

Find the cross gear placed on its Counter part

Customer

A large scale Gear manufacturing industry

Customer requirements

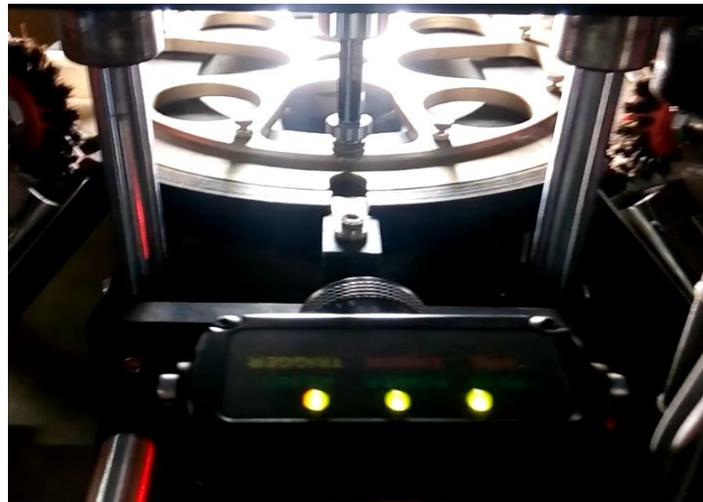
Reliable presence detection of correct part on high Speed machine

Epsilon Solution

P4 G1.3 vision sensor with 16mm lens, and white back light

Why Epsilon?

Epsilon provides economic and reliable solution for critical application



Deployed 120mm from its target, an p4 G1.3 with 16 mm lens and white back light inspects for verification of cross gear on rotary machine

Customer Benefits

Flexibility – User friendly tools and sensor options simplify any application changeover

User Interface – Touch Screen display allows the operator to manage the device and monitor inspection results.

PresencePLUS P4G1.3 Features

- Uses one or multiple sensing tools for expanded application flexibility and extended sensor usability
- Features compact, self-contained P4 housing
- Includes remote TEACH, configurable I/Os, live video and communications standard to all PresencePLUS sensors

Learn More

Visit www.epsilonfiberoptics.com for more application information

Background

Special application done for Gear manufacturing industry. At the time of operation the gear is fixed on its counter part, because of uneven surface and cross thread create a gap between gear and its counter part. The application calls for a simple, cost-effective, and reliable way to verify that the gap between the two parts. If the gap between two parts is more than the allowed range, then specific part is rejected by use of rejection mechanism.

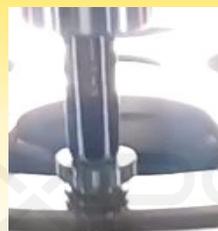
Challenge

The size of the Products are small, color of the parts are not same it may be shiny, or greyish matt. Range of the gap is also to small (0.19,0.20,0.21,0.22) and traveling at speeds of up to 30/minute. These factors call for a very accurate vision system.

Solution

The Epsilon P4G1.3 image sensor provides a simple way to find the cross gear using locate and measure tools, Epsilon P4GEO sensor can provide additional reliability for Cross Gear. The image of the Gear is compared with the pre-Saved image for each batch. In event of a Cross gear one electronic output is generated from Camera. In this case, output is used to eject the faulty Product by air purge cylinder.

Product Image



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