

Series 8HE

CAST IRON, GAS FIRED
COMMERCIAL WATER BOILERS



239 TO 505 MBH INPUT
IN SIX SIZES

80-84%
THERMAL EFFICIENCY

30 OR 50 PSI

CAST IRON
SECTIONAL
DESIGN

ATMOSPHERIC VENT

MODULAR/MULTIPLE
CONFIGURATIONS
AVAILABLE



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.

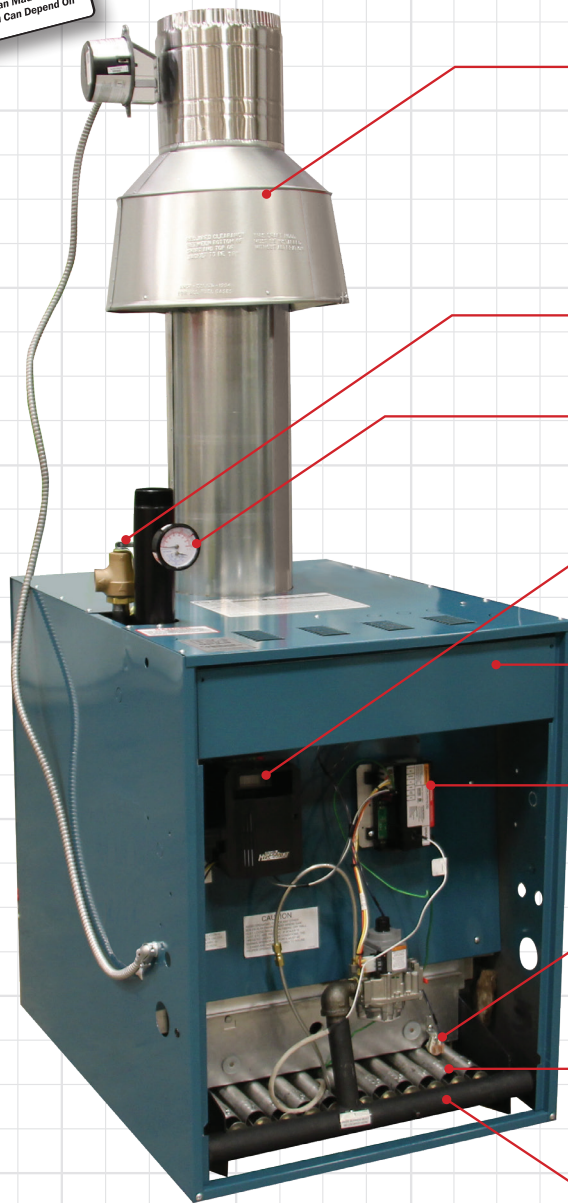


Modular/Multiple Boilers

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



Series 8HE STANDARD EQUIPMENT & OPTIONS



Top-Mounted Drafthood

Blocked Vent Switch

Automatically shuts down boiler if chimney or venting system become restricted

Safety Relief Valve

50 PSI (standard), 30 PSI (optional)

Pressure/Temperature Gauge

High Limit Control & LWCO (LWCO 805-806 Only)

Hydrolevel HydroStat 3200 (805 & 806)
Honeywell L4080D (807-810)

Steel, Powder Coated Jacket

Retains heat, durable exterior with a long-lasting finish

Ignition Module

Honeywell S8610

Flame Rollout Switch

Safely shuts down the boiler if flue passages become blocked / restricted

Aluminized Steel Burners

Provide optimized air flow for maximum efficiency, smooth ignition and long life

Gas Manifold

With plugged pressure tapping, saves installation time & money

Additional Standard Equipment

- Durable cast iron section assembly
- Rugged cast iron nipples between sections
- Stainless steel flue baffles
- Insulated jacket
- Honeywell L4006E high limit control, manual reset (807-810, packaged only)
- 751P-MT-120 probe LWCO (808 & 810 only)
- 100% shut-off gas controls
- Vent damper, 805 & 806 (optional on 807-810)
- Boiler drain valve

Optional Equipment

- 30 psi relief valve in lieu of standard 50 psi relief valve – specified by boiler SKU
- Combustible floor shield
- High altitude option
- 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)

Ratings & Specifications



Boiler Model ¹	Gas Input ¹ (MBH)	DOE Heating Capacity (MBH)	Thermal Efficiency (%)	Net AHRI Output ² (MBH)	Vent Outlet Size	Water Content (Gallons)	Approximate Shipping Weight (LBS)	
							Packaged	Knock-down
805HE	239	201	84.0 ³	175	7" dia.	11.9	600	660
806HE	299	251	84.0 ³	218	8" dia.	13.9	690	700
807HE	340	275	81.0	239	8" dia.	15.9	770	870
808HE	410	328	80.1	285	9" dia.	17.9	880	950
809HE	460	370	80.4	322	10" dia.	19.9	970	1040
810HE	505	406	80.5	353	10" dia.	21.9	1060	1140

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.

3. 805 & 806HE efficiency is AFUE

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.

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.

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
807HE	27-1/2	13-3/4	8	27-13/16	18
808HE	31-1/4	15-5/8	9	30-13/16	20
809HE	35	17-1/2	10	33-1/2	22
810HE	38-3/4	19-3/8	10	33-1/2	22

