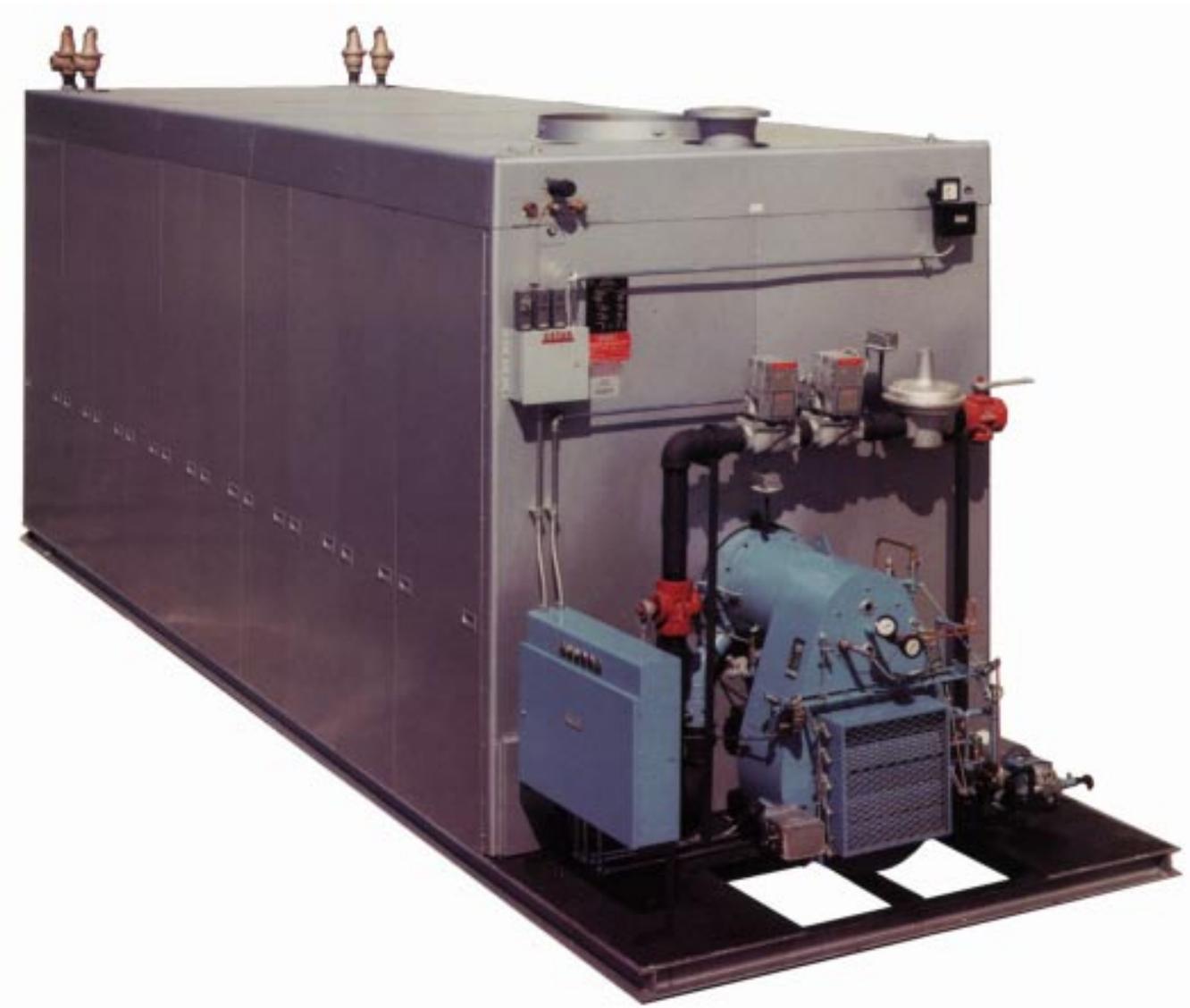


Bryan "Flexible Water Tube" RW Series Water Boilers

8,500,000 to 21,000,000 BTUH
Forced draft gas, oil or dual fuel fired

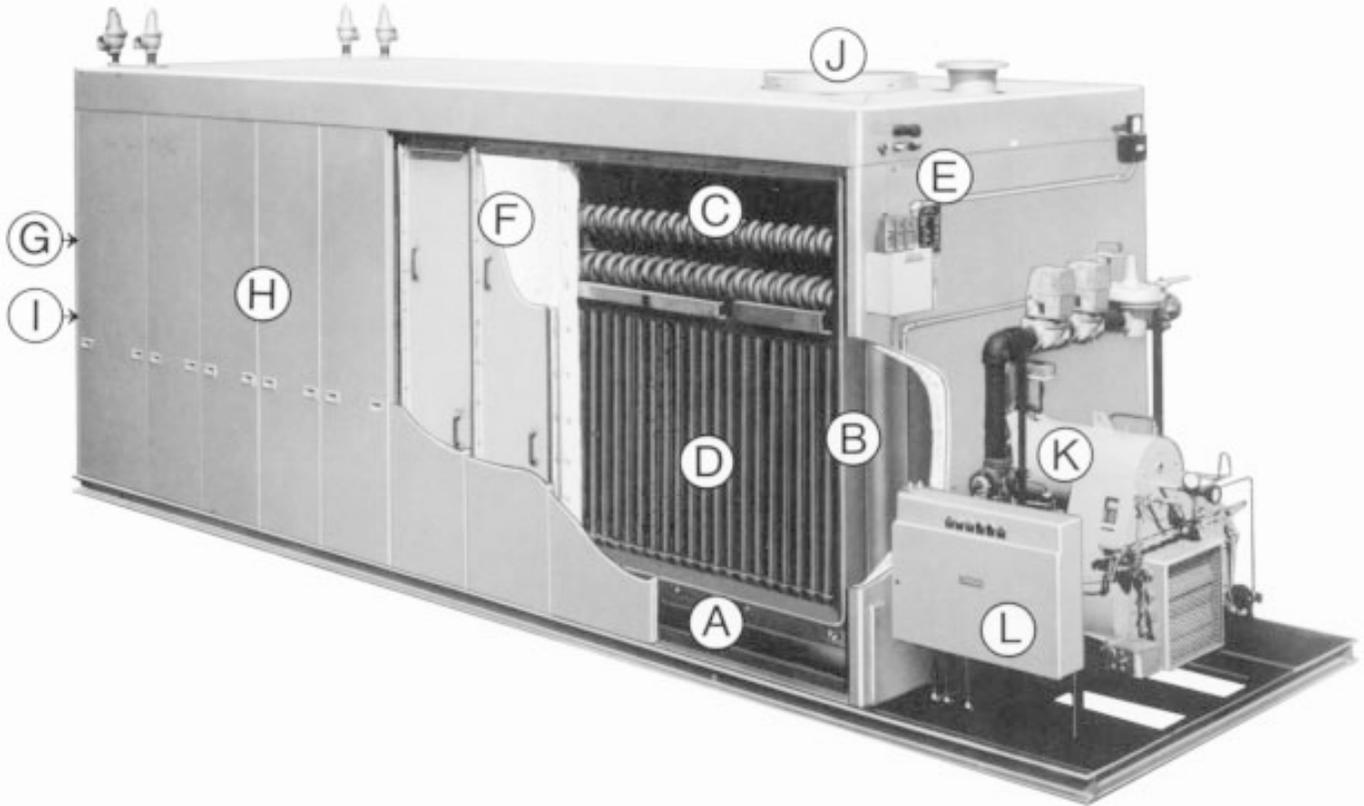


B™ **BRYAN BOILERS**

Originators of the "Flexible Water Tube" design



A breakthrough in industrial water boiler design.



Bryan RW Series Construction Details

A. Heavy steel boiler frame, built and stamped in accordance with the appropriate ASME Boiler Code.

B. Large volume water leg downcomers promote rapid internal circulation and temperature equalization.

C. Bryan bent water tubes are flexible, individually replaceable without welding or rolling.

D. Internal water-cooled furnace with low heat release rate.

E. Water side interior accessible for cleanout and inspection, front and rear openings, upper and lower drums.

F. Boiler tube and furnace area access panels: heavy gauge steel-lined with high temperature ceramic fiber and insulation, bolted and tightly sealed to boiler frame.

G. Combustion chamber and burner head are completely accessible via manway in end of combustion chamber.

H. Heavy gauge steel boiler jacket with rust-resistant zinc coating and enamel finish. Insulated with fiberglass to insure exceptionally cool outer surface.

I. Rear flame observation port in access door at rear of boiler.

J. Minimum sized flue vent.
K. Forced draft, flame retention head-type burner. Efficient combustion of oil or gas, quiet operation.

L. Control panel: all controls installed with connections to terminal strip.

Specifications

BOILER MODEL NUMBER	INPUT MBH	NOMINAL OUTPUT MBH	NOMINAL BOILER HORSEPOWER	HEATING SURFACE SQ. FT.	APPROXIMATE SHIPPING WEIGHT
RW850-W	8,500	6,800	200	1,118	16,700
RW1050-W	10,500	8,400	250	1,266	18,540
RW1260-W	12,600	10,080	300	1,527	20,770
RW1500-W	15,000	12,000	350	1,787	23,070
RW1700-W	17,000	13,600	400	2,048	24,910
RW1900-W	19,000	15,200	450	2,308	26,950
RW2100-W	21,000	16,800	500	2,569	28,800

Bryan's exclusive "Flexible Tube" provides 5 square feet of heating surface per boiler H.P.

The Bryan "Flexible Tube"

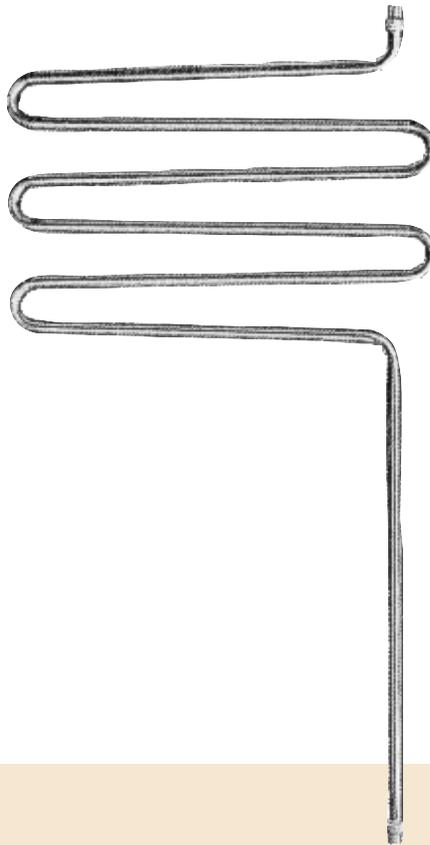
Bryan's exclusive "Flexible Tube" provides for extremely fast internal circulation for maximum heat transfer and operating efficiency. Bryan tubes are easily removable and replaceable, without welding or rolling, elimination long, expensive downtime should repairs ever be required.

Positive internal circulation

Each pass of the Bryan water tube slopes upward. This configuration, along with the large volume downcomer water legs, provides extremely rapid natural thermal internal circulation, promoting both high efficiency of heat transfer and uniform temperature throughout the boiler. Eliminating stress damage caused by unequal temperature distribution is especially important for hot water heating systems, particularly where intermittent or continuous low temperature water returns may be encountered.

Eliminates "thermal shock"

The flexibility of the "flexible tube" design eliminates all possible damage from so-called "thermal shock" and from stresses



caused by poor or unequal internal circulation. This is particularly important with forced hot water heating systems designed for higher temperatures and greater temperature drops. A 20-year warranty against pressure vessel damage due to thermal shock protects your Bryan boiler.

Forced draft

Forced Draft Burner supplies adequate combustion air with a minimum-sized breaching and vent—eliminates need for high chimney.

Compact design, minimum floor space

Requires less floor space than most boilers—minimum boiler room size. Shipped completely assembled and wired with control panel. Tubes are easily removable and replaceable, requiring little service space.

High pressure construction

The boiler is constructed as standard for 160 psi maximum working pressure for hot water and 250°F maximum operating temperature. Also available for higher temperatures and pressures.

STANDARD EQUIPMENT FURNISHED

Gas fired, forced draft

Combination thermometer and altitude gauge, ASME Code rated boiler relief valve, water temperature control (240°F Max. STD), high limit control, prove LWCO, electronic combustion safety control, pre & post purge, automatic operating gas valve, safety gas valve, pilot solenoid valve, pilot ignition assembly, main manual gas shut-off valve, pilot cock, pilot and main gas pressure regulators, air safety switch, control panel, all controls installed and wired, standard full modulation with proven low-fire start and characterized fuel metering.

Oil fired, forced draft

Combination thermometer and altitude gauge, ASME code rated boiler relief valve, water temperature control (240°F Max. STD), high limit control, prove LWCO, electronic combustion safety control, pre & post purge, oil valves, oil ignition transformer, two-stage fuel unit, gas pilot, oil nozzle assembly, control panel, all controls installed and wired, standard full modulation with proven low-fire start and characterized fuel metering.

Combination gas-oil forced draft

Combination thermometer and altitude gauge, ASME Code rated boiler relief valve, water temperature control (240°F Max. STD), high limit control, prove LWCO, automatic motorized gas valve, safety gas valve, pilot solenoid valve, pilot ignition assembly, main manual gas shut-off valve, pilot cock, pilot and main gas pressure regulators, air safety switch, manual fuel selector switch, electronic combustion safety control, pre & post purge, oil valves, oil ignition transformer, two-stage fuel unit, oil ignition and nozzle assembly, control panel, all controls installed and wired, standard full modulation with proven low-fire start and characterized fuel metering.

When ordering, please specify:

- [1] Boiler size.
- [2] Supply and return temperatures required.
- [3] Boiler relief valve setting.
- [4] Type of fuel—natural, LP or other gas and/or No. 2 oil.
- [5] If gas, type, BTU content, specific gravity and pressure available.
- [6] Electric power voltage, phase and frequency.
- [7] Optional extra equipment or construction.
- [8] Special approvals required (FM, IRI, etc).

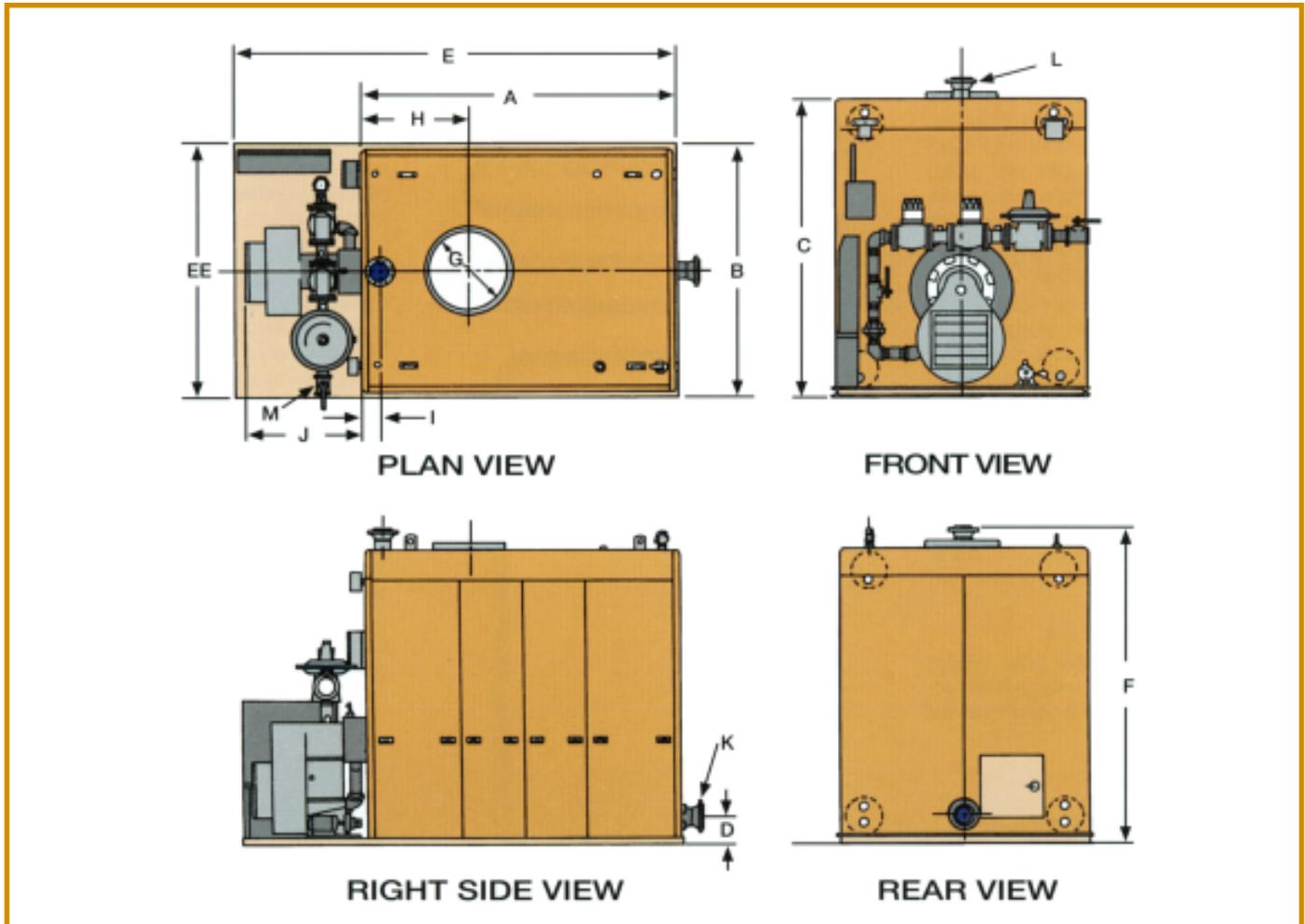
OPTIONAL EQUIPMENT, EXTRA COST

- [1] Manual reset high limit control, installed
- [2] Manual reset low water cutoff
- [3] Auxiliary low water cutoff
- [4] Combination low water cutoff and feeder
- [5] Alarm bells or horns
- [6] FM, IRI, CSD-I or other insurance approved control systems
- [7] Indicating lights, as desired
- [8] Air atomizing oil burner
- [9] Lead-lag systems for two or more boilers with or without outdoor reset control
- [10] Draft control system
- [11] Oxygen trim system

Optional Construction High Temperature Hot Water

Optional construction to ASME Power Boiler Code requirements for temperatures exceeding 250°F and/or pressure exceeding 160 psi to maximum of 350°F and 300 psi high temperature gauge and operating controls included.

Bryan RW Series Forced Draft Water Tube Boilers



DIMENSIONS in inches (cm)

BOILER MODEL NUMBER	A	B	C	D	Base Dimensions		F	G	H	I	J	K	L	M
	Length Over Jacket	Width Over Jacket	Height Over Jacket	Floor to Return Conn.	Base Dimensions		Floor to Flow Nozzle	Flue Dia.	Flue Location	Flow Nozzle Location	Burner Length	Return Conn. Flange	Flow Nozzle Flange	Gas Conn. depending upon gas pressure available.*
					Length	Width								
RW-850-W	124	89	104	11	163 ³ / ₄	89 ¹ / ₂	110	20	36	9 ³ / ₈	37 ¹ / ₂	8	8	2 ¹ / ₂
RW1050-W	134	89	104	11	176 ⁵ / ₈	89 ¹ / ₂	110	20	36	9 ³ / ₈	37 ¹ / ₂	8	8	3
RW1260-W	156 ¹ / ₂	89	104	11	199 ¹ / ₄	89 ¹ / ₂	110	22	37	9 ³ / ₈	37 ¹ / ₂	8	8	3
RW1500-W	179	89	104	11	221 ³ / ₄	89 ¹ / ₂	110	22	37	9 ³ / ₈	37 ¹ / ₂	8	8	3
RW-1700-W	201 ¹ / ₂	89	104	11	244 ¹ / ₄	89 ¹ / ₂	110	24	38	9 ³ / ₈	39 ¹ / ₂	8	8	3
RW-1900-W	224	89	104	11	266 ³ / ₄	89 ¹ / ₂	110	26	39	9 ³ / ₈	39 ¹ / ₂	10	10	4
RW-2100-W	246 ¹ / ₂	89	104	11	289 ¹ / ₄	89 ¹ / ₂	110	28	40	9 ³ / ₈	39 ¹ / ₂	10	10	4

Specifications subject to change without notice. Consult factory to consult on other boiler options.



Bryan Steam Corporation — Since 1916

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