

# Reliable, high-performance conveyors and integrated systems

Conveyors are used to transport product between two or more locations. The variety of products a conveyor system transports ranges from bolts to pallets—everything for distribution and manufacturing systems.

## A broad range of application experience

Cisco-Eagle systems convey boxes, packages, pallets, bags, and many other items found in today's distribution and manufacturing environments.

## Flawless implementation

Our experienced conveyor system teams take you every step of the way, from concept to installation.



## Partial conveyor systems customer listings

### Aerospace Industries

- American Airlines:
- Boeing
- McDonnell-Douglas
- Aviall: Aerospace
- Rockwell International
- Falcon Jet

### Automotive

- General Motors Corporation
- Lear Corporation
- AmTran Corporation

### Chemical & Refining

- Sun Oil
- Dow Chemical
- Mobil Chemical

### Electronics & Technology

- Fujitsu Network Communications
- General Electric
- Hitachi America, Ltd. SEG
- Technology Rentals & Services
- Texas Instruments
- TTI, Inc
- ATC Logistics
- Mouser Electronics

### Foods, Meats & Beverage

- Frito-Lay
- Campbell's Soup
- Groceryworks.com
- Kraft Corporation
- Planters
- Young's Market Company
- M&M Mars
- Barrett-Hamilton/Glazer's

- Jarboe Sales
- Excel Beef
- IBP
- Seaboard Farms
- Tyson Foods, Inc.
- Washington Beef

### Publishing

- JA Majors
- Fidelity Investments
- McGraw-Hill

### Paper & Pulp

- Fort James Company
- Georgia-Pacific
- Kimberly-Clark
- Nekoosa Papers

### Retail Distribution

- Oakley
- Gadzooks'
- Salon Support

- GroceryWorks
- QuikTrip
- JC Penney Co.
- The Container Store
- Wal-Mart Corporation

### Telecommunications

- AT&T Wireless
- ATC Logistics
- Lucent Technologies
- MCI Worldcom
- Nextel
- Verizon

### Others

- Tyco Healthcare
- Firestone
- Hilti, Inc
- Federal Express
- Hargrove
- Selma Oak Flooring

## Mouser Electronics handles fast growth, amps up quality with enhanced material handling system

Mouser, a Texas-based electronics distributor, picks its most active items from carousels and feeds them onto a conveyor line that feeds the shipping area. Slower moving and bulky items are stored away from the conveyor lines, while the busiest items are situated in bins and shelving near the conveyor line.

### Mouser uses material handling to sustain excellent customer service

Originally, the automated distribution center project allowed Mouser to increase its daily output from 1,750 to 2,250 orders per day. That has increased to more than 5,000 orders on a peak day as the company added customers and shipping stations.

Each order involves an average of 3.6 picks, thus over 18,000 total lines picked on peak days.

### Benefits from the first day of operation

- **Reduced congestion**—Accumulation conveyors eliminated totes and carts from the facility, elevating conveyors off the ground and freeing floor space
- **Improved customer service**—Mouser was able to operate faster, more efficiently than before. Eliminating footsteps and fatigue helped reduce errors and increase shipping speed. Packers never have to leave their stations for supplies, helping make the shipping process faster and error-free
- **Scalability**—The system was built to grow, and has been expanded since its inception, with the sleek design allowing the company to expand both its shipping and receiving areas



## Aviall flies high with upgraded distribution center conveyor system

Aviall's previous distribution center could not meet customer demands as the company grew. It lacked the space to store and handle an expanding line of products. This meant more manual handling, and more time to ship an order. In some areas, shipping personnel had to hand-sort everything. The situation impacted Aviall's ability to quickly receive product. Knowing that the challenges would multiply as it grew, Aviall moved to a larger facility and upgraded its material handling system.

### More space, reduction of SKU putaway times with the ability to ship 600 more orders a day

Received items come into the facility and are placed either in bulk storage, (in pallet racks), or are placed onto the receiving stations to be moved to their respective putaway zones. Technicians place small items into totes, and add a coded tag. Totes are conveyed to the appropriate zone and then diverted on sortation conveyors to be placed into inventory. With more than 75,000 sku's, this reduces the time it takes for received items to make it into inventory.

- **More flexibility**—Aviall has more space on its conveyor line to process small package receipts. It also has four drop-off points in the bin area for different zones for putaway
- **More shipping lanes**—The new system has added automation to Aviall's shipping process. Instead of a single line, the company now has four lanes into shipping
- **More shipping capacity**—Aviall went from being able to process 900 shipments a day to 1,500 a day
- **Faster**—Since the moving to the new central warehouse, Aviall has sped up the process of getting product into a tote, affixing a tote label, and getting it to the right packing and manifesting areas
- **A scalable solution**—The facility is scalable, for any future expansions Aviall wishes to undertake



## Fujitsu Network Communications improves from 5 minutes per order to 25 orders in 5 minutes

Fujitsu Network Communications, Inc. is a leading designer and manufacturer of fiber-optic transmission products that deliver voice, data, and video services.

The new material handling system combines hardware and software to dramatically increase the efficiency of the manifesting and processing area. Product is pulled from static storage and fed into the carton flow rack system.

The system for shipping an order went from seven steps to just three: (1) The order is pulled; (2) The operator packs the order, and creates a “license plate.” (3) The operator places the packed order onto the conveyor and proceeds to the next order. The order travels along the conveyors to be automatically weighed and assigned to one of three shipping lanes, depending on which carrier is being used. The system identifies the order so that it goes onto one of four expandable conveyor lines. There are three dynamically-assigned carrier lines and a fourth line dedicated to exceptions, special shipping instructions, and palletized shipments. The conveyors are capable of placing the packed boxes directly into a truck.



- **Reduced order handling time**—Fujitsu went from handling an order in 5 minutes to handling 25 orders in 5 minutes, and many in as little as 12 seconds. The improvement is on an order of 25 to one
- **Error rate reduction**—Errors declined as the new system came online
- **Automated reporting**—The system generates an automatic history that allows Fujitsu to create reports with pertinent information and costs. It eliminated repetitive manual tasks by sending information in real time. Over 90% of order data entry was eliminated
- **Reduction in “touches”**—After the order is picked, operators rarely have to touch it again



## Excel Beef refurbishes order fulfillment system; plant frequently breaks shipping records

What makes a beef plant different from a chicken plant? Other than the obvious, material handling makes it different. It's hard to get a whole steer into a 22-inch long box. It's harder to handle all the mass of that steer inside an operation efficiently, process it quickly, and get it out to retailers and importers efficiently. At its Dodge City, KS facility, 40,000 boxes a day were produced, packaged, boxed, stored, committed to orders and released in quantities from a few boxes per line to a full truck load of one SKU or product.

The nature of the beef industry changed in the 1990's. Demands for orders and order quality escalated. The grocery industry would not accept the practice “lumping” of boxes onto the floor due to damage

and labor costs in receiving. As a result, GMA pallets entered into order requirements. The days of unloading a truck and tying up limited dock doors with valuable labor were disappearing. The need to increase capacity for the plant, along with managing a wider variety of box sizes really made the question of how to manage the entire material handling process a serious question for every beef plant, including the groundbreaking plant in Dodge City.

The final design, a truly integrated system, was delivered and is operating at new operational peaks. A system of Unit-load (pallet) and Mini-load (box) Swisslog hi-performance S/R machines and racking along with Swisslog pallet conveyors were installed. Hundreds of lineal feet of case conveyors and sortation systems were laid out to optimize cube and provide for future changes.

- **A consistent, smooth product flow** – In the new system, boxes flow in smoothly from the original building, both from the existing material handling storage system as well as the products that were just released from the processing floor. Some product migrates directly to the mini-load AS/RS box buffer while other product is being sorted and accumulated for making full pallets to go into the U/L AS/RS
- **Intelligent monitoring** – All product is monitored at specific decision points by bar code scanners
- **Reduced manual handling** – Boxes and pallets come and go in perfect harmony, stopping only at the system output points for final handling by the shipping staff

# 2,400 Ultra-reliable, economical Hytrol conveyor models ship within 24 hours



Fast conveyor shipments are a vital part of our business concept. Hytrol originated the 24-Hour conveyor shipment in 1964. This means that all standard Hytrol conveyor models (50 models in over 2400 sizes) are available for shipping within 24 hours, or Hytrol pays the freight. Many conveyors in this catalog are 24-hour shipment models, and will be marked with the logo to the left.



Hytrol Green: 100.1303

## Conveyor Color Options Standard, optional, and custom paint colors

Conveyors are powder-coated for the smoothest, most durable and attractive finish you'll find. Hytrol conveyors are standard in Hytrol Green. **Standard Color:** Hytrol Green. All 24-hour items are finished in Hytrol Green. Unless otherwise specified, all conveyors ship in Hytrol Green. **Optional colors** ship in one week, if the hardware is normally a 24-hour item. For items with longer lead times (2, 4, or 6-8 weeks), optional colors will typically not affect lead time or price. **Custom Colors:** Custom colors are subject to price and lead time adjustments. To get a custom color, send Cisco-Eagle a metal chip with the desired color. The chip needs to be no less than 2" x 2" in size. Please contact us with any questions about custom colors and the steps needed to obtain them for conveyors. **IMPORTANT:** When color is a high priority, always request a color chart from Cisco-Eagle. The printing process is not accurate in terms of reproducing exact powder coat colors.



Dark Blue: 100.2203



Beige: 100.6703



Black: 100.7100



Gray: 100.8112



White: 100.5003



## A Guide to conveyor types & applications

### Power Conveyors

A power conveyor is recommended to maintain positive flow of inconsistently sized, shaped, or weighted products. They come in a wide variety of configurations and sizes. Most conveyors have a standard speed of 65FPM (feet per minute).

### Power belt conveyors



- Belt conveyors are used to transport product by means of a moving belt. Available in slider bed and roller bed configurations. A variety of belts may be used to accommodate the product conveyed and the environmental conditions. They are often used for product that cannot be conveyed over rollers due to conveying surface or other factors. Belt conveyors offer the advantage of being able to utilize specialty belts for specific tasks. Consider product characteristics, the conveying environment, and the application performed on conveyor when looking at belt conveyors. Single units can be intermixed with gravity conveyor to create simple, semi-automated systems.

#### Belt conveyors come in two varieties: slider and roller bed.

- **Slider bed conveyors** have a sheet metal frame with rollers at either end. The belt slides across the solid metal frame, giving it the name Slider Bed. The solid steel bed is an inexpensive, quiet, easily-installed conveyor. A Slider Bed Conveyor is suitable for light to medium loads.
- **Roller bed conveyors** have channel frames with rollers placed below the belt and are best for heavier loads. The rollers allow you to carry more weight than a slider bed conveyor because it reduces the amount of friction. It is also better suited for instances where cartons are being pushed onto or off of the belt. A roller bed conveyor can maintain its belt alignment (or tracking) better than a slider bed as items are pushed across.

### Live (power) roller conveyors

Powered Roller Conveyors are the basic transportation conveyor to move products between locations. Power roller conveyor is used extensively in large conveyor systems. How it works: a series of rollers over which objects are moved by the application of power to all or some of the rollers. The power transmitting medium is usually belting or chain. Live roller conveyors are frequently used in carton diverging or converging application.

#### When to use roller vs. belt

Belt conveyors move the belt, not the load. Roller conveyors drive the load itself on a series of powered rollers. This makes belt conveyor gentler on the load. Roller conveyors shine where you have a stable product, and because of their weight bearing capacities. Belt conveyor tends to be the better solution for many package & carton applications, and is also less costly. Where belt conveyors might have tracking issues with boxes being pushed, live rollers are an ideal solution. Box widths should be 2" less than roller width (curves may require more). Roller conveyors also offer the ability to accumulate cartons. You should always have at least 3 complete rollers under a box.



# A Guide to conveyor types (continued)

## Powered accumulation conveyors



Accumulation conveyors hold product on the conveyor until given a signal to release the product. Typical applications include feeding product to a machine such as a case sealer at a specified rate, or to hold all items to be shipped on a given truck until that truck is ready to be loaded. Accumulation is similar to power roller conveyor in function, with important exceptions. The drive pressure on the product can be adjusted to a minimum—or even eliminated altogether. This is useful when a long line of cartons have to be accumulated without pressure so that they can be utilized in a process such as loading, sorting, taping, strapping, palletizing, or picking.

### In minimum pressure accumulation, conveyed products lightly touch each other

The driving of the tread rollers on minimum pressure conveyor is accomplished with the top surface of a standard section flat belt. The strength and wear qualities of the tread rollers and this belt have been thoroughly tested for continuous duty. To maintain the driving of the tread roller, the pressure

roller is mounted in spring-adjusted carriers which sense the required driving friction regardless of the length of the accumulated load. The pressure can be maintained constantly to give as little as 2% minimum back pressure.

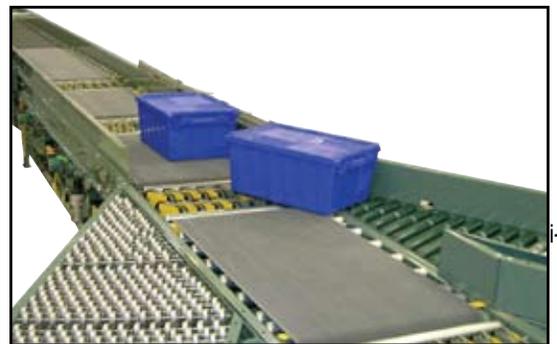
### In zero-pressure accumulation, conveyed products rarely touch each other and place no force on product when it stops

Each zone extracts power from a flat drive belt that runs the entire length of the conveyor. When a product is stopped, a sensing eye is activated, sending a signal to the trailing zone. When the next load moves into this zone, the drive belt is lowered away from the tread rollers causing the product to stop until the product is released. When any product is removed, all others behind this zone will move forward in sequence. Applications for this conveyor must be reviewed carefully because many factors affect proper operation.

## Sortation Conveyors

Sortation Conveyors provide a means of diverting a product from one conveyor line to another. By using controls and multiple Sortation Conveyors, product can be sorted by diverting the product only to the appropriate conveyor.

- **Slat Sortation Conveyors** move the product on high strength aluminum slats, and incorporates a system of shoes to move diagonally across the conveyor to divert the product conveyed to the appropriate conveyor. This conveyor is suitable for moving smaller items that can not be sorted with tube or belt sortation methods. Usually deployed in higher-sort applications.
- **Horizontal belt sortation** is a lower cost solution when medium speeds and through-puts are required entailing sortation to multiple lanes. Horizontal belt sorters are good for sorting corrugated cartons, trays, or totes and provide a reliable method of tracking packages to divert stations.



## Gravity conveyors

Gravity conveyor provides an economical means of transporting product where the conveyor does not need to be powered. A gravity conveyor moves objects without motor power, typically utilizing slope, and sometimes depending on human interaction to move product between areas in a process such as assembly or order picking. Gravity conveyor is often used in picking or assembly operations where the product or tote is pushed to the next location as required. It is much less expensive than powered conveyor. When installing gravity conveyors, always test the angle of decline (typically 1 to 6 degrees) with your full range of products to be sure proper flow is achieved.

- **Gravity Skatewheel Conveyor** is made with steel skatewheels mounted on axles to convey product. This is the most economical type of conveyor. It is frequently used for loading trucks, with the conveyor set up on removable stands or supports. Skatewheel conveyors are good for items with a smooth, flat bottom. Unlike power conveyor, the load can be wider than your conveyor if centered correctly. Skatewheel conveyors flow better than roller conveyor. A minimum of ten wheels should be positioned beneath your load at any given time.
- **Gravity Roller Conveyor** uses rollers for greater weight carrying capacities than skatewheel. Rollers are recommended for uneven, open, or rimmed bottom packages. They have spring-loaded axles for easy removal & replacement. Unlike skatewheel conveyors, product should never be wider than the rollers. Use at least three rollers under a product at any given time.
- **Flexible conveyors** are available in both skatewheel and roller variations. Flexible conveyors are great around the dock because you can reshape, extend or retract them to fit the desired space.



## Model TA Medium Duty Slider Bed Belt Conveyor

**One of the most versatile and frequently-used conveyors in the industry**



A supremely versatile conveyor, Model TA can be used in diverse applications such as assembly line operations, tote, parts & carton conveyance, sorting, packing, and inspection. It sets up quickly and easily to save on installation time. TA is excellent for progressive assembly, sorting, inclines and declines. It is not typically the best option for bulk materials.

- Bed - 4" deep x 12 ga. formed powder painted
- Belt Widths: 6", 8", 10", 12", 14", 16", 18", 20", 24", & 30"
- Motor-1/2 HP standard-3/4 HP to 1 HP available
- Capacity-Maximum load per linear ft. of conveyor 75 lbs., not to exceed rated capacities
- Reversible (with Center Drive)



## Model TL Heavy Duty Slider Bed Belt Conveyor

**Ideal for long assembly line operations, inspections, testing, sorting, and packing**

Model TL can be floor supported or ceiling hung. It is an excellent conveyor for wide, long and heavy product loads. Conveyor can be floor supported or ceiling hung.

- Bed - 6-5/8" deep x 12 ga. formed powder painted
- Belt Widths: 24", 30", 36", 42" & 48"
- End Drive (standard)
- Motor - 1 HP standard-2 HP max.
- Adjustable Floor Supports Available
- Capacity - Maximum load per linear ft. of conveyor; 100 lbs., not to exceed rated capacities
- Reversible (with Center Drive)



## Model TR - Medium Duty Troughed Slider Bed Conveyor

**Built in guard rails create an enclosed "trough"**

The Model TR with built-in guard rails is ideal for overhead conveying applications. It easily conveys boxes, cartons, cases, bags, as well as loose parts.

- Bed - 4" deep x 12 ga. formed with 2-1/2" high guards powder painted
- Belt Widths: 6", 8", 10", 12", 14", 16", 18", 20", 24", & 30"
- End Drive (standard)
- Motor - 1/2 HP standard - 2 HP max.
- Adjustable Floor Supports Available
- Maximum load per linear ft. of conveyor; 75 lbs., not to exceed rated capacities
- Reversible (with Center Drive)

## Model SB Horizontal Belt Slider Bed

**Utilized in material handling systems where conveyors are connected to each other**

Model SB "system" conveyor is used for assembly line operations, inspections, testing, sorting and packing. This conveyor has a higher capacity than the standard slider bed. Use the SB to create product gaps preceding a sortation system. Designed with channel frames and bolt in pans. Frame design makes it ideal for matching up with roller bed conveyors.

- Bed - 6-1/2" x 12 ga. formed steel channel powder painted with galvanized bed pans
- Overall frame widths: 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", 42", 48", 54", & 60"
- Center Drive (standard)
- Motor - 1 HP standard-2 HP max.
- Adjustable Floor Supports Available
- Maximum load per linear ft. of conveyor 100 lbs., not to exceed rated capacities
- Reversible



# The "Gapper" Horizontal Belt Gapping Conveyor

## Dynamic and static gapping based on software and controls

The Gapper is designed for feeding conveyor system saw tooth merges, combiners, sorters, palletizers, in-motion scales, label application systems, or other equipment where gaps must be pulled between cartons.

- Bed - 12 ga. galvanized slider pan mounted in 6-1/2 in. x 12 ga. powder painted, formed steel channel frame.
- Belt Widths: 12", 18", 24", 30", & 36"
- Center Drive (standard); Motor - 1 HP standard. 3 HP max.
- Adjustable Floor Supports Available
- 6 Speed Gap Ratios



# Model TH Trash & Empty Carton Belt Conveyor

## Disposal & returns applications

Model TH handles empty cardboard boxes, paper trash, and other bulky applications such as baggage handling, returns, pick modules and receiving areas. It can be used to feed a baler. Features integral side guards and an underside bed cover the entire length of the conveyor. Excellent for publishing, printing, and other applications that generate volumes of paper trash.



# Model TS1500-100/TS1500-40 Belt Curve Conveyors

## Available in 45°, 60°, 90° & 180° turns, can transport a wide variety of products

The Model TS1500-100 provides a positive flow of product by means of a belt, driven by tapered pulleys. Conveyor is a versatile in that it can transport a wide variety of products. Available in 45°, 60°, 90°, and 180° turns. The Model TS1500-140 provides a positive flow of product by means of a belt, driven by tapered pulleys. Conveyor is a versatile in that it can transport a wide variety of products. Available in 45°, 60°, 90°, and 180° turns.



- Bed - 8-3/8" inside, 10-1/2" outside. 2" x 2" x 3/16" structural steel all welded construction
- Belt - Black monofilament, PVC top with urethane guide strip
- Motor - 3/4 HP shaft mounted right-angle gear motor standard-5 HP maximum
- Adjustable Floor Supports Available

# Model SBI (slider bed) & RBI (roller bed) floor-to-floor incline conveyors

## Reversible conveyors excellent for both ascending and descending applications

These floor to floor incline conveyors are equipped with chain drive power feeders and an adjustable nose-over at the discharge end to ensure a smooth transfer from the incline to the horizontal plane. RBI roller bed conveyors provide higher load capacities. The SBI slider bed incline conveyor line has full-width galvanized pans. Incline conveyors are easily adjusted up to 30°. Both conveyors can be used as a booster in gravity flow systems.

- Bed - 6-1/2" deep x 12 gauge formed steel frame powder painted. Standard sections come in lengths of 6', 8', & 10'
- Belt Widths: 10", 12", 14", 16", 18", 20", 22", 24", 28", 30", 34", & 36"
- Center Drive (standard)
- Motor - 1 HP C-Face "SSB" Series Brake Motor - 2 HP max.
- Adjustable Floor Supports Available
- Capacity - SBI: 100 lbs. per linear foot. RBI: 225 lbs. per linear foot max.
- Conveyor is reversible



# Model PSB/PSBC Plastic Belt Conveyor

## For food service and other wet applications

The Model PSB with modular plastic belting uses a positive drive system to eliminate belt slippage and mis-tracking. The Model PSBC (a plastic belt curve conveyor) is also available and can be used in conjunction with the PSB.

- Bed - UHMW on aluminum slider bars, mounted to frame spacers. Mounted in 7-1/2 in. x 12 ga. powder painted, formed steel channel frame bolted together with butt couplings
- Polypropylene 2" pitch plastic belt
- Standard Belt Widths: 8", 10", 12", 14", 16", 18", 20", 22", 24", 26", 28", 30", 32", 34", 36", & 38"
- Motor - 1/2 HP standard - 2 HP maximum
- Adjustable Floor Supports Available
- Capacity - up to 200 lbs. per linear ft for PSB, 300 lbs. per linear foot for PSBC





## 190-ACZ - Medium Duty (Flat Belt) Accumulation Conveyor

Eliminates complicated adjustments - minimum pressure accumulation conveyor



The Model ACZ accumulates cartons, boxes, etc. Basic design eliminates complicated adjustments and allows a minimum of 2% back pressure. It can be configured to nearly any length. This conveyor is reversible and ships with a standard center drive.

- Bed - 6-1/2" deep x 12 ga. formed steel channel frame powder painted
- Rollers - 1.9" dia. x 16 ga. galvanized tread rollers spaced every 3" and 1.9" dia. x 16 ga. galvanized pressure rollers spaced every 6"
- Overall frame widths: 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", & 42"
- Motor - 1/2 HP standard - 2 HP max.
- Adjustable floor supports available
- Maximum load per linear foot: 200 lbs., not to exceed rated capacity

## Models 138-ACC & 190-ACC - Medium Duty (V-Belt) Accumulation Conveyor

The simplest method ever devised for accumulating cartons, boxes, etc.

Basic design eliminates complicated adjustments and allows a minimum of 2% back pressure. By maintaining a constant minimum pressure on the tread rollers, long loads may be conveyed, accumulated, or stopped in the conveyor at any point using very little motor horsepower and giving practically no pressure between boxes or packages. Conveyors are reversible.

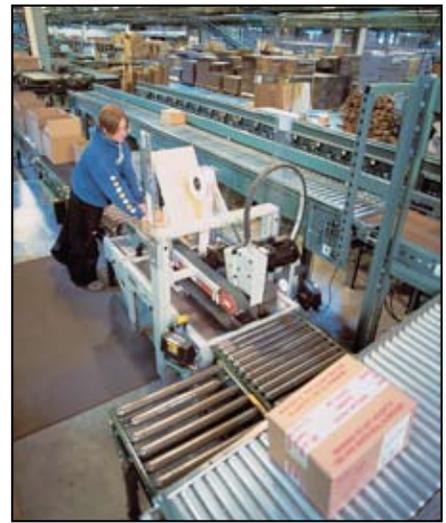
- Bed: 6-1/2" deep x 12 ga. formed steel channel frame, powder painted
- Motor - 1/2 HP standard-2 HP max.
- Rollers - (190-ACC): Rollers are 1.9" dia. x 16 ga. galvanized. Tread rollers spaced every 3"; pressure rollers spaced every 6". (138-ACC): 1-3/8" dia. x 18 ga. galvanized. Tread rollers spaced every 3"; pressure roller spaced every 6"
- Overall Frame Widths: (190-ACC): 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", & 42". (138-ACC): 12", 15", 18", & 24"
- Underside Drive (standard)
- Capacity - (190-ACC): Maximum load per linear ft. of conveyor; 150 lbs., not to exceed rated capacities. (138-ACC): Capacity-Maximum load per linear ft. of conveyor; 100 lbs., not to exceed rated capacities.
- Finger tip pressure roller adjustment-no tools required



### How minimum pressure accumulation conveyor works:

The driving of the tread rollers on minimum pressure conveyor is accomplished with the top surface of a standard section endless flat belt. The strength and wear qualities of the tread rollers and this belt have been thoroughly tested for continuous duty. To maintain the driving of the tread roller; the pressure roller is mounted in spring-adjusted carriers which sense the required driving friction regardless of the length of the accumulated load. The pressure can be maintained constantly to give a 2% minimum back pressure in either forward or reverse.

In the event of extreme changes in the load (weight of box or package), convenient knurled thumb adjusting nuts can be turned to accept a heavier load. This method eliminates the need for selecting proper tension spring holes in trigger mechanisms or jogging cleats on driving belt and eccentric (off center) tread rollers. By maintaining a constant minimum pressure on the tread rollers, long loads may be conveyed, accumulated, or stopped in the conveyor at any point using very little motor horsepower and giving practically no pressure between boxes or packages.



## Model 190-LR Flat-Belt Driven Live Roller Conveyor

**For medium to heavy duty cartons in manufacturing and distribution**

Model 190-LR is a belt driven live roller conveyor designed to transport medium to heavy cartons. Applications vary from manufacturing to distribution operations. It can be used for transferring or deflecting boxes on or off conveyor lines. Live roller design also permits stopping or holding (not accumulating) without stopping the conveyor. Ideal for merging where positive product flow is required.



- Bed-6-1/2" deep x 12 ga. formed steel channel frame powder painted
- Rollers-1.9" dia. x 16 ga. galvanized rollers spaced every 3"
- Frame Widths: 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", & 42"
- Motor-1/2 HP standard-3/4 HP to 2 HP available
- Center Drive (standard); Reversible
- Capacity-Maximum load per linear ft. of conveyor; 200 lbs., not to exceed rated capacities

## Live Roller Curve Conveyor - Models 138/190-LRC Accumulation Curves

**Negotiate 30°, 45°, 60°, and 90° curves**

These light and medium duty, V-belt-driven live roller conveyors that negotiate 30°, 45°, 60°, and 90° curves. Tapered rollers assist in package orientation. Curves may be self powered or slave-driven from 138-or-190 ACC, LRS or LRSS conveyors.

- Bed - 6-1/2" deep x 12 ga. formed steel frame, powder coated
- Rollers:
  - 138-LRC: 1-3/8" dia. x 18 ga. galvanized roller (12" to 18" OAW) and 2-1/2" dia. tapered to 1-11/16" dia. x 16 ga. galvanized, and 1.9" dia. x 16 ga. galvanized straight roller (24" OAW).
  - 190-LRC: 2-1/2" dia. tapered to 1-11/16" dia x 16 ga. galvanized and 1.9" dia. x 16 ga. galvanized rollers
- Overall Frame Widths — 138-LRC: 12", 15", 18", 24". 190-LRC: 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", 42"
- Motor - 1/2 HP standard (1 HP max. for 190-LRC)
- Adjustable Floor Supports Available
- Capacity (distributed load) - 150 lbs. (138-LRC), 500 lbs. (190-LRC)



# The most advanced zero-pressure accumulation system in the world just got better...

Gen3 is the next generation of the EZLogic® Accumulation System. It maintains the best of previous EZLogic Systems while incorporating new technologies for ease of installation, operation, and maintenance. The most advanced zero-pressure accumulation system in the world even better.



## EZLogic® Controller

The controller plugs into the cordset and snaps into the base, which reduces excess cabling. Cables always run in the 'proper' direction for either left hand or right hand flow. Controllers can be removed and replaced without disturbing cabling. System includes 2 functional variations: Standard & enhanced, with extended capabilities. Two physical variations: *Unitized* (transducer hard-wired to controller), and *Controller only* (for use with remote transducers).

Controller/transducer assembly includes base, cordset, EZLogic® controller, and transducer (Sensor). Cordset features different lengths for different zones, and easily snaps into base. Installation direction determines default direction of conveyor flow. The cordset provides the plug-in point for the controller. It's an easy push to connect system. System includes 3 sensing types: polarized reflex, adjustable diffuse, and narrow-beam diffuse. System can be mounted

in two styles: Unitized (hard-wired to controller), and Remote (plugs to controller). Dual-transducer option is available. Adjustable vertically and horizontally.

## Easy to install, use, maintain, & expand

- Easy installation and replacement
- Dynamic zone allocation provides unprecedented throughput
- Easy to configure
- Expanded control options
- Functionality to enhance product flow
- Greatly simplified field wiring

## Functionality

### Two Modes of Operation

**Singulation Mode** - product separates while traveling down the conveyor and when it is released from the conveyor, creating a zone-length gap between packages.

**Slug Mode** - product does not separate when traveling down or when released from the conveyor. This allows higher carton throughput at any given conveyor speed. Product will not separate even when accumulation has been activated at the discharge end.

### Jam Protection

When the conveyor is set to run in "slug mode," if a package is sensed by an EZLogic® controller for six seconds or longer a signal is sent to the upstream zone to accumulate product on the upstream side of the jammed package. This prevents product pile-up until the jam is cleared. The zone where the jam is detected continues to drive, in many cases dislodging the product. Once the jam is cleared, the conveyor operates normally.

### "Sleep" Feature

If an EZLogic® controller does not detect the presence of product for a selectable time period, the controller stops the zone from driving. This is known as the "sleep" feature and it helps reduce noise and roller wear. Packages traveling down the conveyor "wake up" the zones as needed to move the package.

### Loading Zone

When a pallet (or other load) is placed in a zone by some external means, the zone stops the rollers from turning and holds back any upstream pallets for a preset time.

### Indexing Zone Stop

Ideal for workstations where a person finishes with one item then momentarily presses a switch, indexing the next item forward.

### Pulse Feature for GEZ

Momentarily applies a brake to passing boxes in zones of GEZ (gravity accumulator) conveyors to prevent momentum build-up.

### Cascaded Slug Release

Rather than releasing all cartons simultaneously, this introduces a momentary delay in the release of each zone, from discharge upstream.



## More features...

### Input/Output/Power system (IOP)

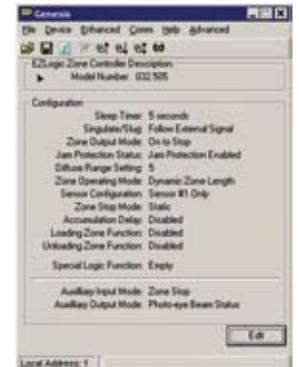
IOP provides a central location to wire in all "real time" inputs and outputs to the EZLogic® system, such as zone stop & slug mode inputs, photoeye & "jam detected" outputs, and other real time I/O. IOP can reduce installation costs, is easily reconfigurable, serves as a central troubleshooting location, and can be used for peer to peer communications.



### Interfacing options

**Pushbutton programmer:** plugs to the Auxiliary port of any controller and allows easy configuration of the most-used features.

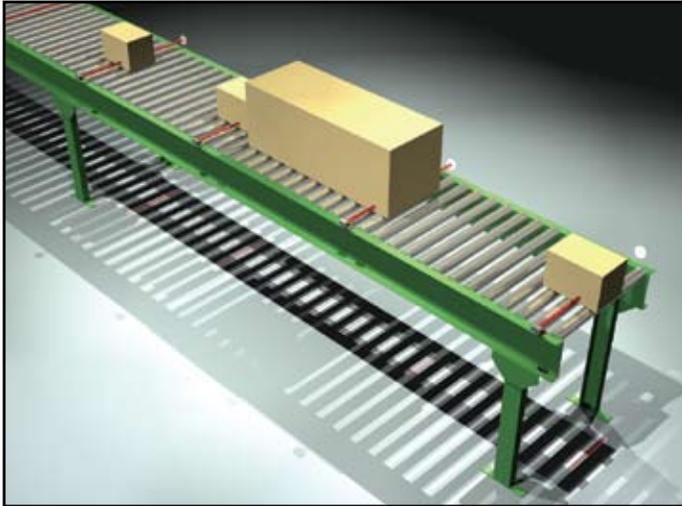
EZLogic® PC software provides easy-to-use interface to configure the EZLogic® system. It allows access to some advanced features. It can be used to configure IOP settings; it can retrieve diagnostic data from a controller. It allows the user to change settings in a controller; save a controller configuration for later use, load and use default settings for various conveyor models, and set "clone protection" for a controller to prevent accidental overwriting of critical settings by cloning.



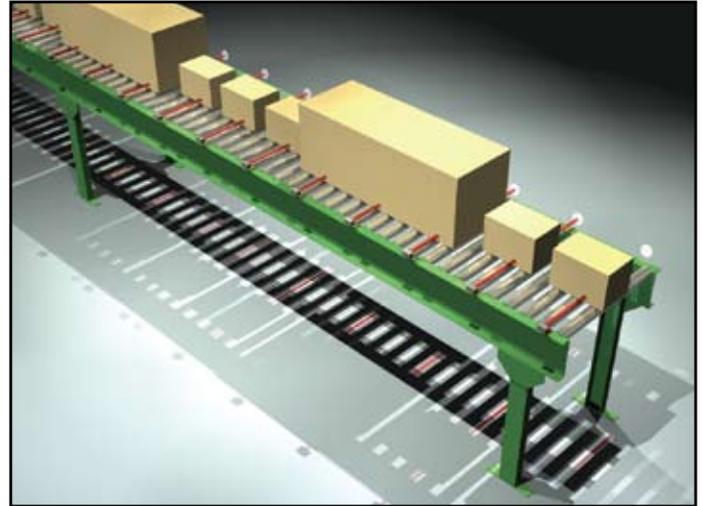
# Dynamic zone allocation adjusts zones to accommodate most any length of box

## The low usage, long box is no longer a problem

EZLogic® automatically adjusts the conveyor's zone length to accommodate the length of the carton being conveyed. This is a vital advantage for many conveying applications. Longer cartons are easily and efficiently conveyed in singulation mode, giving you better control of conveyed boxes. Carton throughput is increased, as well as accumulation density and system flexibility. This naturally makes your conveyor system more flexible and more efficient. You can size your zones for the smallest carton in the system and still deal with the largest one. What's more, longer cartons can be introduced after installation and don't obsolete your conveyor investment.



ABOVE: Standard zone lengths are fine for many applications, but they restrict product density and reduce throughput on the conveyor. It is often restricted to the length of the longest box.



ABOVE: Dynamic zone accumulation sets zones based on the length of the load. It wastes less space on the line and allows for greater density and higher throughput. It is highly flexible when it comes to load lengths.

## EZLogic® Components

### Controller/Transducer Assembly

Includes base, cordset, EZLogic® Controller, & transducer (sensor).

#### The cordset

- Different lengths for different zones
- Snaps into base
- Installation direction determines default direction of conveyor flow
- Provides plug-in point for EZLogic® controller
- Push to connect



#### The transducer (sensor)



Three sensing types: (1) Polarized Reflex, (2) Adjustable Diffuse, (3) Narrow-Beam Diffuse. Two mounting styles: (1) Unitized (hard-wired to controller); (2) Remote (plugs to controller). Dual-transducer option is available. Adjustable vertically and horizontally



#### EZLogic® controller

- Two physical variations: (1) Unitized (transducer hard-wired to controller); and (2) Controller only (for use with remote transducers)
- Two functional variations: (1) Standard, and (2) Enhanced (with extended functional capability)
- Plugs into cordset and snaps into base

#### Easier assembly

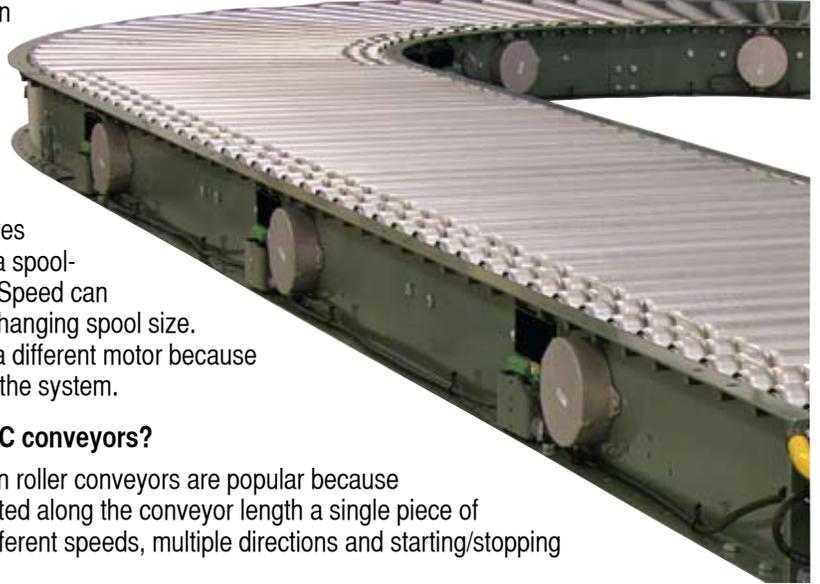
- The controller plugs in
- Reduces excess cabling
- Cables run in "proper" direction for either left-hand and right-hand flow
- Controllers can be removed and replaced without disturbing cabling



# E24™ Live Roller Conveyor: 24-volt live roller technology lasts longer, reduces heat dissipation issues, and slashes maintenance costs

**E24™ is a brushless, gearless, low RPM, high torque motor, that drives conveyor rollers reliably and efficiently**

This new conveyor technology provides high performance and reliable solutions within a safe, quiet working environment. The self-contained modules arrive fully assembled and tested. Quick-connect modules provide a substantial reduction in wiring and installation costs. It's ideal for distribution operations with frequent layout changes or for manufacturers that need to quickly change process lines. The modular design lowers total cost of ownership and increases performance.



## How does it work?

The E24 motor drives tread rollers through a spool-O-Ring combination. Speed can easily be altered by changing spool size. There is no need for a different motor because there are no gears in the system.

## Why use it 24 volt DC conveyors?

24-volt motor-driven roller conveyors are popular because they are simple and flexible. Since the drive train is distributed along the conveyor length a single piece of equipment can perform multiple functions. This includes different speeds, multiple directions and starting/stopping individual sections.

## Integrates with EZ-Logic® & other controls

E24™ can be configured with internal plug and play controls, or integrated with external controls. It's also available with Hytrol's award-winning EZ-Logic® technology, featuring dynamic zone accumulation. This means improved throughput and numerous configuration possibilities. E24's control card interfaces directly with EZLogic® for accumulation. Easy configurability and dynamic zone allocation combine with E24's flexibility and reliability to make the E24EZ a valuable part of any conveying system.



## Uses less energy; 10 times the life of traditional MDR motors



E24™ maintenance is minimal. The drive motors run only when needed. In normal operation, the long life motors are rated at 8-10 times the hours of traditional MDR motors. If motor replacement is necessary, parts are minimized, because the standard drive motor fits a wide range of roller diameters, roller lengths and speed requirements.



## New technology eliminates heat, motor-life issues

E24™ resolves issues such as heat dissipation, limited motor life span, lack of sufficient torque, and the inability to use 1-3/8" rollers, which has significantly limited using motor-driven rollers in what are otherwise excellent applications. These limitations are now issues of the past.

## A breakthrough—easy to implement, maintain, and operate

- Safe, 24 VDC operation reduces risks to maintenance personnel and operators
- Substantially quieter operation
- Energy efficient motors and logic
- Modular design is easily configurable
- Plug and play for quick setup
- Extended motor life 8-10 times conventional rollers
- Absolute product control with self-contained module controllers
- Minimum & zero pressure accumulation flexibility and product protection
- Easily integrated with PC's or PLC's





## ABEZ - Medium Duty Flat Belt zero pressure live roller accumulation conveyor

**Store or stage product for other operations with no product damage while minimizing power consumption & equipment wear**

The Model ABEZ is a horizontal live roller conveyor designed for applications that require accumulation of products without a build-up of line pressure. Singulation feature allows products to be easily removed from any location on conveyor. The conveyor consists of accumulation zones each of which contains an EZLogic® accumulation module. The accumulation modules sense product presence to determine whether the zone should be driving or accumulating. ABEZ conveyor lines, regardless of length, may be fully accumulated with product with absolutely zero back-pressure at the discharge end or anywhere along the length of the conveyor. This allows the conveyor to store or stage product for other operations with no product damage while minimizing power consumption and equipment wear. Also, with no back-pressure, cartons may be easily removed from any point along its length for secondary operations. Equipped with photoelectric product sensing, making it reliable and trouble free conveying varied products weighing practically nothing up to 150 lbs per foot. *SIZES & SPECS: Bed - 6-1/2" deep x 12 ga. formed steel channel frame powder painted. Rollers - 1.9" dia. x 16 ga. galvanized tread rollers spaced every 3" and an EZLogic® Accumulation Module located in each zone. Overall Frame Widths: 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", & 42". Center Drive (standard). Motor - 1/2 HP standard - 2 HP max. Capacity - Maximum load per linear foot of conveyor; 150 lbs. No minimum load. Accumulation Zones - 12", 18", 24", 30", & 36" Long Air Controlled*



## Live Roller Spool Conveyor, Models 138-NSP & 190-NSP

**General transport conveyor accumulates products with back-pressure**

Live roller spool conveyor is a general transport conveyor with the capabilities of accumulating products with back-pressure. Quiet operation, versatile design, easy installation and maintenance are standard features that make these conveyors a valuable component in operations requiring high performance with minimal downtime. Conveyor is reversible. Adjustable floor supports available. *SIZES & SPECS: Bed: 9-1/2" x 12 gauge formed steel channel frame, powder painted. Rollers: 138-NSP: 1-3/8" dia. x 18 ga. galvanized roller spaced every 3". 190-NSP: 9-1/2" x 12 ga. formed steel channel frame, powder painted. Overall frame widths: 138-NSP: 12", 15", 18" & 24"; 190-NSP: 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", & 42". Underside Drive (standard). Motor - 1/2 HP standard-2 HP maximum. Capacity (not to exceed rated capacities, maximum load per powered roller): 138-NSP: 10 lbs. 190-NSP: 15 lbs*



# Live Roller Spool Curve Conveyors, Models 138-NSPC & 190-NSPC

## General transport conveyor with the capabilities of accumulating products with back-pressure

Live roller spool conveyor is a general transport conveyor with the capabilities of accumulating products with back-pressure. Quiet operation, versatile design, easy installation and maintenance are standard features that make these conveyors a valuable component in operations requiring high performance with minimal downtime. Easily modified in the field. Can be used with pop-up diverters, (as slave-driver with no additional motors/drives) spurs, curves, transfers, etc. without additional drives or motors. Not recommended for dirty/oily applications.

- Bed - 9-1/2" x 12 ga. formed steel channel frame powder painted
- Rollers - 138-NSP: 1-3/8" dia. x 18 ga. galvanized roller spaced every 3"; 190-NSP: 9-1/2" x 12 ga. formed steel channel frame, powder painted
- Overall Frame Widths — 138-NSP: 12", 15", 18" & 24"; 190-NSP: 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", & 42"
- Underside Drive (standard)
- Motor - 1/2 HP standard-2 HP max.
- Adjustable Floor Supports Available
- Capacity (not to exceed rated capacities, maximum load per powered roller) — 138-NSP: 10 lbs. 190-NSP: 15 lbs.
- Reversible



# 190-NSPEZ Medium Duty Spool Zero Pressure Accumulation Conveyor

## Designed for zero-pressure accumulation in assembly lines and product distribution - utilizes EZLogic system

The Model 138-NSPEZ is a horizontal live roller conveyor designed for zero-pressure product accumulation. Positive braking in each zone reduces the possibility of damage to fragile items during accumulation. Singulation feature allows products to be removed from any location on the conveyor. Excellent for cartons, totes, cardboard boxes and other square, even loads. Positive braking in each zone minimizes load damage potential. Optional zone stops allow progressive assembly applications. Can drive curves, spurs, and accessories without additional drives.

- Bed - 9-1/2" deep x 12 ga. formed steel channel frame powder painted
- Rollers - 1-3/8" dia. x 18 ga. galvanized tread rollers spaced every 3" and an EZLogic® Accumulation Module located in each zone
- Overall Frame Widths: 12", 15", 18" & 24"
- Motor - 1/2 HP standard - 2 HP max.
- Adjustable Floor Supports Available
- Capacity - Maximum load; 10 lbs. per drive roller. No minimum load
- Accumulation Zones - 12", 18", 24", 30", & 36" Long Air Controlled
- Also available in 1-3/8" lighter capacity roller models

### **Curve models (190-NSPEZC) can be slave-driven from 190-NSPEZ**

Zero pressure accumulation curve conveyors are used where turns in the conveyor line are necessary. Curves can accumulate two products.

### NSPEZC specifications:

- Bed - 9-1/2" x 12 ga. powder painted formed steel channel frame.
- Overall Frame Widths: 16", 18", 20", 22", 24", 26", 28", 30", 34", 36", 40", & 42"
- Rollers - 2-1/2" Dia. galvanized tapered to 1-11/16" Dia. roller
- Accumulation Zones - 24" long air controlled with EZLogic Accumulation System
- 1-3/8" lighter duty models are available



# Heavy Duty Chain Driven Live Roller Conveyor (roll-to-roll) - Model 25/26-CRR

## Convey oily parts, pallets, drums

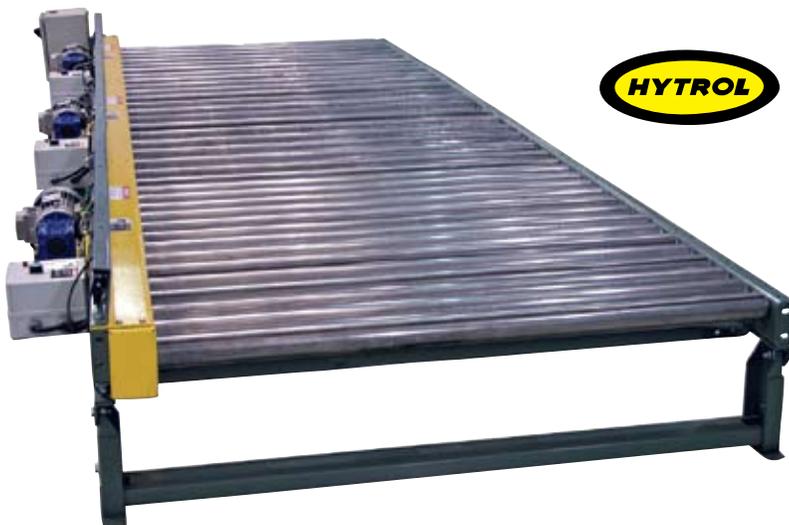
The heavy design of the 25/26-CRR Power Roller Chain Driven Conveyor allows it to be used for conveying higher load capabilities such as loaded pallets and drums. Chain driven rollers make it ideal for conveying parts in bottling and steel industries. Adjustable floor supports available.

- Bed - 4 ga. formed steel channel frame powder painted
- Chain Driven Rollers - 26-CRR—2-1/2" dia. x 11 ga. unplated tread rollers spaced every 4" with #40 chain; 3", 3-3/4", 5", 7-1/2", or 10" with #50 roller chain. #60 Roller Chain used on 3", 3-3/4", 6", 7-1/2", and 12" roller centers only
- Chain Driven Rollers - 25-CRR: 2-5/8" dia. x 7 ga. unplated tread rollers spaced every 4" with #40 chain; 3", 3-3/4", 5", 7-1/2", or 10" with #50 roller chain. #60 Roller Chain used on 3", 3-3/4", 6", 7-1/2", and 12" roller centers only
- Overall Frame Widths: 22-1/4", 24-1/4", 26-1/4", 28-1/4", 30-1/4", 34-1/4", 36-1/4", 40-1/4", 42-1/4", 46-1/4", 50-1/4", 54-1/4", 58-1/4", 64-1/4" & 70-1/4"
- Center Drive
- Motor - 1 HP standard - 2 HP max.
- Adjustable Floor Supports Available
- Capacity - Maximum load per linear foot of conveyor; 300 lbs. with supports on 10" centers; 1000 lbs. with supports on 5" centers
- Reversible
- Drive Chain - #40, 50, or 60 roller chain



# Model 25-CREDZ Chain Driven, Zero-Pressure Accumulation Conveyor

## Performs in large, unitized or palletized conveying applications with no back pressure



The Model 25-CREDZ is a chain driven live roller conveyor designed to handle loads such as pallets, drums, etc. Items are accumulated with zero back pressure, reducing the possibility of collisions that may result in product damage.

25-CREDZ is ideal for shipping & receiving pallets, and also for taller loads and interfacing with palletizers, stretch wrappers, and other devices. Features a motor in every zone.

- Bed - 4" x 4 ga. formed steel channel frame powder painted
- Rollers - 2-1/2" dia. x 11 ga. unplated tread rollers spaced every 4" or 6". 1.9" dia. rollers also available.
- Overall Frame Widths: 34-1/4", 38-1/4", 42-1/4", 46-1/4", 50-1/4", 54-1/4", 58-1/4", 62-1/4", 66-1/4", & 70-1/4"
- Drive - 1/2 HP Shaft mounted gearmotor located near center of each zone
- Adjustable Floor Supports Available
- Capacity - Maximum load per linear foot of conveyor; 1000 lbs. Maximum unit load; 3000 lbs. Total load not to exceed rated capacities
- Accumulation Zones - 60" Long standard. Other lengths available

# Sortation Conveyor Systems

## Rapid productivity gains...

Sortation systems induct and separate conveyed loads to specific destination lanes in a manner that arranges product for superior distribution. Utilize sortation systems when high-volume product must efficiently flow to varied destinations. Sortation methods are combined with conveyors to achieve this.



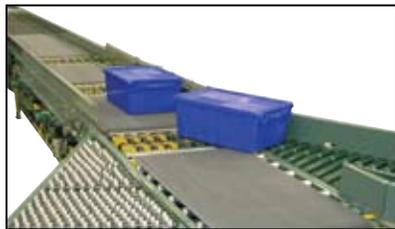
### Model ProSort 131 High Speed Slat type Sortation Conveyor (Slat)

Ideal for high speed product sorting. Loads are transported on flight tubes where at a predetermined location, divert shoes move diagonally across the conveyor to physically push the product onto a take-away line. Loads are moved on high strength aluminum slats. Conveyor incorporates a system of shoes to move diagonally across the conveyor to divert the product conveyed to the appropriate line. This conveyor is suitable for moving smaller

items that can not be sorted with tube or belt sortation methods. Overall Widths: 24", 30", 36", & 42". Bed-14" deep x 1-1/2", 10 & 12 ga. formed steel frame powder painted. Air Requirements-60 p.s.i. Motor-230/460V-3Ph. 60HZ. HP based on speed and length requirements. Capacity-Maximum load 25 lbs. per foot. Maximum unit load 50 lbs.

### ProSort 400 Series - 421 & 431

The ProSort 421 is designed to sort products at a 22 degree angle where higher speeds are required and close divert centers are not so critical. The ProSort 431 is designed to sort products at a 30 degree angle where close divert centers are required. Products are transported on anodized aluminum slats where at a predetermined location, divert shoes move diagonally across the conveyor to push the product onto a take-away line. The ProSort 400 family of sorters are designed for high speed applications where product diverting needs to be both positive and gentle. Overall Widths: 33", 39", 45", 51", & 57". Bed - 21" deep x 1-1/2" x 7/8" flange. 10 ga. formed steel frame powder painted. Air Requirements - 60 p.s.i. Motor - 230/460V-3Ph. 60HZ. HP based on speed and length requirement. Capacity - maximum load 50 lbs. per foot. Maximum unit load 100 lbs.



### Model SC High Speed Sortation Conveyor

Functions as a belt driven sortation conveyor. The belt concept provides a reliable method of tracking packages to the divert stations. The diverter may be controlled by photo cells, a code reader, a PLC controller, or other established control methods. Belt conveyors are Slider Bed Conveyors with hardwood cleats attached to the belts. The cleats help to keep the product from sliding backwards at greater degrees of incline. Cleated Belt Conveyors can incline up to 40 degrees depending upon the products being conveyed.

### Small Roller Transfer Conveyor - ProSort Model SRT Sortation

Executes 2-sided transfer of items. Product can be transferred off either side of the conveyor to other right angle conveyors, workstations, packing operations, ticketing stations, shipping departments, or other similar operations. Handles high sort rates (up to 100 sorts a minute). Utilizes multiple narrow belts to transport items and is equipped with right-angle pop-up rollers. The rollers pop up between the belts to transfer items off the unit. Minimum product size is 4" x 4" with a maximum of 24" length, while maximum weight is 20 lbs. Small to medium-size items such as boxes, cartons, totes, etc. are ideal.



### ProSort MRT Medium Roller Transfer Conveyor

A sorter for medium sized items. Product is transported on multiple narrow belts. Rollers pop up between the belts to transfer items at right angles to the sorter.

- Right Angle Transfer
- Two-Sided Transfer
- High Sort Rates
- Close Transfer Locations
- Flexible Sort Locations
- HyPower Distributed Cabling System



# Gravity Skatwheel Conveyors

Gravity Skatwheel conveyor is ideally used to convey lightweight packages or when operation requires lightweight sections. Skatwheel is useful in setting up temporary conveyor lines in warehousing activities, shipping departments, assembly areas, etc. Choose steel or aluminum conveyors. Loads should be even and smooth for best performance. A minimum of 10 wheels under each product is required for smooth rolling.



When possible, utilize gravity conveyors in place of power to conserve energy

\* Wheels Per Foot. Weights are for 10' and 5' conveyor sections. All conveyors listed have 3" axle centers, with 1.5" available.

## Straight conveyors - 3" roller centers - Steel

Model Number	WPF*	Weight		Model Number	WPF*	Weight	
		10'	5'			10'	5'
<b>12" Overall Width</b>				<b>15" Overall Width</b>			
3SW-12-16	16	80	16	3SW-15-16	16	87	48
3SW-12-12	12	72	12	3SW-15-12	12	78	43
3SW-12-10	10	68	10	3SW-15-10	10	73	40
3SW-12-8	8	65	8	3SW-15-8	8	69	38
3SW-12-6	6	63	6	3SW-15-6	6	68	37
<b>18" Overall Width</b>				<b>24" Overall Width</b>			
3SW-18-20	20	98	54	3SW-24-28	28	118	65
3SW-18-18	18	92	49	3SW-24-24	24	112	62
3SW-18-16	16	87	46	3SW-24-20	20	103	57
3SW-18-14	14	83	44	3SW-24-18	18	100	55
3SW-18-12	12	77	41	3SW-24-16	16	95	52

## Straight conveyors - 3" roller centers - Aluminum

Model Number	WPF*	Weight		Model Number	WPF*	Weight	
		10'	5'			10'	5'
<b>12" Overall Width</b>				<b>15" Overall Width</b>			
3AW-12-16	16	43	23	3AW-15-16	16	41	26
3AW-12-12	12	39	21	3AW-15-12	12	42	23
3AW-12-10	10	36	20	3AW-15-10	10	39	22
3AW-12-8	8	35	19	3AW-15-8	8	37	21
3AW-12-6	6	33	18	3AW-15-6	6	36	20
<b>18" Overall Width</b>				<b>24" Overall Width</b>			
3AW-18-20	20	52	28	3AW-24-28	28	63	34
3AW-18-18	18	49	27	3AW-24-24	24	59	32
3AW-18-16	16	46	25	3AW-24-20	20	55	30
3AW-18-14	14	44	24	3AW-24-18	18	53	29
3AW-18-12	12	41	22	3AW-24-16	16	51	28

Curve Degree	Frame Type	12" OAW 48" Outside Radius		15" OAW 48" Outside Radius		18" OAW 48" Outside Radius		24" OAW 60" Outside Radius	
		Model Number	Wt. (Lbs.)						
90°	Steel	SWC-12-90	40	SWC-15-90	46	SWC-18-90	49	SWC-24-90	72
60°		SWC-12-60	30	SWC-15-60	35	SWC-18-60	37	SWC-24-60	54
45°		SWC-12-45	21	SWC-15-45	23	SWC-18-45	25	SWC-24-45	37
30°		SWC-12-30	14	SWC-15-30	16	SWC-18-30	18	SWC-24-30	23
90°	Aluminum	AWC-12-90	22	AWC-15-90	26	AWC-18-90	28	AWC-24-90	43
60°		AWC-12-60	17	AWC-15-60	20	AWC-18-60	21	AWC-24-60	33
45°		AWC-12-45	12	AWC-15-45	14	AWC-18-45	15	AWC-24-45	23
30°		AWC-12-30	8	AWC-15-30	9	AWC-18-30	10	AWC-24-30	14

## Skatwheel curves

Gravity Skatwheel Curves add to the versatility of straight conveyors and provide excellent package orientation because of the differential action of the wheels. Curves convey product with minimum amount of pitch based on weight and size.

Width (In.)		Wheels Per Foot	Frame	30° Straight Spur		45° Straight Spur		90° Curve Spur	
Rail	Overall			Model No.	Wt.	Model No.	Wt.	Model No.	Wt.
10"	12"	12	Steel	SWS-12-30	39	SWS-12-45	39	SWS-12-90	67
13"	15"	16		SWS-15-30	43	SWS-15-45	43	SWS-15-90	72
16"	18"	18		SWS-18-30	47	SWS-18-45	47	SWS-18-90	77
22"	24"	24		SWS-24-30	57	SWS-24-45	57	SWS-24-90	107
10"	12"	12	Aluminum	AWS-12-30	26	AWS-12-45	26	AWS-12-90	45
13"	15"	16		AWS-15-30	29	AWS-15-45	29	AWS-15-90	47
16"	18"	18		AWS-18-30	32	AWS-18-45	32	AWS-18-90	51
22"	24"	24		AWS-24-30	38	AWS-24-45	38	AWS-24-90	71

## Skatwheel Spurs

Used to transfer products from one conveying line to another. They can be used in merging or diverging applications. They are ideally used where numerous lines must transfer onto a main line. Right or Left hand available.



## Delivery Truck Conveyor stows in vehicles for ergonomic unloading - perfect for loading or unloading packages from a truck, package delivery van, or other vehicles

Ergonomic gravity rollers easily convey packages between vehicles and docks. These lightweight aluminum conveyors are an excellent ergonomic enhancement for delivery services and other vehicle fleets where loads must be moved from a vehicle to a dock or down to a floor level. Conveyor folds to half-size for easy storage, has built-in handles and can be carried by one person. Utilized by major delivery companies to reduce injuries and back stress.

Contact us for assistance purchasing a delivery conveyor.

## Gravity roller conveyors in steel & aluminum - straight sections

Gravity roller conveyor can carry heavier items than skatowheel conveyor. They are useful in setting up permanent or temporary conveyor lines in warehousing activities, shipping departments, assembly areas, etc. A majority of products will convey with a minimum amount of pitch. Available in steel and aluminum frame types, dependent on roller size.

- Lengths: 5' or 10' sections standard, other lengths available

### Rollers:

- 1-3/8" dia. x 18 gauge. Steel & aluminum frames
- 1.9" dia. rollers available in 16 and 9 gauge. Steel frames.
- 2" dia. x 12 ga. Steel frames. Steel frames.
- 2-1/2" dia. x 14 and 11 gauge. Steel frames.



## Gravity roller conveyor curve sections

Gravity Roller curves add to the versatility of straight conveyors. Curves provide smooth product flow with minimum amount of pitch based on weight and size. Guard rails may be added for product protection. Some curves provided with tapered tread rollers to maintain product orientation.

- Lengths-5' or 10' sections standard, other lengths available
- Available in 45 degree and 90 degree curves

### Rollers:

- 1-3/8" dia. x 18 ga.
- 1.9" diameter: 16, 9, & 16 gauge tapered
- 2" dia. x 12 gauge
- 2-1/2" dia.: 14 & 11 gauge
- 2-5/8" dia.: 7-ga. & 11-ga. tapered



When possible, utilize gravity conveyors in place of power to conserve energy

## Gravity roller conveyor spur sections

Gravity Roller spurs are used to transfer products from one conveying line to another. They can be used in merging or diverging applications. They are ideally used where numerous lines must transfer onto a main conveyor line, from work stations or other similar operations.

### Sizes & attributes

- Lengths-5' or 10' sections standard, other lengths available
- Available in 90°, 45° & 30° spurs
- Spurs available straight and curved.
- Right or Left hand applications available

### Rollers available

- 1-3/8" dia. x 18 ga.
- 1.9" dia.: 16 ga. straight & tapered; 9 gauge
- 2" dia. x 12 ga.
- 2-1/2" dia. x 14 ga. & 11 ga. straight & tapered
- 2-5/8" dia. x 7 ga.



# Flexible skatewheel conveyor is perfect for shipping docks, stockrooms, or receiving operations



Model Number	Cap. (Lbs.)	Width (In.)	Length (Feet)	Leg Sets	Wt. (Lbs.)	
BFU-14-12-5	175	14"	3'-12'	4	137	
BFU-14-20-5			5'-20'	6	217	
BFU-14-24-5			6'-24'	7	259	
BFU-14-30-5			7.5'-30'	9	325	
BFU-14-36-5		9'-36'	11	392		
BFU-18-12-5		18"	3'-12'	4	149	
BFU-18-20-5			5'-20'	6	236	
BFU-18-24-5			6'-24'	7	282	
BFU-18-30-5			7.5'-30'	9	353	
BFU-18-36-5			9'-36'	11	425	
BFU-24-12-5			24"	3'-12'	4	163
BFU-24-20-5		5'-20'		6	260	
BFU-24-24-5		6'-24'		7	310	
BFU-24-30-5		7.5'-30'		9	388	
BFU-24-36-5	9'-36'	11		467		
BF200-18-12	200	18"		3'-12'	4	171
BF200-18-16			4'-16'	5	226	
BF200-18-20			5'-20'	6	282	
BF200-18-24			6'-24'	7	338	
BF200-24-12		24"	3'-12'	4	197	
BF200-24-16			4'-16'	5	256	
BF200-24-20			5'-20'	6	320	
BF200-24-24			6'-24'	7	384	
BF200-30-12		30"	3'-12'	4	225	
BF200-30-16			4'-16'	5	270	
BF200-30-20			5'-20'	6	338	
BF200-30-24			6'-24'	7	406	
BF300-18-12		300	18"	4'-12'	4	184
BF300-18-16				5' 4"-16'	5	245
BF300-18-20	6' 8"-20'			6	307	
BF300-18-24	8'-24'			7	357	
BF300-24-12	24"		4'-12'	4	251	
BF300-24-16			5' 4"-16'	5	332	
BF300-24-20			6' 8"-20'	6	415	
BF300-24-24			8'-24'	7	498	
BF300-30-12	30"		4'-12'	4	276	
BF300-30-16			5' 4"-16'	5	364	
BF300-30-20			6' 8"-20'	6	455	
BF300-30-24			8'-24'	7	546	

Flexible gravity skatewheel conveyor is perfectly suited for packaging lines and lighter volume shipping & receiving applications. With a capacity ratings from 175 to 300 pounds per linear foot, it can still handle the load.

## Allows you to easily adjust height and length

Conveyor features 12-gauge side plates, zinc-plated to resist corrosion. To extend service life, the adjustable legs are heavy-duty square tube construction, and the steel axles are sturdy zinc plated to provide full support across the entire conveyor width. It's easy to adjust the conveyor bed height—simply turn the locking knob to raise and lower (range from 28.5" to 41.5"). Conveyor is self-tracking. Cartons follow twists and turns of the conveyor path without using engineered curves. It's fitted with a 5" swivel caster (including break) on each leg for easy transportability. The brakes allow the conveyor to be locked securely into place when in use. The distance between axle centers when the conveyor is expanded is 5".

## Flexible conveyor features

- Aluminum extruding scissors frame for long conveyor life
- Adjustable, telescoping supports make it easy to change conveyor height
- 5" Swivel casters with swivel locks make sure it's easy to roll where you want
- 4 Supports per Axle minimum
- Axle centers are 5" when expanded for excellent load support
- Optional 3" & 4" axle centers are available—contact us for assistance
- Conveyor height is easily adjustable from 28-1/2" to 42-1/2"
- Extended lengths: available in any length you desire. Contact us for assistance

### NOTES:

1) You can specify black poly or steel skatewheels when you order. Choose (a) black polyolefin skatewheels with brass bushing, which are more economical than steel. They are more resistant to wet applications or moisture. They aren't quite as durable, but will work fine in many applications, or (b) Steel Skatewheels with ball bearings, which are more durable, last longer, and roll easier. Choose them for applications when heavier cartons could be thrown onto, or rapidly pulled off of the conveyor. If you are uncertain about your skatewheel material needs, contact us.

2) Listed capacities are pounds per lineal foot.

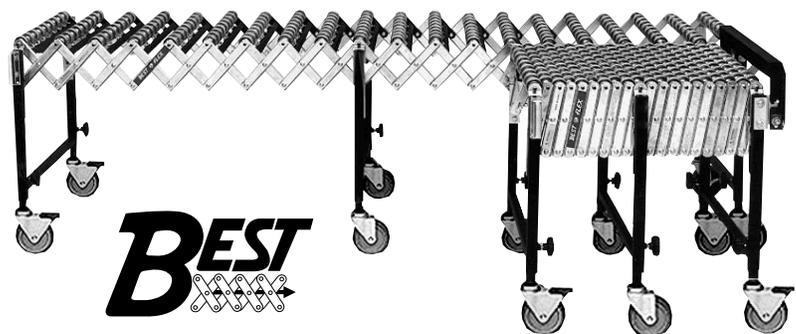
3) Wheels per axle/width: Light duty (175 lb.)—14": 5; 18": 6; 24": 7. Medium duty (200 lb.)—18": 7; 24": 9; 30": 10. Heavy duty (300 lb.)—18": 7; 24": 9; 30": 10.

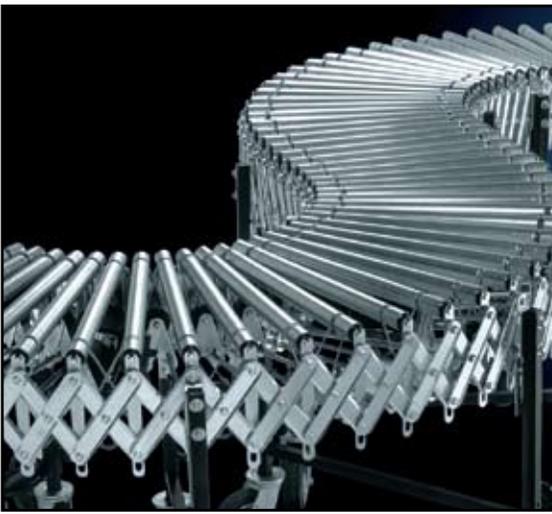


When possible, utilize gravity conveyors in place of power to conserve energy

## Accessories & options

Package stops (left), impact support section, leg/axle connection brackets, 3" and 4" axle centers are available for small package applications, larger 6" casters, impact carts for the infeed or discharge end. Powertrax can be specified to move conveyors into & out of trucks.





## Handle odd-shaped boxes, bags, & low-grade cartons with expandable roller conveyors

Built with 1-3/8" zinc plated steel rollers that feature sealed bearings for longer life. It's self-tracking—cartons follow the twists and turns of the conveyor path without side rails or engineered curves. Features 1-1/2" aluminum alloy side plates with ribbed construction for added durability. Assembled with shoulder bolts—no flimsy rivets.



When possible, utilize gravity conveyors in place of power to conserve energy

- Each leg is fitted with a 5" swivel caster & brake that roll easily and lock into place while the conveyor is in use
- Heavy-duty square legs mean a longer service life
- Easy height adjustment: turn the locking knob to raise and lower the conveyor bed height on telescoping legs
- Conveyors adjust from 28.5" to 41.5" to top of rollers
- Distance between axle centers when is expanded is 5"

Model Number	Width (Inches)	Adjustable Length (Ft.)	Cap. (Lbs.)	No. of Legs	Wt. (Lbs.)
B-FR-18-12	18"	4' to 12'	150 lbs. per foot	4	225
B-FR-18-16		5' 4" to 16'		5	290
B-FR-18-20		6' 8" to 20'		6	360
B-FR-18-24		8' to 24'		7	425
B-FR-24-12	24"	4' to 12'		4	240
B-FR-24-16		5' 4" to 16'		5	305
B-FR-24-20		6' 8" to 20'		6	375
B-FR-24-24		8' to 24'		7	440
B-FR-30-12	30"	4' to 12'		4	255
B-FR-30-16		5' 4" to 16'		5	320
B-FR-30-20		6' 8" to 20'		6	390
B-FR-30-24		8' to 24'		7	455

Model Number	Width (Inches)	Adjustable Length	No. of Legs	Wt. (Lbs.)
1.5" dia. rollers • 31.5" to 44.5" Height Range				
B-FP-1_5-18-12	18"	4' to 12'	5	320
B-FP-1_5-18-24		8' to 24'	8	635
B-FP-1_5-18-36		12' to 36'	11	950
B-FP-1_5-18-48		16' to 48'	14	1265
B-FP-1_5-24-12	24"	4' to 12'	5	375
B-FP-1_5-24-24		8' to 24'	8	745
B-FP-1_5-24-36		12' to 36'	11	1120
B-FP-1_5-24-48		16' to 48'	14	1490
B-FP-1_5-30-12	30"	4' to 12'	5	430
B-FP-1_5-30-24		8' to 24'	8	860
B-FP-1_5-30-36		12' to 36'	11	1285
B-FP-1_5-30-48		16' to 48'	14	1715
1.9" dia. rollers • 28.5" to 37.25" height Range				
B-FP-1_9-18-12	18"	4.8' to 12'	5	370
B-FP-1_9-18-24		9.7' to 24'	8	740
B-FP-1_9-18-36		14.5' to 36'	11	1105
B-FP-1_9-18-48		19.3' to 48'	14	1475
B-FP-1_9-24-12	24"	4.8' to 12'	5	410
B-FP-1_9-24-24		9.7' to 24'	8	820
B-FP-1_9-24-36		14.5' to 36'	11	1230
B-FP-1_9-24-48		19.3' to 48'	14	1640
B-FP-1_9-30-12	30"	4.8' to 12'	5	450
B-FP-1_9-30-24		9.7' to 24'	8	900
B-FP-1_9-30-36		14.5' to 36'	11	1350
B-FP-1_9-30-48		19.3' to 48'	14	1800

## Power flexible conveyor runs smoothly with no dead spots—power is transmitted to every roller



Power roller flexible conveyor is ideally suited for truck loading and unloading, distribution centers, packaging, portable assembly lines, shipping and receiving operations. It runs smoothly with no dead spots—power is transmitted to every roller by durable polyurethane belt similar to line shaft conveyors. Zinc plated rollers constructed with solid steel axle and precision bearings for performance and long term reliability. Features 1-1/2" aluminum alloy side plates with



ribbed construction for added durability. Each leg is fitted with a 6" x 2" swivel caster & brake that roll easily and lock into place while conveyor is in use. Heavy duty square legs mean a longer service life.

Drive Motor Specifications: Line speed is infinitely adjustable from 0 to 120 feet per minute. Multiple drive motors are standard. Amps: approximately 3 amps per 12 feet of conveyor. DC drive motors with 110 volts AC converter; 220 optional. Motor rated for continuous duty cycle. Stop/Start cycle: 300 times per hour; Features drive pulleys with precision bearings, which are safer, more durable, and transfer more power to the rollers. Control box is located in the middle of the conveyor. You can adjust line speed from 0 to 120 feet per minute. On/off switch located at both ends of the conveyor for easy access. Conveyor is reversible at the flip of a switch. No special wiring is needed.

# Easily mount & adjust photo-eyes, scanners, reflectors & other devices to conveyors



Adjustable bracket bolts to the side of any conveyor and is ideal for mounting photoeyes, scanners, reflectors, proximity switches, and other automation devices. Built with adjustable, slotted holes on the mounting plate and bracket for easy mounting of scanners and other equipment without drilling. The key to this photoeye bracket is its 4-axis adjustability - 7" adjustment on the device arm and 9" adjustment on the cross mounting bracket arm plus full rotation of each piece. You can easily raise, lower, or rotate the device as necessary.

## LS, HS & MS "H" type conveyor supports



Type MS & LS supports offer a broad range of sizes and adjustability. Specify top-of-belt or roller elevation and the conveyor model for support attachment. Each end joint and end of conveyor requires a floor support. Must be lagged to floor (holes are pre-drilled).

### Supports information

- 1) Specify overall conveyor width when you order. Also specify exact elevation to top of roller or belt.
- 2) Capacities: LS & MS: 1,500 pounds each. HS: 3,000 pounds.
- 3) HS style is 10-gauge. MS & LS are 12-ga. All-welded frames.
- 4) Supports have adjustable pivot plates.
- 5) Casters are available for mobility.

## Adjustable tripod stands



Adjustable tripod stands are used with straight or curved gravity skatewheel and 1-3/8" dia. roller conveyor. Optional leg angles can be supplied to fasten stand to floor. Do not shock load.

- 1) Capacities: 350 lbs. with 180 pounds of torque on locking screw.
- 2) Height adjustment ranges: 12"-18", 18"-30", 24"-40", 30"-52", 40"-72", 60"-110".



## Ceiling hangers free up floor space

Ceiling Hangers provide safe and sturdy means of gaining high conveyor elevations. Used when maximum utilization of floor space is needed or when required height exceeds floor support capability. 5/8" dia. fully threaded steel rods connect to 1-1/2 in. I.D. (1/9 in. O.D.) support which bolts to underside of conveyor with "U" brackets. Ceiling Hangers can be supplied with gravity or powered conveyors. It is recommended that guard rails be used on conveyors that are ceiling hung.



## Poly-tier supports let you set up multilevel conveyor lines



Sturdy support for multi-level conveyor lines. Heights available from 36" to 120" in 6" increments. 1-1/2" I.D. (1.9" O.D.) crosspipe assembly mounted to 1-3/4" x 4" x 7 ga. steel legs. Capacity: 1500 lbs. per crosspipe; 4500 lbs. per set of legs. Supplied for overall conveyor widths from 10" to 42". Knee braces are supplied to provide extra stability to support. Capacities: 1,500 lbs. per cross pipe, 4,500 lbs. per set of legs.



## Portable Castered Support

Portable supports allow straight sections of gravity skatewheel or 1-3/8" dia. roller conveyor to be easily moved. Curved portable supports are also available.

# Make your overhead & suspended conveyor safer with safety netting guards

Wherever there are overhead conveyors, injury to personnel and damage to products are ever-present dangers. If a conveyor suddenly stops, or an item is slotted too near the edge, it can fall—but conveyor safety netting is ready for a soft catch. It protects people from things standard conveyor guardrails cannot, like falling pieces of conveyor, or large cartons that escape the limited reach of fixed guardrails. It'll even catch a conveyor roller if one happens to fall. **IMPORTANT: Many other sizes and styles available.**

## Safety guard standard sizes

Model Number	Netting Type	Cap. (Lbs.)	W x L (Feet)	Wt. (Lbs.)
SAFTNET-130108300	Box-Shaped	1,000	9'W x 25'L	12
SAFTNET-130108600			9'W x 50'L	24
SAFTNET-130036300	Single-Panel		3'W x 25'L	5
SAFTNET-130036600			3'W x 50'L	10

## Hardware for safety guards

Model Number	Hardware Type	Wt. (Lbs.)
SAFTNET-20001	Box-Shaped, 25' or 50' Run	50
SAFTNET-20002	Single-Panel, 25' or 50' Run	33
SAFTNET-HWX0050	J-Guide for 5/8" or 1/2" Threaded Rod	2



Features a knotless, sewn border and 1" square mesh nylon, fire retardant NFPA 701 specifications. Mesh twine has 190 lbs. tensile breaking strength. Border rope is .170 dia. with 1,200 lbs. tensile breaking strength. Color: Black. Important: You must order one conveyor hardware kit for each net ordered. See Conveyor Hardware Kits for more information.

# Conveyor gates allow easy pass-through and access to lines



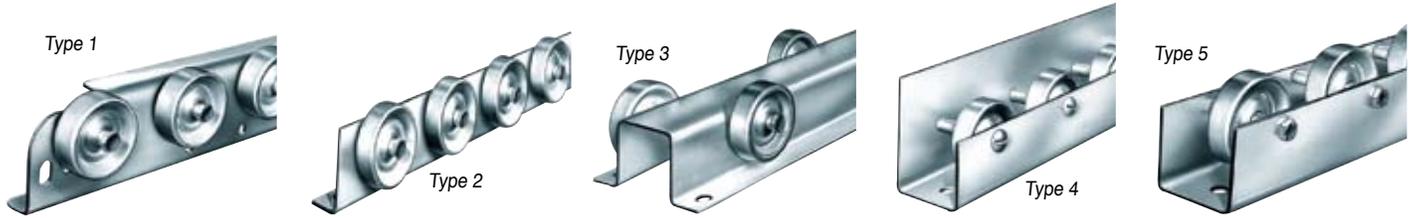
*Manual Gates* are available for use with a variety of conveyors. Gates provide a passageway for personnel, lift trucks, and other equipment.

*Spring Balanced Gates* can be used with several types of gravity wheel and roller conveyor. Gates provide a passageway for personnel, lift trucks, and other equipment. Tension springs are easily adjusted to provide minimum weight lift.

*New powered gate:* Powered roller technology, top flange mounted stops, and full-length handle for easy operation. Use for non-reversing operations only. Requires 115V or 230V single-phase electrification.

## Mount conveyor rails to floor, or in storage racks for carton or pallet flow

Wheel conveyor rails are constructed of standard skatewheels mounted to various angle-channel configurations. They provide a means of economical mobile storage systems. Can be mounted on floor level or in storage flow racks. Rails are 12 gauge painted steel. Sizes: 3', 4', 5', 6', 7', 8', & 10' standard sizes. Capacities vary per rail type; contact us for assistance.



## Easily rotate, transfer and position items with ball transfer tables



Ball transfer tables are used when products are required to be manually rotated or correctly positioned. Ball Transfer Tables are also used when two or more conveyor lines converge and packages must be transferred from one line to another. They are excellent for many workstation, packaging, or in-process applications where workers must position items for the next step.

### 2.5" Frames Listed

Listed models have 2.5" 12-gauge frames and are used with skatewheel and 1-3/8" roller conveyors (light duty). Capacity up to 270 pounds. For other conveyors, or for heavier capacities, utilize 3.5" frame models (see our website or contact us).

#### NOTES:

- 1) 1" Dia. Ball Casters
- 2) Pictured with optional support legs.
- 3) Contact us for 3.5" channel frame models, or see our website for pricing & details

Model Number	Overall Width	Length (Ft.)	Ball Centers	Wt. (Lbs.)
BTT-25-10-3-1L	12"	1'	3"	15
BTT-25-10-4-1L	12"	1'	4"	13
BTT-25-10-3-2L	12"	2'	3"	30
BTT-25-10-4-2L	12"	2'	4"	26
BTT-25-10-3-3L	12"	3'	3"	45
BTT-25-10-4-3L	12"	3'	4"	38
BTT-25-10-3-4L	12"	4'	3"	60
BTT-25-10-4-4L	12"	4'	4"	51
BTT-25-10-3-5L	12"	5'	3"	75
BTT-25-10-4-5L	12"	5'	4"	64
BTT-25-13-3-1L	15"	1'	3"	18
BTT-25-13-4-1L	15"	1'	4"	15
BTT-25-13-3-2L	15"	2'	3"	36
BTT-25-13-4-2L	15"	2'	4"	31
BTT-25-13-3-3L	15"	3'	3"	54
BTT-25-13-4-3L	15"	3'	4"	46
BTT-25-13-3-4L	15"	4'	3"	72
BTT-25-13-4-4L	15"	4'	4"	61
BTT-25-13-3-5L	15"	5'	3"	90
BTT-25-13-4-5L	15"	5'	4"	77
BTT-25-16-3-1L	18"	1'	3"	21
BTT-25-16-4-1L	18"	1'	4"	18
BTT-25-16-3-2L	18"	2'	3"	42
BTT-25-16-4-2L	18"	2'	4"	36
BTT-25-16-3-3L	18"	3'	3"	63
BTT-25-16-4-3L	18"	3'	4"	54
BTT-25-16-3-4L	18"	4'	3"	84
BTT-25-16-4-4L	18"	4'	4"	72
BTT-25-16-3-5L	18"	5'	3"	105
BTT-25-16-4-5L	18"	5'	4"	90
BTT-25-22-3-1L	24"	1'	3"	27
BTT-25-22-4-1L	24"	1'	4"	22
BTT-25-22-3-2L	24"	2'	3"	54
BTT-25-22-4-2L	24"	2'	4"	44
BTT-25-22-3-3L	24"	3'	3"	81
BTT-25-22-4-3L	24"	3'	4"	65
BTT-25-22-3-4L	24"	4'	3"	108
BTT-25-22-4-4L	24"	4'	4"	87
BTT-25-22-3-5L	24"	5'	3"	135
BTT-25-22-4-5L	24"	5'	4"	109