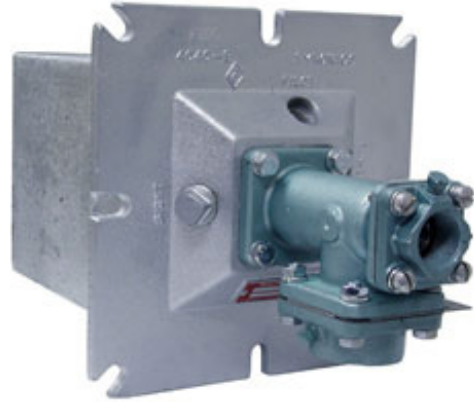


Capacity Range:
200,000 to 6,000,000 BTU/hr



XNM Excess Air Burner

Nozzle mixing types designed for 800% excess air for single tunnel cool flame applications.

How It Works

The Selas XNM Series Excess Air Burners for single tunnel cool flame application are nozzle mixing types designed for 800% excess air. A unique design and stepped tunnel burner blocks produce excellent flame stability at all firing rates. New air-gas mixing principles produce very high excess air combustion without appreciable fumes at lower equipment costs. All sizes develop maximum ratings

with 6 oz. air pressure and 2.5 oz. gas pressure at the burners. All XNM burners have inconel flame distributors and high temperature refractory blocks. Gas adjustor and flanged connections are standard. Pipe unions are not normally required. The integral mounting flange is designed for sealed firing in positive, neutral, or negative combustion chambers.

Applications:

- Annealing Furnaces
- Air Heaters
- Heat Treat Furnaces
- Spheroidizing Units
- Metal Melters
- Incinerators
- Stress Relieving Furnaces
- Brick Kilns
- Plate Heating



Diverse Combustion Technologies. One Reliable Source.

Operating Principles

High speed heat transfer will occur in convection systems with maximum turbulence and scrubbing action of the hot gases against the work pieces. High discharge velocities from burners increase furnace hot gas circulation and promote rapid heat transfer. Shorter firing cycles and lower fuel consumption result from better temperature uniformity requiring less soak time.

Excess air systems use a constant air flow and “on-ratio” combustion at high fire. Only the gas flow is reduced for fuel input turndown. The total volume of hot gases and velocity remains nearly constant at all firing rates. Furnace pressures, turbulence, and heat transfer rates are uniform. Excess Air Burners are variable temperature air heaters. At high fire flame temperatures may be 2500°F or higher. As fuel only is decreased, exit gas temperatures drop to as low as 600°F with 800% excess air. This wide range of constant volume, precisely controlled temperatures is used in dual purpose furnaces for annealing or stress relieving at high temperature as well as drawing or tempering at lower temperature.

Features	Benefits
500% – 800% excess air	Low air and gas pressures required
Preheated air up to 750°F	Intermediate flame length
Excellent flame stability	With excess air, excess gas, on ratio firing
Unique stepped tunnel design	Instant lighting at all firing ranges
High discharge velocities	Rugged, heavy-duty industrial construction



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