

## TYPE NOVA PREMIX

**GAS SUB 30PPM:  
400,000 – 2,200,000 BTU/HR**

**Power Flame's  
Premixed, Non FGR Low  
NOx Combustion Burner  
The Power of Choice**

**Totally Enclosed Control Cabinet**  
Protection with easy access to burner  
operating controls

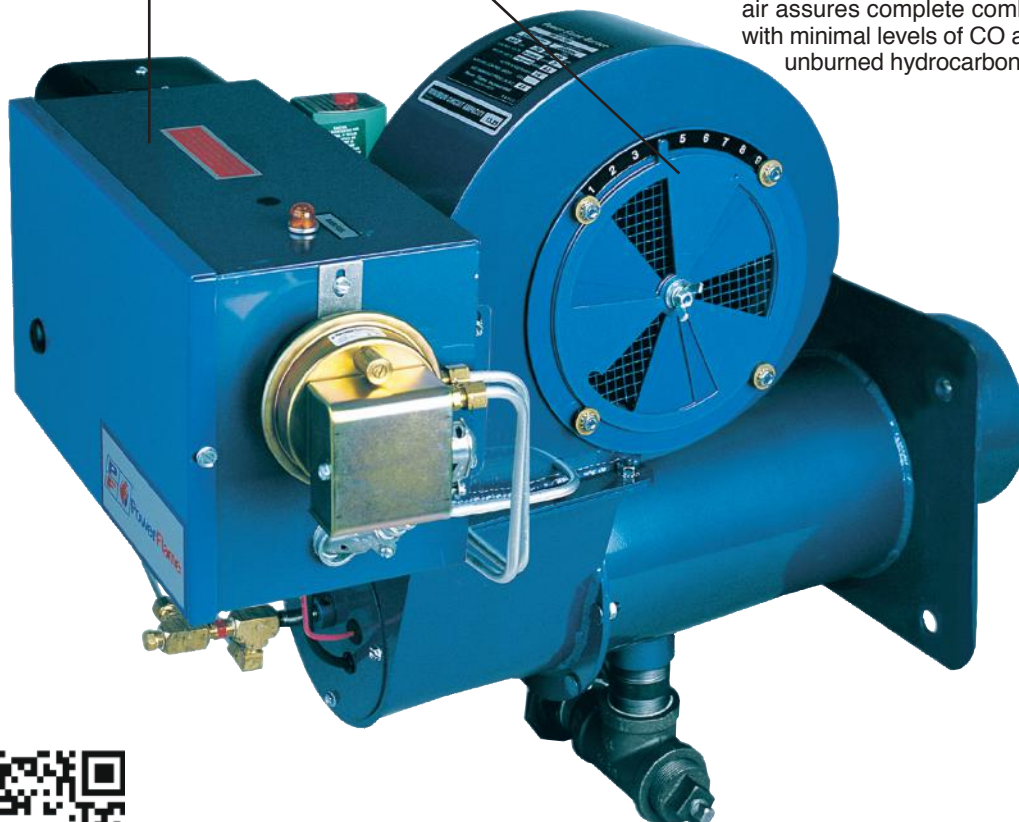
**Multi-Louvered  
Combustion Air  
Damper Assembly**  
Accurate control of fuel-air  
ratios with repeatable  
results

The Power Flame NOVA Premix™ employs a fully premixed, high swirl stabilized combustion technology to provide proven low NOx solutions - Sub 30 PPM - without the use of FGR for commercial, industrial and process applications. Sub 20 PPM operation, at slightly higher excess air levels, can be achieved on many applications. Premixing fuel and air assures complete combustion with minimal levels of CO and unburned hydrocarbons. The

unique stainless steel high swirl diffuser guarantees reliable and consistent performance at the operating conditions necessary to provide low NOx emissions. The NOVA Premix is a simple, cost effective, field proven system designed to meet today's most stringent emissions requirements.

Power Flame provides a U.L. listed, factory tested package tailored to your job specific requirements. The NOVA Premix is suitable for use on all types of boiler and other heat exchanger applications. It will operate with uniform heat flux and excellent flame stability over a broad range of operating conditions.

The modular concept that is the basis for all Power Flame burners keeps the initial investment low and maintenance costs at a minimum across the life of the burner. The NOVA Premix is fitted with a state-of-the-art control system and integral panel. All Power Flame packaged burners are factory fire-tested to ensure cost effective installations and start-ups.



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**POWER FLAME INCORPORATED**  
2001 S. 21<sup>ST</sup> ST. PARSONS, KS 67357  
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Stainless steel diffuser provides high swirl, stabilized combustion for excellent flame stability at low Nox operating conditions

## STANDARD EQUIPMENT

- 3450 RPM Motor, squirrel cage blower, cabinet with main fuel light and control switch
- Leakage test, pilot and main gas cocks
- Gas electric pilot and gas ignition transformer
- Pilot and main gas pressure regulators (14 in. W.C. inlet max)
- Flame safeguard with flame rod, intermittent pilot and prepurge
- Air safety switch
- Resettable thermal protection
- Low gas pressure switch and indicating light

## ADDED FEATURES

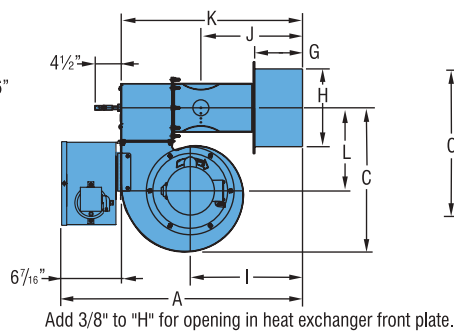
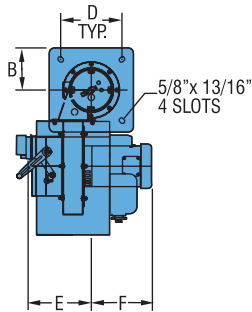
X-Standard O-Optional

24 Volt Flame Safeguard	X	NA	NA	NA
On-Off diaphragm gas valve with separate gas pressure regulator	NA	O	O	NA
Low-Hi-Off or Low-Hi-Low with automatic air control	NA	O	O	X
Modulation with automatic air control	NA	O	O	O
Single valve body with dual shutoff and regulator	X	NA	NA	NA
Dual gas safety valves: one (1) combination diaphragm valve (A) with pressure regulator and one (1) auxiliary valve	NA	X	NA	NA
Customized control systems and accessories	NA	O	O	O

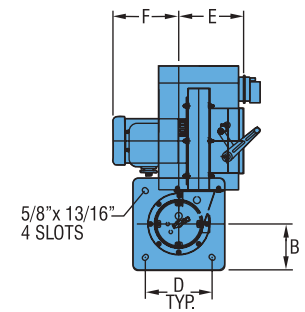
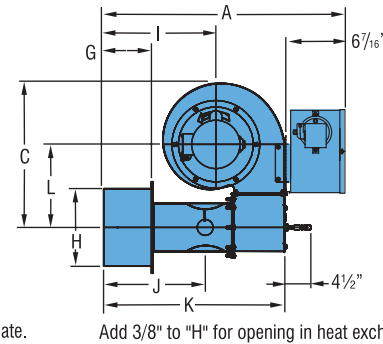
	NPM 15-10-24	NPM 15-10-120	NPM 30-12-120	NPM 50-15-120
	X	NA	NA	NA
	NA	O	O	NA
	NA	O	O	X
	NA	O	O	O
	X	NA	NA	NA
	NA	X	NA	NA
	NA	O	O	O

(A) May be replaced by one (1) proof of closure valve and a separate pressure regulator.  
 ■ Conforms to UL795

## MODEL NPM



## MODEL NPMR (For low centerline applications)



## DIMENSIONS (Inches) Standard Models.

## RATINGS & SPECIFICATIONS

Burner Model	A	B	C	D	E	F	G	H	I	J	K	L	CAPACITY <sup>1</sup>		Blower Motor H.P. (3450 RPM)	Gas Pressure Required (In. W.C.) <sup>2</sup>
													Natural Gas MaxMBH <sup>1</sup>	Nominal Boiler H.P. Max.		
NPM15-10-24	28 <sup>1</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	6	6	15	12 <sup>5</sup> / <sub>8</sub>	21 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>8</sub>	850	20.2	1/4	6.8
NPM15-10-120	28 <sup>1</sup> / <sub>8</sub>	4 <sup>5</sup> / <sub>8</sub>	14 <sup>1</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	6	6	15	12 <sup>3</sup> / <sub>4</sub>	8 <sup>3</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>8</sub>	850	20.2	1/4	6.7
NPM30A-12-120	28 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	16 <sup>7</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	6	8	13 <sup>3</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>	21 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	1,100	26.0	1/3	7.3
NPM30-12-120	28 <sup>1</sup> / <sub>4</sub>	4 <sup>5</sup> / <sub>8</sub>	16 <sup>7</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	6	8	13 <sup>5</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>	21 <sup>7</sup> / <sub>8</sub>	9 <sup>3</sup> / <sub>4</sub>	1,260	30.0	1/2	8.2
NPM50-15-120	29 <sup>1</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	18 <sup>1</sup> / <sub>8</sub>	8 <sup>3</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	13 <sup>7</sup> / <sub>8</sub>	6	10	14 <sup>1</sup> / <sub>8</sub>	12 <sup>3</sup> / <sub>4</sub>	22 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>2</sub>	2,200	52.4	1	11.6

NOTES: 1. Capacities listed are based on 0.20" W.C. positive pressure. and 30PPM NOx. Derate capacities approximately 5% for each +0.50" W.C. combustion chamber pressure.  
 2. At inlet to main manual shutoff cock to obtain P/F certified ratings with standard U.L. gas train. Optional gas trains available for lower pressures.

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