

# 8900 SERIES

## Domestic Hot Water Heaters and Boilers



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## Reliable Domestic Hot Water and Hydronic Heating Boilers

RBI 8900 Series\* non-condensing units offer premium efficiencies and are the most durable and serviceable boilers on the market. They offer a wide 420 to 1,900 MBH size range for applications from car washes to office buildings. All models come with intermittent pilot ignition, adjustable high limit, 24V gas valve with either single-stage, two-stage or four-stage firing.



### Standard Equipment

- Bronze Headers (Water Heaters)
- Cast Iron Headers (Boilers)
- 2-Pass Finned Copper Tube Heat Exchanger, National Board Certified 160 psi ASME
- Slide Out Heat Exchanger for Easy and Economic Maintenance
- ASME Pressure Relief Valve, Mounted
- 2-1/2" Interlocking Combustion Chamber
- Front Mount 24V Controls
- FM/CSD-1 Gas Train Compliant
- Leak Test Valves
- Built-In, Integral Draft Diverter Single Flue Opening
- Flow Switch Mounted and Wired
- Inlet & Outlet Thermometers
- 115/24 Volt Transformer
- Operating Aquastat
- High Limit Control with Manual Reset
- Electronic Intermittent Pilot Ignition
- Single Phase Pump Delay
- Slide Out Burner Tray

### Optional Equipment

- On/Off, Two-Stage, Four-Stage
- Dual Flue Outlet (840-1900)
- Power Venter
- High & Low Gas Pressure Switches
- Cupro-Nickel Heat Exchanger
- Low Water Cut-Off
- Alarm for Flame Failure with Silencing Switches

### Reliable, Efficient Performance

- Heavy Duty Structural Steel Frame
- Robust Spark Ignition
- 16 or 18-Gauge Sheet Metal Components
- 5-Year Heat Exchanger Warranty, Hot Water Supply Boilers
- 10-Year Heat Exchanger Warranty, Hydronic Heating Boiler



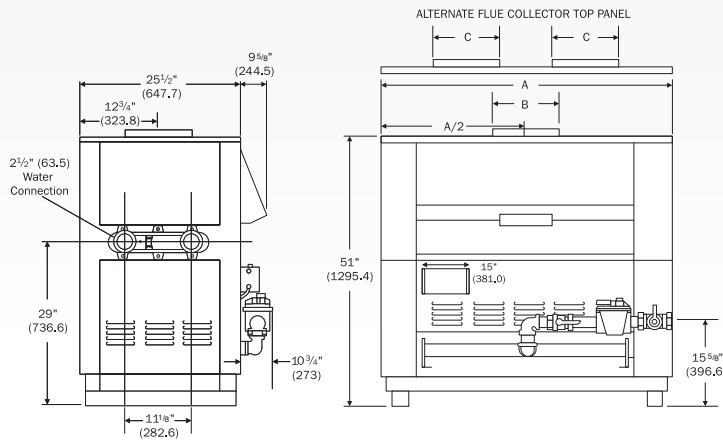
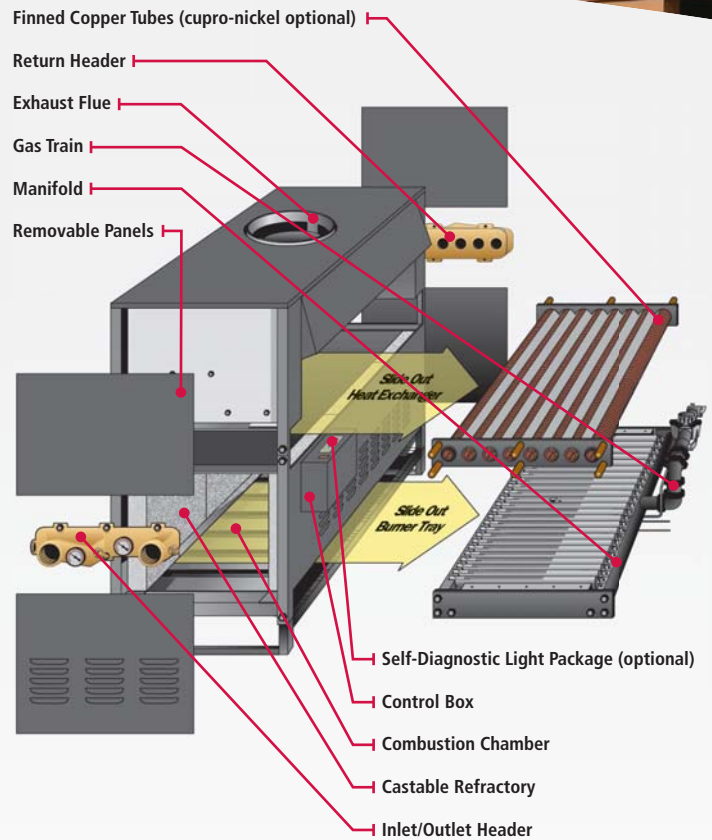
\*8900 Series are not available for sale in the US due to DOE regulations.



## Smart Service Design

Ease of installation and service are trademarks of all RBI water heaters and boilers. Critical components are fully accessible, including slide out burner tray and heat exchanger to make short work of service and maintenance calls. Inspection and replacement of combustion chamber by simple removal of end panel and end refractory can be done in less than 15 minutes. All major components can be inspected or removed without disturbing boiler casing or breaching.

- Slide Out Heat Exchanger
- Up Front 24 Volt Controls
- Slide Out Burner Tray
- High Temperature Ceramic Fiberboard Insulation
- All Major Components can be Inspected or Removed Without Disturbing Boiler Casing or Breaching
- Gas and Water Connections From Either the Left or Right Hand Side of the Unit
- Field Reversible Headers



## Notes

- Minimum clearance from combustibile material is: 24" Top, 48" front, 18" back and 18" side.
- Minimum frontal clearance for burner service is 36".
- Dimensions in parenthesis are in millimeters.
- The 8900 Series are Category I appliances and must be vented into a negative pressure vent system.

8900 Series — Shipping Weight		
Model	lbs.	kgs.
HB/HW 420	575	261
HB/HW 530	600	272
HB/HW 630	650	295
HB/HW 735	700	318
HB/HW 840	775	352
HB/HW 950	825	374
HB/HW 1050	900	408
HB/HW 1160	950	431
HB/HW 1260	1,000	454
HB/HW 1370	1,050	476
HB/HW 1470	1,100	499
HB/HW 1580	1,150	522
HB/HW 1685	1,200	544
HB/HW 1790	1,250	567
HB/HW 1900	1,300	590

### 8900 Series — Dimensions and Ratings

Model	Input		Output		Net Rating		Flue Vent				Dual Exhaust Vent		Connections		
	MBH	kW	MBH	kW	MBH	kW	Dim. A		Dim. B		Dim. C		Gas In.		Water
							In.	mm	In.	mm	In.	mm	Nat.	LP	In.
HB/HW 420	420	123	340	100	296	87	28-1/2	724	10	254	-	-	1	1	2-1/2*
HB/HW 530	530	155	429	125	373	109	33	830	10	254	-	-	1	1	2-1/2*
HB/HW 630	630	185	510	150	443	130	37-1/2	952	12	305	-	-	1	1	2-1/2*
HB/HW 735	735	210	595	174	517	151	42	1,056	14	355	-	-	1	1	2-1/2*
HB/HW 840	840	246	680	199	591	173	46-1/2	1,181	14	355	10	254	1	1	2-1/2*
HB/HW 950	950	278	770	226	670	196	51	1,295	14	355	10	254	1	1	2-1/2*
HB/HW 1050	1,050	308	851	249	740	217	55-1/2	1,409	16	406	12	305	1-1/4	1-1/4	2-1/2
HB/HW 1160	1,160	340	940	275	817	239	60	1,524	16	406	12	305	1-1/4	1-1/4	2-1/2
HB/HW 1260	1,260	369	1,021	299	888	260	64-1/2	1,638	16	406	12	305	1-1/4	1-1/4	2-1/2
HB/HW 1370	1,370	402	1,110	325	965	283	69	1,752	18	457	14	355	1-1/4	1	2-1/2
HB/HW 1470	1,470	431	1,191	349	1,036	304	73-1/2	1,867	18	457	14	355	1-1/4	1-1/4	2-1/2
HB/HW 1580	1,580	463	1,280	375	1,113	326	78	1,981	18	457	14	355	1-1/4	1-1/4	2-1/2
HB/HW 1685	1,685	494	1,365	400	1,187	348	82-1/2	2,095	18	457	14	355	1-1/4	1-1/4	2-1/2
HB/HW 1790	1,790	525	1,450	425	1,261	369	87	2,210	20	508	16	406	1-1/2	1-1/2	2-1/2
HB/HW 1900	1,900	557	1,539	451	1,338	392	91-1/2	2,324	20	508	16	406	1-1/2	1-1/2	2-1/2

\* 2-1/2" x 2" reducing fitting installed.

### 8900 Series — Recovery Capacity Δ (GPH & LPH)

Model	40°F	22°C	60°F	33°C	80°F	44°C	100°F	56°C	120°F	67°C	140°F	78°C
HB/HW 420	1,021	3,865	681	2,577	511	1,932	408	1,546	340	1,288	292	1,104
HB/HW 530	1,288	4,877	859	3,251	644	2,439	515	1,951	429	1,626	368	1,393
HB/HW 630	1,532	5,797	1,021	3,865	766	2,899	613	2,319	511	1,932	438	1,656
HB/HW 735	1,787	6,764	1,191	4,509	893	3,382	715	2,705	596	2,255	511	1,932
HB/HW 840	2,042	7,730	1,361	5,153	1,021	3,865	817	3,092	681	2,577	583	2,209
HB/HW 950	2,309	8,742	1,540	5,828	1,155	4,371	924	3,497	770	2,914	660	2,498
HB/HW 1050	2,553	9,662	1,702	6,442	1,276	4,831	1,021	3,865	851	3,221	729	2,761
HB/HW 1160	2,820	10,675	1,880	7,116	1,410	5,337	1,128	4,270	940	3,558	806	3,050
HB/HW 1260	3,063	11,595	2,042	7,730	1,532	5,797	1,225	4,638	1,021	3,865	875	3,313
HB/HW 1370	3,330	12,607	2,220	8,405	1,665	6,304	1,332	5,043	1,110	4,202	952	3,602
HB/HW 1470	3,574	13,527	2,382	9,018	1,787	6,764	1,429	5,411	1,191	4,509	1,021	3,865
HB/HW 1580	3,841	14,540	2,561	9,693	1,920	7,270	1,536	5,816	1,280	4,847	1,097	4,154
HB/HW 1685	4,096	15,506	2,731	10,337	2,048	7,753	1,638	6,202	1,365	5,169	1,170	4,430
HB/HW 1790	4,351	16,472	2,901	10,981	2,176	8,236	1,741	6,589	1,450	5,491	1,243	4,706
HB/HW 1900	4,619	17,484	3,079	11,656	2,309	8,742	1,848	6,994	1,540	5,828	1,320	4,996

### 8900 Series — Heat Exchanger Head Loss & Temperature Rise

Model	20°F		11.1°C		25°F		13.9°C		30°F		16.7°C		35°F		19.4°C	
	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop	Flow Rate	Pres Drop
	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa
HB/HW 420	34.0	0.4	2.1	1.1	-	-	-	-	-	-	-	-	-	-	-	-
HB/HW 530	42.9	0.7	2.7	2.0	34.3	0.4	2.2	1.3	-	-	-	-	-	-	-	-
HB/HW 630	51.0	1.1	3.2	3.2	40.8	0.7	2.6	2.1	34.0	0.5	2.1	1.5	-	-	-	-
HB/HW 735	59.5	1.6	3.8	4.8	47.6	1.1	3.0	3.2	39.7	0.8	2.5	2.3	34.0	0.6	2.1	1.7
HB/HW 840	68.0	2.4	4.3	7.0	54.4	1.6	3.4	4.6	45.4	1.1	2.9	3.3	38.9	0.8	2.5	2.5
HB/HW 950	77.0	3.3	4.9	9.8	61.6	2.2	3.9	6.5	51.3	1.6	3.2	4.6	44.0	1.2	2.8	3.5
HB/HW 1050	85.1	4.4	5.4	12.9	68.0	2.9	4.3	8.6	56.7	2.1	3.6	6.1	48.6	1.6	3.1	4.6
HB/HW 1160	94.0*	5.8	5.9	17.0	75.2	3.8	4.7	11.2	62.6	2.7	4.0	8.0	53.7	2.0	3.4	6.0
HB/HW 1260	-	-	-	-	81.6	4.8	5.2	14.2	68.0	3.4	4.3	10.1	58.3	2.6	3.7	7.6
HB/HW 1370	-	-	-	-	88.8	6.1	5.6	17.9	74.0	4.3	4.7	12.8	63.4	3.3	4.0	9.6
HB/HW 1470	-	-	-	-	95.3*	7.4	6.0	21.8	79.4	5.3	5.0	15.6	68.0	4.0	4.3	11.7
HB/HW 1580	-	-	-	-	-	-	-	-	85.3	6.5	5.4	19.0	73.1	4.8	4.6	14.3
HB/HW 1685	-	-	-	-	-	-	-	-	91.0	7.7	5.7	22.8	78.0	5.8	4.9	17.1
HB/HW 1790	-	-	-	-	-	-	-	-	96.7*	9.2	6.1	27.0	82.9	6.9	5.2	20.3
HB/HW 1900	-	-	-	-	-	-	-	-	-	-	-	-	87.9	8.1	5.5	23.9

\* Flow exceeds recommended maximum use a greater temperature rise or consult manufacturer. Cupro-nickel heat exchanger should be considered.



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In the interest of product improvement, RBI reserves the right to make changes without notice.