EPSILON
Controls & Automation

Application Note...

Customer

Wading service provider and cap manufacturer.

Customer requirements

To detect No wad / Double wad / Reverse wad in bottle cap on high Speed conveyor

Epsilon Solution

Epsilon's laser sensor with controller.

Why Epsilon?

Epsilon has design a unique solution specifically for this application.

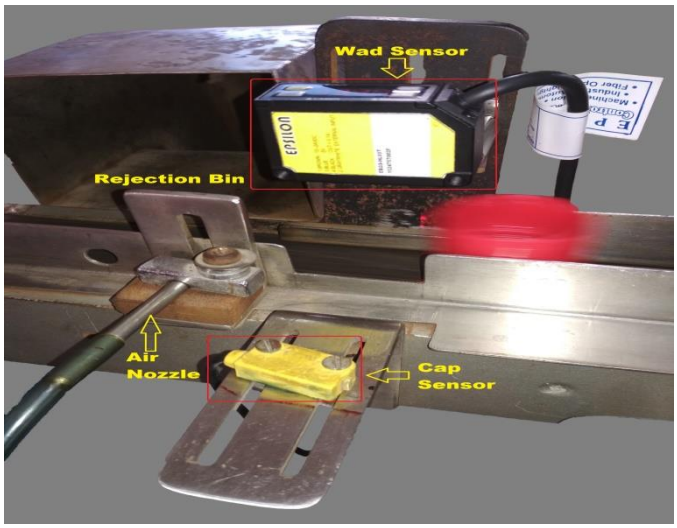
System Features:

- Reliable operation in various speeds.
- No false or multiple output.
- Simple system because use of distance sensor
- System work on up to 1000 products per minute.
- Flexible system
- Sensor has different mode of operation which will help to do critical operation.
- Trigger sensor is used to detect cap.
- Controller based system helps you to adjust delay time before rejection.
- System ensures you that no faulty product per will go to end customer.
- Alarm gives you instant indication for faulty products.
- Cost effective & efficient system.

Learn More

Visit www.epsilonfiberoptics.com for more applications

Detect No Wad / Double Wad / Reverse Wad.



Deployed 100MM from its target, a laser sensor with Epsilon's intelligent controller inspects for No wad / Double wad / Reverse wad in bottle cap on high speed conveyor.

Background

Special application done for wading service provider and cap manufacturer. These industries need a simple, cost-effective, and reliable way to detect No wad / Double wad / Reverse wad in each bottle cap on high speed conveyor. In case of missing of wad /Double wad / Reverse wad that bottle cap is rejected by using rejection mechanism.

Challenge

Customer has wide range of caps of different sizes and colours. Bottle caps are travelling at a speed of up to 1000 caps per minute.The wad thickness is 2MM so we have to give system with sensor which has less than 2 MM resolution. Conveyor has also some vibration while running.

Solution

The epsilon's distance sensor provides an intelligent way to detect absence of wad, double wad , reverse wad in bottle cap .If any of the above cases comes, then controller gives 24V output pulse to solenoid coil to eject that faulty cap. We have also provided buzzer and lamp indication for faulty product. On delay and Off delay of output pulse is adjustable using push button provided in controller.