PLN™ Ultra-Low NOx Package Burner

Lower Emissions and Advanced Technology.

Zeeco’s PLN Ultra-Low NOx Package Burner utilizes surface stabilized combustion to achieve low NOx emissions without the use of Flue Gas Recirculation (FGR). The burner is ideal for generating heat and steam in commercial, institutional, and light industrial applications. The PLN burner delivers dramatically lower emissions and engineering technology that can only come from the global authority in combustion and environmental solutions—Zeeco.

Burner Features and Benefits

- Compact and versatile design for easy installation
- Safe, reliable, easy to set up, simple to maintain
- NOx reduction using Surface Stabilized Combustion
  - 30 ppm (58mg) NOx with 45% excess air levels, No FGR
  - 9 ppm (17mg) NOx with 60% excess air levels, No FGR
- Fires natural gas and propane gas
- High turndown
- Quiet operation with typical noise levels below 85dBA
- Complete integrated system with automatic flame monitoring and shut-off, control panel, fuel control, and combustion air fan

Standard Equipment

- Blower/Motor
- Burner Management System (BMS) Siemens LMV3/LMV51, or AutoFlame Mini Mark 8
- NEMA 1 Integrated Control Panel with Power On switch and indicator lights for power, pilot, main flame, and flame failure
- Parallel Positioning System with air and fuel actuators
- Air and fuel control (BV) valves with servo motors
- Combustion Air Proving Switch
- Air Filter Proving Switch
- Ignition Transformer with pilot assembly
- Hinged Blast Tube
- Air Inlet Filters
- Pilot Train - includes regulator, solenoid valve, and manual valve
- Main Fuel Train - includes ventless regulator, ventless dual block main gas shutoff valves, high and low pressure switches, two manual gas valves

Optional Equipment

- All UL listed Burner Management Systems
- O2 Trim
- Variable Frequency Drive (VFD)
- Remote Control Panels

Burner Selection

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<tr>
<th>Burner Model</th>
<th>Frame Size</th>
<th>Burner Size MMBTU</th>
<th>Turndown Gas</th>
<th>BMS System Standard</th>
<th>Scanner UV IR</th>
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Burner Model Naming Convention

- NOx emissions level: (9 ppm)
- Input rate: (2.5MMBTU)
- Fuel: G=Gas, P=LP, D=Digester gas,
  2=#2 oil, 6=#6 oil, X=no oil
- Burner name: PLN
**PLN™ Ultra-Low NOx Package Burner**

Burner model: PLN

Heat release range: 2.5 MMBtu/hr to 63 MMBtu/hr (0.73 MW to 18.5 MW)

Fuel Gas: Natural Gas, LPG, or other upon request

Turndown: up to 10:1

Excess air range: 35% to 60%

Expected emissions levels:
- 40ppm (77mg) NOx at 40% excess air
- 30ppm (58mg) NOx at 45% excess air
- 15ppm (29mg) NOx at 50% excess air
- 9ppm (17mg) NOx at 60% excess air

Mounting options: Horizontal, Vertical, Up, or Down Firing
Lower Emissions and Advanced Technology.

Zeeco's PLN-Mini Ultra-Low NOx Package Burner utilizes surface stabilized combustion to achieve low-NOx emissions without the use of Flue Gas Recirculation (FGR). The burner is ideal for firetube boilers, cast iron boilers, condensing boilers, and for generating heat and steam in commercial, institutional, and light industrial applications. The PLN-Mini burner delivers dramatically lower emissions and engineering technology that can only come from the global authority in combustion and environmental solutions—Zeeco.

Burner Features and Benefits

- Compact and versatile design for easy installation
- Safe, reliable, easy to set up, simple to maintain
- NOx reduction using Surface Stabilized Combustion
  - 30 ppm (58mg) NOx with 45% excess air levels, No FGR
  - 9 ppm (17mg) NOx with 60% excess air levels, No FGR
- Fires natural gas and propane gas
- Quiet operation with typical noise levels below 85dBA
- Complete integrated system with automatic flame monitoring and shut-off, control panel, fuel control and combustion air fan
- Integrated PWM signal input for full speed air modulation

Standard Equipment

- Blower/Motor
- Burner Management System (BMS) Siemens LMV3 or AutoFlame Mini Mark 8
- NEMA 1 Integrated Control Panel with Power On switch and indicator lights for power, pilot, main flame, and flame failure
- Parallel Positioning System with fuel actuators
- Fuel control (BV) valves with servo motors
- Air control via PWM signal
- Combustion Air Proving Switch
- Air Filter Proving Switch
- Ignition Transformer with direct spark ignition assembly
- Hinged Blast Tube
- Air Inlet Filters
- Main Fuel Train - includes ventless regulator, ventless dual block main gas shutoff valves, high and low pressure switches, two manual gas valves

Burner Model Naming Convention

PLNM-GX-025-9

- NOx emissions level: (9 ppm)
- Input rate: (2.5MMBTU)
- Fuel: G=Gas, P=LP, D=Digester gas, 2=#2 oil, 6=#6 oil, X=no oil
- Burner name: PLN-Mini (abbreviated)

Burner Selection

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Burner model: PLN-Mini
Heat release range: 0.5 MMBtu/hr to 2.2 MMBtu/hr (0.73 MW to 18.5 MW)
Fuel Gas: Natural Gas, LPG, or other upon request
Turndown: up to 6:1
Excess air range: 35% to 60%
Expected emissions levels:
- 40ppm (77mg) NOx at 40% excess air
- 30ppm (58mg) NOx at 45% excess air
- 15ppm (29mg) NOx at 50% excess air
- 9ppm (17mg) NOx at 60% excess air
Mounting options: Horizontal, Vertical, Up, or Down Firing