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Eaton’s Motor Insight™ Enables Steel Mill to Reduce Downtime by Detecting and Predicting Motor Failure

Location:

Midwestern United States

Problem:

Inability to monitor operating status of discharge pumps

Solution:

Motor Insight overload and monitoring relays

Results:

Ability to detect and predict motor failure dramatically reduces downtime and results in customer buying additional monitoring units

Contact Information

Readers who may have similar application challenges and would like to discuss this sales success are invited to call Larry Sladek at 330-329-2403 or Todd Begeman at 216-849-6542.

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WESCO’s Larry Sladek discovered that the mill was experiencing significant downtime because the motors on its discharge pumps, which are critical to its melt shop operation, were failing. Sladek explains, “Since downtime can cost a steel mill as much as \$10,000 an hour, I knew that Eaton’s Motor Insight would provide the mill with a cost saving solution.

After I demonstrated the Motor Insight to mill personnel, they immediately recognized that it would prevent all of the problems they were having because it gives them the ability to monitor their loads.”

The mill has three hot well pumps (480VAC 150HP), three cold well pumps (480VAC 300HP) and two lance pumps (480VAC 150HP). In each situation, one pump needs to run all the time and the other is hot spare.

Sladek reports, “The mill installed one Motor Insight on each pump, and uses DeviceNet to get motor data to the PLC, which is connected to the plant’s intranet. Using a screen that shows each motor’s data live, personnel can check the pump operation from any PC in plant. They can also use eworkplace and check the status of each pump from remote locations.”

The mill is trending all the data that is collected. The data enables the staff to automatically switch over to the spare pump before or immediately after a failure. It is essential that the same number of hot and cold well pumps are running at the same time to prevent a flood in the facility’s basement.

After seeing how effective the Motor Insights were on the melt shop pumps, the mill determined that they should be installed on five plant air compressors, which had been burning up motors frequently. Mill staff recognized that Motor Insight would give it better protection, and the ability to trend data from each compressor without installing a data recorder at each unit.

Sladek notes, “Once the mill saw the dramatic benefits of installing Motor Insight units, it asked us to provide medium voltage monitors for its larger motors. With a total monitoring package, the mill is significantly reducing downtime and expenses.”



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