



PRECISE PLANNING FOR PRECISION INSTRUMENTS

EPflex optimizes product delivery using DUALIS APS

The ensured wellbeing and safety of patients undergoing surgery places very stringent demands on health care equipment manufacturers. Surgical products produced by EPflex must meet the highest levels of precision and reliability with very strict manufacturing control. Since 2017 they have been using the APS – Advanced Planning Solution – from DUALIS with the help of Asseco to coordinate and optimize their production processes and increase their order capacity.

EPflex: innovative solutions for minimal invasive surgery

EPflex Precision Techniques GmbH is based in Dettingen by the Erms river, and for over 23 years, has been supplying the health care sector with high-tech precision instruments for minimally invasive surgical procedures. The majority of EPflex manufacturing is completed under sterile conditions in clean room facilities, producing over 3500 different mass produced products from a variety of specialized processes. Many of the specialized processes treat materials such as platinum or tungsten with coatings to reduce friction or improve visibility for radiology. Epflex is an OEM manufacturer who deliver products to a global healthcare network of supply companies.

Regulation within the health care sector, and associated contractual issues, requires that all products delivered by Epflex meet agreed standards for safety and reliability, with full traceability. Epflex customers can request a production audit at any time. This exceptionally high demand on quality control for the volume manufacture of precision instruments requires well co-ordinated production processes.

The challenge: reliable deliveries from complex processes

In addition to order-based production, Epflex is continually developing new products and associated manufacturing processes. The highly innovative company currently has 57 active patent applications for new products. These new pro-

ducts and processes run in parallel to customer driven production, making an already complicated production system even more so. The complexity of the production process and the product order variation was a limiting factor for Epflex to increase output and meet customer demand.

Due to a very positive order book, and new products coming to market, it was essential for the Dettingen facilities to find a way to manage



the order complexity, so that expansion to a third production facility could be possible.



“For us, the ISO 13485 standard for manufacturing of medical products, for which we are certified, drives our responsibility to reliably deliver on time. An efficient and accurate detailed production plan is crucial for our operation” explains Jürgen Class, Head of Production Control at EPflex.

„We have to process around 500 orders per month, made up from 2 – 3 million parts. It’s no longer manageable, if at some point, half the orders suddenly require some sort of manual input. Our previous planning approach has now been replaced by the APS from DUALIS, which is enabling us to reach our production goals.”

Jürgen Class, Head of Production Control at EPflex



The solution: flexible scheduling compatible with our ERP system

Since 2003 the Asseco APplus ERP-solution has been controlling EPflex's business processes. In 2010 a dedicated short term scheduling tool was introduced to organize the production but unfortunately it was not able to meet the increasing production complexity and growth in the company production requirements.

In 2016, EPflex shortlisted three systems for short term scheduling with the decisive factor being the new system's ability to integrate with the existing IT infrastructure. As a successful long-term user of APplus, the decision was made to use GANTTPLAN, the advanced planning solution offered by DUALIS based on its seamless integration with the Asseco ERP system.

Jürgen Class explains: "We were convinced with the solution's user friendliness and functionality. Many APS systems often only visualise the coarse planning provided by the ERP system. We needed a detailed planning system that used the basic planning information from the ERP system, and the DUALIS/Asseco combination did exactly that. In addition we had a more optimal interaction between ERP and the APS."

In practice: flexible planning improves responsiveness

The ERP/APS solution from DUALIS/Asseco went live in May 2017, after a pilot project that ran for 6 months in parallel to the original scheduling system. The main planning priority for the trial was production capacity, however reliable on-time delivery was just as important.

Torsten Habelmann, the production manager at EPflex, explains: "Delivery reliability is crucial in this industry. If a customer has a negative experience, it quickly creates a knock-on effect. The next time they order, they build in their own allowance for delays and order far in advance than when it is actually required. This reduces our opportunity to optimize production schedules, and means we sometimes are handling unnecessarily high production volumes. "

In the past, unwanted delays in production have repeatedly occurred due to the lack of flexible scheduling. With the new solution, context-specific rescheduling is possible and quite effortless. At any given time, changes to delivery dates that have resulted from a delayed material delivery or a process change, can be identified and substituted with an alternative process or material.

"The new system works very fast. If necessary, we can create a new plan within half an hour. This has significantly improved our ability to react to unexpected production problems. In the past we were able to reschedule only once a day, now we have the opportunity to reschedule up to ten times a day if necessary" explains Jürgen Class.

EPflex was able to increase its delivery capacity significantly with the help of the DUALIS / Asseco combo-solution.



Numbers and facts

 Delivery reliability increased by approximately 20 percent

 Efficient processing of approximately 500 orders with 2-3 million parts per month

 Only 30 minutes for new planning or rescheduling

 If required, EPflex can now schedule between 5 and 10 times a day (previously only once a day)



“For us, visualisation and transparency will play a crucial role in the future. We want to focus even more on throughput-times and integrate them into the ERP system as a form of KPI. We will use this to select areas to improve on. We are also creating a basis for a deeper analysis to anticipate and prevent future potential problems. Continuous self-optimisation is the key to success in an industry as rigorous as the medical industry. We have already laid the foundation for this with Asseco and DUALIS.”

Torsten Habelmann, EPflex Production Manager



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