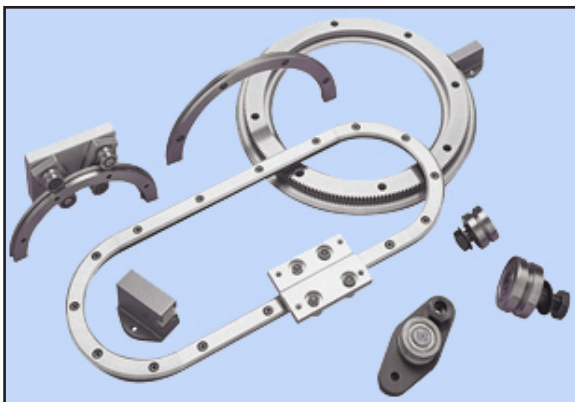


Material Handling

Application Profile



Weighing In with HepcoMotion® PRT

High precision ring and track delivers flexibility, durability and performance to mobile weighing carts

Challenge

John P. Waterhouse Co., Ltd., wanted to design a multi-ingredient dosing and weighing system that was more adaptable and flexible than the traditional minor ingredient weighing systems being used in the industry. The system required stability, precise positioning, friction-free motion, and high load carrying capacities in order to produce an optimal system. It also required the ease of expansion to allow for the inclusion of additional material feed stations.

Application Description

Single weighing carts, or “Smart Carts”, are individually fixed to carriage plates mounted on a precision mono-rail track. Low melt bags or other receptacles are automatically or manually loaded onto the carriage that proceeds around the track collecting specific quantities of material at different feed stations. On completion of the batch, the bag is printed, sealed and ejected onto an accumulation system. The system handles direct loads up to 3,800N and moment loads of 210Nm.

Solution

The HepcoMotion Precision Ring and Track system (PRT) was chosen because it met all the parameters specified by the developer. To achieve carriage stability at changing speeds, the system is powered by variable speed drives and uses PRT fixed center carriages with opposing concentric and eccentric bearings, which enable simple hand adjustments to minimize play and friction. Track mounted flags and carriage-mounted sensors to determine carriage location ensure precise positioning of the carts. High quality steel, zone hardened vee edges, and precision ground PRT components provide smooth running motion. The bearing assemblies incorporate high precision ball races that are shielded and greased for life. The PRT lubrication system increases load carrying capabilities by a factor of four and life by a factor of 25.

Products Used

- HepcoMotion® PRT Precision Ring and Track System

Contact us to discuss your specific linear motion needs: 888.580.8272
– or visit us online at www.bwc.com

(Catalogs may be downloaded directly from www.bwc.com)

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