

# ASTEC PHOENIX<sup>®</sup> PHANTOM BURNER

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Astec's premium Ultra-Low NOx Phoenix Phantom burner leads the pack with the lowest available combustion and noise emissions (gaseous fuels only). The Phantom burner also achieves the highest electrical energy efficiency with innovations like variable speed drives and offers advanced mixing technology and the latest technological innovations to deliver the absolute minimum gaseous emissions available today.

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## Advanced Emission Reduction

The Phoenix Phantom burners use the most advanced technology to precisely and completely mix the air and gaseous fuel to achieve an advanced low NOx and CO method called lean burn premix. They employ a multiple, parallel, turbulent, tube mixer to achieve near perfect mixing of fuel and air.

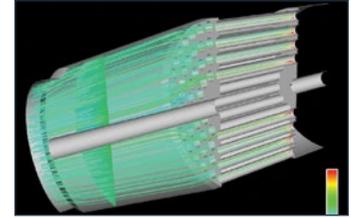
## Reliable Firing and Advanced Design

The Phoenix Phantom burner is thoroughly tested before leaving the factory to ensure reliability and start-up ease. A high-efficiency, variable-speed blower drive helps provide precise firing rate control and uses significantly less electrical energy. It also eliminates the need for an air damper, drive motor

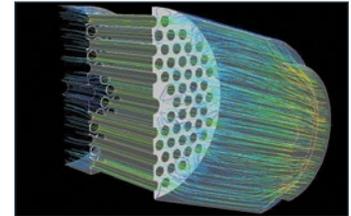
adjustments, and maintenance. Combustion air and fuel flow meters are combined with Astec PLC/ Computer Burner Controls for the most precise and reliable burner control available.

## Firing Efficiency and Compact Flame Size

When running in lean burn mode, near perfect mixing of air and fuel before burning produces the most compact flame available. The compact flame size contributes to efficiency, ensuring that all of the fuel is combusted without taking away valuable dryer heating capacity, as with other low emission methods, such as flue gas re-circulation or water injection.



Natural gas injection and mixing: uniformly green color indicates complete mixing of air/gas.



Velocity magnitude increases as air and natural gas mix.



The premium Phoenix Phantom is used where emissions limits are a driving concern.



## BURNER FIRING SPECS

MODEL NUMBER	PP2-50	PP2-75	PP2-100	PP2-125	PP2-150
RATED CAPACITY MILLIONS OF BTU/HR (WITH 55% XSA)	50	75	100	125	150
NOMINAL AGGREGATE DRYING CAPACITY TPH (AT 5% MOISTURE)	200	300	400	500	600
BURNER AIR CAPACITY SCFH (MILLIONS)	0.78	1.17	1.56	1.95	2.34
INTEGRAL BLOWER HORSEPOWER	50	75	100	125	150

Above conditions are standard at 75° F at sea level. See detailed capacity, performance sheets for each size for more information and specific flows and pressures. Nominal aggregate drying capacity based on typical exhaust stack

temperatures of 240° F, 0.2 BTU/Lbm F specific heat in the aggregate. Burner maximum design capacity is 100% of rated capacity. Advertised numbers are achievable in some conditions, but not guaranteed.