TruTops Fab Logistic gives material flow a boost

DAX MetallForm is a full service provider in the metal industry. Intro, a company in the group, offers customers support with machine conception, construction and assembly. The growth brought the established processes to their limits. Handling small parts in particular put the brakes on production. DAX solved the problem with the intelligent intralogistic solution from TRUMPF combined with an automated guided vehicle system from Jungheinrich. The holistic solution made it possible to integrate even machines and workstations located outside of the large-scale storage system into the automated material flow for the first time. The fully automatic, route- and time-optimized planning of material movement with TruTops Fab in combination with automated parts transport with automated guided vehicle systems from Jungheinrich increases efficiency significantly.

DAX MetallForm GmbH & Co. KG

www.dax-metallform.de

The company group DAX MetallForm supplies mechanical engineers from the most varied of industries with single parts, machine casings and frames made of steel, stainless steel and aluminum. One of the many strengths of the design-oriented company is the construction of many housing variants.

INDUSTRY	NUMBER OF EMPLOYEES	SITE
Capital goods industry	103	Cochem (Germany)

TRUMPF PRODUCTS

- 3 x TruBend 5230
- 2 x TruBend 7036
- 1 x TruLaser 3040
- 1 x TruLaser 3040 fiber
- TruTops Fab
- TruTops Bend
- Stopa-Compact
- LiftMaster Compact

APPLICATIONS

- Produces and constructs machine casings and machine frames with a focus on design with many variants

Challenges

Growth rates of 10 to 20 percent per year drive established processes at DAX to their limits. Handling small parts in particular puts the brakes on production. To remain competitive even with these simple

parts, this effort must be reduced still further.

The CEO Frank Schmitz is not satisfied with the simple connection of the TruLaser 3040 with a large-scale fully automatic storage system: "The large-scale storage system concept as a standalone solution does not convince me." I believe complete dependence on this system would restrict our flexibility too much." His ears pricked up when the Smart Factory Consultants from TRUMPF suggested a combination of a large-scale storage system and the new intralogistic solution, TruTops Fab Logistic. The option of integrating even machines and workstations located outside of the large-scale storage system in the automated material flow tipped the scales in favor of a decision for the holistic solution from TRUMPF.



"The staff at TRUMPF understand the world of metal and were valuable sparring partners, from the initial idea to implementation. Their impeccable support included material flow analysis to integration of the automated guided vehicle system."

FRANK SCHMITZ
CEO OF DAX METALLFORM

Solutions

The intralogistic solution links seamlessly with the production plan of the TruTops Fab. While in the past, machine operators had to consider material staging and transport planning, this additional expenditure is no longer required with the software.

On an intuitive software interface on a PC or tablet, the operator "marries" parts manufactured in the laser system with the pallet using a barcode reader and moves them into a docking station. This intelligent storage station recognizes the pallet with the help of sensors and reports the incoming material directly to TruTops Fab. The transportation of the material is then planned fully automatically - route- and time-optimized and with consideration for prioritization.

TruTops Fab generates a transport job and sends it to the control unit of the automated guided vehicle system from Jungheinrich. This means that customers not only benefit from the advantages of automated planning, but also from automated parts transport.

Implementation

At DAX, the automated guided vehicle system from Jungheinrich undertakes around 22 transports per hour. It brings small parts on pallets or in wire mesh boxes from the laser machine or from the large or buffer warehouse to two bending machines and manual workstations for drilling, thread cutting and grinding.

The transport jobs from TruTops Fab can also be assigned to an operator or a pallet jack or forklift truck. For this reason, DAX relies on mixed operational processes: small parts are transported fully automatically with the automated guided vehicle system, while staff continue to move larger parts from A to B using

pallet jacks or forklift trucks. Even the trial run demonstrated how efficient the new intralogistics system is. Frank Schmitz is confident: "With this intelligent solution, we will soon be able to reach our target of a 20 percent reduction in setup time and a decrease in throughput times of around 25 percent."







Forecast

"The employees at TRUMPF understand the world of metal and were valuable sparring partners, from the initial idea to implementation. Their impeccable support included material flow analysis to integration of the automated guided vehicle system," explains Frank Schmitz. Good enough reason to continue to develop the solution. As soon as the entire production has been transferred to the new process, the welding and assembly areas will also be completely digitalized. To this end, further docking stations are to be installed and a second automated guided vehicle commissioned.

Find out more about our products



TruBend 5230

The TruBend Series 5000 TRUMPF's most successful bending machine worldwide. Using the press brake, your production will be unmatched – from programming, to setup, to the actual bending.

Zum Produkt



TruBend 7036

The TruBend Series 7000 is a prime example of perfect interaction between man and machine. High speeds and acceleration values on the bending machine in conjunction with optimal work conditions ensure first-rate overall productivity.

Zum Produkt



TruLaser 3040 fiber

The TruLaser 3030 fiber, TruLaser 3040 fiber, and the TruLaser 3060 fiber – the fast machines for all your cutting tasks. They impress with their high level of flexibility and cost-effectiveness.

Zum Produkt



TruTops Bend

Generate bending programs intuitively. TruTops Bend provides support for your processes with TRUMPF's full range of bending expertise.

Zum Produkt



LiftMaster Compact

The LiftMaster Compact is a fast, compact loading and unloading unit. The dynamic and variable automation solution is particularly attractive for fast sheet processing times.

Zum Produkt

https://www.trumpf.com/en_CA/solutions/success-stories/the-success-story-of-our-customer-dax/