

2301 SERIES SINGLE ENDED RECUPREATIVE RADIANT TUBE BURNER





FEATURES

- A patented Bloom flame retention nozzle
- The recuperator is made of rugged cast alloy
- Since the products of combustion are cooled by the combustion air, no hot air ductwork is required

CONTROL

The preferred control system would be HIGH/LOW using pressure balance ratio regulators through a thermal turndown range of approximately 10 to 1

FLAME MONITORING

[●]U.V. Detector

BURNER IGNITION

- Pilot Ignition
- Direct Spark

FUEL CAPABILITIES

- Natural Gas/LNG
- [●] Coke Oven Gas

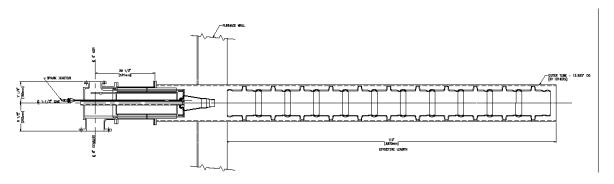
CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations



2301 SERIES SINGLE ENDED RECUPREATIVE RADIANT TUBE BURNER

The Bloom Series 2301 Single Ended Radiant Tube Burner is a nozzle mix burner with a self contained recuperator coaxially mounted inside a single ended radiant tube. Combustion air entering the burner is preheated by the products of combustion exiting the radiant tube over the recuperator. Fuel savings from 35% to 55% can be realized when comparing this burner to cold combustion air radiant tube burners.

The 2301Single Ended Recuperative Radiant Tube Burner can be used on any radiant tube application replacing "U" tubes or straight through radiant tubes. It is ideally suited to retrofits replacing cold air radiant tube burners or electric heating elements.



TYPICAL PERFORMANCE

Average Furnace Temperature: 1725°F (941°C)
Average Radiant Tube Temperature: 1876°F (1024°C)
Hot Spot Over Average Tube Temperature: 44°F (7°C)
Effective Length (inside furnace): 68" (1727 mm) (82" total – 2083 mm)
Tube Diameter: 63/8" (162 mm) I.D. (7" O.D. – 178 mm)
P.O.C. Temperature Leaving Exhaust 1060°F (571°C)
Efficiency (externally insulated): 64.3% (HHV)
Total Fuel Input (natural gas): 123,000 Btuh to 500,000 Btuh (36kW-145kW)

Model 2301-0125

Self recuperative radiant tube burner with 449mm (12.675") OD x 3m (113") effective length radiant tube. Radiant tube by others.

- Capacity: 120 kW LHV
- Direct spark ignition
- LNG/Natural gas
- 68% efficiency (LHV) @ 910°C furnace operating temperature

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION

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