Zeeco Duct Burner System Upgrades and Retrofit Program.

Zeeco’s DB-LN burner series minimizes emissions while maximizing fuel flexibility and energy efficiency to provide reliable supplementary firing for power and steam generation. The ZEECO® duct burner uses a self-supporting design and does not require any mid span support structure. Each firing element and flow baffle is designed to grow and expand independently. This design extends equipment life in the high temperature and turbulence downstream of a combustion turbine. ZEECO duct burners are installed in combustion turbine facilities around the world, including flue gas reheat systems for SCR NOx reduction and air heating applications.

Common Industry Challenges

- Imbalanced flame patterns leading to imbalanced boiler heat absorption
- Sagging or binding firing elements
- Warped or corroded flame stabilizers
- Warped or corroded duct liners
- Ineffective ignition systems
- Ineffective scanner locations and technology
- Ineffective distribution grid systems
- Improper velocity and air/exhaust gas mixing
- Improper flame length
- Warranty issues and poor equipment performance

Zeeco Duct Burner Benefits

- Proper design firing system leads to balanced flame patterns and boiler heat absorption
- Self-supporting elements
- Engineered for success from start to finish
- Full modeling capabilities, including CFD and physical air flow models.
- Cost-effective system design and engineering
- Guaranteed emissions levels for NOx and CO
- Predictable flame lengths
- Retrofits that eliminate warranty and performance issues
- Comprehensive turnkey installation and startup services available

Smarter Engineering

We understand the real day-to-day challenges in the power and steam industry. That’s why Zeeco engineers use proven cold flow and CFD modeling to simulate specific process conditions against actual equipment design, optimizing system performance and eliminating potential warranty issues. Zeeco’s smarter engineering abilities minimize start up time, maximize revenue, and provide reliable results for a system that lasts significantly longer.
Low-NOx Duct Burner

- Low NOx DB-LN Burners
- AR/GS Gas and High Energy Spark Igniters
- ProFlame Scanner Systems
- Full BMS and Controls Integration
- Fuel Delivery Systems and Valve Racks
- Site Ports and Cooling Air Systems

Flow Modeling Center.
- Physical and CFD Modeling
- Combustion Air Systems
- Flue Gas Recirculation Systems
- Over-Fire Air Systems
- Exit Gas / Stack Modeling
- Selective Catalytic Reduction

Engineering Studies.
- Environmental Compliance
- Efficiency Audits
- Fuel Conversions
- Capacity Increase
- Carbon Footprint Reduction

On-Site Technical.
- Start-Up
- Installation Supervision
- Preventative Maintenance
- Service Contracts
- Operator Training
- Aftermarket Parts

Why Choose Zeeco?

For nearly 40 years, Zeeco has made a positive impact for our customers on even the most complex projects. As a privately held company that attracts the best and brightest engineers around the world, we understand the basics of success from superior customer service to innovative engineering and advanced technological solutions. Our diverse work force delivers many years of combined global power and steam industry experience and a vast resource of technical know-how. Zeeco is a worldwide team of combustion experts and an unparalleled partnership for the long term. Find out for yourself why Zeeco is the preferred choice for advanced combustion and environmental solutions.