

HIGH-EFFICIENCY BOILERS

# EMERALD SERIES

*Residential Steel Boilers*



*Welcome home!*

**COLUMBIA**



*Keeping Families Warm for over 75 Years!*

# EMERALD SERIES

## RESIDENTIAL STEEL BOILERS

### *Comfort, Reliability, Serviceability, Quality, and Efficiency*

An Emerald boiler provides the advantages of hydronic heat *and* a domestic hot water system ... all in one package! It's the perfect choice for maximizing comfort and convenience.

Emerald boilers have a history of proven service and reliability and are backed by a Limited Lifetime Warranty.



### *Emerald Advantages*

- All trim is mounted on the front of the units for easy access during servicing.
- Jacket top and smoke hood can be removed to expose the fire tubes for cleaning.
- A raised coil flange with bolts and nuts allows easy servicing.
- One-piece, ceramic-fiber combustion chamber is accessible from the front of the boiler.
- Large cast peep site allows an unobstructed view of the flame pattern.
- Eleven different Emerald-series units are available to meet a broad range of installation requirements (see specs on back).
- Can be matched with a built-in tankless coil to supply your family's domestic hot water needs.
- Backed by a Limited Lifetime Warranty.
- Boiler jacket is painted with a powder coat process to insure a durable finish.
- Capability of front or rear return piping.
- Designed, constructed, and hydrostatically-tested to ASME Standards.

## The Emerald Boiler Takes a Bold Step in the Evolution of Oil Technology

The Emerald boiler is managed by an advanced, energy-saving aquastat, featuring Boiler Temperature Limit and Reset controls that can **save you up to 20% in energy costs.**

Also, your Emerald aquastat has a built-in low-water cut-off device, eliminating the cost of adding an external low-water cut-off to your boiler system.



*A built-in "Air Scoop System" provides quiet, air-free operation of your hot water system by removing noisy air pockets.*



*Unique, one-piece, ceramic-fiber chamber forms a durable seal between the heat exchanger and boiler base.*



## You can Count on Columbia Steel Boilers

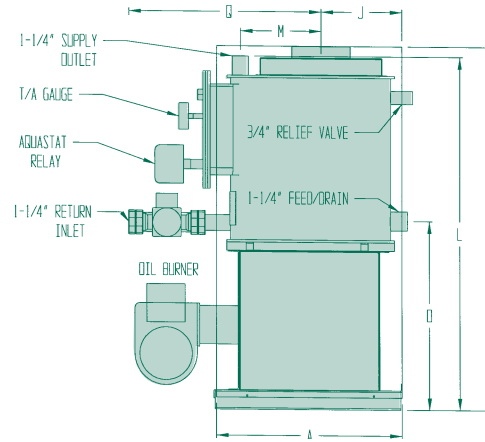
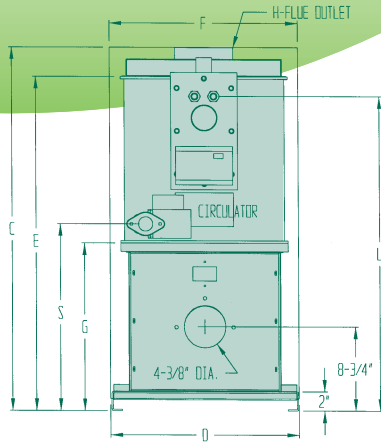
Our company's history dates back to 1936 when we began making boilers for simple steam process operations. With the exception of a few wartime years, we have specialized in steel boilers. Today, our hydronic units range from domestic to commercial use ... with world-wide distribution.

## Our Commitment to You

Our commitment doesn't end with the installation of your boiler. We are committed to outstanding performance, ease of service, and parts availability. We are there for you after the sale. We've been around since 1936 and we'll be around tomorrow.

# EMERALD SERIES

## BOILER SPECIFICATIONS



IBR/DOE RATINGS AND DATA											
Boiler Model No.	EM-85	EM-100	EM-3100	EM-110	EM-125	EM-3125	EM-135	EM-150	EM-165	EM-175	EM-200
Firing Rate - #2 Fuel	.85	1.00	1.00	1.10	1.25	1.25	1.35	1.50	1.65	1.75	2.00
Input - MBTU/Hr.	119	140	140	154	175	175	189	210	231	245	280
Net Output	84	98	103	109	123	127	136	153	166	178	201
Nozzle @140 psi (Beckett)	.65 80°B	.75 80°B	.75 80°B	.85 80°B	1.00 80°B	1.00 80°B	1.10 80°A	1.25 80°A	1.35 80°A	1.50 80°A	1.65 80°A
Nozzle @150 psi (Riello)	.65 60°A	.75 60°A	NA	.85 60°A	1.00 60°A	NA	1.10 80°A	1.25 80°A	1.35 80°A	1.50 80°A	1.65 80°A
Nozzle @140 psi (Carlin)	.65 70°A	.75 70°A	NA	.85 70°A	1.00 60°B	NA	1.10 60°B	1.25 60°B	1.35 60°B	1.50 70°A	1.65 70°A
AFUE Ratings	83.6	83.1	85.5	83.6	83.3	85.0	83.9	83.8	83.0	83.6	82.5
GPM Tankless Coil	3	5	5	5	5	5	5	5	5	5	5
Number of Fire Tubes	8 (2")	10 (2")	8 (3")	12 (2")	14 (2")	8 (3")	8 (3")	10 (3")	10 (3")	14 (3")	14 (3")
Water Capacity (gallons)	14	13.5	22	13	12.5	22	22	20	20	16	16
Approx. Shipping Weight (lbs)	285	290	355	295	300	355	355	370	370	390	390

DIMENSIONS												
Casing	A	Length	20"	20"	21"	20"	20"	21"	21"	21"	21"	21"
	C	Height	37-1/4"	37-1/4"	46"	37-1/4"	37-1/4"	46"	46"	46"	46"	46"
	D	Width	19-1/2"	19-1/2"	21"	19-1/2"	19-1/2"	21"	21"	21"	21"	21"
Boiler	E	Height	34-3/8"	34-3/8"	43-3/8"	34-3/8"	34-3/8"	43-3/8"	43-3/8"	43-3/8"	43-3/8"	43-3/8"
	F	Diameter	16-3/4"	16-3/4"	18-3/4"	16-3/4"	16-3/4"	18-3/4"	18-3/4"	18-3/4"	18-3/4"	18-3/4"
	G	Base Hgt.	17"	17"	20-1/2"	17"	17"	20-1/2"	20-1/2"	20-1/2"	20-1/2"	20-1/2"
Flue Outlet	H	Size	6"	6"	6"	6"	6"	6"	8"	8"	8"	8"
	I	Height	37-1/2"	37-1/2"	47"	37-1/2"	37-1/2"	47"	47"	47"	47"	47"
	J	C.L. to Rear	9-1/2"	9-1/2"	10-1/2"	9-1/2"	9-1/2"	10-1/2"	10-1/2"	10-1/2"	10-1/2"	10-1/2"
Supply Outlet		Size	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
	L	Height	35-1/4"	35-1/4"	45"	35-1/4"	35-1/4"	45"	45"	45"	45"	45"
	M	C.L. to Outlet	8-1/2"	8-1/2"	8-3/8"	8-1/2"	8-1/2"	8-3/8"	8-3/8"	8-3/8"	8-3/8"	8-3/8"
Feed/ Drain		Size	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
	O	Height	19-1/4"	19-1/4"	22-3/4"	19-1/4"	19-1/4"	22-3/4"	22-3/4"	22-3/4"	22-3/4"	22-3/4"
Return Inlet		Size	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"	1-1/4"
	Q	C.L. to Inlet	19-1/2"	19-1/2"	20"	19-1/2"	19-1/2"	20"	20"	20"	20"	20"
	S	Height	19"	19"	22-1/2"	19"	19"	22-1/2"	22-1/2"	22-1/2"	22-1/2"	22-1/2"
Coil Connect.		Nominal Size	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"	1/2"
	U	Height	32-1/4"	32-1/4"	42"	32-1/4"	32-1/4"	42"	42"	42"	42"	42"

2.5m-6/08-BP



COLUMBIA BOILER COMPANY



Constructed and hydrostatically-tested in accordance with ASME Boiler Code, Section IV.