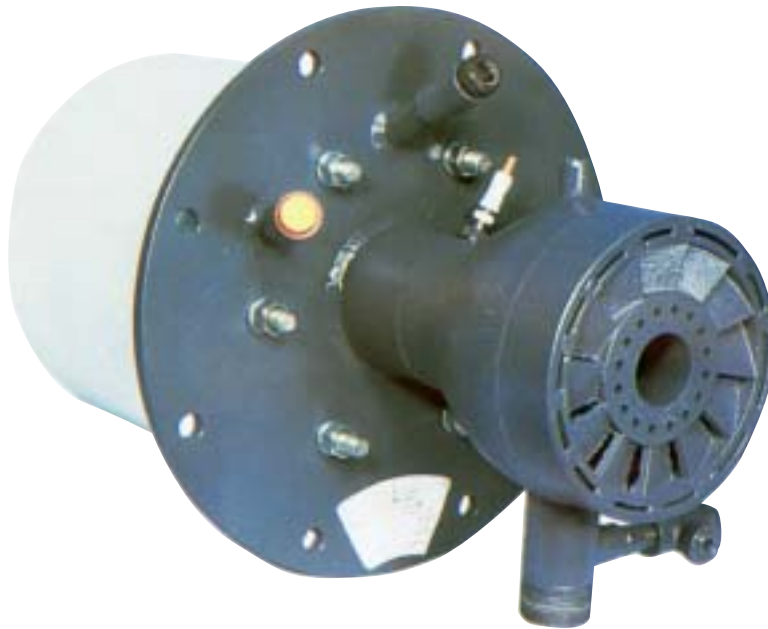


# KINEDIZER® Gas Burners



- **Field proven low emissions.** Adjustable for application flexibility.
- **Rugged design** for oxidizers, process heaters, kilns, furnaces, and other high-temperature applications.
- Flow turndown as high as 40:1
- Available in a **wide range of capacities.**
- **Nozzle mixing** design.
- Burns **natural gas, propane or other fuels.**
- Provides **excellent stirring and mixing** with its medium velocity exhaust.
- Accepts **preheated and vitiated combustion air.**
- For use with cross velocities up to 3000 fpm (915 m/min).

*Manufactured under U.S. Patent #6,238,206*

# KINEDIZER® Gas Burners

## Principles of Design

The KINEDIZER® Burner is a nozzle-mixing medium-velocity design. Using advanced mixing technology, the burner produces low emissions with very little excess air. Ruggedly built with a reinforced refractory block and steel burner body and nozzle, it burns natural gas, propane or other fuels.

Combustion air is supplied with an external blower, and accurate air and fuel modulation is accomplished by the proven MICRO-RATIO® Valve (see catalog sections 7000 and 7100). For more critical applications, mass flow control of fuel/air ratio can be attained with the SMARTFIRE Intelligent Combustion Control System. SMARTFIRE provides positive assurance of minimized emissions, maximized efficiency and the most repeatable, reliable and safe control.

Combustion air can range from 21% O<sub>2</sub> down to 17% O<sub>2</sub> and from ambient temperature up to 800°F (425°C). Maximum chamber temperature is 2000°F (1090°C) with any cross velocity up to 3000 fpm (915 m/min). Flame length with 30% excess air is 4 in/ MBtu/hr (30 cm / MW) and with 5% excess air is 1 ft / MBtu/hr (1 m / MW). Turndown is 40:1\*. The KINEDIZER® Burner can be overfired by up to 20% simply by supplying higher combustion air and gas pressures. Contact Maxon for details.

\*The smallest (0.5M) burner turndown is 10:1. Larger sizes offer turndown of more than 40:1.

## Low Emissions

The KINEDIZER® Burner is capable of low NO<sub>x</sub> when given excess air, typically 25-30% at high fire. The same burner, when adjusted for on-ratio operation, will give low CO and high thermal efficiency. With flue gas recirculation, the emissions and efficiency can be further improved.

