John Zink Company pilots and igniters are designed to provide optimum performance and safety. They are specifically engineered to work with John Zink® burners and flares. The stainless steel-tipped pilots are designed for long-term service, offering maximum stability with either natural-draft or pressurized forced-draft burners.

The John Zink Company also provides complete systems with remote light off features for all area classifications.

The Zink® pilots and igniters listed on the following pages are standard assemblies. Custom units can be engineered to meet specific job requirements.

<table>
<thead>
<tr>
<th>FLAME SUPERVISED PILOTS</th>
<th>JRS</th>
<th>Standard flame rectification pilot with high-temperature flame rod and an electric ignition assembly.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capacity:</td>
<td>65,000 Btu/hr @ 5 psig</td>
<td></td>
</tr>
<tr>
<td>Operating Range:</td>
<td>3 – 7 psig</td>
<td></td>
</tr>
<tr>
<td>Mounting:</td>
<td>3-in. diameter, 2-in x 4-in. opening</td>
<td></td>
</tr>
</tbody>
</table>

| JER | Provides direct line of sight flame supervision by using a flame scanner to sight through the fuel pipe. |
| Capacity: | 65,000 Btu/hr @ 5 psig |
| Operating Range: | 3 – 7 psig |
| Mounting: | 3-in. diameter, 2-in x 4-in. opening |

| ST-1SE-FR | Combines high-stability design with flame rectification and electric ignition features. The ST-1SE-FR pilot can be used in most forced-draft applications for process heaters. |
| Capacity: | 90,000 Btu/hr @ 10 psig |
| Operating Range: | 7 – 15 psig |
| Mounting: | 4-in. diameter, 2-1/4-in. x 4-in. opening |

<table>
<thead>
<tr>
<th>PILOT IGNITORS</th>
<th>PEI</th>
<th>The John Zink safety ignitor is a hand-held spark igniter that weights less than 5 lbs. The safety igniter uses 9-V batteries to supply a 15,000-V discharge, capable of lighting most pilots. Available in 4-ft and 6-ft lengths.</th>
</tr>
</thead>
</table>

| MAC IGNITION TORCH | Hand-held propane torch with Piezo ignition feature that allows ignition after the torch is inserted into the burner assembly. Available in 3-ft, 4-ft and 6-ft lengths. |

(Note: Capacity data and pilot design are based on the use of natural gas.)
J-1/2 L, J-3/4 L
Hand-held torch manually lights the pilot or burner. The J-1/2 L is for natural gas only. The J-3/4 L can be designed for either natural gas or propane.
Capacity: J-1/2 L: 35,000 Btu/hr @ 5 psig
J-3/4 L: 60,000 Btu/hr @ 10 psig

J-1 SL
Similar to a J-3/4 L but the J-1 SL uses an “igniter coil” tip.
Capacity: 50,000 Btu/hr @ 10 psig

Manual torch for use with either natural gas or propane includes the ST-1S high-stability gas tip for increased reliability.
Capacity: 50,000 Btu/hr @ 10 psig

ST-15L TORCH
Standard pilot for general application with natural-draft burners.
Capacity: 65,000 Btu/hr @ 5 psig
Operating Range: 3 – 7 psig

ST-15
A high-stability pilot for natural-draft and forced-draft applications.
Capacity: 65,000 Btu/hr @ 10 psig
Operating Range: 7 – 10 psig

Electric ignition pilot with internal ignition rod provides a compact design for replacing original or obsolete pilots. The KE-1ST provides a design for forced-draft applications.
Capacity: 65,000 Btu/hr @ 10 psig
Operating Range: KE-1ST: 7 – 15 psig

ST-15E
Utilizes the ST-15 high-stability pilot for an external ignition rod for remote light off. Can be used in natural-draft and forced-draft applications.
Capacity: 65,000 Btu/hr @ 10 psig
Operating Range: 7 – 10 psig
Mounting: 3 in. diameter, 2 in. x 4 in. opening.

(Note: Capacity data and pilot design are based on the use of natural gas.)
This special ignitor uses compressed air along with natural gas to light main burners in sulfur recovery plants. The retractable design helps reduce corrosion attack.

**Capacity:** 50,000 Btu/hr @ 8 psig

**Operating Range:** 8 – 12 psig

**Mounting:** 3-in. schedule 40 guide tube.

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**AIR GAS IGNITOR**

Utilizes an electric spark to generate a flame front that travels down the ignitor tube to light burners and flare pilots. All electrical components are located upstream of the combustion zone.

**Capacity:** 50,000 Btu/hr @ 8 psig

**Operating Range:** 8 – 12 psig

**Mounting:** 4-in. schedule 40 guide tube.

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**FLAME FRONT GENERATOR (FFG)**

SPECIAL APPLICATIONS

- **YE-1-1/2**
  - High capacity pilot for larger burners in forced-draft applications. Ceramic igniter rod for remote lighting.
  - **Capacity:** 500,000 Btu/hr @ 10 psig
  - **Operating Range:** 10 – 15 psig
  - **Mounting:** 4-in. schedule 40 guide tube.

- **AVC**
  - Zink’s highest capacity pilot is normally used for boiler applications. Ceramic igniter rod for remote lighting. Electric igniter satisfies normal operating procedures.
  - **Capacity:** 3,000,000 Btu/hr @ 10 psig
  - **Mounting:** 4-in. schedule 40 guide tube.

- **AIR GAS IGNITOR**
  - This special ignitor uses compressed air along with natural gas to light main burners in sulfur recovery plants. The retractable design helps reduce corrosion attack.
  - **Capacity:** 50,000 Btu/hr @ 8 psig
  - **Operating Range:** 8 – 12 psig
  - **Mounting:** 3-in. schedule 40 guide tube.

- **YE-2”**
  - High capacity pilot for larger burners in forced-draft applications. Ceramic igniter rod for remote lighting.
  - **Capacity:** 1,000,000 Btu/hr @ 12 psig
  - **Operating Range:** 12 – 15 psig
  - **Mounting:** 4-in. schedule 40 guide tube.

- **AVC**
  - Zink’s highest capacity pilot is normally used for boiler applications. Ceramic igniter rod for remote lighting. Electric igniter satisfies normal operating procedures.
  - **Capacity:** 3,000,000 Btu/hr @ 10 psig
  - **Mounting:** 4-in. schedule 40 guide tube.

- **AIR GAS IGNITOR**
  - This special ignitor uses compressed air along with natural gas to light main burners in sulfur recovery plants. The retractable design helps reduce corrosion attack.
  - **Capacity:** 50,000 Btu/hr @ 8 psig
  - **Operating Range:** 8 – 12 psig
  - **Mounting:** 3-in. schedule 40 guide tube.

- **YE-1-1/2**
  - High capacity pilot for larger burners in forced-draft applications. Ceramic igniter rod for remote lighting.
  - **Capacity:** 500,000 Btu/hr @ 10 psig
  - **Operating Range:** 10 – 15 psig
  - **Mounting:** 4-in. schedule 40 guide tube.

- **AVC**
  - Zink’s highest capacity pilot is normally used for boiler applications. Ceramic igniter rod for remote lighting. Electric igniter satisfies normal operating procedures.
  - **Capacity:** 3,000,000 Btu/hr @ 10 psig
  - **Mounting:** 4-in. schedule 40 guide tube.

- **AIR GAS IGNITOR**
  - This special ignitor uses compressed air along with natural gas to light main burners in sulfur recovery plants. The retractable design helps reduce corrosion attack.
  - **Capacity:** 50,000 Btu/hr @ 8 psig
  - **Operating Range:** 8 – 12 psig
  - **Mounting:** 3-in. schedule 40 guide tube.

- **YE-2”**
  - High capacity pilot for larger burners in forced-draft applications. Ceramic igniter rod for remote lighting.
  - **Capacity:** 1,000,000 Btu/hr @ 12 psig
  - **Operating Range:** 12 – 15 psig
  - **Mounting:** 4-in. schedule 40 guide tube.

- **AVC**
  - Zink’s highest capacity pilot is normally used for boiler applications. Ceramic igniter rod for remote lighting. Electric igniter satisfies normal operating procedures.
  - **Capacity:** 3,000,000 Btu/hr @ 10 psig
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  - Zink’s highest capacity pilot is normally used for boiler applications. Ceramic igniter rod for remote lighting. Electric igniter satisfies normal operating procedures.
  - **Capacity:** 3,000,000 Btu/hr @ 10 psig
  - **Mounting:** 4-in. schedule 40 guide tube.
Combining practical problem solving with innovative discovery is business as usual at John Zink and a culture we’ve embraced for more than 70 years.

Today, Zink continues to play a vital role in developing technologically superior equipment and systems for the clean and efficient combustion of fossil fuels and the removal of contaminants that might otherwise enter the atmosphere.

The John Zink Company further expands its depth of technical knowledge and experiences as part of Koch Industries, Inc., headquartered in Wichita, Kansas.