



PeerlessBoilers.com

## *Series GM*

### *Residential/Commercial Gas Boilers*



The Series GM cast iron, hot water boiler is ideal for use in large residences or commercial applications. This gas-fired, atmospheric boiler is designed for use with a conventional chimney for simple installations.

Available in four sizes, the Series GM boiler features front mounted controls in the boiler vestibule for safe operation and easy servicing. Boilers are available with 30, 50, 80 or 100 psi safety relief valves, and are packaged and designed with the return piping located in the front and the supply piping at the top/front of the boiler. These features provide installation flexibility and allow the Series GM boiler to be used for any single, modular, or multiple boiler job.

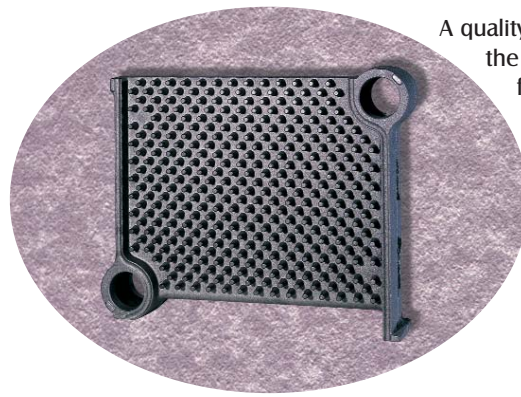
A vertical draft hood and deluxe insulated enameled steel jacket are standard on all Series GM boilers. Five and six-section boilers feature a standard vent damper (optional on seven and eight-section boilers). Steel push nipples on all boilers assure a water-tight seal between sections for a lifetime of dependability.

All Series GM natural gas boilers are available with standard intermittent ignition provided by the Honeywell SmartValve® System. This system provides the safety and ignition functions in one device for simple, dependable operation. Series GM LP gas boilers are available with intermittent spark ignition. Five and six-section boilers are also available with optional standing pilot ignition. The Series GM five and six-section boilers exceed the federal standards for residential AFUE and the seven and eight-section boilers meet the ASHRAE 90.1 efficiency minimum as required by federal standards for commercial boilers.

® SmartValve is a registered trademark of Honeywell Corporation.

# Quality Heating Products

Hard work and dedication by skilled employees have made us one of today's top cast iron boiler manufacturers. From the beginning, our main priority has been to serve customers' needs and to provide them with the best built cast iron boilers on the market. That commitment, still true today, is evident in all of our products and services.



A quality casting is the foundation for all our cast iron boilers.

## Series GM Features

- *Packaged Residential/Commercial Hot Water Boilers*
- *Natural Gas and LP Gas*
- *Natural Draft Venting*
- *Honeywell SmartValve® Intermittent Ignition (Standard on Natural Gas 5-8 Section), Intermittent Spark Ignition (Standard on LP Gas 5-8 Section) or Standing Pilot (Optional on 5-6 Section)*
- *Steel Push Nipples*

## Standard and Optional Equipment

### Series GM Standard Equipment

- *Cast Iron Sections - Factory Tested and Assembled with Steel Push Nipples*
- *Deluxe Insulated Enameled Steel Jacket*
- *30 PSI Safety Relief Valve (unmounted)*
- *Honeywell SmartValve® Intermittent Ignition (Natural Gas)*
- *Intermittent Spark Ignition (LP Gas)*
- *Honeywell Limit Control*
- *Drain Valve (unmounted)*
- *Temperature-Pressure Gauge and Tee (unmounted)*
- *Vertical Draft Hood*
- *Vent Damper (5-6 section)*
- *Flame Rollout Safety Shutoff Switch*
- *Vent Safety Shutoff Switch*

### Series GM Optional Equipment

- *Taco 0010 & 0012 Circulators (unmounted)*
- *Taco 0010 & 0012 Zoning Circulators with Relay (unmounted)*
- *50, 80 or 100 PSI Safety Relief Valve (unmounted)*
- *Probe Type LWCO (unmounted)*
- *Standing Pilot Ignition (5-6 section)*
- *Vent Damper (7-8 section)*



Honeywell SmartValve® Intermittent Ignition

# Domestic Hot Water

The Peerless® Partner® indirect-fired water heater provides a true advancement in hot water generation. By utilizing the Series GM boiler as its heat source, the boiler fires only when necessary and transfers heat energy from the boiler to the water heater through a highly efficient cupronickel, fin-tube heat exchanger.

The heater functions as a separate heating zone and water movement is regulated from the boiler through the heater coil by a separate circulator or zone valve.

The Peerless Partner water heater has two or more times the recovery rate of gas-fired water heaters and supplies as much as five times the amount of hot water as a comparably sized electric water heater.

Because of its light weight and durable plastic jacket, the Partner water heater is easy to install and virtually maintenance free. Combine the Peerless Partner indirect-fired water heater with the Series GM boiler as part of the Flex-Heat® Hydronic Comfort System for efficient and sensible heating applications.

- *Modern Coil Design*
- *Minimal Standby Temperature Loss*
- *Rapid Recovery Rate*
- *Easy Installation*
- *Long Lasting Stainless Steel Construction*
- *No Separate Chimney or Burner Needed*

## **Peerless® Partner® Indirect-Fired Water Heater Standard Equipment**

- *High-Grade 316L Stainless Steel Tank*
- *Enclosed Thermostat Well*
- *Maintenance-Free Plastic Jacket*
- *Adjustable Honeywell Control*
- *2" Polyurethane Foam Insulation*
- *T&P Relief Valve*
- *Cupronickel, Fin-Tube Heat Exchanger*



## Complete Warranty Program

We have one of the most comprehensive warranty programs in the industry. Unlike other boiler manufacturers that pro-rate their warranties, we offer "full cost" warranties (up to the original cost of the boiler).

All our commercial and residential cast iron boilers include a limited, one-year warranty on the entire boiler. A **limited, ten-year** warranty is provided on the cast iron sections of Series GM boilers used for commercial installations. We also provide a **limited, lifetime warranty** on the cast iron

sections of Series GM boilers used for residential installations. Five and ten year extended warranties on parts and labor are available for both residential and commercial boilers.

This summary is not a specific warranty. Consult us for complete details on all of our cast iron boiler warranties. The warranties describe what is considered a residential application and what is a commercial application. All written warranties are available from Peerless Boilers.

*For additional information on our products and services, visit our website at [PeerlessBoilers.com](http://PeerlessBoilers.com). Loaded with valuable information, this user-friendly tool is a quick and easy way to answer many of your heating questions.*

# Product Ratings

## Series GM Boiler Ratings

Boiler Model Number	Input MBH	Input kW	Heating Capacity <sup>1</sup> MBH	Heating Capacity <sup>1</sup> kW	Output <sup>2</sup> MBH	Output <sup>2</sup> kW	Net I=B=R Ratings Water <sup>3,4</sup> MBH	Net I=B=R Ratings Water <sup>3,4</sup> kW	Standing Pilot Seasonal Efficiency (AFUE) <sup>1</sup>	Intermittent Ignition Seasonal Efficiency (AFUE) <sup>1</sup>	Combustion Efficiency <sup>2</sup>
GM-05	228	66.8	187	54.8	—	—	163	47.8	81.0	82.1	—
GM-06	285	83.5	231	67.7	—	—	201	58.9	80.0	81.1	—
GM-07	342	100.2	—	—	280	82.1	243	71.2	—	—	82.0
GM-08	399	116.9	—	—	327	95.8	284	83.2	—	—	82.0

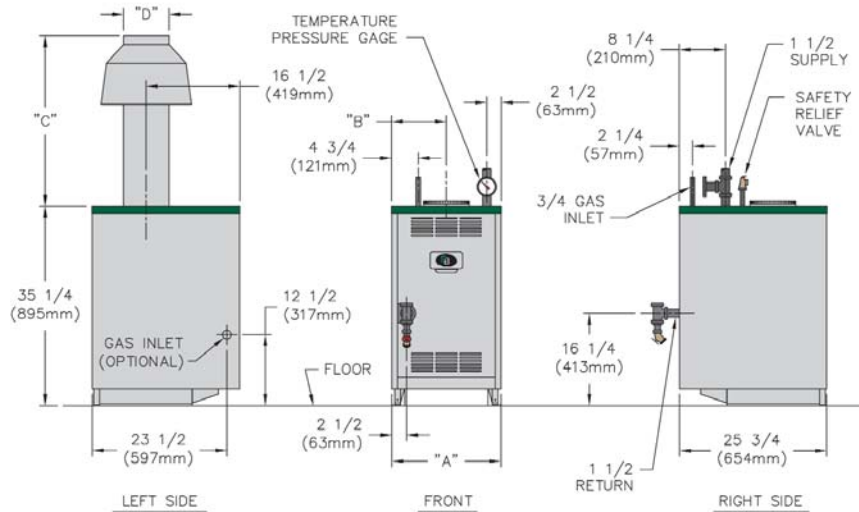
1 Heating Capacity and Annual Fuel Utilization Efficiency (AFUE) ratings are based on U.S. Government test.

2 Output rating and combustion efficiency determined in accordance with ANSI Z21.13, *Gas-Fired Low-Pressure Steam and Hot Water Boilers*.

3 Net I=B=R water ratings based on an allowance of 1.15.

4 Consult factory before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation extensive piping systems, etc.

## Technical Information



## Boiler Dimensions

Boiler Model Number	Jacket Width "A"		Left of Jacket to the Centerline of Vent "B"		Top of Jacket to Vent Connector "C"		Vent Connector Size "D"				Water Content	
	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	USA, Nat Gas		Canada or LP		(gal)	(liters)
GM-05	19-1/4	489	9-3/4	248	29	737	7	178	8	203	6.15	23.3
GM-06	22-3/4	578	11-1/2	292	30	762	8	203	9	229	7.20	27.3
GM-07	26-1/4	667	13-1/4	337	31	787	9	229	10	254	8.25	31.2
GM-08	29-3/4	756	15	381	31	787	9	229	10	254	9.30	35.2

## Crate Dimensions & Shipping Weights

Boiler Model Number	Width		Depth		Height		Approximate Shipping Weight	
	(inch)	(mm)	(inch)	(mm)	(inch)	(mm)	(lb)	(kg)
GM-05	28	711	30-1/4	768	40-1/2	1029	433	196
GM-06	28	711	30-1/4	768	40-1/2	1029	500	227
GM-07	35	889	30-1/4	768	40-1/2	1029	574	260
GM-08	35	889	30-1/4	768	40-1/2	1029	641	291





The Peerless Flex-Heat® Hydronic Comfort System combines Series GM boilers in single, multiple or modular arrangements with the Peerless® Partner® indirect-fired water heater, modern system controls, circulators and a design application guide to provide efficient, economical space and domestic hot water heating.



## Modular vs. Multiple

Modular boiler systems require fewer limit controls and low water cut-offs than multiple boiler systems. On modular boiler systems, only one limit control on each boiler and one system limit control and low water cut-off are required. On multiple boiler systems, two limit controls are required on each individual boiler and, if the boilers are larger than 400 mbh input, a low water cut-off is also required on each boiler.

To qualify as a modular boiler system, ASME<sup>1</sup> adds the following requirements versus a multiple boiler system:

1. Modules can be no larger than 400 mbh gas input (all Series GM boilers meet this requirement.)
2. No isolation or stop valves can be placed between modules and the main headers.

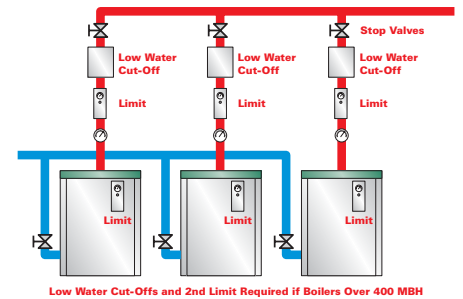
If ASME CSD-1 applies in your area, the low water cut-off(s) and additional limit control(s) must be manual reset.

## Flex-Heat® System

Modular systems have higher overall boiler plant efficiency than typical single large boiler installations.

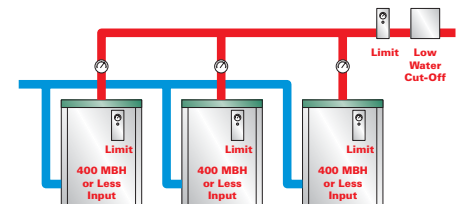
- Higher part load efficiency – Atmospheric gas boilers operate most efficiently at full gas input rate. The FLEX-HEAT® system energizes each boiler at its full gas input and efficiency and controls the system by modulating the number of energized boilers.
- Lower stand-by losses – Since the FLEX-HEAT® system energizes only the number of boilers needed to meet the heat demand, less heat is dissipated to the boiler room and less heat escapes up the chimney. FLEX-HEAT® Circulator Kits further reduce stand-by losses by preventing heated water from flowing through idle boilers.

Modular systems are redundant. If one boiler shuts down, the remaining boilers will provide heat until the problem boiler can be corrected. If a single boiler installation shuts down, it's a no heat situation. Modular systems can also be easier to maintain. The Series GM boilers are pre-packaged and fit through a standard doorway, requiring less time to replace than changing a section of a single, large boiler.



Low Water Cut-Offs and 2nd Limit Required if Boilers Over 400 MBH

**MULTIPLE BOILER SYSTEM**  
Each Unit Treated as a Separate Boiler



**MODULAR BOILER SYSTEM**  
Treated as if a Single Boiler

<sup>1</sup>ANSI/ASME Boiler and Pressure Code, Section IV: Rules for Construction of Heating Boilers.

## Typical Series GM Flex-Heat® Modular Boiler Systems

System Number	Module Quantity & Size	Input (MBH)	Gross Output (MBH)	Gross Output (H.P.)	Net Output (MBH)	Combustion Efficiency
FH-456	2-5	456	374	11.2	325	82%
FH-513	1-5, 1-6	513	421	12.6	366	82%
FH-570	2-6	570	467	14.0	406	82%
FH-627	1-6, 1-7	627	514	15.4	447	82%
FH-684	2-7	684	561	16.8	488	82%
FH-741	1-7, 1-8	741	608	18.2	528	82%
FH-798	2-8	798	654	19.5	569	82%
FH-855	3-6	855	701	20.9	610	82%
FH-912	2-6, 1-7	912	748	22.3	650	82%
FH-969	1-6, 1-7	969	795	23.7	691	82%
FH-1026	3-7	1026	841	25.1	732	82%
FH-1140	1-7, 2-8	1140	935	27.9	813	82%
FH-1197	3-8	1197	982	29.3	854	82%
FH-1254	2-6, 2-7	1254	1028	30.7	894	82%
FH-1368	4-7	1368	1122	33.5	975	82%
FH-1482	2-7, 2-8	1482	1215	36.3	1057	82%
FH-1539	1-7, 3-8	1539	1262	37.7	1097	82%
FH-1596	4-8	1596	1309	39.1	1138	82%
FH-1710	5-7	1710	1402	41.9	1209	82%
FH-1824	3-7, 2-8	1824	1496	44.7	1301	82%
FH-1881	2-7, 3-8	1881	1542	46.1	1341	82%
FH-1938	1-7, 4-8	1938	1589	47.5	1382	82%
FH-1995	5-8	1995	1636	48.9	1423	82%
FH-2052	6-7	2052	1683	50.3	1463	82%
FH-2166	4-7, 2-8	2166	1776	53.1	1544	82%
FH-2280	2-7, 4-8	2280	1870	55.9	1626	82%
FH-2394	6-8	2394	1963	58.6	1707	82%
FH-2508	5-7, 2-8	2508	2057	61.4	1788	82%
FH-2622	3-7, 4-8	2622	2150	64.2	1870	82%
FH-2736	1-7, 6-8	2736	2244	67.0	1951	82%
FH-2793	7-8	2793	2290	68.4	1992	82%
FH-2850	6-7, 2-8	2850	2337	69.8	2032	82%
FH-2964	4-7, 4-8	2964	2430	72.6	2113	82%
FH-3021	3-7, 5-8	3021	2477	74.0	2154	82%
FH-3078	2-7, 6-8	3078	2524	75.4	2195	82%
FH-3192	8-8	3192	2617	78.2	2276	82%
FH-3306	5-7, 4-8	3306	2711	81.0	2357	82%
FH-3363	4-7, 5-8	3363	2758	82.4	2398	82%
FH-3420	3-7, 6-8	3420	2804	83.8	2439	82%
FH-3534	1-7, 8-8	3534	2898	86.6	2520	82%
FH-3591	9-8	3591	2945	88.0	2561	82%
FH-3648	6-7, 4-8	3648	2991	89.4	2601	82%
FH-3762	4-7, 6-8	3762	3085	92.2	2682	82%
FH-3876	2-7, 8-8	3876	3178	94.9	2764	82%
FH-3990	10-8	3990	3272	97.7	2845	82%



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Installed By:



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ASME



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