



Energy Sabre™ 600 Recuperative Radiant Tube Burner

For indirect heating applications where fuel efficiency, temperature uniformity, and low emissions are imperative.

How It Works

HeatCor™ is an advanced patented silicon carbide heat exchanging insert (HEI) that uses 3D printing to easily integrate with process burners to provide increased efficiencies in a wide range of applications. Using Spin-Works HeatCor™ technology in conjunction with a second heat exchanger (the Dual-Finned Combustor Tube), the Energy Sabre 600 recuperative gas burner transfers a larger portion of combustion exhaust heat back to the burner air supply, and provide

high preheat temperatures. The radiant tube burner design has been optimized to offset the high preheat temperatures using high velocity, staged combustion.

The Energy Sabre 600 system's patent pending design provides the highest efficiencies across all inputs while also providing excellent heat flux and unmatched radiant tube temperature uniformity across the length of the outer tube.

Applications:

- Steel and Aluminum Processing Furnaces
- Commercial Heat Treating Furnaces



Diverse Combustion Technologies. One Reliable Source.

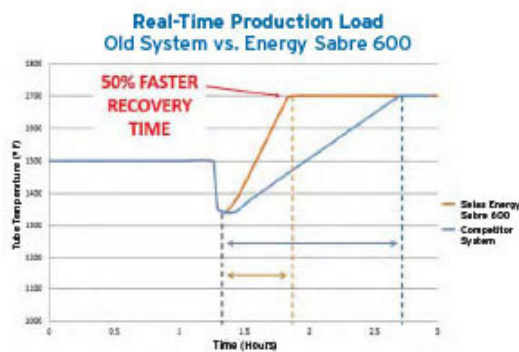
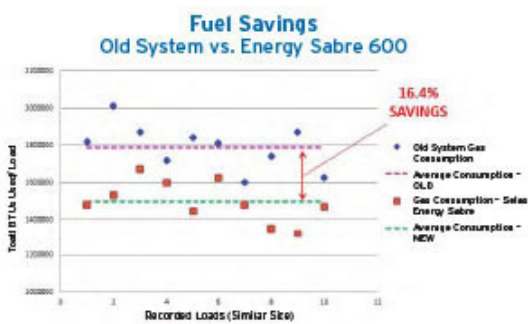
Operating Principles

The Energy Sabre 600's patent pending design improves fuel efficiencies by more than 15% over competitive single-end recuperative burners, while also reducing recovery time by 50% on real-time production loads. These can translate into significant production improvements from your furnace at lower cost. Energy Sabre also delivers unmatched tube temperature uniformity, ensuring long radiant tube life.

The system boasts a Hot Spot Above Average (HSOA) of 42.5° F, which delivers the uniformity required in any quality-driven manufacturing process, while also ensuring long radiant tube life.

Patent pending, application docket no. 92281-045414

Features	Benefits
Excellent thermal shock resistance	Long life under high operating temperature
Helical channels increase surface area	Maximized preheat combustion air temp
Reduced fuel usage by 15% or more	Lower operating costs
Longer life span than alloy recuperators	Increased performance
Reduced furnace recovery time by 50%	Significant production improvements



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