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SAP Silver Partner

MAGNET-SCHULTZ

Customer **Success Story**

„Optimal transport control without fixed schedules“

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Transport Guidance System for SAP

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„We wanted to be able to respond to peaks in demand at short notice and schedule each stop in each tour for pickup or delivery.”

Thomas Damian / Head of Logistics / Magnet Schultz GmbH & Co. KG

Customer **Success Story**

Magnet-Schultz controls reach trucks and tugger trains flexibly, route-optimized and demand-oriented with the FlexGuide transport control system from Flexus. The special features include fully dynamic route planning, on the basis of which the tugger train can also react to short-term material requirements.

From the deep sea to outer space: Magnet-Schultz magnets and sensors can be found almost everywhere.
The high-tech products can be found in rail and road vehicles, in commercial and construction vehicles as well as in passenger cars, in medical equipment, in industrial environments and in potentially explosive atmospheres. They are produced at three locations worldwide - one of which is the plant in Memmingerberg.

The internal material flow here is organized with reach trucks, front stackers and tugger trains.
SAP is used as the ERP and warehouse management system. In the past, the scheduling of the industrial trucks was largely manual: the forklift drivers received their orders by telephone and call or decided independently based on their many years of experience. The two tugger trains ran according to a fixed route plan. The strongly fluctuating transport requirements were visually recorded by the driver during the tour and either served immediately or on one of the next tours.

More space, less empty runs

The control of the reach and front stackers worked well, but the processes were not transparent and offered potential for optimization. Against this background, Magnet-Schultz was looking for a transport control system integrated in SAP to control all internal transports. „We wanted to fundamentally digitize the transport requirements of the forklifts in order to avoid empty runs and to enable digital material call-offs,“ explains Johann Erbe, who is responsible for materials management at Magnet-Schultz. In addition, replenishment was to be provided to production in smaller batches in order to save space there.

With FlexGuide, the drivers are now fully integrated into the digital transport processes. For this purpose, (initially the reach trucks) were equipped with forklift terminals that have the FlexGuide app. This informs the drivers clearly about the upcoming work steps, which are successively completed and acknowledged. In this way, the use of the forklifts is not only optimized, but also completely transparent.

Johann Erbe, Materials Management Responsible, Magnet Schultz GmbH & Co. KG

Customer **Success Story**
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„Optimal transport control without fixed schedules“

Magnet-Schultz pursued similar goals with regard to the route trains in the newly built production hall: Here, the control system was to enable fully dynamic route planning, with which the rigid schedules could be replaced.

„We wanted to be able to react to demand peaks at short notice and schedule every stop in every tour for pickup or delivery," recalls logistics manager Thomas Damian, who wanted to minimize kanban stocks in production and create additional production space.

Convincing references

After an intensive selection process, the decision was made in favor of the FlexGuide transport control system from Flexus AG. „The fact that the FlexGuide solution is fully integrated in SAP spoke in favor of Flexus. In addition, we were convinced by the large number of well-known references and the connection to SAP EWM, which has already been implemented several times in practice," emphasizes Johann Erbe. Added to this was Flexus' willingness to adapt the tugger train module from the FlexGuide transport control system to their needs together with Magnet-Schultz. „We were able to develop the fully dynamic route planning togther and introduce it successfully," Thomas Damian emphasizes.

Thomas Damian, Head of Logistics, Magnet Schultz GmbH & Co. KG

At the beginning of 2021, the fully dynamic tugger train solution went live at Magnet-Schultz after the forklift module had already proven itself since March 2020. Since then, production employees have been requesting material using a dialog developed in-house.

„In this process, inactive and anonymous transport orders are automatically adapted to the requester and activated," explains Bernd Ehrmann, project manager ‚TLS' at Magnet-Schultz.

Most transport orders are created via SAP so that the specific order and material information can be included and labels printed.

One tugger-train saved

„During production confirmation, transport orders are also created as required. The transport order can then be scheduled and assigned," says Ehrmann, who was able to record an immediate saving thanks to FlexGuide: „As a result of the optimizations, we were able to save one of the two route trains in operations, which now serves us as a backup solution."

The still active route train is triggered via the material and empties requests from production and the „full messages" from the Kanban carts. Both triggers access the transport orders in the background and set the correct status.

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Bernd Ehrmann / Project Manager Transport Guidance Systems / Magnet Schultz GmbH & Co. KG

The order pool is then used to determine the stops in production, which are given country names at Magnet-Schultz. The one-way logic ensures pre-sorting in the process. „If available, FlexGuide always plans transport units for shipping or storage into the tour so that the route train does not leave the production area empty," explains Ehrmann.

Bernd Ehrmann, Project Manager Transport Guidance Systems, Magnet Schultz GmbH & Co. KG

Fun to operate

Before a tugger train tour can start, however, the Jungheinrich tractor must be equipped with the required trailers. Here, the driver is supported via an easy-to-understand dialog on the forklift terminal.

„The system is very clear, saves time and is fun to operate," confirms warehouse employee Sebastian Steybe. There is a choice of cab carts incl. associated trolleys with a usable area of 800x600mm - and shelf carts for transporting small parts load carriers (KLT). T

he most common load carrier at Magnet-Schultz is a plastic pallet (800x600mm) in an distinctive orange color.

This pallet is used in all processes. For the KLTs used exclusively in the Kanban process, a distinction is made between the basic formats 400x300mm and 600x400mm.

The KLT trailers are used as clocks in the fully dynamic route planning. This means that stops that are assigned to the pre-picked KLT units are given priority. Trailers with large load carriers (GLT) are scheduled in addition depending on the remaining capacity. Route optimization has the highest priority, while the time component only plays a subordinate role.

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Maximum transparency

Conclusion: The implementation of the forklift and route train module has significantly improved the internal material flow at Magnet-Schultz: Even forklift transport orders created at short notice are continuously taken into account and executed in a route-optimized manner.

The fully dynamic route planning avoids empty runs, because trips back to the station are filled up with transport units for shipping or storage whenever possible. In addition, buffer locations in production can now be reduced to a minimum even when demand fluctuates.

Last but not least, Flexus' FlexGuide ensures maximum transparency: the forklift and tugger train are now controlled exclusively via the vehicle terminal using the „SFA driving“ (forklift) or „driving tour“ (tugger train) dialog. The workload of the resources can be monitored at any time via a cockpit in the control station, where any faults are also displayed and processed.

Backround: Magnet-Schultz

Magnet-Schultz GmbH & Co KG, based in Memmingen, Germany, specializes in electromagnetic actuators, sensors and valve technology. The customized solutions are used in many places, ranging from the deep sea to outer space. Magnet-Schultz products can be found in rail and road vehicles, in commercial and construction vehicles as well as in passenger cars, in medical equipment, in industrial environments and in potentially explosive atmospheres.

The family-owned company, now in its fourth generation, employs around 2,650 people and generates annual sales of EUR 430 million. For more info, visit www.magnet-schultz.com

Backround: Flexus

Würzburg-based Flexus AG specializes in the optimization of intralogistics processes through innovative software products and consulting expertise. The SAP partner with mobility expertise offers a holistic approach consisting of the analysis of potentials as well as the conception and implementation of measures that improve the material flow.

The basis for this is many years of experience in mobile data collection and the implementation of forklift and transport control systems. Among other things, SAP add-ons from Flexus are used. Due to the direct integration with SAP®, the solutions particularly show their advantages.

Backround: Software

The SAP partner Flexus AG offers solutions for networked SAP® intralogistics. The solutions improve the interaction of people, processes and technologies in the company. This ensures efficient processes and a concrete business benefit in the sense of Industry 4.0.

The applications include the FlexGuide transport/forklift control system for SAP® for the simple and transparent control of all existing resources that are necessary for the material flow in a company. These include the optimization of forklifts, route trains, driverless transport systems, employees with mobile devices, and in-plant truck traffic.

The solution ensures cross-departmental control and tracking of the material flow and reduces empty runs to a minimum. Numerous modules and extensions enable the optimal adjustment to your needs.

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All info about FlexGuide

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YOUR PREMIUM SAP® INTRALOGISTICS PARTNER

If your company is looking for a partner who can help you with the digital transformation of your logistics processes, make the decision easy. We are there for you. Flexus AG advises and supports medium-sized companies and international corporations in the optimization of intralogistic processes in SAP.

As SAP partner company we are exactly the specialists when it comes to consulting and implementation of SAP logistics solutions. Benefit above all from our holistic consulting approach and our many years of experience in the integration of individual logistics solutions. In particular, we use the SAP add-ons of our **360° Logistics Suite©**,
which offer you the possibility to significantly streamline, simplify and thus noticeably optimize your material flow.

Together, we create your competitive logistics infrastructure, with which you are optimally equipped for the future.

SAP® Certified
Integration with SAP S/4HANA®

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