

PRESS RELEASE

Small-sized bin handling via RFID Kanban for optimised storage space

Bad Mergentheim/Main-Tauber-Kreis. Modern, sustainable C-Parts management means far more than just supplying the required items. In fact, the supplier is now developing into a comprehensive partner who is integrated into the system-based process landscape, and creates the necessary basis to meet the requirements of Industry 4.0 through the use of integrated, automated systems and services. As a C-Parts partner, Würth Industrie Service GmbH & Co. KG supports its customers in implementing fully automated and digitalised logistics processes, which shorten response times, detect fluctuations in demand and trigger reorders accordingly. As part of the latest pilot study, Würth Industrie Service now automatically delivers its small-sized bin (W-KLT®2.0 S) to LMC Caravan GmbH & Co. KG's decentralised place of use using an RFID-enabled mother bin or carrier bin (W-KLT®2.0 4315 or W-KLT®2.0 4115). Small-sized bin handling has been integrated into the existing and fully automated RFID Kanban system onsite and is already operational.

Their small size does not limit them from being smart! The small-sized bins W-KLT®2.0 S are designed keeping in mind the needs of the workplace, and thus ensure a more efficient process design for individual workstations. For batch traceability, the pre-picked small-sized bins have an additional label including master data such as item description, and will have their own RFID tag in the future. This makes it possible to not only control consumption at the workplace using intelligent RFID solutions, but also to track the contents of the bins to the actual place of use. In the near future, a customer-specific label containing additional information on the customer's storage location and rack level is also conceivable so as to reduce the search times on the rack to a minimum. While the employees previously filled their own bins manually at the storage location, the C-Parts partner will provide a pre-defined quantity with the small-sized bins defined as returnable packaging, thus eliminating the need to pick up own bins at the customer's site. This will not only save a lot of time, but also lead to even more order, structure and cleanliness. The small-sized bins are integrated into the mother bin W-KLT®2.0 for shipping to the customer. Thanks to their compatibility with the existing bin sizes of W-KLT®2.0 (4315, 4115), the small-sized bins can be implemented into an existing Kanban system easily and seamlessly using a modular concept. While

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W-KLT®2.0 (4315) has loading capacity of 10 small-sized bins, W-KLT®2.0 (4115) can store 4 small-sized bins in total. A system administrator of Würth Industrie Service fills the bins in the racks directly at the customer's location. Reordering is done automatically via RFID-based Kanban processing by placing the RFID-enabled mother bin at the top level of the Kanban rack. In the case of LMC, the intelligent shelves iSHELF® are used here. If a bin is empty, then the integrated 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 empty bin directly to the Kanban-Management-System (KMS) of Würth Industrie Service developed in-house. The supply takes place centrally from the European logistics centre in Bad Mergentheim to LMC. Thus, the focus is on maximum optimisation of existing workflows in production while ensuring process and supply security at the same time. By optimising run time or time invested in walking and picking up at the customer's location, assemblers and operators are able to focus more on their core competencies. It is clear that this process is the basis for future deliveries to the workplace, with the necessary C-Parts delivered to the actual place of use. The availability of the goods directly at the point of demand and the place of use, ideally without manual intervention, without deflection and without additional time and procurement efforts, is essential for a smooth production process.

The technology behind it: RFID Kanban

Under the brand "CPS® C-Product Service", Würth Industrie Service offers manufacturing industry customers highly flexible Kanban solutions for efficient and transparent optimisation of existing production processes. In particular, fully digital systems from the CPS®RFID family are firmly established for replenishing production materials. Radio Frequency Identification (RFID) enables radio-controlled data transmission directly from the customer's production to the central warehouse of Würth Industrie Service. Through fully automated and demand-oriented reordering of production materials, industrial companies benefit from maximum supply and delivery security. The basis for all this is a Kanban bin. In the case of Würth Industrie Service, it is the patented Würth small load carrier, W-KLT 2.0. It is available in various sizes according to the VDA standard and is equipped with an RFID tag by default. Each transponder can be identified by a unique data security number. In the outgoing goods process, the ID of the bin is linked with the corresponding outgoing goods item. Through the various RFID systems, the ID of the bins can be read and transferred to the Kanban-Management-System for data transfer

or automated re-ordering of C-Parts for production. Thanks to this linking, wide range of information such as bin type, item number, description, filling quantity, batch can be saved in the system.

LMC relies on small-sized bin handling

In its core business as a caravan and motor home manufacturer, LMC, as part of the Erwin Hymer Group, produces high-quality caravans and motor homes for the European market at its Sassenberg location. The pilot study on small-sized bin handling via RFID-Kanban started in November 2020. In the meantime, all production lines have been successfully changed. "Through small-sized bin handling, we benefit from a maximum increase in productivity. Thanks to RFID technology, our workplace needs are managed in a streamlined manner and the requirements are reordered fully automatically, thus saving maximum time and costs." said Timo Tesch, Head of SCM & Order Centre at LMC Caravan GmbH & Co. KG. At the Kanban storage locations, a total of around 2,300 active bins (of which, there are 2,000 mother bins including small-sized bins W-KLT@2.0 S) are filled with various items from a wide range of products, which are used in the production of caravans and motor homes. Large-volume items with respect to dimensions and sizes are still stored in standard W-KLT 2.0 bins.

Head into the future

With the pilot study on small-sized bin handling via RFID Kanban, Würth Industrie Service has achieved another milestone in the supply of production and operating resources with the aim to not only manage workplace requirements in a streamlined manner, but also to handle them fully automatically using innovative technologies. But it goes one step further. With the vision of delivering to the customer till the workplace in the future, the company has its sights firmly set on a connected factory. The assembly workplace of the future - unimaginable yesterday, real today, smart tomorrow. Being one step ahead as the driving force behind innovation is what LMC stands for.

Photo material:

Captions:



Photo 1: W-KLT@2.0 S.jpg

Caption 1: Small-sized bin W-KLT @ 2.0 S for more efficient process design

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



Photo 2: Small-sized bin handling LMC.jpg

Caption 2: LMC Caravan GmbH & Co. KG is benefitting from the latest pilot study on small-sized bin handling with RFID Kanban at the production site for motor homes and caravans in Sassenberg

Photo source 2: LMC Caravan 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 procurement of 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.