

# FACTIVITY

## CASE STUDY - VESTA

### Using A Lean Approach Is The Perfect Remedy For A Medical Product Company

Headquartered in Franklin, Wisconsin, Vesta has specialized in the manufacturing of silicone medical tubing, components and devices since 1973. The \$40m turnover company accommodates low and high volume silicone rubber component manufacturing, assembly and testing in its state-of-the-art facilities. Its two manufacturing sites employ 275 professionals and supply a variety of life sciences customers, including Fortune 500 companies. Exacting customer expectations coupled with the need for strict FDA compliance means that quality is central to everything Vesta does. With a manufacturing ethos of “Vesta can make it happen”, the company found the perfect planning and scheduling solution to make it happen in Factivity APS from Factivity.

Despite only manufacturing components and not finished products, Vesta still has to contend with between 250 and 300 SKUs. Eighty percent of all orders are repeat orders typically serviced within a six week lead time. The remaining 20% represents custom R&D orders, which may take up to one year to complete, given the required levels of validation and testing. The company also has to deal with order sizes, ranging from 10,000 units to in excess of 200,000 units, where each product may require a wide range of possible process steps.

Dave Poellmann is Vesta’s CFO and has been with the company since 2000. He outlines some of the challenges that this type of manufacturing brings. “Every stage of the manufacturing process brings the possibility of significant error.” Therefore, an accurate and smooth running schedule is absolutely central to avoiding crippling machine or human resource related bottlenecks. This can lead to large scrap levels and customers potentially not getting their orders on time. Ideally, the company needs plant-wide levels of visibility – to see what order is where on the actual plant floor and to be able to accurately compare this with any projected plan.”

- **Productivity alone increased by 20-25%**
- **30% reduction in raw materials stock**
- **Work In Process (WIP) down by 25%**
- **Reduction in lead times from 8 weeks or more to 6 weeks or less**

Poellmann is to the point when he recalls how things used to be done prior to investing in Factivity. “I think it’s fair to say we didn’t control production, it controlled us. The first we would know of a bottleneck would be when it happened which meant we were continually fire fighting and having to respond to situations which might arise because we had no visibility. The lack of visibility also meant that our responses were largely educated guesses because we often wouldn’t know the effect of any response until it happened. We had neither the time nor the ability to do ‘what if’ scenarios.”

This was largely because Vesta was using a manual time card system whereby each employee manually had to write down all the relevant information pertaining to each step of the process on each job. As Poellmann reflects, “This was assuming that the person bothered to write down the information and that if he/she did, it was accurate and legible – which was not often the case.” This would then be collated at the end of each shift when two dedicated data input clerks would manually enter the information into the company’s old ERP system. This again represented significant scope for data errors due to misreading and/or mistyping.

It also led to a time delay of between 2-4 days before the company actually had any system visibility of what it had actually made, what materials had been used, etc. While not going as far as to say it was a case of ‘Garbage In, Garbage Out’, Poellmann spells out the consequences of this. “The time delay and inherent data errors meant that we continually had to manually check things like raw material stock levels, finished goods inventory, work-in-process, etc. We couldn’t trust what the system was saying. We’d also be chasing suppliers or having to seek alternate supplies of materials, all of which wasted considerable amounts of time and directly impacted our customer lead times which were then up to or above eight weeks.”

Poellmann is quick to point out that the company was a lot smaller at the time and that everyone was doing the best they could. “**We reached a point where it just didn’t make sense to throw people at the problems.** We knew that there were solutions that could help us, both in terms of the back office and the production floor.”



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For Vesta, functionality was only one of its considerations, as Poellmann explains. **“We were aware that switching to a modern manufacturing IT system would have a huge cultural impact on our workforce, many of whom had never used a computer before. It was essential that we took our workforce with us and here Factivity came into its own.** As soon as we saw how intuitive and customizable the touch-screens were to use, we knew this was exactly what we needed to ensure we got the full support of our workforce.”

One of Poellmann’s main concerns was understandably training, given the scale of transformation the company was undertaking. “To be honest, I was expecting a steep learning curve and was realistically thinking in terms of months for people to get used to the system. What happened was phenomenal. Within a week, people who’d never used a computer before were happily using the system because of the intuitive way the Factivity system works. Factivity also worked very closely with us to set each user’s screen up exactly the way they needed in order to do their job.”

It wasn’t long after going live that Vesta began to see the benefits of Factivity. Most notably, the company now had real time data visibility of what was happening on the shop floor, and because of the accuracy of information provided, production was much more efficient. “The first thing we noticed was the speed of the system” remarks Poellmann, **“we had real time reporting of what was happening on the shop floor which immediately helped us to see where some of our problems were and where we could improve things.”**

He elaborates, “This has gone a long way to help us improve our performance. We utilize a lot of reports to help increase our labor efficiencies. We are now able to take real information to our people on the shop floor and together work through, for example, production bottlenecks and discover the reasons behind them.”

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With Factivity now tracking production data and also validating it, the final step was to move from complete production visibility to complete production control. Vesta was generating production schedules from Excel Spreadsheets – in essence, one master spreadsheet for molding, extruding and assembly. As Poellmann explains, this wasn’t ideal. “We’d manually enter order information into the spreadsheet on a daily basis, based on customer due date, and generate the schedule from that. We’d often have to merge spreadsheets which further added problems and then we’d have to manually generate a report from this. It was this report which was ultimately issued to the production manager as the master schedule.” In addition to the inherent data errors arising from all the manual entry, it was possible for smaller orders to drop off the spreadsheet or be pushed back continually. The first Vesta would know of this would be a call from an unhappy customer ask why they hadn’t had their order in time.”

In early 2006, Factivity took onboard a proven Advanced Planning and Scheduling (APS) solution, which promised enhanced functionality and the promise of the same standard of service and support Vesta received from Factivity. The decision to switch to Factivity APS was a certainty. A quick and trouble free implementation followed with Factivity APS integrating seamlessly with both QAD and Factivity MES. In terms of information flow, Factivity APS receives appropriate information from QAD from which it then generates a realistic detailed schedule for each day but extending out to a 3-4 week planning horizon. This daily schedule is then pushed out to the production area via Factivity MES so that production managers and workers alike have a clear breakdown of what orders are to worked on, where, and when.

Real time data collected via the Factivity MES touch screens on the shop floor then allow the schedule to be monitored against actual production with any problems being immediately visible. This can then be analyzed and addressed with the schedule updated accordingly so that at all times, there is tight synchronicity between planned and actual production.

As with the Factivity MES system, the Factivity APS system brought substantial and quickly realized benefits. **Productivity alone increased by 20-25%** purely as a result of having jobs on the shop floor on a timely basis. Material requirements forecasting was also greatly improved due to the increased visibility and accuracy **with a 30% reduction in raw materials stock.** The increased control of what jobs are where on the shop floor and when they are issued also benefited **Work in Process (WIP) which is down by 25%.** As Poellmann says, however, “Perhaps the most significant benefit is the one our customers directly experience and that is a **reduction in lead times from eight weeks or more, down to six weeks or less.”**

The Factivity experience for Vesta has been marked out not just by results and service but by the consistency of results and service. Summarizing **Factivity MES, Poellmann describes it as, “phenomenally stable”**, explaining that the system **has never had to be taken down except for planned upgrades in over six years of continual use.** He has every expectation that Factivity APS will deliver the same levels of performance. Which is why he concludes, “The combination of increased visibility and control would not have been possible until Factivity was implemented. In today’s highly competitive manufacturing market, that’s what you need to keep your existing customers as repeat order customers, while also attracting new customers from your competitors that don’t have it.”



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