

Capacity Range:
250,000 to 2,500,000 BTU/hr



Selas DNS Series

Features a unique cup-like design that allows combustion air and fuel gas to quickly and thoroughly mix at the nozzle.

How It Works

Selas DNS Duradiant burners differ in operation and performance from conventional open-flame burners. The cup-like design and the manner in which the burning air/gas mixture sweeps across the cup are responsible for their outstanding

performance. DNS burners provide complete combustion without excess air and therefore do not waste partially burned fuel up the stack, thus operating at higher thermal efficiencies and lower stack temperatures.

Applications:

- Heating/heat treating of ferrous and nonferrous metals
- Primary heater or booster for heating continuous strip
- Chemical processing



Diverse Combustion Technologies. One Reliable Source.

Operating Principles

Selas DNS burners eliminate many other deficiencies inherent in conventional furnace firing systems. Flame-type burners require a greater burner-to-workpiece distance to avoid flame impingement, hot spots, scaling and decarburization. This increases furnace size and cost beyond what would be required with DNS burners. Slow fuel/air mixing in flame-type burners necessitates extra air to achieve complete combustion. DNS nozzle-mix burners provide complete combustion without excess air and therefore don't waste partially burned fuel, thus operating at higher thermal efficiencies and lower stack temperatures.

The DNS burner can be mounted in furnace roofs or walls, of either brick or monolithic refractory construction. Installation can be done in space vacated by removed burners of another type or new mounting arrangements can be made.

Features	Benefits
Complete, stable combustion within burner cup	Can be placed close to work pieces w/o impingement
Excellent turndown characteristics	Responsive to process variability and loads
Step design of burners	Provides flow barrier to protect from overheating
Angled lighting hole provides reliable ignition facility	Permits flame monitoring
Rugged construction	Years of trouble-free operation & low maintenance



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