

PRESS RELEASE

Intelligent shelves for reordering automatically – supply security through RFID technology

Bad Mergentheim/Main-Tauber-Kreis.

Saving time and money is proving to be more topical than ever owing to constantly and rapidly growing markets. Würth Industrie Service GmbH & Co. KG helps its customers to overcome these challenges by automating and digitalising the logistics processes in C-Parts management. An automated reordering process, timely identification of demand fluctuations, shortened response times: in other words, maximum supply security with production material. By using RFID technology, AGCO | Fendt is now benefiting at the production site for building loading wagons in Waldstetten.

The farmers and contractors using Fendt tractors, loading wagons and harvesters achieve their goals more quickly and earn more profit. In over 80 years of company history, Fendt has introduced ground-breaking technological developments onto the market and set important milestones in agricultural engineering. This history will continue, because Fendt has always stood for progress as a tradition. In order to ensure the quality of its vehicles, Fendt depends on partners who operate flexibly and innovatively and are characterised by continuous reliability and quality.

A reliable supply of production resources is proving to be more important than ever in case of any peaks in production and manufacturing demands as well as during the period of the ongoing coronavirus crises. Fasteners such as screws and nuts are not part of the components that are of primary focus within a production. These are small parts with a low unit value. And yet: if a sensitive small part is missing in the ongoing production, it can set back the work in time, cause unnecessary downtime and ultimately affect the costs. In order to avoid these fallouts, it is important to establish a process which provides the goods exactly where and when they are required – without any manual effort, diversions, additional time and procurement efforts.

For this reason, Fendt decided in 2003 to work together with Würth Industrie Service, who is a competent partner in C-Parts management, in its production site in Waldstetten. By the middle of the-year 2020, a classic two-bin Kanban

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system was then deployed for around 1450 active bins with more than 450 different products (*figures as of 31.12.2019*) from the range of fasteners and fastening elements in four storage locations combined with a standardised barcode scanner. Different departments such as purchase, disposition, materials management and logistics were faced with major challenges owing to a wide range of products, multiple storage locations as well as unforeseeable demand fluctuations. Since connected and coordinated logistics processes are the basis for Industry 4.0 in modern C-Parts management, production lines are becoming more flexible and digitalisation is proving to be more indispensable, Würth Industrie Service considered the use of RFID technology as an important and pioneering solution for the location to combine progress and tradition! In this context, the decision was taken to implement an RFID supported Kanban system along with the intelligent shelf iSHELF®.

RFID stands for **R**adio **F**requency **I**dentification and recognises data via radio control and automatically transfers orders from the production of Fendt to the central storage facility of Würth Industrie Service. The four storage locations of Fendt are now equipped with intelligent RFID shelves iSHELF®. At the core of the technology are the transponders integrated with the Kanban bin, which save the information such as bin type, item number, description, filling quantity, batch and automatically reorder the item, as and when required. If a bin is empty, then the iSHELF® installed shelves directly detect it via an integrated sender-receiver-unit in the shelf. The shelf reads the RFID chip and transfers the information about the item and quantity directly to the ERP system (SAP) as well as to the Kanban-Management-System (KMS) developed in-house. The advantages of iSHELF® are very clear: by completely automating the ordering process, the potential sources of errors are specifically prevented. The required goods are picked-up from the logistics centre of Würth Industrie Service and then dispatched. Onsite, a system administrator of Würth Industrie Service fills the bins in the shelves at the storage facilities. (Figure 1: RFID Kanban cycle at AGCO | Fendt)

The results speak for themselves: on one hand, the security and speed of supply has increased significantly, in a way that the required goods are available onsite up to 7 days before the normal estimated time. On the other hand, the error rate along with the number of incorrect deliveries as well as the risk of

delivery bottlenecks and production standstill has dropped significantly. In the wake of digitalisation and automation processes, AGCO | Fendt has been able to reduce inventories and procurement effort. Having fewer bins in circulation means that there are additional storage capacities within the production. This is also reflected in form of pecuniary advantage! The inventories for around 450 products with the RFID-based solution could be significantly reduced. At the same time, the response time is relatively lesser and the delivery is quicker and more stable. To some extent, these figures clarify the potential of such automated solutions. Andreas Schmid, location head at AGCO | Fendt Waldstetten, has referred to the implementation of RFID Kanban as a major step forward which will open up new possibilities by reducing coordination efforts and efficiently designing the processes.

For restructuring the four storage locations, an implementation team of six employees from Würth Industrie Service were deployed onsite in Waldstetten for three days from 17th to 19th February, 2020. Personal support is given highest priority at Würth Industrie Service. An individual point contact from inside staff, field staff and Key Account Management is assigned to provide on-site support in the process flow.

RFID solutions form the basis for diverse solutions resulting therefrom: from a complete intelligent shelf of a battery-operated unit, which can also be used for in-house inventory management, to holistic supplier integration and incorporation of additional product groups such as A/B parts. Apart from automation in direct materials, they are also useful in expanding the scope to digital systems in MRO and indirect materials, for e.g. through vending machines.

Photo material:

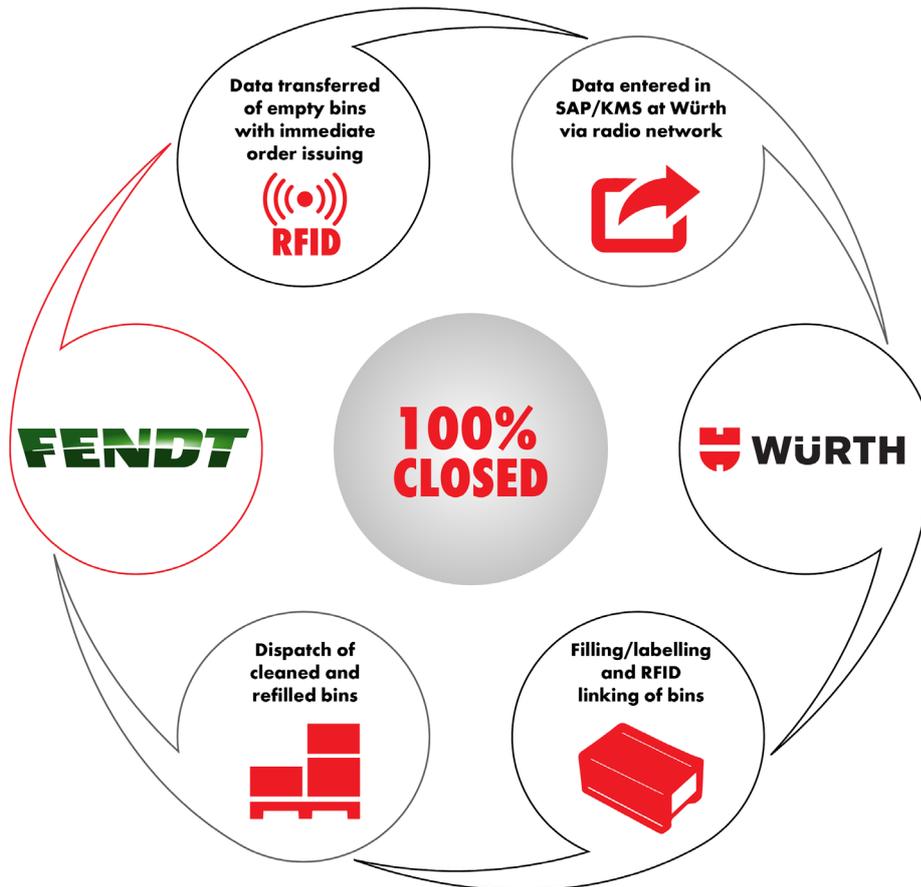


Photo 1: RFID Kanban cycle.jpg

Caption 1: RFID Kanban cycle at AGCO | Fendt

Photo source 1: Archives of Würth Industrie Service GmbH & Co. KG



Photo 2: Intelligent shelf iSHELF® in use at Fendt.jpg

Caption 2: Fendt relies on innovative technologies of Würth Industrie Service

Photo source 2: Archives of Würth Industrie Service GmbH & Co. KG

Brief profile of Würth Industrie Service GmbH & Co. KG

Within the Würth Group, Würth Industrie Service GmbH & Co. KG is responsible for the supply of the industrial sector. Since its foundation in 1999, Würth Industrie Service is located at the Industriepark Würth in Bad Mergentheim, Germany with over 1.700 employees.

As a complete C-Parts provider, the company offers its customers a specialised product range of over 1,100,000 items: from screws, connection and fastening technology, tools to chemical-technical products and occupational safety.

In addition to the extensive standard range, the strength of the company lies in its customer-specific, logistical and dispositive supply and service concepts as well as in special parts. Under the service brand "CPS® - C-Product Service", the company offers modular solutions, which are customised as per customer-specific requirements. Thereby, the consumption-based and demand-based systems significantly rationalise the processes for purchase, logistics and quality assurance and enable the customers to procure small parts in a cost-optimised manner.

Logistic and dispositive services such as shelving systems with scanners or a just-in-time supply using Kanban bin systems contribute significantly to increasing the productivity.