

# SPECTRUM SERIES

## DOMESTIC HOT WATER HEATERS AND BOILERS



**RBI**®  
RELIABLE. BOLD. INNOVATIVE.



# Residential and Light Commercial Gas Boilers and Water Heaters in a Compact Design



All Spectrum units come standard with Galvalume jacketry. Galvalume is a coating consisting of zinc, aluminum and silicon used to protect metal from oxidation. Galvalume is applied to a material (steel) using a continuous hot-dipping process, which creates up to 1ML protective barrier against rust and oxidation.

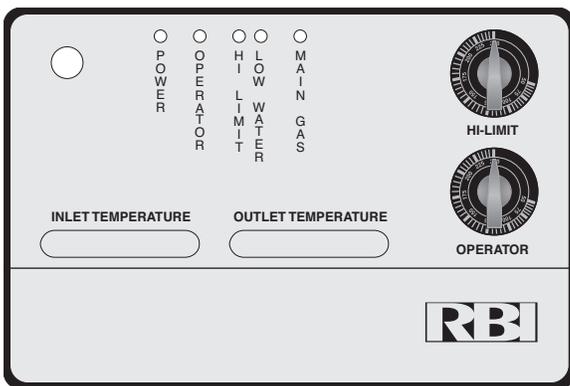
The Spectrum's unique design allows for both indoor or outdoor applications where a non-condensing gas-fired boiler or water heater is needed. Its reversible, two or four pass heat exchanger is made of commercial grade 7/8" I.D. finned copper tube and because the fins are extruded from the tubing itself they ensure maximum heat transfer efficiency.

Spectrum Series units are standard with bronze headers for domestic hot water applications and are available with either glass lined or bronze headers for heating applications. Also, all units have built-in draft diverters which reduce the cost of installation and lower the overall height of the unit.

The Spectrum Series is simple to maintain with the quick and easy removal of all major components including burner tray, gas train and controls. With the self-diagnostic light package, one can quickly and easily make assessments of the unit.

## Features and Benefits

- Automatic Reset High Limit 100-200
- Manual Reset High Limit 250-400
- Operating Control
- Mounted ASME Relief Valve (30# Boilers, 125# Water Heaters)
- Built-In Draft Diverter
- Stainless Steel Burners
- Glass Lined Headers
- Inlet & Outlet Thermometers
- Mounted And Wired Flow Switch
- Vent Damper (100-250 MBH Boilers Only)
- Self Diagnostic Light Package
- Pump Control
- 160 psi Heat Exchanger
- Field Reversible Heat Exchanger
- Electronic Ignition



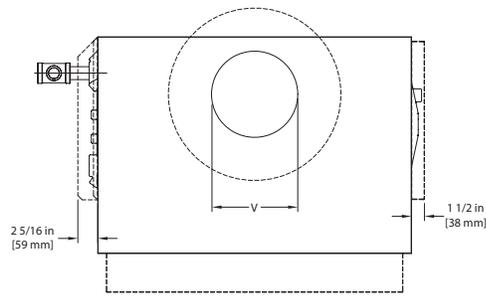
## Self-Diagnostic Light Package



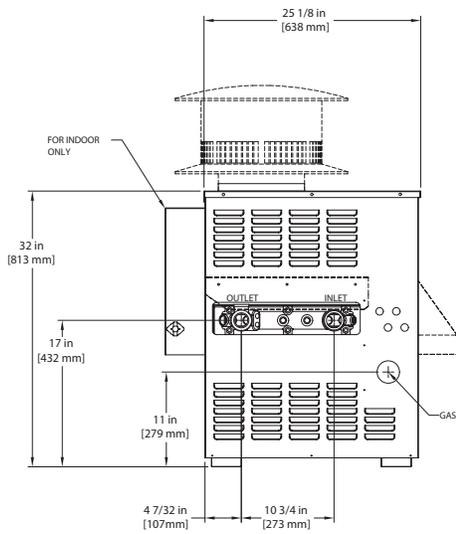


### Optional Equipment

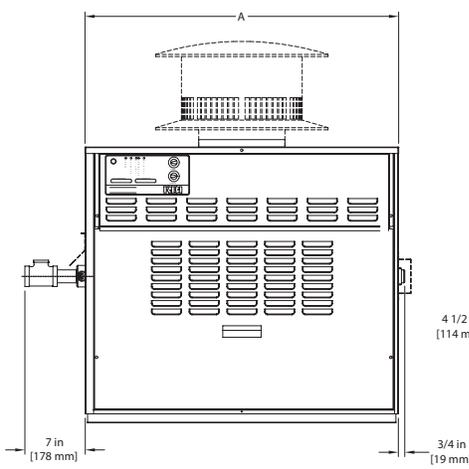
- Bronze Headers
- Outdoor Installation
- Four-Pass Heat Exchanger
- Cupro-Nickel Heat Exchanger
- Low Water Cut-Off (Probe Type)
- Induced Draft (up to 100 ft. Horizontal Runs)
- Propane Gas
- 2-Stage Firing
- Combustible Floor Pan



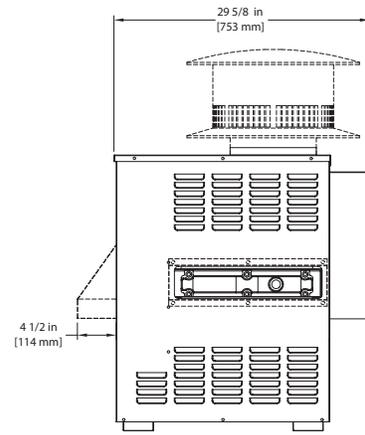
TOP VIEW



LEFT SIDE



FRONT



RIGHT SIDE

NOTE: ----- FOR OUTDOOR ONLY

**Models**  
 SB = Boiler  
 SW = Water Heater

Spectrum Series — Dimensions and Ratings*															
Size	Input		Boiler Output		Net Rating		AFUE%	Dim. A		Vent Dim. V		Connections		Shipping Weight	
	MBH	kW	MBH	kW	MBH	kW		In.	mm	In.	mm	Gas In.	Water In.	lbs.	kgs.
100	100	29	82	24	73	21	82	16-1/8	410	5	127	1/2	1-1/2	193	88
150	150	44	123	36	109	32	82	19-1/2	495	6	152	1/2	1-1/2	200	91
200	199	58	163	49	144	42	82	22-7/8	581	7	178	1/2	1-1/2	235	107
250	250	73	205	60	182	53	82	26-1/4	667	8	203	3/4	1-1/2	250	113
300	301	88	247	72	214	63	82	29-5/8	752	8	203	3/4	1-1/2	265	120
350	350	103	286	84	248	73	82	33	838	9	229	3/4	1-1/2	285	129
400	399	117	324	95	282	83	81	36-3/8	924	10	254	3/4	1-1/2	300	136

\* Ratings reflect boilers only. For boiler efficiency information please visit [www.ahridirectory.org](http://www.ahridirectory.org).

Spectrum Series Boilers — Temperature Rise/Pressure Drop — 2 Pass Headers													
Size	10°F		5.5°C		20°F		11.1°C		30°F		16.7°C		
	Flow Rate	Pres Drop											
	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	
100 <sup>(1)</sup>	16.4	0.05	1.0	0.1	-	-	-	-	-	-	-	-	
150 <sup>(1)</sup>	24.6	0.13	1.6	0.4	-	-	-	-	-	-	-	-	
200 <sup>(1)</sup>	32.6	0.27	2.1	0.8	16.3	0.07	1.0	0.2	-	-	-	-	
250 <sup>(1)</sup>	41.0	0.49	2.6	1.4	20.5	0.14	1.3	0.4	-	-	-	-	
300 <sup>(1)</sup>	49.4	0.80	3.1	2.4	24.7	0.22	1.6	0.7	16.5	0.10	1.0	0.3	
350 <sup>(1)</sup>	57.1	1.20	3.6	3.5	28.6	0.33	1.8	1.0	19.0	0.20	1.2	0.5	
400 <sup>(1)</sup>	64.8	1.69	4.1	5.0	32.4	0.47	2.0	1.4	21.6	0.20	1.4	0.7	

(1) Sizes 100, 150, 200, 250, 300, 350 and 400 boilers not available for sale in the U.S. market due to DOE regulations.

Spectrum Series Boilers — Temperature Rise/Pressure Drop — 4 Pass Headers													
Size	10°F		5.5°C		20°F		11.1°C		30°F		16.7°C		
	Flow Rate	Pres Drop											
	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	GPM	Ft	ΔL/s	kPa	
100	16.4	0.34	1.0	1.0	-	-	-	-	-	-	-	-	
150	24.6	0.94	1.6	2.8	-	-	-	-	-	-	-	-	
200	32.6	1.95	2.1	5.7	16.3	0.54	1.0	1.6	-	-	-	-	
250	41.0	3.54	2.6	10.4	20.5	0.98	1.3	2.9	-	-	-	-	
300	49.4**	5.79	3.1	17.1	24.7	1.60	1.6	4.7	16.5	0.80	1.0	2.2	
350	-	-	-	-	28.6	2.39	1.8	7.0	19.0	1.10	1.2	3.3	
400	-	-	-	-	32.4	3.39	2.0	10.0	21.6	1.60	1.4	4.7	

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

Spectrum Series Water Heaters — Hourly Recovery Capacity ΔT (GPH & LPH)***												
Size	40°F	22°C	60°F	33°C	80°F	44°C	100°F	56°C	120°F	67°C	140°F	78°C
100 <sup>(1)</sup>	240	908	160	605	120	454	96	363	80	303	69	259
150 <sup>(1)</sup>	360	1,361	240	908	180	681	144	545	120	454	103	389
200 <sup>(1)</sup>	480	1,815	320	1,210	240	908	192	726	160	605	137	519
250	600	2,269	400	1,513	300	1,134	240	908	200	756	171	648
300	720	2,723	480	1,815	360	1,361	288	1,089	240	908	206	778
350	840	3,176	560	2,118	420	1,588	336	1,271	280	1,059	240	908
400	960	3,630	640	2,420	480	1,815	384	1,452	320	1,210	274	1,037

\*\*\* For water heater efficiency information please visit [www.ahridirectory.org](http://www.ahridirectory.org).

(1) Size 100, 150, 200 water heater not available for sale in the U.S. market due to DOE regulations.

**Note**

For normal water conditions and in closed loop systems, a temperature rise of 20°F is generally recommended. In open systems for areas experiencing some degree of heat exchanger scaling as a result of water hardness, a rise of 10°F should not be exceeded.



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