Circulating Dry Scrubber (CDS) Technology

The Babcock & Wilcox Company (B&W) recognizes the importance of maintaining coal's status as a competitive fuel choice for our utility customers. We are aggressively researching and developing new technologies and advancing our well-proven base of emissions control systems developed in-house to meet the challenges posed by tighter emission regulations. In addition, we have used acquisitions and licenses of environmental control products to expand our breadth of technology offerings and experience base. B&W has a long history of working with our technology partners to further develop the licensed technology.

B&W is the exclusive North American licensee for Enviroserv's circulating fluidized bed–flue gas desulfurization (CFB-FGD) technology (more commonly referred to as a circulating dry scrubber, or CDS). Along with our wet, spray dry and dry sorbent injection FGD solutions, we have expanded our existing portfolio of flue gas desulfurization products to enable us to provide the optimum solution for each application. Coupled with B&W's particulate control equipment, the Enviroserv CDS technology provides a new option for targeting the optimal solution for the site specific needs of each installation.

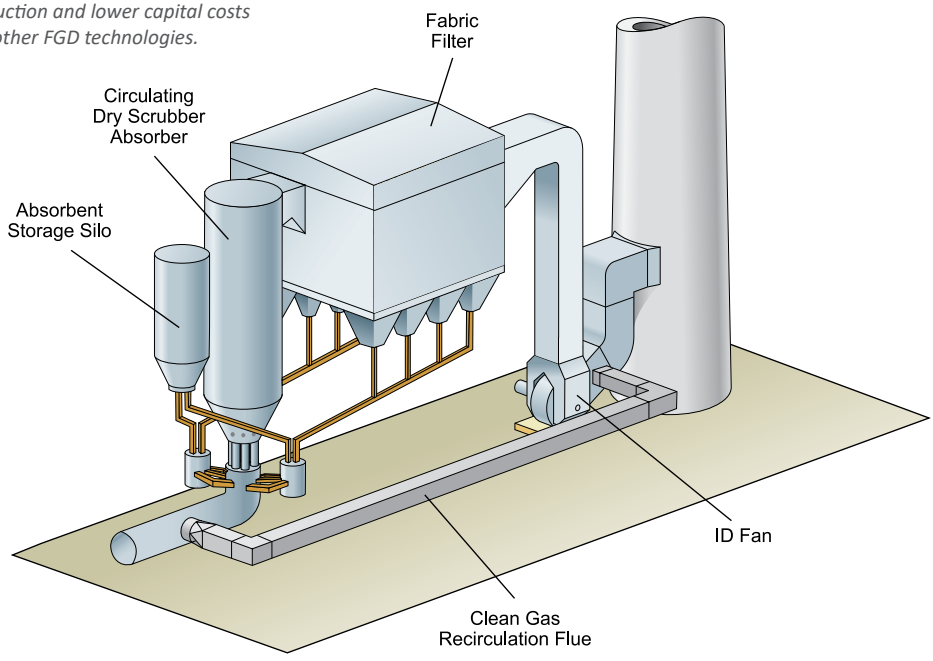
CDS technology

CDS technology is ideal for smaller units that are firing medium to high sulfur coals. Compared to wet FGD systems, capital costs are lower for CDS systems with the potential for higher SO_3 reduction and lower particulate matter (PM) emissions due to the integral B&W pulse jet fabric filter. In addition, the CDS may fill other site specific needs and is ideal for plant locations with limited space because of its smaller footprint. Like the spray dryer absorber (SDA), the CDS creates a dry solid byproduct and does not require a wastewater treatment facility.

Benefits of a CDS

- High SO_2 removal efficiency
- Integral SO_3, HCl, HF, mercury, heavy metals, dioxins and furans, and $PM_{2.5}$ emissions reduction
- Fuel flexibility to handle higher sulfur coals
- Low capital cost
- Low auxiliary power use
- Low operational and maintenance costs
- Dry reagent preparation and recycle system operation
- Low fresh water consumption
- Integral consumption of plant waste water streams for zero liquid discharge operation
- Absorbent feed independent of water injection (compared to an SDA)

Coupled with B&W's particulate control equipment, CDS technology has the potential for higher emissions reduction and lower capital costs compared to other FGD technologies.



Unique capabilities and experience

B&W has more than 35 years of experience executing FGD and other environmental projects for the power industry. Working with B&W can provide our customers with benefits not available from other suppliers. Our capabilities include:

- Integration of boiler, combustion and emissions control systems
- Experience with a wide range of emissions reduction technologies
- Experienced project management and execution teams
- Demonstrated equipment startup and commissioning expertise
- Dedicated environmental aftermarket services and replacement parts

In combination with Enviroserv's operating knowledge of the CDS, these unique capabilities allow B&W to objectively evaluate each application and then engineer and supply the best overall solution. In addition, our project management expertise means that your project will be executed on time and on budget.

A CDS is ideal for plant locations with limited space because of its smaller footprint.

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Established in 1867, Babcock & Wilcox is a global leader in advanced energy and environmental technologies and services for the power, industrial and renewable markets.

For more information or to contact us, visit our website at www.babcock.com.

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