HIGH EFFICIENCY COMMERCIAL BOILERS

POWERT-fin®

CONX-US®
REMOTE CONNECT NOW AVAILABLE

SMART TOUCH™
TOUCHSCREEN LCD DISPLAY NOW AVAILABLE

5 NEW MODELS: 2.5 TO 5.0 MILLION BTU/HR

5:1 TURNDOWN RATIO

OUTDOOR INSTALLATION APPROVED

CASCADE SEQUENCER WITH CASCADE REDUNDANCY

87% THERMAL EFFICIENCY

Lochinvar.com
A Legendary Boiler Has More Than Doubled Its Output

In 1986, Power-Fin® redefined the industry with its space-saving design, ground breaking efficiency and venting flexibility. Now we’re raising the bar again by more than doubling its maximum input capacity from 2 to 5 million BTU/hr. The Power-Fin’s new heat exchanger features an innovative double row of swept fins that delivers 2.5 times the output of the original model. The Power-Fin continues to offer a space-saving footprint and all models will pass through a 36” wide door.*

Enhanced Operating Control

The Power-Fin now offers the industry-best SmartTouch™ 8” LCD full color touchscreen with easy-to-understand info-graphics. It is equipped with CON-X-US® connectivity that lets you remotely monitor and optimize the performance of the entire boiler plant.

Burner Modulation Boosts Efficiency and Lowers Costs

With thermal efficiency of 87%, Power-Fin boilers feature a 5:1 turndown ratio that will precisely match the firing rate to heating load requirements—at any point from 20% to full firing rate. This results in less equipment cycling for greater efficiency and cost savings.

Ready For Outdoor Installation

In warm-weather sites where the mechanical room is overcrowded, the Power-Fin can be easily installed either outdoors or on a rooftop. Its optional hood and screen protector make outdoor installation fast and trouble free.

Venting Solutions

The Power-Fin offers seven venting options for ease of installation and venting flexibility to meet the most challenging installation requirements. The Power-Fin permits air intake and exhaust lengths up to 100 ft, allowing terminations to be horizontal through a sidewall or vertical through a roof. If floor space is limited, the Power-Fin can be installed outdoors with the addition of the outdoor kit.
Peace Of Mind, When It Matters Most

Cascade Redundancy provides peace of mind because it helps ensure that a Power-Fin boiler system will always deliver reliable performance with no downtime. If the lead boiler is turned off for maintenance, Cascade Redundancy automatically shifts the lead role to the second sequenced boiler. Up to eight Power-Fin boilers can be sequenced using a 2-wire daisy-chain connection. Cascade sequencing can be programmed for Lead-Lag or Efficiency Optimized operation.

With Lead-Lag operation, one lead boiler modulates to capacity on demand. As load increases, the system then cascades to additional lag boilers in sequence. The first-on role shifts daily, distributing equal runtimes to each unit. In an Efficiency Optimized system (see illustration left), all boilers fire and modulate simultaneously at the same Btu/hr input rates, maximizing thermal efficiency.

<table>
<thead>
<tr>
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</tr>
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Power-Fin® Boiler Dimensions and Specifications

<table>
<thead>
<tr>
<th>Model Number</th>
<th>Input MBH</th>
<th>AHRI Thermal %</th>
<th>Combustion Efficiency</th>
<th>Gross Output MBH</th>
<th>Net AHRI Rating MBH</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB12500</td>
<td>2,500</td>
<td>87.0%</td>
<td>87.0%</td>
<td>1,175</td>
<td>1,893</td>
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<tr>
<td>PB13000</td>
<td>3,000</td>
<td>87.0%</td>
<td>87.0%</td>
<td>2,610</td>
<td>2,270</td>
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<tr>
<td>PB13500</td>
<td>3,500</td>
<td>87.0%</td>
<td>87.0%</td>
<td>3,055</td>
<td>2,648</td>
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<td>PB14000</td>
<td>4,000</td>
<td>87.0%</td>
<td>87.0%</td>
<td>3,480</td>
<td>3,026</td>
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<tr>
<td>PB15000</td>
<td>5,000</td>
<td>87.0%</td>
<td>87.0%</td>
<td>4,350</td>
<td>3,783</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB12500</td>
<td>59</td>
<td>44/1/2</td>
<td>29-3/4&quot;</td>
<td>49-3/4&quot;</td>
<td>4&quot;</td>
<td>15&quot;</td>
</tr>
<tr>
<td>PB13000</td>
<td>45</td>
<td>44/1/2</td>
<td>29-3/4&quot;</td>
<td>55-3/4&quot;</td>
<td>4&quot;</td>
<td>15&quot;</td>
</tr>
<tr>
<td>PB13500</td>
<td>70-1/4&quot;</td>
<td>47-1/4&quot;</td>
<td>29-3/4&quot;</td>
<td>62-1/2&quot;</td>
<td>8-1/4&quot;</td>
<td>15&quot;</td>
</tr>
<tr>
<td>PB14000</td>
<td>79-3/4&quot;</td>
<td>47-1/4&quot;</td>
<td>29-3/4&quot;</td>
<td>68-3/4&quot;</td>
<td>8-1/4&quot;</td>
<td>15&quot;</td>
</tr>
<tr>
<td>PB15000</td>
<td>93-1/4&quot;</td>
<td>46-3/4&quot;</td>
<td>32-3/4&quot;</td>
<td>82-1/4&quot;</td>
<td>10&quot;</td>
<td>17-3/4&quot;</td>
</tr>
</tbody>
</table>

Note: Change "N" to "L" for LP Gas Model. All Water Connections are 4". The Net AHRI Water Ratings shown are based on an allowance of 1.15. The manufacturer should be consulted before selecting a boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc. The ratings have been determined under the provisions governing forced draft boiler-burner units.

**Power-Fin Boiler**

**Natural Gas, 2,500,000 Btu/hr input, M9 firing controls**

**Model Number Guide**

PB N 2500 M9

**Power-Fin® Boiler Dimensions and Specifications**

**Code & Registrations**

- ANSI Z21.1/CSA Certified
- ASME Certified, "H" Stamp / National Board
- California Code Compliant
- Bay Area Quality Management District Qualified
- CSD1 / Factory Mutual / GE Gap Compliant
- Canadian Certification Number (CRN)
- AHRI Certified

**Firing Codes**

- M9 Standard Construction
- M7 California Code

**Optional Equipment**

- Alarm Bell
- Outdoor Kit
- Low Temperature Valve
- Motorized Mixing Valve
- BMS Gateway to LON or BacNet IP
- BACnet MSTP Communications
- Modbus Communications
- Cupro-Nickel Heat Exchanger
- Wireless Outdoor Sensor
- Low Water Cutoff

**Electrical Options (shipped loose)**

- 480V/3PH/60 Hz (PB 3500-4000)
- 600V/3PH/60 Hz (PB 3500-4000)
- 600V/3PH/60 Hz (PB 5000)

**Power-Fin® Boiler Features**

- CON-X-US Remote Connect
- Full-Color 8” Touchscreen LCD Display
- Built-in Cascading Sequencer for up to 8 Boilers
- > Built-in Redundancy
- > Cascade Multiple Sized Boilers
- > Lead/Lag Cascade
- > Efficiency Optimized Cascade
- > Front-End Loading Capability with CREST Boilers

**Building Management System Integration**

- 0-10 VDC Input
- Outdoor Reset Control
- Password Security
- Domestic Hot Water Prioritization
- DHW tank piped with priority in the boiler loop
- DHW tank piped as a zone in the system with the pumps controlled by the Smart System
- DHW Modulation Limiting
- Low Water Flow Safety Control & Indication
- Outdoor & Outlet Temperature Readout
- Freeze Protection
- Service Reminder
- Time Clock
- Data Logging
- > Hours Running, Space Heating
- > Hours Running, Domestic Hot Water
- > Hours Running, Modulation Rate
- > Ignition Attempts
- > Last 10 Lockouts

**Options & Specifications**

- Programmable System Efficiency Optimizers
  - Night Setback
  - Anti-Cycling
  - Outdoor Air Reset Curve
  - Ramp Delay
  - Boost Temperature & Time
  - Modulation Factor Control

**THREE Pump Control**

- System Pump
- Boiler Pump
- Domestic Hot Water Pump

**High-Voltage Terminal Strip**

- 240V/60 Hertz/1 Phase Power Supply (PB2500-PB3000)
- 208V/60 Hertz/3 Phase Power Supply (PB3500-PB4000)
- 480V/60 Hertz/3 Phase Power Supply (PB4000)
- System Pump, Boiler Pump and Dhw Pump Power

**Low-Voltage Terminal Strip**

- 24 VAC Auxiliary Device Relay
- Auxiliary Proving Switch Contacts
- Alarm on Any Failure Contacts
- Runtime Contacts
- DHW Thermostat Contacts
- Unit Enable/Disable Contacts
- System Sensor Contacts
- DHW Tank Sensor Contacts
- Outdoor Air Sensor Contacts
- Cascade Contacts
- 0-10V DC BMS External Control Contact
- 3 Way Valve Contacts

**Lochinvar High Efficiency Boilers & Water Heaters**

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(Website Update 5/18) PDP-SM-5/18-Printed in U.S.A.