Boiler Industry

Engineered Combustion Solutions for Boilers

www.bloomeng.com
What Bloom offers?

- Combustion System Solutions designed to the latest local codes & requirements
- Low to Ultra Low NOx Burners with fuel flexibility
- Windbox designs available
- Ignition Systems—(with Class 1, 2 or 3 igniters)
- Control Panels with flame safety

Industries Served

- Institutional
- General Industry
- Utility
- Food
- Metals
- Pulp & Paper

What other services does Bloom provide?

- Combustion System Design
- R&D Lab Testing
- Combustion Service
- Combustion Controls
- Training
- CFD Analysis

Ignition Burners and Systems

Save fuel by using Interruptible Ignition Burners!

These are available at 10% of the main burner rating (monitored with a UV Detector) utilizing a constant 30,000 Btu/hr Lance Ignitor. As an example, these natural gas ignition burners have been used in conjunction with stable-operated BFG main burners
Bloom’s proven and reliable product line offers low to ultra low NOx solutions for the Boiler Industry

**Bloom 1530 Series:**
**FLEXNOx Ultra Low NOx Burner**

- Ultra Low NOx
  - <30 ppm (at 3% O$_2$) with little to no FGR
  - <10 ppm (at 3% O$_2$) with FGR
- Low CO levels at low excess air
- Simple compact design with no moving parts
- Low maintenance
- Stable compact flame pattern
- Suitable for New or Retrofit Applications
- Inputs ranging from 2—150 MMBtu/hr (586—43,922 kW)
- Designed to operate with 5% through 15% Excess Air
- 10:1 Turndown with the standard design

**Features**

Bloom also offers the following burners for the Boiler Industry:

- **1030 Series Large Capacity Burner**
- **1500L Series Ultra Low NOx Burner**
- **1020 Series FTR Cold Air Burner**
- **1200 Series FTR Hot Air Burner**

Contact Bloom Engineering to find out more!

www.bloomeng.com
Burners available for Boiler Applications:

<table>
<thead>
<tr>
<th>Burner Series</th>
<th>Air Preheat</th>
<th>Min Capacity (MMBtu/hr)</th>
<th>Max Capacity (MMBtu/hr)</th>
<th>Min Capacity (kW)</th>
<th>Max Capacity (kW)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1020</td>
<td>Cold Air</td>
<td>2</td>
<td>62</td>
<td>580</td>
<td>18,000</td>
</tr>
<tr>
<td>1030</td>
<td>Cold Air</td>
<td>21</td>
<td>450</td>
<td>6,250</td>
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<td>Cold Air</td>
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<td>35</td>
<td>1,000</td>
<td>10,500</td>
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<tr>
<td>1200</td>
<td>Hot Air</td>
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<td>43</td>
<td>350</td>
<td>12,500</td>
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<tr>
<td>1500L (Hot)</td>
<td>Hot Air</td>
<td>3</td>
<td>31</td>
<td>900</td>
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<tr>
<td>1530</td>
<td>Hot Air</td>
<td>2</td>
<td>150</td>
<td>580</td>
<td>44,000</td>
</tr>
</tbody>
</table>

Can be operated with many different fuel types and combination of fuel types including:

- Natural Gas
- #2 through #6 Oil
- LPG
- Coke Oven Gas (COG)
- Blast Furnace Gas (BFG)
- Mixed Gas
- Hydrogen

*NOTE: Please Consult Bloom Engineering regarding the availability of these and other special fuel applications for a specific burner series*

About Bloom

Bloom Engineering has developed a reputation for quality industrial burners and combustion systems. Our professional staff and years of experience have been the cornerstone of our business. Bloom’s products can be used for a variety of applications and can be operated with a wide array of fuels and capacity ranges. The industrial burners operate with Low to Ultra Low NOx emissions. Bloom Engineering prides itself on having in-depth knowledge of the various heating applications in which its equipment is used. Bloom’s customizable product line, extensive installation list, R&D capability, and on-site field service experience, allows Bloom the ability to provide the best possible solution for each unique situation.