

RCB301AN
and RCB399AN
Wall-Hung Models

Rinnai®

RCB • SERIES™

Commercial Wall-Hung & Floor-Standing Hydronic Boilers

NEW
Floor-Standing
models
RCB500AN, RCB750AN
and RCB1000AN



RCB500AN
Floor-Standing Model



RCB750AN
and RCB1000AN
Floor-Standing Models

Remarkable Performance Including:

10:1
Turndown
Ratio

up to **98%**
Thermal
Efficiency

7"
Intuitive LCD
Touchscreen

RCB • SERIES™

Commercial Wall-Hung & Floor-Standing Hydronic Boilers

Advanced Performance

The **RCB•SERIES™** boiler offers a complete line of condensing, gas-fired Wall-Hung and Floor-Standing Hydronic Boilers that act as a primary or secondary building heat source in any size commercial application.

Rely on the **RCB•SERIES™** to deliver reliable, energy saving performance for your building with a ground breaking feature set that outperforms other boilers in its class.

Intuitive 7" LCD Touchscreen Display



Intuitive Controls for simple start up, maintenance and monitoring.

QR code available on **SERVICE** menu goes directly to manuals.

All **RCB•SERIES™** models make it easy to program, access and monitor your boiler performance data onsite or with multiple connectivity features.

- **7" LCD Touchscreen** puts total control at your fingertips
- **Simple set-up** lets you adjust and customize parameters to maximize performance
- **Demand Screen** gives you critical information with color coded boiler status messages
- **Built-in Pump Control** - indirect pump, boiler pump, system pump
- **Standard Integrated Wi-Fi Connectivity** Monitor boiler performance data via Wi-Fi
- **Built-In BMS Capability** 0-10V input for Building Management System (BMS)
- **Built-In Modbus** (optional BACnet and Lon Works)



Features Common to All RCB Models

- Up to 98% Thermal Efficiency
- 10:1 Turndown Ratio
- 316L SS Water Tube Heat Exchanger
- 2 Pump Controls Plus Indirect Tank
- Outdoor Reset Included
- No Special Cascade Cables (T-Stat Wire)
- Primary Secondary Piping Required
- Warranty: 10 Year HEX (Non-Prorated) 1-year Parts and Labor
- Smart Service Access with 270 degrees of access with removable panels

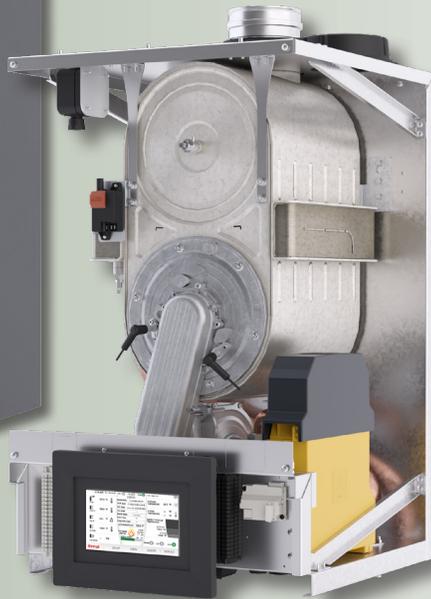
- Transport with ease, fits into freight elevators or through standard doorways
- Field Conversion Kit available
- ASME Certified, "H" stamped and National Board listed



10 YEARS (non-prorated)
on the Heat Exchanger
1 YEAR
on Parts
1 YEAR
Reasonable Labor



RCB301AN and RCB399AN



Removable panels for 270 degrees of access

Easy Installation & Service of Wall-Hung Boilers

- Light weight at 170 lbs (301 model) or 183 lbs (399 model)
- Small footprint, only 7.9 cubic feet saves space in mechanical room
- Easy-Hang Wall Mount bracket speeds installation
- No special tools required



Easy-Hang Wall Mount Bracket

Easy Installation & Service of Floor-Standing Boilers

- Roll onto job site with locking casters and leveling feet
- Only 28.5" wide, fits through a standard commercial doorway
- Maximum weight of 567 lbs.
- Secure Access with Service Panel Key
- Common Vent up to 2MM Btu
- Integrated 3 pump relays, up to 5 Amps each



RCB750AN and RCB1000AN



Service Panel Key
(only on RCB750AN and RCB1000AN)



RCB500AN

CASTERS for all Floor-Standing models



Wall-Hung Model		RCB301AN	RCB399AN
Input Rate		Max: 301,000 Btu/Hr Min: 30,100 Btu/Hr	Max: 399,000 Btu/Hr Min: 39,900 Btu/Hr
Thermal Efficiency		97%	97%
Dimensions - Width x Height x Depth		19.4 in. x 35.75 in. x 21.8 in. (493 mm x 908 mm x 554 mm)	
Weight (Appliance)		170 lb (77 kg)	183 lb (83 kg)
Weight (Shipping)		194 lb (88 kg)	207 lb (94 kg)
Appliance Type		Condensing Wall-Hung Gas-Fired, Heat-Only (Solo) Boiler	
Installation Type		Indoor Wall-Hung	
Flue System		Category IV Forced Draft Direct Vent, Power Vent	
Ignition System		Direct Electronic Ignition	
Heat Exchanger		316L Stainless Steel Water Tube	
Heat Exchanger Surface Area		24.6 sq ft	30.7 sq ft
Gas Consumption (Btu/Hr)	Minimum	30,100	39,900
	Maximum	301,000	399,000
Temperature Setting	Central Heating	(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	Central Heating (CH)	Minimum: 14.5 PSI (1 bar) Maximum: 87 PSI (6 bar) Maximum Allowable Water Pressure (MAWP): 160 PSI (1103 kPa)	
	Pressure Relief Valve (PRV) <i>included with system</i>	75 PSI (5.2 bar)	
Sound Level		55 dB(A)	56 dB(A)
Connection Sizes	Gas Inlet	1 inch NPT	
	Supply/Return	1.25 inch NPT	
	Intake/Exhaust	4 inch PVC	
Electrical Data	Normal	133 W	210 W
	Standby	10 W	
	Max Current	6.3 Amps	
	Fuse	2 X 6.3 Amps	
Gas Supply Pressure ¹	Natural Gas	3.5 in. - 10.5 in. W.C. (0.87 - 2.61 kPa)	
	Propane	8.0 in. - 13.5 in. W.C. (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 (1m) 90° elbow is equivalent to 6 ft (2m)	Options	<ul style="list-style-type: none"> • Direct Vent • Non-Direct Vent (room air) 	
	Materials	PVC, CPVC, PP, and Stainless Steel	
	Vent Size	4 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)	
High Altitude		<ul style="list-style-type: none"> • 0-2,000 ft (0-609 m) - 140 ft (43 m) • For altitudes above 2,000 ft (609 m), vent length is reduced to 90 ft (27 m) 	
Safety Devices		Flame Ionization Probe, Water Temperature High Limit, Exhaust Temperature High Limit, Water Pressure Sensor, Blocked Vent Pressure Switch, Condensate Trap, Burner Door Switch, Thermal Fuse, Freeze Protection	

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

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

Floor-Standing Model		RCB500AN	RCB750AN	RCB1000AN
Input Rate		Max: 500,000 Btu/Hr Min: 50,000 Btu/Hr	Max: 750,000 Btu/Hr Min: 75,000 Btu/Hr	Max: 999,000 Btu/Hr Min: 99,900 Btu/Hr
Thermal Efficiency		97%	97.5%	98%
Dimensions - Width x Height x Depth		21.75 in. x 39.5 in. x 30.75 in. (550 mm x 1004 mm x 781 mm)	28.5 in. x 44.5 in. x 51.75 in. (723 mm x 1127 mm x 1312 mm)	
Weight (Appliance)		243 lb (110 kg)	525 lb (238 kg)	567 lb (257 kg)
Weight (Shipping)		300 lb (136 kg)	591 lb (268 kg)	633 lb (287 kg)
Appliance Type		Condensing Floor-Standing Gas-Fired, Heat-Only (Solo) Boiler		
Installation Type		Indoor Floor-Standing		
Ignition System		Direct Electronic Ignition		
Heat Exchanger		316L Stainless Steel Water Tube		
Heat Exchanger Surface Area		36.8 sq ft	60.9 sq ft	75.4 sq ft
Gas Consumption (Btu/Hr)	Minimum	50,000	75,000	99,000
	Maximum	500,000	750,000	999,000
Temperature Setting	Central Heating	(Minimum - Maximum) 86°F - 180°F (30°C - 82°C)		
	Indirect Tank (DHW)	104°F - 176°F (40°C - 80°C)		
Water Content		12.7 gal (10.1 lt)	6.6 gal (24.8 lt)	8.1 gal (30.6 lt)
Water Pressure	Central Heating (CH)	Minimum: 14.5 PSI (1 bar) Maximum Allowable Water Pressure (MAWP): 160 PSI (1103 kPa)		
	Pressure Relief Valve (PRV) <i>included with system</i>	75 PSI (5.2 bar)		
Connection Sizes	Gas Inlet	1 inch NPT	1.25 inch NPT	1.25 inch NPT
	Supply/Return	1.5 inch NPT	2 inch NPT	2 inch NPT
	Intake/Exhaust	4 inch PVC	6 inch PVC	6 inch PVC
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), Fan: 5 Amps		
Sound Level		59 dB(A)	63 dB(A)	65 dB(A)
Gas Supply Pressure ¹	Natural Gas	3.5 in. - 10.5 in. W.C. (0.87 - 2.61 kPa)		
	Propane	8.0 in. - 13.5 in. W.C. (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 (1m) 90° elbow is equivalent to 6 ft (2m)	Options	<ul style="list-style-type: none"> • 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)		
Safety Devices		Flame Ionization Probe, Water Temperature High Limit, Exhaust Temperature High Limit, Water Pressure Sensor, Blocked Vent Pressure Switch, Condensate Trap, Burner Door Switch, Thermal Fuse, Freeze Protection		

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

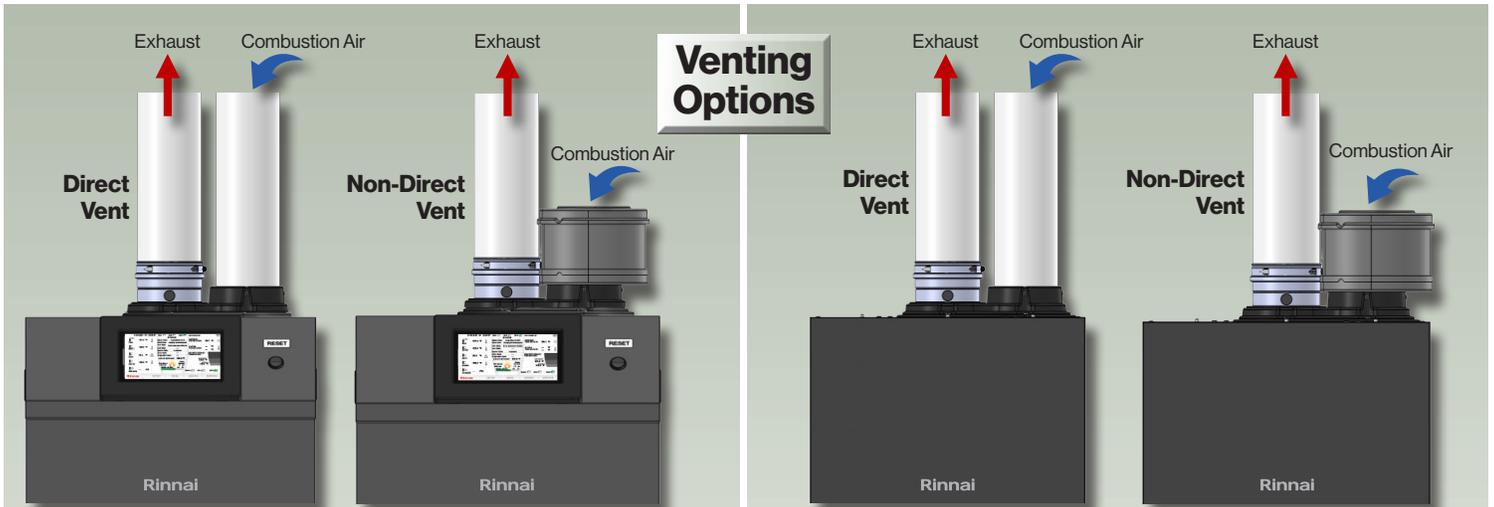
²RCB500AN Model ONLY: For altitudes above 2,000 ft (609 m), vent length is reduced to 110 ft (33 m).

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Integrated Cascade Connection

Multiple boiler configurations are accommodated with our Integrated Cascade Logic that distributes runtimes equally for optimal application diversity.

- **Runtimes are equally distributed on up to 8 units** (wall-hung or floor-standing models) with interchangeable lead unit
- **Simplifies operation and interchangeability** of units in a system, One SKU for each Btu size
- **No special cables required**, uses industry standard thermostat wire



Floor-Standing Models

- Multiple venting options in either twin pipe or room air allows you to locate units where you want to within the building
- Concentric side wall or vertical termination configurations optional to minimize building penetrations
- Model RCB500AN. Use 4" PVC or PP for maximum vent runs of 140 feet in both twin pipe and room air applications
- Models RCB750AN and RCB1000AN. Use 6" PVC or PP for maximum vent runs of 140 feet in both twin pipe and room air applications
- Model RCB500AN. Common Vent up to 4 units on 8" PVC or PP
- Models RCB750AN and RCB1000AN. Common Vent up to 2 units on 8" PVC or PP
- Industry-leading Common Vent runs (see install manual for details)
- Vent Material options are PVC, CPVC, PP and Stainless Steel



Wall-Hung Models

- Multiple venting options in either twin pipe or room air allows you to locate units where you want to within the building
- Concentric side wall or vertical termination configurations optional to minimize building penetrations
- Models RCB301AN, RCB399AN. Use 4" PVC or PP for maximum vent runs of 140 feet in both twin pipe and room air applications
- Models 301 and 399. Common Vent up to 4 units on 6" PVC or PP
- Industry-leading Common Vent runs (see install manual for details)
- Vent Material options are PVC, CPVC, PP and Stainless Steel



RCB • SERIES™

Wall-Hung Models

Included Accessories

- Wall Mounting Bracket w/Screws
- Pressure Relief Valve: 75 PSI (5.2 bar)
- Outdoor Temperature Sensor
- Documentation: Installation and Operation Manual, User Manual, Warranty Card



RCB301AN

RCB399AN

Optional Accessories

- Condensate Neutralizer
- Air Inlet Filter
- Cascade System Sensor
- Boiler Rack
- Gas Conversion Kit
- BACnet Adapter
- BACnet Adapter w/ LonWorks



RCB500AN

Included Accessories

- Pressure Relief Valve: 75 PSI (5.2 bar)
- Outdoor Temperature Sensor
- Pressure and Temperature Gauge
- Documentation: Installation & Operation Manual, User Manual, Warranty Card



RCB750AN

Floor-Standing Models



RCB750AN



RCB1000AN

Optional Accessories

- Condensate Neutralizer
- Air Inlet Filter
- Cascade System Sensor
- Gas Conversion Kit
- BACnet Adapter
- BACnet Adapter w/ LonWorks
- Water Temperature High Limit ASME CSD-1
- High & Low Gas Pressure Switches ASME CSD-1
- Low Water Cut-Off ASME CSD-1



Rinnai®



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Learn more about Rinnai high-performance Tankless Water Heaters, Hybrid Water Heating Systems, Boilers, Vent-Free Fan Convector, EnergySaver® Direct Vent Wall Heaters, Hydronic Air Handlers, Electric Heat Pump Water Heaters, and Accessories.

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