

Eclipse SER burners

Product brochure - US
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ECLIPSE[®]

- Self-recuperative burner design eliminates the need for external recuperators and insulated piping
- Integral air and gas orifices with convenient rear access allow for easy set-up, monitoring and maintenance
- NO_x emissions may be reduced by more than 50% over conventional recuperative burners
- Improved tube temperature uniformity increases tube life
- The insulated mounting flange and exhaust housing improve heat recovery while creating a much cooler working environment
- Up to 40% lighter than earlier SER models and competitive burners
- Allows for horizontal or vertical burner mounting
- Reduced mechanical strain on the furnace walls and roof

Applications

The SER single ended radiant tube burner is a nozzle mixing burner. A recuperator is coaxially mounted inside the single ended radiant tube. Combustion air entering the SER burner is preheated in the recuperative section by exhaust gases to provide up to 80% efficiency. SER burners provide the added feature of internal flue gas recirculation, resulting in lower NO_x emissions. The SER delivers exceptional heat flux and temperature uniformity. SER burners are ideally suited to retrofit the burners and external recuperators in existing furnaces.

Exceptional performance

The high efficiency recuperator design incorporates a unique dual finned combustor to provide an increased heat transfer surface for greater fuel savings. It also delivers exceptional heat flux and temperature uniformity along the length of the outer tube. SER cuts fuel costs from 35% to 55% over sealed ambient air burners and even more when replacing atmospheric type burners.

Metallic Outer Tube Option

For furnace temperatures up to 1850°F (1000°C), the SER is available with metallic outer tubes with diameters of 4-1/2", 6" and 8" (114mm, 152mm and 200mm).

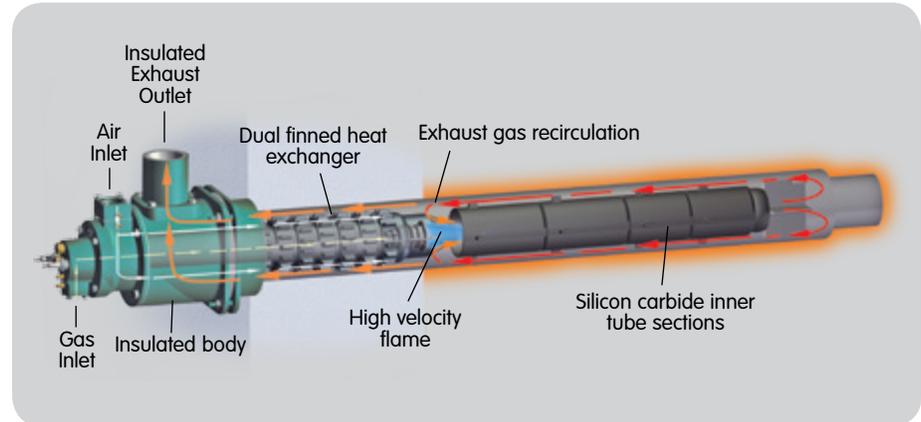
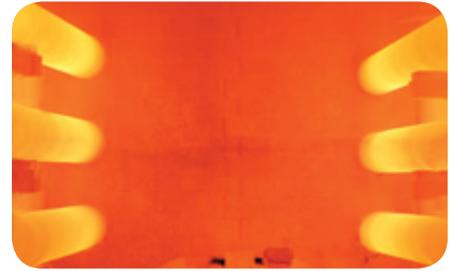
Ceramic Outer Tube Option

The ceramic outer tube option is also available, enabling the SER to be operated at elevated furnace temperatures.

- Up to twice the heat output of metallic tubes in some applications
- May reduce the total number of burners required
- Extended tube life, reduced maintenance

Typical applications include:

- Indirect fired furnaces
- Tempering
- Hardening
- Continuous lines
- Annealing
- Galvanizing



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