

Series 8HE

CAST IRON GAS FIRED
COMMERCIAL WATER BOILERS



MULTIPLE CONFIGURATIONS (UP TO SIX BOILERS)

239, 299 BASE MODEL
INPUTS

84% AFUE

30 OR 50 PSI

CAST IRON
SECTIONAL
DESIGN

ATMOSPHERIC VENT

NATURAL GAS (ONLY)



BURNHAM®
Commercial Boilers

Series 8HE

High Performance & Long Term Reliability

Burnham Commercial's commitment to quality and dependability continues with the Series 8HE. The features and efficiency of the 8HE boiler make it ideal for single and multiple boiler applications. Offering space heating, or a combination of heating and domestic hot water, the Series 8HE has a compact design which easily adapts to existing piping arrangements, boiler room requirements, and system heating needs.

American-Made Cast Iron Construction

Burnham Commercial's unique cast iron formula has an extremely high silicon content, making it stronger and more flexible. It offers better thermal shock resistance and greater heat transfer capabilities than other cast iron products.



HEAT EXCHANGER DESIGN

The cast iron heat exchanger on the Series 8HE features a pinned heating surface. These multi-faceted pins allow the heat generated from the combustion process to be transferred to the cast iron from a number of angles, which contributes to the boiler's overall efficiency. A vertical flue design extracts heat while maintaining low draft losses.



CAST IRON NIPPLE RELIABILITY

The Series 8HE uses cast iron nipples instead of gaskets to join cast iron sections. These all-metal nipples eliminate gasket breakdown leaks caused by oils, boiler flue gases, corrosion inhibitors, pump lubricants, and antifreeze. Cast iron nipples also expand and contract with the sections they connect, ensuring the overall integrity of the section assembly.



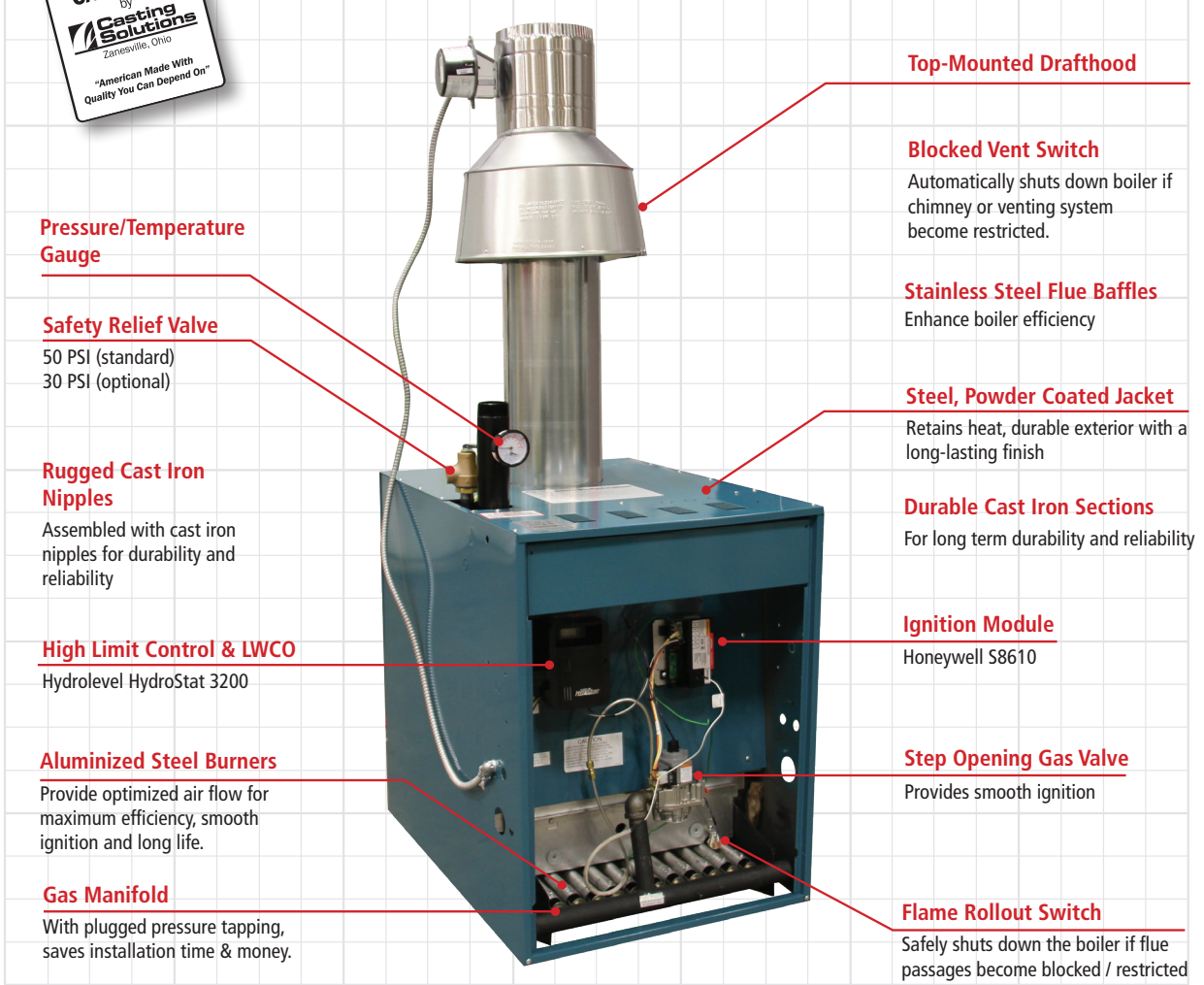
Modular/Multiple Boilers

The Series 8HE can easily be configured for multiple boiler operation of up to six individual units.





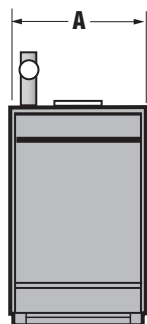
Series 8HE STANDARD EQUIPMENT & DIMENSIONS



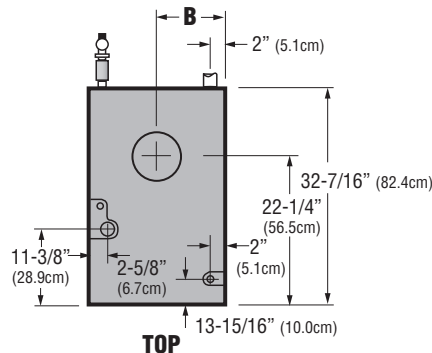
DIMENSIONS (INCHES)

Boiler Model	'A'	'B'	'C'	'D'	'E'
805HE	20	10	7	21-1/2	11-5/8
806HE	23-3/4	11-7/8	8	27-13/16	18

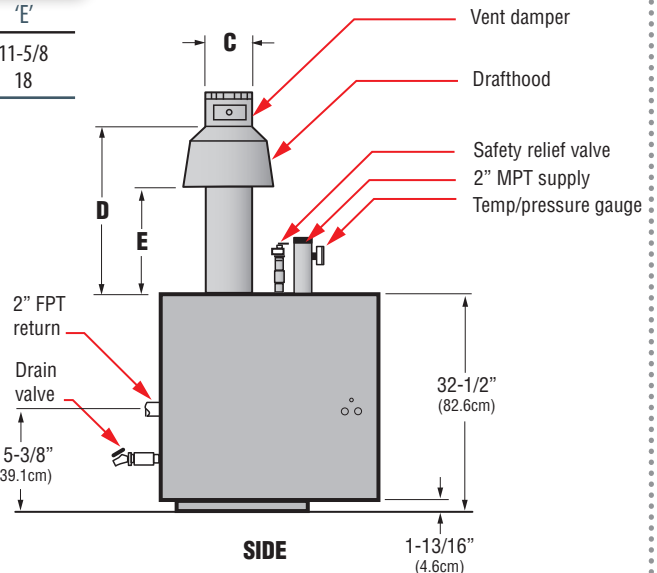
All dimensions are in inches



FRONT



TOP



SIDE

Ratings & Specifications



Boiler Model (1)	Gas Input ¹ (MBH)	DOE Heating Capacity (MBH)	AFUE %	Net AHRI Output ² (MBH)	Vent Outlet Size	Water Content (Gallons)	Approximate Shipping Weight (LBS)	
							Packaged	Knock-down
805HE	239	201	84.0	175	7" dia.	11.9	600	660
806HE	299	251	84.0	218	8" dia.	13.9	690	700

Series 8HE boilers are natural gas only

1. Input ratings can be used for elevations up to 2,000 ft.

2. Net AHRI Ratings shown are based on a piping and pickup allowance of 1.15. The manufacturer should be consulted before selecting a boiler for installations having unusual piping and pickup requirements such as intermittent operation, extensive piping systems, etc.

Maximum allowable working pressure: 50 PSI Water only; 50 PSI Safety Relief Valve - Standard; 30 PSI Safety Relief Valve - Optional

NOTE: NOT FOR DIRECT INSTALLATION ON COMBUSTIBLE FLOORING. A HEAT SHIELD IS REQUIRED AND AVAILABLE FOR COMBUSTIBLE FLOOR INSTALLATION AND CONCRETE INSTALLATION WHICH IS OVER A MATERIAL THAT IS SUBJECT TO MELTING (PVC, PEX RADIANT TUBING ETC.). NOT FOR INSTALLATIONS ON CARPET, EVEN WITH A COMBUSTIBLE FLOOR SHIELD.

Standard Equipment

- Cast iron section assembly
- Steel, powder coated jacket
- 100% shut-off gas controls
- Boiler drain valve
- Aluminized steel burners
- 3/4" gas connection
- 2" supply and return connections
- 50 PSI safety relief valve
- Stainless steel flue baffles
- Blocked vent switch (BVS)
- Flame roll-out switch (FRS)
- Hydrolevel HydroStat 3200
- Pressure & temperature gauge

Packaged units are shipped packaged and wired in a reinforced cardboard container, for added protection. Drafthood, trim carton, damper are shipped in separate cartons. Knocked-down units are shipped in a stackable container with sections assembled and mounted on the base with manifold and burners installed. Controls, trim, drafthood, and jacket are shipped together in the same container as the boiler.

Optional Equipment

- 30 psi relief valve in lieu of standard 50 psi relief valve – specified by boiler SKU
- Combustible floor shield, 5-section boiler (P/N: 61816055)
- Combustible floor shield, 6-section boiler (P/N: 61816065)
- LWCO with probe, manual reset, 120v, McDonnell and Miller (P/N: 80160718)
NOTE: Hydrostat 3200 already includes manual reset capability
- L4006E high limit, manual reset without well (P/N: 80160703)
- L4006E high limit immersion well only – included in packaged boiler assemblies (P/N: 80160452)

Modular/Multiple Boiler Input Calculation Table

Total Input MBH	Total Gross Output* MBH	Total Net Output** MBH	Boiler Quantity	
			805HE	806HE
239	201	175	1	0
299	251	218	0	1
478	402	350	2	0
538	452	393	1	1
598	502	436	0	2
717	603	525	3	0
777	653	568	2	1
837	703	611	1	2
897	753	654	0	3
956	804	700	4	0
1016	854	743	3	1
1076	904	786	2	2
1136	954	829	1	3
1196	1004	872	0	4
1255	1055	918	4	1
1315	1105	961	3	2
1375	1155	1004	2	3
1435	1205	1047	1	4
1495	1255	1090	0	5
1554	1306	1136	4	2
1614	1356	1179	3	3
1674	1406	1222	2	4
1734	1456	1265	1	5
1794	1506	1308	0	6



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