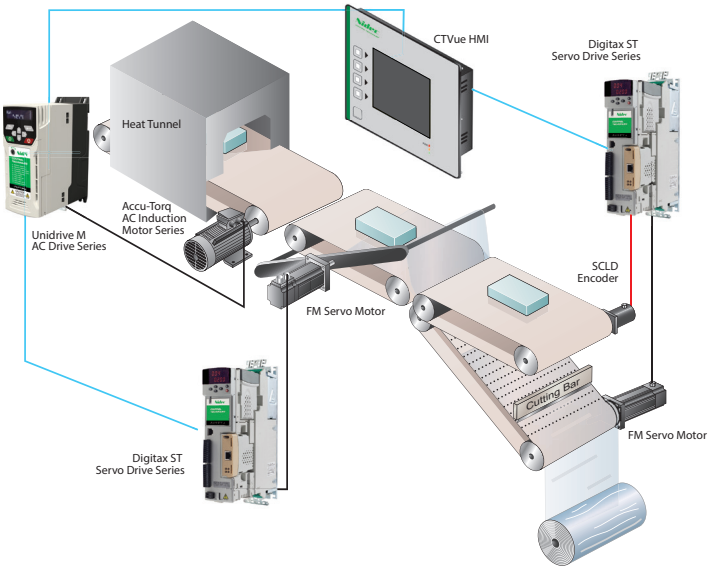
Nidec All for dreams solutions

Shrink Wrappers

Application Overview

Shrink wrappers are used in many packaging plants to over wrap heat shrink film over a tray of product. After the product passes through a heat tunnel, the film adheres to itself and seals the product to the tray for shipping. The system uses a conveyor to feed the film under an incoming tray then the film and the tray advance in a synchronized motion. After the tray passes the conveyor opening, the film is cut and the wand is used to wrap the loose film over and then under the tray. The wand, conveyor and film must all be synchronized with each other to maintain proper film placement. The film can be clear or printed. If printed film is used, proper registration must be maintained to keep the print matched to the product.



Application Requirements

- Quick setup for film changeover
- Variable tray length
- Variable speed
- Initial film placement accuracy
- Synchronized motion of film and/or wand to the tray
- Accurate film registration
- E-STOP recovery routine

Control Techniques Solutions

Servo Drives, Motor, VFDs, HMIs

- Synchronized Jog, Home and Indexing
- Synchronized electronic camming
- Connectivity to any PLC communications protocol
- Easy mapping of HMI with drive parameters
- Low and medium inertia motors to match the application requirements
- Application templates to jump start the programming process

Shrink Wrap Solutions

Control Techniques' Performance Advantages

Built-In Synchronization

- On-board master encoder input
- Electronic cams allow any motion profile to be easily configured
- Cam data can be manipulated on-the-fly for rapid product adjustments
- All motion objects can be real-time or synchronized to the master

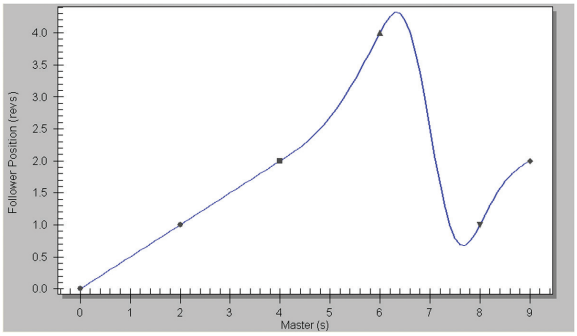
Advanced Features

- High speed input capture for accurate placement
- Software Queue object performs intelligent shift register operation making programming of difficult tasks much easier
- Virtual Master allows multiple axes to synchronize to a perfect master signal
- Cam-based ESTOP recovery, allows quick re-synchronizing the master and follower axes after an emergency stop

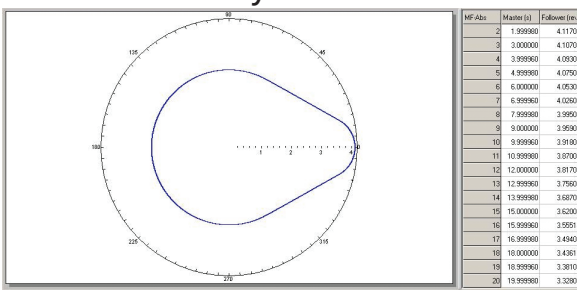
Motion Made Easy® software

- Easy to use drag-and-drop programming software
- High speed 4-channel software oscilloscope
- Secure download protects intellectual property
- On line help

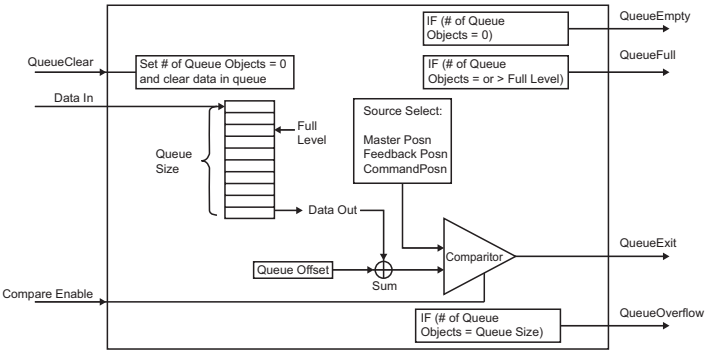
Cam profiles provide unlimited possibilities



Cams Made Easy!



CT Queue — The Intelligent Shift Register



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