

SMART CONTROLS™-PC

Cornerstone of Intelligent Sootblowing

SMART Controls™-PC is the most advanced Intelligent SootBlowing (ISB) control package available on the market today. Unlike other systems, SMART Controls™ uses directly measured fouling data from Clyde Bergemann SMART Flux Sensors™* and SMART Gauges™ for furnace and convection heating surfaces monitoring respectively. Our ThermoDynamic Model (TDM) analyzes critical plant data in real time and determines which, if any, heating surfaces need cleaning and which sootblower is most effective to optimize boiler performance.

The SMART Controls™-PC system, the foundation for advanced ISB system, enables you to:

- Improve heat rate
- Decrease in NOx, SO2, and CO2 production
- Decrease blowing media consumption
- Reduce boiler downtime
- Reduced boiler tube leaks

The SMART Controls™ system forms the core management platform for the SMART Clean™ ISB system, providing process control, overview, reporting and alarming capabilities.

Customized Upgrade Solution:

The SMART Controls™ system is an ideal candidate to upgrade existing sootblower control systems (Clyde Bergemann, Copes Vulcan or third party) with minimal field wiring changes.

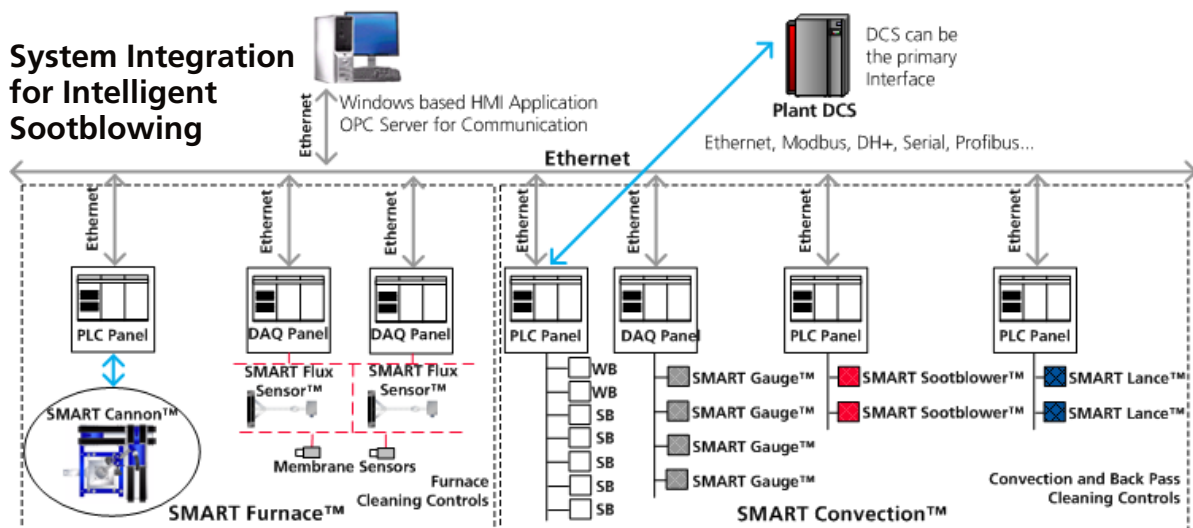
Unlike control systems from other suppliers, the SMART Controls™ system offers the benefit of an industry-standard, open-architecture PLC and ladder logic to control the sootblowers.

A variety of connection options (Ethernet, Modbus, RS 232 or Profibus) for a seamless interface to a plant's DCS can be provided. The DCS can serve as the primary interface to the SMART Controls™-PC system, avoiding the need for another PC terminal in the control room.



* SMART Flux Sensors™ formerly known as SmartSensors

System Integration for Intelligent Sootblowing



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Control options offered:

- SMART Furnace™ closed-loop control using SMART Flux Sensors™*, SMART Cannon™ or conventional wall blowers
- SMART Convection™ closed-loop control using SMART Gauges™, TDM, SMART Sootblower™ and conventional retractable sootblowers
- Dynamic flow/pressure control module to adjust the blowing pressure for each insert/retract operation
- Dynamic speed control module to adjust the speed for each insert/retract operation
- Real-time opacity signal integration to minimize opacity excursions
- Distributed I/O platform using Profibus/DeviceNet/ Ethernet to reduce field wiring

Benefits

- Industry-standard, PLC based, open architecture control system seamlessly interfaces with the plant's DCS
- User-friendly operator interface for ease of control and monitoring
- Modular architecture makes it easy to implement expanded intelligent boiler cleaning solution
- Remote log-in support for troubleshooting and system tuning
- Built-in data logging and report-generation tools
- Controls unlimited number of sootblowers, including multiple supply headers, drains and boiler units
- Customized solution adapts existing system configuration, enabling upgrade without major modifications
- Multiple sequence controls for flexible, efficient sootblowing operations
- Allows sootblower profiling with configurable alarms
- Easy access to operational permissions, setpoints, history

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Clyde Bergemann Atlanta

4015 Presidential Parkway
Atlanta, GA 30340

T: 800-241-5996
T: 770-557-3600
F: 770-557-3651

QUALITY MANAGEMENT SYSTEM
CERTIFIED BY DNV
ISO 9001:2008

Internet: www.cbpg.com
eMail: info@us.cbpg.com