

A watchful eye

The rise of data monitoring solutions

Getting the most from production equipment is an important priority for manufacturers. Issues such as unplanned downtime, manufacturing inefficiencies and wastage can be incredibly costly, so finding ways to mitigate these risks and solve potential problems before they occur is crucial. This is where data monitoring solutions are key.

According to research conducted by the International Society of Automation (ISA), the average factory loses at least 5% of its productivity due to downtime, with some losing as much as 20%. ISA estimates that as many as 80% of manufacturers are unable to calculate their exact downtime costs correctly. Further research conducted by the Aberdeen Group consultancy found that unplanned downtime resulting from mechanical breakdowns and similar issues can cost businesses as much as \$260,000 an hour.

So, how can data monitoring solutions address these issues? Many data monitoring systems utilise sensors that can provide real-time equipment data to manufacturers, allowing them to monitor production levels, temperatures, usage, waste, predictive maintenance data and more. These statistics can be easily observed remotely through

connected dashboards on computers or mobile apps, and real-time alerts can be sent if a problem occurs.

With a clearer understanding of their equipment, manufacturers can then act accordingly to address mechanical failures, upgrade production lines and boost production. The ability to analyse long-term trends can also prove highly beneficial to manufacturers, as companies can adapt their operations to optimise production output.

One firm providing data monitoring solutions to manufacturers in the food and beverage industry is US-based SensiTrx. Bryan Sapot, CEO of SensiTrx told *FoodBev*: "By tracking data, you can get rid of inefficiencies, increase capacity, and as a result, increase profits. The key to achieving those goals is measuring the processes consistently, which is made possible with the latest solutions."

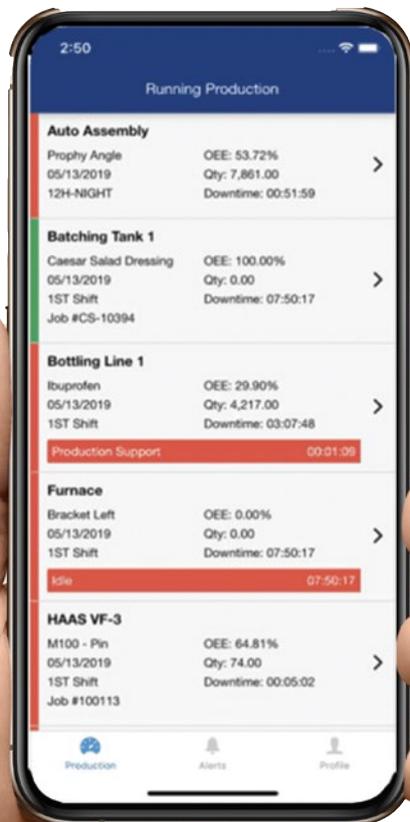
According to Sapot, there are two key challenges businesses face when looking to implement data monitoring solutions. The first is getting accurate data, and the second is actually trusting the data and "creating a culture of continuous improvement," he said: "To get accurate data we suggest starting small, looking at the bottleneck of the lines or looking at the line as a whole first. Then, based on the information learned, collecting more data as needed.

"Companies have to create a culture that uses and trusts data to make improvements. If they can do this, they can achieve big gains in productivity. If people don't trust the data or don't understand what management is doing with it, companies will have a hard time getting the gains they hoped for."

Real-time benefits

The demand for real-time monitoring solutions is increasing rapidly, and Sapot claims there are a number of advantages to these solutions: "The biggest benefit a company gets from a real-time system is identifying and stopping problems while they are happening. Traditionally, most companies won't find out about issues until one or two days later. By that time, the knowledge of what happened is lost, and you lose production time as well.

"With a real-time system, you can set up alerts to proactively notify supervisors and managers when something is going wrong, and they can take steps to mitigate the issue. Also, the line leads know where they stand at any given time. They know if they are running ahead or behind and can ask for help if there is a problem."



SensiTrx



Worximity

The benefits offered by real-time data was also asserted by Emilie Lachance, chief marketing officer of Worximity, a Canadian technology company that specialises in real-time monitoring solutions for food and beverage processors: "With real-time and precise data, you can do more with fewer resources. It allows managers to reduce waste, improve efficiency, use less energy and less raw material to achieve the same or even better end results.

"Gathering all the data from various pieces of equipment is also important. Many machines have screens and data available, but you need to centralise the information from all your machines to have a complete overview of your bottleneck and design a corrective action plan."

Real-time data that can be accessed remotely could be an important resource in a post-Covid world, as production managers might not necessarily be on a factory floor to gather data and monitor machinery in person. "With Covid-19, a lot of C-level staff and directors are managing remotely, so having the data in real-time is crucial to keep the factory running as efficiently as possible," Lachance added.

According to Lachance, as more manufacturers implement "made-to-order" business models, real-time data will be key due to rapidly changing production demands. She also claimed that real-time data is far more effective for monitoring production than conventional monitoring solutions, as: "Traditional weekly reports for yield and overall equipment efficiency do not allow manufacturers to react quickly enough to a problematic situation. Having the data in real-time can make the difference between profit and loss," she concluded. ●

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