

# Portage & Main Outdoor Boilers

*Quality and Innovation Since 1972*



HOME



GARAGE



POOL & HOT TUB



BARN



SHOP



COMMERCIAL



GREENHOUSE



**COAL  
or  
WOOD**



\*coal or wood models available  
(check local regulations)

**GREEN HEATING SOLUTIONS**

**RESIDENTIAL, FARM & COMMERCIAL**

## **1. Refractory Lined Firebox**

The Portage & Main Ultimizer is a refractory lined, dry based boiler. A 2-1/2" thick refractory lining surrounds the fire pot. This absorbs heat, facilitating a hot, efficient burn. The refractory also serves to evaporate moisture and eliminates caustic ash line corrosion. The Ultimizer has become known in the industry as the "updraft gasifier" due to the efficiency of its burn. The Ultimizer is simple to use, easy to maintain and not fussy about the fuel it burns.

## **2. High Efficiency Quad Pass Heat Exchanger**

The heat exchanger runs the full length of the furnace and is completely surrounded by water. This means that combustion gases are kept in the boiler for longer, and that the heat is fully extracted. Exhaust gases make their 1st and 2nd pass at the top of the fire pot where they move under and around a water-cooled baffle and into the heat exchanger. Gases then travel to the front of the boiler in a 3rd pass, make a 180 degree turn, and in the 4th pass move towards the rear of the heat exchanger. In this way, all available heat is taken from the gases before they exit the chimney. This design gives up to 50% more heat transfer compared to other non water cooled non brick lined designs.

## **3. Water Cooled Baffle**

The water-cooled fire pot baffle absorbs heat and traps combustion gases. Turbulence is created when air is introduced from below and above the fire. This turbulence provides an optimal burning environment for the gases and leads to a hotter, more efficient burn. The trapped gasses are thoroughly burnt before entering the high-efficiency fully water-cooled heat exchanger.

## **4. Water Jacket Above The Brick Line**

The Ultimizer water jacket sits above the brick line – not against the fire. This eliminates ash line corrosion and means that fuel is completely burnt. There is considerably less ash. Other brands water jackets sit against the fire and this takes away valuable heat prematurely, and bridging of fuel becomes a problem.

## **5. Shaker Grates**

Make cleaning out ash easy. Just rock the grates with the handle. The shaker plates are manufactured from North American 3/4" plate steel – not poorer quality imported cast iron which doesn't last.

## **6. Forced Air**

Self modulated air is introduced both under and over the fire, resulting in a fully efficient burn. No extra controls required, controlled with weighted flapper.

## **7. Fire Pot Loading Door**

Multi-layer insulated fire door with a heavy-duty adjustable handle and superior, high-density silicone enhanced gaskets

## **8. Ash Pan Or Scoop**

Makes removing ash easy. Also gives an entry point for the under-fire air

## **9. Heat Exchanger Cleanout Door**

Allows easy access to the fully water-cooled quad-pass heat exchanger.

Only minimal cleaning is necessary due to the refractory lining and high temperature burn. Most of the smoke has already been burnt, so creosote build-up is greatly reduced

## **10. The Front Door**

Acts like a storm door on a house. Helps reduce moisture buildup and corrosion. This additional outer door combines with a multi-layer insulated inner fire door. Truly reduces heat loss

### 11. Back Door

Housing for the boiler hookups, aquastats, and other components. Dry, fully lockable, and secure. All insulation is covered with galvanized steel for a safer, cleaner finish

### 12. Aquastat

Made by Johnson Controls. Time tested, off-the-shelf, reliable. Easy to source, easy to set and simple to operate.

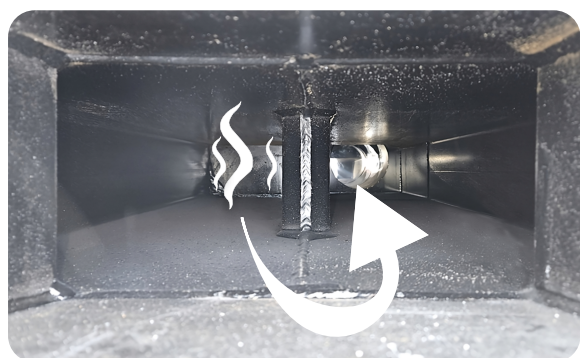
### 13. Water Indicator Float

The water level indicator gauge is well place for easy viewing and is designed to reduce evaporation.

### 14. Sectional Design

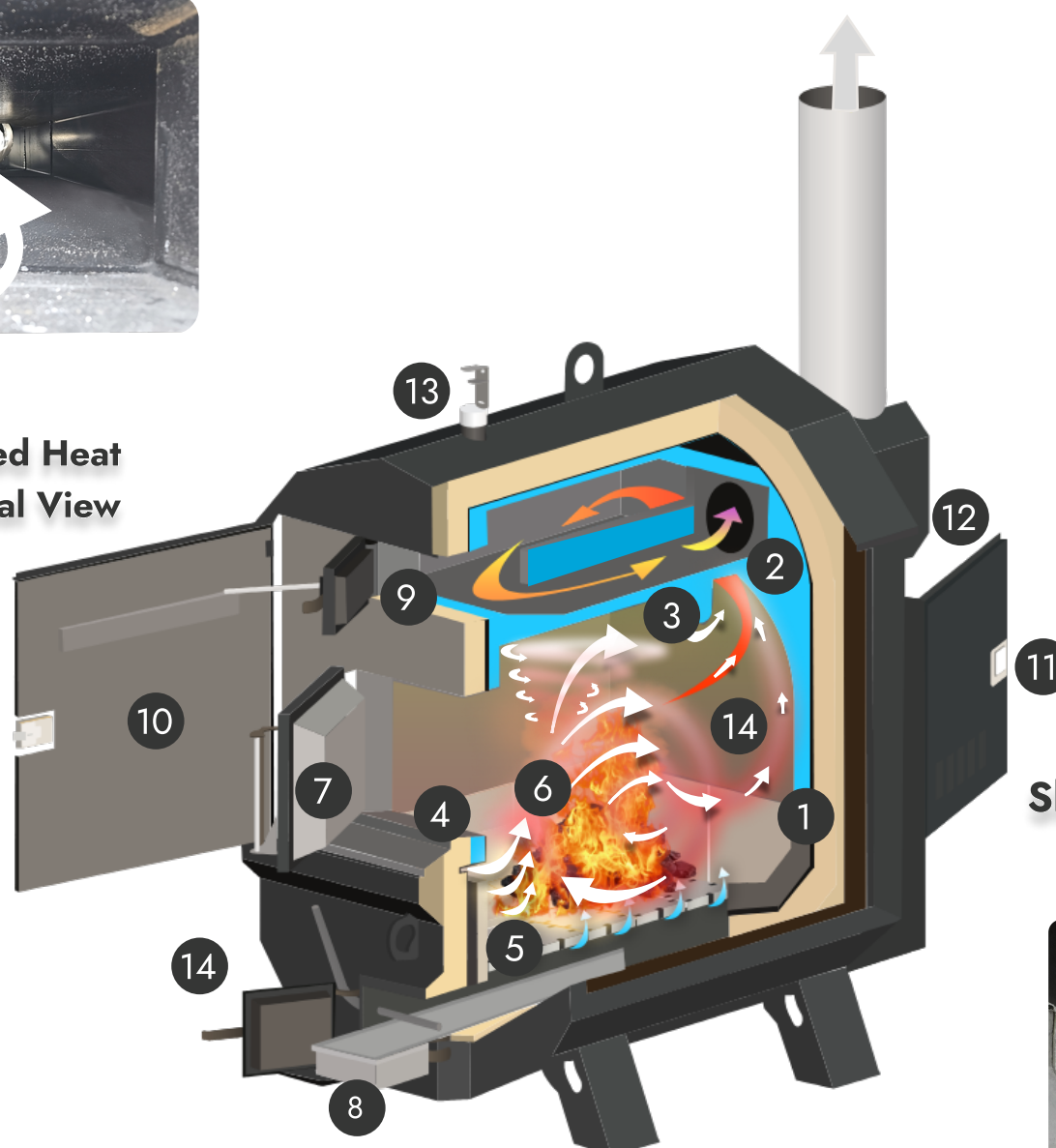
The Last Boiler You Need to Buy. Not a throw-away design as so many products are these days. The heavy-duty refractory brick, which gives the Ultimizer the ability to burn hot and clean, also safeguards against ash line corrosion. This in turn means that just the top half of the boiler can be easily replaced at a fraction of the cost of a complete boiler. If you do ever need to rebuild, the entire fire pot and water jacket can be removed by simply unbolting the top section from the bottom section just above the bricks. The new top section then bolts into place. In less than half a day, with no welding required, you can have a fully rebuilt boiler. This gives the customer savings of thousands of dollars, and the best sustainable warranty

## CONFIDENTLY RECOMMENDED BY FAMILY AND FRIENDS



2

Fully Water Cooled Heat Exchanger Internal View



Shaker Grate Top View

5

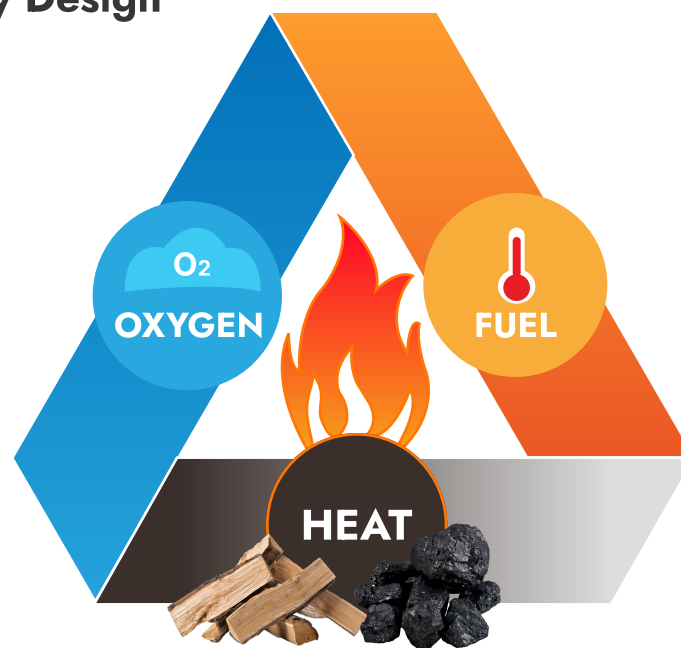


# THE ONLY BOILER YOU WILL EVER NEED TO BUY

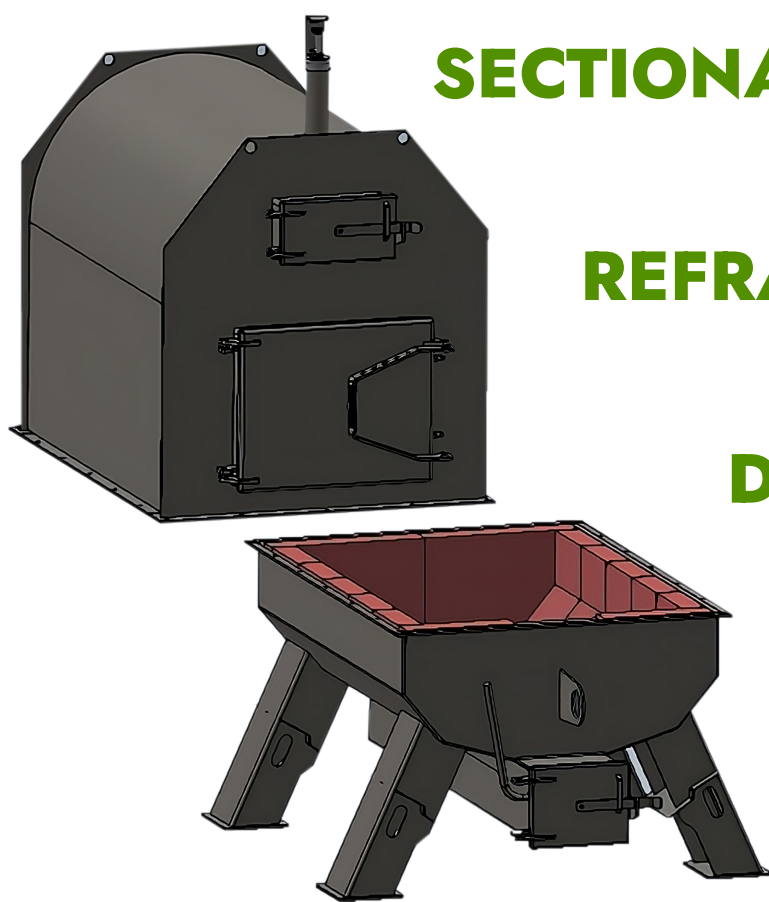
Second To None , High Efficiency Design

To achieve a clean, efficient burn with complete combustion, an optimal balance of **OXYGEN, HEAT & FUEL** is required.

The Portage & Main Ultimizer has been designed to adhere to the **FIRE TRIANGLE**



\*coal or wood models available  
(check local regulations)



**SECTIONAL BOILER**

**REFRACTORY LINED**

**DRY BASE DESIGN**

*If you are upgrading or replacing a conventional boiler from another brand, be prepared to be amazed by the higher efficiency of your new **Ultimizer***

Available Models	BL 25 34	BL 28 40	BL 34 44	BL 40 44
Output (BTU/hr)	175,000 approx.	275,000 approx.	400,000 approx.	500,000 approx.
Heating Area (sq. ft.)	Upto 4,000	Upto 6,000	Upto 9,000	Max 12,000
Dimensions (in.) L x W x H	57 x 40 x 66	63 x 42 x 72	68 x 50 x 82	72 x 57 x 92
Shipping Weight (lbs)	2100	2300	2800	3500
Fire Chamber (in.) L x W x H	34 x 25 x 34	40 x 28 x 35	44 x 34 x 44	47 x 38 x 48
Water Capacity (gal US)	60	90	120	160

**Let's Talk**

**1 - 800 - 561 - 0700**

**For all updates & details : [www.PortageandMainBoilers.com](http://www.PortageandMainBoilers.com)**