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peka

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PEKA-METALL AG

peka-metall AG offers tall cabinet pull-outs, pull-out corner solutions, and ecologically well-thought-out waste separation systems for the kitchen and furniture industry. The company is one of the market leaders, offering a comprehensive product variety of pull-out systems, fittings, and complete interiors, and is characterized by a high export share of over 70 percent. To strengthen itself for international competition, peka-metall AG focused on a digitalization strategy beginning in 2018. The focus of digitization is on people.

INITIAL SITUATION & CHALLENGES

peka-metall AG offers a broad product portfolio to customers. peka-metall AG produces partly for stock (made-to-stock), partly for specific customer orders (made-to-order) and offers the production of customer-specific products (engineer-to-order). On the one hand, therefore, small quantities of a product are manufactured, and on the other hand, the top sellers are mass-produced. peka-metall AG, therefore, finds itself in the situation of having to make communication to and from the shop floor robust, error-free, and agile. Clear communication keeps overhead low, processes lean, and allows real-time transparency on all aspects of production. Complemented by creativity and an innovative mindset, transparency is critical at peka-metall AG to remain competitive in a high-wage country.

High set-up costs

The large product variety at peka-metall AG resulted in frequent and thus costly set-up processes. One issue was to find reasonable compromises between short throughput and delivery times on the one hand and capacity issues on the other hand. Efficient production plans have to be found, which have to be continuously adapted to the changing order situation with little effort.

The employees are of central importance at peka-metall AG. The company needs to provide suitable tools, including software. For shop floor management, the company required transparency. Without it, the basis for decision-making is incomplete or inaccurate, often leading to poorer decisions and more ineffective measures. To empower and encourage employees to participate in the process, the first goal was to create real-time transparency and, thus, more actively engage employees in the improvement process.

Quality management integration

Before the integration of processes in the quality department, there were no continuous processes between production and quality inspection. Only part of the relevant information was available to the Q inspectors to perform their tasks efficiently. In particular, the inspection cycles were monitored and executed manually. There was also potential for improvement in the documentation and communication of inspection results, which would be made more efficient by utilizing MES software.

Resource scarcity and high resource prices

Another challenge is scarce resources and the resulting rising prices. This was already an issue for peka-metall AG in 2018. Due to current global developments, this topic has gained continued to grow in importance. Combined with high labor costs in Switzerland, high productivity is crucial for the company to offer a competitive portfolio of products internationally.

Paper-based processes

Until now, peka-metall AG relied on paper-based production processes. However, manual data entry and document processing is time-consuming and error-prone. The lack of a paperless system makes changes to the production schedule difficult and can lead to production and product delivery delays. It also creates avoidable sources of error due to misinterpretation of data, lack of timeliness, or incorrect manual entries. Last but not least, the transition to paperless production offered potential savings of more than 50,000 sheets of printed paper annually and its associated handling on the shop floor.

"FORCE MES FLEX makes my everyday life much easier. I always have an overview of everything, even if I don't have time to visit all the workstations."

Vahid Rexhepi, Assembly Manager

OBJECTIVES

peka-metall AG would like to address three central goals by expanding the previous functional scope of FORCE MES FLEX. First, reducing planning efforts and set-up costs is at the top of the agenda. Secondly, all order papers are to be eliminated from production. Thirdly, productivity is further increased by fully digitizing the machine and manual workstations.

ADDED VALUE & SOLUTION

Excel production planning needed to be revised for peka-metall AG's growing demands. To ensure efficient planning of the set-up cycles, peka-metall AG implemented the planning tool from FORCAM-ENISCO.

Increased inspiration and motivation

The improved transparency of production processes and direct feedback on improved performance motivates employees to participate even more intensively in the improvement process. The real-time data provided by FORCE MES FLEX is one of the pillars of shop floor management, which both supervisors and employees of peka-metall AG appreciate. All relevant data is available to identify problems and difficulties at the plants. Problems and waste can thus be easily identified and specifically optimized.

Real-time overview of production for improved management

Management has access to all critical data at all times to keep track of all workstations and orders. Real-time data from FORCE MES FLEX helps maintain an overview of production without visiting each workstation individually. In the morning, managers receive reports with all relevant information about the plants by email. This makes it possible to identify and solve problems and difficulties quickly.

50 % reduced effort for approvals without losing accuracy

FORCE MES FLEX has significantly improved processes in the quality department. With a specially configured terminal, the quality inspector now has direct access to relevant, up-to-date data from production. He receives the information and recommended actions pertinent to him, such as pop-ups for necessary inspections at precisely the right time. First article reports can be easily created and retrieved, and thanks to digitization, documentation has become much more efficient. Employees are empowered and can perform tasks much more independently. Approval efforts have been reduced by up to 50% without sacrificing accuracy.

Reduction of planning effort by 20 - 30 % due to FLS and digital planning board

peka-metall AG achieves a more accurate and better planning result with simpler planning processes using the FLS and the digital planning board. Due to the software support of the planner, production plans can be effectively bundled so that planning efforts and set-up costs are reduced.

In addition, adherence to schedules increases. Better planning can lead to increased reliability. The production planner is supported by the logic and algorithm of FLS, enabling detailed planning of individual workstations based on capacity. The digital planning board supports and simplifies planning for team leaders. The planning effort was reduced by 20 to 30%. This helps to determine accurate and reliable delivery dates and reduces costs.

"Identifying problems and waste became much easier with FORCE MES FLEX."

Mentor Miranaj, Manager Bending

"The colleagues appreciate the transparency this system creates. It also works in many ways to motivate and encourage improvements."

Tibor Szögyer, Coating Manager Deputy

Reliable real-time information on the shop floor terminal

Digitized order papers on the shop floor terminal provide peka-metall AG with increased responsiveness, low susceptibility to errors, and increased employee productivity. The documents are retrieved from the peka-metall AG file system. The FORCE MES FLEX on the shop floor terminal makes these available in real time. The workers thus receive all necessary information on the production orders and the associated order papers digitally at their workstations. Updates to the order papers can also be carried out in real-time, ensuring that the data is current and prevents errors. Work instructions and drawings are available directly at the workstation. Workers are thus always up to date, reducing the need for queries. While this empowers employees to work autonomously, managers benefit from being able to devote more attention to strategic and tactical issues.

Optimized manual workstations and improved post-calculation of customer orders

A holistic, up-to-date data basis is indispensable to obtain a holistic view of production and make the best possible decisions overall. Therefore, a production data acquisition system for the manual workstations was also integrated in addition to the machine workstations. This records the current production status at all times and, particularly relevant in this context, the personnel times. Reasons for malfunctions at the manual workstations can be validated and used as a basis for CIP. This enables targeted optimization and improvement of productivity. The personnel time recording, which is reported back to the ERP system, can be used to check profitability with the help of a post-calculation at the customer order level.

CONCLUSION

The digitalization strategy of peka-metall AG is working. By using FORCAM MES FLEX, the company finds answers to central challenges. Digitized production makes it possible to support employees and management in their activities, establish a certain relaxation and calm in production, increase the company's success, and secure jobs in the long term. In this way, peka-metall AG lives up to its claim to focus on the employees in their digitization journey.

Success factors for peka-metall AG are an efficient start with a limited scope of functionality, a scaling of the solution based on the largest fields of action, and a strong commitment to drive digitization forward.