

## Industry reference

### Trade in electrical components



#### **The customer**

With around 4,700 employees, TTI Inc. is one of the leading global distributors of passive, discrete and electromechanical components as well as performance, sensor and connector components. The European headquarters is located in Maisach near Munich. From there, TTI Inc. delivers about 250,000 different passive components, connectors and electromechanical components to about 11,000 European customers. Around 100,000 articles of the product range are permanently available in stock.



#### **The requirements**

Due to the strong growth, the logistics site in Maisach was automated, reorganized and extended by a new, additional building featuring 15,000 m<sup>2</sup>. Different storage systems of the new distribution center should be equipped with a uniform control system and the overall Klinkhammer warehouse management system including material flow calculator. The aim was to increase the performance of the overall system and to make the material flows even more efficient.



#### **Klinkhammer Intralogistics GmbH**

Wiesbadener Straße 11 · 90427 Nürnberg  
Tel. +49 911 930 64 0 · Fax +49 911 930 64 50  
info@klinkhammer.com · www.klinkhammer.com





High-performance container conveyor system with 1,400 containers per hour

### **The solution**

The integration process includes, amongst others, shelf storage system, lift, autostore, shuttle and pallet storage systems as well as conveyors and 70 packing stations. The modular structure of the WMS-software KlinkWARE® including material flow calculator, the uniform control system KlinCONTROL® as well as the intelligent visualization system KlinkVISION® guarantee highest availability and transparency of the entire system. Additionally, the Service 24 of Klinkhammer offers hotline, remote maintenance and on-call services as well as spare parts supply. The cardboard boxes delivered on pallets are repacked into containers and stored in one of the biggest autostore storage systems. In the second expansion stage, it is equipped with 110 vehicles, around 220,000 container storage locations and around 50 put-to-light order picking stations. The containers arriving from the autostore order picking area will be notified to the Klinkhammer material flow calculator via interface and then stored for order consolidation in the 2-aisles shuttle storage system with level-bound shuttles and around 11,000 container storage locations. A 28-aisle, manual storage system with around 30,000 pallet storage locations as well as a lift storage system are connected to the warehouse management software.

### **Advantages for the customer**

- Holistic control concept for storage systems of different manufacturers
- Comprehensive Klinkhammer warehouse management system with material flow calculator
- Increase in performance and efficiency of the whole system

### **Data and facts**

- Klinkhammer control system KlinCONTROL® and system visualization KlinkVISION®
- Warehouse management software KlinkWARE®
- Connection of software and control system to storage systems, conveyor system and workstations
- Shuttle warehouse, about 11,000 container storage locations
- Autostore storage system, 110 vehicles, about 220,000 container storage locations in the final expansion stage
- Forklift-served pallet storage system: 30,000 pallet storage locations
- 2,150 conveyor drives
- Shipment of 22,000 packages per day at 70 packing stations

Autostore storage system with 110 vehicles



Shuttle storage system for about 12,000 container storage locations



Pre-zone of the shuttle storage system

