

A standard valve rack with control panel is factory wired and tested to reduce installation time and cost. This valve rack can be conveniently located anywhere near the burner front.

B&W will design an FPS igniter system to meet your needs for start-up reliability, discriminative flame detection and lower opacity. A typical FPS oil igniter system in a coal-fired boiler is illustrated above with in-line valving.

## MECHANICAL DESIGN FEATURES

### 1. Oil Atomizer Assembly

SST construction, produces a finer spray, reduces particulate and opacity emissions, minimizes atomizer plugging

### 2. PAI Spark Probe

High temperature extension with removable spark plug

### 3. Flame Detection Rod

Integral flame detection for igniter; high temperature extension with removable flame rod

### 4. Stationary Guide Tube

Stationary guide tube with stainless steel end mounts easily into the burner

### 5. Eddy Plate

Provides proper mixing of the combustion air and fuel for reliable ignition and flame stability

### 6. Seal/Aspirating Air Connection (pressure-fired units only)

Seal air chamber allows removal of the spark and flame rods and the oil atomizer

### 7. Combustion/Cooling Air Inlet

Supplies combustion/cooling air to the igniter

### 8. Spark and Flame Rod Connections

Flexible conduit connections allow removal of the flame and spark rods without electrical disconnects

### 9. Oil and Air Connections

Positive shut-off quick disconnects allow easy maintenance, while 1/4 in. oil and 3/8 in. air connections prevent accidental switching

## B&W's system approach increases reliability, reduces opacity and maintenance

- Flexible application of PLC logic to meet your burner management system requirements
- Comprehensive analysis for customized control to meet your individual design and operational requirements
- Increased reliability
- Improved mixing of fuel and air to reduce opacity
- Elimination of moving parts allowing a near maintenance-free igniter
- Integral flame rod detector which senses only the igniter in any burner/boiler configuration

### Control Features

- Programmable logic control (PLC) based
- Pre-wired, factory tested
- Pre-assembled valve rack – allows simple pipe-in / pipe-out design
- A151 B31.1 power piping code
- Fail-safe closed valving
- Power requirement: 115 VAC, 50/60 Hz, 10 amps
- Factory Mutual approved with Sunspot flame detector
- Remote or local operation
- NEMA 4 control cabinet

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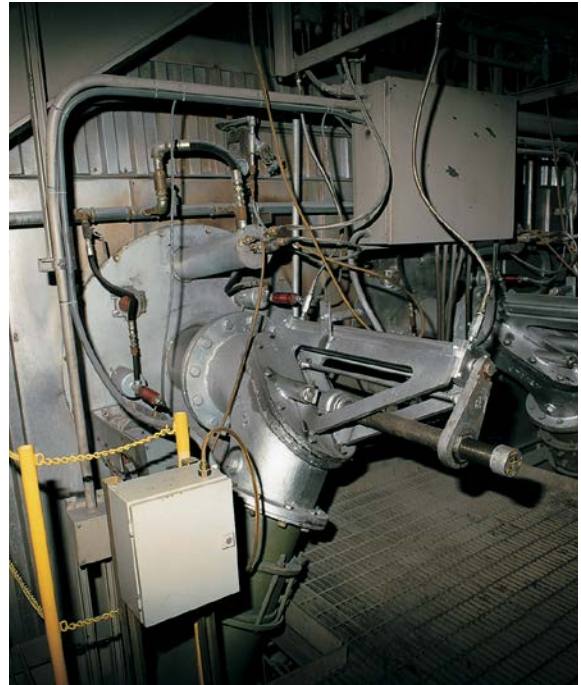
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## Other B&W/FPS igniter and equipment solutions

- Gas-only igniter
- Dual fuel oil and gas igniter
- Replacement for corner-fired horn igniters
- Flame scanners
- Boiler/burner control systems



For more specific information on our igniter systems, please contact us at:

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