



Case Studies : Johnson Controls Inc.

JOHNSON CONTROLS Automated Trailer System

The Company: Johnson Controls Inc., Whitby, Ontario facility

The Line: Pontiac Grand Prix Cockpits for General Motors Oshawa

The Situation: JCI required the ability to load and unload a trailer with 18 cockpit pallets in a time frame of 5 minutes.

Our Track Record: proven supplier to General Motors for automated trailer systems, extensive knowledge in pallet handling systems

The Challenges:

1. time required to load and unload the product
2. space limitations within the trailer
3. weight of product, 1200 lbs per pallet
4. ability to off load product using a forklift, as well as automatically
5. product orientation during transport
6. protect equipment from damage via fork lifts and product

The Solution: Mainway supplied a Twin Strand Triplex Chain Conveyor System. This system was designed specific for the harsh environment of the automotive industry. The system incorporated ¼" thick welded and interlocked conveyor frames, weld support frame and full length pallet guides. To further protect the chains from damage during transportation of product the system uses air bags to raise and lower the chains. During automated loading and unloading the chains raise to convey the product on or off the trailer. During transportation or fork lift loading and off loading the chains are retracted below the supporting frame work. The cockpit pallets rest on the supporting frame work during transportation, this prevents the cockpit pallets from sliding or skidding during transportation. The supporting frame work also acts as a fork lift guide to prevent damage during the manual load / offload process. For ease of maintenance the drive units of these system are located below the trailer floor and enclosed by a stainless steel shroud.

The Results: Mainway supplied (5) trailers for the original system and an additional (6) trailer. These trailers have been in service for 1 year with only regularly schedule maintenance.



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