

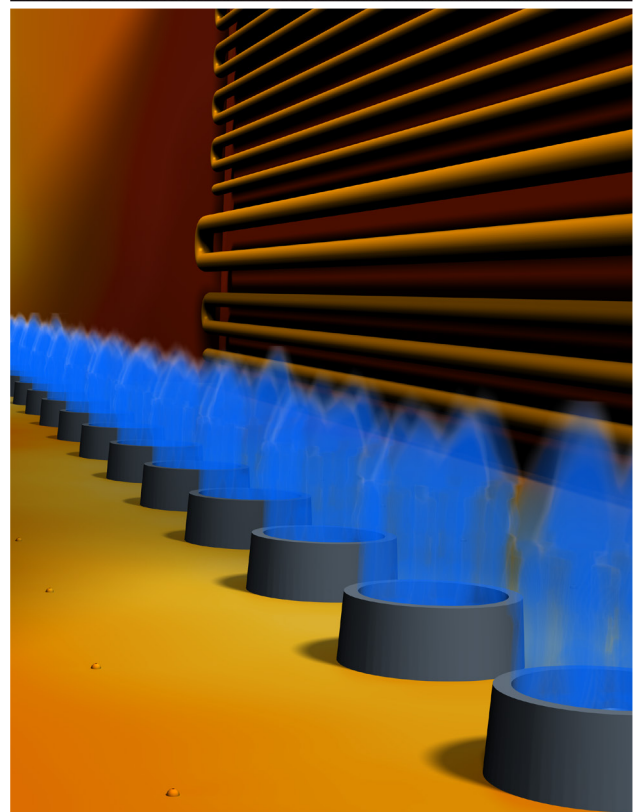
# SOLEX™ BURNER

## 5 ppm NO<sub>x</sub> PERFORMANCE

Achieving 5 ppm NO<sub>x</sub> emissions has traditionally required flue gas treatment solutions such as Selective Catalytic Reduction (SCR) systems. The SOLEX burner delivers similar NO<sub>x</sub> emissions and performance using proven combustion methods combined with years of industry experience.

### Innovation You Can Rely On

The SOLEX burner can achieve 5 ppm NO<sub>x</sub> emissions regardless of the fuel composition and independent of furnace temperature. The burner is designed with two significant combustion zones to achieve these emissions levels from start-up to full capacity with minimal CO emissions. In addition, the SOLEX burner's compact flame lengths solve many issues ultra-low NO<sub>x</sub> burner technologies face in the market today.



The SOLEX burner achieves 5 ppm NO<sub>x</sub> and near-zero CO at start-up, all with a short flame length.

### PERFORMANCE

#### NO<sub>x</sub> Emissions

- Can replace the need for SCR or other NO<sub>x</sub> reducing technology
- Independent of: fuel compositions >75% H<sub>2</sub>, air preheat, furnace temperature, operation range, firebox heat density
- High predictability and repeatability

#### CO Emissions

- Decoupled from cold furnace temperatures
- Near-zero CO emissions at start-up and turndown conditions

#### Flame

- Lengths less than half of ultra-low NO<sub>x</sub> staged fuel burners
- Solution for tight burner spacing arrangements
- Round or flat flame options

#### Retrofits

- Fits traditional ultra-low NO<sub>x</sub> burner footprints
- Upfired, downfired, horizontally fired

## SIMPLE MECHANICAL CONSTRUCTION

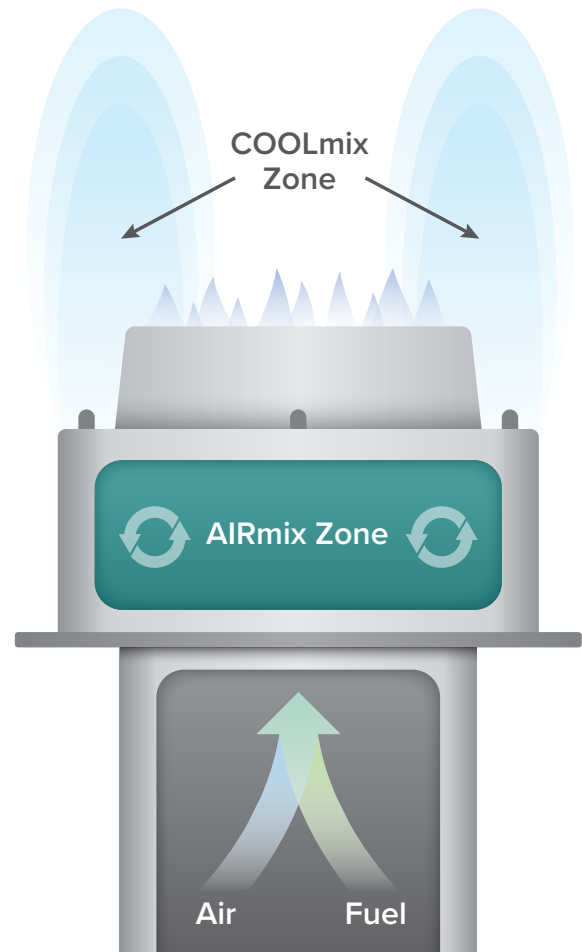
- Single piece tile with a robust geometry
- Individually removable tips
- Single point air supply
- Serviceable parts for online maintenance
- ARIA™ air register and control
- Compatible with pilots, UV scanners, ionization rods and igniters

## SYSTEM REQUIREMENTS

- Two fuel zones
- Air-fuel ratio controls and supporting hardware
- Heat releases ranging between 1 MMBtu/hr (0.3 MW) and +20 MMBtu/hr (+5.9 MW)
- Advanced combustion controls to enable a burner-only solution that achieves SCR level NOx emissions

## GLOBAL REACH

John Zink has locations all over the map, with thousands of employees worldwide.



### AIRmix™

JPatent-pending controlled fuel-air ratio combustion zone anchored within the burner tile.

### COOLmix™

Staged fuel diluted by furnace gases. Utilizes patented Remote Fuel Staging to meet stack O<sub>2</sub> setpoint.

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