



COEN[®]
COEN COMPANY, INC.

TODD[®]

CLEAN COMBUSTION. POWERFUL RESULTS.™



INDUSTRIAL STEAM GENERATION SOLUTIONS

Innovative Industrial Steam Generation Solutions from Coen Company

As the global leader in developing clean burning combustion technologies since 1912, Coen Company combines its technical in-house engineering expertise, vast resources and industry experience to provide the world's most advanced selection of industrial steam generation solutions. Coen offers a complete line of TODD® and COEN® brand boiler burners, burner packages, safety systems and auxiliary products designed to help you achieve optimal environmental and economic performance.

CUSTOMIZED SOLUTIONS

Coen is dedicated to developing customized combustion solutions for specific customer applications. From simple products to complex burner systems and complete package options, Coen helps you optimize your entire line of combustion systems to meet even the toughest environmental regulations.

*The most industry
experience with more
than 26,000 industrial
steam generation
installations.*

CUSTOMER SERVICE ENGINEERS

With dedicated in-house engineers that provide immediate evaluations, as well as a global network of factory-trained field technicians, Coen ensures that your combustion systems will perform reliably and efficiently for years to come.

- Installation supervision and start-up assistance
- Emissions compliance pre-testing
- Instrumentation calibration for efficiency and safety
- Inspections and preventative maintenance
- Emergency service
- Parts recommendations and equipment evaluations
- Operator training/education



State-of-the-art Manufacturing Facility in Tulsa, Oklahoma



Test Facility Furnace

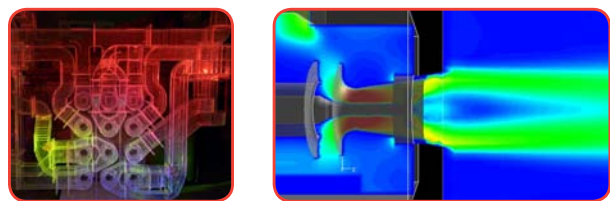
ADVANCED RESEARCH, DEVELOPMENT AND TESTING

Coen's progressive design engineering, product development, and testing capabilities include leading-edge burner testing, simulation and modeling techniques.

- Testing is conducted under a wide range of operating conditions and heat inputs using a diverse variety of fuel gas compositions, fuel oils and other fuels as requested.
- Real-world equipment performance is calculated using cutting-edge simulation and modeling techniques including computational fluid dynamics (CFD) modeling, statistical experimental design, physical modeling and first principles derivations validated with bench-, pilot- and full-scale testing.

QUALITY MANUFACTURING

Coen's low-NOx and ultra-low-NOx burners are precision-built in a streamlined, ultra-efficient process in world-class domestic and international manufacturing facilities that comply with the latest quality control standards and safety requirements. Whether you need a standard burner product or a design customized to your specifications, Coen's burners are manufactured to exceed your expectations.



Physical and CFD Modeling

- *Advanced designs*
- *Rugged construction*
- *Stable flames*
- *Dependable performance*
- *Ideal for single or multi-burner applications*
- *Future regulatory ready*

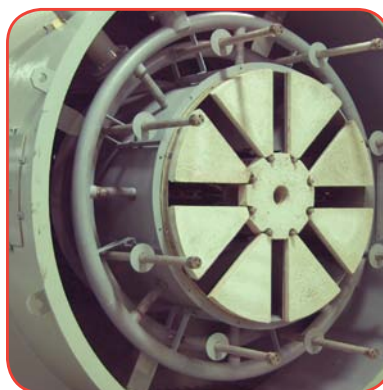
LOW-NOx BURNERS

Coen has the most burner installations in the industrial steam generation industry, making its *TODD* and *COEN* brand burners the preferred choice for reliable, proven low-NOx performance.

Coen offers several burner designs to accommodate variable fuels, emission levels, boiler types, and flame geometry. Coen's low-NOx burners efficiently lower NOx emissions by reducing the amount of flue gas recirculation (FGR) required. Coen's low-NOx burners can easily achieve from 30 ppm to as low as 20 ppm firing gas, with some models meeting these levels without the need for FGR.



Variflame™ Burner



QLN™ Burner



Dynaswirl-LN™ Installation



RMB™

ULTRA-LOW-NO_x BURNERS

Coen has proven experience in developing efficient, reliable and safe ultra-low-NO_x burner technologies, products and systems for the industrial steam generation industry since 1994. Coen's innovative *TODD* and *COEN* brand burners are designed to efficiently lower NO_x emissions by reducing the amount of FGR required.

- *Compact, stable flames*
- *Safe operation*
- *Easy-to-use controls*
- *Excellent burner turndown*
- *Trouble-free designs*

Coen offers multiple ultra-low-NO_x burner models that meet 15 ppm, 12 ppm, 9 ppm and even 5 ppm NO_x levels depending upon your emission requirements. Coen's burners can achieve the ultra-low-NO_x levels that you require, eliminating the need for back-end selective catalytic reduction (SCR) equipment.

Coen's ultra-low-NO_x burners are engineered to help you meet the most stringent emissions requirements by achieving ultra-low emission levels and delivering dependable performance year after year.



Delta-NO_x™ ULN Burner



DAFT™ ULN Burner



Variflame™
Packaged
Burner



iScan2™ Flame Scanner



DAF™ Packaged Burner

BURNER PACKAGES, SAFETY SYSTEMS AND AUXILIARY PRODUCTS

Coen understands that its industrial steam generation customers often need more than a burner to solve their challenges. That is why Coen offers the highest quality, most advanced and dependable burner packages, safety systems and auxiliary products worldwide. Coen designs these components to operate safely and effectively achieve your environmental performance goals.

- *Safe*
- *Reliable*
- *Rugged*
- *Customized designs available*

Coen offers cost-effective pre-designed control systems with operator interface, custom-engineered burner management control systems, and all other ancillary components including windboxes, combustion air fans and piping skids.

Proven Technologies

Coen's industrial steam generation solutions are world-renown for reliability, efficiency and proven performance. Coen is committed to engineering next-generation technologies that keep your system running smoothly and in compliance with environmental regulations.

Contact Coen today to learn more about innovative *TODD* and *COEN* brand boiler burners, burner packages, safety systems and auxiliary products, and improve the safety and performance of your system.



Variflame™ Installation



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