



User Report

**MEDICE Pharmaceuticals
Pütter GmbH & Co. KG**



Common Path Since 2011

Content

Expansion of the Established Solution:

The Path to the Smart Factory at MEDICE

MEDICE has been working successfully with FASTEC 4 PRO for many years. In the meantime, the software solution has been expanded, and the efficiency and transparency in the company has been sustainably increased through the digitalization of additional processes. In the user report, you will learn how the collaboration has developed and what successes MEDICE has achieved thanks to the FASTEC 4 PRO tool. At the end of the report, you can expect exciting insights into best practices and examples of why it is worthwhile not to blindly trust your gut feeling.

- **Review: How it All Started**
- **Implementation: Current Solution**
- **Results: Facts Instead of Gut Feelings**
- **Contact**



Review: How it All Started

Since it was founded in 1949, MEDICE Pharmaceuticals Pütter GmbH & Co. KG has become one of Germany's most successful family-owned pharmaceutical companies. At its headquarters in Iserlohn, more than 450 employees currently develop, produce and test high-quality medicinal products and medical supplies.

The company specializes, among other things, in over-the-counter drugs for self-medication; in the field of ADHD, it is considered the market leader; and in renal medicine, too, it has now been successfully holding its own against international groups for over 25 years.

To further expand and secure its international market position, the modern production facility in Iserlohn was to be analyzed for possible capacity reserves and consequently optimized. Initially, the focus was on "Machine Data Acquisition and Optimization." A former process manager at MEDICE recalls: "We did not know exactly what availability and performance our lines were delivering and therefore planned our orders according to empirical values, which in some cases led to suboptimal order planning." In order to find a remedy and to obtain a detailed data basis for production optimization, a potential analysis with easyOEE was carried out in the packaging department at the beginning of 2011.

Building on the database created with easyOEE, the decision to implement the FASTEC 4 PRO Software was made. With its help, the entire production was to be gradually monitored, controlled and optimized in order to utilize the discovered capacity reserves.

Thanks to transparent data collection, report and implementation of optimization measures, MEDICE was able to increase the OEE (Overall Equipment Effectiveness) by 10% in the packaging department alone.

Step by step, additional equipment was connected, capacity reserves were uncovered, and optimization measures were initiated.



Successfully Identified Potentials

Initial Results Were Convincing and Raised the Thirst for More

In light of the positive experience, MEDICE planned to integrate even more machines and company divisions into the FASTEC 4 PRO software solution in the future.

"The transparency gained through the system is very convincing. When information is added to the system, it is immediately visible everywhere, without the need for emails or anything like that."

"Many manual work steps are now obsolete. Our production planning is paperless, which saves time and is much more accurate. It is always clearly visible at which process steps we lose time and how well the individual orders ran."

Yannik Schmitte

Operational Excellence Manager
MEDICE Pharmaceuticals Pütter GmbH & Co. KG

The feedback from FASTEC 4 PRO users at MEDICE is entirely positive. Especially the easy handling of the software as well as the personal support are experienced as very pleasant.

"The standard software from FASTEC is very adaptable. In case of release changes, the individual adaptations always remain included, the transition works smoothly!"

"By using FASTEC 4 PRO, we know how long individual processes take. This makes it transparent where time has been wasted so far and where optimizations are possible."

"The cooperation with FASTEC is very positive. FASTEC is always immediately available for urgent matters. That is important to me. In general, I am very satisfied with the communication and exchange."

"It is of absolute added value to have one's processes recorded in an automated way! FASTEC 4 PRO is a tool for us to know what problems we need to address in manufacturing to achieve efficiency improvements."

FASTEC 4 PRO-User

MEDICE Pharmaceuticals Pütter GmbH & Co. KG

Employees Convinced of Solution

Current Solution

Our Software:

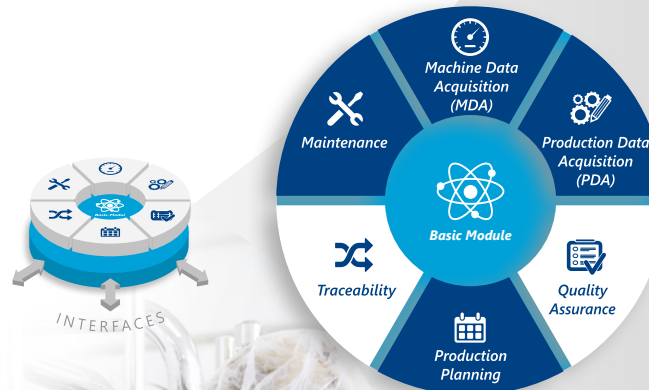
Flexible, Modular, Individually Adaptable

The modular software solution FASTEC 4 PRO supports the optimization of your entire production.

It improves production planning, creates more transparency and regulated processes, provides KPIs, analyses and reports – regardless of industry and flexibly adaptable even to special production processes.

Based on the basic module, the six main modules can be combined according to individual requirements and supplemented by various additional functions. The individual modules access a joint and standardized database.

As a result, consistent data is available at all times – there are no additional interfaces between the modules and no redundant double data storage.



FASTEC 4 PRO at MEDICE:

Applied Modules:

- Machine Data Acquisition (MDA)
- Production Data Acquisition (PDA)
- Maintenance
- Production Planning

Additional Functions:

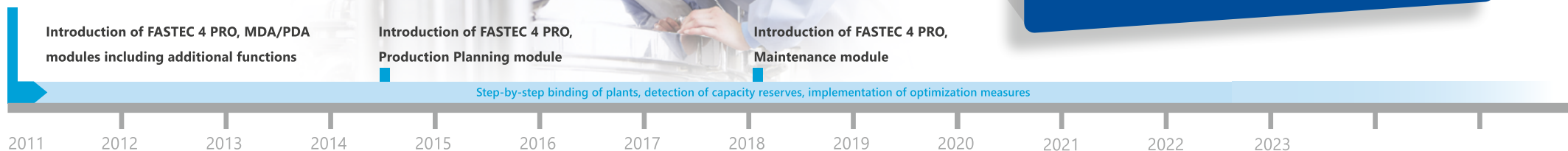
- Alerts
- Mobile Client
- Staff time recording
- Automatic report dispatch

Special Features at MEDICE:

The optimal interaction of Production Planning, PDA and MDA

- Orders are scheduled in FASTEC 4 PRO and seamlessly transferred to production.
- Custom data points are used to evaluate direct comparisons between target and actual times. In addition, the data points make it possible to see which order will be completed and when at any time.
- Interface to the ERP system "Infor" enables, e.g. the import of production orders.

Potential Analysis with easyOEE



FASTEC 4 PRO at MEDICE Today – Digital Production



- **Project: Digital Detailed Scheduling**

In the next steps, the software was to be expanded to include production planning, among other things.

Initial Situation:

Previously, scheduling was done manually in Excel spreadsheets, which were handed over on paper to the employees on the lines on the shopfloor. They then processed the orders in the planned sequence.

It was difficult to react to modifications in the sequence due to disruptions or longer setup times, which led to inefficient production processes and consequently to high costs and wasted resources.

Digital Production With FASTEC 4 PRO Today:

First, rough planning takes place via the ERP system. A forecast to be operated, i.e., a prognosis for production, with various production proposals and orders, is saved there.

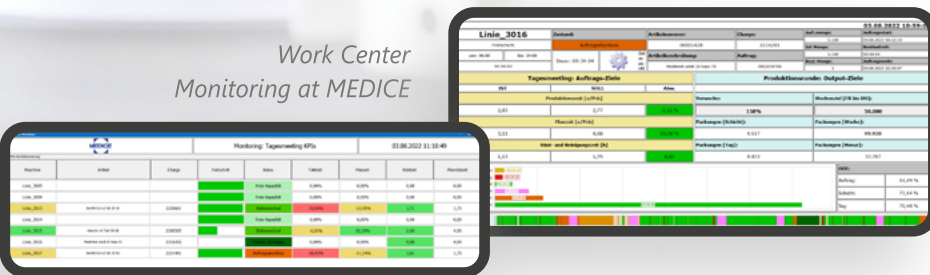
The proposed production orders from the ERP are transferred automatically every night – or manually if desired – to FASTEC 4 PRO for detailed scheduling.

About 50 to 100 proposals for production orders are always available in FASTEC 4 PRO for detailed scheduling. The planning is geared to the next one to two weeks; in addition, a flexible adjustment of the line assignment in real-time is possible in case of last-minute modifications.

Planners can access and rearrange orders in the software. Without paper chaos and without much effort. The modifications can then be viewed transparently at all terminals immediately.



Work Center Monitoring at MEDICE



MDA, PDA, Detailed Scheduling, Maintenance

FASTEC 4 PRO as a Central Controlling Instrument for Production

Due to the additional integration of detailed scheduling, MEDICE's entire production is digitalized with FASTEC 4 PRO and is used in almost all departments.

FASTEC 4 PRO is regarded as the central controlling instrument for the entire production. Every employee can obtain the required information from the system.

The production organization (FO) applies the detailed scheduling of production and tracks the current status of orders via online monitoring in order to be able to intervene flexibly in the event of modifications or disruptions. **Controlling** is responsible for the business calculation and tracks which staff and machine times have occurred for the individual Stock Keeping Units (SKUs) and derives

manufacturing costs for products from this in order to carry out exact post-calculations.

Quality Assurance has access to the worklist and can thus see which orders are scheduled on the lines and which products are due for quality control in the future. This allows the appropriate resources to be allocated to final quality control for end products to be inspected, so that this can be carried out seamlessly and efficiently downstream of the production process.

The preparation center is responsible for providing the resources required in production. Enormous time potentials can be saved here by tracking which orders are currently running on the lines in real-time, how long they will last and what follow-up orders there are. The materials required for these orders are made available at the exact time.

Production Planning and control (PPC), as part of operational excellence, works out the most accurate possible planning times based on data evaluations. It also identifies sources of disruption or weak points in the production process in order to implement optimization measures. This is done primarily using the OEE/Pivot report, in which data can be compiled flexibly and clearly. In addition, a report is also made using the BI tool

Power BI. It can be easily connected to FASTEC 4 PRO via an interface to transfer data from the shopfloor.

Power BI offers a wide range of report and display options for the data from FASTEC 4 PRO, which are particularly relevant for the **management level**, as they provide an excellent basis for investment decisions.

In addition, the management dashboard compiled by MEDICE itself serves the coordination between production management and the individual unit managers. The figures are discussed together and conclusions and measures are derived from them.

MEDICE visualizes a number of key figures and reports in Power BI using the database from FASTEC 4 PRO. For example, comparisons are made with the previous year and planned production times are compared with the actual time required, also with regard to setup times. Condition evaluations as well as setup rates are analyzed to identify what the individual failures and downtimes are due to. Reports at product level are also possible. The development of the OEE is also observed at annual and monthly intervals in order to identify trends and to be able to initiate continuous improvement by means of optimization measures.



Valid Data as the Basis for Optimizations

Facts Instead of Gut Feelings – Best Practice

- Examples of How Gut Feelings Can Be Deceiving**

In the further course of work with the software, additional detail buttons were implemented for State input, especially in the case of malfunctions. This made it possible to enter reasons for downtime at the terminal in even greater detail and to create additional transparency as a basis for optimization projects.

For product A, the line was down for an average of eight hours per job due to various disruptions that could not be further identified via the available button selection. Based on their gut feeling, the employees assumed that they knew the most frequent cause of the disruption. In order to check this, a button was implemented in FASTEC 4 PRO with the reason for the disruption assumed by the employees. In the further course it became transparent that this button was hardly ever pressed and that the gut feeling was deceiving. Incorrect assessments can result in high costs for the replacement of components without eliminating the source of the fault. Thanks to FASTEC 4 PRO and the detailed fault reason analysis, it is now fact-based recognizable where the problems lie in the production process.

On line A, a storage box ensures that when the foil is empty, it can be changed without the machine coming to a standstill. The employees confirmed that this reel change was almost always carried out in the allotted time. To verify this, the „Reel change“ button was introduced to record times that extended beyond the scheduled time. After eleven months of analysis in the meantime, it can be stated that line A requires an average of an additional 22 minutes per job for the reel change. The gut feeling was thus disproved.

“I would advise everyone to introduce a system for the digitalization of production! Every manufacturing company needs such a tool nowadays. We are very satisfied with the solution from FASTEC.”

Yannik Schmitte

Operational Excellence Manager

MEDICE Pharmaceuticals Pütter GmbH & Co. KG

- Use Cases of FASTEC 4 PRO at MEDICE**

Recognize deviations:

In the daily meeting, each individual order is discussed with regard to deviations from the target setup time, setup times and general performance. If there are deviations, the reasons are searched for. Thanks to FASTEC 4 PRO, these can often be seen at first glance on the basis of the status parameters selected at the terminals.

Order duration:

In order to find out how long certain orders take, intensive work was carried out with the software for a period of time. By using FASTEC 4 PRO, it was possible to look back at history values that had not been looked at before. Based on these values, orders on the individual lines were characterized with times where the deviation between estimated production time and actual time was less than five percent per month. This is a very good result and a solid basis for detailed production planning.

Why Not Get to Know Us Personally?

Production companies must produce on time, in a traceable, flexible and customer-specific manner, while ensuring consistently high quality. Achieving these goals requires transparency through real-time information, good planning and quick and adequate reactions to deviations. Our Manufacturing Execution System (MES) FASTEC 4 PRO is the right tool for this purpose. With great success since 1995.

We would also like to give you a good advice personally!

Our sales department will be happy to provide you with further user reports and information material! Or else, make an appointment with our sales department for a presentation at your location, in our company or via web. Of course, you can also experience FASTEC 4 PRO live and on site with our customers.

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Additionally, we offer videos of our software and customer solutions in our YouTube channel:

www.youtube.com/FASTECGmbH

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With FASTEC 4 PRO, you gain the necessary level of transparency in all areas of production in real time, enabling you to discover previously unused potential for increasing productivity and optimizing processes. Thanks to targeted planning, you can also respond to short-term requirements from sales and efficiently design production processes – traceable and documented.



- Get transparent data in real time
- Reduce production costs
- Detect and eliminate weak points
- Develop high productivity potentials
- Benefit from the continuous flow of information
- Use available resources efficiently

▶ **As a data hub, FASTEC 4 PRO is essential on the way to the Smart Factory.**

