

Subject: Application Overview	Product: MP2300, Sigma-5	Doc#: AO.MCD.05.113
Title: Synch-Belt		

Synch-Belt

Patent Pending

Application Overview

Synchronizing belts are used in a wide variety of applications where randomly arriving products must be properly spaced for the next operation. High-speed registration sensors and Yaskawa's Smooth Path technology ensure a superior solution. Applications range from food processing to the packaging industry.

Application Challenges:

- Space products in as short a distance as possible.
- Track and adjust for multiple products simultaneously.
- Limit the acceleration based on the product tolerance.
- Provide smooth, high-speed adjustments on the fly.

Yaskawa Products:

Products	Product Features and Benefits
MP2300	<ul style="list-style-type: none"> - Compact, multi axis machine controller with servo network interface - Tightly integrated machine and motion logic
Sigma-5	<ul style="list-style-type: none"> - Compact, high bandwidth digital servo system. - Advanced tuning algorithms for superior performance

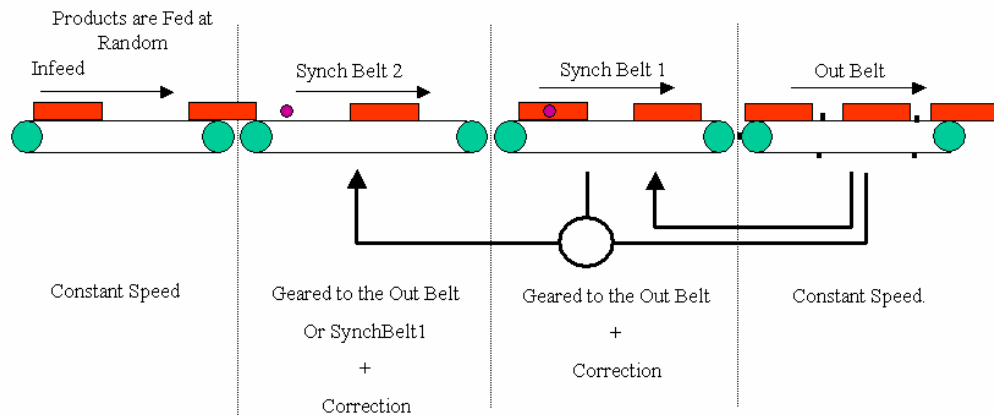
Application Solution and Benefits:

Yaskawa is pleased to offer the complete Synch-Belt Solution Package, pre-written and tested controller code

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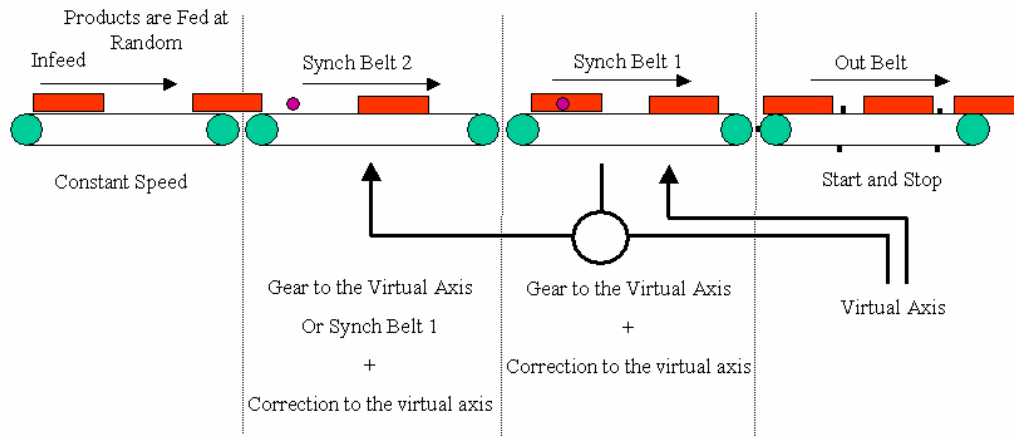
with documentation to aid in customizing the application for specific use. The solution package controls a series of conveyor belts in one of two modes of operation: fill all pockets in the flight conveyor, or align each product precisely within the nearest “flight” on the flight conveyor. Each downstream belt makes progressive registration adjustments, providing further correction if necessary. Benefits of this method include higher throughput, tighter accuracy, minimized motor heating, and longer machine life. The template code can also control the incoming and outbound conveyor speed if required. Perhaps equally as important is the reduction in Total Cost of Ownership realized when implementing a robust solution perfected for the ultimate in performance.

Control Outline / Skip Mode



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Control Outline / Fill All Mode



The Yaskawa line of Sigma-5 amplifiers and servomotors incorporate the highest quality servo equipment in the industry to increase performance and reduce downtime. In addition, Yaskawa motion controllers can be integrated into larger control systems using Yaskawa machine controllers with a wide variety of connectivity options