

METALSMASTER AGC AUTOMATIC GAUGE CONTROL

Improve your business performance in today's challenging economic environment – Honeywell's MetalsMaster has integrated automation solutions for aluminum sheet and foil rolling to help achieve faster rolling speeds, tighter gauge quality control and improved flatness.

MetalsMaster systems are designed for high-performance automation of aluminum rolling mills. Honeywell has combined entry and exit thickness measurements, Automatic Gauge Control (AGC), Hydraulic Gap Control (HGC), Online Alloy Compensation, Mass Flow Control (MFC) and other enhancements such as roll eccentricity compensation into

a single integrated system with flexible configurations to meet the needs of most sheet and foil rolling operations.

Honeywell brings 40 years of experience and proven technology to rolling mill automation; combined with easy-to-use tools for operators and engineers to optimize performance and reliability of your rolling mills.



FEATURES AND BENEFITS

- High speed real-time controller provides closed-loop control of strip thickness using thickness measurements from the x-ray sensor.
- Model-based controllers for fastest possible response to exit gauge deviations.
- Multi-Variable optimization for each AGC mode, includes constraints for flatness profile and AFC actuators if AFC is included.
- Coil Quality Reporting included.
- Multiple AGC modes to handle multiple passes from sheet to foil with automatic mode switching:
 - Foil mills use speed or tension AGC with speed optimization.
 - Split payoff tension controls for foil doubling mills.
- Cold mills can use Gap or Load AGC with available hydraulic gap control (HGC) and speed optimization.
- Controllers are automatically adapted to changes in alloy width, thickness, and hardness.
- Hydraulic Gap Control (HGC) includes position transducers for precise closed loop roll positioning.
- Optional Roll Eccentricity Compensation (REC).
- Optional Mass Flow Control using laser speed signals.
- Flexible software configuration for cold mills, foil mills and universal mills.
- Available TCP/IP interface to scheduling systems.
- Single-window AGC operator interface.
- Supervisory drive controls and logic manage state transitions and acceleration/deceleration of the mill.
- On-screen I/O and controls configurations, no programming required.
- Supports combinations of hard-wired or Profibus I/O. Dedicated PLC communications such as Profinet and EtherCAT links are also available.
- Available support for high-speed data loggers such as IBA.

DESCRIPTION

High Performance

MetalsMaster utilizes a high-performance controller with real-time operating system to provide cycle times as fast as 10 ms.

FLEXIBLE APPLICATIONS

Multiple I/O methods include analog (hard wired), Profibus DP, TCP/IP, Profinet, EtherCAT links and customized communications.

On-screen engineering tools allow your engineers to monitor and/or modify I/O assignments, optimization and control parameters, quality data, control mode selection and fault conditions and diagnostics.

ENHANCED VISIBILITY

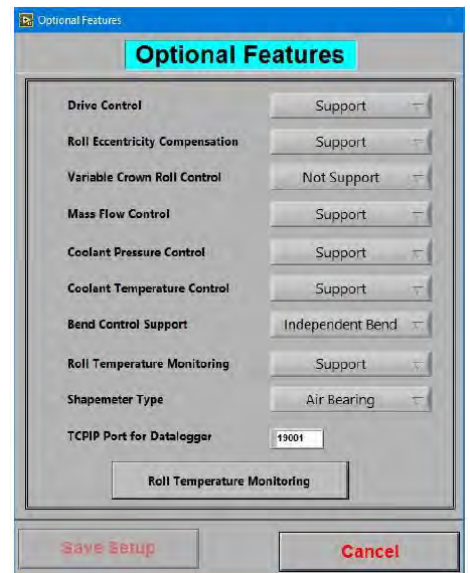
Real-time, intuitive human-machine interface (HMI) provides instant visibility into mill operating state, AGC and AFC performance, trends, alarms, and process information so your operators know what's happening and can take quick action in the event of abnormal situations.

EASY CONFIGURATION

Alloy Recipe Handling - Product information for sensor calibration and control tuning parameters are stored by alloy and gauge thickness in easy-to-manage recipes.

DELIVERY AND SERVICE

Honeywell protects your investment in automation with our extensive local service and projects teams, backed by our dedicated global Technical Assistance Center.



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