PharMaster

Wyeth Medica Ireland introduces PharMaster

Wyeth Medica's Newbridge site, forty miles south of Dublin, has introduced the BMSvision PharMaster system to its packaging facility. The PharMaster Manufacturing Execution System (MES) has been installed on 28 integrated packaging lines.

The objective was to have a central data collection and performance monitoring system, which would be accessible to all functions within the packaging area.

PharMaster replaces a totally manual monitoring process at the Newbridge site, which manufactures approximately ten billion oral dosage products for conversion into 175 million packs per annum.

"In the past we've relied on the machine operators to write down the information on a data collection sheet, which was visible at the end of each line. It primarily gave us performance output figures rather than concentrating on machine performance and downtime information," recalls Paul Cruise, Packaging Technology Engineering Services Manager.

"We wanted a system that not only counted the number of tablets in and packaged product out but would also collect consistent real time data across all the machines in the packaging hall.

This would give us for the first time an accurate picture of our machine performance against standards and information that would be useful to other departments such as Engineering and the Supply Services and Logistics department."

Wyeth had initially installed a pilot system from a competitor of BMSvision but it was extremely complicated and required a huge level of interface.

Wyeth®

"We anticipated a 30% reduction in change-over times and this has been realised"

Affordable system

"Two of our staff, who had previous experience of BMSvision monitoring systems, suggested we investigate the suitability of BMSvision for a pharmaceutical packaging operation. The interface between PharMaster and our existing equipment was much simpler than the pilot system, making it easier and less expensive to install. On a line-by-line basis, it was almost a third of the price, which was a very significant amount of money across 28 lines."

"We looked at two other systems and visited reference sites before placing the order for a pilot project with BMS Vision Ltd of Blackburn, UK, which we have now rolled out to all the packaging lines. We liked the fact that PharMaster could accumulate data coming off the line, making it easy to detect machine stops. We also opted for a simple approach of hard wiring into existing circuits rather than interfacing with PLCs, which could have compromised the validation status of our equipment."

The configuration from BMSvision included the supply of special circuits to detect stops from different parts of the line. Each integrated line has up to five pieces of equipment, which have to be monitored individually. Due to the nature of the pharmaceutical business, there was also a requirement for a Data Unit for each packing line, to be housed in a product containment environment.

These Data Units provide a means for the operatives to request key manufacturing data at the machine, including the performance status per line, job details, actual production levels, etc. The system provides a range of customised reports, which include a monthly management overview of percentage performance, percentage uptime and breakdown of categories attributed to downtime. There are detailed reports of machine performance and reasons for downtime for a range of user-selectable timescales with actual figures compared against those envisaged.

Reliable information

"PharMaster is giving us reliable and realistic information and we have been impressed by the consistency of the data. It has also thrown up some very interesting and useful information, " Mr Cruise stresses. "In particular, it reveals the huge potential for downtime, particularly during changeover. We have a complex operation and work for a large number of markets with a wide range of products, so there is a significant amount of time spent during changeover. This can involve a complete product change with new tooling and materials; alternatively it could be a simple batch-to-batch change. Due to our production process, the actual amount of downtime was largely hidden and not identified by the data produced by our previous manual system."

Wyeth has now adopted a best practice routine for changeover and has applied the process to their most complex packing lines. "We anticipated a 30% reduction in changeover times and this has been realised on these machines. We will be introducing the best practice procedure on the other lines and if they produce the same results, which we expect, it means that the investment will have been justified. It will also contribute significantly to increasing our 'OEE - Overall Effective Efficiency'," Mr Cruise emphasises.

"The project has required a lot of hard work on our part because automated production monitoring is completely new to us. Senior management were on the steering committee and have been very impressed with the reports, which we have delivered. Presentations were also given to the full director group where we demonstrated how the data can be used to identify the areas which required performance improvement."

The next step was to involve the supervisors, team leaders and operator representatives who specified a large overhead display unit, suspended from the ceiling at the end of a line. It shows the operators the line target, plus the actual production and stop information, making the whole system more visible to the workforce. Due to the success of this trial overhead display unit, Wyeth has now rolled them out across all their packing lines.

Best practice procedures

"At our monthly automation meetings we share our findings, identify areas to address and ask for feedback," comments Mr Cruise. "In adopting best practice procedures, we are having to change long established habits. As far as the PharMaster system is concerned, it irons out a lot of ambiguities. The system cannot be fooled into thinking a machine ran for longer than it did. From a management point of view, it ensures consistency as engineering, production and planning are all working from reports compiled from the same set of data."

The success of the system in the packaging hall has led to a second system for the Processing Department being ordered. "We also looked at how PharMaster could be utilised to give us improvement in the manufacturing side of the business," Mr Cruise explains. "The first step was to install PharMaster on one encapsulator to monitor downtime and machine performance." The Pilot proved extremely positive and consequently PharMaster is being rolled out to a further thirty-two encapsulation and compression machines.

"We are getting good support from BMS, the system is working well and proving to be reliable and robust. The big advantage is that they can log on to our system from their offices in Blackburn, so if we have a problem, we don't have to wait 24 hours for them to come over to Ireland to fix it".

"PharMaster will also contribute significantly to increasing our OEE"

BMSvision

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