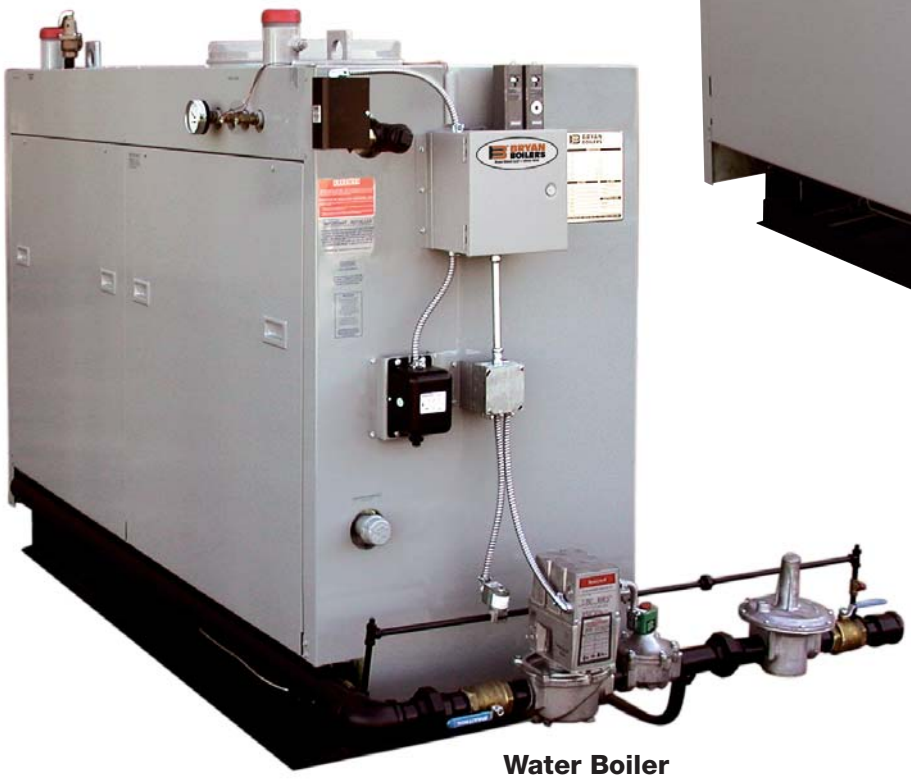
Form No. 1920
(Rev. 02/08)

Bryan "Flexible Water Tube"

CLM Series
Steam & Water Boilers

900,000 to 3,000,000 BTUH
Atmospheric gas fired

Steam Boiler
CLM-150-S150-GI



Water Boiler
CLM-300-W-GI

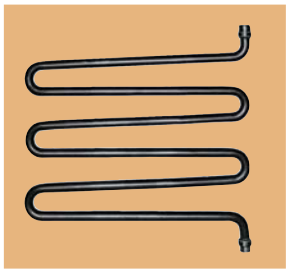
BRYAN® BOILERS

Originators of the "Flexible Water Tube" design

High efficiency hot water and steam boilers for commercial and industrial applications

Bryan flexible tube boilers are ideally suited for both hot water and steam space heating systems as well as either high or low pressure process steam. In a range of sizes from 900,000 to 3,000,000 BTUH input, Bryan CLM series flexible tube boilers are ideal for many commercial, institutional and industrial applications. These include healthcare facilities; schools; apartments; churches; office buildings; correctional facilities; airports; sewage treatment plants; golf, tennis and fitness clubs. Hospitals, dairies, restaurants, laundries, dry cleaners, food processing, tire recapping and metal plating are just a few of the many applications.

All Bryan boilers are built in accordance with the requirements of the ASME Boiler and Pressure Vessel Code.



Efficient "Flexible Water Tube" design

The Bryan bent water tube provides rapid internal circulation — for maximum heat transfer and operating efficiency.

Easily replaceable tubes

Tubes are easily removable and replaceable without welding or rolling. Little service space is required.

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.

Steam Boilers: Section IV or I

Steam release area

Large, full-size steam drum provides for dry steam and stable water level.

High or low pressure construction

Boiler is constructed as standard for 15 psi or 150 psi maximum working pressure. Also available for higher pressures to 300 psi.

Water Boilers: Section IV

High or low pressure construction

Boiler is constructed as standard for 160 psi maximum working pressure at 230°F operating temperature and 250°F design temperature. Also available for higher pressures to 250 psi, at 285°F operating temperature and 300°F design temperature.

Natural internal circulation

The water tube design and the large downcomer legs 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. Since the tubes can be removed from one side, the boilers are available with right or left hand construction for common tube removal, further minimizing space needs.

Shipped completely assembled and wired. Units can also be shipped "Knocked Down" for on-site assembly.

Bryan CLM Series Boiler Specifications

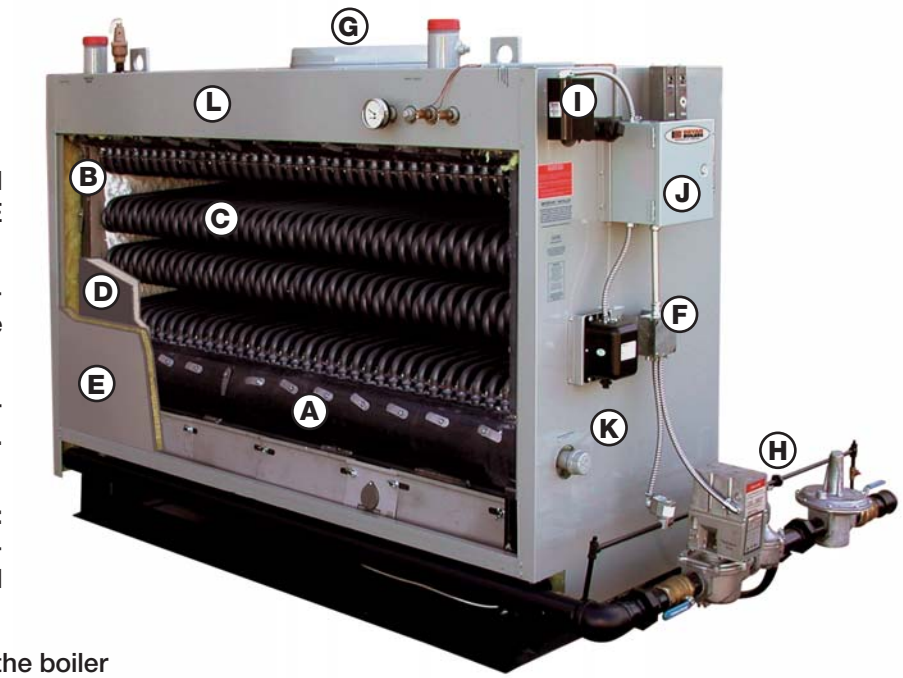
BOILER MODEL	INPUT MBH (KW)	NOMINAL OUTPUT		STEAM OUTPUT LBS/HR*	HEATING SURFACE SQ. FT. (M^2)	APPROX. SHIP WT. LBS. (KG)
		MBH (KW)	BHP			
CLM-90	900 (264)	720 (211)	21 (206)	742 (337)	110 (10.2)	1,450 (658)
CLM-120	1,200 (352)	960 (281)	29 (284)	990 (449)	145 (13.5)	1,750 (794)
CLM-150	1,500 (440)	1,200 (352)	36 (353)	1,237 (561)	180 (16.7)	2,050 (930)
CLM-180	1,800 (527)	1,440 (422)	43 (421)	1,485 (674)	215 (20.0)	2,350 (1,066)
CLM-210	2,100 (615)	1,680 (492)	50 (490)	1,732 (786)	251 (23.3)	2,650 (1,202)
CLM-240	2,400 (703)	1,920 (563)	57 (559)	1,979 (898)	287 (26.7)	2,950 (1,338)
CLM-270	2,700 (791)	2,160 (633)	64 (627)	2,227 (1,010)	322 (29.9)	3,500 (1,588)
CLM-300	3,000 (879)	2,400 (703)	72 (706)	2,474 (1,122)	360 (33.5)	3,950 (1,792)

NOTES: * Lbs. steam per hour from and at 212°F.

Low initial cost, high operating efficiency deliver substantial return on investment

BRYAN® BOILERS
The only boilers with full non-prorated
25 Year Warranty
Protection Against Thermal Shock

- **True "flexible water tube" design guaranteed shock free**
- **Longer service life with superior performance**
- **Full five sq ft of heating surface per BHP**



Quality Construction Features

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

G. Minimum sized flue vent.

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

J. Control panel: all controls installed and connected to terminal strip.

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

L. Steam boilers with extra large drum with high steam release area ensure stable water level and dry steam.

Bryan CLM Series Boilers Standard and Optional Equipment

STANDARD EQUIPMENT FURNISHED

Water Boiler

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

Steam Boiler

Steam pressure gauge, steam pressure control, combination low water cutoff and pump control, auxiliary low water cutoff with manual reset, high limit pressure control, ASME-rated boiler relief valve, water glass set.

Atmospheric equipment

Electronic combustion safety control, automatic operating gas valve, safety gas valve, pilot solenoid valve, electric ignition assembly, main manual gas shut-off valve, pilot shut-off valve, pilot and main gas pressure regulators, barometric draft controller, all controls installed and wired standard voltage 120/1/60.

OPTIONAL EQUIPMENT:

1. Manual reset high limit control
2. Manual reset low water cutoff
3. Auxiliary low water cutoff (water)
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. Low fire start, Hi-Lo or modulation fire control
8. Indicating lights, as desired
9. Lead-lag systems for two or more boilers with or without outdoor reset control
10. Heat exchanger coils for domestic water
11. Special construction: left hand, Knocked Down

OPTIONAL CONSTRUCTION:

Steam boiler

Optional construction to ASME Power Boiler Code requirements for pressure exceeding 150 psi to maximum of 300 psi design pressure.

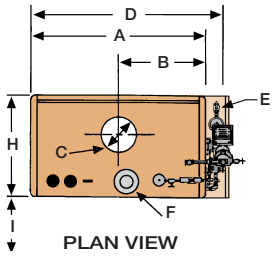
Hot water boiler

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.

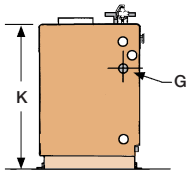
When ordering, please specify:

1. Boiler size
2. Supply and return temperatures required
3. Boiler relief valve setting
4. Type of fuel: natural or LP, BTU content, specific gravity and pressure available
5. Optional extra equipment or construction
6. Special approvals required (UL, CUL, CSD-1, FM or IRI)
7. Altitude

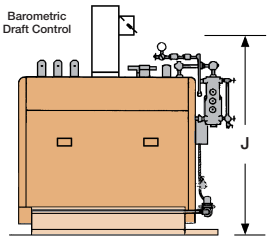
Bryan CLM Series Steam & Hot Water Boilers



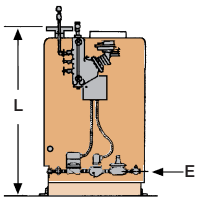
PLAN VIEW



LEFT END VIEW



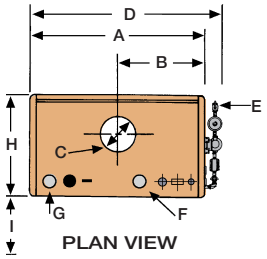
FRONT VIEW



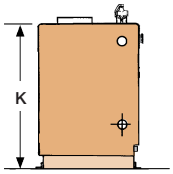
RIGHT END VIEW

STEAM BOILER DIMENSIONS in inches (cm)

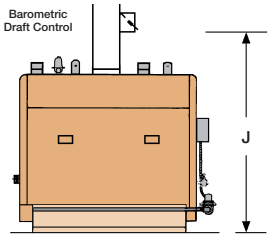
	A	B	C	D	E	F		G	H	I	J	K	L
Boiler Model Number	Length of Jacket	Flue Location	Flue Size	Overall Length	Gas Train Connection (Approx.)	Supply Nozzle 15 psi	Supply Nozzle 150 psi	Feed Conn.	Width Outside Jacket	Min. Tube Removal Clearance	Height Over Barometric	Height Over Jacket	Floor to Flow Nozzle
CLM-90-S	41 1/2 (105.40)	20 3/4 (52.70)	14 (35.60)	55 1/2 (141.0)	1 1/4 NPT (3.18)	4 FLG (10.20)	2 NPT (5.10)	1 1/2 NPT (3.81)	38 3/8 (97.47)	30 (76.2)	78 5/16 (198.90)	68 5/16 (173.51)	71 1/2 (181.61)
CLM-120-S	50 11/16 (128.74)	25 11/32 (64.37)	16 (40.64)	64 11/16 (164.30)	1 1/4 NPT (3.18)	6 FLG (15.24)	3 NPT (7.62)	1 1/2 NPT (3.81)	38 3/8 (97.47)	30 (76.2)	79 13/16 (202.72)	68 5/16 (173.51)	71 1/2 (181.61)
CLM-150-S	59 11/16 (151.60)	29 27/32 (75.80)	18 (45.72)	73 11/16 (187.16)	1 1/2 NPT (3.81)	6 FLG (15.24)	3 NPT (7.62)	1 1/2 NPT (3.81)	38 3/8 (97.47)	30 (76.2)	80 5/16 (203.99)	68 5/16 (173.51)	71 1/2 (181.61)
CLM-180-S	69 1/8 (175.57)	34 9/16 (87.78)	20 (50.80)	83 1/8 (211.13)	2 NPT (5.08)	6 FLG (15.24)	3 NPT (7.62)	1 1/2 NPT (3.81)	38 3/8 (97.47)	30 (76.2)	80 13/16 (205.26)	68 5/16 (173.51)	71 1/2 (181.61)
CLM-210-S	78 3/8 (199.07)	39 3/16 (99.53)	20 (50.80)	92 3/8 (234.63)	2 NPT (5.08)	6 FLG (15.24)	3 NPT (7.62)	1 1/2 NPT (3.81)	38 3/8 (97.47)	30 (76.2)	81 5/16 (206.53)	68 5/16 (173.51)	71 1/2 (181.61)
CLM-240-S	88 (223.52)	44 (111.76)	20 (50.80)	102 (259.08)	2 NPT (5.08)	6 FLG (15.24)	3 NPT (7.62)	1 1/2 NPT (3.81)	38 3/8 (97.47)	30 (76.2)	81 13/16 (207.80)	68 5/16 (173.51)	71 1/2 (181.61)
CLM-270-S	97 (246.38)	48 1/2 (123.19)	20 (50.80)	111 (281.94)	2 NPT (5.08)	6 FLG (15.24)	3 NPT (7.62)	1 1/2 NPT (3.81)	38 3/8 (97.47)	30 (76.2)	82 5/16 (209.07)	68 5/16 (173.51)	71 1/2 (181.61)
CLM-300-S	106 5/8 (270.82)	53 3/16 (135.09)	20 (50.80)	120 5/8 (306.38)	2 1/2 NPT (6.35)	6 FLG (15.24)	3 NPT (7.62)	1 1/2 NPT (3.81)	38 3/8 (97.47)	30 (76.2)	82 13/16 (210.34)	68 5/16 (173.51)	71 1/2 (181.61)



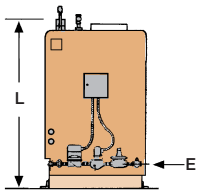
PLAN VIEW



LEFT END VIEW



FRONT VIEW



RIGHT END VIEW

WATER BOILER DIMENSIONS in inches (cm)

	A	B	C	D	E	F	G	H	I	J	K	L
Boiler Model Number	Length of Jacket	Flue Location	Flue Size	Overall Length	Gas Train Connection	Supply Nozzle	Return Nozzle	Width Outside Jacket	Min. Tube Removal Clearance	Height Over Barometric	Height Over Jacket	Floor to Flow Nozzle
CLM-90-W	41 1/2 (105.40)	20 3/4 (52.70)	14 (35.60)	55 1/2 (141.0)	1 1/4 NPT (3.18)	3 NPT (7.62)	3 NPT (7.62)	34 5/8 (87.31)	30 (76.2)	70 15/16 (180.20)	60 15/16 (154.78)	65 1/16 (165.25)
CLM-120-W	50 11/16 (128.74)	25 5/16 (64.29)	16 (40.64)	64 11/16 (164.30)	1 1/4 NPT (3.18)	3 NPT (7.62)	3 NPT (7.62)	34 5/8 (87.31)	30 (76.2)	72 7/16 (183.48)	60 115/16 (154.78)	65 1/16 (165.25)
CLM-150-W	59 11/16 (151.60)	29 13/16 (75.72)	18 (45.72)	73 11/16 (187.16)	1 1/2 NPT (3.81)	3 NPT (7.62)	3 NPT (7.62)	34 5/8 (87.31)	30 (76.2)	72 15/16 (185.25)	60 15/16 (154.78)	65 1/16 (165.25)
CLM-180-W	69 1/8 (175.57)	34 9/16 (87.78)	20 (50.80)	83 1/8 (211.13)	2 NPT (5.08)	3 NPT (7.62)	3 NPT (7.62)	34 5/8 (87.31)	30 (76.2)	73 7/16 (186.52)	60 115/16 (154.78)	65 1/16 (165.25)
CLM-210-W	78 3/8 (199.07)	39 3/16 (99.53)	20 (50.80)	92 3/8 (234.63)	2 NPT (5.08)	3 NPT (7.62)	3 NPT (7.62)	34 5/8 (87.31)	30 (76.2)	73 15/16 (187.79)	60 15/16 (154.78)	65 1/16 (165.25)
CLM-240-W	88 (232.52)	44 (111.76)	22 (55.88)	102 (259.08)	2 NPT (5.08)	3 NPT (7.62)	3 NPT (7.62)	34 5/8 (87.31)	30 (76.2)	74 7/16 (189.06)	60 15/16 (154.78)	65 1/16 (165.25)
CLM-270-W	97 (246.38)	48 1/2 (123.19)	22 (55.88)	111 (281.94)	2 NPT (5.08)	3 NPT (7.62)	3 NPT (7.62)	34 5/8 (87.31)	30 (76.2)	74 15/16 (190.33)	60 15/16 (154.78)	65 1/16 (165.25)
CLM-300-W	106 5/8 (270.82)	53 3/16 (135.41)	22 (55.88)	120 5/8 (306.38)	2 1/2 NPT (6.35)	3 NPT (7.62)	3 NPT (7.62)	34 5/8 (87.31)	30 (76.2)	75 7/16 (191.60)	60 15/16 (154.78)	65 1/16 (165.25)

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

BRYAN BOILERS®

Bryan Steam LLC — Leaders Since 1916

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