



# FREE-JET NEXT GENERATION ULTRA LOW NO<sub>x</sub> BURNER

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**GLSF Series**



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## **Description**

The ZEECO® GLSF Free-Jet burner is a Next Generation Ultra-Low Emissions Round Flame Burner.

## **Technology**

The above pictures show GLSF Free-Jet round flame burner in operation. The design uses the free-jet method of mixing the fuel gas ejected from the gas tips with the surrounding inert products of combustion which dramatically lowers thermal NO<sub>x</sub> production. In addition to superior NO<sub>x</sub> reduction performance, the design offers a great turndown, typically 10:1 or more and each tip only has one large firing port.

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BURNERS



FLARES



INCINERATORS



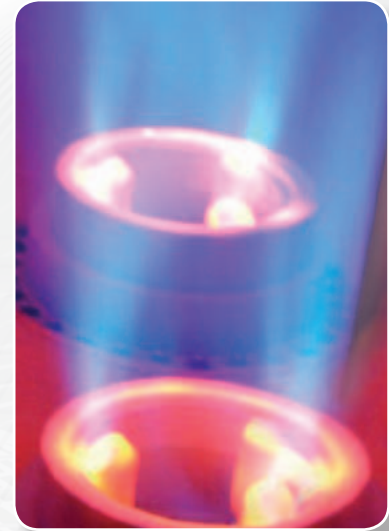
PARTS & SERVICE

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# Free-Jet Next Gen Ultra Low NO<sub>x</sub> Burner

## Design Features

- Stable flame over a wide range of conditions
- High turndown of 10:1 or greater for most cases
- No stabilization metal used in the burner throat
- Tips have only a single firing port and do not require a small ignition port
- Low maintenance cost since tip mass is small and exposed into firebox less than 1" (25 mm)
- Low maintenance cost since the tips do not have small ignition ports which are prone to plug
- Compact design makes this burner a great choice for retrofit applications
- Low probability of flame interaction since the burners are smaller and gas is not swirled
- Superior heat flux profile
- Great value
- Combustion air is controlled by gear driven dampers for precise control
- Bearings are used for the combustion air dampers for smooth, precise operation
- Configurations available: plenum mounted or individual wind-box
- 304 stainless steel fuel gas risers
- 310 stainless steel (type HK) gas tips



## Design Information

Burner Model: ..... GLSF Free-Jet Burner

Fuels: ..... Gas Only

Description: ..... Round Flame Next Generation Ultra-Low Emissions

NO<sub>x</sub> Reduction Method: ..... Internal Flue Gas Recirculation by Free-Jet Mixing

Predicted NO<sub>x</sub> Emissions Range (Natural Draft): ..... 6 ppmv to 20 ppmv

Predicted NO<sub>x</sub> Emissions Range (600° F Air Preheat): ..... 10 ppmv to 25 ppmv

Combustion Air Induction: ..... Natural, Forced, Induced & Balanced Draft

Mounting Options: ..... Up-fired and Side-fired

Natural Draft Heat Release Range: ..... 1 MM to 20 MM Btu/hr [0.293 to 5.86 MW]

Forced Draft Heat Release Range: ..... 1 MM to 50 MM Btu/hr [0.293 to 14.65 MW]

Turndown: ..... 10:1

Typical Excess Air Range: ..... 10% to 25%

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