

Inside One Motion Mag-drives

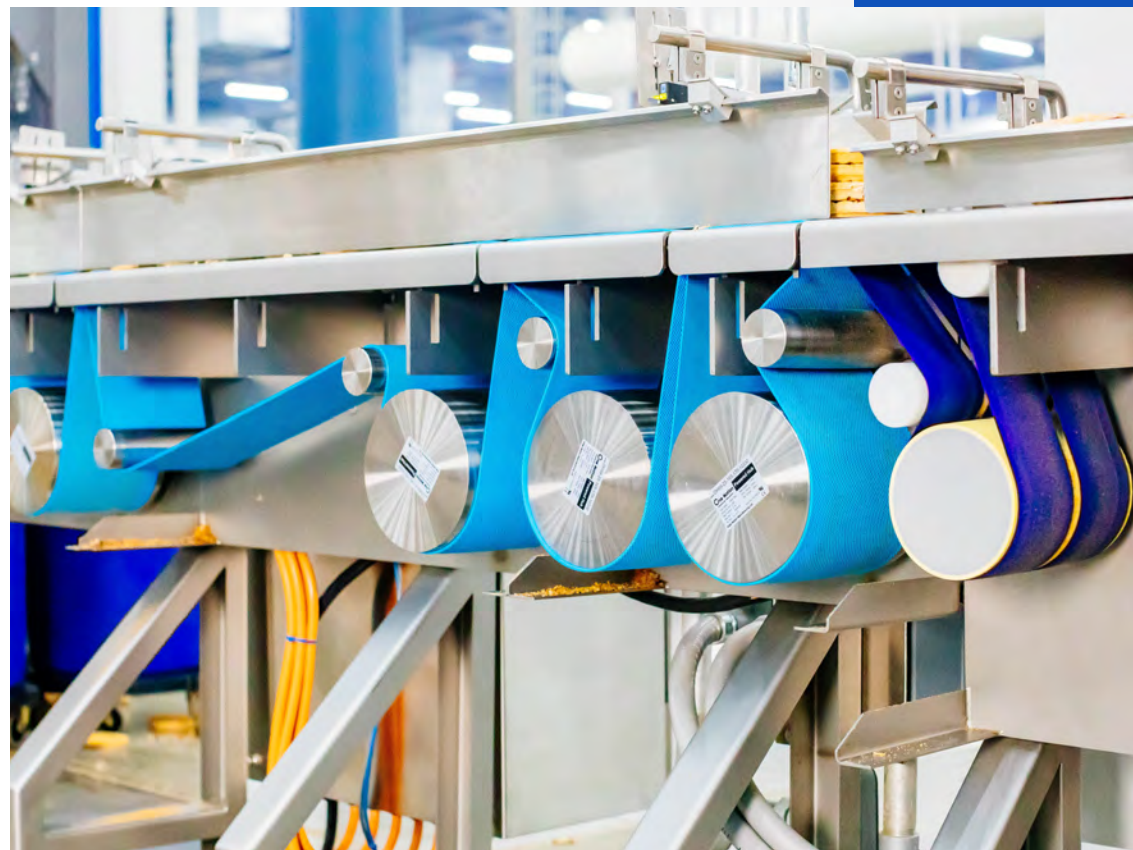
One Motion™ Mag-drives are integrated permanent magnet synchronous solutions where the outer surface carrying the magnets rotates and the shaft - carrying the stator - is stationary. This arrangement results in higher operational efficiency and unique responsive time.

Running without internal or external gears, no oil and no sprockets, belts or any other secondary transmission device, these mag-drives are fundamentally permanent magnets being pushed around by electromagnetic forces resulting in possibly the simplest design possible to convert electrical current into rotary motion.

Because there is no mechanical contact between components - other than the two bearings holding the outer shell - their reliability is much higher than conventional servo motors, allowing for an industry leading 3-year warranty.

Unmatched Warranty

Because of its clean design, fewer moving parts and more efficient operation, One Motion™ confidently backs its products with an industry leading 3-year warranty.



Sapphire Flow Wrappers

Atlas Sapphire Horizontal Flow Wrappers are designed for Advanced Manufacturing with sanitation and ease of cleaning in mind. Designed with low energy consumption as key requirement, they are a remarkable solution to lowering GHG emissions, helping manufacturers meet their energy reduction goals.

Sapphire flow wrappers have a fully sanitary construction achieved by embedding One Motion™ Mag-drives directly inside the main components of the wrapper thus eliminating crevices and cavities that are usually present when designing machinery with conventional motors, servo motors and gearboxes.

One Motion™ Mag-drives are based on cutting-edge technology capable of delivering servo-like performance using standard variable frequency drives (VFD) while requiring less energy than conventional flow wrappers of equal performance.

High Reliability

Whether the device is rotating at 10 rpm or 500 rpm, all components inside the mag-drive rotate at the same speed as the speed outside, resulting in a prolonged life for internal bearings and

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An Innovative Solution to Horizontal Flow Wrapping

1

One Motion™ mag-drives are the latest development in magnetic drive technology applied to food processing conveyors and wash down machinery manufacturing. Based on innovative permanent magnet technology, One Motion™ engineers have been able to design a product with a high level of reliability, efficiency and sanitary construction unmatched in machinery manufacturing and product conveying.

2

Although One Motion™ is effectively a substitute for conventional servomotors, they are based on a radically different technology that produces torque without internal gears. Moreover, One Motion™ mag-drives work at much lower internal temperatures and lower internal rotating speeds than conventional servo motors resulting in longer operation life, free of service and costly repairs.

3

One Motion™ direct drives are based on cutting-edge technology capable of delivering servo-like performance using standard variable frequency drives (VFD) while requiring less energy than conventional flow wrappers of equal performance.



Garnet Smart Infeeds



Garnet smart belt conveyors are designed to automatically reposition randomly arriving product into a single file of products, equally spaced and phased to the lug conveyor section of the flow wrapper.

Each smart belt conveyor is independently driven by a One Motion™ Mag-drive rotary devices (DDRM) integrated into the driving pulley, providing outstanding cleanliness by eliminating all cavities, nooks and crannies usually present in conventional servo motor driven systems.

All Garnet smart belt infeeds are sanitary, easy to clean and have a special cantilever design ideal for quick belt changing and accessible service. Equipped with an automatic belt tracking device, these conveyors are reliable, easy to clean and easy to maintain and repair.

Key to Garnet's approach to sanitary manufacturing are the One Motion™ Mag-drives, designed to be embedded into the main structure of the equipment, thus reducing the number of components and making cleaner machines less susceptible to product contamination and potential bacterial growth.

Compared to conventional systems using standard servo motors and gearboxes, our Garnet Smart Belt conveyors offer multiple advantages:

- ✓ Modular design allowing for custom lengths, widths and quantity of modules in order to optimize the performance of the system.
- ✓ Simple controls using standard variable frequency drives (VFDs) such as Allen Bradley 525.
- ✓ Clean and sanitary design with motors integrated into the driving pulley and only one control/power cable.
- ✓ Stainless steel construction suitable for standard (IP65) or wash-down (IP69K) applications.
- ✓ High dynamic response for quick position correction
- ✓ Higher system efficiency per smart belt (94%+)
- ✓ High system reliability (3 year warranty on all drives)