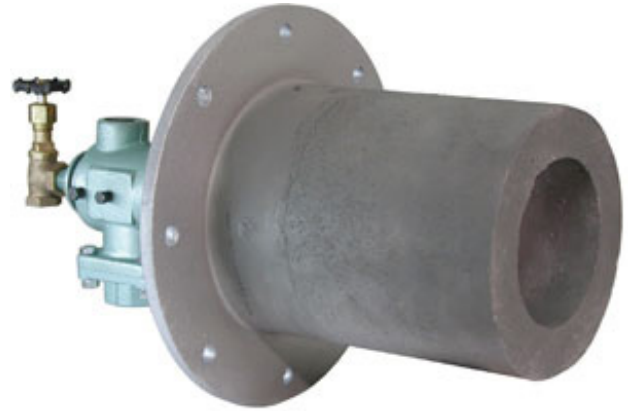


Capacity Range:
1,200°F to 2,500°F



XDF Burners-Dual Fuel Excess Air Burners

Nozzle mixing oil or gas units designed for up to 350% excess air or on ratio firing.

How It Works

Selas Cool Flame series XDF dual fuel excess air burners are nozzle mixing oil or gas units designed for up to 350% excess air or on ratio firing. A unique stepped tunnel design produces excellent flame stability at all firing rates.

All sizes are designed for turndown of ten to one on ratio with 16 oz.

combustion air pressure. Pressure balancing of gas zero governor and oil-air ratio regulators provides constant fuel to air mixes for on ratio firing over the turndown range. The burner is designed for sealed firing in positive, neutral or negative pressure combustion chambers.

Applications:

- Annealing furnaces
- Sintering furnaces
- Tundish preheaters
- Rotary forge furnaces
- Non-ferrous melting furnaces
- Kilns



Diverse Combustion Technologies. One Reliable Source.

Operating Principles

Excess air operation: High speed heat transfer occur in convection systems with maximum turbulence and scrubbing action of the hot gases against the work pieces. High discharge velocities from the 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.

“On ratio” firing systems can produce the required velocities on high fire but drop to 10% to 15% of this velocity on low fire. They use constant air flow and “on-ratio” combustion at high fire. Only the fuel flow is varied for heat 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 1200°F with 350% excess air.

Features	Benefits
Burns all fuel gases or light oils	Delivers wide application flexibility
Nozzle mix design	Allows on ratio control or excess air
Excellent flame stability with either fuel	Reliably consistent, predictable performance
Turndown 10:1 on ratio with single air valve control	Excellent thermal modulation potential
Simplified construction	No moving parts



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