

Asian Steel Manufacturer Improves Environmental Emissions and Employee Morale with Dust Collector IIoT Monitoring Solution

RESULTS

- Reduced environmental emissions through increased system uptime and visibility
- Reduced maintenance time with data analysis at the edge
- Reduced spare parts inventory of obsolete components

APPLICATION

Industrial dust collectors filter particles out of the air in order to create a cleaner industrial workspace and to reduce pollution that is expelled into the environment.

CUSTOMER

This Asia-based steel manufacturer employs 15,000+ people and produces 8 million tons of steel, distributed globally, annually. As a major sheet production the steel manufacturer uses integrated and modern processes including coking, sintering, iron making, steelmaking and steel rolling.

CHALLENGE

Local government legislation mandates regulatory compliance to control environmental air pollution. Failure to comply results in government fines. The existing dust collector equipment was dated, causing maintenance workers to spend significant time troubleshooting and repairing. Further, worker affluence and increasing social standards required the company to find a solution to systematically improve their workplace air quality in order to retain and attract workers.



“Having Emerson as the vendor simplified the upgrade process and provided a compact solution with IIoT capabilities.”

Maintenance Manager

SOLUTION

Emerson collaborated with the customer to deliver a turn-key solution. Existing obsolete control system and valves were replaced to increase machine uptime. An edge device and graphical display device were used to enable system monitoring and IIoT connectivity.

The entire solution is packaged in a standard cabinet to ensure seamless integration on site.

- The PACSystems VersaMax micro PLC is used for discrete control of the dust collector system.
- The QuickPanel+ HMI display is used for system monitoring and display at the machine.
- The PACSystems RXi2 edge device is used for data storage and system analysis including pollution reporting and remote visualization.
- ASCO 353-series pulse valves are used for pulse jet to ensure machine uptime and system efficiency.

RESOURCES

Programmable Automation Controllers

www.emerson.com/PACSystems

Industrial PCs (IPC)

<https://www.emerson.com/en-us/automation/control-and-safety-systems/industrial-computing/industrial-pc-ipc>



Dust Collector Control Cabinet

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