TRAPO

Automated Intralogistics



# ALL FROM A SINGLE SOURCE
# TRAPO COMPLETE LINE SOLUTIONS
# HIGHEST QUALITY & SAFETY

**TRAPO** | OVERALL PORTFOLIO

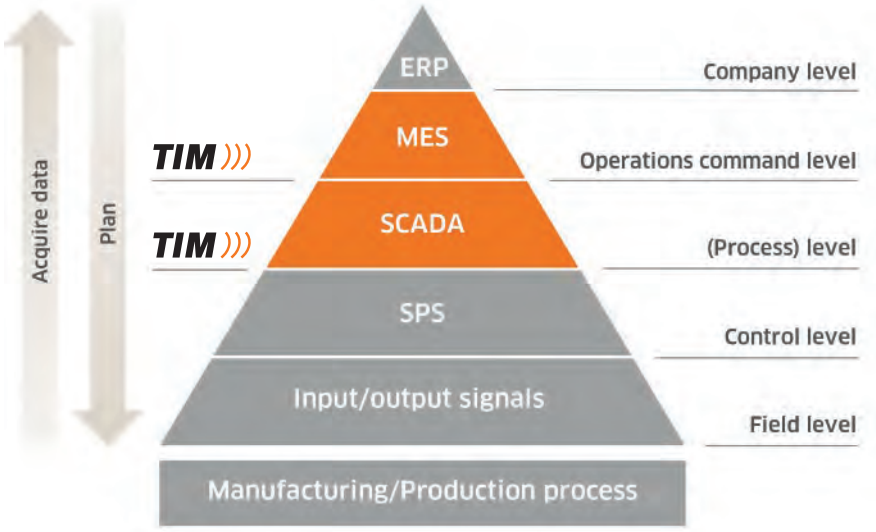
# TIM
## TRAPO INTELLIGENT MANAGEMENTSYSTEM

**TIM was already introduced in 2018 in the TRAPO technical center for the needs of plant and mechanical engineering as an ME system (Manufacturing Execution System). TIM is industry-independent, can be configured by the customer, connects production systems and also includes third-party systems.**

### Plant monitoring

TIM monitors processes in production and intralogistics based on specified OEE performance.

With TIM, customers have an overview of their company key figures in real time. TIM can be integrated into the customer's ERP systems.




### Plant operation

TIM offers a web-based, user-friendly HMI (Human Machine Interface).

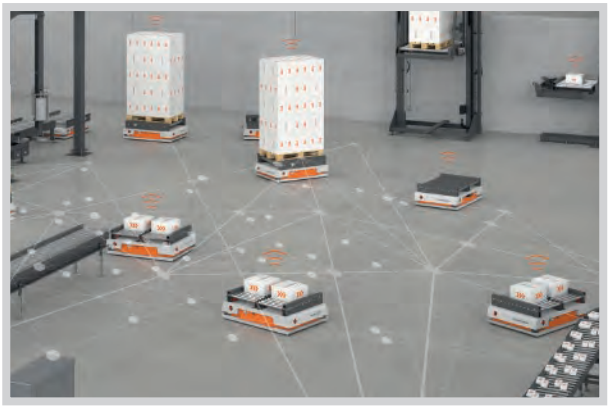
### Plant optimization

Continuous monitoring and the data collected from it enable targeted optimization of the monitored plants. In addition, TIM specifies the optimal time for predictive maintenance – and simplifies ordering processes by providing a digital shopping cart.

### Control of autonomous systems

At the process level (SCADA), TIM acts as a data highway for the fully-automatic route calculation and control of shuttle fleets of the TTS series.

The vehicles move freely along predefined traffic routes meaning that even changes in the driving route can be implemented with little effort.



# INNOVATIVE **END-OF-LINE SOLUTIONS** FOR SECURE, AUTOMATED PRODUCTION

**65 years' expertise in machinery- and plant construction make TRAPO the perfect partner for automated tasks in production and intralogistics. Our systems impress through their flexibility, high-performance and economy.**

Our experienced teams of specialists always have the complete line in mind: Benefit from this complete system competence for the entire life of your machine! We are at your side when you want to automate existing processes smoothly and adapt production capacities. And we support your success on the international stage: with subsidiaries and worldwide and worldwide agencies at all important industrial locations.

**1 System | 1 Control**:
Mechanics and control are adapted to the respective production task from a single source. production task. This reduces time, sources of error and costs – including service costs. Accordingly, hardware and control control technology are adapted, installed and serviced from a single source. A central contact coordinates all matters.

**Partner in automation for the care sector**
TRAPO experts automate production and intralogistics worldwide, install machinery, partial- and complex plants and support them by remote-support. For more than 50 years, TRAPO has had its own stainless steel production to implement the strict specifications in hygienic design.

The aim of the tailor-made, individual automation solutions: the harmony between economic success and the humanization of workplaces. Wherever possible, TRAPO engineers consider sustainable solutions, for example in the conscious use of resources.

**We are at home in these industries**
Food industry | Pet Food industry | Pharmaceutical industry & Medical technology | Logistics | Packaging industry | Automotive and Wheel industry

With in-depth mature sector know-how we handle unit goods and containers.

Overall portfolio | TRAPO

Overall portfolio | TRAPO



**TLS 3600** ›
TRAPO Loading System

## AUTONOMOUS TRUCK LOADING 9
**TLS 3600**: Safety and efficiency in the loading zone



**TSW Series** ›
TRAPO Stretch Wrapper

## LOAD SECURING 4
Optimum protection – reduced film consumption with the **TRAPO Stretch Wrapper**

## FLEXIBLE PALLETIZING SYSTEMS 3
**3.1 High-performance layer palletizer (HLP 6000)**
Can be integrated into any environment with three basic variants. Compact, also uses spatial height, to palletize at different levels.
**3.2 Portal palletizer** for heavy goods and long distances
**3.3 Palletizing with articulated arm**

3.1



**HLP Series** ›
High-Speed Layer Palletizer

3.2



**HPS Series** ›
High-Speed Portal System

3.3



**HRS Series** ›
High-Speed Robot System

## PICKING 1
**High-speed processes: picking and positioning**
**1.1 Delta** or **articulated arm** **1.2 TRAPO kinematic picker:** 3 Payload classes

1.1



1.2



**HPPS Series** ›
High-Speed Pick&Place System



## FORMING MIXTRAYS 11
Picker line automatically forms mixtrays from single-sort trays



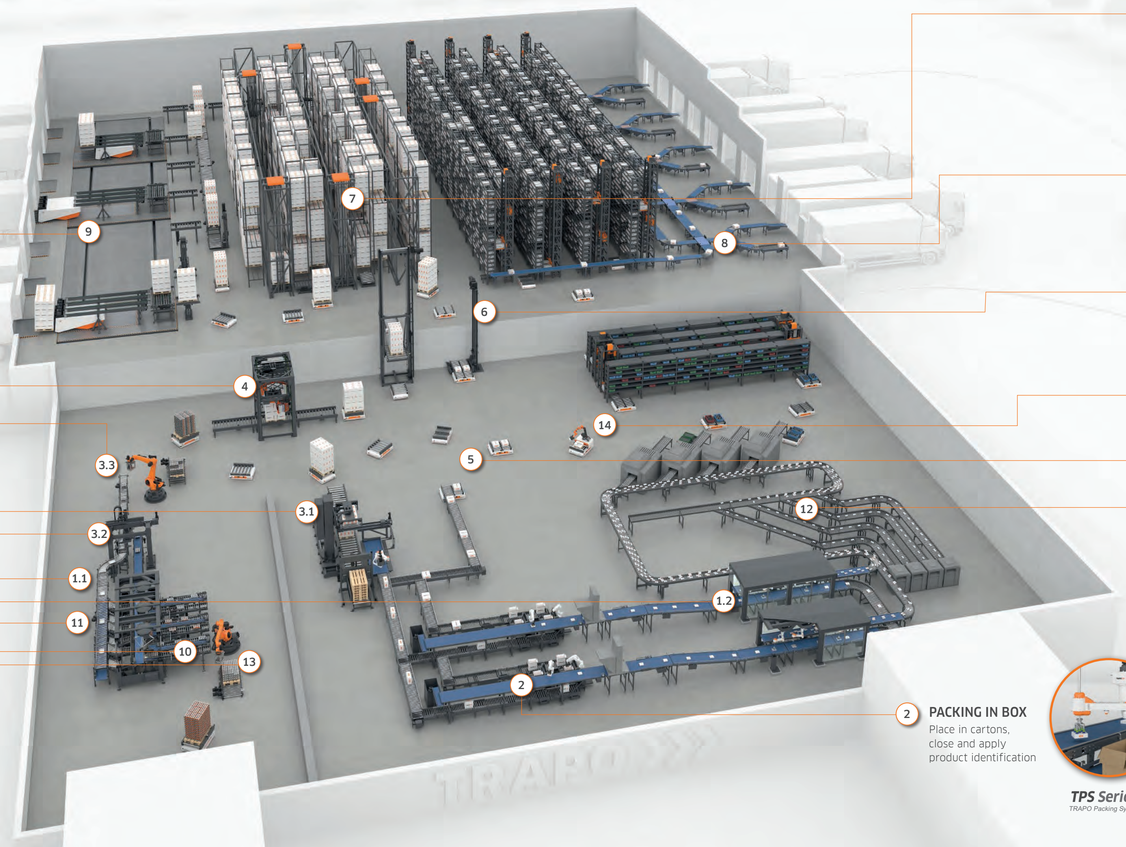
**HLDP Series** ›
High-Speed Layer Depalletizer



## DEPALLETIZING 10
Depalletizing at ground-level of 90.000 empty cans/per hour with **HLDP Series**
**Portal** or **articulated arm** solutions – possible depending on product



## GRIPPER TECHNOLOGY 13
Development and manufacturing: single and multifunctional grippers




## WAREHOUSE LOGISTICS 7
**TRAPO Warehouse Shuttle**
For storage and retrieval of individual goods and pallets
**TRAPO Warehouse Lift**
Picks up TWS and moves in the warehouse into the required position



**TWS Series** ›
TRAPO Warehouse Shuttle
**TWL Series** ›
TRAPO Warehouse Lift

## SORTING- AND DISTRIBUTING SYSTEMS 8
For storage, retrieval and picking



**TSS Series** ›
TRAPO Sphere Sorter



**TOS Series** ›
TRAPO Omni Sorter

## VERTICAL CONVEYOR 6
Transports TTS to different spatial levels

## HUMAN ROBOT INTERACTION 14
Assistance robots cooperate on heavy or monotonous tasks



## DRIVERLESS TRANSPORT SYSTEMS 5
**TTS 1200** approaches rigid materials handling equipment and navigates autonomously/ flexible pallet transport



**TTS Series** ›
TRAPO Transport Shuttle

## CONVEYING TECHNOLOGY 12
Optimizes material flow in production and intralogistics

## PACKING IN BOX 2
Place in cartons, close and apply product identification



**TPS Series** ›
TRAPO Packing System

## TOP-EXPERTISE:

- **HYGIENIC DESIGN**
  Hygienic standard and documentation
- **GMP SOLUTIONS**
  **G**ood **M**anufacturing **P**ractices
- **LAYER FORMING SOFTWARE**
  **TRAPO Pack** configures optimal layer formation

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TRAPO GmbH
Industriestraße 1
48712 Gescher-Hochmoor | Germany

Fon +49 2863 2005-0

info@trapo.de
www.trapo.de




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