

# DOMESTIC HOT WATER HEATERS AND BOILERS





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

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.



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 hotdipping process, which creates up to 1ML protective barrier against rust and oxidation.

### **Features and Benefits**

- 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
- Self Diagnostic Light Package
- Pump Control
- 160 psi Heat Exchanger
- Field Reversible Heat Exchanger
- Electronic Ignition

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#### 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



Spectrum Series — Dimensions and Ratings*															
	Boiler Input Output		Net Rating			Dim. A		Vent Dim. V		Connections		Shipping Weight			
												Gas	Water		
Size	MBH	kW	MBH	kW	MBH	kW	AFUE%	In.	mm	In.	mm	In.	In.	lbs.	kgs.
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.

Spectrum Series Boilers — Temperature Rise/Pressure Drop — 2 Pass Headers													
	10°F		10°F 5.5°C		20°F		11.1°C		30°F		16.7°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	
Size	GPM	Ft	$\Delta L/s$	kPa	GPM	Ft	$\Delta L/s$	kPa	GPM	Ft	$\Delta L/s$	kPa	
300	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	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	64.8	1.69	4.1	5.0	32.4	0.47	2.0	1.4	21.6	0.20	1.4	0.7	

Spectrum Series Boilers — Temperature Rise/Pressure Drop — 4 Pass Headers													
	10°F		5.5°C		20°F		11.1°C		30°F		16.7°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	
Size	GPM	Ft	$\Delta L/s$	kPa	GPM	Ft	$\Delta L/s$	kPa	GPM	Ft	$\Delta L/s$	kPa	
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
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.

Water Heaters not available for sale in Canada due to NRCan 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.