

## Live - Drum Spiral Conveyor



Nercon Engineering and Manufacturing has designed a new spiral conveyor system that utilizes a cylindrical drum that drives the chain.

The benefits of the Drum Spiral Conveyor include:

- low chain tension
- increased elevation opportunities and capacity
- design and product range versatility and low maintenance

Regardless of the conveyor length, the rotating stainless steel drum imparts the driving force to the inside edge of the belt creating very low tension on the chain. The benefit of low tension allows capabilities of longer runs and more revolutions in the spiral design. The substantial quantity of conveying belt in this relatively small footprint offers manufacturers increased production and profitability.

This low tension Live-Drum Spiral having longer runs and multiple tiers in its design can attain higher elevation changes compared to shaft and sprocket driven high tension spirals. While the number of tiers is limited by the complex drive system and chain pull requirements in high tension spirals, the Live-Drum Spiral's extremely effective edge wrap driving force maintains low tension throughout multiple tiers resulting in higher elevation designs.

From a design standpoint, the Drum Spiral Conveyor can be configured with several infeed and discharge locations, and it can be engineered to lower or elevate products. It can also be designed to carry product between floors and machines or over aisles. The Live-Drum Spiral takes advantage of vertical space that is normally not used on the production floor. When compared to a tabletop spiral conveyor with the same footprint, the capacity of the Spiral Drum conveyor is appreciably greater.

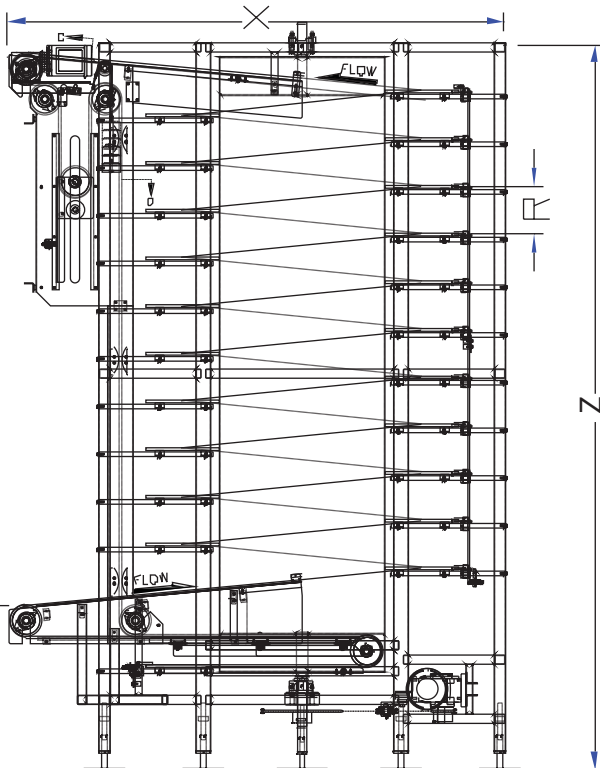
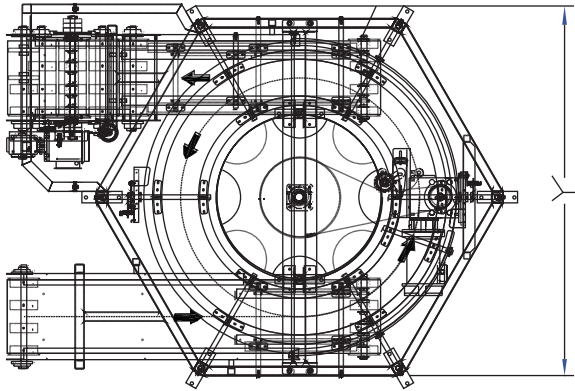
Most products that can be transported on a conveyor can also travel on a Live-Drum Spiral system. The gentle, uniform slope of the Drum Spiral Conveyor assures no disturbance of product flow. This equipment can transport packages such as jars, tubs, cups, bundles, cans, bags, pouches, totes and cases. Further, the Drum Spiral can be designed to accommodate several sizes of products on one production line with no changeover.

Another advantage of the low tension Live-Drum Spiral Conveyor is minimal maintenance. Competing high tension spirals have multiple drives, motors, bearings, rollers and thousands of moving parts to maintain. The continual low tension operation of the Drum Spiral results in longer life of the two drives, chain and other components in the system. The unit link belting utilized in the Live-Drum Spiral allows for quick repairs.

## How does the Low Tension Live-Drum Spiral Work?

One motor powers the cylindrical drum which drives the chain in a helix path around the drum. Another low horse-power motor powers the belt. The counter weight in the take-up system is utilized to remove slack in the belt to allow for normal mechanical elongation and thermal expansion of the belt.

A 36" diameter drum can accommodate a variety of belt widths from 4 1/2" wide to 16" wide. Maximum incline is only limited by product stability and slippage. A variety of different drum diameters and spiral cages are available that utilize wider modular plastic belts.



### SPECIFICATIONS

	BELT WIDTH			
	4 1/2"	8	10 1/2"	16"
X	96	99.5	102	107.5
Y	55	62	67	78
Z	Up to 240"			
R	Up to 15° of incline* (3" per foot)			
I	Minimum 30"			

\*Note: Product stability must be taken into consideration.



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