



# LOW NO<sub>x</sub> PREMIX DIRECT FIRED HOT WATER BOILER

## Bent Steel Water Tube Parker "L" Model 300,000 to 6,300,000 BTU Premix Gas Fired

### BENT STEEL TUBE CONSTRUCTION

A time proven product backed by one of the largest and most successful Manufacturers of Packaged boilers whose name is synonymous with quality and safety. Every boiler is thoroughly factory fire tested and is required to meet the highest standards in all phases of mechanical and operating efficiency before shipment.

Parker Hot Water Boilers are designed specifically to provide the building heating and industrial processing industries with a Superior Quality Boiler with Unequaled Advantages in Safety, Long Life Service and Economical Operation.

### BENT TUBE CONSTRUCTION

The Parker Bent Tube All-Welded construction is the most flexible and durable on the market.

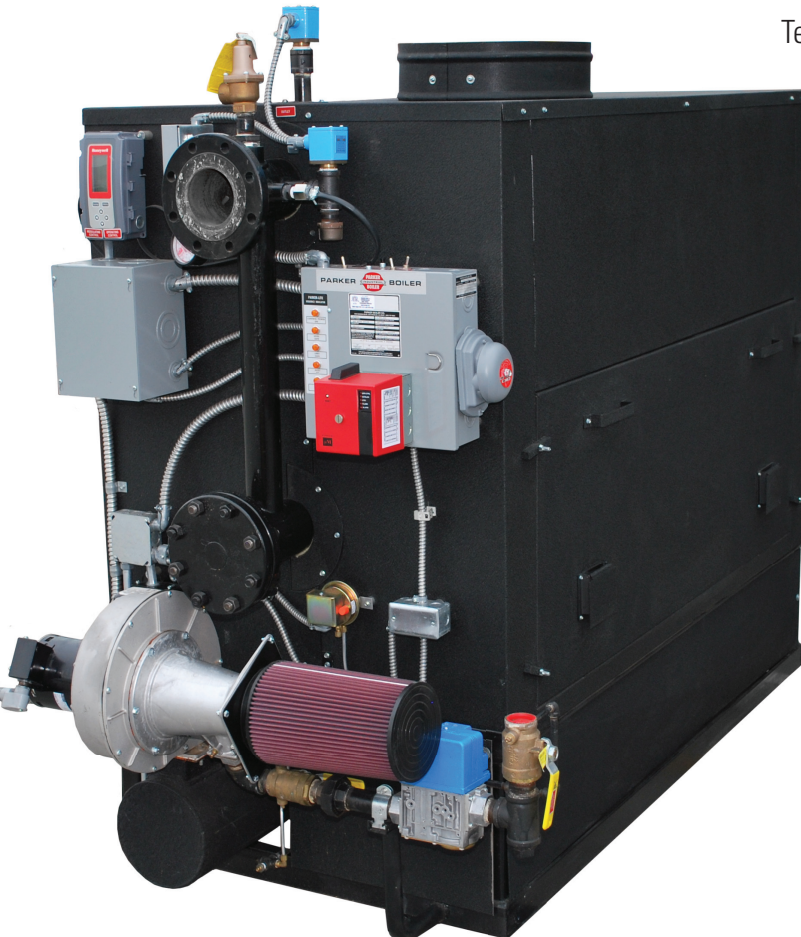
### ADVANTAGES

#### 1. Low NO<sub>x</sub>

The burner system will meet current Best Available Control Technology Requirements. Ultra Low NO<sub>x</sub> models are available.

#### 2. Safety

Our ASME tube bundle is extremely flexible and offers a long life with a 25 year warranty against thermal shock. No Parker Boiler has ever been known to experience an internal explosion.



#### 3. Heavy Insulated Cabinet

The cabinet is durably constructed with two thicknesses of heavy steel, insulated on all sides with high temperature thermal fiber insulation to effectively reduce heat losses to a minimum.

#### 4. Heavy Flexible Tube Construction

Parker tubes are 1-5/16" OD steel, 0.12" (11GA) heavy thickness which is almost double standard gauge boiler tubing for the same diameter. The bent tube design permits free expansion and contraction of each

tube independently with changes in temperatures, eliminating strain on the metal, warping and leaking, typical of rigid straight tube designs. This construction utilizes heavy material with flexibility to provide extreme safety and long life.

#### 5. Codes

All boilers are built in accordance with the ASME Power and Heating Boiler Code. All boilers are inspected and registered with the National Board of Pressure Vessel Inspectors. All individual gas and electrical

### 201L Hot Water Boiler

300,000 to 6,300,000 BTU Input  
Temperatures to 400°F  
Pressures to 300 PSI



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BROCHURE 201L 1F1

**"Never a Compromise for Quality or Safety"**



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## 201L Hot Water Boiler

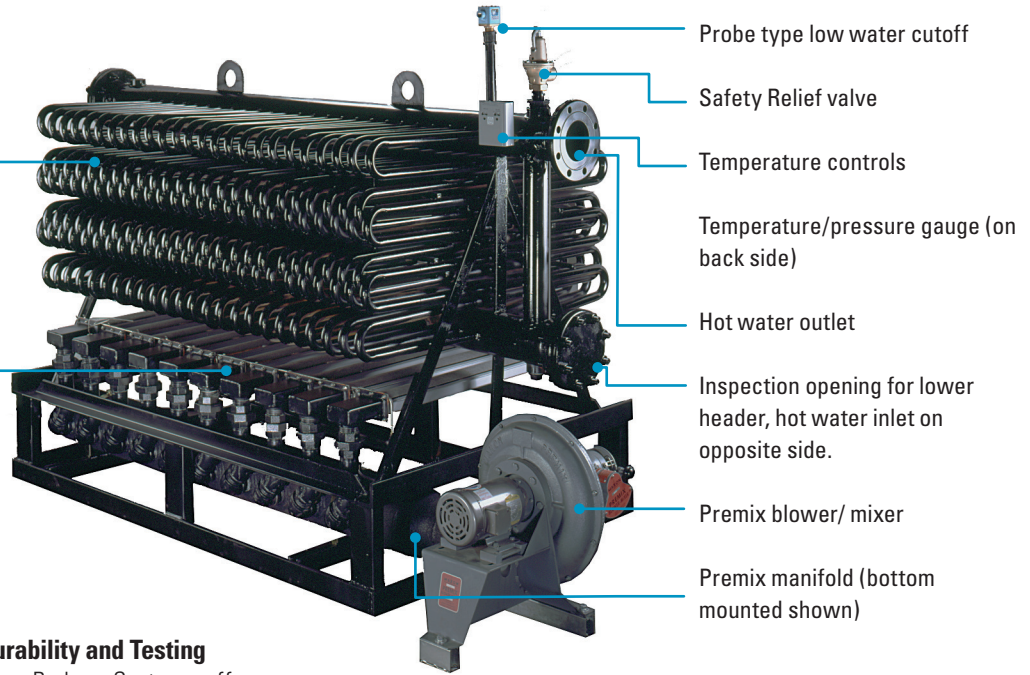
### Parker "L" Model

Staggered tubes provide 10-pass self baffled heating surface for high efficiency

Flexibility designed to permit free expansion and contraction, eliminating warping and leaking

Metal fiber burners

Tubes are 1-5/16" OD Steel, 0.12" (11GA) heavy thickness, welded to headers with high tensile weld metal.



Probe type low water cutoff

Safety Relief valve

Temperature controls

Temperature/pressure gauge (on back side)

Hot water outlet

Inspection opening for lower header, hot water inlet on opposite side.

Premix blower/mixer

Premix manifold (bottom mounted shown)

### THE PARKER PREMIX BURNER SYSTEM ADVANTAGES

The Parker System consists of a burner bed of Heavy Duty Metal Fiber Burners (MFB). Through a gas/air premix manifold, the burners may be linked to a fully modulating blower mixer which offers precise control of combustion through the full range of modulation.

Parker uses a variety of premix gas/air mixing & delivery systems for its "L" System boilers. Parker's Low NO<sub>x</sub> Systems are typically designed for a 20 or 30 ppm level at 3% O<sub>2</sub>, however, special 12 ppm Low NO<sub>x</sub> boilers are also provided.

In all cases, a Pre-mixed gas/air is distributed to the burners by a manifold. By precisely controlling the gas/air ratio provided to the burners, Low NO<sub>x</sub> emission & efficient clean combustion is obtained.

### Durability and Testing

The Parker System offers an extremely durable and field proven Low NO<sub>x</sub> Premix Burner, with hundreds of successful field installations in harsh boiler environments providing heat, day in and day out. Extensive factory and field testing has occurred.

### Even Heat Distribution

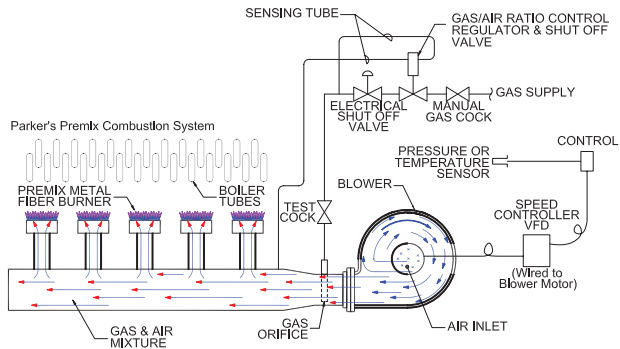
Unlike Conventional Power Burner Technology, the burner bed provides a uniform heat distribution on all boiler tubes for improved heat transfer and boiler efficiency. Uniform heat over the entire heating surface at high, low and modulating firing rates provides longer tube life by eliminating concentrated firing on limited tube surface.

### VFD/Premix System

Parker's fully modulating variable speed low NO<sub>x</sub> burner systems offer digital electronic set point control, VFD blower for reduced electrical energy usage, precise fuel/air ratio control with no linkages, cams or FGR valves.

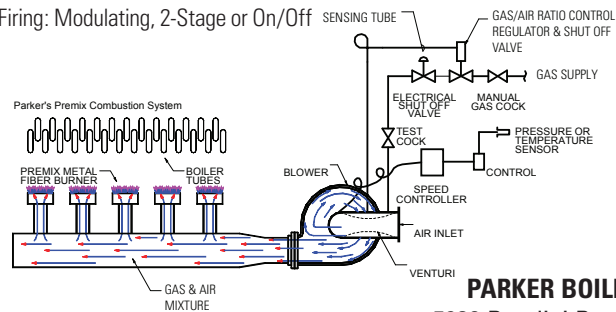
### Parker Premix Burner System 4

Variable Speed Drive Fan Post Mix System, Siemens SKP-Controller  
Firing: Modulating, 2-Stage or On/Off



### Parker Premix Burner System 5

Variable Speed Drive Fan PreMix System, Honeywell Valve/Venturi  
Firing: Modulating, 2-Stage or On/Off



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