

PACKAGING

PALLET TRANSFER GANTRY SYSTEM



TRANSFER



COMPACT

CONTINUOUS
AUTOMATION

MULTI-AXIS

An OEM integrated the HepcoMotion® Heavy Gantry System (HGS) to achieve efficient pallet movement in a lower-profile gantry system.

Automated Conveyor Systems (ACS) is a leader in modular conveyor systems, specializing in the design, construction, installation, and servicing of conveyor solutions for the corrugated paper and box industry. Their systems are engineered to efficiently transport pallets and products in high-throughput manufacturing environments.

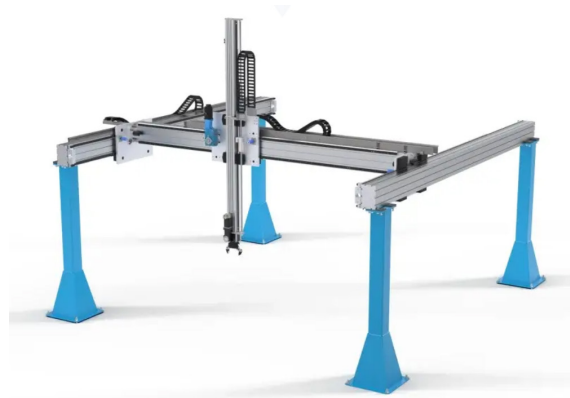
ACS required a large gantry system to improve pallet movement on a corrugated cardboard conveyor line. Having previously operated a legacy Hepco gantry system from the 1980s, they sought a modern replacement and turned to Bishop-Wisecarver for an updated solution. Key design considerations included space efficiency, simplicity, and quick build time. By using the HepcoMotion® Heavy Gantry System (HGS), ACS achieved efficient, low-profile pallet transfers in its automated system.

CHALLENGE

The OEM needed to move pallets within a large gantry system while reducing overall system height and mechanical complexity. The existing design increased the vertical footprint of the machine, driving up build time, installation requirements, and system complexity. These constraints limited scalability and made it more difficult to deploy the system efficiently across customer facilities.



Lower-profile gantry system designed for efficient pallet transfer in a high-throughput corrugated conveyor application.



HGS can be configured into multi-axis gantry systems to achieve automation for applications such as palletizing, sorting, and pick & place.

SOLUTION

The OEM utilized the HepcoMotion® Heavy Gantry System (HGS) to create an efficient, lower-profile pallet transfer solution. The HGS features a compact and rigid design that reduces system height and simplifies mechanical setup. Based on the HDS2 heavy-duty range, Hepco's gantry systems move heavy payloads across large areas and are engineered for harsh environments with minimal maintenance. This implementation has shortened build time, reduced complexity, and delivered a cost-effective solution without compromising performance.

One of the other reasons this solution was selected was its proven longevity. The HGS was designed for continuous duty, operating 24 hours a day, 365 days per year, with a system life exceeding five years before requiring a machine overhaul. This long-term reliability was instrumental in the OEM's decision, as it delivered predictable lifecycle performance and reduced total cost of ownership compared to competing solutions.

CHALLENGE SOLVED

By adopting the HGS solution, ACS achieved a streamlined gantry system that improved manufacturability and scalability. The reduced system height eased facility constraints for end users, while the simplified design enabled the OEM to increase annual machine output. The result was a more competitive machine platform and a solution that could be more easily replicated across future systems.

QUANTIFIABLE RESULTS

The first installation of the gantry system was successfully completed and met all performance expectations, validating the design approach and overall system architecture. The lower-profile gantry solution delivered the desired improvements in system layout, manufacturability, and operational efficiency.