

DATASHEET

ESP Burner

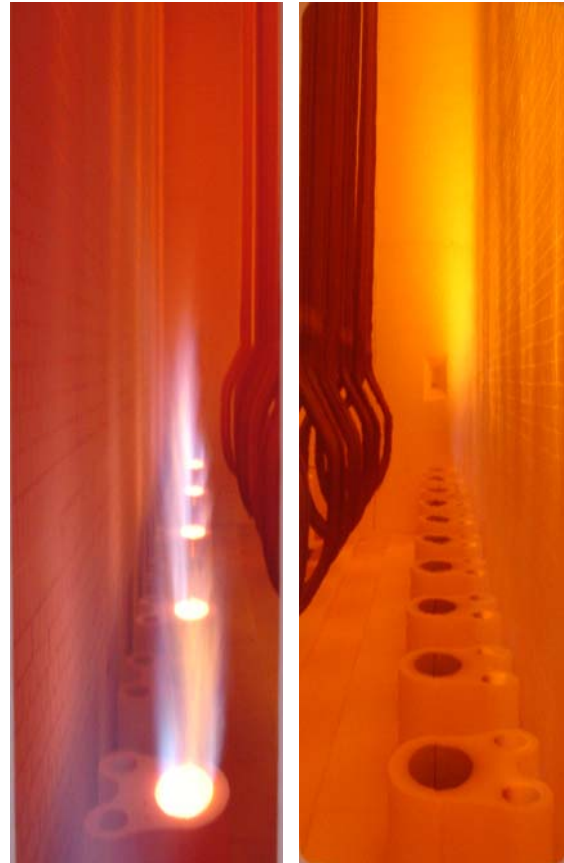


Applications

- Radiant wall up shot furnaces
 - Ethylene Crackers
 - Steam Reformers
 - Process Furnaces

Design Requirements

- High firebox temperature
- Uniform heat flux over long process tubes for optimum efficiency
- Tight flame control due to strong flue gas recirculation patterns in furnace
- Ease of maintenance due to high quantity of burners

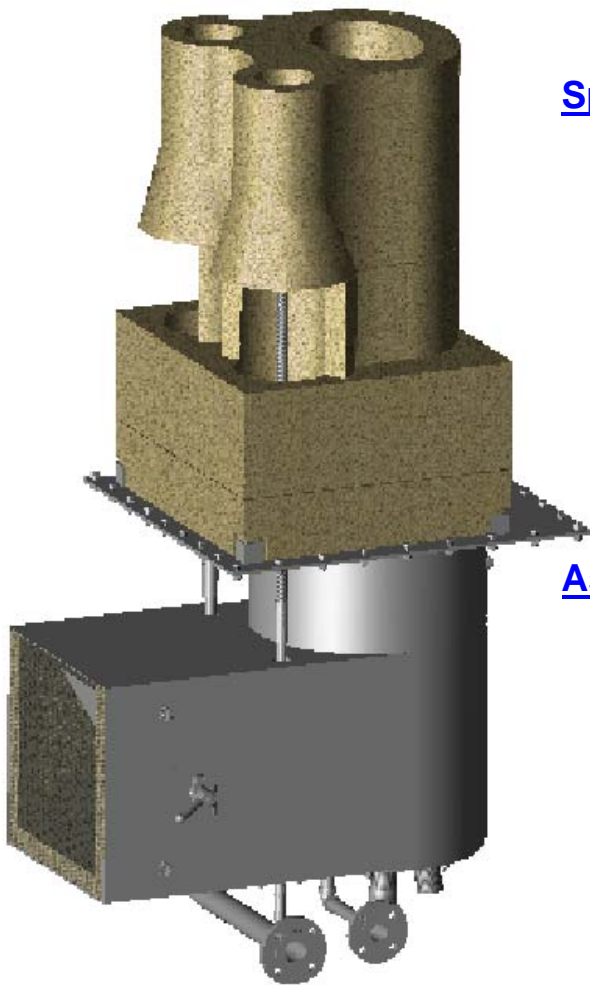


Standard Supply

- **Windbox** –5 mm carbon steel insulated with 50mm mineral wool fully retained with perforated plate / expanded metal
- **Damper** - integral with the windbox and fully lockable, with external position indicator in any position. Can be designed to operate from grade for any heater height.
- **Single Refractory Tile** - high grade, high alumina, low cement castable, sectioned for ease of installation
- **Central pilot / inner lance** - used to provide greater level of safety for cold furnace start-up
- **Main gas lances** - independently removal from central inner lance

Key Features

- Ultra low NOx applications
- Large single hole main gas nozzle eliminates the possibility of gas tip plugging due to heavy fuel gases
- Internal superheating of fuel gases provides extreme flame stability offering turndowns in excess of 10:1
- Wide range of fuel gases from ethylene to hydrogen
- Lowest noise possible due to the absence of combustion within the burner tile throat
- No complex gas lance arrangements thus simplifying maintenance requirements
- Combustion design allows for low excess air and NOx levels to be maintained over the full operating conditions including de-coke and hot steam standby



Specifications

- **Liberation** 0.5 to 4.0 MW
- **Excess Air** 5 to 25 %
- **Fuels** Butane, Natural Gas, Hydrogen, Ethylene
- **Fuel Pres.** Gas 1 to 3 kg/cm²
- **Register Draught Loss** 5 to 40 mmwc

Assumed conditions unless stated / requested

- **Furnace Temperature** 1,150 °C
- **Register Draught Loss** Natural Draught 20 mmwc
- **Combustion Air Temp** 25 °C
- **Excess Air** 10 %
- **Fuels** Nat Gas @ 2.0 kg/cm²
- **NOx** 90 mg/Nm³

For further information on combustion equipment please contact the head office:

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COMBUSTION

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