



## UHF Radiant Tube Burner

*Compact, sealed nozzle-mix units designed to operate in radiant tubes with maximum combustion efficiency over varying operating conditions.*

### How It Works

UHF series burner is a compact, sealed, recuperative burner system designed to operate in radiant tubes with high efficiency combustion over varying operating conditions.

UHF burners provide delayed air-gas mixing and uniform progressive combustion for even tube heating, temperature uniformity and optimum tube life. Flame length and geometry are adjustable through the possible use of an air-

gas partial pre-mixing that suits the flame to the job.

UHF recuperative burners can be used with preheated air up to 480°C, and may be operated in a high-low, a high-low-off mode or fully modulated over a 5 to 1 turndown range, using excess air at low fire. Burner ignition is achieved by a direct spark ignition electrode ("Wand"); flames can be monitored using UV scanners.

### Applications:

- Radiant "U" tubes
- Radiant "O" tubes
- Radiant "W" tubes
- Radiant "L" tubes
- Trident radiant tubes



**Diverse Combustion Technologies. One Reliable Source.**

## Operating Principles

The recuperator itself delivers higher preheat because it is placed inside the radiant tube, with direct access to hot exhaust gases. Unlike "stack" recuperators, it eliminates the possibility of heat loss via external connection. Installed internally in a radiant tube, the UHF plug-in recuperator system uses a combination of convective and radiant heat transfer to preheat incoming combustion air. The result is higher preheat and greater combustion efficiency.

Burners operating in heat treat furnaces equipped with conventional U, O, W or Trident type radiant tubes typically lose a great deal of energy through the exhaust stack. The patented plug-in UHF recuperator system can make far more efficient use of the fuel the furnace consumes. By using hot exhaust heat to preheat incoming combustion air, the furnace's fuel consumption is reduced dramatically. The result is an average fuel savings of 30 to 45%.

Features	Benefits
Efficient reuse of hot exhaust air	Fuel savings of 30%-45%
Superior flame stability and mixing	Consistent temperature control
Adjustable flame length	Allows customizing the flame to the job
5 to 1 turndown with excess air at low fire	High-low, high-low-off modes, or full modulating
All necessary auxiliaries included	Nothing extra needed for installation



11012 Aurora Hudson Rd • Streetsboro, OH 44241  
**1-800-523-6500 • [sales@selas.com](mailto:sales@selas.com)**  
**[www.selas.com](http://www.selas.com)**