

DORNER[®]

Conveying Solutions



Engineered Applications

Engineered Applications

When you ask us for a solution, the process begins immediately. And this takes less time than you'd expect.

For more than 40 years, companies from around the world have turned to Dorner for solutions to their conveyor needs. We work with companies in more than 1200 industry classifications and are able to draw from a wide base of application knowledge to recommend the solution that will work for you. Our state-of-the-art lean manufacturing facility is equipped to build your solution quickly and cost effectively.

Look to us to increase your productivity and efficiency.

Knowledgeable.

Reliable.

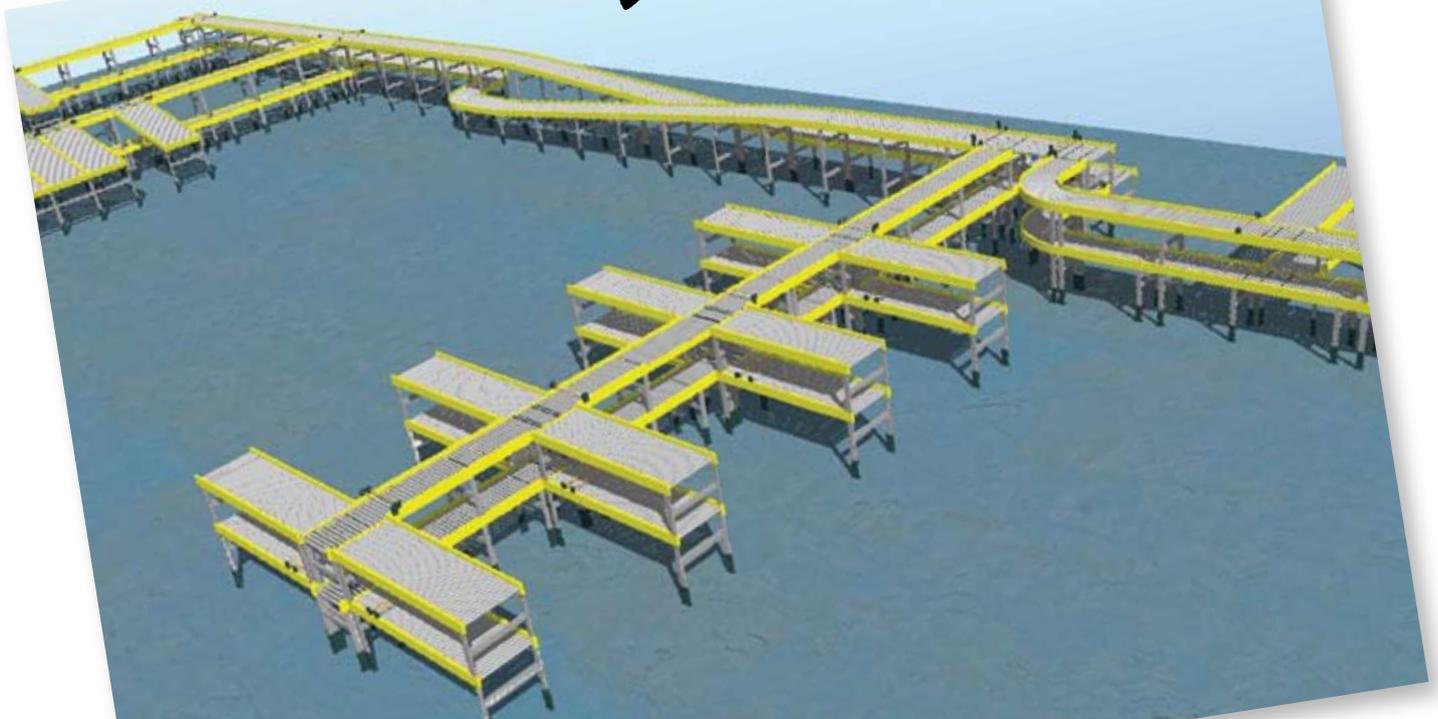
Flexible.

Fast.

Experienced.

DORNER[®]

Conveying Solutions



Work Holding & Fixtures

Need to hold parts to the belt for elevation changes or controlled positioning? This can be achieved in a variety of ways. Depending upon the application and product, conveyors that utilize magnets, vacuum or fixtures are available in a wide variety of configurations.



Vacuum Conveyors

Vacuum conveyors are made by perforating the belt and drawing air through grooves in the bed of a standard conveyor.

- Holds flat parts of any material fast to the belt.
- Ideal for elevation changes or part holding.
- Perfect for upside-down applications.
- Vacuum area required is designed per application.

Fixtured Conveyors

Precision fixtures can be mounted to certain belt types.

- Provides product specific nesting.
- Ideal for accurate part location in inspection or assembly applications.



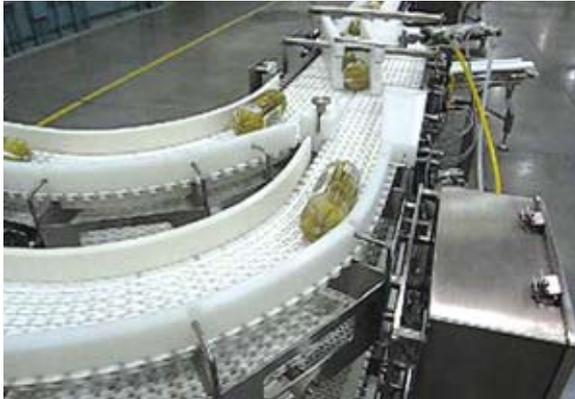
Magnetic Conveyors

Magnetic conveyors are created by placing permanent ceramic magnets in the bed of a standard conveyor.

- Holds ferrous parts fast to the belt and maintains part location on the belt.
- Ideal for elevation changes or part holding.
- Perfect for upside-down applications.
- Strength and size of magnetic field is designed per application.

Product Flow & Positioning

Controlling the continuous flow of products through a processing line is critical to maintain efficiency. Product flow is achieved using a variety of methods and components depending upon the product, flow path and equipment with which it interfaces.



Diverters & Gates

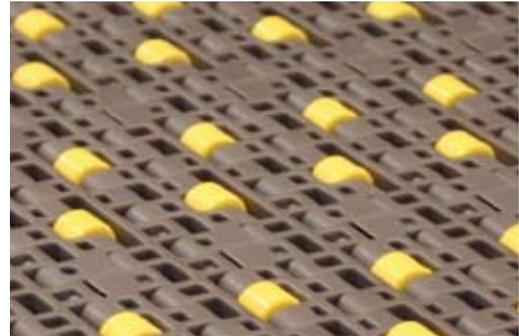
Product can be diverted using static guides and plows or dynamic gates and paddles.

- Changes product direction to single or multiple locations.
- Often used to meter flow to specific areas or to separate products based on certain attributes.
- Control via proximity switches, photo eyes, counters and PLCs.
- Motion can be achieved via pneumatic or electric components.
- Available in a variety of materials.

Product Control Gates & Pushers

The flow of products can be paced using gates and pushers.

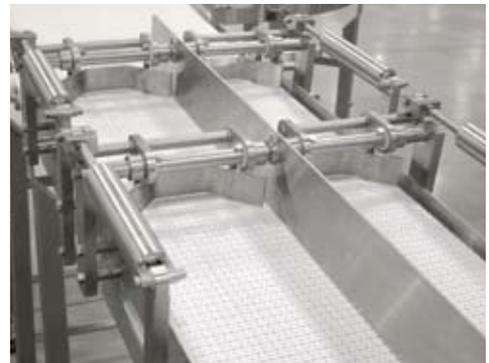
- Moves product from the conveyor perpendicular to the flow.
- Used to remove or transfer parts to other equipment or conveyors.
- Also used to create horizontal stacks of products.
- Control via proximity switches, photo eyes, counters and PLCs.
- Motion can be achieved via pneumatic or electric components.
- Stainless steel options available.



Low Back Pressure Roller Chain

Accumulate products to facilitate short-term downstream outages, buffer for high-fill requirements or slug processing applications.

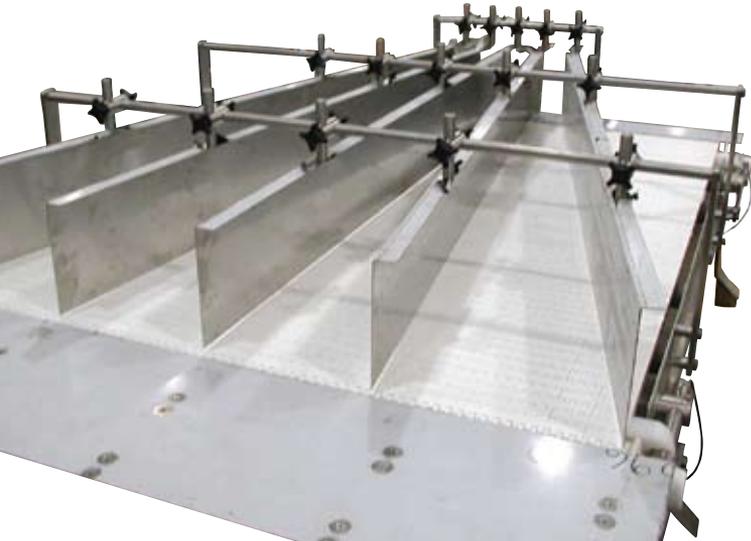
- Reduces product damage.
- Ideal for heavy loads.



Lane & Adjustable Guiding

Controls product flow and direction, also adjustable for various-sized products.

- Accumulates large quantity of product.
- Diverts product across lanes.
- Merges multiple lanes to a single lane.
- Supports unstable product.
- Stainless steel options available.



“I’ve worked with Dorner’s engineering department in the past when I wanted to increase the conveyor’s pulling power, and those folks have been very helpful. Overall I’ve been very pleased.”

Dear Thomas ■ LIAM ENTERPRISES
Winding board production

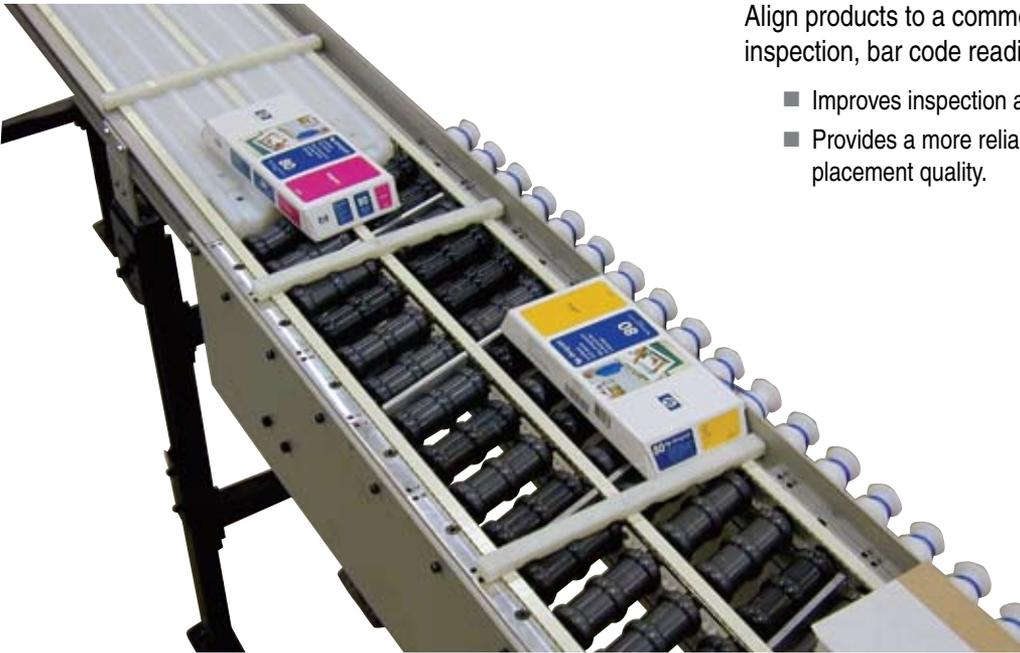
Product Flow & Positioning

Control of product flow, positioning on a conveyor, or timing of products through an automation line can be achieved to allow for additional processes such as labeling, scanning or batch processing.

Justification

Align products to a common edge for labeling, inspection, bar code reading or feeding equipment.

- Improves inspection and identification.
- Provides a more reliable read rate and label placement quality.



Accumulation Conveyor Systems

Provides accumulation and recirculation of product to singulate and orient product flow.

- Change product flow direction after an assembly operation.
- Return defective product to the originating process.
- Provide increased line time for curing and drying.



Timing Belt Conveyors

A timing belt can be used as the actual conveyor belt in conjunction with a toothed conveyor pulley.

- Provides excellent belt movement control.
- Used for accurate part or fixture positioning.
- Can be used with a variety of drives, including servo drives, for very accurate indexing and positioning.



Shaft Encoders

Encoders can be mounted to the drive shaft of the conveyor.

- Senses shaft rotation or counts the pulley revolutions.
- Can sense excessive drag on the conveyor belt.
- Counts revolutions for accurate control of the belt in feeding or indexing applications.

Small Product Transfers

Transfer small products without dead plates or losing product.

- Maintains product orientation, stability and separation.
- Reduces product damage during transfer.



Product Elevation Changes



High Elevation Z-Frame Incline Conveyors

Decrease cost and reduce sanitation time with high elevation incline conveyors.

- Reduces labor and drying time.
- Easily elevate product to the second floor for future processing.

Special Cleated Conveyors

Cleats are applied to the conveyor belt at any spacing and in a variety of heights.

- Holds small parts for elevation changes.
- Creates pockets for controlled separation of product.
- Available in urethane belt and plastic chain styles.
- Fixed guides or integral sidewalls available.



“The reason I go with Dorner conveyors for my vision inspection system is because the belt is nice and flat. I also get great customer service and quick delivery of parts when I need them.”

Steve Amaro ■ BUHRKE INDUSTRIES
Precision metal stamping and assembly



In-Line Inspection

In-line inspection processes can be automated and enhanced using a variety of conveyor modifications.



Backlit Conveyors

A light fixture is installed inside the conveyor frame and emits light through a translucent belt.

- Provides enhanced contrast between product and conveyor belt for visual inspection and vision system interface.
- Parts can be stopped directly over the lighted section or continue through uninterrupted.
- Easier to see product details and edges.
- Easier to inspect labels in poor lighting situations.

Bar Code Reader

Manage real-time inventory and product flow with a bar code reader.

- Can be used to identify products for sortation or labeling.
- Control via photo eyes and a PLC is typical.



Metal Free Zone

The frame of the conveyor is replaced with a plastic section.

- Provides a metal free zone in the conveyor for use with metal detectors.
- Parts can be stopped directly over the metal free zone or continue through uninterrupted.
- Available with stainless steel or aluminum conveyors.

Sanitary Options

Designed to meet the specific needs of high pressure washdown applications, all materials are stainless steel or FDA approved plastics. These conveyors include an easy-to-clean hygienic design with minimal horizontal surfaces, stand-offs on adjoining surfaces, and are equipped with a tool-less tip-up tail for quick cleaning access.



Chutes

Steel, stainless and plastic chutes help guide product onto or away from the conveyor belt.



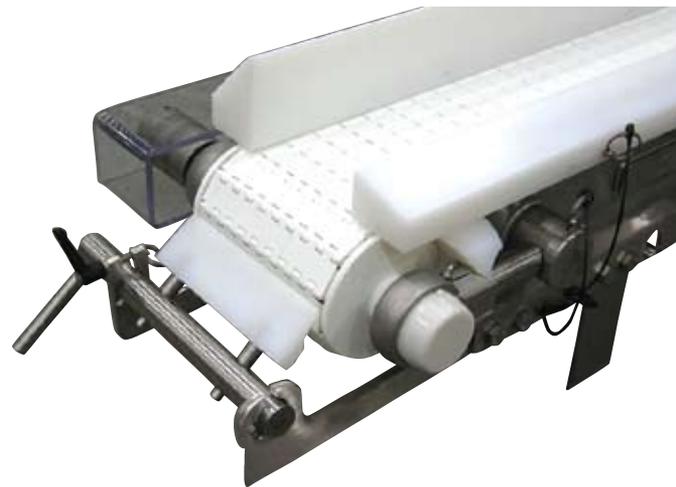
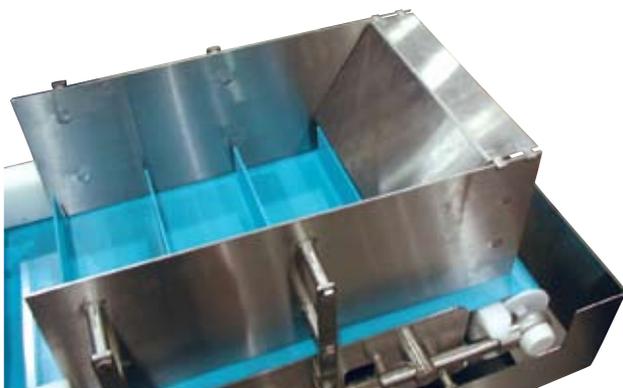
Conveyor Covers

Clear Lexan® or stainless steel covers can help improve operator safety and/or protect product from contamination.

Hoppers

Guide product onto the conveyor and reduce product waste during quick-filling of conveyors.

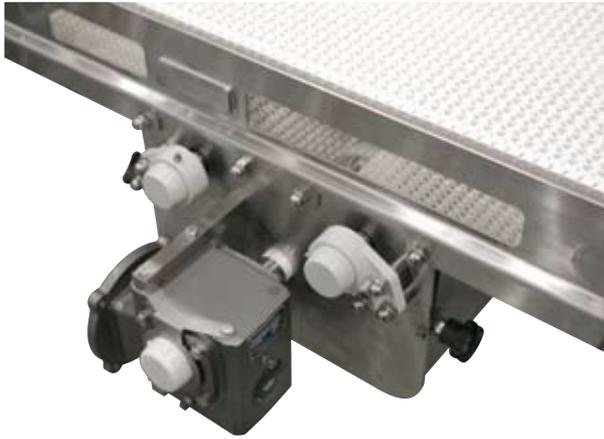
- Locate and guide product onto conveyors.
- Removable for easier maintenance and sanitation.
- Stainless steel construction.



Scraper

Removes product build-up and releases product from belt.

- Adjustable tension accommodates a variety of products.
- Stainless steel construction.



Center Drive*

Frees up space and allows for tight transfers at both ends of the conveyor.

- Center drive modules free the conveyor ends for machine interface or product transfers.
- Available for both modular plastic chain and belt conveyors.



Drip Pans

Control product spillage and reduce cleaning time with drip pans.

- Collection for liquids and debris which fall from the product.
- Can be hinged for easy clean-out or funneled to collect the liquid to a central location.
- Drain option for easier cleaning.
- All stainless steel construction.



Frame Integrated Conveyor Side Tables

One-piece design improves sanitation and facilitates additional assembly operations on the conveyor.

- Stainless steel operator side tables can be formed from the side frame of the conveyor.
- Up to 10" (254mm) wide.
- Located on one or both sides of the conveyor.



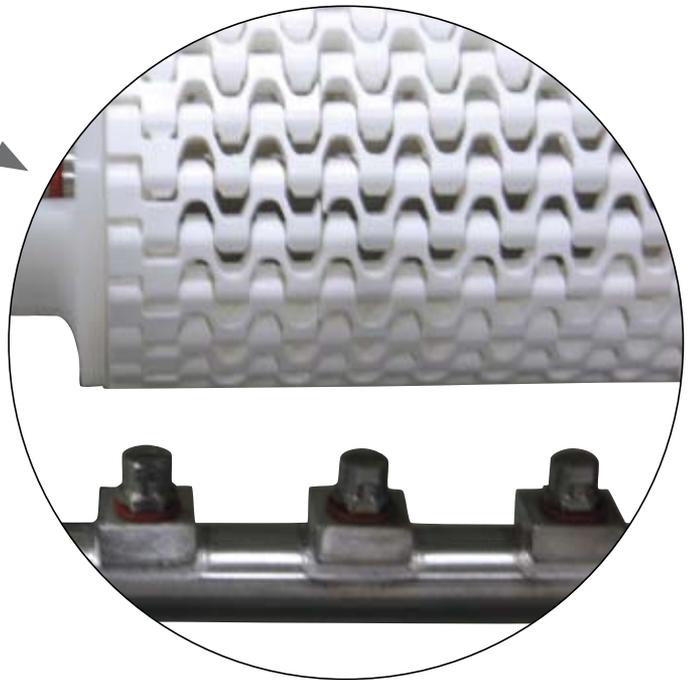
Stainless Steel Sanitary Gravity Roller Conveyor

Cost-effective way to accumulate product or manage overflow of product.

- Unique side-frame design helps guide product on conveyor sections.
- UHMW available for washdown applications.
- All stainless steel corrosion-resistant design.

*patent pending

Sanitary Options



Clean In Place

Reduce sanitation time and water usage with a CIP unit.

- Automated washing system for modular plastic belts.
- Cleans the top and bottom surfaces of the belts.
- Forces water through the open hinge of the belt.



“We chose Dorner Autologik because of their reputation for building quality systems. Before installing the system, our employees had to manually scan every box, read the label to identify the customer and sort them on pallets. We kept holding up the UPS driver because we had to open up each box. Now the UPS driver can’t unload the truck fast enough to keep up with us.”

“Security is top of mind when working with drugs. It’s reassuring to the pharmaceutical manufacturers we’re

Space-Saving Conveyors

Multi-Belt Curve

Create a tighter turn radius and reduce the amount of space required for a modular plastic belt curve by using multiple belts on one conveyor frame.



Ceiling Mounted Conveyors

Save floor space by mounting conveyors from the ceiling.

dealing with to see the RFID technology we're using to identify the product.

“We previously processed about 2,000 packages per day. Now, we process about 3,000 a day with six fewer employees. And if business continues to grow, the Dorner Autologik system can reach its top processing capacity of about 12,000 per shift.”

Larry Hruska ■ CAPITAL RETURNS, Prescription returns management



Line Access

Access to equipment, work areas and the efficient movement of personnel can be achieved by utilizing lift gates and pivot conveyors.



Lift Gates

A standard conveyor can be mounted to a lift gate base creating a conveyor gate that is easily lifted open for walk-thru access.

- Counterweights create easy opening of the gate.
- Interlock switches and a timer allow the conveyor to clear before the gate is opened preserving full product control.
- Product flow can automatically resume after the gate is closed.



Pivot Conveyors

A standard conveyor is mounted to a pivot base to allow the conveyor to swing out of the way and provide walk-thru access.

- Interlock switches and a timer allow the conveyor to clear before the gate is opened.
- Product flow can automatically resume after the conveyor is returned to the inline position.

Product Access

Utilize multiple belts on one frame, or multiple conveyors with a common drive, to access the bottom of a product for secondary applications such as labeling or scanning.

Common Drive Conveyors

Two or more conveyors can be driven from a single gearmotor using a common drive shaft or coupled shafts.

- Provides access to bottom of product for labeling or other applications.
- Conveyors can be different lengths or widths.
- Utilizing one drive reduces cost.

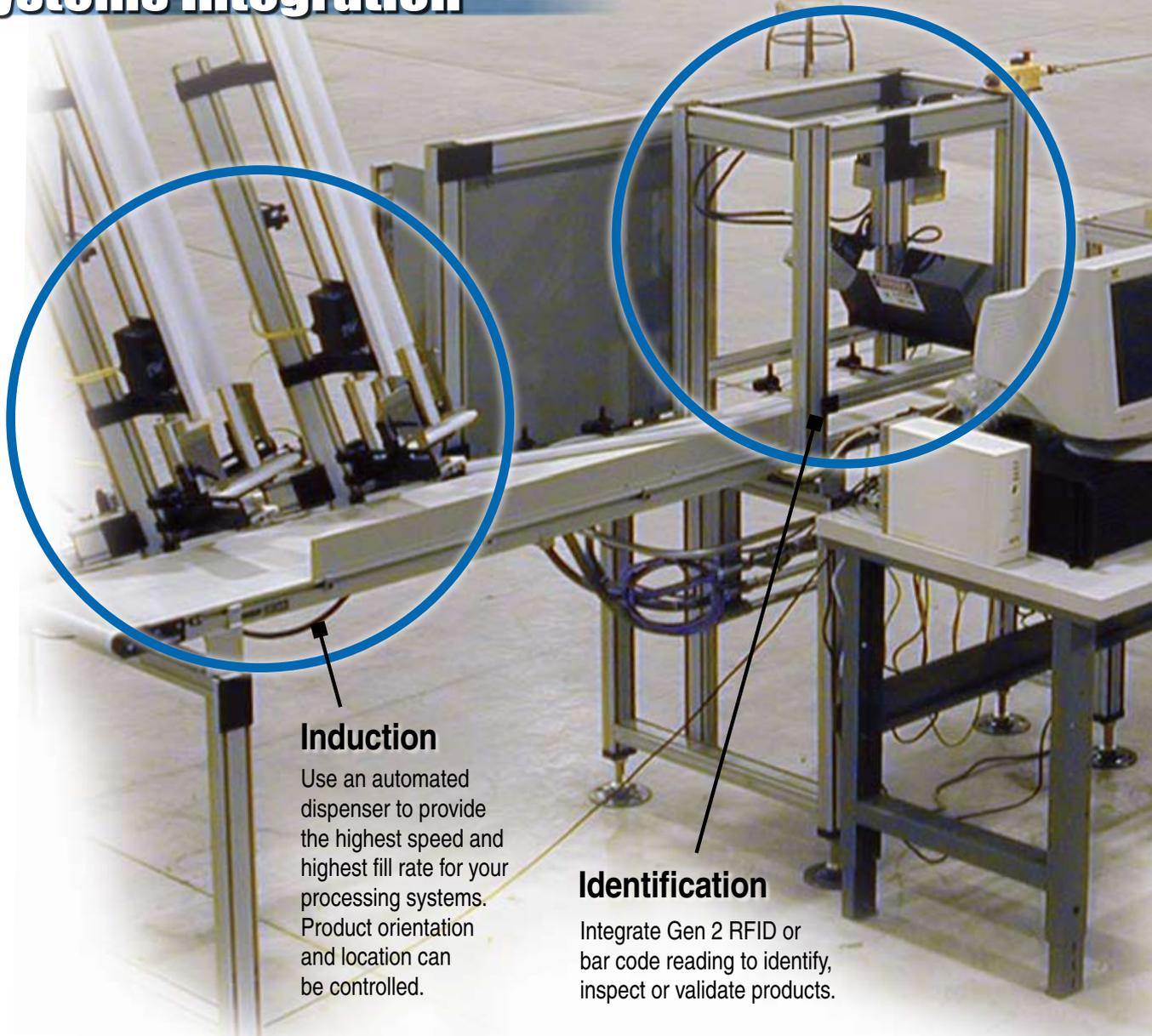


Multiple Belt Conveyors

Two or more individual belts can be mounted onto a single conveyor frame.

- Creates single lanes for handling parts.
- Parts straddle each belt to create part access from below.

Systems Integration



Induction

Use an automated dispenser to provide the highest speed and highest fill rate for your processing systems. Product orientation and location can be controlled.

Identification

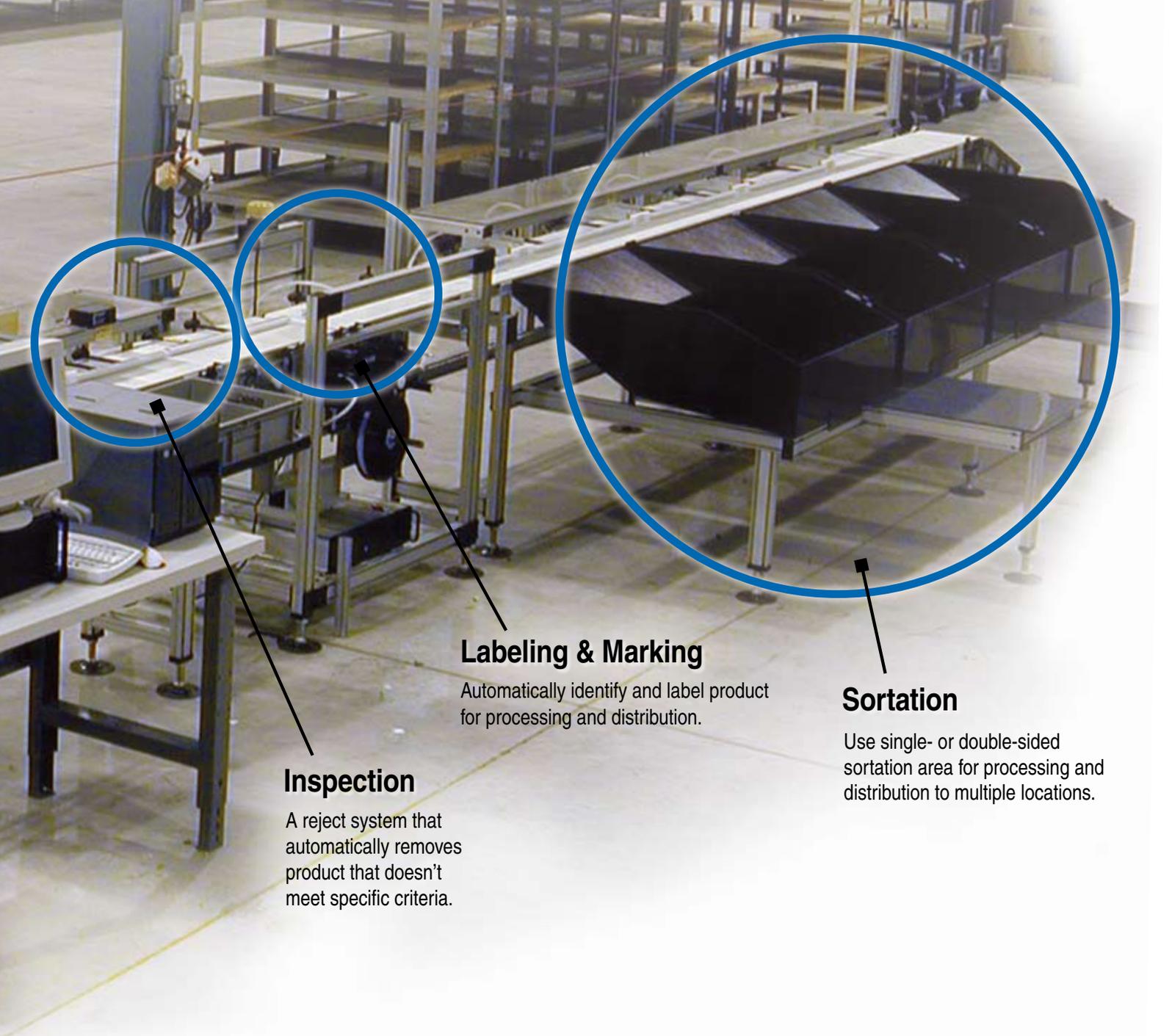
Integrate Gen 2 RFID or bar code reading to identify, inspect or validate products.



Servo Systems & Mounting Packages

A simple, yet robust, servo system provides precise movement control and can be configured for many position-critical applications.

- The system rotates to a specific position and holds that position under varying loads, allowing product to automatically stop at pre-determined work stations for a specified time frame.



Inspection

A reject system that automatically removes product that doesn't meet specific criteria.

Labeling & Marking

Automatically identify and label product for processing and distribution.

Sortation

Use single- or double-sided sortation area for processing and distribution to multiple locations.

- A servo can properly place product on the conveyor and time the gap between product to allow for integration with automated equipment.
- A servo executes complex acceleration, deceleration, hold and reverse sequences to allow product to interact with other equipment or product handlers.
- A servo provides a no-touch accumulation system that prevents delicate product from becoming damaged.
- A servo can be used in industrial, food grade and harsh environments.

Heating & Cooling

Conveyors that withstand heavy duty applications as well as extreme temperatures.



Wire Belt Conveyors

- Maximum air flow around products to heat or cool.
- Variety of chain options for various application needs.
- Minimum surface area reduces sanitation and cleaning time.



Stainless Steel Belt

- Abrasion and cut resistant.
- Numerous chain options available for various applications.



“The conveyors have worked out very well for us, especially from a sanitation point of view, and we look forward to purchasing more in the future.”

Kevin Kastenschmidt

■ KWIK TRIP INC.

Chain of convenience stores
and full service commissary



Product Offering

From metal stamping, to automated assembly, to food processing to packaging, we have the right conveyor for your application.



2200 Series Low Profile Belt Conveyors

Aluminum extruded construction.

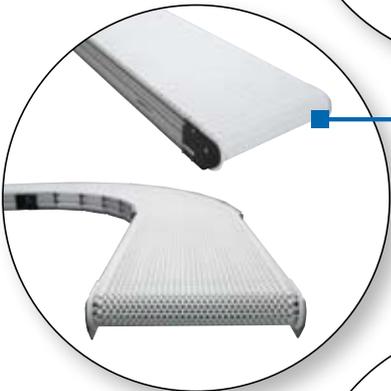
- Belt and modular plastic belt options.
- Streamlined machine interface.
- Small parts transfer.
- Efficient use of space.
- Low maintenance.



3200 Series Heavy Duty Belt Conveyors

Aluminum extruded construction.

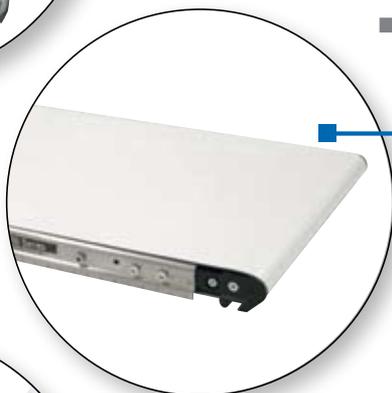
- Straight, inclined and elevating configurations.
- High-performance conveying.
- Heavy-duty applications.
- Fast belt speeds.
- Low maintenance.



QWIK Conveyors

Aluminum extruded construction.

- Straight and curve configurations.
- Qwik system setup and frame reconfiguration.
- Heavy-duty applications.
- Fast belt speeds.



6200 Series Low Profile Belt Conveyors

Stainless steel construction.

- Ideal for basic conveying needs.
- Works well in tight spaces.
- Holds up in rugged environments.
- Low maintenance.



AquaPruf® Sanitary Stainless Steel Conveyors

7200, 7300, 7400, 7600 and ULTIMATE series.

- Straight, curve, incline and decline configurations.
- Belt and plastic chain options.
- Ideal for wash-down, clean rooms and sanitary environments.
- USDA accepted, FDA and BISSC approved.

DORNER[®]

Capabilities



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All products and services are covered in accordance with our standard warranty.

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