



Introducing Midco International's New Direct-Fired Gas Burners

The Blue Flame Series

Direct-Fired Gas Burners

Two Stage Combustion Technology

Higher Temperature Rise

Wider Operation Range

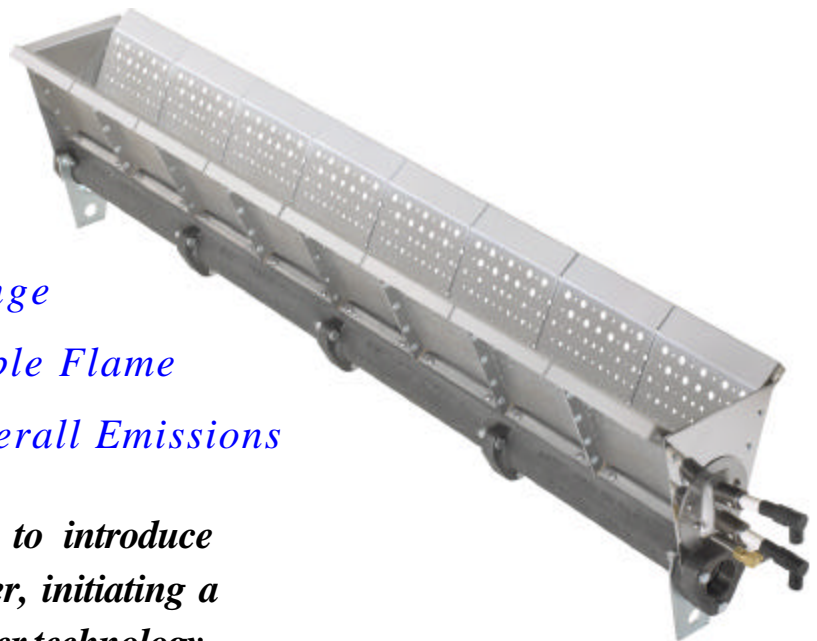
Shorter, More Stable Flame

and Lower Overall Emissions

Midco International is proud to introduce our new direct-fired gas burner, initiating a new era in direct-fired gas burner technology.

New Technology in Direct-Fired Gas Burners

Our innovative two stage combustion burner is not just a modification or improvement of the old, but a completely new approach to direct-fired combustion. The two-stage combustion improves control of the flame process, meets and exceeds the new ANSI Standards while outperforming the competition. By having two separate flames within the burner combustion zone, the flame is more stable, shorter and cleaner, permitting the reduction of emissions levels and allowing for higher temperature rise and higher tolerance to varying conditions when placed in the profile opening.



Two Stage Combustion

Provides Unsurpassed

Flame Stability and

Lower Emissions

Quality Designed for Proven Performance



The Blue Flame Series Specifications

*Firing Rate	Gas Inlet Pressure	Pressure Drop Across Burner	Pilot Capacity	Pilot Inlet Pressure	Burner Turn-down Ratio	Flame Length	Operating Velocities
Up to 750,000 Btu/hr/ft	NG 4.5 - 8" W.C. LP 1.7 - 3" W.C.	0.05 to 1.4" W.C.	12,000 Btu/hr	NG 5.0" W.C. LP 2.0" W.C.	30 to 1	10" full ** firing rate	800 fpm to 4000 fpm ***

* Firing rate is dependent on the pressure drop across the burner.
 ** Flame length depends on design pressure drop and is measured from the end of the baffle.
 *** For other operating velocities contact our Engineering Department.

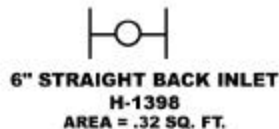
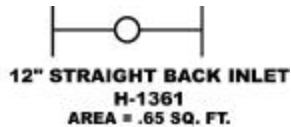
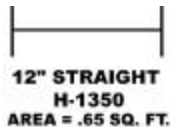
Features and Benefits









New Technology for

Direct-Fired Applications

Plus Flexibility in Configuration

Straight, elbow and tee sections easily configure to desired capacity maximizing efficiency for installation and performance. Burners may be ignited by proven pilot or direct spark. Pilots are available for flame rectification or ultraviolet detection. Hot surface ignition systems are also available. Contact the factory for specifications.



-  **Reduced NO₂ and CO Emissions:** Lower emissions levels that easily pass the new ANSI Z83.4 and Z83.18 standards.
-  **Higher Temperature Rise:** The two stage combustion process lowers NO₂ emissions which is the limiting factor in temperature rise.
-  **Increased Capacity:** Up to 750,000 BTU'S per foot. (Higher BTU levels can be achieved if ANSI Z83 Standards for CO and NO₂ emissions are not of a concern. Process heaters can fire up to 1,000,000 BTU'S a foot or more.)
-  **Increased Differential Pressure Drop and Higher Velocities:** HMA-2 burners can operate between 0.05" to 1.4" W.C. differential pressure range or in air velocity between 800 fpm to 4000 fpm.
-  **Flame Stability:** Two stage combustion provides better flame stability and emission control, allowing for a shorter flame and easier profile configuration.
-  **Reduced Inventory Costs:** Single burner casting can be fired with natural, propane or butane gas¹, reducing burner inventory.
-  **Reduced Shipping Costs:** A smaller, lighter casting than the competition's, can cut your freight costs up to 50%.
-  **Turndown:** 30-1 turndown can easily be achieved with proper modulation control and valves. (Higher turndown possible depending on equipment design.)

¹ Consult factory for applications using butane fuels.



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