## **HRSG Duct Burners**





#### **About Us**

Power & Industrial Services (P&I) was founded in 1978 with the goal of providing improved replacement parts for the electric utility market. An emphasis on long wear life and heat resistant materials has made P&I a leading non-OEM boiler-related replacement equipment and parts supplier in the United States. P&I takes great pride in our commitment to quality parts and services. Our engineering department uses state-of-the-art design and CFD modeling software for the design an manufacturing of our engineered-to-order projects. P&I has significant experience with large power generation projects, both turnkey and design/supply projects. P&I is privately held and financially strong with a solid reputation for quality, performance, and customer satisfaction. P&I is headquartered in Donora, Pennsylvania with an engineering office in Lee's Summit, Missouri as well as a sales force network that covers the entire electric utility industry.

P&I is taking its 42 years of **design engineering and in-house manufacturing** experience and is offering HRSG duct burner solutions. P&I offers new innovative designs as well as improved heat resistant materials for longer trouble free operation. P&I has teamed with experts in the field to offer a complete range of duct burner solutions from simple replacements to complete turnkey projects.

#### Features & Benefits

- Complete Duct Burner Solution
- Improved Material
- CFD Modeling Analysis
- In-House Manufacturing
- Competitive Pricing
- Gas Skid Design & Supply
- Pilot and Scanner Equipment
- Burner Management Systems
- Burner Element Isolation
- OEM Burner Replacement Parts





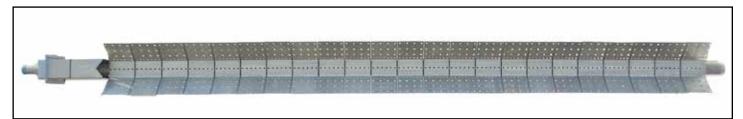
#### Contact Us

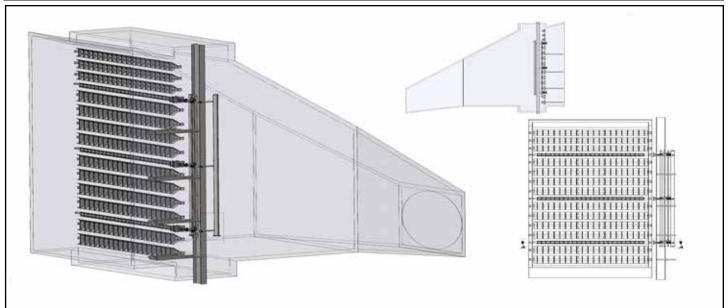
Power & Industrial Services 95 Washington Street Donora, PA 15033 724-379-4477 1-800-676-7116 www.piburners.com Rick Vano-National Sales Manager rvano@Piburners.com

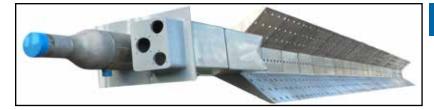


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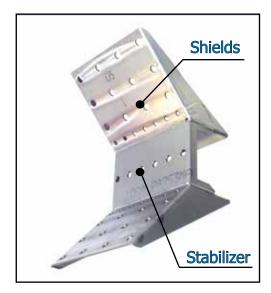




#### Self Supporting Gas Burner Elements

- Large Self Supporting 304SS Gas Manifold
- Flame Stabilizers RA253MA \* Heavy Duty
- Pilot Cover Assembly RA253MA \*
- 304SS Mounting Plate, Insulation Box, & Inner Liner Plate
- Designed to fit through the existing duct side wall penetration
- Mounting Hardware and Gasket included
- \* RA253MA has two times the strength of 310SS above 1600°F and great oxidation resistance up to 2000°F and will decrease distortion and increase service life of your duct burner.

#### Heat Resistant Flame Stabilizer





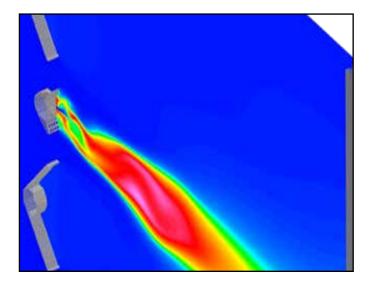
# **CFD Design**

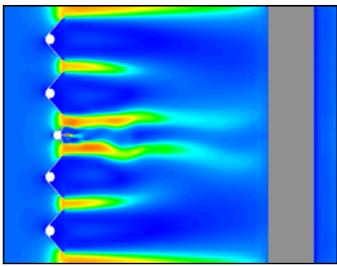


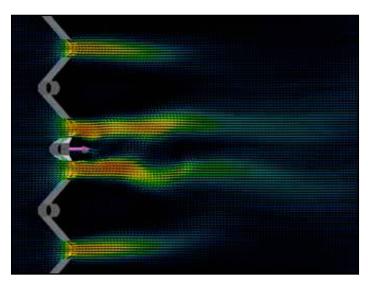
P&I's product development and design process utilizes industry leading CFD (computational fluid dynamics) modeling techniques incorporating the latest in chemical kinetics modeling. The state-of-the-art CFD modeling process results in a comprehensive analysis of the current combustion system as well as our new and improved duct burner system that will maximize your combustion performance.

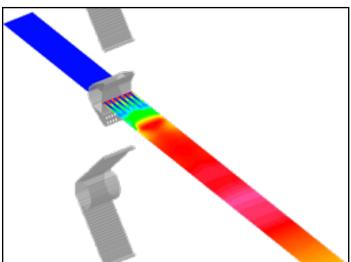
#### P&I's CFD results will confirm:

- Excellent burner element heat input distribution
- Flame shape and length
- Downstream temperature distribution
- Pollutant formation including NOx and CO













### **Duct Burner Installation**



#### **Installation Support**

• Power & Industrial Services supplies detailed installation drawings and technical support to assure an easy and trouble free installation.

















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