

SELECTIVE CATALYTIC REDUCTION SYSTEMS



Babcock Power
ENVIRONMENTAL
a Babcock Power Inc. company

For more than 40 years, Riley Power Inc. and its sister company, Babcock Power Environmental Inc., both Babcock Power Inc.® companies, have been successfully providing environmental solutions to utility power plants, waste-to-energy facilities, and large industrial applications. We are the leading designer and supplier of Selective Catalytic Reduction (SCR) systems* for fossil fuel fired boilers in North America, maintaining over one-third of market share. With over 90 years of utility boiler engineering experience within the Babcock Power family, Riley Power has successfully implemented the largest operating SCR in the world. Our vast SCR experience with a wide range of fossil fuels at various sulfur contents includes Bituminous, Lignite and PRB coals along with petroleum coke blends, oil and gas.

Our designs are fully integrated with the boiler system to ensure seamless operations. Riley Power offers complete integrated SCR systems comprised of Computational Fluid Dynamics (CFD) and physical modeling, ductwork, reactors, support steel, initial catalyst charge, fans, complete reagent loading, storage, injection systems, startup, testing and training and a full range of guarantees. Couple these capabilities with our highly skilled technical engineers and project managers, and your next environmental upgrade is a sure success.

Improve the efficiency and environmental-impact of your boiler. Contact Riley Power to discuss our industry-leading SCR Systems today.



BENEFITS

Delta Wing® Full Duct Mixing

- Fully integrated with boiler system to ensure seamless operation
- Meets or exceeds all guarantees, enabling customers to generate income through sale of NOx allowances
- Reduces initial commissioning time to as little as 2 weeks
- Reduces NOx emissions by often greater than 90%
- A typical system requires only 6-8 large ammonia injection points, eliminating nozzle plugging
- No rebalancing required with different mill or burner operations
- Minimizes system pressure drop
- Maintains consistent effective mixing even at low load operation

Total In-House System Technology Base and Multi-Pollutant Technology

- NOx controls - SCRs and Low NOx burners
- SO₂ and acid gases - dry and wet flue gas desulfurization scrubbers
- HOK® and sorbent injection for mercury control
- Steam generators and associated firing systems
- Can also integrate particulate collection equipment

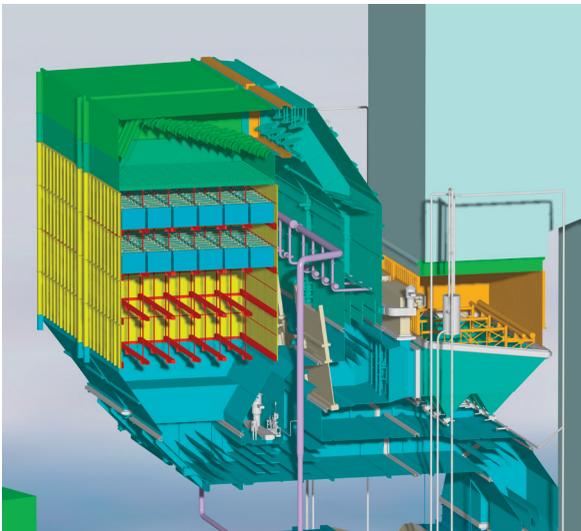




SUCCESSFUL SCRs AND DELTA WING® TECHNOLOGY

Successful SCR systems require a homogeneous NO_x/NH₃ mixture, consistent temperature, and uniform flow distribution. Riley Power consistently achieves all of these criteria along with reducing ammonia/urea consumption (slip) and eliminating air heater plugging. Our extensive in-house design capabilities result in selection of the optimum SCR system for each specific application, ensuring compliance with performance guarantees at both maximum design load and low load operation. In many instances, the ability to consistently operate over a wide range of loads has enabled our customers to increase NO_x reduction and maximize the generation of NO_x allowances.

Our Delta Wing® Technology is a proprietary mixing technology utilized on more than 60 SCRs and is consistently among the top performing SCRs in the U.S. (EPA Database). Coupled with unmatched modeling results, the Delta Wing® Technology provides homogeneous gas mixing and reagent injection in one application with no moving parts in the gas stream. This mixing technology requires minimum tuning during startup and commissioning and little, if any, annual "tuning" of operating SCR systems. The usual duration of initial commissioning from cold start of operation to consistent full load operation is less than two weeks. This process enables our customers to quickly reach guaranteed NO_x reductions, often greater than 90%, and to operate consistently over the full load range.



SAFETY³ PEOPLE. POWER. PROJECTS.
We're giving safety the third degree.

Babcock Power Inc. and its subsidiaries place the safety, health and security of our people at the core of our company values. Our team is our most valuable resource, generating solutions everyday to deliver safe, clean, reliable energy globally. With a keen focus on safety, Babcock Power Inc. conducts business in a manner that protects our people, our customers and the environment. From innovation to generation, we are proud of our award-winning safety record and are committed to operating with integrity and excellence.

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