





# Zum Dorfkrug Produktions- und Handelsgesellschaft mbH & Co. KG

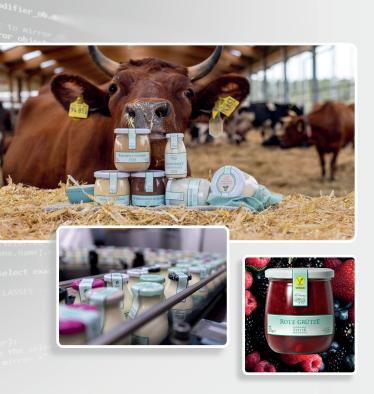


Location: Neu Wulmstorf





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#### Using FASTEC 4 PRO: 70 to 75 Percent More Disruptions Detected

The Zum Dorfkrug range includes a large selection of salad dressings and classic desserts. Sylter Salatfrische was created in the Zum Dorfkrug restaurant and was first sold in supermarkets in 2004. Today, the company has a production site in Neu Wulmstorf and a farm with its own cows and therefore short production routes. Its customers include food retailers in Germany and Austria.

Thanks to the use of the FASTEC 4 PRO Manufacturing Execution System (MES) in production at Zum Dorfkrug, Machine and Production Data Acquisition (MDA/PDA) is now completely digital. This saves time and significantly increases efficiency for employees at all levels.

- Initial Situation
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# Saving Time and Increasing Efficiency





## **Initial Situation**

The dressings and desserts from Zum Dorfkrug go through various stages of production before they reach German and Austrian supermarkets. Whether it's the salad dressing or the pudding, the process is similar:

- The jars are first placed on the conveyor belt, pass through the rinser and the filler and are sealed with a lid.
- In order to maintain the high quality standards, the X-ray scanner, which identifies jars with foreign objects, is particularly important in production.
   The jars are then discarded.
- After this station, the jars move on to the cooling towers, the labeler, vacuum testing, boxing and palletizing.



#### **Goal: Simplify Processes, Reduce Effort**

Before using the MES FASTEC 4 PRO at Zum Dorfkrug, employees captured the data from production manually in Excel and then evaluated it. This was very time-consuming and led to errors that caused costs and made the process inefficient. Even if it makes no visible difference to consumers, digital data acquisition has many advantages for production employees. One aim of the project with FASTEC was to simplify processes and reduce the workload for individual employees. The collected data was also to be presented in a coherent and clear manner. Due to a lack of routine, there were repeated disruptions in production for products that are produced less frequently. Zum Dorfkrug wanted to improve this situation so that measures could be derived from the data in order to optimize future production processes.

One challenge in the implementation at Zum Dorfkrug was the correct positioning of the sensors in production. These were initially installed in unfavorable locations, meaning that no valid data could be recorded. This challenge was solved by optimizing their placement. Further information on this can be found in the "Implementation" section.

"At the beginning in particular, some employees had concerns that using the software would result in more work.

We then showed them the reports in the software and explained to them exactly what we do with the data. Today, our employees enjoy working with FASTEC 4 PRO because they understand why we use the software".

**Dennis Busam** 

Deputy Head of Production at Zum Dorfkrug

## Prozesse verinnerlichen, Herausforderungen





## Solution

Maintenance

X

Traceability

Machine Data Acquisition (MDA)

Ĭ Detailed Acquisition (PDA)

Quality

#### **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.

#### **Individual Implementation:**

- Digital report of machine and operating data, downtime recording and performance overview
- **Machine Data Acquisition (MDA) module:** Acquisition of machine data to determine OEE, **NEE and TEEP**
- **Production Data Acquisition (PDA) module:** Acquisition of operating data to identify item-specific characteristics for optimizing production

The manufacturing company also uses FASTEC 4 PRO to record downtimes and for the performance overview. The latter shows how quickly a product is manufactured.

From this, Zum Dorfkrug can deduce whether an item can be filled even faster, what measures are necessary to achieve this and what challenges are involved.







## **Implementation**

Today, the use of FASTEC 4 PRO in production at Zum Dorfkrug means that machine data and operating data are digitally recorded and reported. The company uses the MES to determine the Overall Equipment Effectiveness (OEE), i.e. the key figure for recording productivity in production. This is recorded on a weekly basis. Zum Dorfkrug also reports the Net Equipment Effectiveness (NEE) and the Total Effective Equipment Performance (TEEP). All values are then compared. The manufacturing company also uses FASTEC 4 PRO to record downtimes and for the performance overview. The latter shows how quickly a product is manufactured. From this, Zum Dorfkrug can deduce whether an item can be filled even faster, what measures are necessary to achieve this and what challenges are involved.

## **Conclusions from the Initial Phase Enable Optimization**

After a number of challenges were encountered with the placement of the sensors in production, Zum Dorfkrug opted for the solution of relocating them. The company chose locations where the jars pass through individually and do not accumulate. This prevents the sensors from miscounting. At the same time, the company chose places

where the sensors could not be exposed to water. This, too, had previously caused the sensors to fail to detect glasses. This ultimately provided the company with valid data. Optimization was also achieved in the handling of user texts in the event of faults in MES FASTEC 4 PRO. Initially, Zum Dorfkrug had the production employees enter the reasons for the faults themselves in order to collect information. This resulted in many categories and states. Over time, the company decided to define these more precisely and thus reduce the workload for employees with user texts. Today, in the event of a fault, they can select the reason directly from a preselection using a quick button and only have to enter exceptions themselves. This ensures greater consistency and clarity.

Regular internal training courses at Zum Dorfkrug now ensure that all team members have the same level of knowledge. Both employees in the office and on the store floor can follow production live via FASTEC 4 PRO. Weekly meetings are held at which the team discusses progress and results.

"FASTEC 4 PRO helps us a lot with our calculations.

Even when I'm sitting upstairs in the office, I can see at a glance the start time of a production order, the estimated order end date and other important information. The data is also processed further for controlling and helps with price calculation, for example."

"The user interface of FASTEC 4 PRO is very coherent and clear. This is important for our employees."

**Dennis Busam**Deputy Head of Production at Zum Dorfkrug

**Real-Time Data Ensures Transparency** 





## Results

The main areas benefiting from the use of MES FASTEC 4 PRO at Zum Dorfkrug today are Production, Controlling, Production Planning and Technology. The greatest benefit of digital data acquisition for the company is the clear presentation of comprehensive reports on production data. They show errors in ongoing production, the biggest time losses and the items with the most rejects. From this, employees can derive optimization measures for production. Together with the technical department, Zum Dorfkrug ultimately finds a solution on this basis.

"I am very satisfied with the communication with FASTEC."

**Dennis Busam** 

Deputy Head of Production at Zum Dorfkrug

The use of FASTEC 4 PRO has also simplified many processes and ensured a uniform database. All employees, whether in the office or directly in production on large screens, can now view the status and report data in real-time. This saves an enormous amount of time and reduces effort.

There have also been improvements in the recording of short downtimes. While these were previously recorded manually in Excel, they have now become accurate and measurable digital data. Zum Dorfkrug is able to detect around 70 to 75 percent more faults than before. The reduced effort involved in data acquisition can also be be shown in figures: Whereas before FASTEC 4 PRO was used, employees spent around 0.5 hours a day on reports in a week, this now only takes around one hour a week in total.

By using FASTEC 4 PRO and on the basis of the analyzed data, Zum Dorfkrug can derive measures for the next production orders and thus improve them.

Item-specific characteristics in particular play an important role here, as new products are often launched and tested on the market. In summary, the project shows very clearly that an MDA and PDA are also useful and easy to implement for small and medium-sized companies.



"By using FASTEC 4 PRO, we can specifically address problems in our production and take sustainable measures."

**Dennis Busam**Deputy Head of Production at Zum Dorfkrug

## **Derive and Implement Targeted Measures**



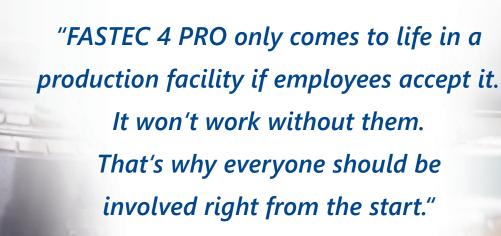


## **Outlook/Recommendation**

Zum Dorfkrug plans to use the MES FASTEC 4 PRO for other areas of production in the future. For example, the current setup processes are to be further improved. There are also plans to add the Quality Assurance module and the Additional Function of Alerting. In the future, there will also be an interface between Enterprise Resource Planning (ERP) and MES.

Zum Dorfkrug recommends that other companies starting out with the introduction of digital data acquisition should involve their employees right from the start – the success of the project depends largely on them.

The software should be integrated into the everyday life of the company. It is also important to define a clear goal and align all measures accordingly.



**Dennis Busam** Deputy Head of Production at Zum Dorfkrug

## **Integrating FASTEC 4 PRO into Everyday Work**





## 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.



- 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.

