

**RÄDER-VOGEL®**  
FOR BETTER WHEELS AND BETTER SERVICE



**MATERIALS HANDLING**

OUR CLIENTS



**REDISCOVER THE WHEEL**

All wheels have one thing in common – they are round. Looking beyond this, however, every area of application has its own specific requirements in terms of size, materials and load capacity. Therefore, since 1946, we have been developing wheels and castors to meet the constantly increasing demands of the market: from individual customised items to standardised large batches.

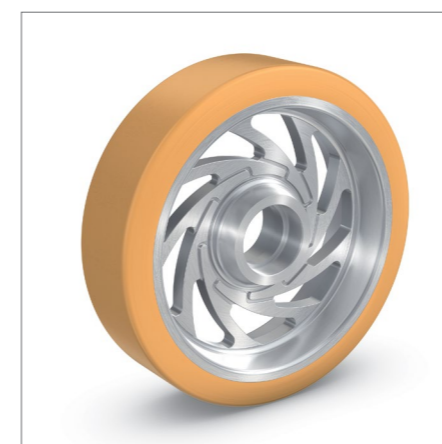
Our high standards, quality and innovative strength have made us one of the world's leading manufacturers of wheels, pallet rollers, press-on tyres and swivel and fixed castors. Our products are used all over the globe by all major car manufacturers and major materials handling suppliers. With a catalogue of more than 30,000 items, we move an enormous range of machines and systems for intralogistics.

## High-quality wheel materials for your applications

The more diverse and challenging the areas of application of our wheels and castors, the broader the range of wheel-tread materials we offer. One of our main area of focus are VULKOLLAN®\* and polyurethane elastomers, all of which are produced by a hot-casting process. These are non-marking and they stand out for their low starting and rolling resistance, high dynamic load capacity, and good abrasion and tear resistance.

We also offer a wide range of wheel-treads made of thermoplastic polyurethane, polyamide and rubber. These are particularly suitable for industrial castors used in factory environments for the internal transport of goods in indoor and outdoor areas.

\* VULKOLLAN® and DESMODUR® are registered trademarks of the Covestro Group.



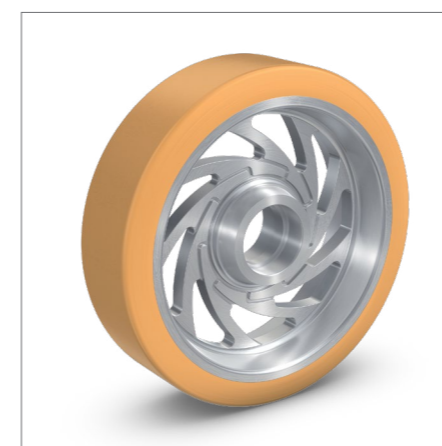
### VULKOLLAN® 93 Shore A / hydrolysis-stabilized VULKOLLAN®

VULKOLLAN® is a highly elastic, cross-linked polyurethane elastomer based on DESMODUR® 15\*. Wheels and castors made from VULKOLLAN® have a long service life and can support heavy loads at a high speed. Their excellent mechanical properties include high dynamic load capacity, high abrasion resistance and tear propagation resistance, the highest modulus of elasticity of all elastomers, high mechanical wear resistance, high impact resilience and low compression set.

For applications in tropical environments, we recommend VULKOLLAN® hydrolysis-stabilized.

**Areas of application:**

- Electric monorail systems
- Lifting equipment
- Turntables
- Hydrolysis-stabilized



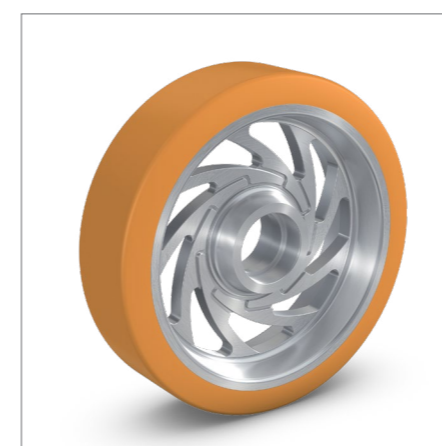
### VULKOLLAN® 95 Shore A

VULKOLLAN® 95 Shore is a highly elastic polyurethane elastomer based on DESMODUR® 15 for demanding and dynamic areas of application. The excellent mechanical properties of the material include a long service life, very high dynamic load capacity, very high abrasion resistance and wear propagation resistance, very high mechanical wear resistance and very low compression set.

We recommend VULKOLLAN® 95 Shore A for use in the transport of very heavy loads and at high speeds.

**Areas of application:**

- Heavy-duty electric monorail systems
- Stacker cranes and retrieval units
- Automated small parts warehouses



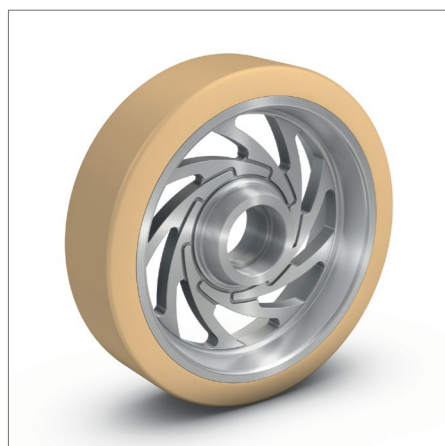
### PEVOPUR®

PEVOPUR® is a high-quality polyurethane elastomer which offers good dynamic load capacity, high elasticity, good mechanical wear resistance and good compressive set characteristics. PEVOPUR® is also significantly more resilient than rubber. This makes the material especially suitable for applications involving medium loads and moderate speeds, and it is ideal for use in tropical climates.

**Areas of application:**

- Skid idlers
- Push skid systems

# High-quality wheel materials for your applications



## PEVODYN®

PEVODYN® is a new high-quality polyurethane elastomer that we have developed with a long service life, offering significantly reduced starting and rolling resistance, high dynamic load capacity and high energy efficiency. Therefore, the material is particularly suitable for intralogistic applications involving the transport of large loads at a high speed. Thanks to its

hydrolysis resistance, PEVODYN® is ideal for use in tropical climates.

### Areas of application:

- Electric monorail systems
- Lifting equipment



## PEVODYN® Soft

PEVODYN® Soft 78 Shore A is a new high-quality polyurethane elastomer that we have developed with high dynamic load capacity and significantly reduced starting and rolling resistance. The excellent mechanical properties of the material include high cutting, tearing and abrasion resistance as well as high energy efficiency. Thanks to its good noise reduction and vibration damping, PEVODYN® Soft is particularly suitable for the transport of medium loads at high speeds on surfaces

where care is needed. And with its hydrolysis resistance, the material is ideal for use in tropical climates.

### Areas of application:

- Shuttle systems
- Automated small parts warehouses

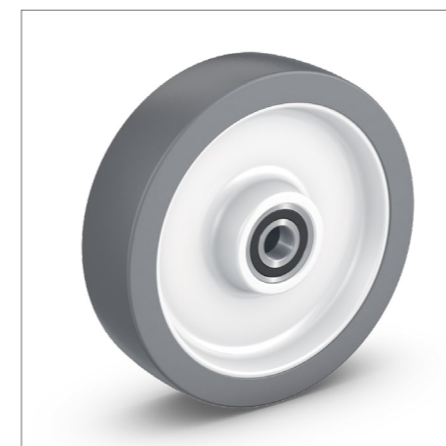


## PEVOLON®

PEVOLON® is a thermoplastic material based on polyamide that stands out for its non-marking properties, good chemical resistance, high abrasion resistance, low rolling resistance and a high load capacity of up to two tonnes. Furthermore, the material is very resistant to heat and cold (-40°C to +90°C), although the load capacity is reduced for temperatures above 35°C.

### Areas of application:

- Push skid systems
- Electric monorail systems
- Wet area systems



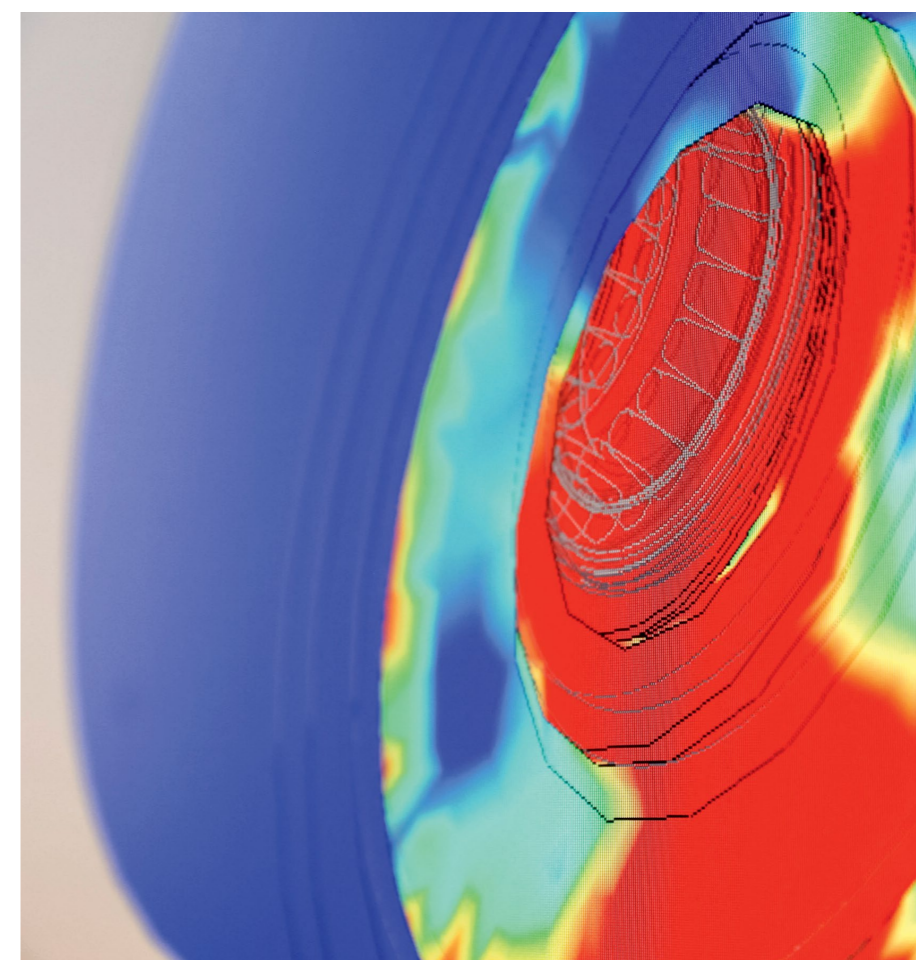
## PEVOTHAN®

PEVOTHAN® is a high-quality thermoplastic polyurethane elastomer with excellent characteristics, including non-marking properties, high abrasion resistance, good damping power, loading capacities of up to 500 kg and temperature resistance of between -20°C and +80°C. PEVOTHAN® is also widely resistant to diluted acids and alkalis as well as mineral greases and oils. Thanks to these properties, PEVOTHAN® is superior to all

normal rubber wheels and is particularly recommended for sensitive surfaces.

### Areas of application:

- Electric monorail systems
- Shuttle systems

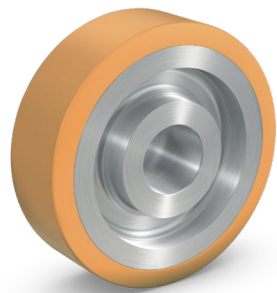


## PEVOTEC®

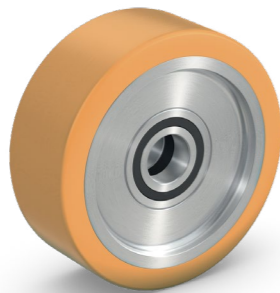
Behind the name PEVOTEC® is an extensive range of special polyurethane elastomers that can be used under extreme operating conditions. Depending on the task at hand, we develop the ideal wheel material for you on this basis by adapting the chemical and physical properties to suit your requirements.

## Disruption-free in continuous operation

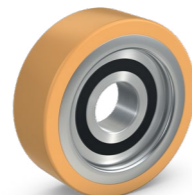
### Wheels for electric monorail systems



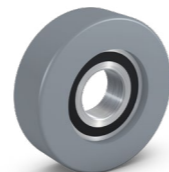
VULKOLLAN® drive wheels



VULKOLLAN® load wheels

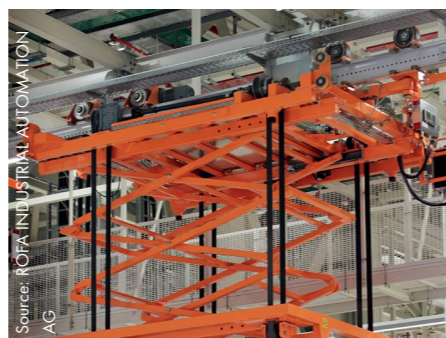
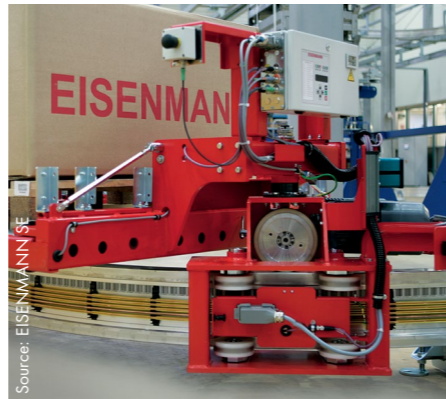


VULKOLLAN® guiding wheels



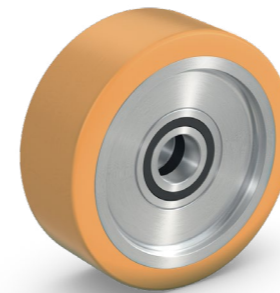
PEVOLON®, PEVOTHAN® and PEVOTHAN® HD guiding wheels

Our wheels and castors for electric monorail systems (EMS) have proved their worth in production and distribution logistics around the world. When it comes to driving, bearing loads and guiding equipment on rails, we offer a comprehensive range of high-quality, high-performance products. From the transport of light and heavy goods to complete vehicles in the final stages of assembly in the automotive industry, our wheels and castors ensure problem-free operation.

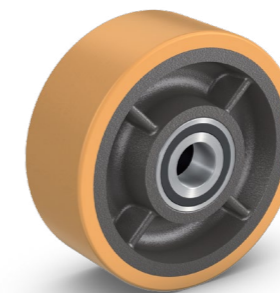


## Safety at a higher level

### Wheels for lifting equipment



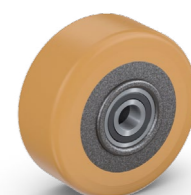
VULKOLLAN® load wheels



VULKOLLAN® load wheels

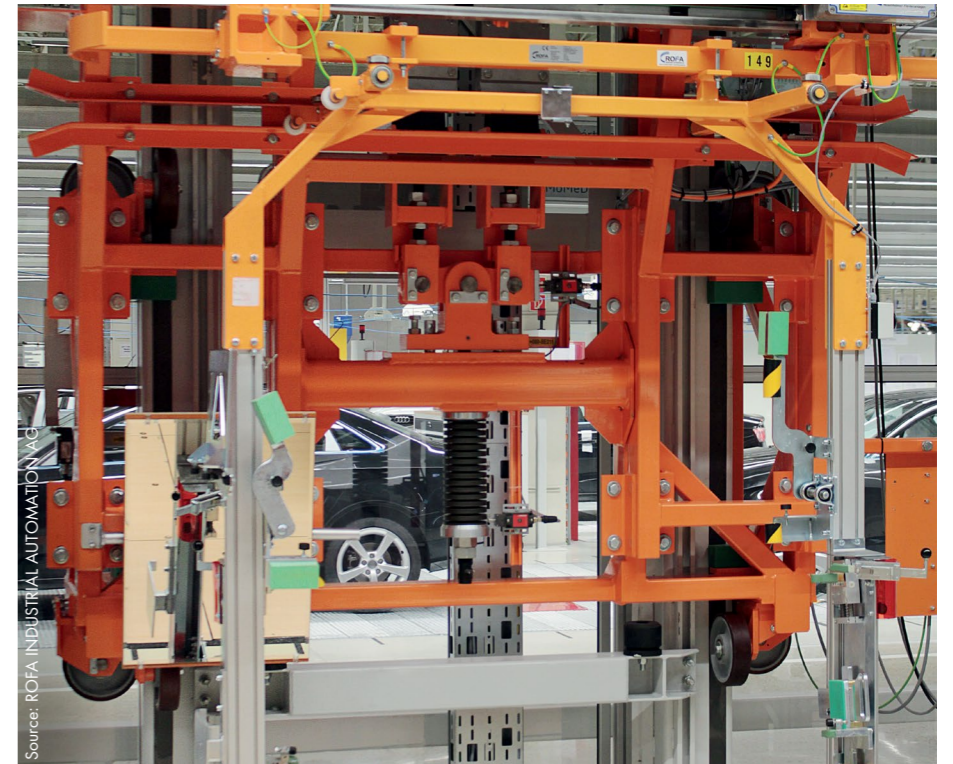
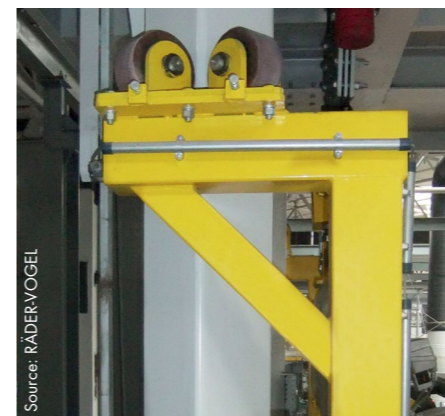
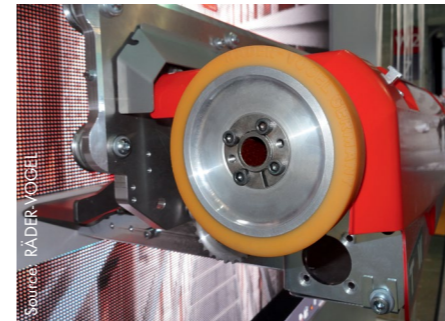


VULKOLLAN® guiding wheels



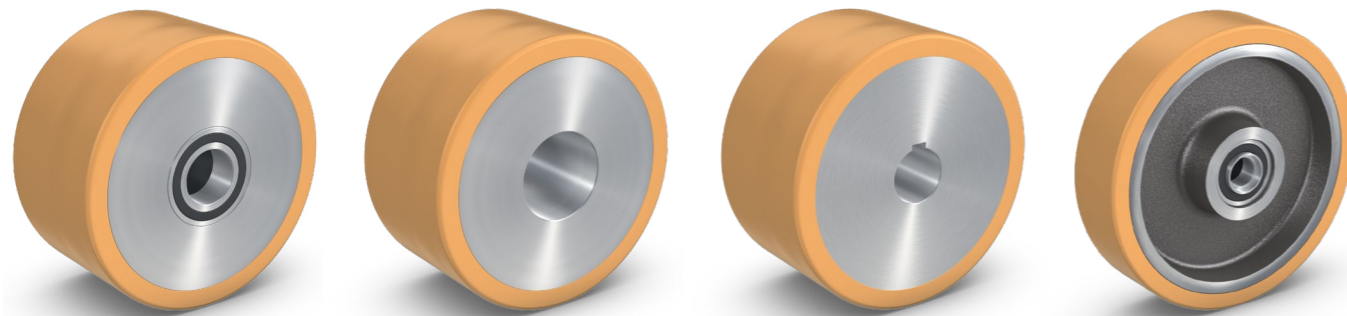
VULKOLLAN® guiding wheels

In lifting equipment for the automotive industry and distribution logistics, our wheels guarantee safe and quiet vertical transport between different levels. Thanks to their high strength and durability, they are especially suitable for car body manufacturing.



## Turning with precision

### Wheels for turntables



VULKOLLAN® load wheels

VULKOLLAN® drive wheels

VULKOLLAN® drive wheels

VULKOLLAN® load wheels

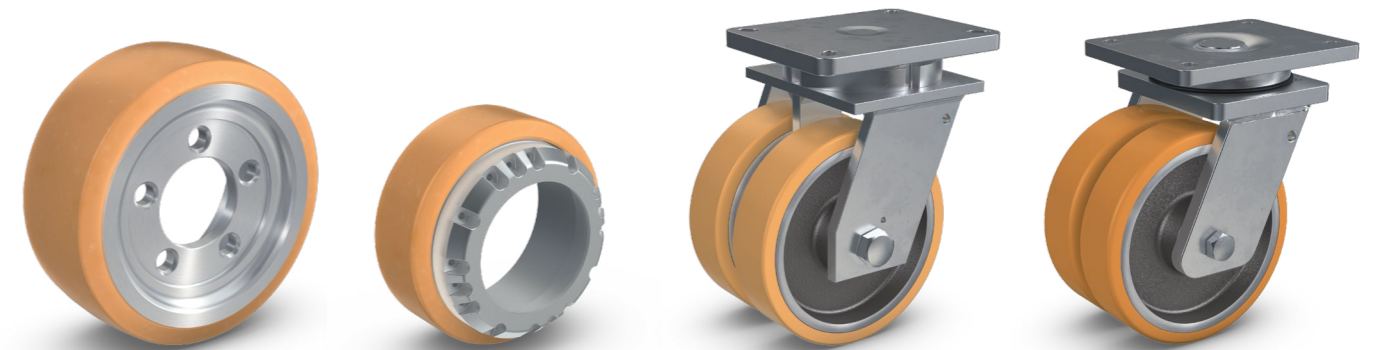
In turntables for the automotive industry and distribution logistics, our wheels rotate and pivot to guarantee the safe movement of transported goods from one direction to another. Thanks to their high strength and durability, they are especially suitable for car body manufacturing.



Source: Dürr Aktiengesellschaft

## Autonomous in all areas

### Wheels and castors for automatic guided vehicles



VULKOLLAN®/TRACTOTHAN® drive wheels

VULKOLLAN®/TRACTOTHAN® drive wheels

VULKOLLAN® support castors

PEVOPUR® support castors

Our wheels and castors are used around the world by all the major manufacturers of automated guided vehicles. Thanks to our comprehensive range of wheel-tread materials, each of which features specific properties, we can optimise our drive wheels to suit your area of application. We also provide rigid and spring-loaded support castors with special bearings located in both the housing and the wheel to meet specific requirements.



Source: MBN Maschinebauwerke Neugerodt GmbH



Source: DS AUTOMOTION GmbH



Source: AIT Automatisierungs- und Fördertechnik GmbH & Co. KG

## Precise, flexible transport

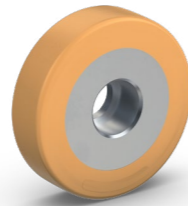
### Wheels for shuttle systems



VULKOLLAN®/PEVODYN® Soft drive wheels



PEVOTHAN® drive wheel and axle unit



VULKOLLAN®/PEVODYN® Soft drive and guiding wheels



PEVODYN® Soft antistatic drive wheels

From distribution centres to cold storage, we can provide the right solution for any shuttle application. Our portfolio includes everything from guiding wheels to complete drive units with axle shafts and bearings – a complete range of reliable, high-quality products.



Source: psb intralogistics GmbH



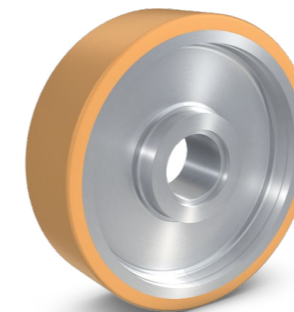
Source: Dematic GmbH

## Highly dynamic and reliable

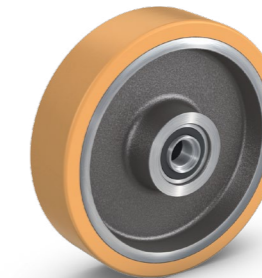
### Wheels for stacker cranes and retrieval units and automated small-parts warehouses



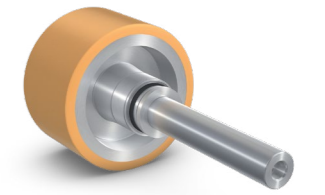
VULKOLLAN® drive wheels



VULKOLLAN® load wheels

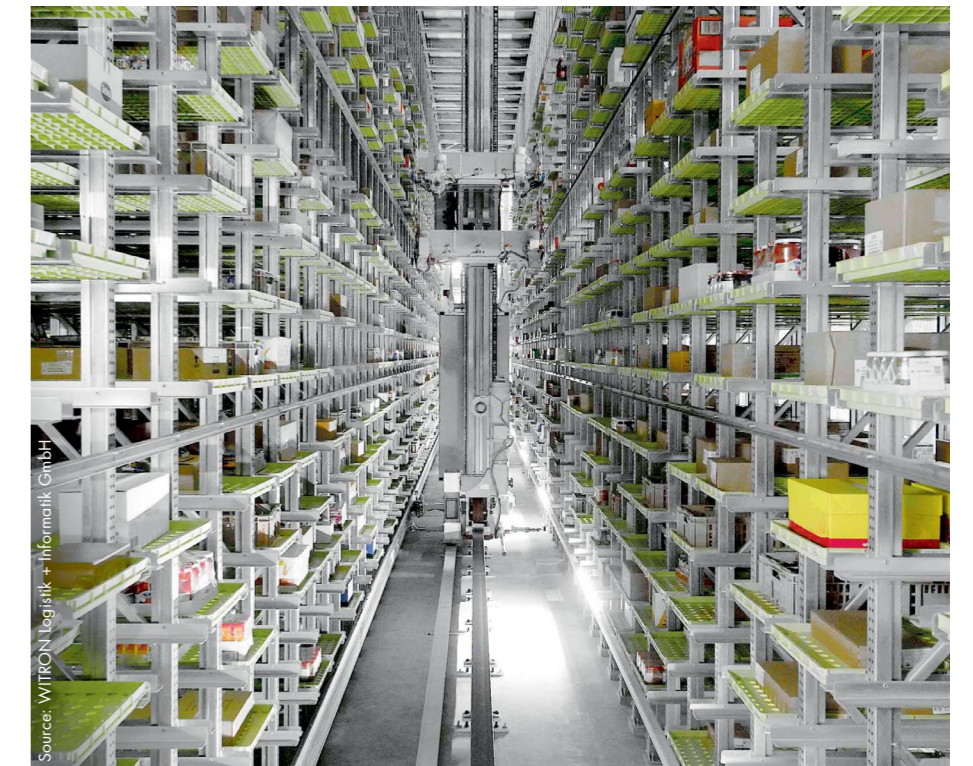


VULKOLLAN® load wheels



VULKOLLAN® drive wheels with axle

Stacker cranes, retrieval units and automated small-parts warehouses are designed to allow the quick, reliable handling of goods 24 hours a day, 365 days a year. Our wheels ensure problem-free operation and maximum safety, even at extremely high speeds with rapid acceleration.



Source: WITRON Logistik + Informatik GmbH

## Flexible internal transport

### Castors for transport carts



PEVOPUR® industrial guiding castors



PEVOPUR® heavy-duty guiding castors



PEVOPUR® heavy-duty guiding castors



PEVOTHAN® industrial guiding castors with spring-loaded directional locks

For use on transport carts, trolleys and trolley trains in areas such as the automotive industry, we offer a comprehensive range of swivel and fixed castors with a large selection of wheel-tread materials. These ensure safe transport even for heavy loads and provide a convincing solution for demanding applications, thanks to their superior performance.



Source: STILL GmbH

## Reliability on rails

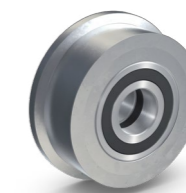
### Wheels for rail conveyor systems



C45 drive wheels with VULKOLLAN® tread



C45 double-flanged wheels



C45 single-flanged wheels



PEVOLON® double-flanged wheels

For rail conveyor systems in all areas of industry, we supply flanged wheels, guiding wheels and drive wheels from PEVOLON®, steel and cast iron. For special requirements, we also produce flanged wheels where the tread is coated with PEVOPUR® or VULKOLLAN®.



Source: Nabertherm GmbH



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