

Metso Mineral Crusher Pilot (MCP) automation



Application

Mineral Crusher Pilot (MCP) automation creates more visibility, access and control of the minerals crushing process.

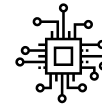
Metso's Mineral Crusher Pilot (MCP) automation is designed to optimize crushing processes in mining operations. By seamlessly integrating advanced digital technologies, MCP empowers operators, enhances safety and improves overall efficiency.

MCP automation is designed for simplified plant operation and equipment maintenance, with dedicated information by user role, making event-based responses easier through fault-specific troubleshooting recommendations.

The system brings a new level of support for DCS integration, featuring full functional control and monitoring with 1,300 tags reserved exclusively for DCS communication. The full power of MCP can be adopted by any existing Plant Control system. An unparalleled level of access through the OPC connection creates a no compromise solution for running the crusher from MCP or control MCP from your DCS – the best of both worlds.

MCP offers more than 300 configurable process control, warning and alarm set points. This exceptional operational flexibility, combined with the absence of code customization for machine operation, is complemented by the ease of supervision and monitoring of set point modifications, including user attribution and timestamps.

The platform also delivers onboard process control verification testing and mechanically safe operational simulation. These features provide excellent support for Maintenance and Operations teams when investigating unexpected events or when verifying the function after making performance modifications to machine parameters.



Connectivity

Easy and fast integration with plant control system over an OPC connection.



Remote control

On mobile device with full automated diagnostic and reports. Machine local Wi-Fi access.



Remote actions

Automatic switching process between lube pump/filter modules, smart starters for remote auxiliary equipment rearming.



Robustness

Network loops, back-up power supply for sensors, UPS for 24VDC, ground DC monitoring, sensor identification with centralized parameter system.

MCP automation

Main features

Advanced motor control:

- MCP monitors auxiliary low voltage motors for power consumption and advanced diagnostics, supporting maintenance and continuous improvement

Comprehensive trending for machine performance diagnostics:

- Continuously monitors lube and cooling system performance
- Automatically identifies issues and calibrates equipment
- Stabilizes consumption and component wear through load balancing cycles

Activity logging:

- Easily accesses information on all actions taken by operators and remote DCS connections
- Extracts data for continuous improvement and evaluation of operational performance

Flexible network architecture:

- MCP's robust network adapts to site architecture and customer's wireless hardware specifications
- Provides simultaneous access to the machine locally and remotely
- Scalable for easy adoption into existing gateways with minimal additional investment

Process control and alarm configuration:

- Tailor alarms for specific faults based on user groups
- Over 175 machine process control parameters
- 125 machine process warning and alarm setpoints



To get even more out of your MCP, add the latest smart crushing solutions from Metso

- SmartStation for Superior™ MKIII primary gyratory crushers
- SmartCone for Nordberg® MP Series™ cone crushers

MCP automation features:

- Advanced diagnostics
- Onboard process verification
- Machine local Wi-Fi control
- No code adjustments needed for Process Control Optimization
- Fully automatic operation