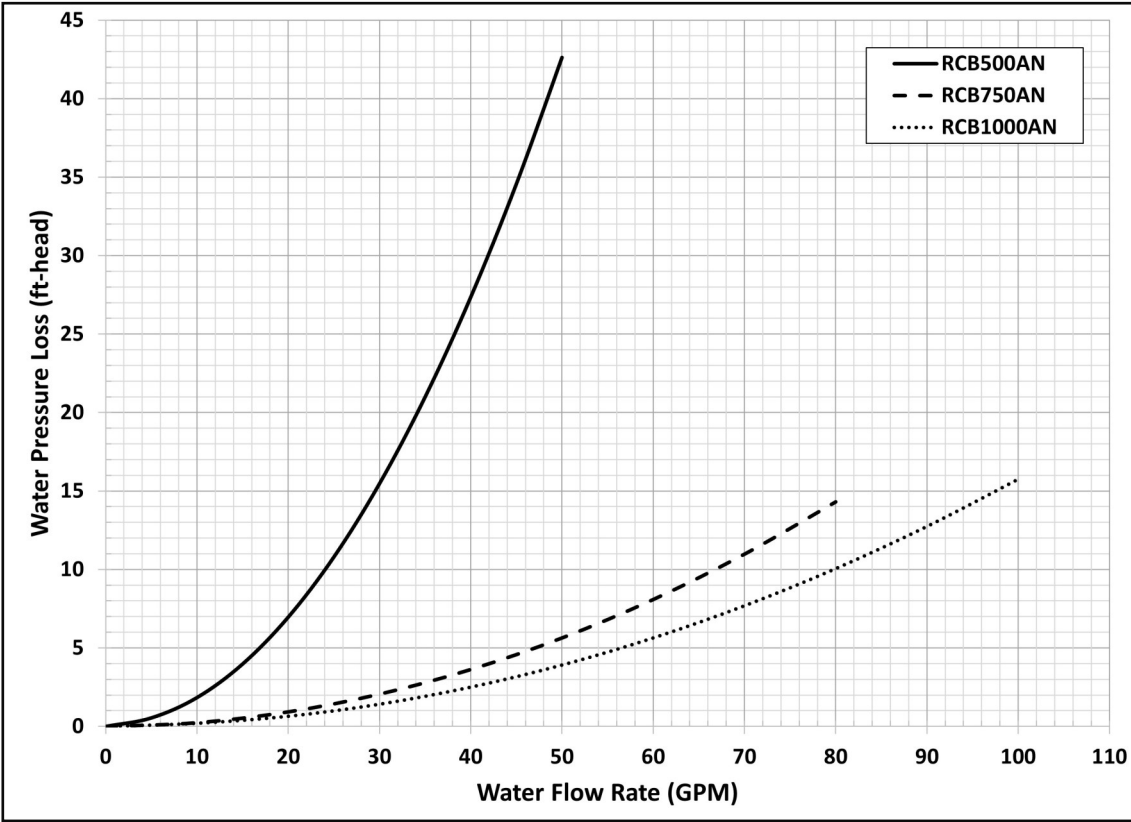
Location	Clearance
Top	4 in. (102 mm) <i>0 in. from vent components</i>
Bottom (Ground)	0 in. (0 mm)
Front	6 in. (152 mm) <i>Clearance for servicing is 24 in. (610 mm) in front of boiler</i>
Back	18 in. (457 mm)
Sides (Left and Right)	2 in. (51 mm) <i>Clearance for servicing is 12 in. (305 mm) on left side and 24 in. (610 mm) on right side.</i>
Vent	0 in. (0 mm)



United States: Installations in the U.S. must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54.

Canada: Installations in Canada must conform with local codes or, in the absence of local codes, with the Natural Gas and Propane Installation Code, CSA B149.1.

PRESSURE DROP AND WATER FLOW CURVE WITH HYDRAULIC SEPARATION



The Rinnai Commercial Boiler does not have an included boiler pump. An external boiler pump must be installed and sized to the flow rate and pressure drop through the boiler, system piping, and system components. Larger systems, or systems with large pressure drops, should incorporate a form of hydraulic separation, such as closely spaced tees or a low loss header.

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Rinnai Commercial Boiler (Floor-Standing) Specification Sheet

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