Form No. 6700
(Rev. 5/07)

Bryan "Flexible Water Tube"

HE-CLM Series Water Boilers

900,000 to 3,000,000 BTUH
Forced draft gas fired

Model HE-CLM300-W-FDG

Quality Construction Features

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

B. Large volume water leg downcomers promote rapid internal circulation, temperature equalization and efficient heat transfer.

C. Bryan bent water tubes are flexible, individually replaceable without welding or rolling. Never more than two tube configurations.

D. Boiler tube and furnace area access panel: heavy gauge steel casing with 2" high temperature ceramic fiber and insulation, bolted and tightly sealed to boiler frame.

E. Jacket access panels make the interior of the boiler easily accessible for service and inspection.

F. Steel boiler jacket with 16 gauge rust-resistant zinc coating and attractive enamel finish, insulated with 1½" fiberglass to insure exceptionally cool outer surface.

G. Minimum sized flue vent.

H. Forced draft, flame retention head type burner. Efficient combustion and quiet operation.

I. All controls, gauges, relief valve(s) are factory installed and wired and easily accessible for servicing.

J. Electrical box: all controls installed and connected to terminal strip.

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

L. Steel plate boiler base with lightweight, high temperature insulating firebrick combustion chamber, designed for maximum combustion efficiency.

Guaranteed 85% efficiency

- **With HE-CLM Series Boilers, you get a guaranteed 85% combustion efficiency resulting from a uniquely designed integrated extended surface heat extractor.**
- **What's more, HE-CLM Boilers offer high operating efficiency—at all normal operation temperatures—without the complications of condensation concerns.**

Bryan HE-CLM Series Boiler Specifications

BOILER MODEL	INPUT MBH (KW)	OUTPUT @ 85% EFFICIENCY(1)		HTG.SURFACE SQ.FT.(M^2)	APPROX. SHIP LBS. (KG)
		MBH (KW)	HP (KW)		
HE-CLM90	900 (264)	765 (224)	23 (224)	171 (15.9)	2,110 (957)
HE-CLM120	1,200 (352)	1,020 (299)	30 (299)	227 (21.1)	2,400 (1,089)
HE-CLM150	1,500 (440)	1,275 (374)	38 (374)	282 (26.2)	2,860 (1,297)
HE-CLM180	1,800 (527)	1,530 (448)	46 (448)	338 (31.4)	3,200 (1,452)
HE-CLM210	2,100 (615)	1,785 (523)	53 (523)	394 (36.6)	3,740 (1,697)
HE-CLM240	2,400 (703)	2,040 (598)	61 (598)	451 (41.9)	4,200 (1,905)
HE-CLM270	2,700 (791)	2,295 (672)	69 (672)	506 (47.0)	4,740 (2,150)
HE-CLM300	3,000 (879)	2,550 (747)	76 (747)	564 (52.4)	5,175 (2,348)

NOTES : (1) Output and horsepower based on an average natural gas combustion efficiency of 85%.

BRYAN® BOILERS

Originators of the "Flexible Water Tube" design

Bryan HE-CLM Series Gas Fired Flexible Tube Boilers

Efficient Water Tube Design

The Bryan Flexible Water Tube provides for extremely fast internal circulation for maximum heat transfer and operating efficiency.

No "Thermal Shock"

The flexibility of the bent water tube design eliminates all possible damage from "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.

Natural Internal Circulation

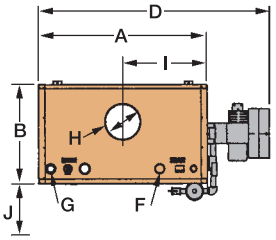
The water tube design and the large water leg downcomers provide adequate internal circulation without concern over exterior pumping conditions. Low pressure drop through boiler.

Compact — Minimum Floor Space

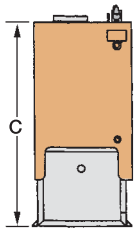
Requires less floor space than most boilers — minimum boiler room size.

Shipped completely assembled and wired.

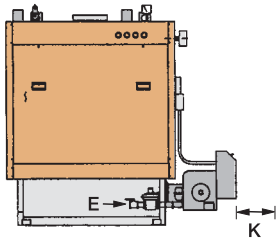
Tubes are easily removable and replaceable, requiring little service space.



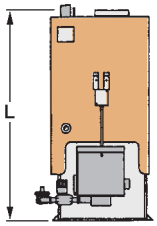
PLAN VIEW



REAR VIEW



LEFT SIDE VIEW



FRONT VIEW

	BOILER DIMENSIONS in inches (cm)											
	A	B	C	D	E*	F	G	H	I	J	K	L
BOILER MODEL NUMBER	Length Of Jacket	Width Outside Jacket	Height Over Jacket	Overall Length	Gas Train Connection	Supply Nozzle	Return Nozzle	Flue Size	Flue Location	Min. Tube Removal Clearance	Clearance for Servicing Burner	Floor to Flow Nozzle
HE-CLM90-W	41 7/16 (105.24)	34 5/8 (87.94)	72 1/16 (180.03)	69 7/16 (176.98)	1 NPT (2.54)	3 NPT (7.62)	3 NPT (7.62)	10 (25.40)	20 11/16 (52.54)	30 (76.2)	36 (91.44)	76 3/16 (193.51)
HE-CLM120-W	50 11/16 (128.74)	34 5/8 (87.94)	72 1/16 (180.03)	78 11/16 (199.86)	1 1/4 NPT (3.18)	3 NPT (7.62)	3 NPT (7.62)	10 (25.40)	25 5/16 (64.29)	30 (76.2)	36 (91.44)	76 3/16 (193.51)
HE-CLM150-W	59 11/16 (151.60)	34 5/8 (87.94)	72 1/16 (180.03)	87 11/16 (212.72)	1 1/2 NPT (3.81)	3 NPT (7.62)	3 NPT (7.62)	12 (30.48)	29 13/16 (75.72)	30 (76.2)	36 (91.44)	76 3/16 (193.51)
HE-CLM180-W	69 1/8 (175.57)	34 5/8 (87.94)	72 1/16 (180.03)	97 1/8 (246.69)	2 NPT (5.08)	3 NPT (7.62)	3 NPT (7.62)	14 (35.56)	34 9/16 (87.78)	30 (76.2)	36 (91.44)	76 3/16 (193.51)
HE-CLM210-W	78 3/8 (199.07)	34 5/8 (87.94)	72 1/16 (180.03)	106 3/8 (270.19)	2 NPT (5.08)	3 NPT (7.62)	3 NPT (7.62)	14 (35.56)	39 3/16 (99.53)	30 (76.2)	36 (91.44)	76 3/16 (193.51)
HE-CLM240-W	88 (223.52)	34 5/8 (87.94)	72 1/16 (180.03)	116 (294.64)	2 NPT (5.08)	3 NPT (7.62)	3 NPT (7.62)	16 (40.64)	44 (111.76)	30 (76.2)	36 (91.44)	76 3/16 (193.51)
HE-CLM270-W	97 (246.38)	34 5/8 (87.94)	72 1/16 (180.03)	125 (317.50)	2 NPT (5.08)	3 NPT (7.62)	3 NPT (7.62)	16 (40.64)	48 1/2 (123.19)	30 (76.2)	36 (91.44)	76 3/16 (193.51)
HE-CLM300-W	106 5/8 (270.82)	34 5/8 (87.94)	72 1/16 (180.03)	134 5/8 (341.91)	2 1/2 NPT (6.35)	3 NPT (7.62)	3 NPT (7.62)	16 (40.64)	53 3/16 (40.64)	30 (76.2)	36 (91.44)	76 3/16 (193.51)

NOTE: * Gas train and control location dimensions will vary depending on job specifications and conditions.

Dimensions and specifications are subject to change without notice. Consult factory for certified dimensions.

Bryan HE-CLM Series Boilers Standard and Optional Equipment

STANDARD EQUIPMENT:

Combination thermometer and pressure gauge, ASME-rated boiler relief valve, water temperature control (240°F max. std.), high limit control, probe LWCO. Electronic combustion safety control, 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.

OPTIONAL EQUIPMENT:

1. Manual reset high limit control
2. Manual reset low water cutoff
3. Auxiliary low water cutoff
4. Combination low water cutoff and feeder
5. Alarm bells or horns
6. UL, CUL, CSD-1, FM, IRI or other insurance approved control systems
7. Control panel mounted on boiler
8. Indicating lights, as desired
9. Lead-lag systems for two or more boilers with or without outdoor reset control
10. Draft control system
11. Special construction and knocked down

OPTIONAL CONSTRUCTION:

Optional construction to ASME Power Boiler Code requirements for temperatures exceeding 240°F and/or pressure exceeding 160 psi to maximum of 285°F operating and 300°F design temperature and 250 psi.

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
5. Gas BTU content, specific gravity and pressure available
6. Electric power voltage, phase and frequency
7. Optional extra equipment or construction
8. Special approvals required (UL, CUL, CSD-1, FM, or IRI)
9. Altitude

BRYAN® BOILERS

Bryan Steam LLC — Leaders Since 1916

783 N. Chili Ave., Peru, Indiana 46970 U.S.A.

Phone: 765-473-6651 • Internet: www.bryanboilers.com

Fax: 765-473-3074 • E-mail: bryanboilers@iquest.net

Form No. 6700

Printed in USA

57-8782