Benchmark 6000
Condensing Hydronic Boilers

The AERCO Benchmark 6000 Water Boiler is designed for condensing application in any closed loop hydronic system. It delivers 15:1 burner turndown to match energy input directly to fluctuating system loads to yield the highest possible seasonal efficiencies. And no other product packs as much capacity into such a small footprint.

To minimize emissions, the BMK6000 is fitted with a low NOx burner whose emissions will consistently measure <20 ppm of NOx corrected to 3% excess oxygen at all firing rates. The fully modulating burner also maintains AERCO standards for energy efficiency, longevity, reliability and construction quality.

The BMK6000 comes standard with AERCO’s Patent Pending, Oxygen Level (O2) monitoring system. This monitoring system, designed to display the O2 level directly on the unit in real time, can also be remotely monitored via Modbus giving the customer the ability to measure the emissions level and fuel economy of the boiler without traditional combustion calibration devices.

The BMK6000 can be used as an individual unit or in modular arrangements and offers selectable modes of operation. In addition to controlling the boiler according to a constant set point, indoor/outdoor reset schedule or 4-20mA signal, one or more units can be integrated via Modbus communications protocol to AERCO’s multiple boiler management system (BMS) or a facility-wide Energy Management or Building Automation System.

FEATURES:

- Natural Gas
- 15:1 Turndown Ratio (7%)
- Oxygen Level (O2) Monitoring Standard
- Stainless Steel Fire Tube heat exchanger
- Capable of variable primary flow Installations
- NOx Emissions 20 ppm or less @ all firing rates
- Compact Footprint (79”H x 34”W x 108”D)
- Precise Temperature Control

- Sealed Combustion Capable
- Easy Open Access for Service
- Acceptable vent materials AL29-4C
- Reliable Quiet Operation
- Controls Options
  - Constant Setpoint
  - Indoor/ Outdoor Reset
  - Remote Setpoint
  - 4-20mA signal or ModBus
DIMENSIONS:

RATINGS AND DIMENSIONS:

<table>
<thead>
<tr>
<th>Model</th>
<th>MBH Input</th>
<th>MBH Output</th>
<th>Efficiency 80° to 180°F</th>
<th>Turndown</th>
<th>Width</th>
<th>Depth</th>
<th>Height</th>
<th>Water Volume (gal)</th>
<th>Weight (dry) lbs.</th>
<th>Weight (wet) lbs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMK6000</td>
<td>6000 mbh</td>
<td>5610 mbh</td>
<td>92.5%</td>
<td>15:1</td>
<td>2'10&quot;</td>
<td>9'</td>
<td>6'7&quot;</td>
<td>110</td>
<td>3,000</td>
<td>3,920</td>
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</tbody>
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SPECIFICATIONS:

ASME Working Pressure: 80 PSIG
Electrical Options: 208-230V/3/60 30 AMP, 460/3/60 15 AMP
Gas Requirements:
  - FM / DBB (IRI) Gas Train... 20" W.C. to 2psi @ Full Load
  - Gas Train Options...
  - Water Connections: 6" Victaulic with 150lbs flange option
  - Vent/Air Intake Connections: 14 Inch
  - Communications Protocol: MODbus

Gas Connection: 2" NPT
Min./Max. Water Flow: 75 gpm / 600 gpm
Water Pressure Drop: 4.0 psig @ 570 GPM
Control Range: 50°F to 190°F
Ambient Temperature: 0°F to 130°F
Standard Listings & Approvals: UL, CUL, CSD-1, ASME
Gas Train Options: FM Compliant or Factory Installed DBB (IRI)

*Up to 2000' Altitude
**Output is dependent upon return water temp. and firing rate.

Represented By: