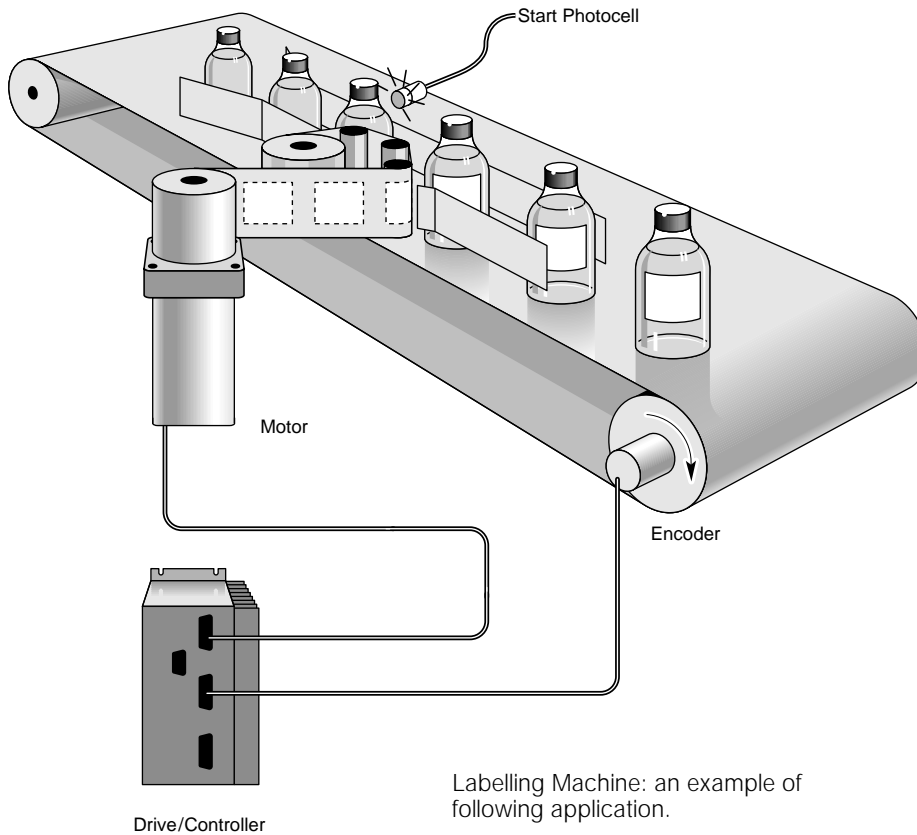


## Random Timing Infeed Application Highlight



### Application Description

Bottles on a conveyor run through a labelling mechanism that applies a label to the bottle. The spacing of the bottles on the conveyor is not regulated and the conveyor can slow down, speed up, or stop at any time.

### Machine Requirements:

- Accurately apply labels to bottles in motion
- Allow for variable conveyor speed
- Allow for inconsistent distance between bottles
- Pull label web through dispenser
- Smooth, consistent labelling at all speeds

### Motion Control Requirements:

- Synchronization to conveyor axis
- Electronic gearbox function
- Registration control
- High torque to overcome high friction
- High resolution
- Open-loop stepper if possible

### Application Solution

A motion controller that can accept input from an encoder mounted to the conveyor and reference all of the speeds and distances of the label roll to the encoder is required for this application. A servo system may be required to provide the torque and speed to overcome the friction of the dispensing head and the inertia of the large roll of labels. A photosensor connected to a programmable input on the controller monitors the bottles' positions on the conveyor. The controller commands the label motor to accelerate to line speed by the time the first edge of the label contacts the bottle. The label motor moves at line speed until the complete label is applied, and then decelerates to a stop and waits for the next bottle.

### Product Solutions:

Controller	Motor
6K controller and Gemini GV drive	NO704FR

\*The Apex 6152 or Zeta 6108 single axis drive/controllers have also been used in these types of applications.