

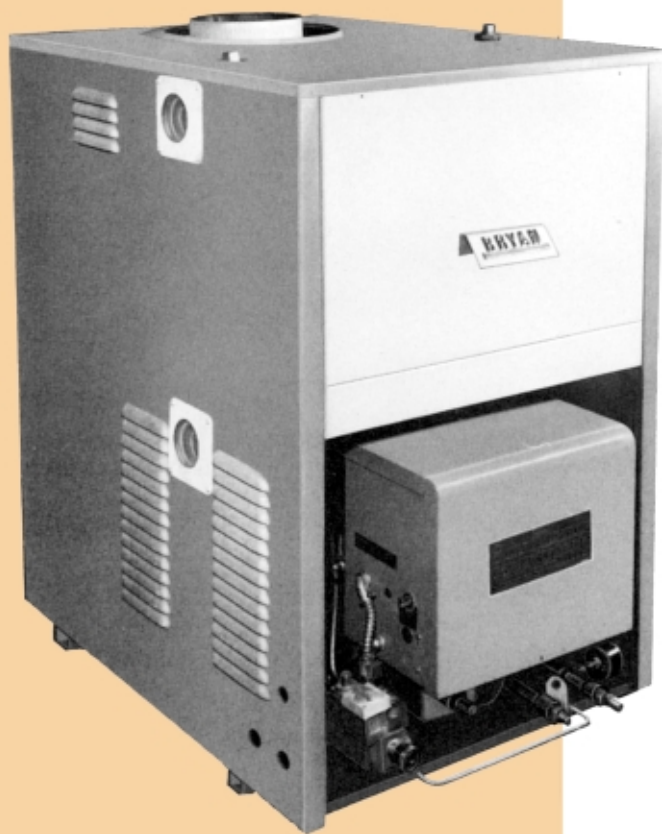
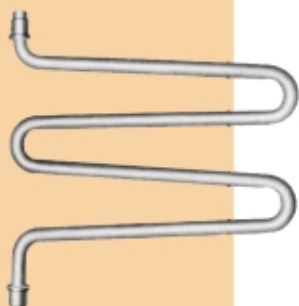


## Bryan HED-Series 85% efficiency Non-Condensing Boilers

Forced Draft Gas, Hot water Heating, Water Tube Design

Inputs from 305,000 to 650,000 BTU'S

HED-Series Boilers combine the time-proven Bryan Flexible Water Tube with an innovative heat extractor design.



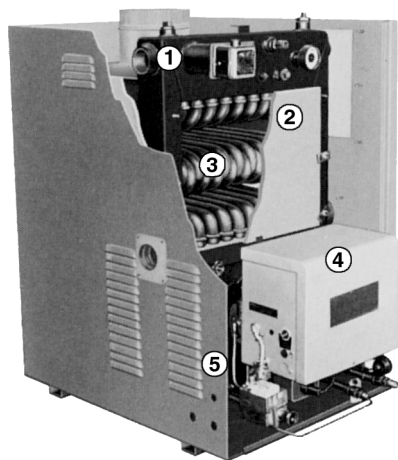
- Guaranteed 85% combustion efficiency resulting from uniquely designed integrated extended surface heat extractor.
- High operating efficiency-at all normal operation temperatures-without the complications of condensation concerns.
- Extremely fast natural internal circulation for maximum heat transfer and operating efficiency without depending on external pumps.
- Elimination of "thermal shock" problems experienced by conventionally designed boilers-particularly important in forced hot water heating systems designed for higher temperatures and greater temperature drops,
- Compact units requiring less floor space-save on new construction costs and minimize handling and fitting problems on renovation projects.
- Quick, fast, easy maintenance-designed with the operator in mind, Jackets and insulating panels quickly disassemble to provide access to boiler internals when and if required.

Unique Bryan Flexible Tubes do not require welding or rolling to attach to boiler frame. Tubes are easily removable and replaceable using simple tube puller and driver tools. Results in considerably less valuable floor space being required to provide servicing area.

Bryan Steam Corporation guarantees the boiler pressure vessel against thermal shock for twenty years after date of installation, non-prorated.

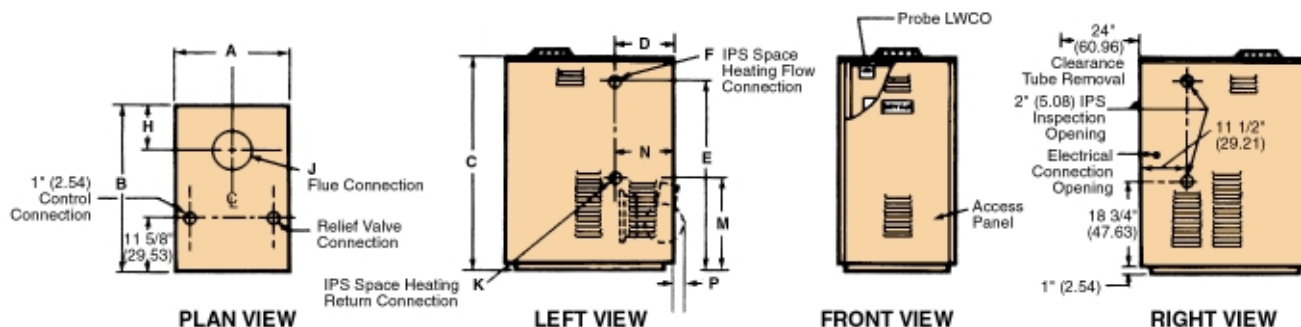
HED-Series forced draft firing hot water boilers are built and stamped in accordance with the requirements of the A.S.M.E. boiler code. Constructed as standard for hot water operating pressures to 60 psi.

*Burner extends slightly beyond jacket to provide convenient access to fuel switch and burner controls. Upper panel quickly removable for operating control adjustment and easy reach to insulated tube access panel. Louvered jackets provide adequate combustion air intake area while facilitating cooling air circulation.*



## Bryan HED-Series Construction Features

1. Heavy steel pressure vessel boiler frame with adequately sized water leg downcomers built and stamped in accordance with A.S.M.E. boiler code.
2. Sealed, insulated boiler tube front access panel. Tubes installed from one side.
3. Bryan bent flexible tubes. No welding or rolling required to attach tubes to boiler frame.
4. Flange-mounted forced draft gas burner with flame retention head.
5. Heavy gauge, louvered boiler jacketing; zinc coated rust-resistant primer with attractive enamel finish.



### DIMENSIONS—Inches (cm)

Model	HED-305	HED-350	HED-450	HED-650
A—length over jacket	24 (60.96)	24 (60.96)	28 (71.12)	36 (91.44)
B—width over jacket	35 (88.90)	35 (88.90)	35 (88.90)	35 (88.90)
C—height over jacket	43½ (110.49)	43½ (110.49)	43½ (110.49)	43½ (110.49)
D—location of flow nozzle or tapping	11⅝ (29.53)	11⅝ (29.53)	11⅝ (29.53)	11⅝ (29.53)
E—location of flow nozzle or tapping	38¾ (98.43)	38¾ (98.43)	38¾ (98.43)	38¾ (98.43)
F—flow nozzle or tapping NPT	2 (5.08)	2 (5.08)	2 (5.08)	2 (5.08)
H—location of flue connection	9½ (24.13)	9½ (24.13)	9½ (24.13)	9½ (24.13)
J—flue diameter	6 (15.24)	8 (20.32)	8 (20.32)	8 (20.32)
K—return tapping NPT	2 (5.08)	2 (5.08)	2 (5.08)	2 (5.08)
M—location of return tapping	19¾ (50.17)	19¾ (50.17)	19¾ (50.17)	19¾ (50.17)
N—location of return tapping	11⅝	11⅝	11⅝	11⅝
P—burner extension gas	10½ (26.62)	10½ (26.62)	10½ (26.62)	10½ (26.62)
<b>Specifications</b>				
Input BTU/hr (kw)	305,000 (89.4)	350,000 (102.55)	450,000 (131.85)	650,000 (190.45)
Output BTU/hr (kw)	256,200 (75.0)	294,000 (86.1)	378,000 (110.8)	546,000 (160.0)
Horsepower	7.7	8.7	11.3	16.3
Approximate shipping weight, lb (kg)	686 (311)	686 (311)	779 (353)	922 (418)

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

**Boilers Furnished Standard With...** burner, forced draft construction with built-in combustion chamber, 60 psi A.S.M.E. construction, A.S.M.E. rated relief valved combination temperature/pressure gauge, combustion safety control, water temperature control aquastat (240°F max. std.) high limit aquastat, and low water cut off. All controls mounted and wired.

**Optional Equipment Available...** IRI, FM or other special controls and options as required.



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