Fullwood Packo intends to halve lead times with QRM

26 August 2019, 02:00

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Fullwood Packo is a manufacturer of cooling tanks for liquids. In order to become more efficient and be more competitive, the company needed a new approach. This was found in the roll-out of the QRM strategy.

Fullwood Packo has been supplying the most diverse solutions for the dairy, pharmaceutical and food processing industries from Zedelgem in West Flanders for more than fifty years. The Belgian company Fullwood Packo, which is part of an international group, specialises in the production of stainless steel cooling tanks and silos for the storage of liquids, mainly milk products. The close contact with dealers and end customers enables it to respond quickly to the needs of the market.

After the crisis in 2008, however, the pressure on financial and operational performance increased. And several challenges arose in the production, including permanent overcapacity, a focus on ‘make to stock’ with high WIP and too much stock as a result, while the delivery performance was too low and the lead time was at least eight weeks too long.

Company-wide immersion in QRM

There was an urgent need for a new approach to turn the tide. In 2017, a number of changes were already introduced in the organisation and a new CEO was appointed who was familiar with quick response manufacturing (QRM) and saw it as the strategy of the future. The entire company received an initial introduction and some staff members attended the necessary training, including the QRM Silver expert training, co-organised by Sirris.

A first series of adjustments made by the company included a reduction in WIP, a reduction in the number of mounting positions and the introduction of the QRM control software PROPOS. Furthermore, laser-cutting orders were no longer planned per week, but per day, and the aim was to achieve a '1-piece-flow' production. The company gained the necessary insight into its turnaround time thanks to an MCT analysis (Manufacturing Critical Path Time - time in calendar days from customer order up to the delivery, through the critical path).

In addition, priority was given to automation on the one hand and to initiatives to improve the flow on the other. For example, the welding process became partially automated, which is monitored via a camera system. Under the QRM strategy, some specific actions were taken. For example, QRM production cells were set up and controlled by means of POLCA. (POLCA is the QRM controller that limits the WIP between the cells.) Given the size of the products, these are relatively large cells, consisting of three production lines. For the time being, paper POLCA cards are used for control purposes. Later on, PROPOS software will be implemented.

First results

Thanks to these initial measures, the lead time was almost halved after just one year, the same turnover was achieved with fewer staff and the quality was improved. There is still a lot of room for further improvement and many useful ideas for further improvement come from the people on the production floor.

Fullwood Packo has learned a lot about implementing QRM in the past year. For example, it was found that there could never be enough communication with the parties involved. Aligning personnel with the QRM strategy is quite a challenge.

Stumbling blocks in the transition to QRM appeared to include the discipline when using PROPOS, going back to old habits, and insufficient cross-training. An additional challenge was the unexpected 25% growth in turnover, as a result of which the lead time increased again.

Thanks to QRM, impressive results could be achieved in a relatively short period of time and within a fairly large company. In the future, Fullwood Packo aims to increase productivity by 10 percent, further reduce lead time by reducing the number of disruptions, build up 20 percent spare capacity to avoid bottlenecks, while also aiming for on-time delivery of finished products and parts. The first step towards a Q-ROC - a cross-functional office cell for internal sales, planning and logistics - has already been taken and will be further expanded.

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