

Burnham® High Efficiency Cast Iron **Oil** Boilers



Proven Reliability,
American-Made
Home Heating Comfort.



*Look for this logo
throughout this literature to
see the unique features that
set U.S. Boiler Company
apart from the competition!*



MPO-IQ™

high efficiency water boiler



✓ **Can help to save homeowners up to 49% on energy costs!***

✓ **American-made 3-pass high efficiency oil boiler**

✓ **Reliable performance, quality construction**

✓ **Unique and innovative control system**



■ **Save up to 49% on energy costs!**

With home heating costs on the rise, homeowners are looking for ways to reduce their energy bills. The MPO-IQ is a high efficiency oil-fired water boiler. With an ENERGY STAR® rated efficiency of 87% it offers substantial savings over less efficient oil boilers. Many homeowners rely upon their boilers to provide hot water by way of an integrated tankless water heater (coil). While this is a convenient method to generate hot water, the drawback comes in the form of fuel usage and limited capacity. By combining the efficiency of an MPO-IQ with the storage capacity of an Alliance SL indirect water heater, homeowners can realize savings of up to 49% over their current home heating expenses and have abundant hot water!*

■ **American-made quality and efficiency**

Every drop of fuel is precious. The 3-pass heat exchanger in the MPO-IQ is designed with that in mind. Instead of transferring heat from a single combustion chamber, it is re-circulated through specially-designed passageways prior to venting. Overall, the heat exchanger obtains heat three times for every BTU that the fuel provides, and uses less fuel than a conventional cast iron boiler.

The heat exchanger in the MPO-IQ is produced in Zanesville, Ohio, and the boiler is assembled in Lancaster, PA. Every heat exchanger is water and pressure tested before it leaves the factory, and every component used in the boiler is subject to strict standards of quality control and performance verification throughout the manufacturing process.

You're covered...

A limited lifetime heat exchanger warranty, plus a one-year manufacturer's parts warranty are included with the MPO-IQ. For long-term protection, the U.S. Boiler Extended Warranty Plan is also available. It offers parts and labor protection for either 5 or 10 years from the date of installation.



*Savings based upon combining MPO-IQ equipped with IQ Outdoor Reset Card and an Alliance SL indirect water heater. For more information, see Alliance SL page in this book

The IQ Control System...

US

UNMATCHED
ANYWHERE

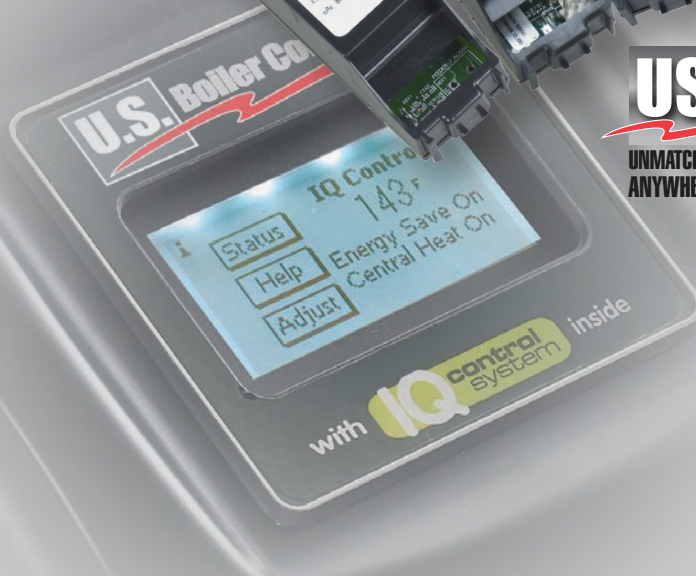
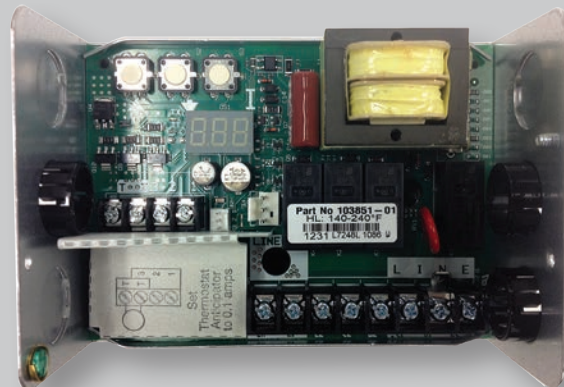
Every MPO-IQ comes equipped with the IQ Control System. This comprehensive boiler control ties all of the operational elements of the MPO-IQ together, makes sure that it is continually operating as efficiently as possible, and enables the optional features to increase system efficiency and provide additional operational safeguards for the boiler itself.

■ Save an additional 15-20% on energy costs!

One of the most unique features of the IQ Control System is that it provides a simple way to add optional features to the boiler. One of these features is a weather-sensitive control, called "outdoor reset". By installing an outdoor reset IQ option card (and the included outdoor sensor), the boiler has the ability to adjust the boiler's operation based upon the actual air temperature outside the home. This is especially useful in the "shoulder seasons" of fall and spring, and can help save an additional 15-20% annually on energy costs.

■ What's going on in there?

The MPO-IQ can relay real-time operational information by way of an optional high resolution backlit touchscreen interface. By navigating through the easy to understand menus, complete information on your boiler's status is literally at your fingertips. In addition, if any trouble is detected in the boiler or the heating system as a whole, the screen will flash red and inform you about the problem. The touchscreen also acts as a diagnostic tool for your professional service technician, which can contribute to lower costs for service calls.



US

UNMATCHED
ANYWHERE

Control System Excellence



The exclusive IQ Control Systems used in U.S. Boiler Company products were co-developed in partnership with Honeywell, the leader in home comfort controls. The unique functionality and exclusive capabilities of these controls were designed

by engineers at U.S. Boiler Company, the North American leader in boilers for home heating. These custom controls are produced in world-class manufacturing facilities and provide the outstanding quality and reliability synonymous with both industry leaders, U.S. Boiler Company and Honeywell.



Honeywell

V8H™

high efficiency water or steam boiler



- ✓ **Efficient, adaptable, and proven**
- ✓ **Available with tankless hot water heater (coil) option***
- ✓ **Reliable performance, quality construction**
- ✓ **Comprehensive boiler control system**

■ The versatile V8 does it all!

Hot water or steam heat, the Burnham V8H can do it all. This efficient and adaptable boiler offers a variety of sizes and configurations to fit most home heating needs, and is available with an optional tankless hot water heater*.

■ American-made quality and efficiency

The cast iron heat exchanger in the V8H is precision cast in Zanesville Ohio. It features a surface area which is up to 40% larger than many competitive models. This means that the boiler is able to heat up quicker, enabling a faster transfer of heat and greater efficiency. Every heat exchanger is water and pressure tested prior to assembly. The V8H is assembled in Lancaster, PA. Before the V8H is shipped, every component used in the boiler is subject to strict standards of quality control and performance verification, which are constantly monitored during the manufacturing process. The end result is a boiler which will provide years of trouble free, efficient, and reliable service.

■ New boiler controls (water versions)

The new Intelligent Oil Boiler Control brings high end control capability to the V8H. By continuously monitoring all aspects of boiler operation, this control system is able to deliver increased efficiency and impressive energy savings.



You're covered...

For V8H (water version) A limited lifetime heat exchanger warranty, plus a one-year manufacturer's parts warranty are included.

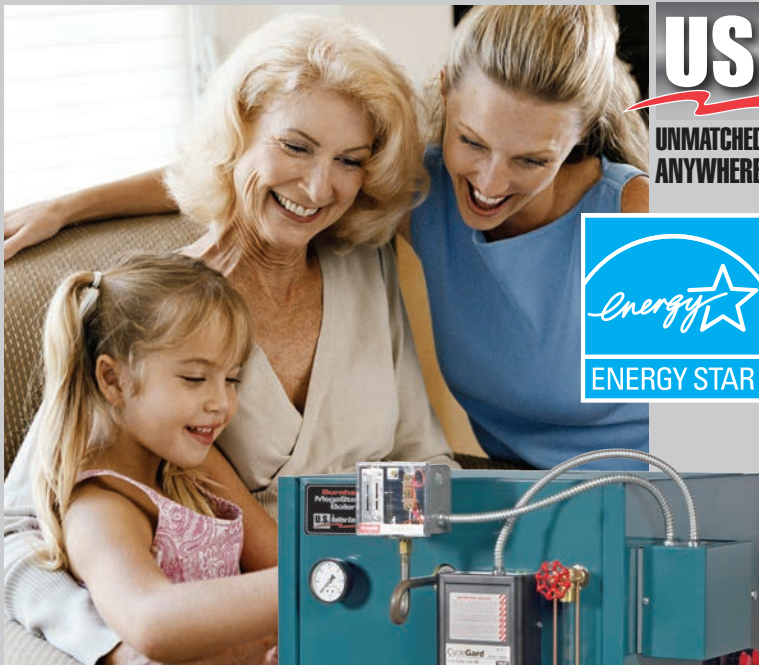
Steam versions have 10-year heat exchanger warranties. For long-term protection, the U.S. Boiler Extended Warranty Plan is also available. It offers parts and labor protection for either 5 or 10 years from the date of installation.



* For even greater hot water capacity, consider an efficient Alliance SL indirect water heater

MegaSteam®

high efficiency steam boiler



- ✓ **Most efficient boiler of its kind available ANYWHERE**
- ✓ **UNMATCHED steam boiler warranty protection**
- ✓ **Superior efficiency and steam quality**
- ✓ **American-made, quality construction**
- ✓ **Available with tankless hot water heater (coil) option***

■ Better by design

Steam heat...while some manufacturers may virtually ignore it, U.S. Boiler company set out to design a new oil-fired steam boiler from the ground up. The result is the MegaSteam, offering efficiency, performance, reliability and peace of mind that can't be matched.

■ Not created equal

Not all steam is the same. Most steam boilers produce steam with a high moisture content. This leads to inefficiency because it condenses in the pipes before it can reach the radiators. It also leads to the "banging" noises sometimes associated with steam boilers. Thanks to the advanced engineering built into the MegaSteam, it produces steam which is 99% dry, a critical advantage in producing efficient steam heat in virtually any application.

■ American-made quality and efficiency

The 3-pass cast iron heat exchanger has been designed to extract every BTU of heat possible from the combustion process. The design of the heat exchanger is specifically optimized for steam heating, and is manufactured in Zanesville, Ohio. The boiler itself is assembled in Lancaster, Pennsylvania. Every component used in the MegaSteam boiler is subject to strict standards of quality control and performance verification throughout the manufacturing process.

* For even greater hot water capacity, consider an efficient Alliance SL indirect water heater

UNMATCHED protection...

An exclusive five-year waterside corrosion warranty plus a limited 10-year heat exchanger warranty, and one-year parts warranty are included with the MegaSteam. For long-term protection, the U.S. Boiler Extended Warranty Plan is also available. It offers parts and labor protection for either 5 or 10 years from the date of installation.



Alliance SL™

indirect water heater



10/2/1 protection...

This unique warranty provides a 10-year full tank replacement, two years of labor coverage, and one year on parts. For longer protection an optional lifetime warranty is also available.

- ✓ **Perfect companion for any boiler**
- ✓ **Can help save up to 49% on energy costs**
- ✓ **Virtually limitless hot water**
- ✓ **Highly resistant to hard water conditions**

■ The perfect pairing

Reduce home heating bills AND get abundant domestic hot water with an Alliance SL. By pairing with your boiler, the Alliance SL uses boiler heat to produce hot water at a rate which can actually be higher than it can be used! This combination can provide significant savings over conventional water heaters, and even greater savings over tankless coils. For more information, please see the chart below.

■ Protection from within

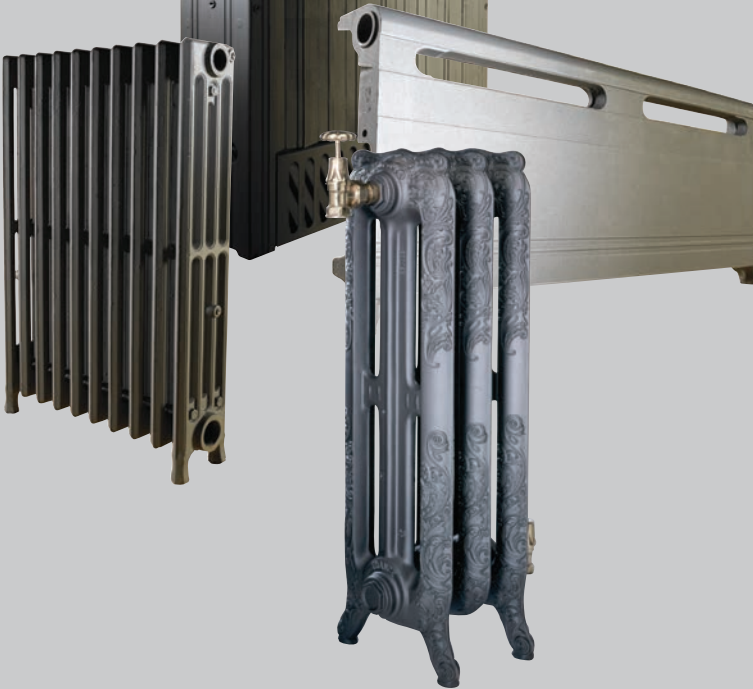
Some water conditions can create havoc with a conventional water heater. Thanks to a heavy gauge steel tank and hydrastone inner lining, the Alliance SL is different. The hydrastone lining actually neutralizes corrosive hard water, making it impervious to its harmful effects. The inner tank and hydrastone lining are wrapped with 2-3" of energy saving insulation which enables the tank to only lose between .39 and .97 degrees of water temperature per hour in standby mode.

Installation Type	Average Annual Fuel Usage	Average Annual Efficiency	Annual Expense \$3.50 per gallon	Annual Expense \$4.25 per gallon
Typical Boiler Installation (Long Island, New York)				
Old Oil Boiler System, Under 80% AFUE w/Tankless Coil	1506 Gallons	50%	\$5,271	\$6,400
MPO-IQ plus Alliance SL**				
Burnham MPO-IQ 87% AFUE Oil Boiler w/Alliance Indirect Water Heater	905 Gallons	87%	\$3,168	\$3,846
Total Savings				
Boiler/Water Heater Annual Fuel Savings			\$2,103	\$2,554
With IQ Boiler Control System – Provides an additional 15% savings!			\$315	\$577
Total Estimated Annual Savings = 49%!			\$2,418	\$3,131

* 150,000 BTU - 78% steady state efficiency (data provided by NORA FSA calculator) Data is based on the Fuel Savings Analysis (FSA) calculator provided by the National Oilheat Research Alliance (NORA). These figures are based on averages, your specific system results may vary.

** Comparison based upon MPO-IQ. For steam systems, similar savings can be realized with MegaSteam boilers.

Cast Iron Radiators



- ✓ **Baseray® baseboards**
- ✓ **Slenderized radiators**
- ✓ **Radiant radiators**
- ✓ **Classic™ radiators**

■ Durable, quiet, and comfortable

There's nothing like the soothing comfort of radiant heat and there's nothing like the performance of durable cast iron radiators. Used for generations as a dependable, means to distribute heat to living spaces, the efficiency and quiet performance of cast iron radiators is simply beyond compare. They can also be painted to match virtually any room decor.

■ Baseray Baseboards

Designed for efficiency, these baseboards distribute heat both horizontally and vertically, thus they are able to transmit more than five times the amount of heat than other baseboards. Their one-piece cast iron construction virtually eliminates the expansion noises typically found in thin metal fabricated baseboards.

■ Classic Radiators

These elegant radiators feature intricate scrollwork and attention to detail that makes them ideal for remodeling projects. Durable cast iron construction ensures a smooth, efficient transfer of heat and many years of quiet, trouble-free service. Brass valves are also available to compliment the elegant look of the Classic Radiator.

■ Radiant Radiators

Can be used as replacement recessed radiators for cabinets and other interior structures, or as standalone heat distributors. Designed to draw cool air in through the bottom and project warm air out through the top ports, radiant radiators feature durable cast iron construction and sectional design which enables lengths from 9 to 99 inches.

■ Slenderized Radiators

Provide radiant heat in a low profile package. Slenderized radiators are lower and slimmer than most conventional radiators. They feature a sectional design, enabling lengths from 7 to 84 inches.

Models, Sizes, Efficiencies

Cast Iron, Oil Boilers

For complete technical specifications and dimension information on the products listed here, please visit our website at www.usboiler.net



MPO-IQ		
Boiler Model	Burner Capacity (GPH)	AFUE%
MPO-IQ84	0.60	87.0
MPO-IQ115	0.82	87.0
MPO-IQ147*	1.05	87.0
MPO-IQ189*	1.35	87.0
MPO-IQ231*	1.65	87.0

*Direct vent option available



MegaSteam		
Boiler Model	Burner Capacity (GPH)	AFUE%
MST288	0.75	86.0
MST396	1.05	86.0
MST513	1.35	86.0
MST513	1.65	86.0



V8H – Water		
Boiler Model	Burner Capacity (GPH)	AFUE%
V8H3 (W)	1.05	85.0
V8H4 (W)	1.35	85.3
V8H5 (W)	1.65	85.3
V8H6 (W)	1.90	85.3
V8H7 (W)	2.10	85.3
V8H8 (W)	2.35	82.0*
V8H9 (W)	2.60	82.3*

*Thermal efficiency

V8H – Steam		
Boiler Model	Burner Capacity (GPH)	AFUE%
V8H3 (S)	0.75	85.1
V8H4 (S)	1.05	85.3
V8H5 (S)	1.35	85.4
V8H6 (S)	1.65	85.7
V8H7 (S)	2.10	84.7
V8H8 (S)	2.35	84.1*
V8H9 (S)	2.60	82.3*

*Thermal efficiency

Indirect Water Heaters



Alliance SL Models				
Model	Storage Capacity (gal.)	Maximum First Hour Rating at 135°F (gal./hr.)	Continuous Draw Rating at 135°F (gal./hr.)	Standby Heat Loss (°F per hour)
AL27SL	27	192	162	0.97
AL35SL	35	200	162	0.72
AL50SL	50	225	171	0.56
AL70SL	70	294	217	0.45
AL119SL	119	339	235	0.39

Condensing Boilers & Cast Iron Gas Boilers



U.S. Boiler Company offers a complete line of ultra-high efficiency Burnham condensing boilers and high efficiency Burnham cast iron gas boilers. For information on these products, please see product literature or visit www.usboiler.net



www.usboiler.net

