



Free Jet® Ultra-Low NOx Package Burner

Lower Emissions and Advanced Technology.

Zeeco's Free Jet Ultra-Low NOx Package Burner takes combustion innovation to the next level with big performance in a compact package. Ideal for generating heat and steam in commercial, institutional, and light industrial applications, the Free Jet burner delivers dramatically lower emissions and the engineering technology that can only come from the global authority in combustion and environmental solutions—Zeeco.

Burner Features and Benefits

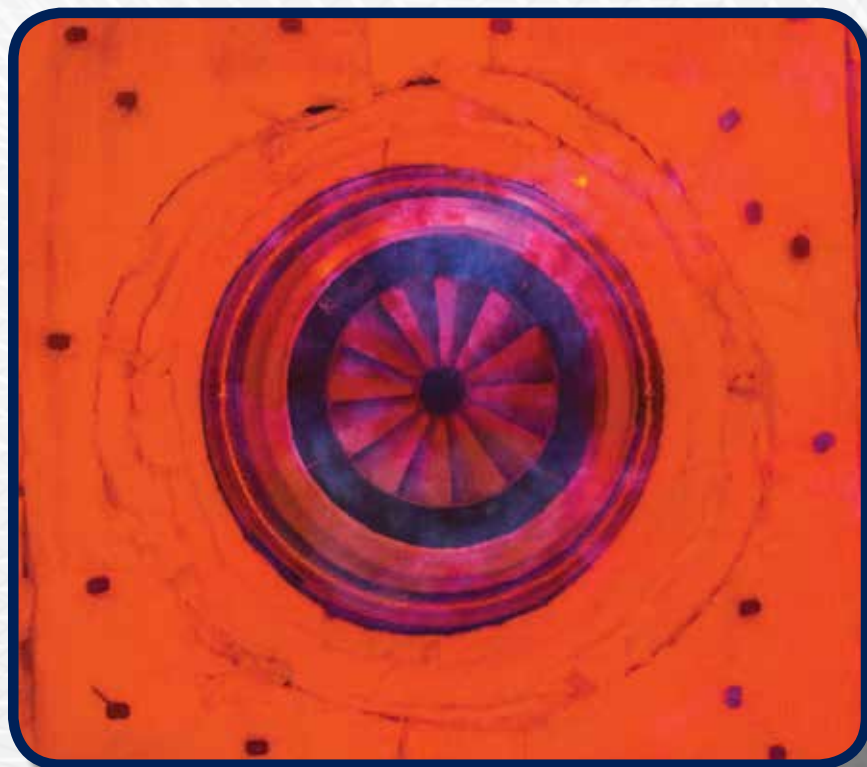
- Compact and versatile design for easy installation
- Safe, reliable, easy to set up, simple to maintain
- Patented NOx emission reduction technology
 - 30ppm (58mg) NOx without FGR
 - 9ppm (17mg) NOx with FGR
- Fires natural gas, LP gas, and oil
- Efficient performance with excess air range from 10% to 20%
- High turndown, quiet operation
- Complete integrated system with automatic flame monitoring and shut-off, control panel, and combustion air fan

Standard Equipment

- Blower/Motor
- Combustion Air Proving Switch
- Ignition Transformer with pilot assembly
- Blower Inlet Silencer

Optional Equipment

- All UL listed Burner Management Systems
- O2 Trim
- Variable Frequency Drive (VFD)
- Remote control panels
- Air Compressor for air atomized oil
- 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
- Burner Management System (BMS) Siemens LMV51 or Autoflame Mini Mark 8
- NEMA 1 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





BURNERS



FLARES



INCINERATORS



PARTS & SERVICE

Free Jet® Ultra-Low NOx Package Burner

Burner model: Free Jet

Heat release range: 4.2 MMBtu/hr to 29.4 MMBtu/hr (1.2 MW to 8.6 MW)

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

Fuel Liquid: #2 to #6 oil

Turndown: 10:1 on gas, 8:1 on oil

Excess air range: 10% to 20%

30ppm (58mg) NOx reduction method: staged gas (no FGR)

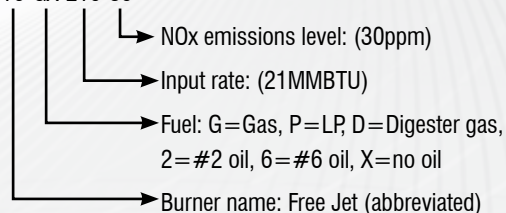
9ppm (17mg) NOx reduction method: staged gas with FGR

Blower mounting options: above or floor mounted

Burner mounting options: Horizontal, Vertical, Up, or Down Firing

Burner Model Naming Convention

FJ-GX-210-30



Burner Selection

| Burner Model | Frame Size | Burner Size | | Boiler | | Blower Motor HP | Furnace Pressure [inch W.C.] | Furnace Pressure [mBar] | Required Min Gas Pres. [PSI] | Required Min Gas Pres. [mBar] |
|--------------|------------|-------------|----------|-------------|----------------|-----------------|------------------------------|-------------------------|------------------------------|-------------------------------|
| | | MMBTU HHV | MW/h LHV | HP 80% Eff. | ton/h 90% Eff. | | | | | |
| FJ-GX-042-30 | 1 | 4.2 | 1.10 | 100 | 1.60 | 2 | 1 | 2 | 2.00 | 138 |
| FJ-GX-053-30 | | 5.3 | 1.38 | 126 | 2.01 | 2 | 1 | 2 | 2.00 | 138 |
| FJ-GX-063-30 | | 6.3 | 1.64 | 150 | 2.39 | 2 | 1 | 2 | 2.00 | 138 |
| FJ-GX-084-30 | | 8.4 | 2.19 | 200 | 3.19 | 5 | 1 | 2 | 2.00 | 138 |
| FJ-GX-105-30 | 2 | 10.5 | 2.74 | 250 | 3.99 | 3 | 1 | 2 | 2.00 | 138 |
| FJ-GX-126-30 | | 12.6 | 3.29 | 300 | 4.79 | 5 | 1 | 2 | 2.00 | 138 |
| FJ-GX-147-30 | | 14.7 | 3.84 | 350 | 5.59 | 5 | 1 | 2 | 2.00 | 138 |
| FJ-GX-168-30 | | 16.8 | 4.38 | 400 | 6.38 | 7.5 | 1 | 2 | 2.00 | 138 |
| FJ-GX-210-30 | 3 | 21.0 | 5.48 | 500 | 7.98 | 10 | 1 | 2 | 2.00 | 138 |
| FJ-GX-252-30 | | 25.2 | 6.58 | 600 | 9.58 | 15 | 1 | 2 | 2.00 | 138 |
| FJ-GX-294-30 | | 29.4 | 7.67 | 700 | 11.17 | 15 | 1 | 2 | 2.00 | 138 |

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



REGISTERED ISO 9001: 2008

CERTIFICATION APPLIES TO ZEECO HEADQUARTERS ONLY.

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