AGI ADVANTAGE
Protecting Your Milling Operations
Hazard Monitoring System – Typical Installations

- Bearing temperature
- Belt misalignment
- Shaft speed
- Vibration
- Equipment:
  - Bucket elevators
  - Conveyors
  - Drag conveyors
  - Fans - dust collection
Belt Misalignment

Bearing Temperature
Shaft Speed

Vibration Monitoring
CMC Intrinsically Safe Network
Branch and tee system layout

CAT5 Cable
• Waterproof
• Rodent-proof
• Economic to install
• Conduit not required

RS485 Modbus

Very flexible in design and expansion capabilities
Millguard Pro™ Roll Stand Monitoring Solution
The Need For Roll Stand Monitoring

- Roll damage due to roll on roll contact
- Roll brush fires due to wear
- Machine damage due to bearings overheating
- Lost productivity due to downtime
- Inefficient milling operations
- Reactive maintenance
System Design Challenges

- Harsh, dusty Class 2, Div. 1 environment
- IR Sensor technology traditionally expensive
- System failures due to dust build-up
- Systems expensive to install & maintain
- Frequent disassembly for maintenance
Millguard Pro™ Roll Stand Monitoring Solution

Roll Face & Bearing Temperature Monitoring provide real time feedback for informed decision making and system fine-tuning.

Roll temperature IR sensor detects temperature on roll surface and comes with air purge to keep sensor free of flour dust.

Bearing temperature sensor installs directly to bearing housing using existing brass zerk fitting for easy installation.
Millguard Pro™ Roll Stand Monitoring Solution

Stand alone controller & PLC integrated options

- Intuitive touchscreen with alarm and machine shutdown capabilities
- PLC interface option – seamlessly talks to any plant controls system
Millguard Pro™ Roll Stand Monitoring Solution

Integrated system designed for Class 2, Div. 1 locations
Millguard Pro™ Roll Stand Monitoring Solution

IR Roll Surface Temperature Temperature Sensor

- Early indication of misaligned rolls
- Innovative air purge keeps sensor surface clear of dust
Millguard Pro™ Roll Stand Monitoring Solution

Bearing Temperature Sensor

- Early indication of unsafe & inefficient milling conditions
- Mounts using existing brass zerk fitting
Design Elements – Millguard Pro™

- System designed for Class 2, Div. 1 flour mill environment
- System tried and tested in harsh, dusty flour mill environment
- Can be installed and maintained by mill operators
- Accommodates frequent machine maintenance
- Controller provides alarm and machine shutdown functionality
- Operators can log trending data for proactive maintenance
Benefits – Millguard Pro™

• Economic system protects mill operations
• Monitors roll stand to prevent catastrophic machine damage
• Enables scheduling of proactive maintenance
• Reduced downtime and product waste
• Improved long term mill efficiency and safety
• Contact CMC for more information & case study
Also Making Milling Facilities Safer With Industry-Leading HazMon Technology

- Bearing Temperature
- Belt Misalignment
- Shaft Speed
- Vibration
- Bucket Elevators
- Belt Conveyors
- Drag Conveyors
- Fans – Dust Collection
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