

# **Versa MOV©**Pallet Handling Systems



Modular. Compatible. Versatile.



# versa move

Pallet Handling Systems



## Modular. Compatible. Versatile.

mk – we're one of the leading suppliers of mechanical components, modules and turnkey solutions for factory automation. With Versamove we offer flexible pallet handling systems based on the customer's requirements. Equipped with modules and components from the mk modular system for profiles, conveyors and linear technology, Versamove systems offer dependability, high quality and process reliability.

#### Modular.

The modular design of Versamove ensures fast, transparent planning and project development. Versamove can be flexibly expanded and excellently adapted to your specific requirements.

#### Compatible.

When developing the system, particular attention was paid to compatibility to systems already available on the market. And that means, for example, pallets of other manufacturers can also be used on the Versamove standard. This enables existing systems to be easily expanded with Versamove.

#### Versatile.

"Versa" stands for Versatility. Versa-Move can be used in virtually all areas of automation and material flow. Whether it's individual modules or turnkey solutions — with Versamove we offer complete allaround service, including control, commissioning and maintenance.





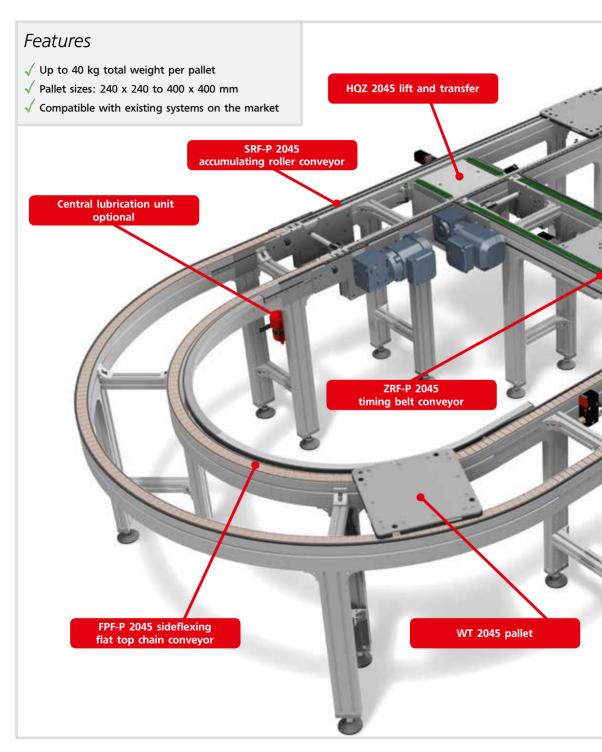
## Always the right system

Divided according to three weight and size classes, the right system is always available for any application. The versatile pallet sizes and the choice of different conveyor types make Versamove extremely flexible. Fast cycle times with high precision is ensured with timing belt conveyors. Accumulating roller conveyors are especially well-suited for accumulating operation and for heavily loaded

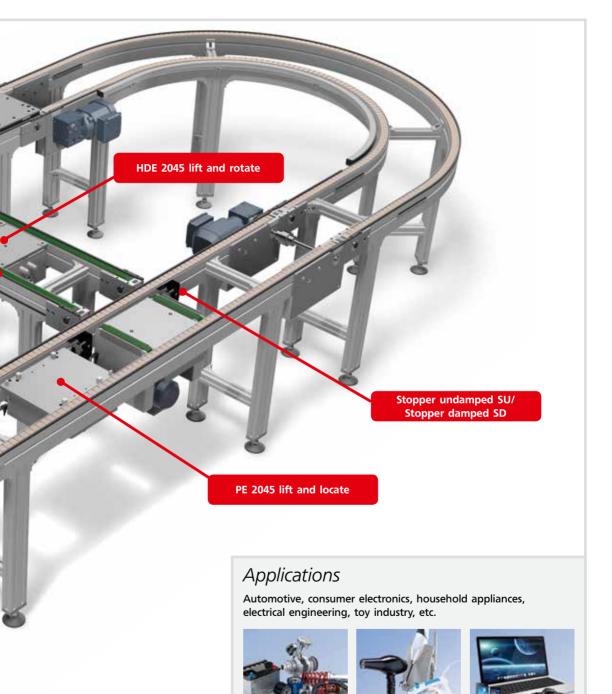
applications. The flat top chain conveyor also offers accumulation capability and in addition enables direction changes using curved frames.

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## Versamove standard modules

# WT 2045 pallet

#### **Features**

#### Tech. data



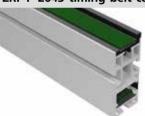
- Locating bushings in surface plate for positioning and turning pallets
- PE slide rails (steel optional)
- Integrated damping bumpers
- Available in anti-static design as an option
- Up to zu 40 kg total load
- Width: 240, 320, 400 mm
- Length: 240, 320, 400 mm

#### FPF-P 2045 flat top chain conveyor



- Suitable for accumulating operation
- Curve module (minimum radius of 600 mm)
- Curve angle 90° and 180°
- Automatic chain tensioning included
- Available in anti-static design as an option
- Length: 500-6000 mm
- Section load: 70 kg/m
- Total load: 400 kg
- Speeds: 6; 9; 12; 15 and 18 m/min

#### ZRF-P 2045 timing belt conveyor



- Conditionally suitable for accumulating operation
- Especially well-suited for indexing operation
- High acceleration
- Reversing operation possible
- Low-maintenance
- Available in anti-static design as an option

- Length: 500-6000 mm
- Section load: 60 kg/m
- Total load: 200 kg
- Speeds: 6; 9; 12; 15 and 18 m/min
- PAR/PAZ coating

#### SRF-P 2045 accumulating roller conveyor



- Especially well-suited for accumulating operation
- High operating temperatures
- Accumulating rollers available in steel and plastic
- Automatic chain tensioning included
- Available in anti-static design as an option
- Length: 500-6000 mm
- Section load: 80 kg/m
- Total load: 700 kg
- Speeds: 6; 9; 12; 15 and 18 m/min

#### HQZ 2045 lift and transfer



- Low overall height
- Pneumatic lifting movement
- Guidance using linear bearings and quide rods
- Manual belt tensioning included
- Inductive position detection (reed switches optional)

- Loads up to 40 kg
- Speeds: 6; 9; 12; 15 and 18 m/min
- Stroke: 20 mm



## Features Tech. data

#### HDE 2045 lift and rotate



- Low overall height
- Individual rotation speeds
- Pneumatic lifting and rotating movement
- Guidance using linear bearings and guide rods
- Inductive position detection (reed switches optional)
- Loads up to 40 kg
- Rotating movement 90° and 180°

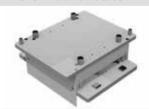
#### Stopper undamped SU/damped SD



- Undamped and damped stopping
  - Stopper querying possible electrically or inductively
  - Single or dual-acting
  - Direct installation on conveyor frame (no additional bracket required)

Permissible load is dependent on stopper version and conveying speed

#### PE 2045 lift and locate



- Positioning in X, Y and Z-direction
- Positioning via locating bushings in surface plate of pallets
- Inductive position detection

- Repeat accuracy:
  - ± 0,1 mm
- Cylinder stroke: 30 mm

#### KHL 2045 short stroke lift



- Moving between two transport elevations
- Pneumatic lifting and lowering
- Speeds are steplessly adjustable
- Conveying type FPF, ZRF and SRF possible (ZRF shown here)

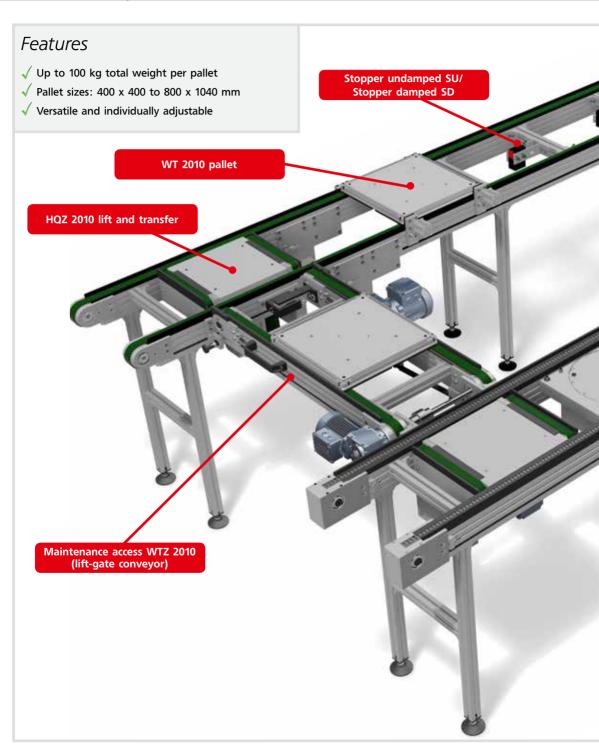
Effective load up to 100 kg

#### Maintenance access WTZ 2045

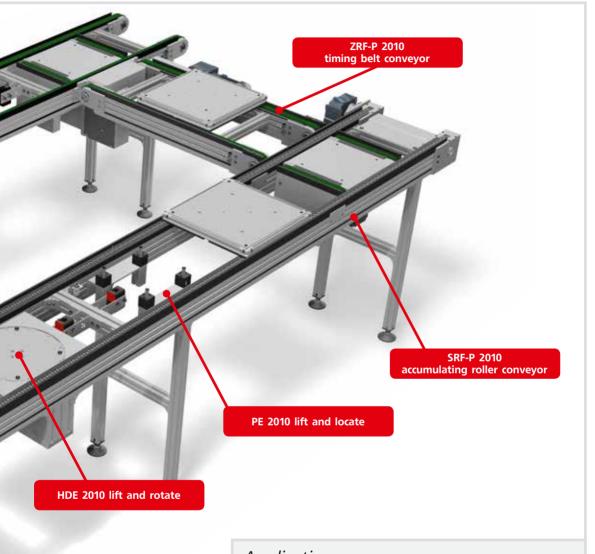


- Simple access to interior through lift-gate conveyor
- Fast, safe maintenance
- Gas spring secures against falling back
- Safety switch protects against unauthorized access









# **Applications**

Automotive, appliance, vacuum technology, consumer electronics, electronic, plastics industry, etc.







## Versamove plus modules

#### **Features** Tech. data WT 2010 pallet Aluminum surface plate (steel optional) ■ Up to zu 100 kg total load Locating bushings in surface plate for positioning and turning pallet (optional) Width: 400-800 mm ■ PE slide rails (anti-static optional) ■ Length: 400-1040 mm Integrated damping bumpers ZRF-P 2010 timing belt conveyor ■ Conditionally suitable for accumulating Length: 500-6000 mm operation Section load: 100 kg/m ■ Especially well-suited for indexing operation ■ Total load: 250 kg ■ High acceleration Speeds: up to Reversing operation possible 60 m/min Low-maintenance PAR/PAZ coating Available in anti-static design as an option KTF-P 2010 chain convevor Very rugged ■ Length: 500-10000 mm High operating temperatures ■ Section load: 150 kg/m Also for dirty environmental conditions ■ Total load: 1000 kg Reversing operation possible ■ Speeds: up to 30 m/min Optional anti-static design SRF-P 2010 accumulating roller conveyor Especially well-suited for accumulating Length: 500-10000 mm operation Section load: 150 kg/m High operating temperatures ■ Total load: 750 kg Accumulating rollers available in steel ■ Speeds: up to and plastic 30 m/min Available in anti-static design as an option HQZ 2010 lift and transfer Low overall height ■ Loads up to 100 kg ■ Speeds: 6: 9: 12: 15 Pneumatic lifting movement and 18 m/min Guidance via linear ball guides Stroke: 25 mm Manual belt tensioning included Inductive position detection



#### **Features** Tech. data HDE 2010 lift and rotate Low overall height Loads up to 100 kg ■ Individual rotation speeds ■ Rotating movement 90° and 180° Pneumatic lifting and rotating movement ■ Guidance using linear bearings and quide rods ■ Inductive position detection Stopper undamped SU/damped SD Permissible load is Undamped and damped stopping dependent on stopper Stopper querying possible electrically version and conveying or inductively speed ■ Single or dual-acting PE 2010 lift and locate ■ Positioning in X, Y and Z-direction Repeat accuracy: ± 0.1 mm ■ Positioning via locating bushings in surface plate of pallets Cylinder stroke: 40 mm

#### KHL 2010 short stroke lift



- Moving between two transport elevations
- Pneumatic lifting and lowering

Pneumatic lifting

- Speeds are steplessly adjustable
- Conveying type KTF, ZRF and SRF possible (ZRF shown here)

■ Effective load up to 100 kg

#### Maintenance access WTZ 2010

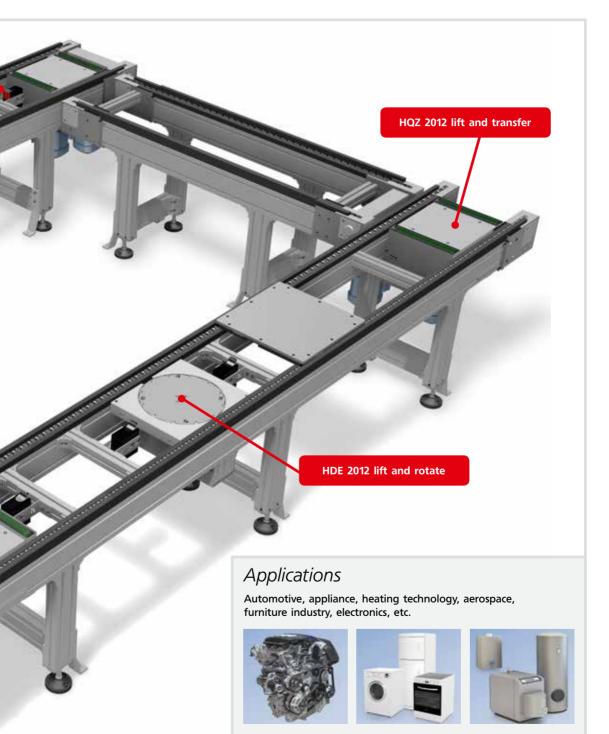


- Simple access to interior through lift-gate conveyor
- Fast, safe maintenance
- Gas spring secures against falling back
- Safety switch protects against unauthorized access









## Versamove ultra modules

### **Features** Tech. data WT 2012 pallet Aluminum surface plate (steel optional) ■ Up to zu 300 kg total load Locating bushings in surface plate for positioning and turning pallet (optional) Width: 600-1200 mm Steel slide rails (plastic optional) ■ Length: 600-1200 mm Integrated damping bumpers SRF-P 2012 accumulating roller conveyor Especially well-suited for accumulating Length: operation 1000-10000 mm ■ High operating temperatures Section load: 150 kg/m Accumulating rollers available in steel ■ Total load: 1000 kg and plastic ■ Speeds: up to Available in anti-static design as an option 30 m/min HQZ 2012 lift and transfer Low overall height ■ Loads up to 300 kg ■ Speeds: 6: 9: 12: 15 Pneumatic lifting movement and 18 m/min Guidance using linear bearings and Stroke: 20 mm auide rods Manual belt tensioning included ■ Inductive position detection HDE 2012 lift and rotate Low overall height ■ Rotating movement 90° and 180° Individual rotating speeds ■ Pneumatic lifting and rotating movement Guidance using linear bearings and guide rods ■ Inductive position detection



#### **Features** Tech. data

#### Stopper undamped SU/damped SD



- Undamped and damped stopping Stopper querying possible electrically
- or inductively
- Single or double-action actuation

Permissible load is dependent on stopper version and conveying speed

#### PE 2012 lift and locate



- Positioning in X, Y and Z-direction
- Positioning via locating bushings in surface plate of pallets
- Inductive position detection
- Pneumatic lifting

Repeat accuracy: ± 0,1 mm

#### KHL 2012 short stroke lift



- Moving between two transport elevations
- Pneumatic lifting and lowering
- Speeds are steplessly adjustable
- Conveying type ZRF and SRF possible (ZRF shown here)

■ Effective load up to 300 kg

# Application examples



Versamove plus: Transfer of pallets from main line onto two parallel spur lanes



Versamove standard: Stopper and lift and locate



Versamove standard: Flat top chain conveyor curve





Versamove standard: Lift and transfer with damped stop



Versamove standard with custom pallets

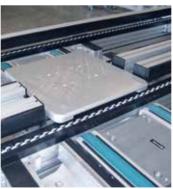


Versamove standard: Lift and transfer with custom paint

# Application examples



Versamove ultra: Customer-specific parallel circulation system with pallet transfers



Versamove plus: Dual-lane system with special guide rails

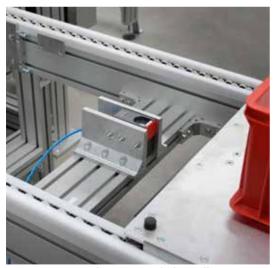


Versamove standard: Central lubrication unit





Versamove plus: Customer-specific special stopper unit with four removal positions



Versamove ultra: Accumulating roller conveyor with special chain guides for higher loading



Versamove plus: Two transport levels, accumulating roller conveyor

# alumotion

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