

# 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

#### **Burner Selection**

✓ Standard o Optional

Burner Model	Frame Size	Burner Size MMBTU	Turndown Gas	BMS System Standard	Scanner UV IR	
PLN-GX-025-9 PLN-GX-030-9 PLN-GX-042-9	1	2.5 3.0 4.2	4-1	LMV3	1	0
PLN-GX-053-9 PLN-GX-063-9 PLN-GX-084-9	2	5.3 6.3 8.4	4-1	LMV3	1	0
PLN-GX-105-9 PLN-GX-126-9 PLN-GX-147-9 PLN-GX-168-9	3	10.5 12.6 14.7 16.8	8-1	LMV51	1	0
PLN-GX-210-9 PLN-GX-252-9 PLN-GX-294-9	4	21.0 25.2 29.4	10-1	LMV51	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0
PLN-GX-336-9 PLN-GX-378-9 PLN-GX-420-9	5	33.6 37.8 42.0	10-1	LMV51	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	0
PLN-GX-504-9 PLN-GX-546-9 PLN-GX-630-9	6	50.4 54.6 63.0	10-1	LMV51	1	0

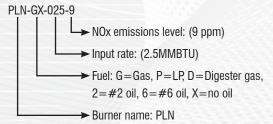
## **Standard Equipment**

- 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
- 02 Trim
- Variable Frequency Drive (VFD)
- Remote Control Panels

**Burner Model Naming Convention** 













**BURNERS** 

**FLARES** 

**INCINERATORS** 

# **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



#### **Burner Selection**

The second secon		Burner Siz	е	Boiler		Blower	Furnace		Standard	Required	
	Frame	MMBTU	MW/h	HP	ton/h	Motor	Pressure		Gas Train	Min Gas	
	Size	HHV	LHV	80% Eff.	90% Eff.	HP	[inch W.C.]	[mBar]	Size	Pres. [PSI]	Pres. [mBar]
PLN-GX-025-9	1	2.5	0.65	60	0.95	2	4	10	1.5	0.5	34
PLN-GX-030-9		3.0	0.78	71	1.14	3	4	10	2	0.5	34
PLN-GX-042-9		4.2	1.10	100	1.60	5	4	10	2	0.5	34
PLN-GX-053-9	2	5.3	1.37	125	2.00	5	6	15	2	0.8	52
PLN-GX-063-9		6.3	1.64	150	2.39	7.5	6	15	2	1.0	69
PLN-GX-084-9		8.4	2.19	200	3.19	7.5	6	15	2	1.0	69
PLN-GX-105-9		10.5	2.74	250	3.99	10	8	20	2.5	1.0	69
PLN-GX-126-9	3	12.6	3.29	300	4.79	15	8	20	2.5	1.0	69
PLN-GX-147-9	0	14.7	3.84	350	5.59	20	8	20	2.5	1.5	103
PLN-GX-168-9		16.8	4.38	400	6.38	25	8	20	2.5	1.5	103
PLN-GX-210-9		21.0	5.48	500	7.98	30	8	20	3	2.0	138
PLN-GX-252-9	4	25.2	6.58	600	9.58	40	8	20	3	2.0	138
PLN-GX-294-9		29.4	7.67	700	11.17	50	8	20	3	2.0	138
PLN-GX-336-9		33.6	8.77	800	12.77	60	10	25	3	2.5	172
PLN-GX-378-9	5	37.8	9.87	900	14.36	60	10	25	4	2.5	172
PLN-GX-420-9	3.65.	42.0	10.96	1000	15.96	75	10	25	4	2.5	172
PLN-GX-504-9		50.4	13.15	1200	19.15	75	10	25	4	3.0	207
PLN-GX-546-9	6	54.6	14.25	1300	20.75	100	10	25	4	4.0	276
PLN-GX-630-9		63.0	16.44	1500	23.94	100	10	25	4	4.0	276

ZEECO® combustion and environmental solutions are designed and manufactured to comply with applicable local and international standards as defined by our customers.



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