



# RCB301AN, RCB399AN

RINNAI COMMERCIAL BOILER (WALL-MOUNT)



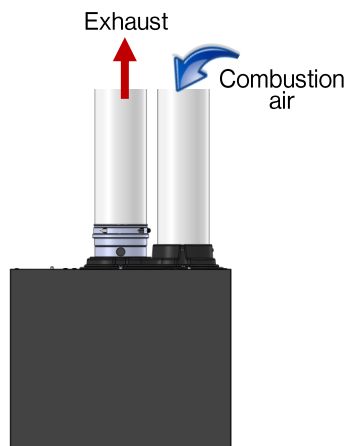
CERTIFIED TO ANSI Z21.13 — CSA 4.9

## RINNAI COMMERCIAL BOILER

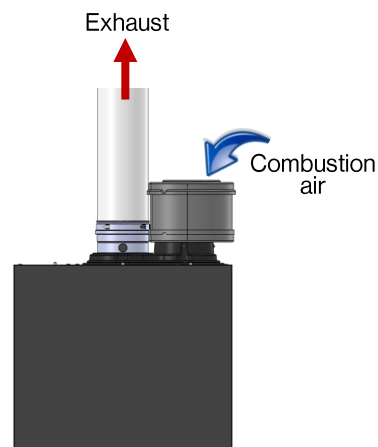
Appliance Type	Condensing Wall-Mounted, Gas-Fired, Heat-Only (Solo) Boiler
Installation Type	Internal (Indoor) Commercial Applications
Model Numbers	RCB301AN, RCB399AN
Gas Types	Natural and Propane <b>IMPORTANT:</b> Units ship as Natural Gas only. Propane Conversion Kits available as accessory (purchased separately)
Thermal Efficiency	97%
Certifications	ANSI Z21.13, CSA 4.9, ASME
Included with Purchase	<ul style="list-style-type: none"><li>• Boiler</li><li>• Wall Mounting Bracket with Screws</li><li>• Pressure Relief Valve: 75 PSI (5.2 bar)</li><li>• Outdoor Temperature Sensor</li><li>• Documentation: Installation and Operation Manual, User Manual, Warranty Card</li></ul>
Optional Accessories	Condensate Neutralizer, Air Inlet Filter, Cascade System Sensor, Boiler Rack, Gas Conversion Kit, BACnet Adapter, and BACnet Adapter with LonWorks.

## VENTING OPTIONS

### Direct Vent



### Non-Direct Vent (Room Air)



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**DIMENSIONS**

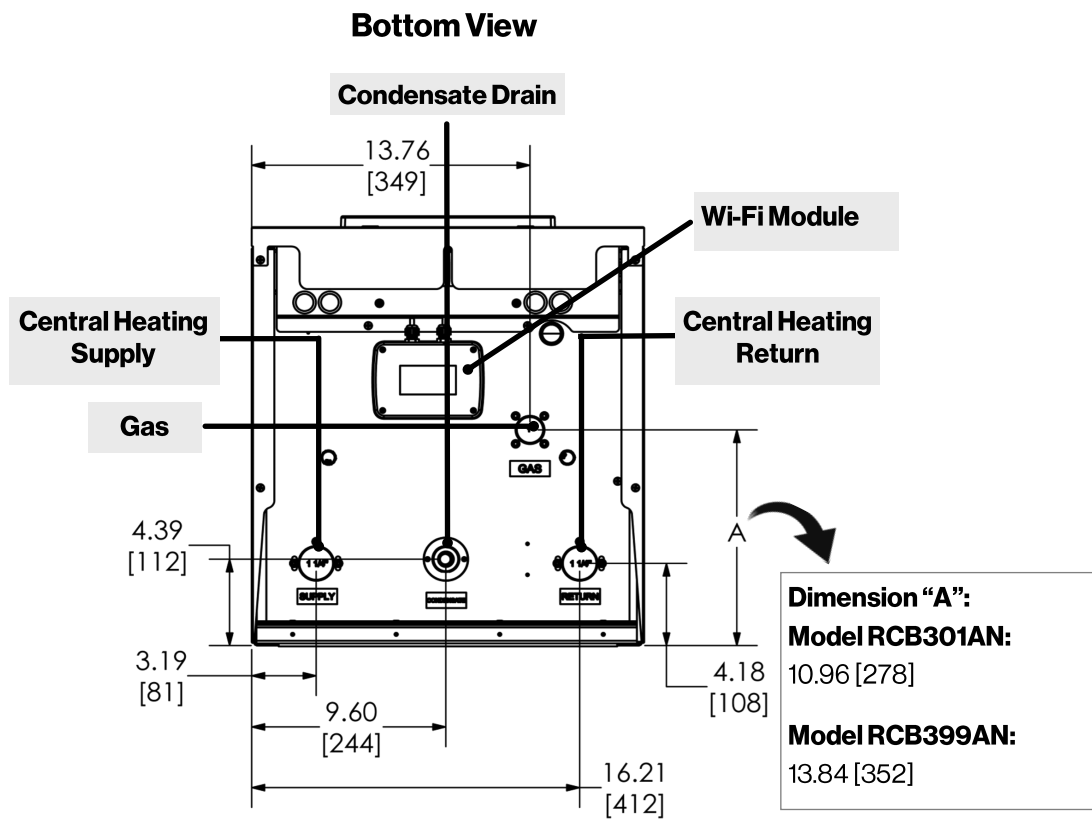
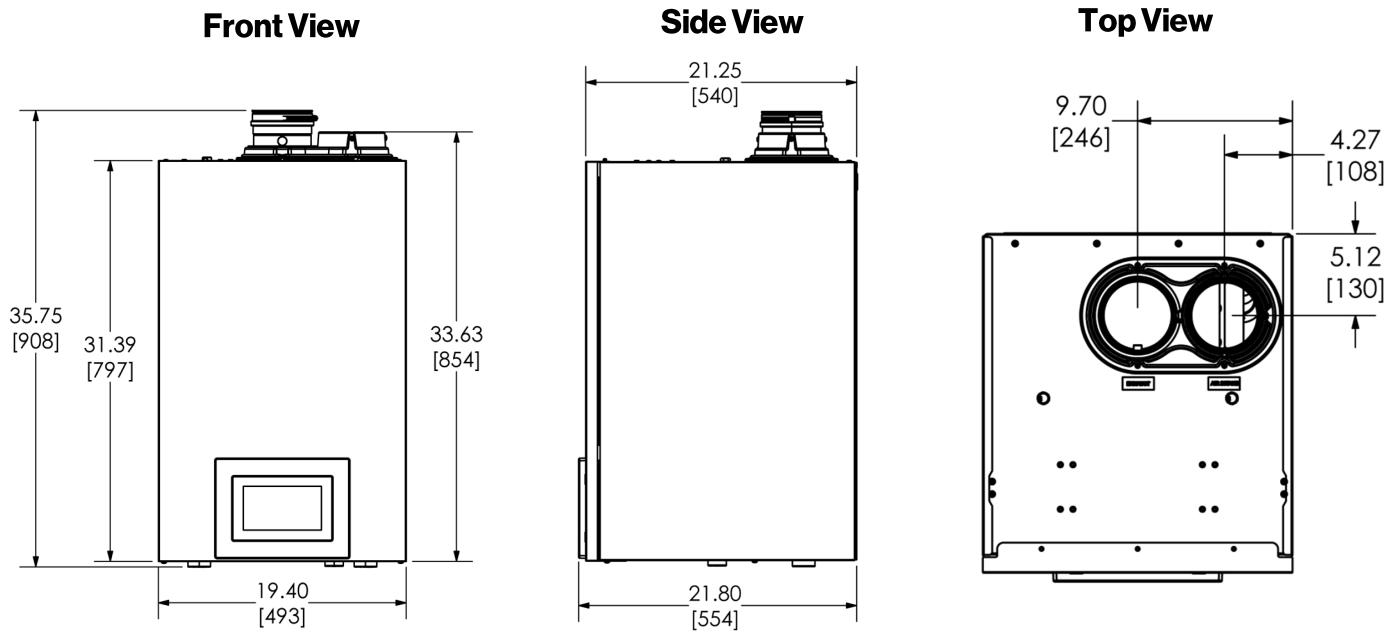


Table: Connection Sizes

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

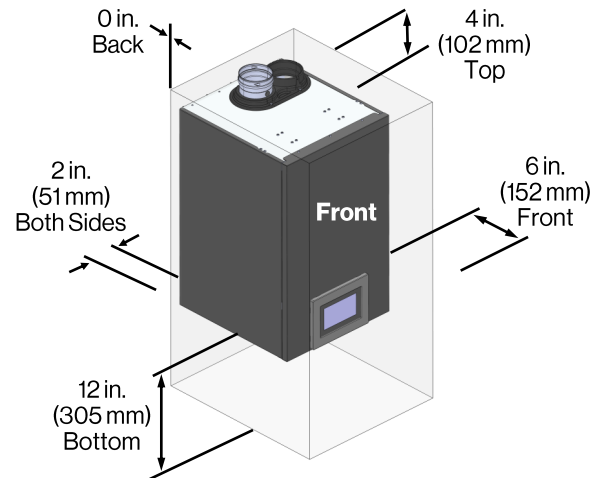
TECHNICAL SPECIFICATIONS

Model		RCB301AN	RCB399AN
Ignition System		Direct Electronic Ignition	
Dimensions - w, h, d		19.4 in. x 35.75 in. x 21.8 in. (493 mm x 908 mm x 554 mm)	
Weight (Shipping)		194 lb (88 kg)	207 lb (94 kg)
Weight (Appliance)		170 lb (77 kg)	183 lb (83 kg)
Heat Exchanger Surface Area		24.6 sq ft	30.7 sq ft
Gas Consumption (Btu/h)	Minimum	30,100	39,900
	Maximum	301,000	399,000
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		1.8 gal (6.8 lt)	2.2 gal (8.3 lt)
Water Pressure	CH	Minimum: 14.5 PSI (1 bar) Maximum: 87 PSI (6 bar) Maximum Allowable Water Pressure (MAWP): 160 PSI (1103 kPa)	
	PRV	75 PSI (5.2 bar) (Pressure Relieve Valve included with system)	
Sound Level		55 dB(A)	56 dB(A)
Electrical Data	Normal	133 W	210 W
	Standby	10 W	
	Max Current	6.3 Amps	
	Fuse	2 x 6.3 Amps	
Gas Supply Pressure <sup>1</sup>	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	
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:	<ul style="list-style-type: none"> <li>• Direct Vent</li> <li>• Non-Direct Vent (Room Air)</li> </ul>	
	Materials	PVC, CPVC, PP and Stainless Steel	
	Vent Size	4 in. PVC/CPVC	
	Exhaust	Vent Run (Min-Max): 10 ft (3 m) - 140 ft (43 m)	
	Intake	Vent Run (Min-Max): 0 ft (0 m) - 140 ft (43 m)	
	High Altitude	<ul style="list-style-type: none"> <li>• 0-2,000 feet (0-609 m) - 140 ft (43 m)</li> <li>• For altitudes above 2,000 ft (609 m), vent length is reduced to 90 ft (27 m).</li> </ul>	

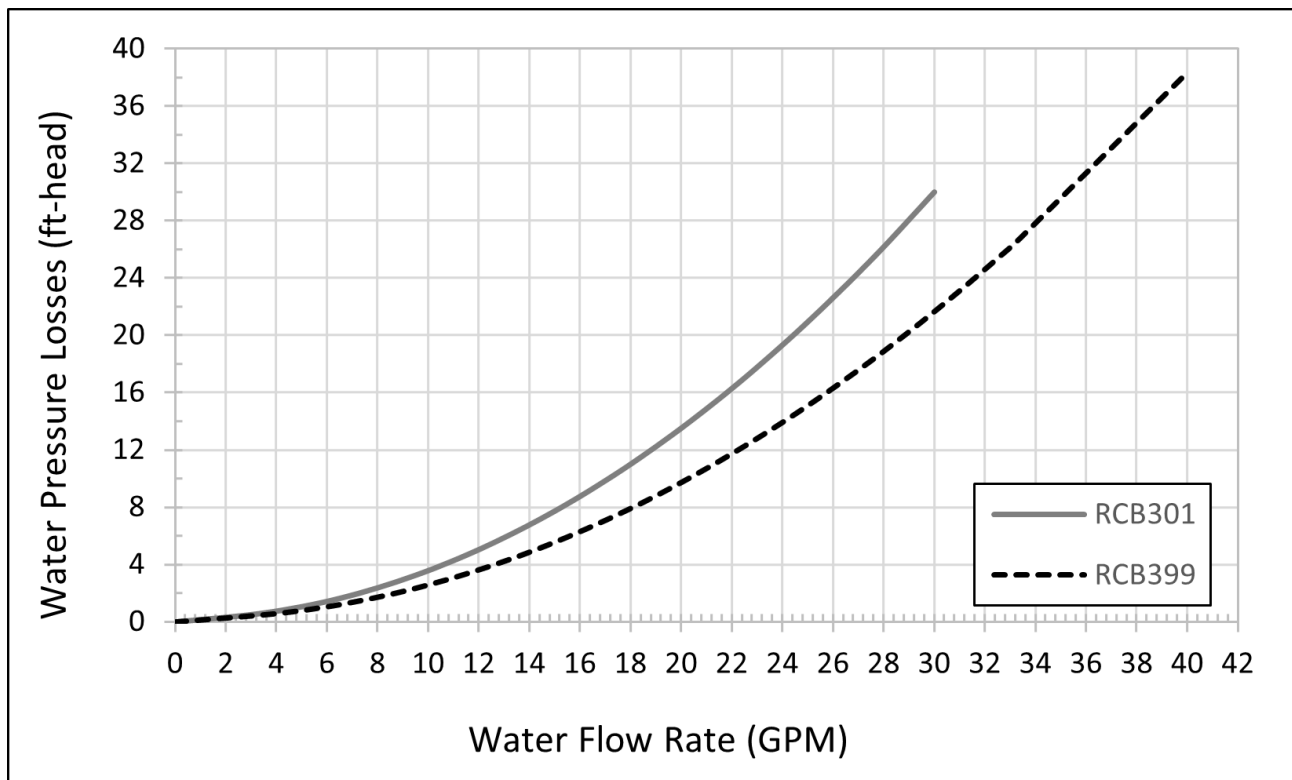
<sup>1</sup> Maximum gas supply pressure must not exceed the value specified by the manufacturer.

## CLEARANCES

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



## 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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