

# Fulfilment in e-commerce

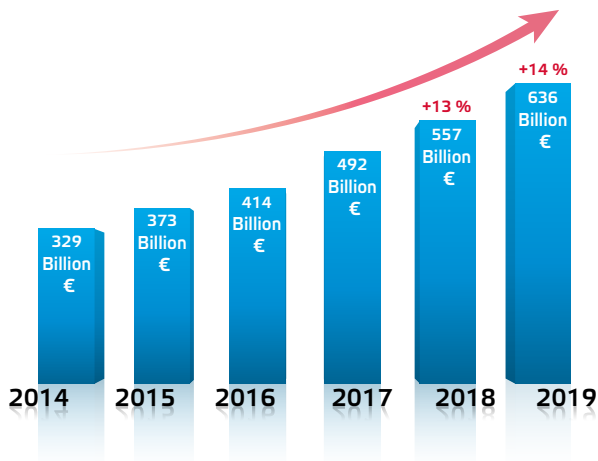
Professional order picking and transportation





# The world is changing.

Take advantage of it!



**B2C E-COMMERCE TURNOVER** in Europe  
Source: Statista

■ **Increasing digitalisation** is changing the purchasing behaviour of consumers worldwide. Online retail is booming, and so is logistics. From innovative start-ups and brick-and-mortar retailers with associated online stores to the top Internet players, e-commerce retailers now have to be competitive in more than just price. The speed of delivery also plays an increasing role in customer satisfaction.

■ **Especially when business is growing**, retailers should regularly check their internal logistics systems for weak points and, if possible, optimise them. Incoming goods must be documented quickly and brought into the warehouse. Depending on the product range and customer demand, order picking can be carried out using the person-to-goods system or semi-automated using the goods-to-person system. The packing process must not be interrupted unnecessarily in the dispatch area, and rapid loading of trucks should also be ensured.





# Made By Wanzl

## Continuing a long success story

■ **Wanzl, founded in 1947, is a pioneer** in self-service systems and a trendsetter in international retail. Our business divisions include Shop Solutions, Retail Systems, Logistics + Industry, Airport, Access Solutions and Hotel Service. As the leading innovator, we develop, produce and sell premium-quality products, systems and customised solutions, for purchasing and sales, product presentation, transport and safety. With over 5,000 employees, 12 international production sites, 27 sales outlets and approx. 50 agencies, we support our customers worldwide as the third generation of a family-run business.

We develop and manufacture products for a wide range of intralogistics requirements in mail order trade. The deadline pressure in the distribution centres requires equipment with easy handling and high reliability. Our order picking and transport trolleys, roll cages and mobile workstations are used from goods receipt to the dispatch area.



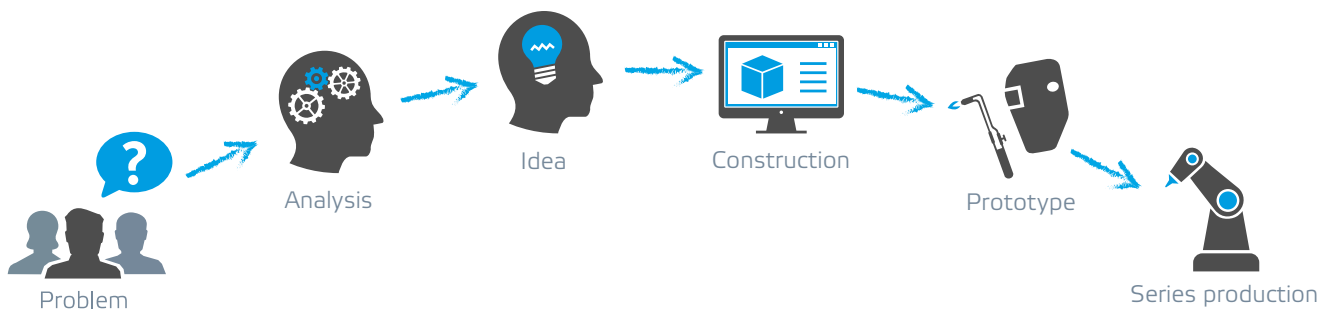
### *Our promise of quality*

**In all processes of production,** Wanzl's quality policy creates products that guarantee the best materials, first-class workmanship and thoroughly refined surfaces. This ensures long-term maintenance-free use and investment security.

**We are one of Germany's top ten electroplating companies.** With fully automatic process control, each individual part is galvanised to a high polish and additionally coated with transparent or coloured plastic powder coating –all this is completed so thoroughly that Wanzl products received the German seal of approval for "electroplating technology" in 1982.

# Customised solutions

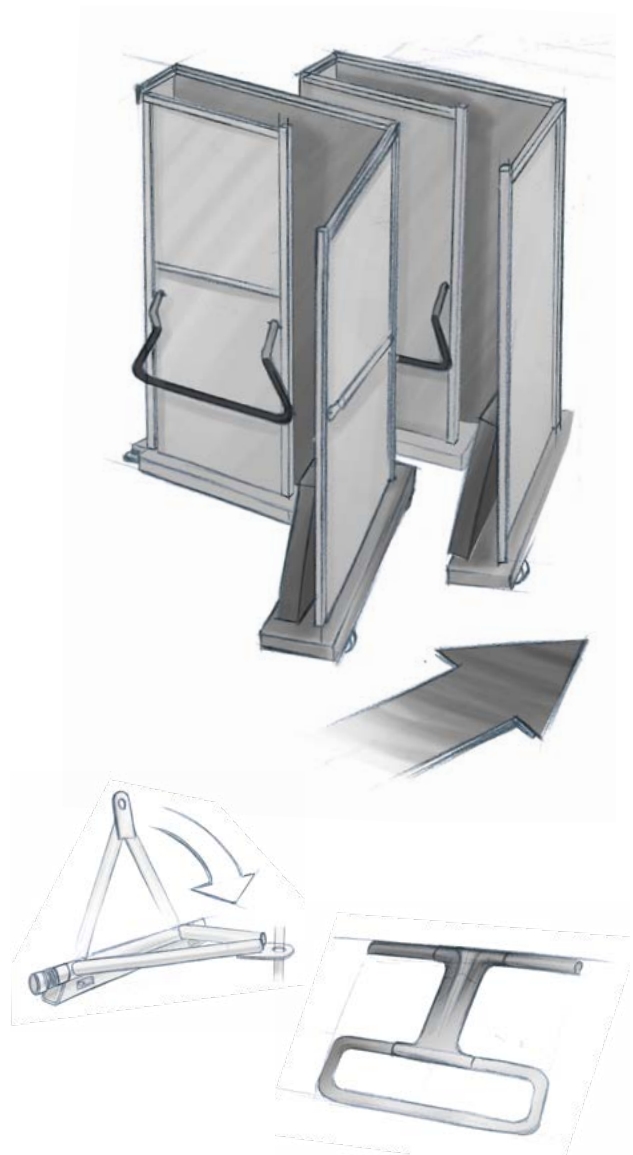
For special tasks



## Your highly skilled development partner

■ **Optimising processes**, increasing operational efficiency, easing employee workloads: As a service provider, Wanzl stands for smooth intralogistics – from goods receipt to dispatch. Throughout the process, we offer a one-stop shop, offering the very best in consultancy, development and production expertise.

**Customers are supported from the very first step**, right from the initial personalised, on-site consultation and joint development of tailor-made solutions and virtual samples to product manufacture and the concrete implementation of the optimisation approaches identified. We are your highly skilled development partner and manufacturer. **Contact us!**



# Proof of concept

## Return on investment calculation

■ **Not sure if the use of our product would pay off for you?** We are pleased to offer you the option of a 4-week test run. At the end of this period, we will evaluate the results and cost-effectiveness of the new method, and plan comprehensive implementation if you wish to go ahead.

**An example of what the test run would include:**

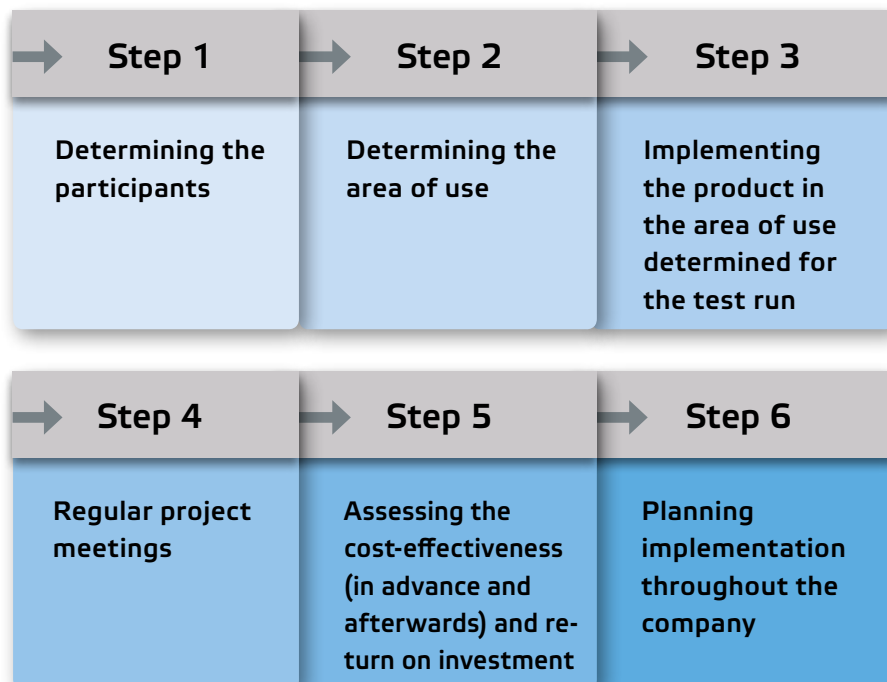
- Rental units, if possible
- Site visits
- Remote support throughout the entire project runtime

**Duration:**

- Test run of approx. 4 weeks.

**Costs:**

Calculated individually based on expenditure. We will be happy to provide you with a quote in advance.



# Goods Receipt

■ **Whether planned orders** or unplanned returns, goods must be booked quickly after a successful incoming inspection. In order to save time, a mobile workstation placed directly at the unloading point is an ideal solution. This avoids unnecessary routes.

The products can then be made immediately available in the warehouse. Fast transport into the order picking warehouse also minimises the space required for receiving goods. Our wide range of large and small transport trolleys supports this task.





# Mobile workstation

*Take the office with you!*

- › *Saves on unnecessary walking distances*
- › *With optional mobile power supply*
- › *Available as a fixed design or with a height-adjustable table top*

Height adjustable:

1,180 mm / 46.5 in



1,055 mm / 41.5 in



**MOBILE WORKSTATION**  
with height-adjustable table top  
Shown with mobile power supply (accessory)



#### Cable duct

Hides annoying cable clutter from connected devices at the rear of the tabletop.



Optional version with side mounting of the Li-ion battery

## Product description

**With the mobile workstation from Wanzl, your equipment and documents are always with you directly where you need them** and you save on unnecessary walking distances back to the office. The height of this mobile workstation can be adjusted according to the height of the person operating it. Better ergonomics at the workplace, even if there

are multiple users! A recess on the front of the base plate provides more legroom when pushing. The table trolley is also easy to manoeuvre thanks to the four swivel castors. Two brakes ensure a secure position.

**Base area:** 650 x 650 mm

**Height:** 1,055 mm - 1,180 mm (extended)

## Lithium-ion battery

**The mobile workstation is equipped** with a lithium-ion battery (20 Ah) to which a 500 watt inverter with socket is connected. This provides the mobile power supply for peripheral devices such as printers, scanners and monitors.





# Transport trolleys

*Our practical helpers in the transportation of goods*

› Depending on the version, loading on two levels is also possible

› With wooden or wire platform

› Can be nested to save space



**T21 TRANSPORT TROLLEY**  
With folding wire shelf



**SP2 SPECIAL TRANSPORTER**



**T25 TRANSPORT TROLLEY**

■ Our robust transport trolleys are available in many variants and sizes. Depending on the castor fittings, they have a load capacity of 250 to 400 kg. They are easy to steer and can be pushed together to save space.



**SP2 DUO**, pushed together

# Lithium-ion battery

*More application options due to protection class IP54 (splash proof)*

- › *Up to 25% lighter than previous model*
- › *Flexible fuse protection for connected devices*
- › *Also available with an integrated capacity display (Wanzl SOC indicator)*



**20 Ah BATTERY**  
Design with bracket and capacity display

## *The new lithium-ion batteries from Wanzl*

**Extended range of applications:** in combination with our connection cable, the batteries are splash-proof in accordance with protection class IP54. They can also be used in cold stores at a minimum temperature of +5° C.\*

**Service life:** We guarantee at least 60% of the initial capacity after 500 full cycles.\*\*

**Real time monitoring and data exchange:** the capacity can be monitored in real time via the Wanzl SOC indicator.

If the user would like to set up their own energy management, the battery can be equipped with a Communication Bus (I<sup>2</sup>C Bus) on request. This enables battery operation data to be exchanged with external systems.

\*Assuming proper use

\*\* Warranty period: 12 months

# Lithium-ion batteries

*We offer the basis, you have the options*

■ **Our lithium-ion battery** expands the application range of our order picking and table trolleys providing a mobile electricity supply for your electrical accessories. The locking snap-in mechanism prevents unintentional removal of the cable allowing for easy operation. For simple handling, we have reduced the weight by up to 25%, compared to previous models.

## Li-Ion Energy

### Splash-proof battery charger

The protection class IP54 charger is compatible with predecessor systems. The built-in LED display provides information about the charge status. The charger is also available with a quick charge function on request.



### Protecting connected devices

A 30 amp fuse is integrated into the battery, which protects sensitive devices against overcurrent. This can be replaced by a suitable fuse (4 to 30 amps) according to requirements.\*



### Bracket and capacity display

The self-locking mechanism has an expander which can be used to pull apart the bracket and attach it to the grid.



The optional SOC indicator mounted on the battery activates automatically when the current flows and informs the user about the remaining battery power in real time.



### Wall bracket

The charger can be mounted on the wall at a convenient height using a special bracket.



### Power supply for a peripheral device

You can connect a suitable peripheral device such as a monitor, radio scanner or printer to the battery via a 230 volt inverter, meaning you can turn any trolley into a mobile workstation. The inverter is available with a capacity of 350 W or 550 W.



Lithium-ion battery	20 Ah with bracket
Length x width x height (mm)	187 x 101 x 317
Weight (kg)	6.2
Capacity (Ah)	20.5
Charging time (h)	approx. 6
Voltage (V)	25.2
Service life (full cycles)	>500

\* Replacement only to be carried out by a trained electrician.

# Order picking warehouse

■ **Various warehouse concepts are available for the warehouse organisation.** The person-to-goods system is the most common, as it can be implemented relatively easily and without considerable investment. However, due to advancing technological development more and more semi-automatic storage systems which

work according to the goods-to-person system are available. A combination of these two systems is also possible and is used in conjunction with parallel order picking systems.

Whatever system you work with, we will help you get your goods out of the warehouse quickly.





# MARK 2 Scanner Glove

*The intelligent wearable with integrated bar code scanner*

- > *Efficient and ergonomic documentation through hands-free scanning of articles*
- > *Plug & Play – no integration process necessary*
- > *The ideal wearable for mail order companies and postal service providers*

■ **From goods receipt and dispatch to picking and stocktaking:** In distribution centres and industrial plants, every second counts when it comes to improving processes. The smart wearable MARK 2 replaces the traditional pistol scanner and allows warehouse personnel to work faster, more safely and more ergonomically.



## The principle

The integrated bar code scanner on the back of the cuff enables the operator to work on a hands-free and ergonomically comfortable basis. The scanning function is initiated by pressing a textile trigger in the cuff. The employee then receives direct acoustic, haptic and visual feedback regarding the process steps. This increases the efficiency and quality at the same time.

## Your benefits:

- Increased speed of work processes
- Improved quality of the scanning process
- Efficient documentation
- Wireless connection via Bluetooth Low Energy

## Product description

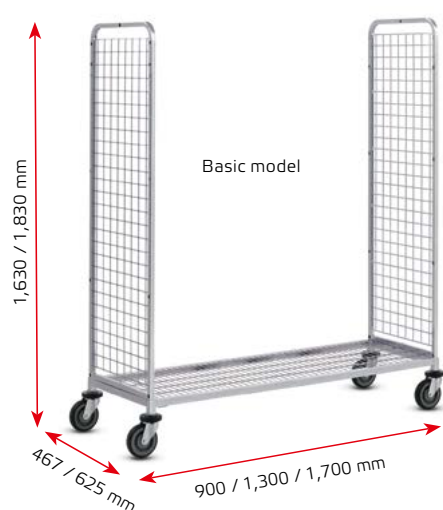
- 1D / 2D bar code scanning
- Trigger for scanning integrated in the cuff
- Real-time feedback (visual, acoustic, haptic)
- Sufficient battery capacity for interruption-free shift operation (approx. 8-10 hours / up to 6,000 scans)
- Data transmission via Bluetooth Low Energy or a small receiver box
- Splash-proof in accordance with IP54
- Intuitive software configuration
- Longlife or index trigger version: cuff with Velcro closure in sizes S, M and L



# KT3 Order Picking Trolley

*The classic*

- > System design with individual structure
- > Versatile equipment
- > Load capacity up to 300 kg



■ The KT3 order picking trolley has been rolling through warehouses around the world for decades, reliably supporting pickers in their work. Thanks to its modular design and many extras, it can be easily adapted to the respective logistics concept and product range.

## Product description

The side walls, floor grid and shelves are made of sturdy wire mesh. The shelves can be attached at height increments of 50 mm. The surface is high-gloss galvanised and chromated. Four quality castors with abrasion-resistant rubber treads produced by us make the trolley smooth-running and manoeuvrable. The load capacity is between 100 and 300 kg depending on the design.



## Accessories for a wide range of applications

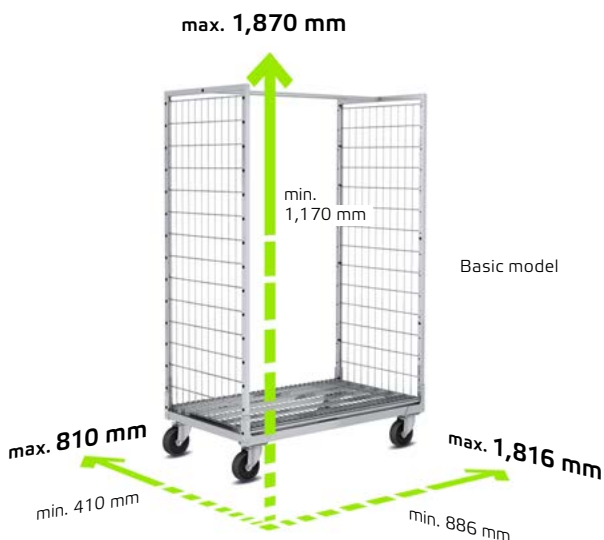
- Folding step ladder
- Writing board
- Rear panel grate
- Handle (pair)
- Wire or wooden shelves
- Note holder
- 5<sup>th</sup> castor, fitted in the centre and much more



# KT3-X order picking trolley

*Ideal for small production batches*

- > External dimensions can be configured in small grid units
- > Available custom-made for batch sizes of 1 or more
- > Extensive range of accessories



■ **No two storage areas are the same, and every industry has its own requirements.** If you are looking for the ideal order picking trolley solution for your business, the KT3-X is the answer. Tailored precisely to suit specific customer needs thanks to its customisable exterior dimensions in small grid units and an extensive range of accessories, it perfects order picking as an important link in the supply chain. Furthermore, this applies to every single trolley, because customised, made-to-measure production is available for order quantities of just one unit.

## Product description

The side walls, floor grid and shelves are made of sturdy wire mesh. The length of the trolley can be configured in increments of 30 mm, the width in increments of 50 mm, and the height in increments of 100 mm. The surface is



high-gloss galvanised and chromated. Four quality castors with abrasion-resistant rubber treads produced by Wanzl make the trolley smooth-running and manoeuvrable. The load capacity is up to 300 kg depending on the design.

## Accessories for a wide range of applications

- Handle (pair)
- Wire shelf
- Folding step ladder
- Writing board
- Blackboard
- 5<sup>th</sup> castor, fitted in the centre
- Wire tray for small items
- Coupling draw bar set
- Forklift loops for forklift or pallet trucks





# KT4 order picking trolley

*Robust and extremely durable*

- > Load capacity up to 600 kg
- > Adapted to Euro standard boxes
- > System design with individual structure



■ The big brother of the KT3 order picking trolley is ideally suited for transporting heavy goods. The frame is extremely robust and copes well with high loads. Thanks to its modular design and many extras, it can be easily adapted to the respective product range.

## Product description

**Additional shelves can be** screwed into the side walls made of sturdy square tubing with wire mesh at height increments of 100 mm. The shelves and the base frame have a non-slip wooden support. The metal surface is high-gloss galvanised and chromated. Two fixed and two swivel castors with elastic treads and optionally with brakes or central brakes enable the trolley to carry up to 600 kg.



## Accessories for a wide range of applications

- Pushing handle
- Wooden shelf
- Folding step ladder
- Writing board
- Blackboard
- Set of castors with central brake
- Wire tray for small items
- Coupling draw bar set
- Forklift loops for forklift trucks

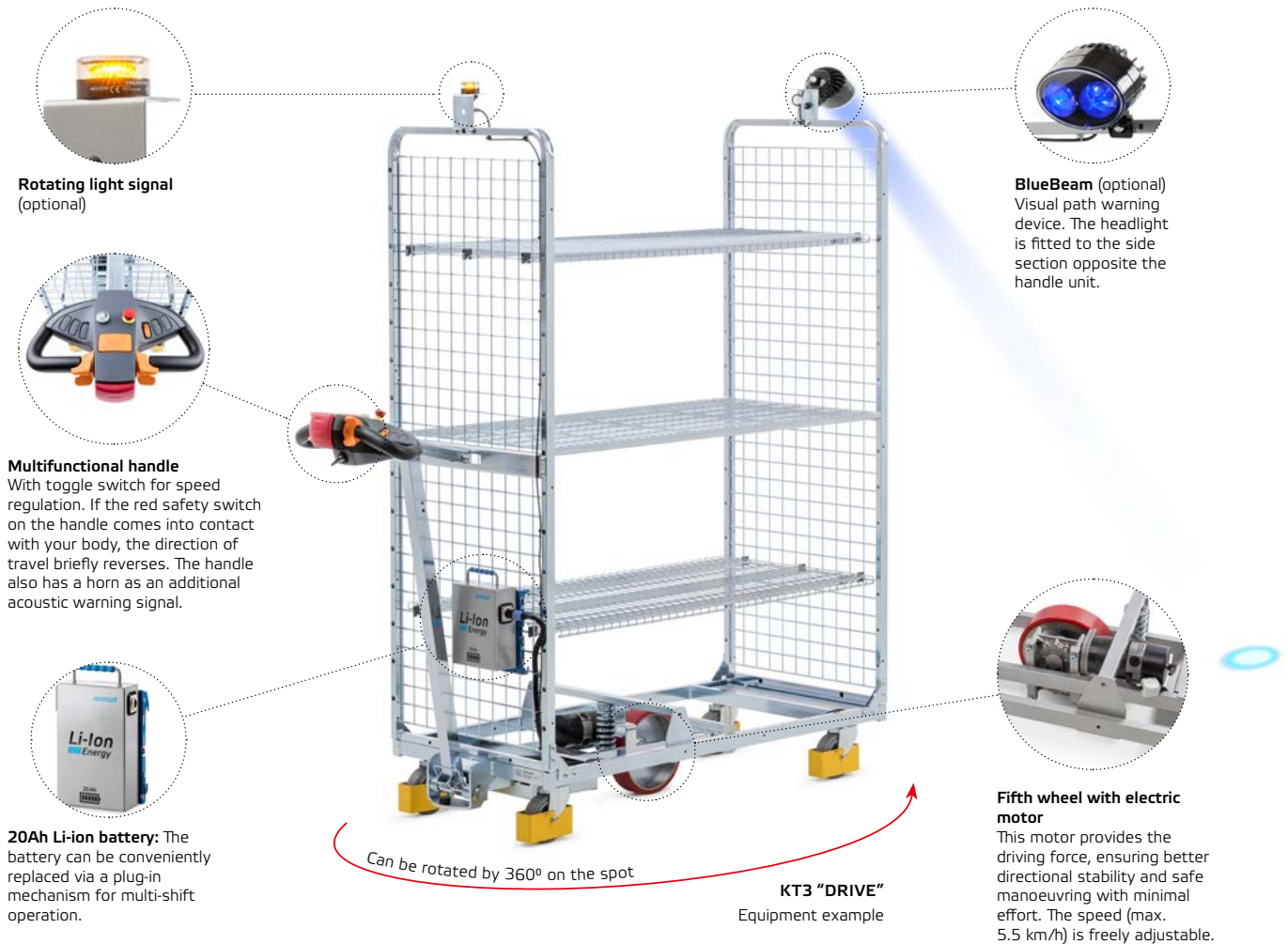




# KT3 "drive" order picking trolley

*Transports heavy goods effortlessly*

- › **More power due to improved lithium-ion battery technology**
- › **Better ergonomics due to the 5<sup>th</sup> wheel with electric motor and drawbar handle**
- › **More safety as a result of a personal safety switch and warning horn integrated into the handle**



## Product description

The KT3 "drive" is an order picking trolley with **electric drive** that is integrated into a 5<sup>th</sup> wheel. The speed can be set in 2 basic steps (max. 2.8 and 5.5 km/h). Can be freely adjusted within the basic level. The maximum payload is 300 kg.

Basic models	KT3 "drive"			
Length (mm)	1,300	1,300	1,700	1,700
Width (mm)	625	625	625	625
Height (mm)	1,600	1,800	1,600	1,800

## Accessories for a wide range of applications

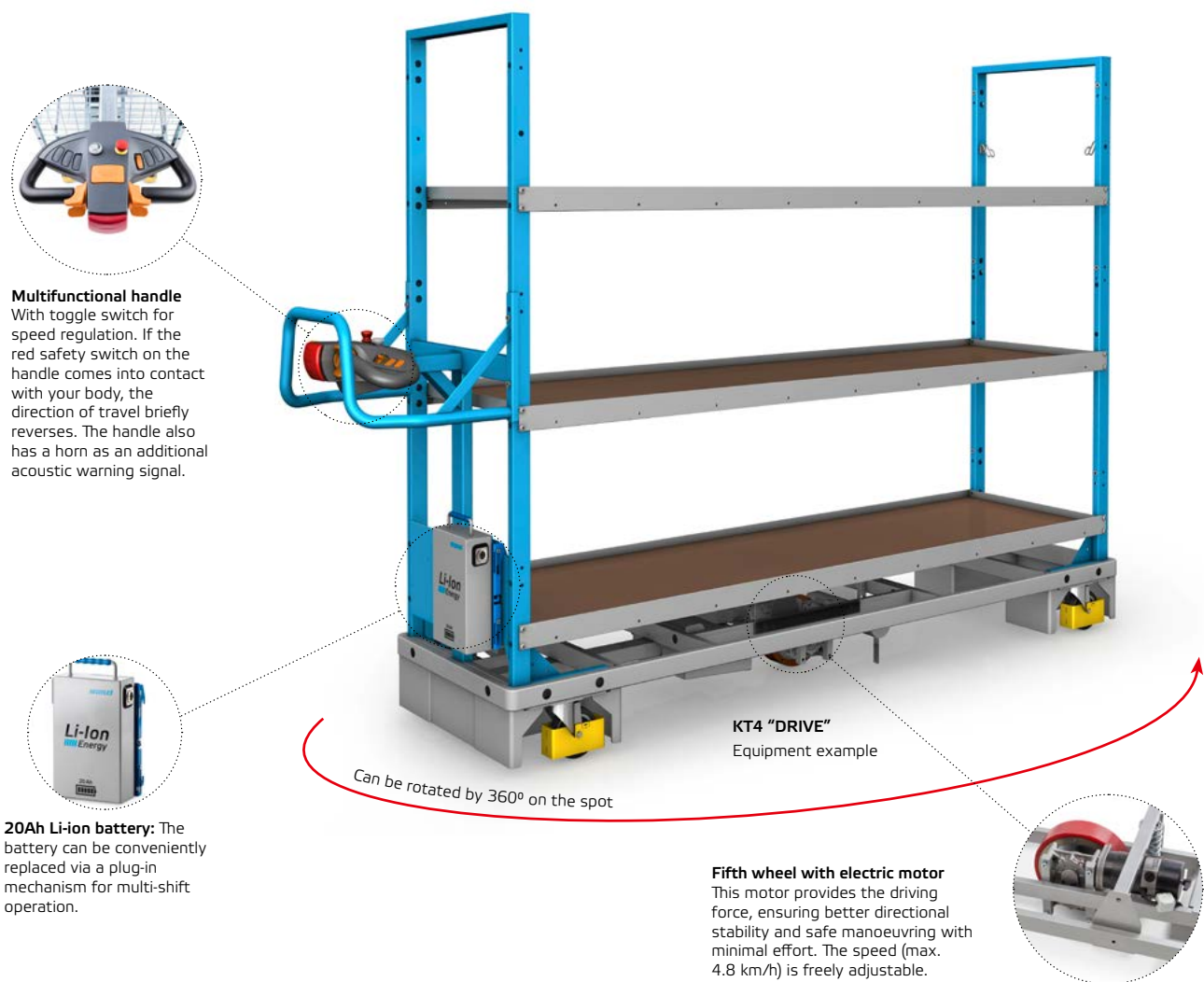
- Additional shelves
- Rear panel grate
- Replaceable battery
- Writing board
- Note holder
- Wanzl SOC indicator
- Folding handle unit
- BlueBeam
- Rotating light signal and much more



# KT4 "drive" order picking trolley

*The transport assistant with an electric drive*

- › *More power due to improved lithium-ion battery technology*
- › *Better ergonomics due to the 5<sup>th</sup> wheel with electric motor*
- › *More safety as a result of a personal safety switch and warning horn integrated into the handle*



## Product description

**The KT4 "drive" is an order picking trolley with electric drive** that is integrated into a 5th wheel. The speed can be set in 2 basic steps (max. 3.0 and 4.8 km/h). Can be freely adjusted within the basic level. The power supply is provided by a Li-ion battery. A wide impact protection strip protects the castors and the chassis from damage. The screwed-in shelves are equipped with a metal strip as an anti-slip guard.

**Load capacity:** the maximum payload per shelf is 100 kg and the total payload 300 kg.

**Surface finish:** plastic powder coating. Shelves with a wood finish

**External dimensions:** 2,640 x 615 x 1,800 mm (length without handle: 2,295 mm)

# Bookshelves Sorting Trolley

*For order picking books and media*

- > *Variable compartment size for multi-order picking*
- > *Two locking swivel castors function as a manoeuvring aid*
- > *Ergonomic handle*



## Product description

**The base frame** consists of a square tubing frame with welded wire mesh and a high-gloss galvanised chromated surface. Up to five attachable shelves with compartment dividers made of galvanised sheet metal offer ample space. A screwed-in wire shelf serves as an additional shelf at the top. The trolley has a load capacity of up to 250 kg. An anti-static belt prevents electrostatic charging of the trolley during pushing.

**Improved ergonomics:** the trolley comes standard with an ergonomic pushing handle for different heights and a heel guard when pulling the trolley. A directional lock turns two swivel castors into two fixed castors for more directional stability when manoeuvring. Pushing handle, heel protector and bar for setting the direction are coated in plastic powder in RAL 5015 Sky blue.

**External dimensions:** 1,411 x 607 x 2,073 mm

# MultiPick trolley

*For order picking with European standard boxes*

- > Holds up to 6 Euro standard boxes 600 x 400 mm
- > With small item basket
- > Ideal in the e-food sector



Basic model



Supplied without boxes

Can be rotated by 360° on the spot

## Product description

**The base frame** consists of a square tubing frame. A wire basket for small items and a horizontal pushing handle are attached to the side. Four deflector rings on the chassis protect the inventory from damage. The six compartments are suitable for Euro standard boxes sized 600 x 400 mm. The base frame is available in high-gloss galvanised chromated or plastic powder-coated versions. The load capacity of the trolley is up to 200 kg.

**Castor wheels:** 4 swivel castors, elastic tread. A 5th castor is located underneath the centre of the trolley for easy manoeuvring. This allows the trolley to turn 360° on the spot.

**External dimensions:** 1,063 x 650 x 1,038 mm

Special version for 8 boxes also available. Also available without the 5th castor, on request.





# The dispatch area

■ **Whether for single packing stations or** packaging lines, sufficient packaging material should always be available. This task is best handed over to individual employees so that the packers are not unnecessarily interrupted in their packing process. With our box transport trolleys, you can quickly transport large and small boxes to packing stations and facilitate short dispatch lead times. With the Click&Collect model, the ordered goods are transported from the central warehouse to the selected branch where they are

available for collection by the customer. The trucks are usually loaded and unloaded quickly using roll cages that are pushed onto the loading area fully loaded. This form of transport is also ideal for furniture stores, supermarkets, electronics stores and fashion retailers. We have numerous roll cages in different designs in our range. These can be fully enclosed, nested when empty or coupled in a train, depending on the requirements.



# KT-VP1 Cardboard Packaging Trolleys

*For provision of packaging material*

- > *Ideal for transporting unfolded cartons*
- > *Castor brakes for secure positioning*
- > *11 compartments for sorting different carton sizes*



KT-VP1



Decoration not included in delivery scope.

## Product description

**The trolley is perfect for providing unfolded cartons** in different sizes. This is ensured by 5 small compartment dividers at the top and 4 large compartment dividers at the bottom. The base frame and the screwed-in shelf have a non-slip wooden support. The load capacity of the trolley is up to 125 kg.

Two of the four swivel castors are equipped with a brake to prevent the trolley from rolling away during loading and unloading.

The base frame is available high-gloss galvanised and chromated or plastic powder-coated.

**External dimensions:** 1,200 x 795 x 2,010 mm

# RC/E series roll cages

*Lightweight and robust*

- > *Lightweight design*
- > *For folding or collapsing*
- > *Optionally with attachable wire shelf*



RC/E1, push-on design



RC/E2 for folding up



RC/E3 for collapsing

## Product description

**Series RC/E roll cages can be used universally** for numerous products and are available in different sizes. They consist of a 2-sided structure with a metal platform or alternatively a robust plastic platform. They have a load capacity of up to 500 kg. The containers can be collapsed and folded together easily to save space for empty transport or space-saving storage. On request, wire shelves (with or

without folded-up edge) or rear walls are also available, which are attached to the side parts. All the metal parts on the container body are high-gloss galvanised and chromated.

The roll cages are each equipped with 2 fixed and 2 swivel castors made of polyamide. The E3 version also has 1 castor brake.



Folding sequence of the RC/E2



RC/E3, collapsed



Optional wire shelves for attachment



# RC/S series roll cages

*Fully enclosed container design*

- > Locking mechanism suitable for padlocks
- > Protection against unauthorised access
- > Safe transport of goods



RC/S1, basic model with accessories



RC/S2, basic model



RC/S9 basic model with accessories

## Product description

The fully enclosed and lockable series RC/S offers theft protection and is geared to meet the requirements of a wide variety of products with its sophisticated technology and good handling qualities.

The mesh size of the panels can be optionally adapted for any application ensuring the customer definitely receives the entire delivery. Each locking mechanism is designed in such a way that it can be additionally secured with a padlock. The chassis are available with wire mesh, plastic or non-slip wooden platforms. They have a load capacity of up to 500 kg.

The roll cages are generally equipped with 2 fixed and 2 swivel castors made of polyamide. On request, they can also be fitted with low-noise rubber or elastic tread and locking mechanism. Special versions with 6 castors or hitching device complete the range.



Locking



Brake mechanism



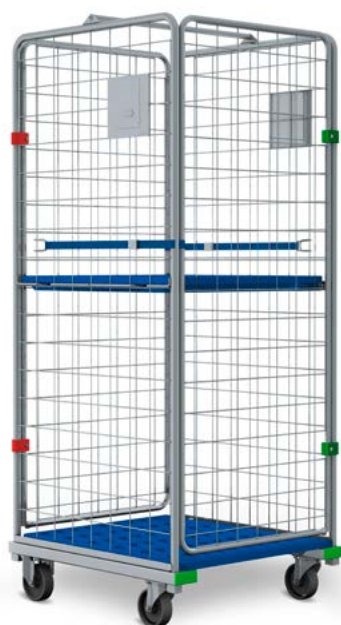
RC/S14 with hitching device



# RC/N series roll cages

*Can be nested to save space*

- > Requires less valuable storage space when not in use
- > Variants from 2-sided to fully enclosed construction
- > Optionally available with locking mechanism



RC/N9 basic model with a four-sided structure



RC/N3 TYPE 1 basic model.  
Supplied without standard boxes.



RC/N6 basic model

## Product description

**Because warehousing and transporting space is valuable,** RC/N series roll cages are collapsible and can be pushed together to save transport and storage space.

You choose the desired design – two side panels, fully enclosed or with foldable intermediate shelves, either as standard or optional equipment. The fully enclosed models can also be secured with a padlock if required.

The chassis are available with wire mesh, plastic or sheet metal platforms. Depending on the model, the load capacity is up to 600 kg.

The roll cages are generally equipped with 2 fixed and 2 swivel castors made of polyamide or with a low-noise elastic tread. On request, they can also be fitted with a locking mechanism.



The roll cages can be pushed together to save space.

# Postal and parcel service

■ **Online retail is booming, and so is the number of parcels.** And the upward trend is set to continue. In order to handle the enormous number of parcels and to deliver them to customers on time, smooth intralogistics are crucial.

Durability, customisation and the innovative functions of transport aids are decisive success factors for effective work processes in virtually continuous operation.





# Package roll containers for tugger trains

*Can be used in a train configuration with up to 5 roll containers*

- > Can be nested to save space when not in use
- > Locking mechanism for safe loading and unloading
- > Safe handling during transport by truck



**Open design**

Three-sided body with lashing straps to secure the load.



**Fully enclosed design**

## Product description

**The robust roll containers** can be coupled together in a train up to 5 units. The enclosed version has a lid made of wire mesh and mesh doors with metal hinges. The locking mechanism can also be locked with a padlock to prevent theft. Two of the four swivel castors are permanently locked as fixed castors for directional stability. For better manoeuvrability during manual handling, the castors can be converted back into swivel castors by means of a lever mechanism. The load capacity of the roll container is approx. 500 kg.

**External dimensions:** 1,200 x 1,000 x 1,800 mm

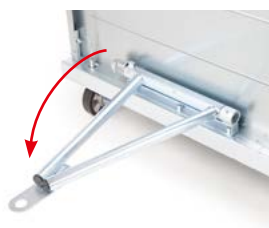
## Space-saving storage

**The base plate** can be folded up using a combination of foot lever and pneumatic spring and a side panel folded inwards (L-shape), allowing multiple containers to be nested together.



## Coupling / towbar

**For use in a tugger train** of up to five containers. Simple and safe foot operation.



## Locking mechanism

**When the locking mechanism** is engaged, two pedestals are deployed to prevent the container from rolling away.



# Single package roll container

*Open design for quick loading and unloading*

- > *Can be nested to save space when not in use*
- > *Locking mechanism for safe loading and unloading*
- > *Swivel castors with directional lock for directional stability*



Space-saving storage

## Product description

**The open design is ideal for fast loading and unloading.**

The base plate with a non-slip wooden support can be folded up for space-saving storage and one side panel folded inwards (L-shape). This allows several containers to be stacked together. Two lashing straps on the open side secure the load. The load capacity of the roll container is approx. 500 kg.

**External dimensions:** 1,200 x 1,000 x 1,900 mm

## Castors with directional locks

**Two of the four swivel castors are permanently locked as fixed castors** for directional stability. The castors can be converted back into swivel castors by means of a lever mechanism.



## Locking mechanism

**When the locking mechanism** is engaged, two pedestals are deployed to prevent the container from rolling away. This ensures safe loading and unloading.





# Individual solutions

■ **Despite our wide range of series models**, we know from experience that depending on the range and logistics concept, an individual solution can well be worthwhile. We are not only manufacturers, but also your highly skilled

partner for the development of custom-made models. Contact us! Together we can get your goods on their way!



# Individual solutions

*A small selection of our previous projects*

## *Order picking trolleys for sporting goods*

**The sports area has various items in a range of sizes.** This order picking trolley has been specially designed for combined shelf stocking. Wooden shelves are provided on one side with variable dividers. Long dividers on the other side allow longer items such as skis or hiking poles to be carried.



## *Roll container for transporting textiles*

**This modified RC/S9** roll container was developed by Wanzl for a customer transporting semi-finished textile products between the individual production steps. The RC/S9 container was equipped with a customised rod construction for hanging textiles. The complete lining with sheeting offers all-round protection of the goods against dirt and dust.



## Individual solutions

### *Order picking trolleys for small items*

**This trolley is ideally equipped for picking small items** and has the added bonus of a number of additional features. Four wooden shelves with rear anti-slip guard offer plenty of storage space and a plastic box provides room for small items. One of the two side panels has two small item baskets and a storage shelf for work equipment. A label roll can be inserted on a metal tube between the two baskets. Refuse sacks on the opposite side panel make it easy to dispose of unwanted packaging material.

A plastic box for safe storage of personal effects offers added value for employees.



### *Lightweight order picking trolleys*

**Easy order picking.** This trolley is made of a combination of aluminium, steel and various composite materials. The upper platform provides space for empty cardboard boxes and the lower platform space for filled cardboard boxes. The centre shelf slopes downwards and is equipped with roller tracks to make handling boxes more convenient. A screen above the handle guides the employee through the warehouse. A lithium polymer battery powers the electronic picking aids.



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# Achieving Success with Wanzl

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■ On the following pages we would like to present a couple of projects from the last few years, which we have successfully implemented with our customers. Our goal is always to make the existing processes more

efficient and in the best case to reduce the burden on the employees at the same time. Both the functionality and the longevity of our products lay the foundation for achieving customer satisfaction.





# Roll containers for parcel centres

## Over 78,000 roll containers for Deutsche Post DHL

Each year, the postal and logistics service provider Deutsche Post DHL transports more than 19 billion letters and over one billion parcels and packages across the whole of Germany. Parcels and packages are handled at 33 DHL package centres throughout Germany. The parcels business is growing at a double-digit rate every year. One factor behind this swift growth is the booming e-commerce market.

The roll containers are deployed around the clock. The folding and nestable trolley design allows the containers to be stored in a space-saving manner when empty, while a locking brake ensures maximum safety when stationary. Up to five containers can be connected together for pulling manually or towing. The special, heavy-duty swivel castors can be quickly converted to fixed castors using a special mechanism, ensuring directional stability.

Using roll containers to collect goods saves work, time and costs in comparison to handling loose, individual items. Deutsche Post DHL, therefore, makes the roll containers available for key account customers from the field of industry and commerce.



**PULLING BY HAND OR IN A TRAIN CONFIGURATION** with up to 5 roll containers

Wanzl supplied over 78,000 parcel roll containers, around 4,000 of which are used in Spain, Sweden, Switzerland, the Czech Republic, Slovakia, Poland and France. For this reason, Wanzl was the first licensed reproducer to carry out a CE test on roll containers, required for use outside of Germany. The Wanzl parcel roll containers fulfil all the requirements for CE marking and thus ensure maximum safety in daily use.



**SPACE SAVING**, foldable and nestable in an L-shape: Fold up the base, swivel the side panel backwards.

*"The quality, high production capacity, and short lead and production times that Wanzl offered were all key in our decision to use the company as a supplier. Wanzl's deadline and delivery reliability were exemplary. That is the perfect example of a positive working relationship."*

**DR. SIMON DEYMANN**  
Vice President Parcel Hub Operations, Deutsche Post DHL

# On tour in the humidor

## Order picking with an electric drive

**In the high-bay warehouse of Internationale Wein Logistik GmbH (IWL),** 18° Celsius prevail around the clock at a constant atmospheric humidity of 65 %, similar to a humidor. Here, thousands of high quality wines, champagnes, gifts and other food and non-food products are kept in 23,000 pallet spaces.

“From this B2C warehouse, we supply private end customers. The average order quantity is two cases or 24 bottles, and every year we dispatch around two million parcels”, says Frank Göbels, Managing Director of IWL.

Since February 2012, 45 Wanzl KT4 “drive” order picking trolleys with a fifth wheel with an integrated electric drive for manual order picking on a small scale have been moving around the warehouse; a second delivery of five more trolleys was made in summer 2013. In a two-year pilot and preparation phase, Wanzl worked with the customer from Tornesch to develop a special version of the KT4 “drive” order picking trolley with sloping wire shelves.

Frank Göbels: “We included the order picking workers in the development process, and up to 25 order pickers spent several weeks testing the Wanzl prototypes. We then moved to the optimisation stage.”

When the first delivery of 45 new, electrically driven KT4 “drive” order picking trolleys from Wanzl replaced the previous, manually operated trolleys two years ago, “it was like changing from a bicycle to a car”, says Zekeriya Karakol, production manager at the IWL logistics centre.

In the hub of the fifth wheel, attached underneath the centre of the trolley, is an integrated low-maintenance and low-wear electric motor for moving the trolley, ensuring track precision and effortless and safe manoeuvring. The maximum speed is up to 6 km/h depending on load. The electric motor can be operated at several speeds using two rocker switches on the handle for left and right-handed people.

A powerful battery supplies the drive with electricity. One shift lasts a maximum of 10 hours. This is how long the trolleys are in continuous use. Afterwards, the batteries are easily changed and quickly recharged.



**HIGH-BAY WAREHOUSE** with 23,000 pallet spaces and adjacent order picking zone



*“It was like changing from a bicycle to a car.”*

**ZEKERIA KARAKOL,**  
Production manager at the IWL logistics centre in Tornesch



# Pick trolleys for media logistics

## *Order picking in one of the largest media logistics facilities in Europe*

**On an area of 315,000 m<sup>2</sup> - the size of 44 football pitches** - one of the largest and most modern media logistics facilities went into operation in the north of Erfurt in October 2014 after a construction period of only 20 months: KNV Logistik, the new logistics centre of media wholesaler Koch, Neff & Volckmar GmbH (KNV) and sister company Koch, Neff & Oetinger Verlagsauslieferung GmbH (KNO VA). Sophisticated media logistics are required so that bookstores can offer their customers a wide range of items and ordered items are available on-site within the shortest possible time.

In the classic warehousing situation, order picking is based on the person-to-goods principle: Employees go to the storage location and remove the ordered items. This is exactly where Wanzl's smooth-running and manoeuvrable picking trolleys with their two plastic boxes come into play. At the beginning of the work process, customer orders are assigned to the individual compartments of the plastic boxes at the picking station; they are "married". Then it is straight off to the shelving racks. Supported by IT systems, employees take the shortest picking distance to collect the ordered items.

Once all the goods from the orders assigned to the pick trolley have been collected, it's time to head back to the picking point to one of the 12 conveyor loops, with a total of 60 picking stations. There, the goods are placed on the belt in customer boxes or in returnable trays and sent to packing and dispatch.

The pick trolley was custom-made for KNV Logistik. Just three months passed from the initial request to sampling and ultimately delivery. The stable, compact trolley has a low weight of just 12 kilograms. Even transporting bigger picking orders is child's play. The two wire shelves are precisely designed to fit the dimensions of the plastic boxes used, measuring 600 × 400 mm. Thanks to four swivel castors, the agile pick trolley can be turned in any direction and can even be moved diagonally.



**CUSTOM-MADE FOR KNV LOGISTIK:** The stable and, at the same time, lightweight picking trolley has two shelves for holding plastic boxes. In the ergonomic trolley, only the upper box is used for picking, the tray on the lower shelf serves as a reserve space.



*"The quick delivery time and the high manufacturing quality confirm that we chose the right supplier in Wanzl. Our co-workers are also impressed by the lightweight, practical trolleys."*

**DR. FRANK HINZ,** Logistics department manager, KNV Logistik

# Multi-order picking in the pharmaceutical business

## *"Pick-to-light" trolley with many extras*

The online business of the pharmaceutical chain Rossmann requires a high picking speed after A-, B- and C-turners with a low error rate. 80 specially designed "KT3" order picking trolleys have been in use in the warehouse of Rossmann Online GmbH since summer 2013. The trolleys are linked to the warehouse management software via "pick-to-light" modules and collect the orders completely without paperwork. Up to twelve orders can be placed simultaneously on the two mesh shelves with fold-down anti-slip protection.

The "KT3" offers many extras for order picking: Two bars and the 5th castor mounted centrally under the trolley ensure easy steering and manoeuvring. The robust, fold-down wood/steel shelf serves as a working surface and additional storage space for heavy products such as detergent packages.

*"Wanzl was our first choice for special designs and delivery times".*

ANDREAS HOFMANN,  
IT project coordinator, Rossmann Online GmbH



↑ FOLD-DOWN WOOD/STEEL SHELF as a working surface and additional storage space for heavy products



CLOSED anti-slip protection

↓ SIMPLY PUSH THROUGH: The two mesh shelves of the "KT3" are exactly adapted to the conveyor belts at heights of 200 and 900 millimetres. Without lifting, the pickboxes can be easily pushed onto the conveyor belt. From both sides, as the anti-slip protection can be folded down.



OPEN anti-slip protection



# Click & collect in the furniture store

## 3,200 roll cages for furniture transport

Covering an area of almost 100,000 m<sup>2</sup>, the warehouses of the Leen Bakker furniture store are located at the company headquarters in Raamsdonksveer in the southern Netherlands. An annual furniture volume of around 600,000 m<sup>3</sup> leaves the warehouse for more than 170 branches in the Netherlands and Belgium. Around 10,000 items such as chairs, dining tables, beds, sofas, cupboards, garden furniture and home accessories are stored in Raamsdonksveer.

Customers can inspect the furniture in over 170 branches. Once they have made a choice, the order is sent to the distribution centre. Leen Bakker then delivers the desired furniture to the branches within two to three days.

The customer collects their ordered items free of charge from the nearest store. Alternatively, there is a click & collect option – order in the web shop and then collect the order from a store without any additional charge. Leen Bakker can, of course, also deliver furniture directly to the customer's home for a delivery fee.

“Leen Bakker was looking for the ideal warehouse solution for order picking, and also for transport,” says Paul van Zwieten, logistics manager at Leen Bakker.

A four-month project phase between Leen Bakker and Wanzl followed. The result was a roll container which is tailored exactly to the logistics needs and items sold by the Dutch company, both with regard to design and size.

“The wire roll cages are light with a low net weight, but at the same time robust to handle. Even with a load of up to 300 kg, they can be comfortably and precisely manoeuvred,” says Paul van Zwieten, based on his own practical experience.

Box spring beds, garden furniture and mattresses are among the top sellers that are picked and delivered by the Wanzl roll cages.



*“Leen Bakker and Wanzl developed the roll cages together. The quality and price was right. That’s why the order went to Wanzl.”*

**PAUL VAN ZWIETEN,**  
Logistics manager at Leen Bakker

# Safe transport of sports items

## Roll cages for branch logistics

The Dutch sports retailer **Aktiesport** has long recognised the added value of a functioning logistics chain. As one of the largest sporting goods retailers in the Netherlands with over 150 branches in 1-A city locations and other shops in neighbouring Germany and Belgium, the company is a customer of CEVA in the Benelux: CEVA takes care of warehousing, complete order picking and the transport of the numerous high-quality sporting goods for Aktiesport.

The high-quality processing of the containers and the associated long service life were key in CEVA's decision. Additionally, all Wanzl transport roll cages have theft-proof locking as CEVA transports high-quality brand-name products from international manufacturers of sports equipment such as Adidas, Nike, Reebok, Puma, Asics and Diadora. And in terms of transport efficiency, Wanzl's roll cages, which can be pushed together when empty, also scored against the competition during the first practical phase: once the goods have been unloaded, the nestable containers only require a minimum of storage



CEVA EMPLOYS MORE THAN 50,000 STAFF

space on the truck for return transport. Specially for the requirements of CEVA and its customer Aktiesport, Wanzl fitted the roll container with a folding shelf as well as a special device for order papers.



↑ WHEN NOT IN USE, THE ROLL CAGES can be folded and nested together to save space.

← WANZL ROLL CONTAINER ready for transport to Aktiesport stores.



# Fashion shopping

## 1 trolley for all transport tasks

The full-service provider NETRADA, which was taken over by Arvato in 2014, had included Wanzl at the planning stage in the development of an order picking trolley to accommodate all product movements for the entire facility at the Lehrte site.

In 2011, NETRADA employed around 300 employees responsible for the storage and dispatch of goods from ten fashion partners at its logistics centre in Lehrte, Lower Saxony. Seasonal cycles in the fashion industry and different client demands require resources and technology to be adapted to market trends at short notice. As an entirely technical solution is not economical in these circumstances, the core goods-handling processes in Lehrte shall continue to be performed manually.

In order to keep space requirements for trolley pools low, and to achieve the maximum usability of all equipment, NETRADA has elected to use Wanzl's customised "NetCart" solution. From the receipt of goods to picking and dispatch, this order picking trolley performs all transport functions.

The "NetCart" is capable of being adapted for a variety of transport tasks such as hanging textiles, shoes, flat goods, accessories and jewellery, and must be capable of loading these together. A ladder, installed on the trolley, allows high picking positions to be reached with ease.

In addition to manual picking, the trolleys have been optimised for automated transport: The three foldable shelves can be individually adapted without set-up times. Furthermore, all trolleys have been equipped with RFID transponders to allow them to move via automated conveyor lines to their destination after being released by the picker.

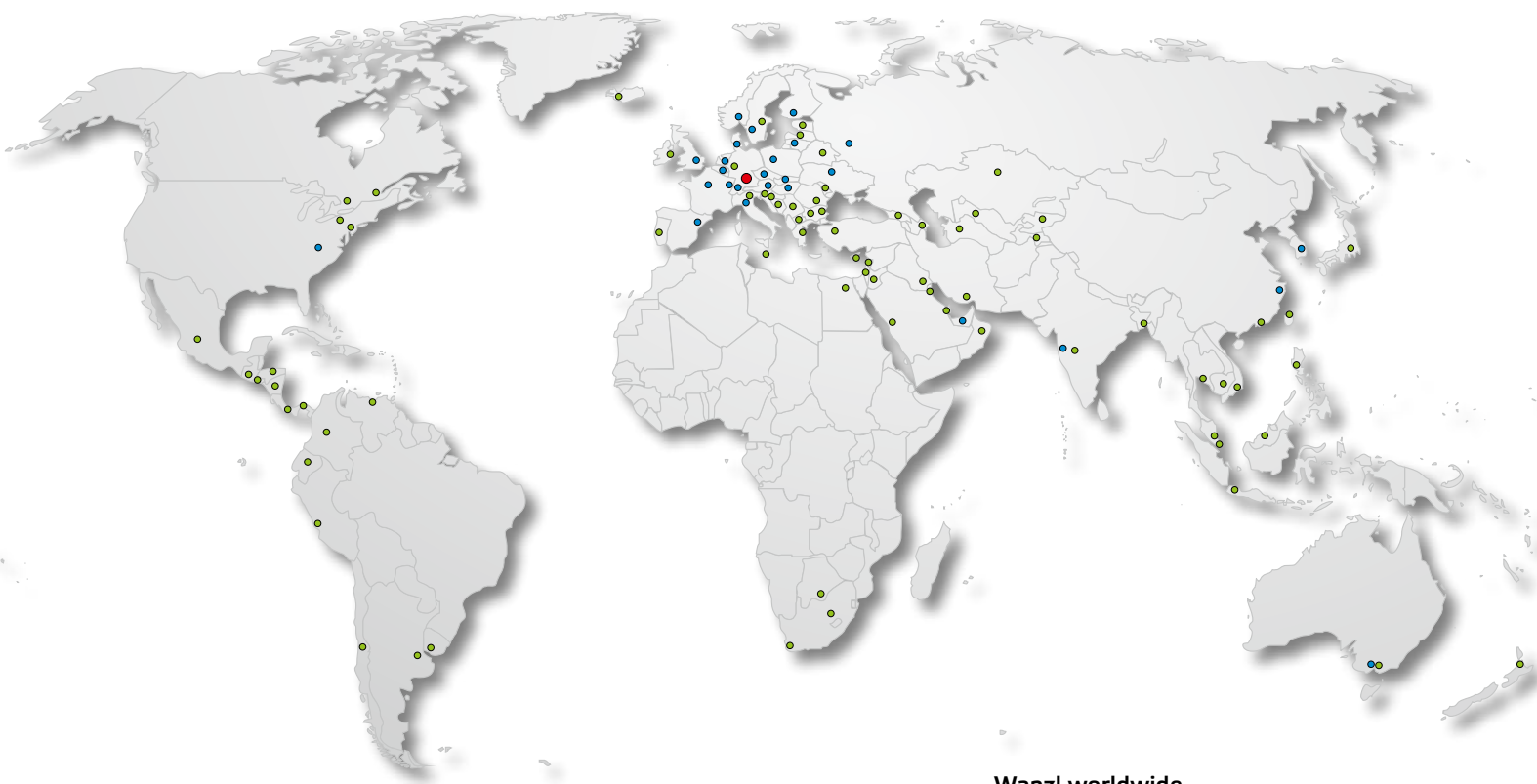
Process quality and efficiency already saw an improvement during the construction phase and were further optimised once the transport system was complete.



↑ **THE SPECIAL CONSTRUCTION OF THE CHASSIS** is compatible with the existing automated conveyor system.



↑ **E-COMMERCE OPTIMISED FOR** all logistics requirements (flat goods, hanging garments, shoes, accessories and jewellery)



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