



AGCO/Fendt

Intralogistics reorganisation:

Consultation, planning and completion of production warehouse in 9 months

In light of increasing demand for Fendt tractors, AGCO/Fendt plans to expand its production facilities in Marktoberdorf by 2023. As part of this project, the famous tractor manufacturer commissioned renowned intralogistics experts STILL to optimise the supply logistics in its transmission plant. Over a period of just nine months, a new production warehouse was planned, built and put into operation, including reorganisation of the order picking processes. This allowed the company to do away with the storage islands they had dotted about the plant, freeing up 1,500 m² of valuable storage space for the assembly lines. As well as the installation of the warehouse technology, full-service provider STILL made a particularly good impression with the independent consultation and planning project from STILL intralogistics consultants.

Sector: Tractors and harvesting machinery

Company: Fendt is the high-tech brand of the AGCO Group. Fendt has six sites in Germany and over 6,000 employees.

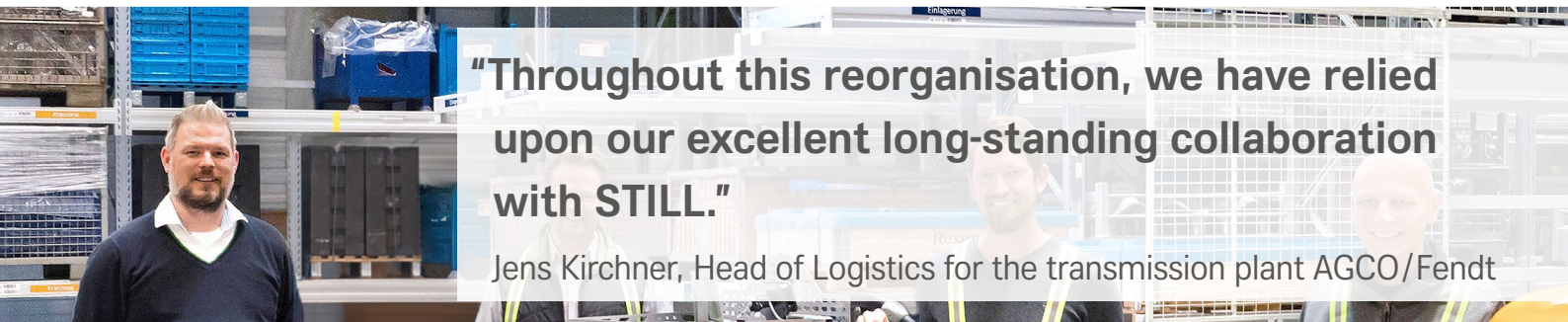
Challenge: Expansion of the production facility required reorganisation of the intralogistics in Marktoberdorf. Short time window of nine months for planning, decision-making and commissioning.

Solution: Comprehensive consultation, including data collection and analysis, concept development and detailed planning for a new logistics centre. Future-proof concept, including shelving systems, industrial trucks and automation potential.

Optimised intralogistics in the Fendt main plant in Marktoberdorf

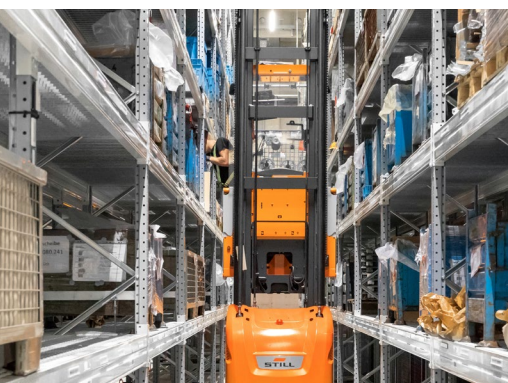
One hundred tractors roll off the production line every day at Fendt in Ostallgäu, Germany. The company also assembles and ships around 120 Vario transmissions per day at its plant in Marktoberdorf, for its own plant and for its original spare parts business. In response to the constantly growing demand for its tractors, AGCO/Fendt is reorganising its production systems. By 2023, it plans to have increased its annual production capacity by 20 per cent. Head of Logistics for the transmission plant, Jens Kirchner, says: "As part of our plant restructuring plans, we are also reorganising our transmission plant, with production specifications increasing every year. As an initial step in this process, we have reorganised our internal logistics to supply the assembly lines. Throughout this reorganisation, we have relied upon our excellent long-standing collaboration with STILL."

As a forklift manufacturer and a pioneer and innovator in the field of warehouse technology and internal logistics, the intralogistics experts from Hamburg have more than 100 years of experience. This project aims to bring together the previous block storage and individual, isolated storage islands for order picking in the centre of the production area within the new logistics centre. This will not only free up space for the new machinery on the production lines, but will also make the lean intralogistics processes more efficient.



By providing everything from one single source, STILL made it possible for the reorganisation of the intralogistics in the transmission plant to be completed within just nine months.

The Head of logistics planning for transmission production, Christian Butzke, emphasises: "The time window from the initial decision to build a new logistics centre to the commissioning was extremely short at just nine months – that gave us just 2.5 months for data analysis, concept design and detailed planning."





The first stage of the project involved optimising the intralogistics processes for transmission assembly. This freed up 1,500 m² of valuable storage space for new machinery on the assembly lines.

Around 80 per cent of the storage volume is occupied by the transmission housing, so a handling warehouse was set up with a turnover period of just a few days.



Detailed intralogistics analysis

To establish the requirements, conditions and structures for the new logistics centre, extensive turnover and stock analyses were first carried out on the items. This included analysing the warehouse conditions, order structures and processes like order picking.

"Data collection is crucial as the success of the project relies heavily on the quality of the planning data available. We used representative data records to analyse processes and quantities of assembly parts moved, including load carriers – i.e., everything related to the actual situation," explains STILL intralogistics consultant, Bernd Geiger. On top of this, intensive discussions were carried out with employees from the various storage and production areas, and all the relevant processes and data were discussed in detail within the joint planning team on a daily basis.

Careful planning of the logistics centre

The results of the analyses were used to devise potential solutions and recommended measures for the logistics processes; the possible options were tested for cost-effectiveness and manpower, and the pros and cons of each concept were carefully scrutinised. Once STILL had a comprehensive understanding of the individual challenges, a customised and highly cost-effective concept was developed for the new logistics centre. Jens Kirchner adds: "Around 80 per cent of the overall storage volume is occupied by our transmission housing. For this reason, we set up a handling warehouse with a short turnover period of just a few days. This allows us to be more dynamic and flexible in the way we respond to fluctuations in production, and does away with the space-intensive and time-consuming A, B or C rotations that we previously used to manage stock. Increasing our warehouse throughput also offers greater flexibility for our suppliers."



Both the shelving systems and the industrial trucks are already configured for potential automation in the future.

In addition, Bernd Geiger points out that, since the centralised warehousing and supply via tugger trains has reduced the amount of forklift traffic, the level of safety on the assembly lines has increased as a result.

Potential for automation

Alongside the shelving systems and industrial trucks, the potential for automation was also analysed, and an appropriate concept drawn up. The next step is to use the iGo pilot navigation function from STILL to implement partial automation of the MX-X narrow aisle trucks. Bernd Geiger: "During the planning phase, we worked with AGCO/Fendt to develop a future-proof concept. Our trucks and shelving systems are pre-configured for full automation to be implemented at a later date. The level of automation is determined by the processes in the transmission plant. With the new logistics centre, we can respond to these requirements with a great deal of flexibility, and adapt the automation level from manual, semi-automatic to fully automatic at any time."

Top-selling items in separate material flow

In the course of the project, the team also identified top-selling items, which are only stored for half a day. Integrating these assembly parts would have used too many resources. For this reason, a separate material flow was set up with a warehouse outside of the new logistics centre. This will also be automated in the near future. The project management is already under way.



Centralising the storage system has saved time and shortened transport routes and significantly reduced the number of tugger trains.



Restructuring of the tugger train systems

A production department is only ever as successful as its material flow.

The use of a tugger train system for internal material supply makes all the difference and lays an important foundation for the lean management of assembly lines. This ensures that material is supplied and disposed of appropriately and reliably, and with minimal traffic volumes. As the intralogistics consultant from STILL emphasises: "In order to successfully integrate a tugger train system into the supply chain, logistics and production processes must be considered as a whole. The centralised warehousing allowed us to shorten routes, optimise timings and significantly reduce the number of tugger trains. We have been able to demonstrate future automation potentials here, too."

Commissioning of the logistics centre

Due to their outstanding contribution to the consultation project, AGCO/Fendt entrusted STILL with the project management for the entire installation and commissioning of the new logistics centre – across all the plants. Thomas Rothbauer, Operations Manager at STILL, emphasises the following: "The entire relocation and commissioning of the new logistics centre was completed within just three weeks, during the company holidays. We always had one eye on the implementation schedule and every morning we met with Christian Butzke, the foremen, team leaders and all employees to define and assign responsibilities on a shop floor board.

Any deviations in the installation of shelving and warehouse technology, or in the coordination of the systems, were swiftly identified, long-term solutions to problems defined and the use of resources and manpower were coordinated for optimum efficiency.

Summary

The basis for the development of a standardised warehousing and material flow concept was provided by STILL's independent consultation and planning service. By focusing on fundamental analyses of the material flow, warehouse technology and transport methods, as well as the structural requirements, it was possible to plan and design the logistics centre down to the last detail. Furthermore, the industrial trucks are already configured for future automation. Jens Kirchner gives a glowing summary of the collaboration. "In the consultation and implementation phases, it was their absolute drive, honesty and transparency that allowed us to establish such a trusting partnership with STILL. Implementing the project in just nine months was only possible because STILL was able to provide everything we needed from a single source. I would especially like to stress that neither the commissioning nor the relocation of around 80 per cent of our storage processes has resulted in any delays in production. That is an outstanding achievement."



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