Rinnai®

RCB • SERIES™

Commercial Wall-Hung & Floor-Standing Hydronic Boilers

RCB301AN
and RCB399AN
Wall-Hung Models

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™

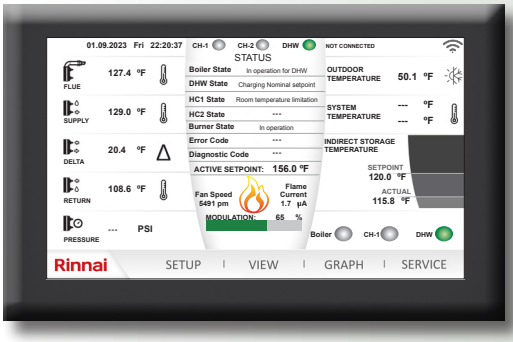
Commercial Wall-Hung & Floor-Standing Hydronic Boilers

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 WaterTube 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**

WARRANTY COVERAGE

10 YEARS (non-prorated) on the Heat Exchanger

1 YEAR on Parts

1 YEAR Reasonable Labor

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

RCB301AN and RCB399AN

Removable panels for 270 degrees of access

Easy-Hang Wall Mount Bracket

Easy Installation & Service of Floor-Standing Boilers

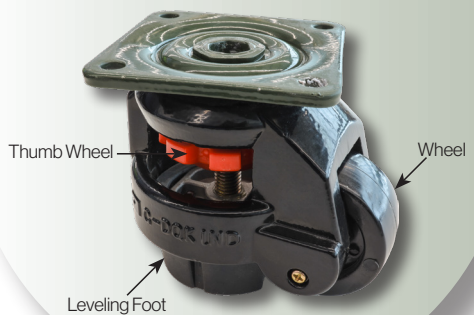
- Roll onto job site with locking casters and leveling feet
- Only 28.5” wide, fits through a standard commercial doorway
- Maximum weight of 567 lbs.
- Secure Access with Service Panel Key
- Common Vent up to 2MM Btu
- Integrated 3 pump relays, up to 5 Amps each

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) *included with system*	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 labour: 1 year. See the **Rinnai Commercial Boiler Warrant**y for complete details.	
Venting 45° elbow is equivalent to 3 ft (1m) 90° elbow is equivalent to 6 ft (2m)	**Options**	• 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	• 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	

[1]Maximum 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: 50,00 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) *included with system*	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 labour: 1 year. See the **Rinnai Commercial Boiler Warrant**y for complete details.		
Venting 45° elbow is equivalent to 3 ft (1m) 90° elbow is equivalent to 6 ft (2m)	**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)		
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		

[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).
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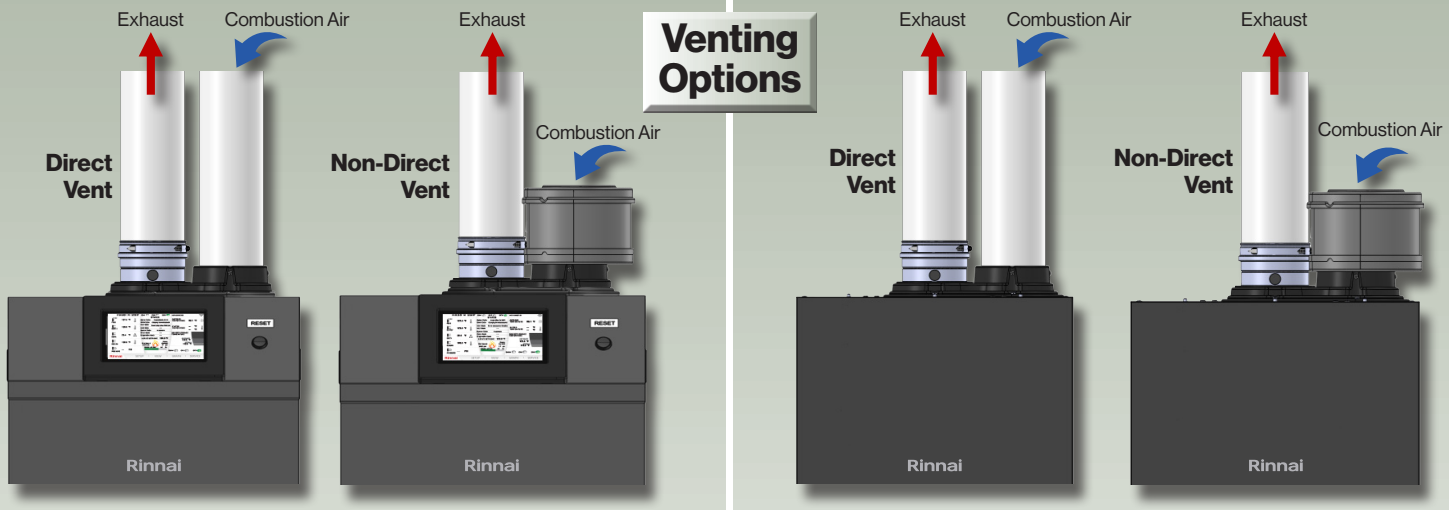
Integrated Cascade Connection

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** for maximum vent runs of 100 feet
- **Models RCB750AN and RCB1000AN. Common Vent up to 2 units on 8" PVC or PP** for maximum vent runs of 125 feet
- **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** for maximum vent runs of 150 feet
- **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

RCB399AN

RCB301AN

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

Floor-Standing Models

RCB1000AN

RCB750AN

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®

Proudly assembling Tankless Water Heaters at our state-of-the-art factory located in Griffin, Georgia, USA

Residential Water Heating Solutions

Electric Water Heating Solutions

Commercial Water Heating & Heating Solutions

Home Heating Solutions

Creating a healthier way of living®

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

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4/2026