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# Digitally transformed mail order business - how TRUMPF delivers spare parts in record time

**Supplying customers with spare parts as quickly as possible is a top priority for TRUMPF. After all, if a machine is out of action due to a defective part, it costs the customer money. This is why the high-tech company operates one of the most modern logistics centers in the sheet metal industry at its headquarters in Ditzingen. 85 percent of orders leave the factory hall by truck on the same day. To achieve this, TRUMPF relies on digitalization and networking.**

On a conveyor belt five meters above the floor, components in boxes circle above the hall floor. Forklift trucks transport large parcels into a high-bay storage rack. An employee scans barcodes of component packages and sorts them into boxes. It smells of metal and plastic film, the forklift trucks rattle and a freight elevator rushes up and down.

What is being transported through the hall here are spare parts for TRUMPF machines. The high-tech company keeps 85,000 different material numbers in stock at its logistics center in Ditzingen, Germany. The delivery times set the standard in the industry. "We load 85 percent of orders onto the truck on the same day, i.e. 'same day out'. Hardly anyone in the sheet metal industry can achieve that," says Oliver Türk, who has been responsible for the logistics center for two years. TRUMPF is able to meet the scheduled delivery date for an average of 99 percent of orders. "If we achieve 100 percent on a given day, there's pizza for everyone. We've already achieved that twice this month," says Türk.

In good hands: Oliver Türk has been responsible for the logistics center at TRUMPF's headquarters in Ditzingen, Germany, for two years.

Up to 120 boxes circle simultaneously at a height of five meters above the factory floor and transport the spare parts to the various stations.

Everything at a glance: in the "control centre", monitors and dashboards show the live location of every component in the warehouse.

## Only the delivery bill in paper form

But how do you keep track of 85,000 components? The 160 employees at the logistics center work entirely digitally. All components are labelled with barcodes, as are the boxes and packages. Before an employee performs a so-called "pick", i.e. touches the part for further processing, they scan the barcode with a handheld scanner. This means that TRUMPF software always knows where the components from customer orders are. "We only issue the delivery note in paper form for legal reasons," says Türk.

## Ditzingen control center monitors spare parts supply worldwide

In addition, the so-called "control center" ensures that nothing goes wrong in the logistics center. It is located behind a glass front that provides a clear view of the warehouse at all times. Similar to a fire station, employees sit in front of monitors and dashboards all day long. They display live images of how components move through the warehouse - from goods receipt to delivery by truck. If a fault occurs, the software sounds an alarm. From its control center in Ditzingen, TRUMPF monitors four additional spare parts warehouses around the world, including in Asia and the USA. "This means that our international customers can also receive their orders in around two days," says Türk.

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>
> Oliver Türk, Head of the Logistics Center at TRUMPF in Ditzingen

## Light marking instead of routing slips

Türk and his team also use digital tools for their work. For example, they use a "pick per light" system for order picking, i.e. the compilation of orders. Colored light markers show employees which components they need to sort into which boxes. This prevents errors and allows employees with no prior knowledge to get started right away. "It's much easier to work with intuitive software instead of traditional routing slips. This makes communication clear," says Türk. Before dispatch, the employees place each parcel on an intelligent scale. It compares the weight of the parts with the value stored in the system. If the contents do not match the order, an error message appears and the employee checks the parcel.

## "Without the loop, everything comes to a standstill,"

The conveyor belt that circles above the factory floor is called the "loop". It distributes the components stored in boxes to the various stations for further processing. "Without the loop, everything here comes to a standstill," says Türk. Up to 120 boxes with workpieces can be stored here at the same time. At the heart of the TRUMPF logistics center is the automated small parts warehouse (ASPW), which is served automatically by a freight elevator. The company keeps 75 percent of all parts in stock here. An elevator picks the workpieces up from their shelves as if by magic and takes them to the picking area. Around 1,500 orders leave the logistics center in this way every day.

Digital assistance: a colored light marker shows employees which components they should place in which box.

No errors: before dispatch, the employees check each parcel with an intelligent scale and compare the weight of the parts with the value stored in the system.

Incentive: to further improve performance, Oliver Türk reviews the most important figures from the previous day with his team every morning.

## Emotionally charged numbers instead of percentages

In addition to modern technologies, the employees also contribute to ensuring that the spare parts leave the logistics center quickly and reliably. Every morning, for example, a meeting takes place where managers write the most important figures from the previous day on a whiteboard with a marker pen and discuss them with their teams. "I'm a big fan of digitalization, but in some cases handwriting attracts more attention from the workforce," says Türk. Türk also relies on emotionally charged numbers. For example, every morning he notes the number of "dissatisfied customers" still waiting for their parcel on the whiteboard. "If I enter the number 'three' here, it motivates the workforce to improve more than any percentage."

By 7 pm, around 1,500 orders have left the TRUMPF logistics center. The incoming goods area is empty, the ASPW and the loop are at a standstill. At 6 a.m. the next day, the first employees resume work and supply customers all over the world with spare parts. "Our goal is 1,800 deliveries per day," says Türk. But Türk doesn't yet know what reward the team will get then instead of pizza.

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