

# Spiral Conveyors

Vertical Conveying Solutions



**RYSON**  
INTERNATIONAL, INC  
[www.ryson.com](http://www.ryson.com)

# Spiral Conveyors

## A New Concept

Ryson Spiral Conveyors represent a new concept in vertical conveying, based on a proprietary low friction chain slat arrangement. The spirals are of heavy-duty construction and can be delivered in painted carbon steel, stainless steel or washdown versions, suitable for food handling. The spiral conveyors can also be made for freezer applications. The following provides more information on high quality spiral conveyors from Ryson International, Inc. Please feel free to call us for application assistance. Also visit our website: [www.ryson.com](http://www.ryson.com).

## High Throughput

The spirals convey loads up or down in a continuous flow, thereby facilitating high throughput. The spirals can also be made reversible. The standard load capacity is 75 pounds per linear foot of conveyor for speeds up to 200 feet per minute.



## Small Footprint

The Ryson Spiral Conveyors have the smallest footprint available and therefore provide substantial space savings compared to conventional methods. Several standard sizes are available and the outside diameter varies from 4'-9" to 8'-6" depending on the size of loads to be handled.



## One Drive

The Ryson Spiral Conveyors need only one drive motor, even for units several stories tall. This equates to substantial savings in controls and systems integration.

## Proprietary Chain Slat Arrangement

An innovative chain slat arrangement facilitates low friction operation. The conveyor slats are supported by precision steel roller bearings which ride on a polyurethane guide surface. This arrangement efficiently takes up the side forces caused by a tight radius and at the same time increases the load carrying capacity of the chain. This feature also facilitates smooth operation, high speed, low noise level and long life.



## Overlapping Slats

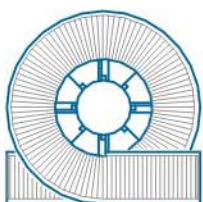
The overlapping slats provide a smooth and efficient conveying surface suitable for a wide variety of load types and sizes. The standard slats are made of a fiberglass reinforced Polycarbonate and are available in widths of 8", 12", 16", 20" and 26". Slats approved for food handling are available. The slats can also be furnished with friction inserts to accommodate slick products such as plastic totes or frozen items. The standard angle of incline is between 9 and 11 degrees which safeguards against loads sliding or tumbling during operation.



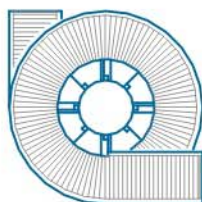
## Several Models

The Ryson Spiral Conveyors are of modular design and are available in several standard versions to accommodate a broad range of loads and applications. The spirals go up or down and can be made reversible. All models can have extended in or outfeed, making Ryson Spirals easy to fit in most layouts.

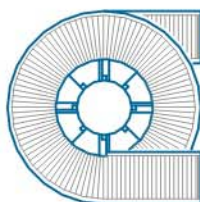
Type	Centerline Diameter	Outside Diameter	Slat Width	Frame Width
1200-200	3'-11" (1200)	4'-9" (1450)	8" (200)	11" (280)
1200-300	3'-11" (1200)	5'-3" (1600)	12" (300)	1'-3" (380)
1300-400	4'-3" (1300)	5'-11" (1800)	1'-4" (400)	1'-7" (490)
1600-500	5'-3" (1600)	7'-2" (2200)	1'-8" (500)	1'-11" (590)
1800-500	5'-11" (1800)	8'-2" (2190)	1'-8" (500)	2'-0" (600)
1800-650	5'-11" (1800)	8'-6" (2600)	2'-2" (650)	2'-5" (740)



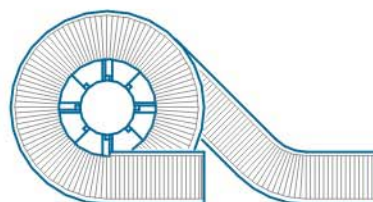
A



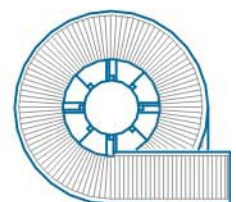
B



C



C-EX



D

## Easy to Install

Most spirals are shipped in one piece, pre-assembled and pre-tested, thereby drastically reducing the time and cost of installation.

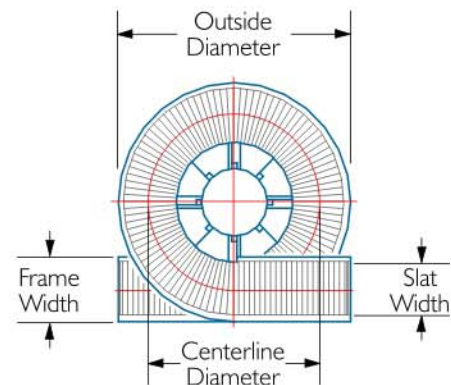


## Low Maintenance

The Ryson Spiral Conveyors are designed for low maintenance and long life. Only high quality components requiring little maintenance are used throughout. The roller bearings are sealed and lubricated for life. The chain is of a heavy-duty chrome plated construction, is factory lubricated and needs no further lubrication, unless exposed to solvents or extreme temperature fluctuations. The slats and carriers need no maintenance and can easily be replaced as single components without the use of special tools.

## Built-in Protection

All spirals are equipped with an automatic chain tensioning device and built-in overload protection. The chain tensioning device is spring operated and a proximity sensor is sensing the correct operating position of the device. Overload protection is accomplished by mounting the drive motor on an adjustable torque arm arrangement which will pivot during an overload condition. This motion will be detected by a proximity sensor which in turn will cause the motor to stop.



## Custom Solutions

Ryson recognizes that our customers sometimes have needs outside of our standard models. We are therefore prepared to customize and find individual solutions for our customers.

## Many Uses

Ryson Spirals can handle most conveyable products, including bags, bundles, totes, trays, pales, cans, bottles, containers, wrapped and unwrapped items. Ryson has a modern test facility in Yorktown, Virginia and many of our customers take advantage of this service to make sure their particular products will convey satisfactorily on a spiral conveyor.



The Ryson Spiral Conveyors are frequently used as elevators or lowerators in packaging lines. Many of these lines run 24 hours a day, 7 days a week. The spirals can be delivered in stainless steel or washdown versions, suitable for food handling. Ideal in cold storage and

freezer operations. Ryson Spirals are also very attractive as continuous lifts between floors in multilevel orderpicking systems or any other vertical conveying application with limited space and a need for high reliability.

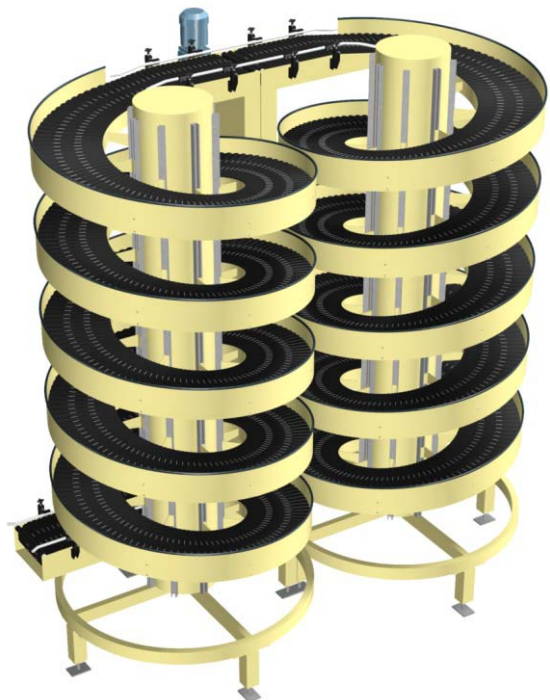


## Conveyor Configurations

The Ryson Slat Arrangement becomes a flexible conveyor or curve when used outside the spiral. The slat conveyors and curves are ideal for inclines and declines in tight quarters with the ability to include multiple turns with a single drive. One drive handles up to 250 feet of conveyor, reducing the number of conveyor transitions and the cost of installation and system integration.

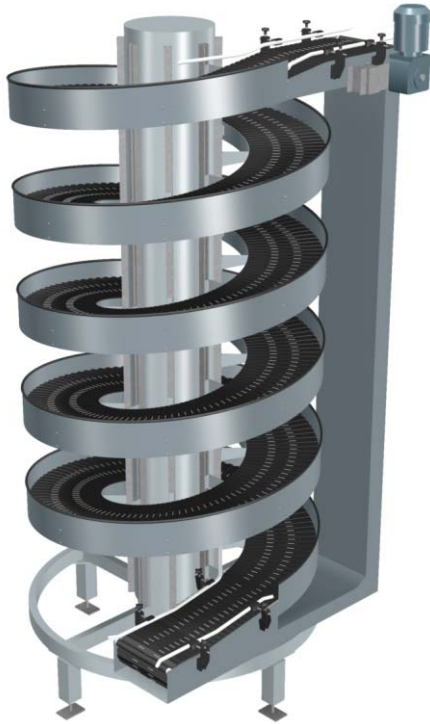


The Ryson slat conveyor can also be configured as an oval shaped spiral, thereby becoming a space efficient dynamic accumulation buffer. This can also be accomplished by arranging spirals in clusters of 2 or more units. Often used in cooling operations or when a dynamic accumulation buffer is required.



# Vertical Conveying Solutions

Ryson is one of the world's leading suppliers of vertical conveying solutions. We manufacture high quality specialty material handling equipment, including bucket elevators, spiral conveyors, spiral curves, slat incline and decline conveyors. We invite you to join the rapidly growing number of satisfied customers worldwide who have chosen high quality products from Ryson.



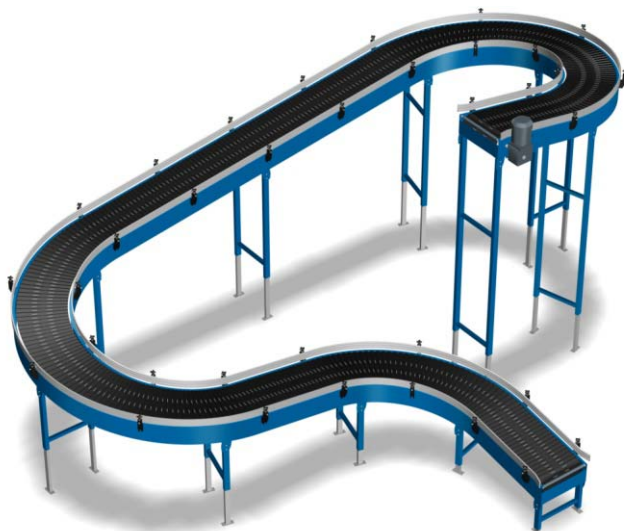
## Spiral Conveyor

Ryson Spiral Conveyors provide continuous vertical product flow and high throughput, while conserving valuable floor space. Only one drive motor is required, resulting in substantial savings for controls and systems integration.



## Bucket Elevator

Ryson Bucket Elevators provide gently and efficient handling of bulk material. Vertical and horizontal transportation are combined into one integral unit. The bucket elevators are of the heavy duty, totally enclosed, pivoting bucket type and can have multiple in and outlets.



## Slat Conveyor

Ryson Chain Slat Conveyors and Curves are ideal for inclines and declines in tight quarters with the ability to include multiple curves with a single drive. One drive handles up to 250 feet of conveyor, reducing the number of conveyor transitions and the cost of installation and system integration.

# Request for Quotation

Fax to: (757) 898-1580

Company: \_\_\_\_\_

Date: \_\_\_\_\_

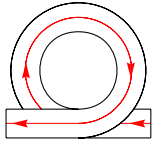
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Phone: \_\_\_\_\_

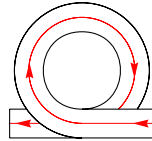
Fax: \_\_\_\_\_

Requested by: \_\_\_\_\_

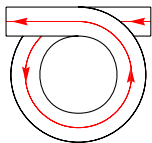
E-mail: \_\_\_\_\_



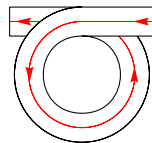
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Elevate  
Clockwise



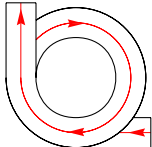
Type A-2  
Descend  
Clockwise



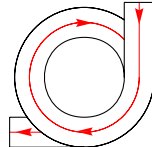
Type A-3  
Elevate  
Counter-  
Clockwise



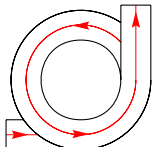
Type A-4  
Descend  
Counter-  
Clockwise



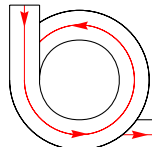
Type B-1  
Elevate  
Clockwise



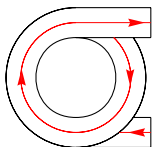
Type B-2  
Descend  
Clockwise



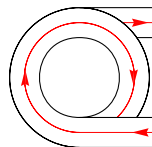
Type B-3  
Elevate  
Counter-  
Clockwise



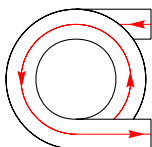
Type B-4  
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Counter-  
Clockwise



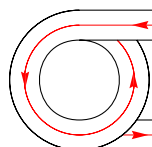
Type C-1  
Elevate  
Clockwise



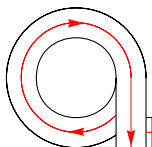
Type C-2  
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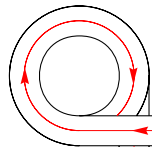
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Counter-  
Clockwise



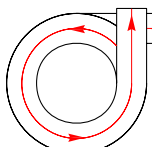
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Counter-  
Clockwise



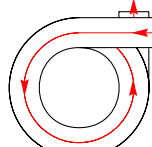
Type D-1  
Elevate  
Clockwise



Type D-2  
Descend  
Clockwise



Type D-3  
Elevate  
Counter-  
Clockwise



Type D-4  
Descend  
Counter-  
Clockwise

Product to be Handled: \_\_\_\_\_

Length: \_\_\_\_\_ Min. \_\_\_\_\_ Max.

Width: \_\_\_\_\_ Min. \_\_\_\_\_ Max.

Height: \_\_\_\_\_ Min. \_\_\_\_\_ Max.

Weight: \_\_\_\_\_ Min. \_\_\_\_\_ Max.

Infeed Height: \_\_\_\_\_

Outfeed Height: \_\_\_\_\_

Elevation Change: \_\_\_\_\_

Direction:  Up  Down

Type/Model: \_\_\_\_\_

Products/Minute: \_\_\_\_\_

Conveyor Speed: \_\_\_\_\_

Power Supply: \_\_\_\_\_

Finish: \_\_\_\_\_

Special Requests: \_\_\_\_\_

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