

Capacity Range:
150,000 BTU/hr to 2 MM BTU/hr



Superflame™ Low NOx High Velocity Burner

Superflame™ burners are designed for process temperatures up to 2500°F (1371°C). The burner's outer tube is made of advanced silicon carbide and the inner firing tube is made of stainless steel alloy. The burner incorporates two-stage combustion for low NOx. Specifically designed nozzles provide cool NOx-inhibiting first stage combustion. Final combustion occurs in the second stage area where combustion products exit at velocities of over 275fps (83mps) for medium velocity and 400fps (122mps) for high velocity.

How It Works

Superflame combustion produces heat in dense loads and circulates the furnace for thorough heat uniformity enabling faster heat uniformity. Superflame medium and High Velocity burners function well with ambient or preheated combustion air up to 750°F (400°C). Durable, lightweight SiC firing tubes are self-supporting.

The burners are ideal for installation in either brick or fiber wall furnaces, and are easily mounted to the furnace. The Superflame burner will work with ultraviolet detectors and most sizes also accept flame rod. Direct spark allows flexibility in designing the control system.

Applications:

- Annealing Furnaces
- Sintering Furnaces
- Rotary Forge Furnaces
- Tundish Preheaters
- Nonferrous Melting Furnaces
- Ceramic Kilns



Diverse Combustion Technologies. One Reliable Source.

Operating Conditions

Superflame™ works with on-ratio or excess air operation, as well as high-low firing, on-off firing or pulse-firing options. An inlet air orifice can be sized to compensate for preheated combustion air. The Superflame will operate at its nominal rating at less than 20" W.C. whether the combustion air temperature is 60°F (15.5°C) or 750°F (400°C) by adjusting the size of the inlet air orifice. The Superflame operates on gaseous fuels including natural gas, LP gases, and clean manufactured gases.



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to 2 MM BTU/hr

Features	Benefits
High Excess Air Capability	Improved Temperature Uniformity
Alloy Inner Tube	Preheated Air Temperature to 750°F (400°C)
Flame Rod or Ultra Violet Flame Detection	Application Flexibility
Burner Nozzle	Low NOx Formation
High and Medium Velocity Flame	Uniform Temperature Distribution

We offer seven models in capacities ranging from 150,000 BTU/hr (KW) to 2,000,000 BTU/hr (KW)

Superflame 150	150,000 (44) BTU/hr (KW)	
Superflame 250	250,000 (75) BTU/hr (KW)	
Superflame 500	500,000 (150) BTU/hr (KW)	
Superflame 750	750,000 (220) BTU/hr (KW)	
Superflame 1000	1,000,000 (295) BTU/hr (KW)	
Superflame 1500	1,500,000 (440) BTU/hr (KW)	
Superflame 2000	2,000,000 (586) BTU/hr (KW)	

Please refer to specific data sheet for operating parameters of Superflame burner models.



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