



Rocket Medical
rocketmedical.com

Industry



Plastics
& Rubber



Life
Sciences

Employees

200

Headquarters

Imperial Way,
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Rocket Medical: The Right Therapy

Medical devices company Rocket Medical's growth strategy was hamstrung by a management system that was more 'wish list' than management tool. LYNQ's Manufacturing Execution System (MES) helped the company to improve its planning, tracking and analysis, optimise its operational performance and make itself ready for full automation.

Founded in 1964, Rocket Medical plc recently celebrated 55 years of production at its site in Washington, Tyne & Wear. It specialises in the design, development and manufacture of medical devices, ranging from drain tubes to ease the suffering of lung cancer patients to disposable scissors and gynaecology and natal delivery equipment.

Rocket employs just over 200 people at the Washington site, and is its global centre of manufacturing. The production area includes a mould shop and extrusion area, as well as Clean Rooms.

Going for Growth

It has a satellite office in Watford and representation in countries around the world. The proportion of its output destined for export markets is increasing and is now approaching 50 per cent, with the North American region showing particularly strong growth. Current revenues are in the region of £24 million, and rising.

"We are promoting ourselves, the company and our devices more effectively," said Les Todd, Operations Director. "We've won orders from some big customers and are seeing higher sales volumes in America, especially. It really is a huge market in comparison to the UK."

Keeping up with the latest developments in the medical devices market – or even, perhaps, gaining an advantage – presents a continuous series of hurdles to overcome. With the drive to expand in huge but highly competitive markets like North America, Rocket has to ensure that its development pipeline is solid and, more immediately, that its supply chain, scheduling, manufacturing and delivery processes are completely reliable.



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Mixing JIT and Batch Manufacturing

Rocket's manufacturing operation is a mixture of demand-driven and batch production. It is the nature of healthcare that a lot of procedures and therapies are routine – from scheduled birth delivery dates to elective surgery – and, while the specifics of particular cases of cancer, for example, cannot be known in advance, there is an ongoing demand that is reasonably predictable and can be planned for. Some non-urgent lines can be made to order with reasonable lead times but others have to be produced and stored, ready at a moment's notice for dispatch to meet urgent needs. When emergencies arise, they must be supplied, immediately; if Rocket could not deliver, then customers will turn to suppliers who will. Market share and sales depend on satisfying customer needs in this most critical of activities.

“We've won orders from some big customers and are seeing higher export volumes”

Les Todd -
Operations Director

“Planning is very important to the business because of the number of different products we make. We have to utilize our assets – including personnel – effectively,” Les Todd said.

Success brings its own problems

A little over two years ago it became apparent that its success was placing its management systems under strain. In particular, planning and scheduling for Rocket's increasingly global markets required a faster and more agile response. There was an appearance of order in its manufacturing but the reality was that scheduling and production were becoming unstructured. Shopfloor staff would pick and choose the jobs they wanted to do or felt they would be able to do, rather than operating to plan. Delivery reliability was under pressure and management was increasingly becoming bogged down with firefighting, rather than smooth delivery.



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“The reality was that we lost control,” said Anne Robson, Logistics Manager, whose responsibilities include purchasing, warehouse management and production scheduling. The existing system did not give her clear vision of machine availability, production capacity or work in progress and production priorities were either unclear or not being communicated effectively.

“We looked busy but we weren’t making what the customers wanted, when they needed it,” said Darren Johnston, production manager.

If this situation was allowed to continue, the very future of the company would be in question. Rocket approached its ERP solutions provider, who introduced them to LYNQ and its specialist Manufacturing Execution System (MES) software. The two sides met, discussed the problems and determined that the solution should be an MES system that would provide better visibility, which would enable more effective planning, tracking and analytics, and ultimately prepare the company for full automation, when appropriate.

Understanding the operation


For production purposes Rocket divides its product range into two categories: Platinum and Gold.

“We have around 100 products in the Platinum category; they represent 80 per cent of the business,” Anne Robson explained. They are premium products with high added value. “We hold two or three weeks’ finished goods in that classification. We need to have about two or three months’ supply of the raw materials for them, so that we can manufacture quickly if we get a big order or are experiencing higher sales volumes.” By holding a lot of raw material but less in the way of finished goods, Rocket balances expensive production with the need for rapid availability. The other, Gold category products, number around 500.


Keeping control of this mix of raw materials, finished goods inventory, machine availability and multiple orders from a range of different markets requires a totally reliable management software solution.

Regaining control: assessment, testing and preparation

Rocket was determined that it would examine every facet of LYNQ’s MES and make sure it was suitable for purpose before commissioning it. Training Manager Darryl Jordan was a key figure in the process, as he would have responsibility for training.



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"I'm very good at asking basic, simple questions: why is it like that, what is that for, and so on. I was taking people through everything, so I needed to know all about it," said Darryl. His questions seem to have been answered satisfactorily. "From a planning point of view, LYNQ MES is a lot easier for scheduling and for moving things around while providing a much clearer, more visual representation of our manufacturing operations."

"We did a lot of testing before implementation," Anne Robson said. There was a clear incentive to make sure the system was as futureproof as possible. "It was quite painstaking but we had to get it right. There was simply no room for error; the last thing you want is to put in something new and then have it fall over."

Deep breath: switch on

After all the examination, analysis, discussion, testing and tweaking, came the 'deep breath' moment; the switchover from old to new. The deployment period was actually quite short; no more than two weeks. All the preparation proved its worth when LYNQ was turned on.

"When we went live, we let about 120 people loose on the system and we had very few problems," Darren said. "It's forced our team leaders and supervisors within the production area to focus on their end and enabled us to deliver, to schedule. Our performance has improved significantly since LYNQ MES was implemented, six months ago."

Complete visibility

"I have all the visuals on my screen, now," Anne Robson said. It's a simple thing to say but it reveals a much clearer manufacturing operation. "I can see what machines are available; how many jobs they have in the queue; orders and priorities."

That's invaluable to the planning side. Tracking the schedule and optimising machine utilisation has been transformed from a mystery in a darkened room to a straightforward, graphical user interface (GUI) drag-and-drop process.

"I can arrange the machines, drag orders onscreen, drop them, put them into whatever order I want," Anne Robson said. What is vital to effective operation is now a reality: carefully-developed plans stick and are worked to. The shopfloor can only see what Anne and her management colleagues want them to see, and what they are actually doing is visible, as well. There is no more freelancing of priorities or cherry-picking; access is controlled to what is necessary. The vision to optimise capacity and operation is now a reality.

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Analysis is beyond what was previously possible or even imagined.

LYNQ MES allows management to monitor availability, quality and performance in real time; any changes come up live, on screen, as things happen. Alerts to smartphones and on-screen messages are generated if performance is not as planned, a staff member deviates from a fixed process or if a machine goes down. Even during training, Darryl Jordan was able to track and monitor what staff were doing; he would receive an alert if anything deviated from the structured path.

Rocket can measure and monitor machine and operator activity much more clearly, which means that it is able to gain a clearer understanding of where bottlenecks or quality issues may occur, and why. Understanding machine condition, throughput and effectiveness are keys to world-class performance.

Outcomes: world class today, ready for automation tomorrow

All machines have sensors and PLC (programmable logic controllers) as standard. LYNQ MES has given Rocket the means to connect all operations and automate, when the time is right.

Analysis is beyond what was previously possible or even imagined.

It has enabled Rocket to take its planning, scheduling and production to the level it needed to meet the demands of growing sales and expanding markets. It has facilitated order, optimisation and the effective management of precious resources and personnel, in a competitive field. The proof of its success is how it is received and perceived by its users.

“Strategically, LYNQ MES is very, very important to us, because of the number of products and the personnel within the business,” said Les Todd. “It was implemented and deployed quickly and has been running for about six months, now, without any major issues.”

“Working with LYNQ has been a positive experience and a good driver for us,” said Darren Johnston.

“After all the planning, when we hit the button to go live it went really smoothly,” Anne Robson said. Rocket now has the visibility and the supply of metrics to enable it to maintain its growth curve and exploit new markets effectively, with world-class planning, scheduling, tracking and analysis that ensures on time deliveries, in full, to customers all over the world.



LYNQ