





#### COMPLETE PRODUCT LINE

Kinematik pallet conveyor system includes all kinds of conveyors capable of moving pallets in every direction, change direction, rotate or lift them. Moreover, pallet stacking or dispensing and space saving is also possible.

#### ADAPTABLE & CUSTOMIZABLE

Can be adapted to a wide range of applications and pallet types. Each conveyor module can be placed into various configurations, making it possible to change the system according to the current needs.

#### INTELLIGENT

Accumulation, direct forwarding, pallet entry or exit sensing and other modes can be implemented using PLC control.

#### **SMOOTH MOTION**

Every gearmotor is controlled by an inverter providing smooth motion and fast acceleration or deceleration.

This way even stacked pallets that could collapse and are not yet stretch wrapped or strapped can move without any danger.

## **SAFE**

Guarded by category 3 emergency circuit, activated by category 4 emergency buttons, safety ropes, safety fence doors and safety muting light curtains.

#### **RELIABLE**

High quality manufacturing, use of standard and proven equipment maximize reliability.

## MINIMUM MAINTENANCE

Designed for minimum maintenance with components that can be easily accessed and with reduced need for support, for example using life-time lubrication.





## PALLET ROLLER CONVEYOR

A heavy duty solution for conveying pallets, boxes and trays. The robust frame, the top quality gearmotors and rollers ensure that your products will be transported smoothly with increased stability and safely.

#### Frame

Powder-coated galvanized robust frame made for heavy duty load transfer up to 2500kg.

#### Rollers

Premium galvanized rollers  $\Phi 80$  or  $\Phi 89$  with double sprockets, offering increased lifetime.

Roller pitch from 100 to 254mm.

#### Drive

Top quality gearmotors under the rollers or on the conveyor side (left or right).

Automatic chain tensioner.

#### **Technical Data**

Lengths: 1500, 2000, 2500 mm (other lengths upon request)

Conveying height: standard 400mm (min 140mm)

Conveying speeds: 0.2-0.5 m/sec

#### Working Conditions

Ambient temperature: -30°C - +45°C

#### **Options**

- Pallet guiding rings (roller center or side)
- Bidirectional
- Guiding bars
- End stop
- Centering devices (pneumatic-hydraulic)
- Stainless steel design, for hygenic environments
- Photocells
- · Inverter drive, offering smooth motion, protecting equipment
- PLC control, for automating processes



## PALLET CHAIN CONVEYOR

A heavy duty solution for conveying pallets.

The robust frame and top quality chains ensure that your products will be transported smoothly with increased stability and safety.

#### Frame

Powder-coated galvanized frame made for heavy duty load transfer up to 2500kg.

#### Chain

Top quality chain with 2 or 3 strands (single or double chain) guided inside low friction PA-profiles with automatic chain tensioners.

#### Drive

Top quality gearmotors in the frame or on the conveyor side (left or right).

Automatic chain tensioners.

#### **Technical Data**

Lengths: 1500, 2000, 2500, 5000 mm (other lengths upon

request)

Conveying height: standard 400mm (min 140mm)

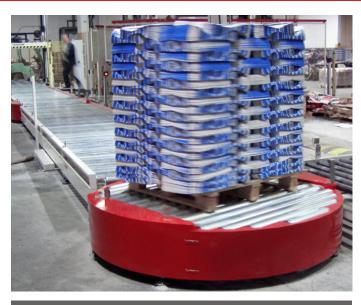
Conveying speeds: 0.1-0.4 m/sec

#### Working Conditions

Ambient temperature: -30°C - +45°C

- Overlaping ensuring smooth transition between chain conveyors
- Bidirectional
- Guiding bars
- End stop
- · Covering plates between strands
- · Outdoors installation
- · Stainless steel design, for hygenic environments
- Photocells
- Inverter drive, offering smooth motion, protecting equipment
- PLC control, for automating processes





## PALLET TURNTABLE CONVEYOR

Changing products direction. Suitable for roller or chain conveyor.

#### Frame

Sandblasted, anticorrosion painted and powder-coated robust frame made for heavy duty load transfer up to 2500kg. Machined surfaces contacting slew bearing. All covers are galvanized and powder coated.

#### Slewing Bearing

Top quality toothed slewing bearing is used for rotation.

#### Drives

Top quality gearmotor.
End position monitoring with limit switches.

#### **Technical Data**

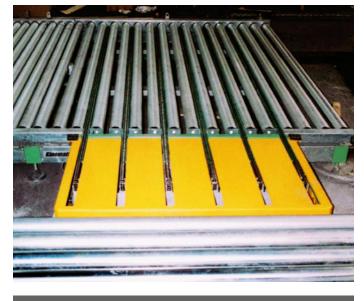
Conveying height: standard 400mm (min 320mm) Rotation speed: 3 turns/min

#### **Working Conditions**

Ambient temperature: -30°C - +45°C

#### **Options**

- Guiding bars
- End stop
- Outdoors installation
- Stainless steel frame, for hygenic environments
- Photocells
- Position monitoring with encoder
- Inverter drive, offering smooth motion, protecting equipment
- PLC control, for automating processes



# 90 DEGREES PALLET TRASFER CONVEYOR

Change transfering direction without pallet rotation

#### Frame

Robust frame powder-coated and galvanized, made for heavy duty load transfer up to 2500kg.

## Rollers

Premium galvanized rollers  $\Phi 80$  or  $\Phi 89$  with double sprockets, offering increased lifetime.

Roller pitch from 100 to 254mm.

#### Chain

Top quality chain with 2 or 3 strands (single or double chain) guided inside low friction PA-profiles with automatic chain tensioners.

#### Drives

Top quality gearmotors in the frame or on the conveyor side (left or right).

Automatic chain tensioners.

#### Lifting

Swing or parallel activated by pneumatics, hydraulic pistons or gearmotors.

Lifting can be applied either to the chain or to the roller conveyor.

## Technical Data

Lengths: 1500, 2000, 2500, 5000 mm (other lengths upon request)

Conveying height: standard 400mm (min 140mm)

Conveying speeds: 0.1-0.4 m/sec

## Working Conditions

Ambient temperature: -30°C - +45°C

- Multiple strands
- Bidirectional
- · Guiding bars
- End stop
- Covering plates between strands
- · Outdoors installation
- Stainless steel design, for hygenic environments
- Photocells
- Inverter drive, offering smooth motion, protecting equipment
- PLC control, for automating processes





## SHUTTLE CONVEYOR

Transfer pallets over long distances, or connect multiple conveyor lines.

Suitable for roller or chain conveyor.

#### Frame

Sandblasted, anticorrosion painted and powder-coated frame made for heavy duty load up to 2500kg.

All covers are galvanized and powder coated.

Suitable for carrying either roller conveyors or chain conveyors.

#### Guides

Grooved rollers on inox shafts.

#### **Drives**

Top quality gearmotor.

End position monitoring with limit switches.

#### **Technical Data**

Conveying height: standard 400mm (min 320mm)

Travel speed: upto 0.5m/sec

#### **Working Conditions**

Ambient temperature: -30°C - +45°C

#### Options

- · Guiding bars
- End stop
- Outdoors installation
- Stainless steel frame, for hygenic environments
- Photocells
  - Position monitoring with encoder
- Inverter drive, offering smooth motion, protecting equipment
- PLC control, for automating processes



## PALLET LIFT CONVEYOR

Lifting and transporting vertically pallets from 500kg to 2500kg.

#### Frame

Robust frame made for heavy duty load transfer.

Beams, thick plates sandblasted, anticorrosion painted and powder coated.

Thin plates galvanized and powder coated.

#### Guides

Rollers gliding inside machined profiles.

#### Drives

Either hydraulic or pneumatic or gearmotors by chain drive.

### **Technical Data**

- Pneumatic lifting up to 500kg and 1200 mm height with safety equipment against air pressure loss
- Hydraulic lifting up to 2500kg and 3000 mm height with safety equipment against pressure loss
- Electomechanical lifting up to 2500kg and 3000 mm height (other heights upon request) with double chains, double brakes and limit switches.

Conveyor lengths: 1500, 2000, 2500 mm (other lengths upon request)

Minimum conveying height: standard 400mm

Lifting speeds: 0.1-0.4 m/sec

#### Working Conditions

Ambient temperature: -30°C - +45°C

- Stainless steel design, for hygenic environments
- Area safety equipment including fences, light curtains, etc
- Photocells
- Incremental or absolute encoder
- Inverter drive, offering smooth motion, protecting equipment
- PLC control, for automating processes





## PALLET DISPENSER / STACKER

Stacking or Dispensing up to 20 empty pallets.



## PALLET DE-NESTER

#### Reduce empty pallet space almost by half.

Save empty pallet storage or transport space and get the pallets ready for use again.

## Minimize Empty Pallet Storage and Transport Footprint

The Pallet De-Nester can minimize the empty pallet volume to nearly half. Footprint gain for storage or transport of Europallet 800 mm x 1200 mm is approximately 41%.

#### Frame

Robust frame made for heavy duty load.

Beams, thick plates sandblasted, anticorrosion painted and powder coated.

Thin plates galvanized and powder coated.

#### Guides

Rollers gliding inside machined profiles or linear bearings.

#### Drives

Two alternatives are available: either driven by pneumatic actuators with two stage hoisting or with gearmotor hoisting. Pallet transfer via pusher with force monitoring or chain conveyor.

#### **Technical Data**

Suitable for pallet dimensions from 800 mm x 1200 mm to 1200 mm x 1300 mm.

Capacity: max 20 pallets

- Two stage pneumatic lifting with safety equipment against air pressure loss
- Electromechanical lifting with gearmotor, brake, wormshaft and limit switches
- · Sensors photocells, limit switches
- PLC control
- Inverter drive, offering smooth motion, protecting equipment

#### **Working Conditions**

Ambient temperature: -30°C - +45°C

#### **Options**

 Area safety equipment including fences, light curtains with muting devices, etc

## Nest Pallets to Save Space for Storage and Transport

The Pallet De-Nester can nest pallets, placing them in pairs facing each other bottoms, reducing their storage or transport space.

#### Denest Pallets to Get Them Ready for Use

The Pallet De-Nester can perform also the opposite task, denesting and stacking on the right-side up to get them ready for use by a pallet dispenser or to be picked up by a forklift.

#### Frame

Robust frame designed for minimum deflection.

Beams, thick plates sandblasted, anticorrosion painted and powder coated.

Thin plates galvanized and powder coated.

#### Guides

High quality linear bearings for lifting and travelling motions.

#### Drives

Top quality gearmotors with brakes, encoders, limit switches for lifting, travelling and rotating.

#### **Technical Data**

- Handling capacity 120-240 pallets/hour.
- · Maximum height of pallet stack 1800mm.
- Area safety equipment including fences, light curtains, etc.
- · incremental or absolute encoders
- Inverter drive, offering smooth motion, protecting equipment
- PLC control

#### Working Conditions

Ambient temperature: -30°C - +45°C

- Automatic pallet stack infeed & outfeed through conveyors
- Automatic pallet stacker/dispenser





## PALLET CONVEYOR LINES

All components can be combined to build complete conveyor lines with all the advantages of a unified system design. All types of sensors in combination with safety devices and muting equipment are harmonically integrated.

The designed for minimum maintenance mechanical equipment consisting of quality parts and robust frames, in conjuction with the first class electrical equipment, software and visualization, built a reliable and operator-friendly solution for your needs.



All aforementioned information are non-binding and are given without guarantee.

Productivity data and dimensioning for specific applications, can only be provided through a proper inquiry.

P12053\_v1.01 KINEMATIK © 2012



Phone: +30 210 2846 893 Fax: +30 210 2846 894