

# VERTICAL CONVEYING SOLUTIONS



# About Ryson International

Our business philosophy is simple: Focus on quality and service, take good care of our employees and customers and develop products that minimize our customers' total cost of ownership.

Ryson products are crafted with great care in our modern manufacturing plant in Yorktown, Virginia. Our full inventory of spare parts enables us to provide the high level of service our customers have come to expect from Ryson. We are committed to a continuous product development program. Our engineers are busy with research and development projects which include making improvements to our existing products.



Ryson is a member of the **Royal Apollo Group**, established in 1847 and headquartered in the Netherlands. Ryson manufactures in USA and supports North America.

We have manufacturing in Netherlands, USA, and Thailand with service operations in Netherlands, USA, Thailand, China, India, and Mexico.

This ensures a global supply chain and international service and support. As one global company, we are the world's leader in Vertical Conveying!



# Vertical Conveying Solutions

## WORLDWIDE.

APOLLO VTS India Private Limited  
Maharashtra, India  
~ Sales office & Service center

APOLLO VTS Trading  
Shanghai, China  
~ Sales office & Service center

APOLLO VTS Indonesia  
~ Sales office

**Ryson International, Inc. manufactures a full line of Spiral Conveyors that can satisfy most vertical conveying needs, and a broad range of Bucket Elevators for conveying bulk materials.**

Ryson Equipment needs less floor space than conventional incline conveyors and are faster and more reliable. They are especially well suited for Consumer Packaged Goods companies and any Warehousing operations.



Bags



Bundles



Totes



Containers



Shrink wrapped



Cartons



Crates



Tires



Carton wrapped



Trays



Bottles



Cans



Jars



Cups



Pouches



Confection



Powder



Hardware



Grain



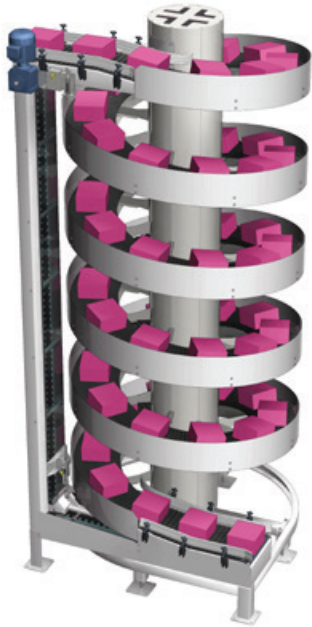
Pet Food



Coffee

# Spiral Conveyors

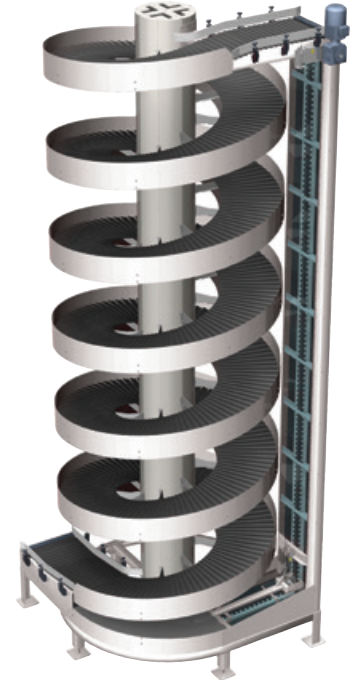
Ryson's diversity of products makes them ideal for a large variety of applications. Specialized models are also specifically suited for industries such as Food and Beverage, Consumer Packaged Products, Warehousing and Logistics, and Manufacturing and Industrial.



## Unit Load Spirals:

Convey full and empty cartons, cases, trays, totes and all sorts of unitized loads in a continuous flow.

Loads are conveyed reliably on our proprietary slat type belts, which come in 10 standard widths ranging from 6" to 36". The slats overlap and provide an efficient and safe conveying surface at speeds up to 200 FPM.



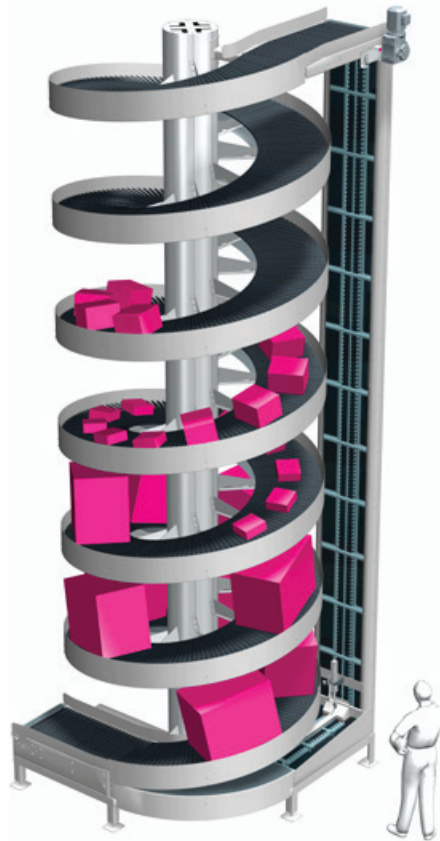
## High Capacity Spirals:

Can handle twice the weight capacity of our standard spirals at speeds up to 200 FPM. The total weight capacity in the spiral at any one time is 3600 lbs. Only one drive motor is required, resulting in substantial savings in energy, controls and system integration.



## Wide Trak Spirals:

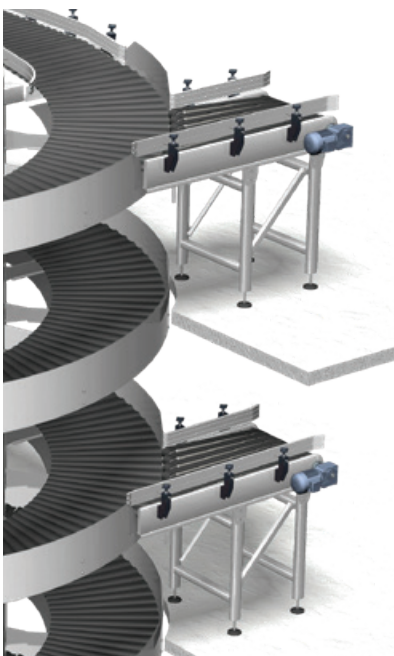
Handle a variety of load sizes, big and small with their 30" or 36" wide slats. They are our widest high capacity models, and can provide an elevation change of up to 50 feet with only one drive. They are ideal for warehousing and order picking operations.



## Multiple Entry and Exit Spirals:

Optionally, the High Capacity and Wide Trak Spirals can be configured to allow loads to enter or exit the spirals at intermediate elevations. Our Induction and Divert Out conveyors assure a safe and reliable product transfer.

This is a perfect application for multi-level warehousing, order picking operations, or multiple production lines.



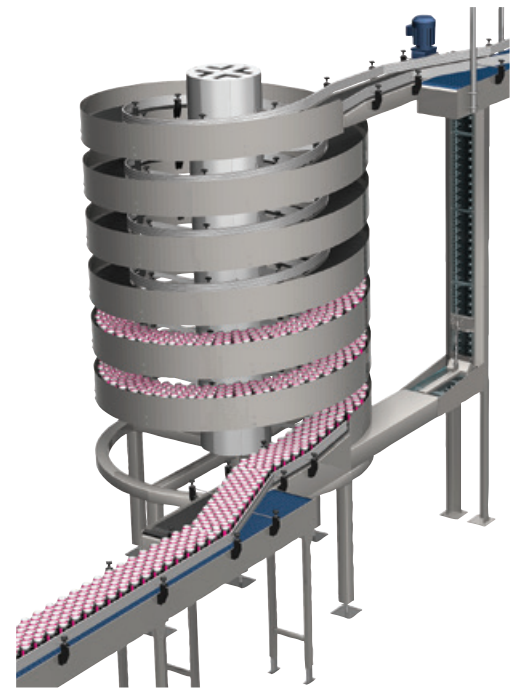




### Mass Flow Spirals:

The Mass Flow Spirals convey full or empty bottles, cans, jars and other types of containers. Products are conveyed up or down in single file or in a continuous mass flow at a rate of up to 2,000 units per minute. This type of spiral is equipped with a nesting slat, providing a smooth flat conveying surface. They offer smooth and reliable side transfer to and from adjoining conveyors without product tipping.

These Spirals are available in five different slat widths ranging from 6" to 20".



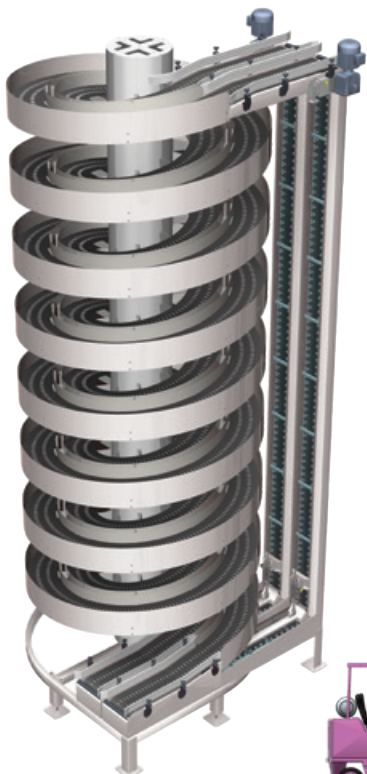
### Narrow Trak Spirals:

Are super compact vertical conveyors designed to handle small loads. They are great space savers with high throughput.

The nesting slats have the capacity to reliably end-transfer small cartons and packages or side-transfer small bottles or containers in a single file or in a continuous mass flow. All at speeds in excess of up to 220 FPM.

They are also a good alternative to side gripper conveyors because they can run at high speeds and do not need to be adjusted for varying product sizes.

An optional micro-pitch transfer conveyor is used to minimize the unpowered gap between the spiral and adjoining conveyors, allowing smaller and lighter products to be end transferred into and out of the spiral.



### Dual Track Spirals:

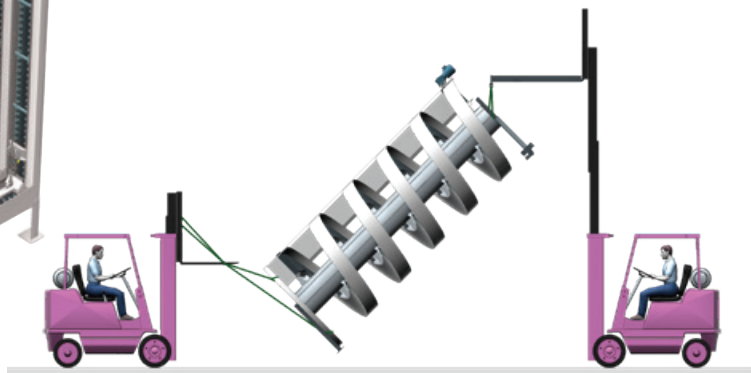
Are the ultimate in space savings. Two tracks operate within one spiral structure. Each track has a separate drive and operates independently. Both tracks can go up or down and can be reversible.

The two tracks of the Dual Track Spiral Conveyors do not have to feed in and out of the spiral at the same elevations, and can be applied very effectively to multi-level order picking modules or similar applications.



**Easy to Install:** Most spirals are shipped in one piece, pre-assembled and pre-tested, drastically reducing time and cost of installation.

Spiral installation and integration instructions are available on [www.ryson.com](http://www.ryson.com) or give us a call to request a copy.



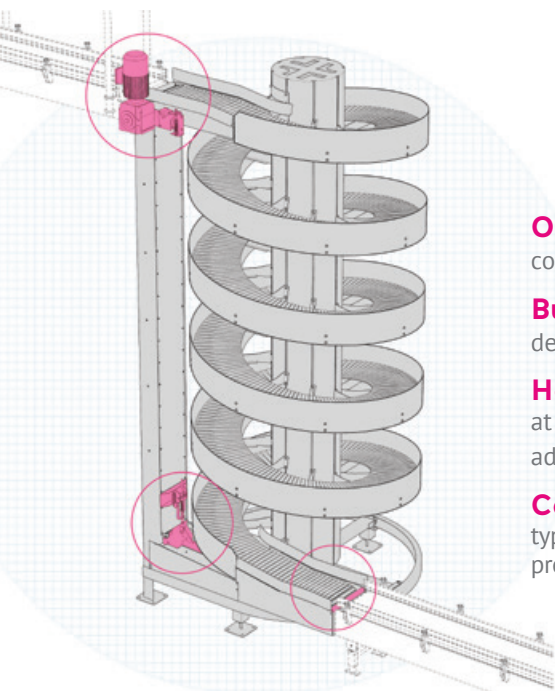
# Features and Benefits:

Central to our modular design is the our proprietary slat-style belts designed with rolling friction that prevents sliding movements and the need for wear-strips. This allows high speeds, less energy, low noise, low maintenance and long life.

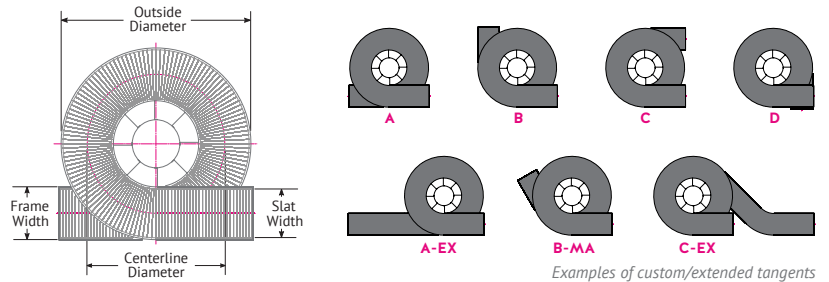


Model	Outside Diameter	Centerline Diameter	Slat Width	Frame Width
1100-150-NT	4'-2" (1270)	3'-8" (1100)	6" (150)	6" (160)
1200-230-NT	4'-9" (1450)	3'-11" (1200)	9" (230)	9" (240)
1200-300	5'-3" (1600)	3'-11" (1200)	12" (300)	15" (380)
1300-400	5'-11" (1800)	4'-3" (1300)	16" (400)	19" (480)
1500-400	6'-7" (2000)	4'-11" (1500)	16" (400)	19" (480)
1800-400	7'-7" (2300)	5'-11" (1800)	16" (400)	19" (480)
1600-500	7'-3" (2200)	5'-3" (1600)	20" (500)	23" (580)
1700-150-NT	6'-2" (1870)	5'-7" (1700)	6" (150)	6" (160)
1700-230-NT	6'-5" (1950)	5'-7" (1700)	9" (230)	9" (240)
1700-600	7'-11" (2400)	5'-7" (1700)	24" (600)	27" (680)
1800-650	8'-5" (2590)	5'-11" (1800)	26" (650)	29" (740)
<b>High Capacity</b>				
1700-400-HC	7'-3" (2200)	5'-7" (1700)	16" (400)	19" (480)
1700-600-HC	7'-11" (2400)	5'-7" (1700)	24" (600)	27" (680)
1900-600-HC	8'-6" (2600)	6'-3" (1900)	24" (600)	27" (680)
2200-760-WT	9'-11" (3010)	7'-3" (2200)	30" (760)	33" (840)
3000-900-WT	13'-0" (3950)	9'-10" (3000)	36" (900)	38" (980)
<b>Mass Flow</b>				
1900-260-MF	7'-5" (2260)	6'-3" (1900)	10" (254)	10" (264)
1900-400-MF	7'-11" (2400)	6'-3" (1900)	16" (400)	16" (410)
2100-400-MF	8'-5" (2560)	6'-11" (2100)	16" (400)	16" (410)
2300-500-MF	9'-4" (2840)	7'-7" (2300)	20" (500)	20" (510)
<b>Dual Track</b>				
1200-300/2000-300	7'-11" (2400)	6'-6" (2000)	12" (300)	-
1300-400/2300-400	9'-3" (2800)	7'-7" (2300)	16" (400)	-

Chart displays the most common models.



**Modular Design:** Our proprietary modular design allows us to build to order. All configurations can operate up or down in a clockwise or counterclockwise rotation and can optionally be reversible. All models can be built with extended infeed or outfeed tangents, making our Spiral Conveyors an easy fit to the most challenging of layouts.



**Small Footprint:** Our low friction chain slat belt allow a tight radius thus making a small footprint, saving valuable floor space.

**Easy to Field Modify:** The Ryson modular design makes it easy to field modify our spirals in case of unplanned installation changes or to re-purpose the spirals at a later date.

**High Throughput:** The spirals convey loads up or down in a continuous flow, facilitating high throughput. Many models can operate at speeds in excess of 200 FPM.

**Low Maintenance & Long Life:** Only high quality components are used throughout. All bearings are sealed for life. The chain is heavy duty nickel plated. The slats are a nylon composite that needs no maintenance. Components can be replaced without special tools.

**Overlapping Slats:** Overlapping slats are used for an efficient and safe conveying surface for cartons, cases, trays, totes and other unitized products.

**Nesting Slats:** Nesting slats are used when conveying small loads including loose bottles, cans, jars and similar containers. The conveying surface is flat without gaps, facilitating a smooth and reliable product side transfer.

**One Drive:** Only one drive motor is required, resulting in substantial savings in energy, controls and systems integration.

**Built in Protection:** All Ryson Spirals are equipped with an automatic chain tensioning device and built-in overload protection as a standard.

**Horizontal Entry and Exit:** All Ryson Spirals are designed with a horizontal section at the in and outfeed. This assures a safe and reliable transition between the spiral and adjoining conveyors without product damage and undue wear.

**Controls and Integration:** Most Spirals are shipped without controls because they typically integrate with an overall conveyor control system. We do offer a number of controls and pre-wiring options. A Variable Frequency Drive (VFD) is required for proper operation of the spirals.



# Bucket Elevators

The Ryson Bucket Elevators combine vertical and horizontal transportation of bulk materials in one integral unit. They are of the totally enclosed pivoting bucket type and can have multiple inlets and outlets.

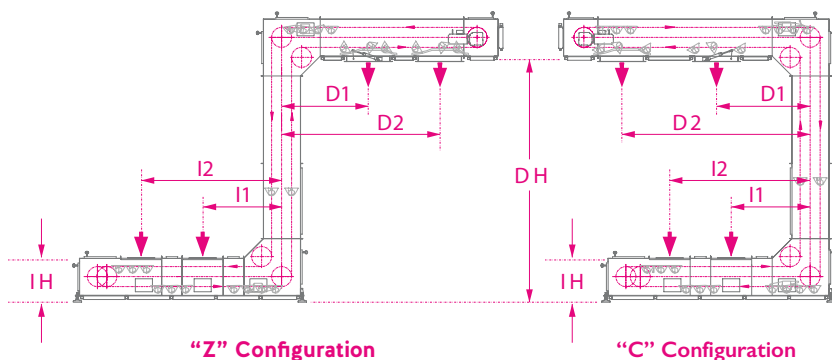
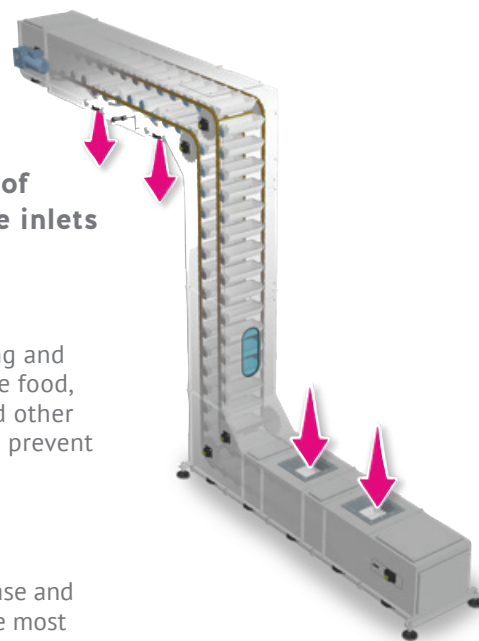


## Gentle Handling:

Ryson Bucket Elevators are designed for gentle handling and are well suited for a broad range of bulk products in the food, agriculture, pharmaceutical, chemical, metallurgical and other industries. The buckets are overlapping at the inlets to prevent spillage and can be selectively tipped at the outlets.

## Modular Design:

The Ryson modular design allows us to customize with ease and makes our bucket elevators easy to install and modify. The most common configurations are the C and Z configurations.



Model	Frame Width	Volume CuFT/Hr	Bucket Width
100	3'-8" (1100)	300	9" (225)
200	3'-11" (1200)	700	15" (385)
600	4'-3" (1300)	1,800	2'-4" (725)

# Specialty Conveyors



## Slat Conveyor:

The Ryson Slat Conveyor and Curves are ideal for inclines or declines in tight quarters and can handle multiple curves with one drive.

Only one drive is required for each 250 feet of conveyor, which minimizes the number of transition points required. This also significantly reduces the cost of controls and system integration.

Available in slat widths of 8", 12", 16", 20" and 24", they can also be configured as an oval shaped spiral, becoming a space efficient dynamic buffer storage device.



## Rotator:

The Ryson High Speed Rotator is a new innovative conveyor for in-line rotating of cases and other unitized loads.

The loads can be rotated 180° or 90° in a continuous motion. This new slat conveyor is used in packing lines where products need to be rotated upside down or to one side without delay or product damage. The Ryson High Speed Rotator can accommodate a wide range of load sizes without adjustment.





Anywhere in the world, a member of the Royal APOLLO GROUP is always able to help you in your own continent, time zone and language.

