

# SCHMALE LOGTEC

Innovative Logistics Solutions



[www.schmale-logtec.com](http://www.schmale-logtec.com)

# Focus on efficiency

The services provided by **SCHMALE LOGTEC** range from personal on-site consultation through expert engineering and in-house production to on-schedule assembly.

## Unparalleled services

The company is a high-performance manufacturer, sought-after supplier and expert service provider for complex logistics systems, but is also available for any questions that should come up later in operation. SCHMALE LOGTEC thinks ahead, understands the specific tasks on hand and always aims to achieve the best possible efficiency for every logistics solution. Flexible modular systems or tailor-made custom solutions are used for smooth workflows and top customer benefits.



**„We offer room for creativity.“**

Managing Director Angela Schmale

## Committed through conviction

The team and its partners are made up of specialists with a high quality benchmark and decades of experience. The pleasant working atmosphere in modern, bright architecture makes room for creativity. This results in solutions that benefit customers both directly and in the long term.

**CUSTOM SOLUTIONS**  
Challenge us

**RETROFIT**  
Updates for  
rack systems

**PRODUCTION**  
Quality in series

**FLOW RACKS**  
Flexible modular design

# SCHMALE LOGTEC

Innovative Logistics Solutions

**AUTOMATED  
SYSTEMS**  
Multifunctional – from  
the box to the pallet

**ROLLER TRACKS**  
Transportation  
through gravity

Engineering  
Made in Germany



Renowned international customers trust in solutions from SCHMALE LOGTEC.

# Logistics in series

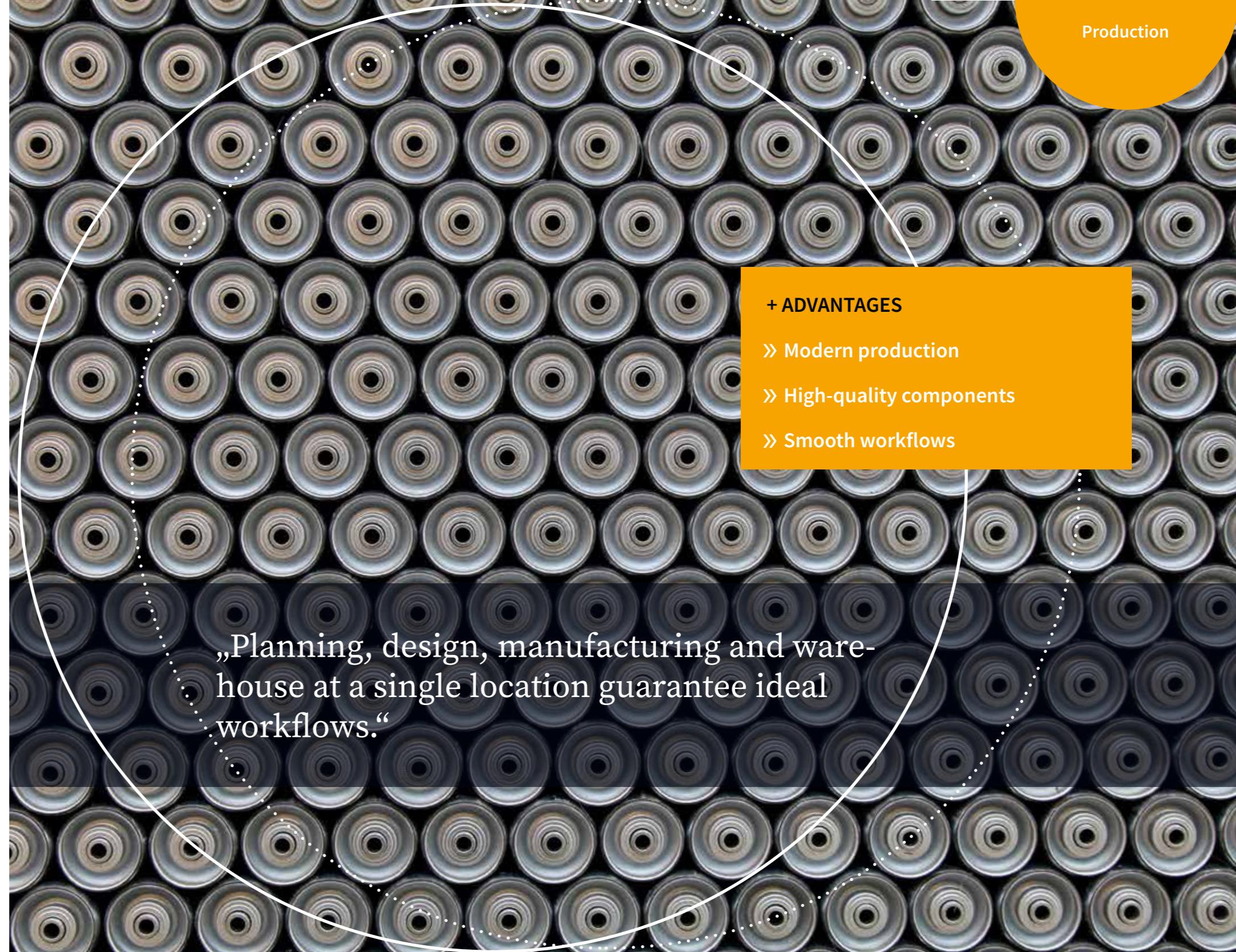
In 2017 SCHMALE LOGTEC united its in-house development, production and storage facilities. On an area of 7,000 m<sup>2</sup>, a building complex was built with a 1,800 m<sup>2</sup> production and warehouse hall as well as 270 m<sup>2</sup> office space.

## All from a single source

SCHMALE LOGTEC produces high-quality products for innovative logistics solutions here on cutting-edge lines and machines. SCHMALE LOGTEC also delivers individual components which customers can integrate into their systems. Individual custom solutions and customer-specific test set-ups are also created in the new production hall in direct dialogue with the engineers.

## For customer benefit

The office building in the direct vicinity of the production hall is home to the Engineering and Design departments as well as Administration and Customer Support. This is the best precondition for efficient workflows.



# Production with added value

The machine fleet and technical equipment are also up to the latest standard. This provides the necessary conditions for the company to do justice to its own high quality benchmark.

## From sheet to system

The performance spectrum ranges from sheet metal machining through the assembly of component groups to pre-assembled flow channels for totes and roller conveyors. Customers benefit directly from the well-organised production with great manufacturing depth: Plasma cutting, stamping, bending, cold rolling, assembling and order picking all take place in a multifunctional production hall. This makes maximum flexibility possible for product design.

## From Warburg to the world

The location in central Germany is easy to reach by road, rail and air. This guarantees fast and low-cost transport to international customers.





„Efficient rationalisation, transportation and automation are based on long years of experience.“

## Perfect all round

Roller tracks are the basics produced by SCHMALE LOGTEC. They are the smallest modules and the basic components of our intralogistics solutions which are mostly based on the gravity principle.

### Versatile

They are used particularly in our flow racks and for gravity conveyors. They are almost indispensable in conveyor technology, for first-in-first-out warehouse strategies and for individual custom solutions.

### Roller tracks – mature technology

The rollers are made of high-stability thermoplastic material. They run on sturdy steel axles and have outstanding running properties on account of their geometry. This leads to smaller angles of inclination and safe run-on. The self-stabilising and torsion-resistant profile also makes large spans possible.

### + ADVANTAGES

- » For flow racks and gravity conveyors
- » Efficient rationalisation, transportation and automation
- » Top running properties
- » Also suitable for high loads
- » Large spans
- » Extremely low-maintenance

## Accessories – flexible all round

The wide range of accessories includes back stops, brake ramps, brake switches, brake clamps and brake rollers for example. There are several types of brake rollers available for different applications.





„The gravity-based FIFO principle saves space, minimises order picking effort and speeds up access.“

## Simply genius

With flow racks from SCHMALE LOGTEC, boxes and totes can be stored and picked efficiently, reliably and effortlessly according to the FIFO principle.

### Efficient material flow

The totes run on the slightly inclined roller tracks from the replenishment to the removal point by means of gravity. Brake rollers automatically regulate the speed if necessary. Optimum use is made of warehouse space, in-house transport paths are minimised.

### Enormous application range

They are based on our in-house developed roller tracks and flow frames and have a modular design. With the aid of adapter profiles and turnable frame carriers they can be integrated in all kinds of rack structures. The channel widths and roller pitches are exactly matched to the dimensions of the totes and can be readjusted without tools. Their sturdy design can withstand gravity pressure and even forklift impact.

- + ADVANTAGES
- » Space-saving system with high storage density
- » Minimum transport paths
- » Fast access according to the FIFO principle
- » Modular flexible structure
- » Durable
- » Automatic replenishment possible



## Simple through gravity

Gravity flow channels are used in a wide range of automated systems. SCHMALE LOGTEC supplies the necessary components and can deal with the whole engineering including test structures and assembly if required.

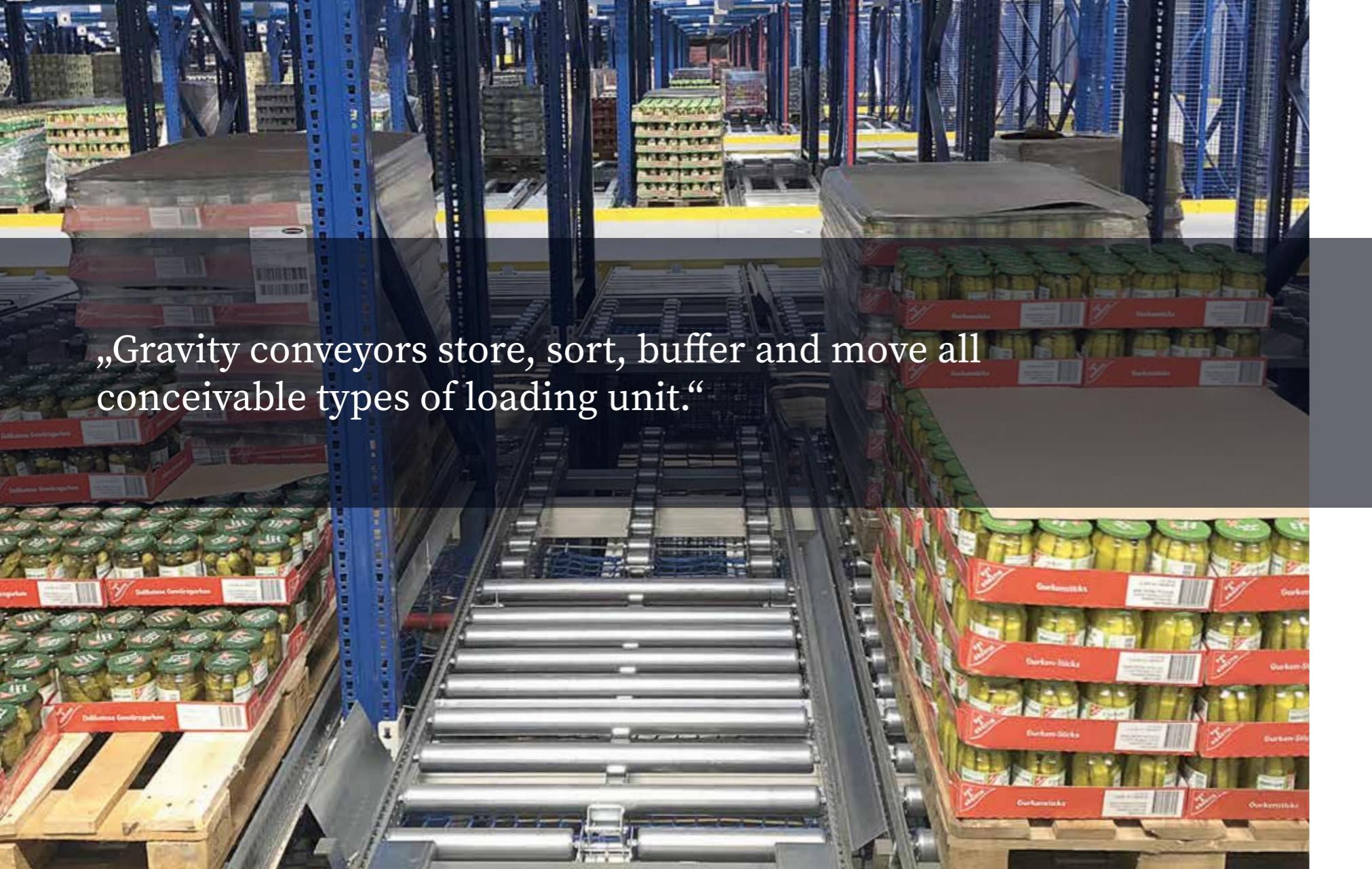
### Flow channels for miniload systems

These flow channels for automatic miniload systems are made up of angle supports and roller tracks. The solid entry guides are integrally moulded, their lateral guidance is matched precisely to the totes. Backstops, brake ramps and flaps which seat the roller

tracks as well as switches for alternating channel technology guarantee safe operation. The special design makes assembly possible in a very short time.

### Shuttle flow channels

The solid shuttle flow channels from SCHMALE LOGTEC are first choice when it comes to putting loading units into and out of storage or re-storing them using vehicles. The channels are filled via shuttles, removal takes place manually. The flow frames are integrated in the racks, the channels fitted with entry guides and lateral guidances. A small transition gap guarantees safe operation. Pick-by-light displays and access monitoring allow document-free order picking for each channel.



„Gravity conveyors store, sort, buffer and move all conceivable types of loading unit.“

- + **SEPARATING BUFFERS**
  - » Engineering, delivery and assembly
  - » Delivery of shuttle integration
  - » Automation with lifting device, shuttle and telescopic fork
  - » Flow channels as buffers
- + **PALLET GRAVITY CONVEYORS**
  - » Manual picking
  - » Equipped with rack serving units
  - » Three-divided input for telescopic forks
  - » Extremely safe thanks to separating device and back stops

## Organising logistics processes

With SCHMALE LOGTEC, logistics processes are not adapted to the gravity conveyors, the gravity conveyors are adapted to the logistics processes.

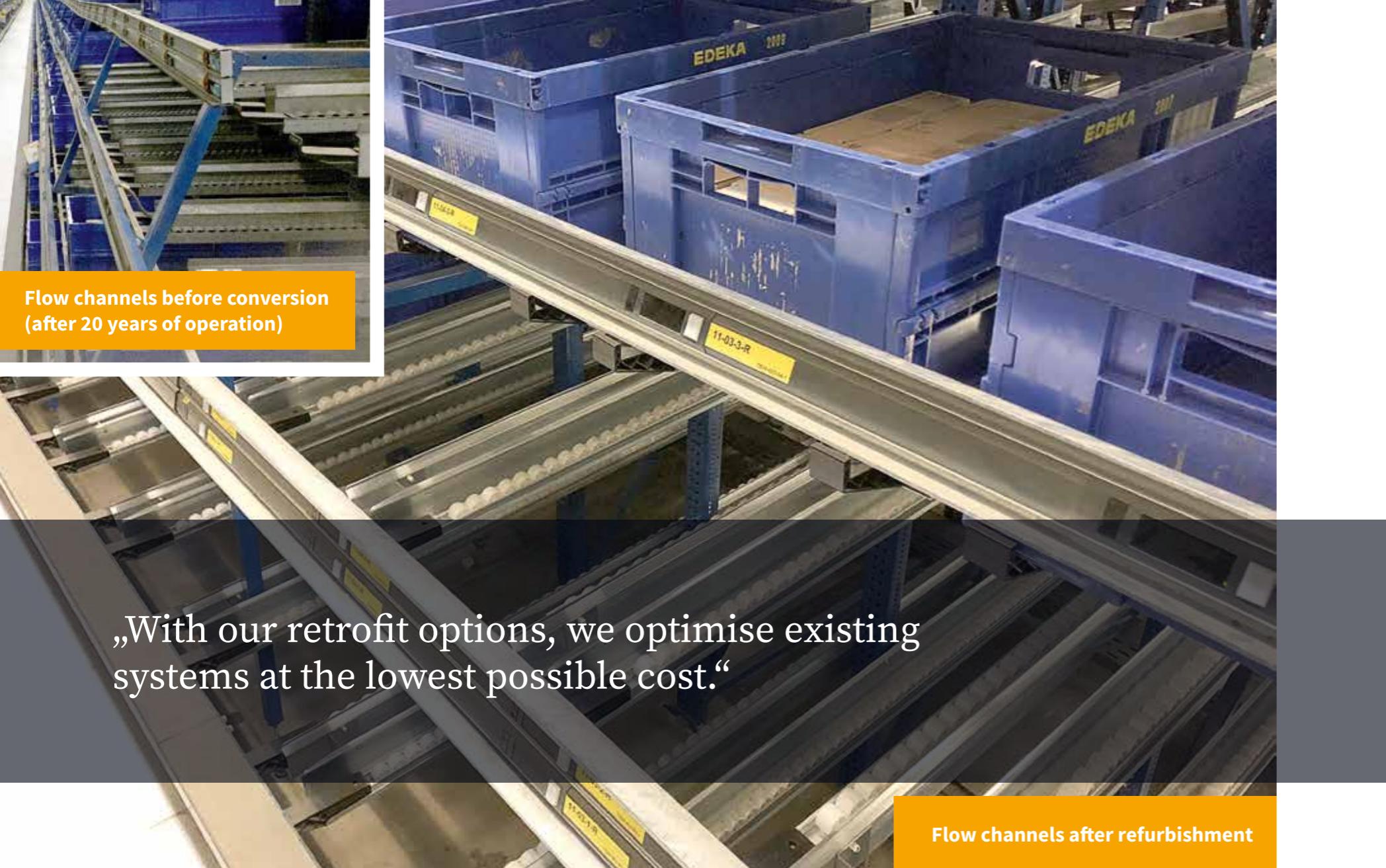
### Sorting buffers

The sorting buffers form the interface between production respectively order picking and shipping. Goods which arrive in any order are sorted into flow channels according to product or order. Replenishment and removal take place fully automatically using lifting devices, shuttles or telescopic forks. Gravity flow channels serve as a buffer, separators are

possible if required. SCHMALE LOGTEC delivers all the components for shuttle integration and is also responsible for engineering the steel structure and its assembly.

### Pallet gravity conveyors

SCHMALE LOGTEC offers standard and custom solutions even for heavyweights. The standardised gravity conveyors are available for flow or push back, and as floor conveyors or integrated in the rack. They are usually fitted with through going rollers which are adapted to the dimensions and weights of the pallets. All custom solutions are specially adapted, for example for crossways pallet conveying, variable pallet dimensions, special types of replenishment and removal or easy accessibility of the floor for cleaning.



## Economic rejuvenation

The modernisation or reorganisation of existing systems is often more economical than buying a new system. SCHMALE LOGTEC is happy to carry out the entire project management.

### Good reasons for retrofit

Typical reasons for retrofit include increasing requirements, outdated systems, lack of spare parts, the desire to save time and costs as well as more stringent legal stipulations.

### Bespoke optimisation of technology and processes

The modernisation concept for the technology and processes is prepared on the basis of an analysis of the weaknesses of all the components, systems and interfaces on site. They are designed to be more productive, efficient and durable with minimum time and financial input. This works independently of specific workflows, designs and brands, and is carried out without downtime in ongoing processes as far as possible – even on public holidays or at the weekend if you like.

# Understand

The ambitious aim of **SCHMALE LOGTEC** is to find solutions particularly where others primarily see problems. This requires a thorough understanding of the processes, finding out exactly what tasks have to be accomplished and breaking new ground if necessary.

## Think ahead

When new building work or conversions are being planned, the focus is particularly on smooth workflows, problem-free material flow, short paths, space-saving architecture, time-saving processes, high flexibility and minimum interfaces. Smart components and their harmonious interplay are always crucial here.

## Implement

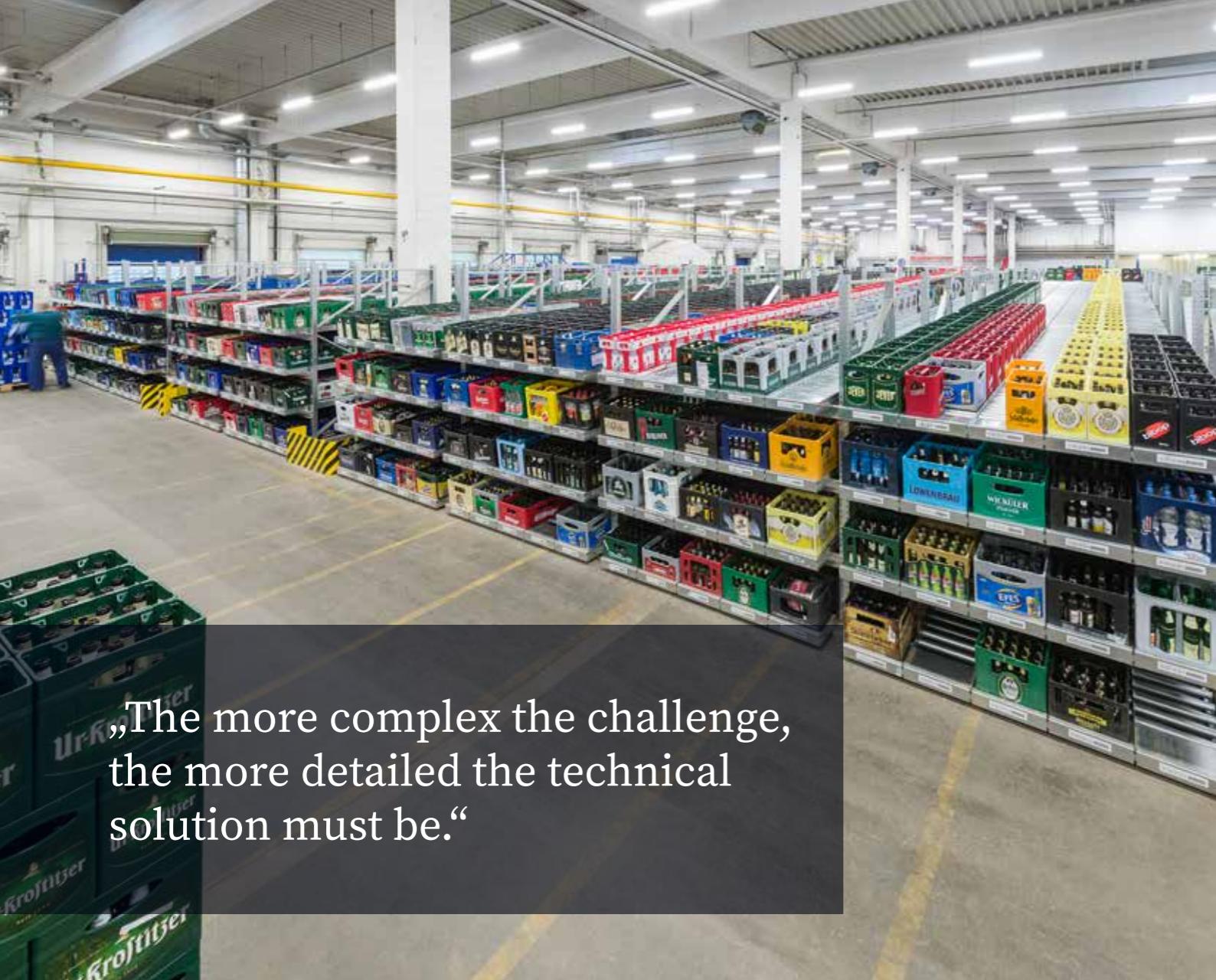
SCHMALE LOGTEC analyses complex processes, plans efficient workflows, finds technical answers and calculates their cost-benefit ratio. Ideas, any necessary test set-ups and finally efficient solutions are created in trusting cooperation with the customer. To this end, SCHMALE LOGTEC is happy to provide engineering, design, production, installation and efficiency control all from a single source.



### + ADVANTAGES

- » Tailor-made solutions
- » Highly efficient workflows
- » Planning and budget reliability

- » Scalable systems that grow with customers' needs



„The more complex the challenge,  
the more detailed the technical  
solution must be.“

## Solutions for beverage wholesale

Beverage wholesale is confronted with three logistic challenges: Storage, picking and empties sorting. Accordingly, this provides huge logistic potential.

### Basic task

Numerous crates of different sizes, weights and quantities must be handled safely and efficiently in terms of time and space.

### Logistic challenge

Due to the enormous range of different types, the task is to return the crates sorted correctly to the manufacturers. The crates must be sorted, moved and stacked on pallets. The pallets must be buffer-stored and moved. SCHMALE LOGTEC has developed an extremely workable and sturdy complete system for this, that can be designed flexibly according to requirements, scaled to the building conditions and installed quickly.

### Technical process solution

The system is made up of driven conveyors, pallet floor-mounted roller tracks for the A-items and a flow rack for B- and C-items. The flow channels comprise roller tracks with galvanised, ball-bearing supported steel rollers. They are integrated in the rack system provided. At the ends of the channels, run-out panels reduce the speed of the crates before the end stop and make manual removal easier.

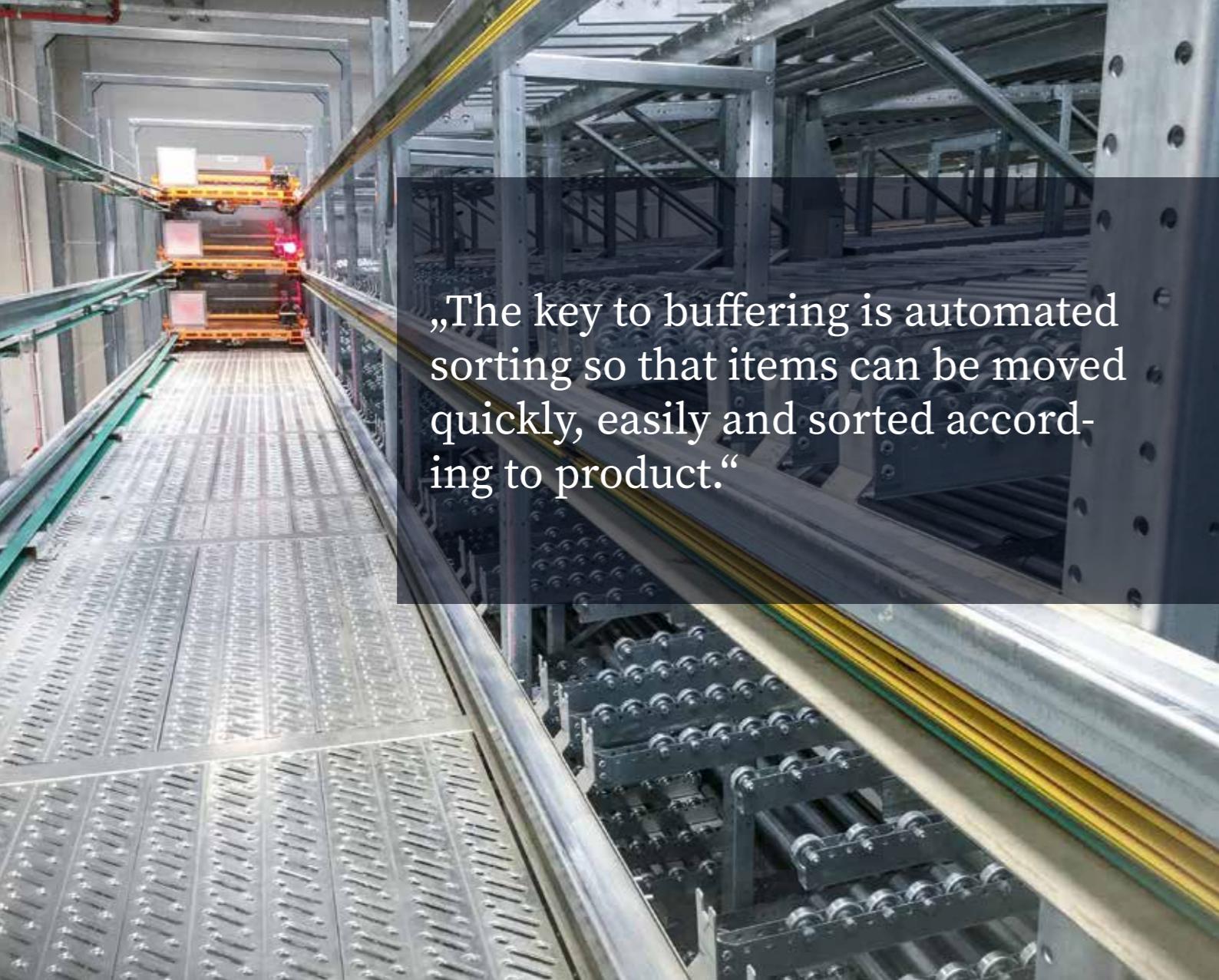
### Options: Storage

- » Pallet racks for static storage
- » Space-saving flow racks or push back roller tracks for pallets

### Options: Order picking

- » Flow channels for crates integrated in pallet racks





„The key to buffering is automated sorting so that items can be moved quickly, easily and sorted according to product.“

## Logistic challenge

Sorting buffers aim to store products arriving from production in any order in such a way that they can be removed from the buffer store and sent for shipment quickly and sorted according to product. One way of doing this is to sort items according to orders after picking and then to buffer them.

## Technical process solution

The basic advantage of this design is that the items are put into storage automatically by using gravity conveyors. One or more channels form the buffer capacity per product or per order. Depending on the product spectrum, brake rollers and separators can also be used. Putting into and taking out of storage takes place automatically using stacker cranes or shuttles. For this, lifting devices are used upstream or downstream to distribute the products to different levels or move them from the levels to floor level.

# Solutions for sorting buffers

In this case study, SCHMALE LOGTEC has developed a solution for buffering tyres and/or rims.

## Basic task

The incoming products must be buffered regularly between production and shipping or between order picking and shipping.

## Special features

- » Scalable system
- » Extremely compact
- » Grows in line with requirements
- » Low-cost storage
- » Low personnel costs
- » For totes, boxes and products





**„Innovative multi-order-picking systems improve the picker-to-part principle in particular.“**

## Strengths of the technical process

The solutions do justice to the multitude of tasks right down to the last detail. All transport paths are designed to be as short as conceivably possible, and inclined roller tracks make access easier for filling. The design enables several shuttle loads to be buffered, loading with up to 500 kg and the processing of up to 32 orders simultaneously. The fully automatic unloading unit prevents damage to the cartons. Additional levels are also possible for small cartons. The high degree of automation takes the strain off workers and makes the process fast and almost fault-free – thanks to WiFi-supported put-to-light displays or pick-by voice systems.

## Special features

- » Picking paths as short as possible
- » Considerable time saving
- » Minimum fault rate
- » Even heavy products can be unloaded with ease



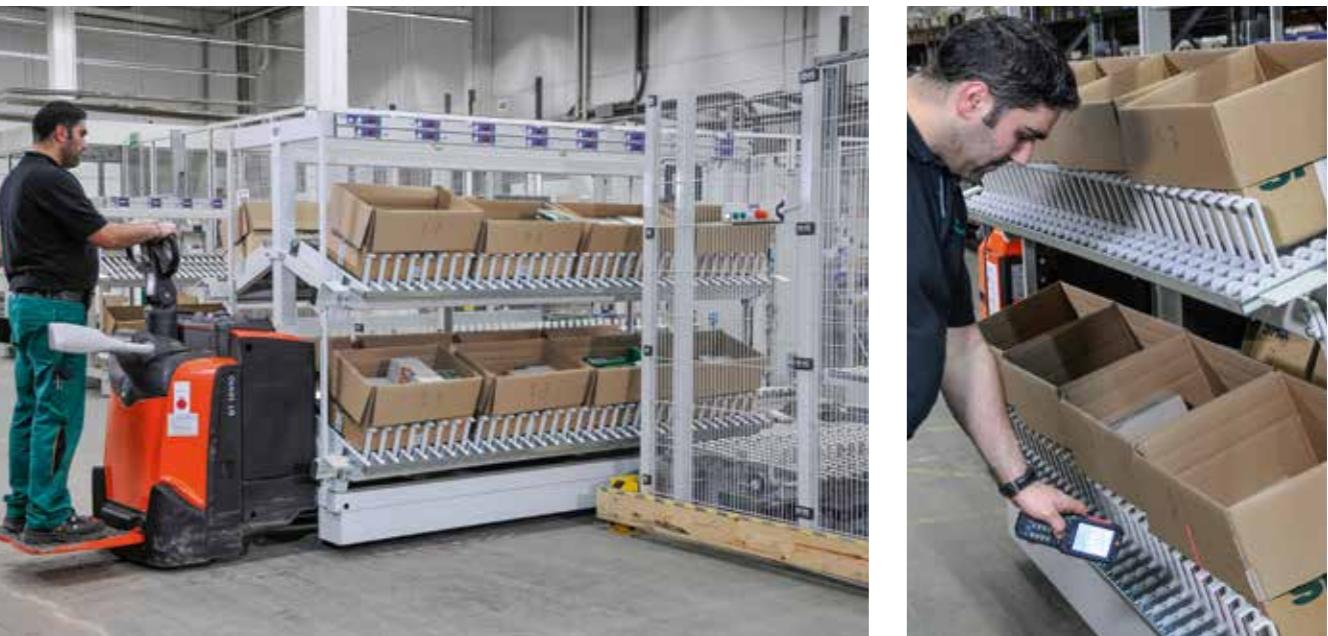
▶ Video

## Solutions with multi-order-picking

Wherever a large variety of items has to be organised, moved and documented with numerous order cartons over correspondingly long picking sections, multi-order-picking systems save considerably on time, distance and energy.

### Taking out of storage and delivery

SCHMALE LOGTEC designs and supplies such systems individually in order to make an efficient, ergonomic and fault-free logistic chain possible from set-up through order picking to further processing.



## Range of products and services

- » FLOW RACKS FOR BOXES AND TOTES
- » FLOW CHANNELS FOR MINILOAD SYSTEMS
- » SHUTTLE FLOW CHANNELS
- » SORTING BUFFERS
- » PALLET GRAVITY CONVEYORS
- » RETROFIT FOR RACK SYSTEMS
- » CUSTOM SOLUTIONS
- » AGV-CONNECT
- » PROVIDING RACKS



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