# ECLIPSE P-TUBE BURNERS

### Fuel efficient burner provides uniform temperatures, low emissions and long tube life.

The Eclipse P-Tube burner is a nozzle-mixing velocity burner designed for P-Tube applications. The burner design provides flue gas recirculation entrained by the products of combustion. This recirculation provides lower NOx emissions and good tube temperature uniformity. With the burner and recuperator coaxially mounted inside the P-tube, waste heat is internally transferred to the burner air supply, providing high preheat temperatures, reduced fuel consumption and higher efficiencies than stand alone tube firing burners. Models are available for firing 350 kBtu/hr into 6" and 7.5" P-tubes.

#### The P-Tube design:

- Cuts fuel costs from 35% to 50% over sealed ambient air burners; even more when replacing atmospheric burners.
- Eliminates the hot air ductwork required by external recuperators, further increasing heat recovery.
- Places the recuperator within the furnace wall, minimizing heat loss.
- Scrubs internal tube surfaces with a jet flame technology, increasing heat transfer efficiency.
- Moves exhaust and air past the heat transfer tube in opposite directions, creating a highly efficient counterflow pattern.
- Can be fitted to nearly any furnace, gas or electric.

# High Efficiency Recuperative Radiant Tube Burners



### **Great Versatility**

- From convection ovens to heat treating furnaces, P-Tube burners have been applied wherever clean, indirect heat is required.
- For furnace temperatures up to 1850°F (1000°C), P-Tubes are available in a variety of alloys.
- Fewer burners necessary because of increased surface area over straight tubes.

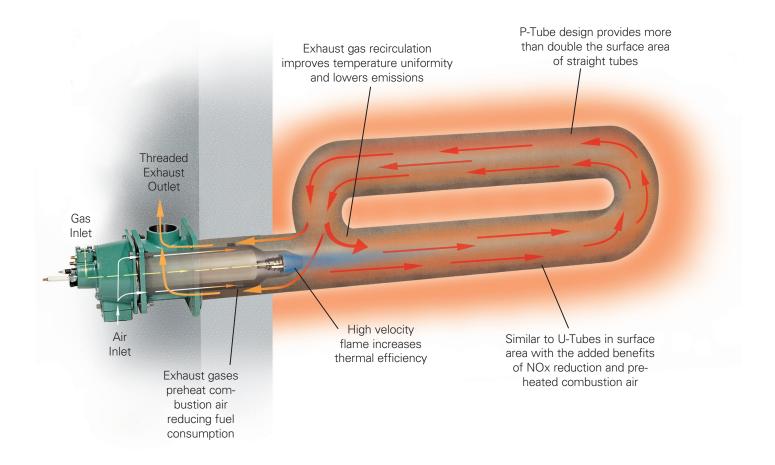
#### Easy to Use

- Integral air and gas orifices for easy set-up and monitoring.
- P-Tube design accommodates thermal expansion, eliminating troublesome expansion joints and seals.
- Convenient rear access allows burner maintenance without disturbing air connections.



## P-Tube Burners

Ideal for indirect heating where emissions and temperature uniformity are at a premium.





Bulletin 315C 12/04 Litho in USA