Max. Capacity:
1.8M Btu/h

ISGAD Low NO_x Flat Flame Wall Burner

The Selas ISGAD Low NO_x Flat Flame Wall Burner is built for high hydrogen (up to 100%) and typical refinery fuels.

These burners give superior heating uniformity. The flame develops in the tile, propagating along the wall. The flat-flame tip is designed to give wall-hugging flame of minimum thickness. Flames are confined to the immediate vicinity of the hot face, thereby reducing impingement towards the process tubes. This lowers maintenance costs since uniform tube temperature increases process tube life and increases time between decoking cycles.

In most instances, replacement of existing burners with Selas ISGAD Burners is a simple matter. They are designed to retrofit many existing configurations.

Applications:

- **Petrochemical and Refinery Processes**

About the ISGAD Burner

The Selas ISGAD Burner is primarily a nozzle-mix, flat-flame, wall burner which utilizes staged ombustion to reduce NO_x generation. The Selas burners are preassembled to provide easy installation at the site.

The ISGAD Low NOx Burner is capable of firing rates as high as 1.8 M Btu/h, LHV (0.41 mW) depending on furnace draft. The burner can be configured to handle a variety of fuel pressures while maintaining a 3:1 turndown. The burner can be customized to fit special application requirements. Consult Selas for other capacities.

These burners are supplied with an integral silencer to meet or exceed very stringent noise requirements.

ISGAD Burners have remarkably low emission of nitrogen oxides, less than 25 ppmv (50 mg/Nm^3 referenced to 3% O_2 dry flue products) depending on excess air, furnace temperature and certain other variables.

These burners are designed to meet the needs of petrochemical and refinery processes.

ISGAD Burners are also easy to maintain without shutting down the furnace. Fuel to an individual burner can be shut off and the burner loosened and removed from the outside of the furnace. The spare burner can then be inserted and put into use while the removed burner is serviced.

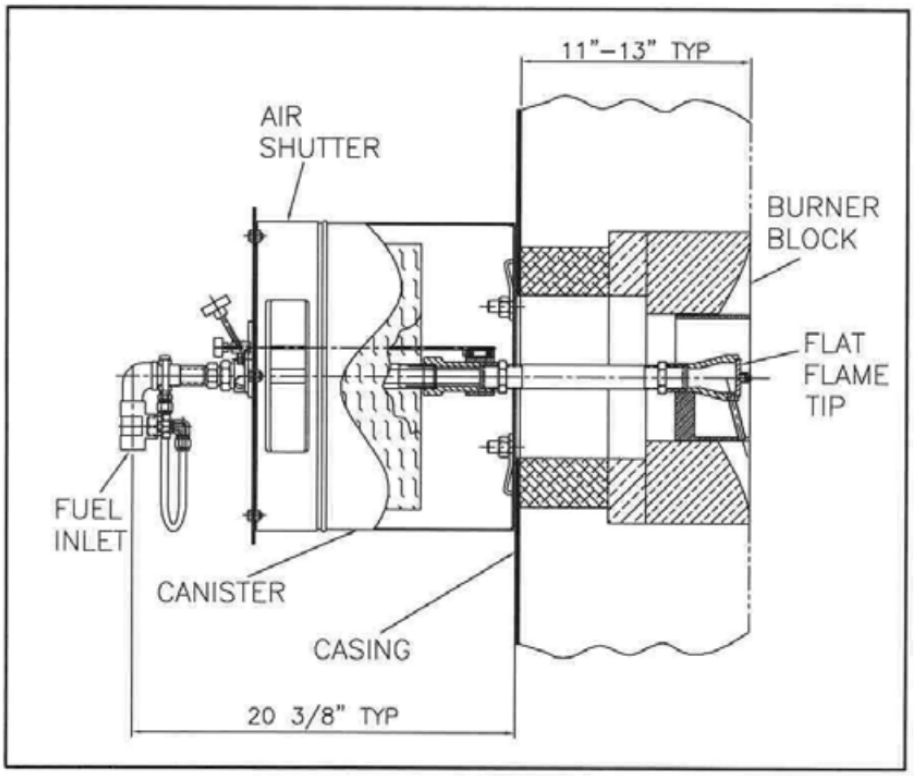
Note: The aforementioned data represents typical values which are subject to variations. The values should not be used for specification purposes. ULNx is the Selas designation for its patented ultra low NO_x Burners.

Burner Benefits

- Flat flame provides more uniform heating, even with a burner cup, and extends tube life
- Suitable for furnaces with brick or fiber walls, of varying thicknesses
- Easy to install in new furnaces, conversions, or as a replacement for most other burners
- Burners can be supplied with silencers
- Commercially proven in day-in, day-out service
- Low initial cost, low burner installation cost, and low maintenance

Data From a Commercial Ethylene Cracker at 2282°F

- Capacity: 1.3M Btu/Hr
- Pressure: 20 psig
- Draft: 0.2 in. wc
- Oxygen: 2%
- CO: 0 ppm
- NOx: as low as 27 ppmv
- Fuel: 54% H2
- Noise: <80 dB(A) @ 1 meter
- Turndown: 3:1



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