Ultra Low NO$_x$ Coal Burners
Fuel Tech’s Ultra Low NO$_x$ coal burners provide industrial and utility boiler owners with the ultimate solution to their NO$_x$ compliance needs. Each system application is specifically designed to maximize NO$_x$ reduction without sacrificing combustion performance or unit operation.

Fuels being fired range from sub-bituminous through low and high sulfur eastern bituminous coals. NO$_x$ reductions exceeding 50% from baseline levels are achieved across the load range with minimal increases in unburned carbon.

State of the art components provide control over the following:
- NO$_x$ Emissions
- Flame Shaping
- CO Emissions
- Burner Eyebrows
- Flyash LOI
- Furnace Slagging

Ultra Low NO$_x$ Coal Burner Performance

- Ease of operation
- Patent pending five (5) zone burner
- Balanced perimeter airflow
- Homogeneous coal flow
- “Clean release” nozzle
- Accurate secondary airflow measurement
The Hardware

The burners are a venturi style, axial flow with swirl stabilization. Other than the electrically operated zone disc and the manually adjusted coal nozzle, which will be set during start up, there are no burner components that require operator adjustment. The register comprises a conical inlet section, parallel flow straightening section and a 60° diverging section formed by the burner throat. The zone disc located at the entrance to the venturi register controls secondary air flow. An electric linear actuator located at the 12 o’clock position on the burner front operates the zone disc. Pulverized coal and primary air enter the burner through a ceramic lined coal head and turns 90° into the coal pipe.

Fuel Tech Ultra Low NOₓ coal burners provide the lowest possible NOₓ control while maintaining optimum combustion.

Mechanical Attributes

- Ceramic Lined Inlet Elbow
- Ultra Low NOₓ Swirler
- Ultra Low NOₓ Coal Nozzle
- Insulated Front Plate
- Ceramic Lined Coal Barrel with 309 SS tip
- Venturi Low NOₓ Register Assembly with Flow Control
- Ceramic Lined or AR400 Coal Distribution Disk