



Self-Recuperative Radiant Tube Combustion System

Radiant tube burners are recuperative style and available as single end (SER) or direct fired (UHF).

How It Works

In a furnace operating with a conventional radiant tube burner, 65 to 70% of the heat created by combustion is wasted in the flue gas.

Self-recuperative radiant tube burners reduce that wasted heat dramatically. Because it uses up to 70% of the available exhaust gas heat to preheat incoming combustion air the furnace's

fuel consumption is reduced significantly.

The result is average fuel savings of up to 50%. The patented SER is a complete system, combining burner, radiant tube and recuperator in a single, compact unit. It comes with all the accessories needed, from adjustable gas cocks to butterfly valves to ignition system.

Applications:

- Steel and Aluminum Processing Furnaces
- Commercial Heat Treating Furnaces



Diverse Combustion Technologies. One Reliable Source.

Operating Principles

As the incoming combustion air passes through the SER's recuperator section, it is preheated by hot exhaust gases. The medium velocity, sealed nozzle mix burner utilizes both gas and preheated air and fires down a center flame tube to provide uniform progressive combustion.

Because existing hardware and applications vary from facility to facility, every SER is custom engineered to maximize combustion efficiency.

Because SERs are easy to install and service, they reduce conversion downtime to a minimum. Installation is simply a matter of removing existing tubes and burners and re-piping the main gas and air supplies to the SER.

Features	Benefits
Preheats incoming combustion air	Average fuel savings of up to 50%
Delayed mixing and uniform combustion	Even heating and temperature uniformity
Easy to install and service	Minimum conversion downtime
Innovative spark firing system	Consistently trouble-free ignition
Burner delivered complete with accessories	Nothing extra needed for installation



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