

## Retrofit: energy savings of 37 percent for esco

- **The German door fitting specialist is making its supply chain operations fit for the future with TGW expertise**
- **Replacing the storage and retrieval machine will enable a 28 percent increase in performance**
- **The modernization project will ensure long-term system availability and lay the foundation for reliably delivering on customer promises**

**(Marchtrenk, Austria, 13 November 2023)** Over the past months, the German door fitting specialist esco invested in a retrofit project for its fulfillment center in Ditzingen. This modernization project was divided into three phases and encompassed not only the replacement of a storage and retrieval machine, but also a controls and IT upgrade. All work took place during live operation and was successfully finished by January 2023. TGW expertise is helping esco make its supply chain operations fit for the future, increasing performance and profit from energy savings.

esco Metallbausysteme has been equipping doors and windows with innovative fittings since the company's founding in 1965. Alongside their commercial activity, they have been focusing on the development and production of high-quality products for window and door automation for nearly 60 years. The company, headquartered in Ditzingen, Germany, employs roughly 250 people and has locations in Germany, Austria, and Poland.

### **Decisions based on thorough analysis**

TGW Sales Project Manager Klaus Kollmann describes the initial situation of the project this way: "The existing system was nearing the end of its lifecycle. Many of the components were out of support and there was therefore the danger that if worst came to worst, parts would be more expensive or not available at all. That could have led to challenges in terms of system availability and, in the worst-case scenario, to delayed customer deliveries. We therefore evaluated various options together with esco as part of an intensive analysis process and finally opted for the latest generation of the Mustang E+ storage and retrieval machine."

## **Performance increased by 28 percent**

The Mustang E+ storage and retrieval machine boasts a bolted mast and intelligent drive technology, and also weighs significantly less than the previous model. It relies on a modern generation of system controls and has no need for an anti-sway drive. The anti-sway function implemented in the control system makes it possible to increase throughput and shorten positioning times, and facilitates particularly material-friendly operation. Braking and accelerating can be carried out more gently, and noise and vibrations are significantly reduced. Another advantage: the maintenance-friendly design helps to keep operating costs low. All of these measures combine to facilitate a performance increase of 28 percent compared to the previous version.

The mechanical equipment replacement and controls and software upgrades mean that esco will profit from significantly higher availability and easier maintenance. The results of performance tests and energy measurements demonstrate not only the economic benefits, but also the positive effects in terms of resource consumption and sustainability.

## **Energy savings of 37 percent**

Modernizing the hardware and software will permit a total energy savings of 37 percent. This is an important step for esco in terms of sustainability. "Before, the storage and retrieval machines' braking energy was simply lost. With the Mustang E+ we can recover the energy from the horizontal or vertical travel axis and use it for the other axis," explains Markus Kammerhofer, Director of Sales Retrofit at TGW. "That ensures careful handling of scarce resources and also makes economic sense."

## **Investing in the future**

TGW draws from more than half a century of experience, and the retrofit area in particular has experienced strong growth. The system integrator now handles five times as many retrofit projects annually as it did ten years ago – and proceeds systematically for each project.

"Generally speaking, retrofits are inherently sustainable investments because they not only extend the lifespan of a company's systems, but also increase the company's efficiency," Markus Kammerhofer points out. "Many companies have put programs in place to handle resources conscientiously, as well as to carefully and thoroughly examine every link in their supply chain to find out where they could cut down on emissions."

# Press release



## Seven success factors for a perfect retrofit recipe

TGW's extensive experience in the area of retrofits has given rise to a list of seven factors, or prerequisites, for a successful modernization project:

1. Consider the lead time and start early enough
2. Choose experienced partners and project managers
3. Develop a structured plan
4. Integrate specially developed retrofit solutions
5. Create a comprehensive functional specification
6. Clearly define migration phases
7. Train employees intensively

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# Press release



## **About TGW Logistics:**

TGW Logistics is a leading systems integrator of automated warehouse solutions. With over 50 years of experience the automation specialist designs, manufactures, implements, and maintains end-to-end fulfillment solutions for brands such as URBN, the Gap, and TVH.

TGW Logistics has subsidiaries in the US, Europe, and China and employs more than 4,400 people worldwide. In the 2022/23 fiscal year, the foundation-owned company generated a revenue of \$ 1 billion US dollars.

## **Pictures:**

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