PULSE FIRING ENHANCES PERFORMANCE AND PROCESS CONTROL

In a multiple-burner combustion system, this combustion technique controls thermal input and output by cycling burners between two settings for intermittent fuel delivery.

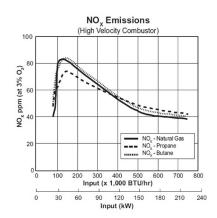
Pulse firing helps thermal operations, like heat treatment, realize significant process and productivity benefits.

When performed with our SMARTLINK®
DS Intelligent Control Actuator
Series, a general-purpose control actuator designed for the process control of air, fuel, gas, steam and industrial process control applications, end-users can experience:

- Fuel Savings: Pulse-fire control facilitates the highest level of convective heat transfer to the load and mixing of atmosphere within the furnace chamber by firing the burners at their highest exit velocity. This results in superior temperature uniformity, high product quality and fuel savings.
- Lower Emissions: Because the highvelocity burners of pulse-fired systems

- operate at high fire with low excess air, NO_x emissions are minimized as the high-velocity flame entrains the maximum amount of furnace gas for more complete mixing and lower peak-flame temperatures.
- Control Design Flexibility: A pulsefired system can be designed to accommodate even the most stringent temperature requirements, allowing maximum system turndown to be achieved whether your furnace hold temperature is 800°F or 2300°F.
- Maximized Productivity: By utilizing a system's burners at their most efficient firing rates, maximum energy is transferred to the furnace load in the least amount of time for improved productivity.

Pulse firing helps limit emissions production, promote uniform mixing of fuel and air and reduce thermal stress to extend the service life of equipment. End-users with pulse firing in place report efficient turndown, excellent temperature uniformity, fuel savings of 10-20% over proportional amounts and enhanced process control.



For more information

https://automation.honeywell.com/us/en/solutions/thermal-solutions

Honeywell Thermal Solutions

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