YASKAWA

Successful Solution

Compact Disc Placer

August 1, 2010

Issues / Problems / Challenges

- required throughput is 350 products / minute
- Totally random product arrival, smooth re-synchronization required on the fly.
- Existing controller/servo is expensive
- Need accurate placement of 1/16"

Solution

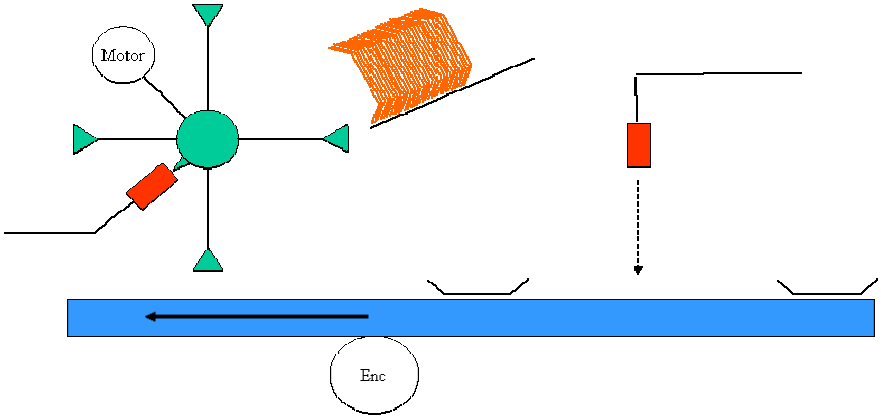
Controller:	MP2600iec
Controller Software:	MotionWorks IEC Pro
Solution Code:	Rotary Placer Package
Servo:	Sigma V (SGDV)
Power Level:	800 w
Voltage Level:	230 VAC, 1 Ph.

Performance Achieved

Throughput:	350 per minute at 6" pitch
Accuracy:	+/- 0.0625" placement
Auxiliary Functions:	Glue control, Vision QC Stacker Control

Customer Information

Industry:	Packaging
Application:	Random Rotary Placer



Application Description

This OEM makes a variety of equipment to serve the packaging industry. This application required placement of Compact Disks (CDs) into carriers at a rate of up to 350 per minute. The cases could come down the line in a completely random fashion. The cases are detected upstream of the placement point by a photoelectric sensor. As cases approaches the placement point, the controller actives the vacuum cup system on the "pick arm" to grab a CD. The controller then calculates an adjustment amount and smoothly alters the position of the pick arm in relation the approaching case so that they will meet at bottom dead center. During the final placement (transfer) zone, the pick arm and product conveyor are electronically synchronized in both speed and position.

Differentiating Solution Features	Resulting Solution Benefits
- Modular function block approach for Rotary Placer Application. Various programming styles including Ladder, Structured Text, and Sequential Function Chart where most appropriate.	- Proven Core Code reduces commissioning time, reduces project risk, and improves performance
- High speed latched product buffering	- Greater range of product sizes, higher throughput
- Dynamic Smooth Path cam shifting	- Reduced impact and wear on mechanics, less power consumption

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