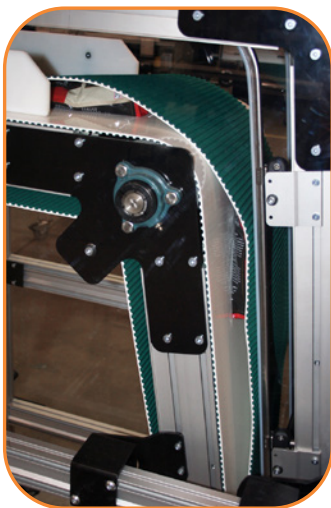
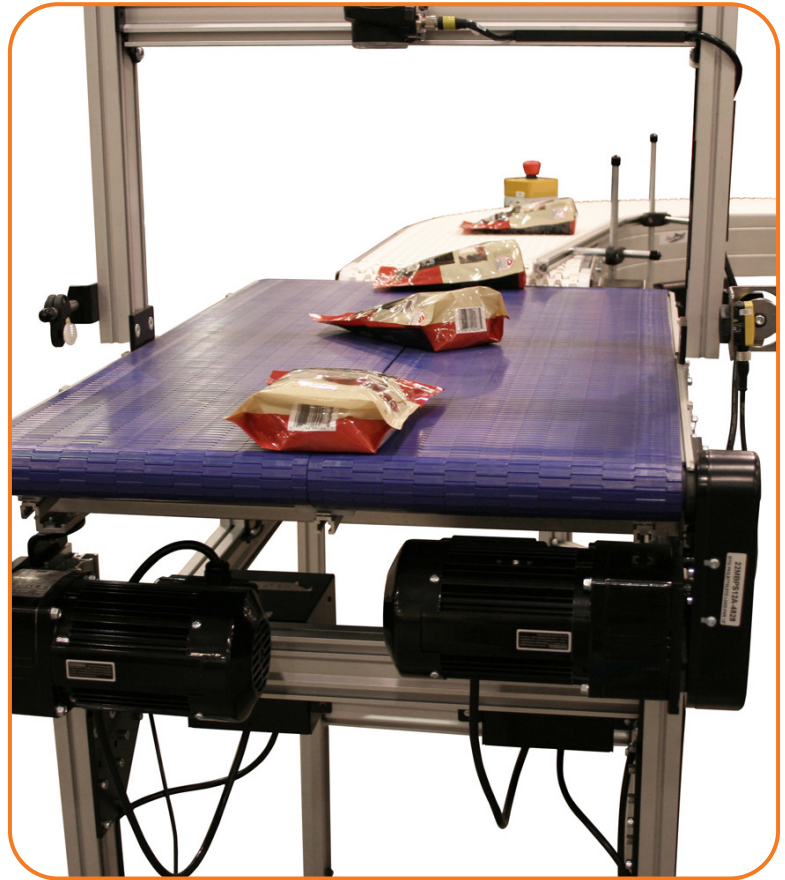


# Flexible Packaging Product Handling Solutions

**DORNER**<sup>®</sup>  
By Columbus McKinnon

## OVERVIEW

Dorner's industry leading product handling conveyor platforms are ideal for flexible packaging solutions. The conveyors can be engineered or configured to aid in the creation and efficiency of packaging lines manufacturing products in flexible packages. These packages are made of soft or flexible material in the form of a bag or pouch creating unique handling opportunities. Illustrated are solutions for handling flexible packaging efficiently for orientation, rotation, standing up, laying down, 90 degree transfer, and elevation. Some applications usages are inspection, bar code reading, labeling, orientating, and settling.



VERTICAL MOVEMENT



BOTTOM-LESS



ORIENTATION



SETTLING

# Vertical Pouch Elevator

# DORNER®

By Columbus McKinnon

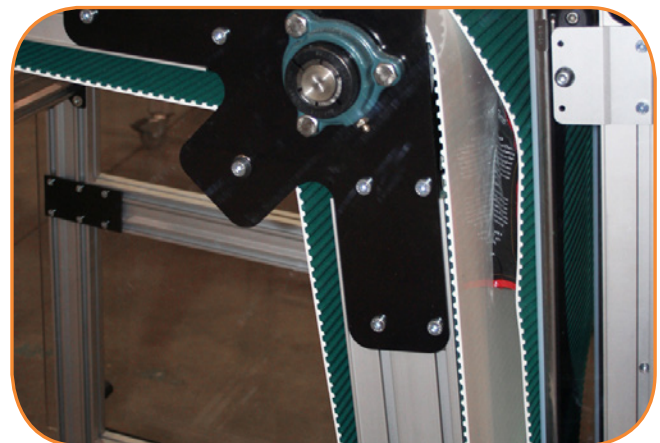
Application involves the rapid incline of pouches from drop height of filling machines to working height or ceiling height. Two belts are orientated over the top of each other with the friction of the belts creating a pocket to convey the product up or down. This solution saves floor space while maintaining pouch orientation and spacing.

## BENEFITS

- Uses less floor space to elevate pouches
- Maintains pouch spacing
- Maintains pouch orientation
- Secure pouch movement

## PRODUCT SPECIFICATIONS

- Base Conveyor Platform: 3200 Series
- Infeed Conveyor Widths: 437 and 610 mm (18 and 24 in) (pinch belt = 356 and 508 mm [14 and 20 in])
- Section Lengths: Upper section: 0.9 m (3 ft); Incline section: 1.2 to 7.6 m (4 to 25 ft); Lower section: 0.9 to 7.6 m (3 to 25 ft)
- Angle of Incline = 80 degrees fixed angle
- Conveyor Configuration: Z frame
- Belt type: T10 Positive drive belting
- Common Drive: Conveyors are common driven from (1) gearmotor
- Main Gearmotor Mount Package: All standard 3200 Series packages
- Gearmotors: All standard 3200 Series
- Support Structure: Common mounted support frame with fixed guarding
- Maximum Belt Speed = 46 meters per minute (150 feet per minute)



### Pouch Sizes and Product Rates:

- Maximum Pouch Width:
  - 457 mm (18 in) wide conveyor = 254 mm (10 in) maximum pouch width
  - 610 mm (24 in) wide conveyor = 406 mm (16 in) maximum pouch width
- Maximum Pouch Weight: 0.9 kgs (2 lbs)
- Maximum Product Rates:
  - Minimum spacing between pouches = 305 mm (12 in)

Pouch Length	Minimum Spacing	Maximum Rate
152 mm (6 in)	457 mm (18 in)	100 pouches per min
203 mm (8 in)	508 mm (20 in)	90 pouches per min
305 mm (12 in)	610 mm (24 in)	75 pouches per min

# Bottom-less Pouch Handling



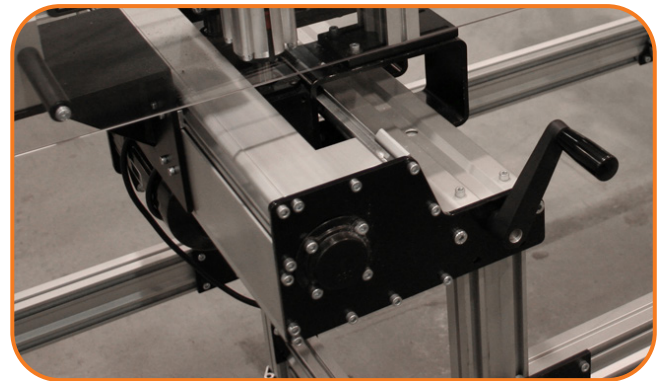
Application involves the stable conveyance of pouches for inspection, printing, labeling or edge sealing. Two conveyors are on edge and adjustable for a variety of pouch sizes. Once the conveyors are adjusted to the proper width pouches are “locked” in place.

## BENEFITS

- Holds pouches firm for inspection, printing, or labeling
- Provides inspection access to the bottom and top of the pouch
- Maintains pouch spacing

## PRODUCT SPECIFICATIONS

- Base Conveyor Platform: 3200 Series
- Pinch Conveyor Widths: 102 mm (4 in), 152 mm (6 in), and 203 mm (8 in)
- Conveyor Lengths: 0.9 to 2.4 m (3 to 8 ft) in 0.3 m (1 ft) increments
- Adjustment Range: 9.5 to 212.725 mm (3/8 to 8-3/8 in) wide with manual adjustment handle and conveyor lock
- Standard Belt Types: 08 high friction and 64 rough top friction
- Custom belt types available including sponge top and loop belt, contact factory
- Common Drive: Conveyors are common driven from (1) gearmotor
- Main Gearmotor Mount Package: All standard 3200 Series packages
- Gearmotors: All standard 3200 Series
- Support Structure: Common mounted support frame with fixed guarding
- Maximum Belt Speed = 61 meters per minute 200 feet per minute



Width Adjustable (Automatic or Manual)

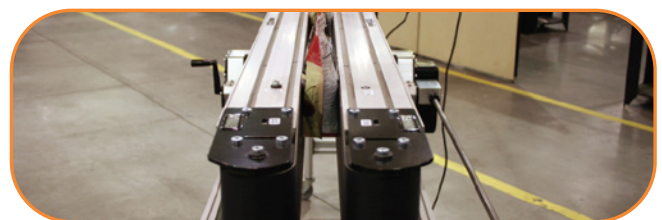


Common Driven Opposing Conveyors

### Pouch Sizes and Product Rates:

- Maximum Pouch Weight: 0.9 kgs (2 lbs)
- Maximum Product Rates:
  - Minimum spacing between pouches = 51 mm (2 in)

Pouch Length	Minimum Spacing	Maximum Rate
152 mm (6 in)	203 mm (8 in)	300 pouches per min
203 mm (8 in)	254 mm (10 in)	240 pouches per min
305 mm (12 in)	356 mm (14 in)	171 pouches per min



Access to the Top and Bottom of Pouch

# Pouch Orientation or Turning



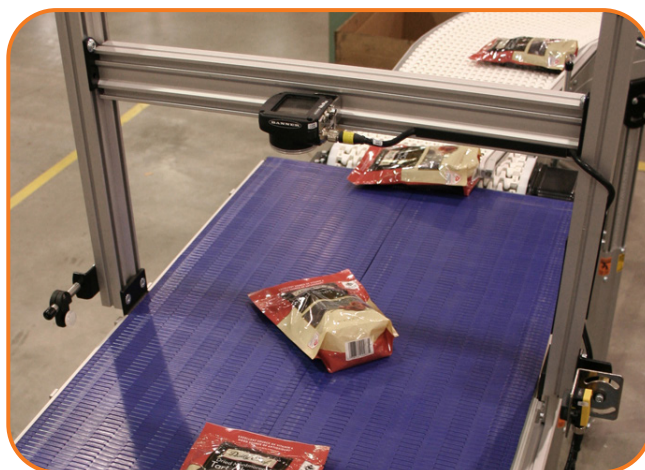
Application involves non-contact orientation of pouches. Product orientation often changes throughout the packaging line and in between processes. Now even pouches can be orientated to accommodate various interfaces. The solution has two conveyor belts traveling at different speeds to create rotation.

## BENEFITS

- Rotates pouches without product contact
- In line process – does not require a change in product flow
- Reduces product damage
- Maintains pouch spacing

## PRODUCT SPECIFICATIONS

- Base Conveyor Platform: 2200 Series Modular Belt
- Conveyor Widths:
  - (2) 102 mm (4 in) Belts (203 mm [8 in] overall width)
  - (2) 203 mm (8 in) Belts (406 mm [16 in] overall width)
  - (2) 305 mm (12 in) Belts (610 mm [24 in] overall width)
- Conveyor Lengths: 0.9 to 2.4 m (3 to 8 ft) in 0.3 m (1 ft) increments
- Belt Type: Blue acetal modular belt
- Drive: Conveyors are driven separately generating different belt speeds
- Gearmotor Mount Package: All standard 2200 Series packages
- Gearmotors: All standard 2200 Series
- Support Structure: Common mounted support frame
- Maximum Belt Speed = 61 meters per minute 200 feet per minute



## Pouch Sizes and Product Rates:

- Maximum Pouch Width (leading edge):
  - 203 mm (8 in) overall width conveyor = 102 mm (4 in) max. pouch width
  - 406 mm (16 in) overall width conveyor = 203 mm (8 in) max. pouch width
  - 610 mm (24 in) overall width conveyor = 305 mm (12 in) max. pouch width
- Maximum Pouch Weight: 4.5 kgs (10 lbs)

Pouch Length	Minimum Spacing	Maximum Rate
152 mm (6 in)	457 mm (18 in)	133 pouches per min
203 mm (8 in)	508 mm (20 in)	120 pouches per min
305 mm (12 in)	610 mm (24 in)	100 pouches per min

# Pouch Settling / Flattening

Application involves settling or flattening of pouch contents for box loading. Conveyor is servo driven and pulses back and forth dispersing or leveling the pouch contents for carton or box loading.

## BENEFITS

- Settles contents of pouch
- Use with height detection equipment for leak detection
- In line process – does not require a change in product flow
- Maintains pouch spacing

## PRODUCT SPECIFICATIONS

- Base Conveyor Platform: 2200 Precision Move
- Conveyor Width: 203 mm (8 in), 205 mm (12 in), 457 mm (18 in), and 610 mm (24 in) wide
- Conveyor Lengths: 0.9 to 1.8 m (3 to 6 ft) in 0.3 m (1 ft) increments
- Belt type: T10 Positive drive belting
- Mount Package: Servo motor bottom mount package
- Gearmotor: 2200 Series Precision Move parallel shaft servo package with control
- Support Stands: Standard 2200 Series
- Belt Speed: Pulse speed and duration is programmable to best match the pouch configuration
- Maximum Belt Speed = 61 meters per minute  
200 feet per minute



### Pouch Sizes and Product Rates:

- Maximum Pouch Width (leading edge):
  - 203 mm (8 in) width conveyor = 152 mm (6 in) max. pouch width
  - 305 mm (12 in) width conveyor = 254 mm (10 in) max. pouch width
  - 457 mm (18 in) width conveyor = 16" max. pouch width
  - 610 mm (24 in) width conveyor = 559 mm (22 in) max. pouch width
- Maximum Pouch Weight: 4.5 kgs (10 lbs)
- Maximum Product Rates:
  - Minimum spacing between pouches = 305 mm (12 in)

Pouch Length	Minimum Spacing	Maximum Rate
152 mm (6 in)	457 mm (18 in)	133 pouches per min
203 mm (8 in)	508 mm (20 in)	120 pouches per min
305 mm (12 in)	610 mm (24 in)	100 pouches per min

## TRANSFORMING CONVEYOR AUTOMATION

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