

# STAGED AIR LOW-EMISSIONS COMBINATION BURNER

AK Series



BURNERS | FLARES | THERMAL OXIDIZERS | VAPOR CONTROL | RENTALS | AFTERMARKET



*AK Staged Air Low-Emissions Combination Burner  
Operating on Gas Only*

## Low-NO<sub>x</sub> High Performance

Zeeco's AK staged-air, low-emissions burner features a round flame and is designed to fire on oil, gas, or a combination of oil and gas. This versatility, along with a stable flame over a wide range of conditions and high turndown of 5:1 or greater, makes Zeeco's AK series one of the best-selling process burners in the industry.



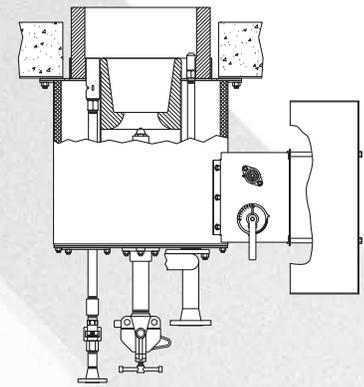
*AK Staged Air Low-Emissions Combination Burner  
Operating on Oil Only*

## Why Choose Zeeco?

Zeeco leads today's global market in the design of combustion and environmental systems. Our engineers offer the experience, knowledge and tools to properly size and design any burner, flare, or incinerator, anywhere. For more than 40 years, Zeeco has designed, manufactured, and delivered production systems across the globe. Our philosophy of providing customers with superior quality, on-time shipments and competitive pricing is the cornerstone of our success. Let us put our experience to work for you. Call or email us today to learn more about the full line of ZEECO® products and services.

## Design Features

- Stable flame over a wide range of conditions
- High turndown of 5:1 or greater for most cases
- No stabilization metal used in the burner throat
- Low maintenance cost since tip mass is small and exposed into firebox less than 1" (25 mm)
- Reasonable cost and great value
- Combustion air dampers are controlled by gears for precise control
- Bearings are used for the combustion air dampers for smooth, precise operation
- Plenum mounted or individual wind-box configuration
- Horizontal and vertical mounting configurations
- 310 stainless steel (type HK) gas tips



AK Burner

## Design Information

|  |  |
|--|--|
| Burner Model .....   | AK Combination Oil & Gas Staged Air Burner |
| Fuels .....  | Combination Oil & Gas                      |
| Description .....  | Round Flame Low Emissions Combination      |
| NOx Reduction Method .....   | Staged Air                                 |
| Predicted NOx Emissions Range (Natural Draft) with Gas Fired .....                   | 50 to 95 ppmv                              |
| Predicted NOx Emissions Range (600°F / 316°C Air Preheat) with Gas Fired .....       | 80 to 160 ppmv                             |
| Predicted NOx Emissions Range (Natural Draft) with No. 2 Oil Fired .....             | 80 to 120 ppmv                             |
| Predicted NOx Emissions Range (600°F / 316°C Air Preheat) with No. 2 Oil Fired ..... | 120 to 180 ppmv                            |
| Predicted NOx Emissions Range (Natural Draft) with No. 6 Oil Fired .....             | 160 to 220 ppmv                            |
| Predicted NOx Emissions Range (600°F / 316°C Air Preheat) with No. 6 Oil Fired ..... | 215 to 280 ppmv                            |
| Combustion Air Induction .....   | Natural, Forced, Induced, & Balanced Draft |
| Mounting Options .....   | Up-fired and Side-fired                    |
| Natural Draft Heat Release Range .....   | 1 to 20 MMBtu/hr [0.293 to 5.860 MW]       |
| Forced Draft Heat Release Range .....  | 1 to 50 MMBtu/hr [0.293 to 14.650 MW]      |
| Turndown .....   | 5:1 Gas & 3:1 Oil                          |
| Typical Excess Air Range .....   | 10 to 25%                                  |



## The Zeeco Difference

By concentrating on what we do best, Zeeco has grown into a worldwide leader in combustion and environmental solutions. We are a privately held company whose ownership stays highly involved in daily operations, with upper management comprised of the world's leading combustion experts.

When you call Zeeco, we answer. When you make a request, you get a quick, efficient response. We are lean and efficient, able to make decisions quickly, without bureaucracy and red tape. Our sales, engineering, and purchasing groups work hand-in-hand to deliver highly competitive quotes and heroic turnaround times. We stand ready and willing to travel anywhere in the world to discuss upcoming projects firsthand, and to ensure that every existing project runs seamlessly.

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ISO 9001: 2015

Certification applies to  
Zeeco Headquarters.



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innovative team, and you won't  
be disappointed. Call or email  
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learn more about our proprietary  
combustion systems.