

Spiral Drive



Spiral Drive:

Mantissa's Spiral Drive is a modular unit that provides the driving force for a tilt-tray system. The Spiral Drive is easily retrofittable on legacy tilt tray sortation systems (Logan Co., IDAB, Speaker Sortation, Kosan). Working in conjunction with Mantissa's Gorilla Chain, the Spiral Drive has the capability to operate with traditional mono-planar or bi-planar systems.

How It Works:

The Spiral Drive works in tandem with Mantissa's Gorilla Chain to move a tilt-tray sorter's carriages around the sorter track. The Spiral Drive transfers the rotary movement of the worm gear into linear movement of the sorter. As the worm gear spins, the drive wheels enter the Spiral Drive unit where the flutes of the worm gear gently contact the drive wheels. The drive wheels roll along the face of the flutes pulling the chain through the drive unit. By engaging multiple contact points of the sorter chain the Spiral Drive evenly distributes the load, reducing wear on the sorter chain, and providing smooth quiet operation.

Multiple Spiral Drives can be installed on the same system. The drive can be easily engaged or disengaged from the sorter chain allowing units to be used in either a load sharing configuration or using one as a back up unit.

The Spiral Drive's performance is further optimized by Mantissa's Gorilla Chain. Using the Gorilla Chain allows the system to be as maintenance free as possible and requires minimal lubrication.

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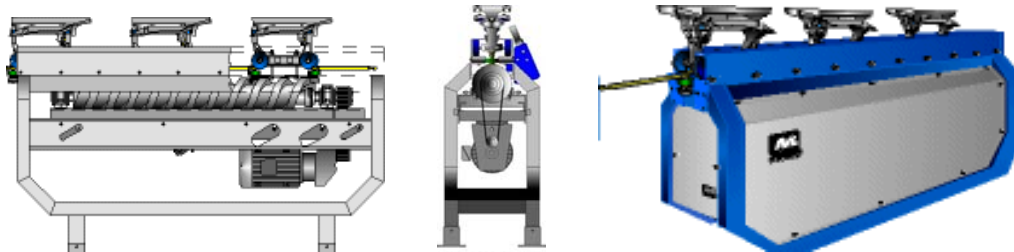
Benefits:

- Retrofittable on legacy tilt tray sortation systems (Logan Co., IDAB, Speaker Sortation, Kosan)
- Adaptable to sorter speeds of 150 – 405 feet per minute (.76 m – 2.0 m per second)
- The design of the Spiral Drive allows for on-line redundancy
- Reduced wear on components
- Low maintenance
- Smooth quiet operation

Applications:

- Retail Distribution and Mail Order Distribution warehouses
- Postal Facilities (USPS)
- Parcel Handling Systems
- Newspaper and Mailroom Distribution Systems
- Manufacturing Facilities

PITCH OF FLUTES	POSSIBLE TRAY CENTERS
8" .20 m	24", 28", 32", 36", 44", 48" .61 m, .71 m, .81 m, .91 m, 1.12 m, 1.22m
9" .23 m	22½", 27", 31½" .57 m, .68 m, .80 m
10" .25 m	25", 30", 35", 40", 45" .63 m, .76 m, .89 m, 1.02 m, 1.14 m



Sortation *Simplified*™