



Industry Notification - Packaging Industry

Delta Cellophane Packaging Machine Solution

IABG Global Solution Center
Sep, 2021

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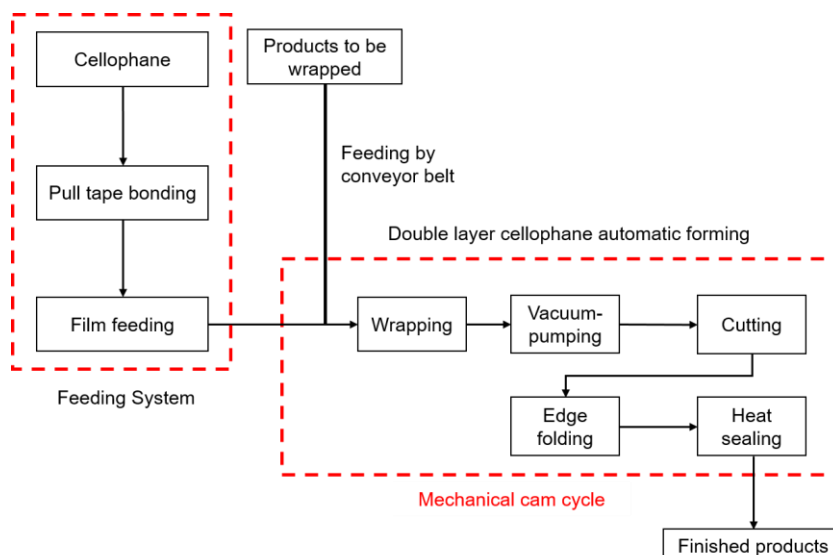
Introduction

Delta's Cellophane Packaging Machine Solution can be adjusted with different products and used with new heat shrinking machine and collecting machine for a high-performance automated production line. The solution can enhance productivity, product appearance, and value as well as save labor costs.

Application

The solution is ideal for high-speed packaging applications and suitable for cellophane packaging of CDs, DVDs, playing cards, candy boxes, food boxes, etc.

Process Flow



Principle

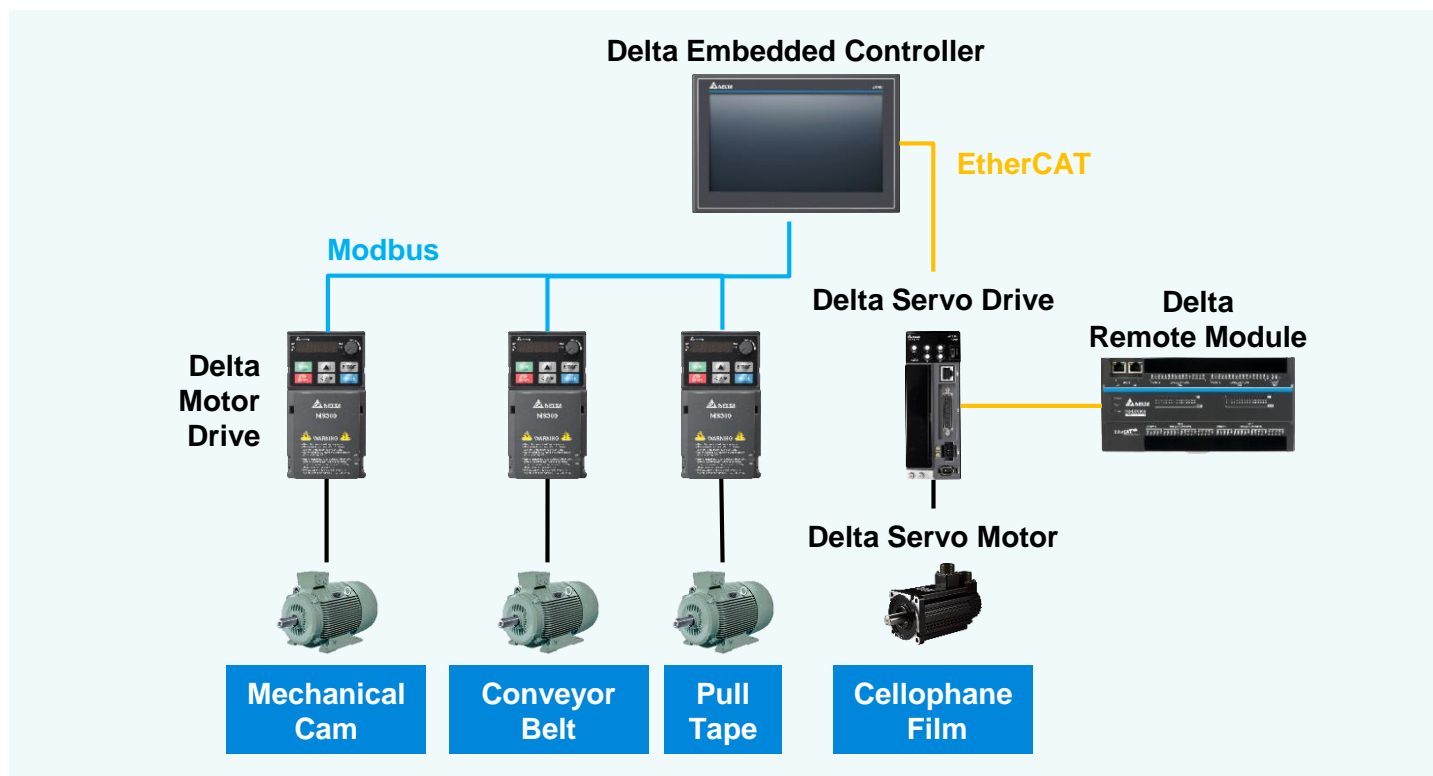
• Film cutting

During high-speed operation, the machine may have slippage and cause film jams that lead to cutting deviations. To avoid the situation, Delta's Cellophane Packaging Machine Solution integrates motion controller and servo to plan acceleration and deceleration for getting the optimal set of parameters and meet the high precision requirements.

• Alignment cutting

The solution uses a photoelectric sensor to detect film marks for positioning and employs high-speed DI and bus for triggering to enhance production efficiency and precision.

Solution Architecture



Features and Advantages

Display & Operation Motion Controller

- Delta Extended Motion Controller is an advanced controller which supports multiple communications. It also integrates HMI and PLC, which significantly simplifies architecture and wiring.
- Comparing with conventional pulse-type controllers, which require users to convert between pulse and feeding length, Delta Extended Motion Controller offers a dedicated software DMARS to convert the motor unit to the millimeter for easy operation.

High-precision Control Architecture

- The high-speed DI of the Standard Delta Servo System triggers the Capture function for film position compensation. With EtherCAT bus transmission, the solution reduces system response time and meets the high-speed and high precision requirements.
- Highly efficient and stable production; The packaging speed can reach 90 packs per minute with a $\pm 0.5\text{mm}$ deviation when the pack length is 200mm.

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