

Productivity Monitoring Solution Fits Like A Glove

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CAS DataLoggers recently provided an effective productivity monitoring solution for the Wells-Lamont Industry Group, a high-production work glove manufacturer and member of the Marmon Group of companies. Their factory in Philadelphia, MS produces hand-stitched quality products from Kevlar and other materials.

Management had been using a manual glove-counting method, which proved very time-consuming. As a result, they wanted a more efficient and accurate way to gauge productivity and meet quotas across multiple shifts each day to save on long-term costs. Management contacted CAS DataLoggers to find a single solution with enough inputs to monitor every machine on the factory floor and accurately measure productivity by using a counter to display them as either on or off. This solution would also need to include a user-friendly setup and programming interface for quick implementation.

The Philadelphia factory installed a dataTaker DT85 Intelligent Universal Input Data Logger in a control cabinet, and the logger was then connected to 2 dataTaker CEM20 Channel Expansion Modules to multiplex 40 more channels to its total inputs. CAS DataLoggers also provided 130 Ohio Semitronics Inc. split-core current transformers, enough to monitor every knitting machine in the factory. To protect the machines from any damage, users placed the transducers on the machines' motor leads, monitoring a current range of less than 3 amps. Any reading under 0.5 amps indicates that the machine is currently idle, with most of the machines running at 1.5 amps. The dataTaker runs all day, sampling the data once a minute using a counter showing either a 'running' result of 1 or an 'idle' result of 0. During a shift, machine run times of 85-90 percent are expected, due to the downtime spent changing yarn, etc. Looking at the data, when users see a machine only operating at 60 percent on a given shift, for example, they can now check to see if it needs to be overhauled.

Users retrieve all the data via the dataTaker's built-in dEX graphical interface to generate a daily report through the Web interface, which personnel can then compare with the number of gloves and the scrap produced that day to determine productivity.

IT & IE Technician Johnnie Brown was new to datalogging for this particular application, but soon after installation he had a strong grasp of the dataTaker's capabilities.

"The dEX interface is easy to pick up, and CAS DataLoggers was there to help with online training sessions for setup and programming. I changed the format of the data coming from the dataTaker — instead of showing the voltage output, it shows our machines as either on or off. We view three days of run times to check for

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optimum usage, and the dataTaker accumulates the total minutes which makes it all easy to see," he says.

The intelligent dataTaker system entirely replaced the factory's lengthy manual productivity methods. The DT85 data logger now downloads the highly-accurate data from every knitting machine directly to the office PC via the dEX graphical interface, giving management a true productivity picture. CSV format enables convenient organization in Excel, giving the operation high visibility at a cost-effective price.

Additionally, the stand-alone solution stood up to continual operation, and the channel expansion modules provided a low-power way to extend its number of inputs to cover all the factory's 120-plus machines.

Brown explained the convenience of using a single system to record and transmit all the data.

"With the dataTaker, we're getting the real nitty-gritty in a fraction of the time — this system is our new productivity indicator. It's doing the job quite well, and we expect a long-term productivity boost," he says.

Following the dataTaker's successful implementation in the USA factory, Wells-Lamont is now considering installing similar systems with the same setup in its 2 other factories in Stanstead, Quebec and in Semur-en-Auxois, France.

Check out www.dataloggerinc.com [2] to learn more.

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