EPSILON
Controls & Automation

Application Note...

Verification of direction of gear teeth on rotary machine

Customer

A large scale Gear manufacturing industry

Customer requirements

Reliable presence detection of correct part on high Speed machine

Epsilon Solution

IVu plus vision sensor with 12mm lens, and red ring light

Why Epsilon?

Epsilon provides economic and reliable solution for critical application

Deployed 120mm from its target, an iVu plus TG with 12mm lens inspects for verification of direction of gear teeth 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.

iVu Plus TG Features:

- 3.5" diagonal color LCD flat-panel touch screen with wide viewing angle
- No external PC required to configure, change or monitor
- Multiple tools can be used in the same inspection.
- Recipe selection built –in

Learn More

Visit www.epsilonfiberoptics.com for more application information

Background

Special application done for Gear manufacturing industry. These industries need a simple, cost-effective, and reliable way to verify that the direction of gear teeth is same as teach and direction of the gear teeth is different/opposite, then specific part is rejected by use of rejection mechanism.
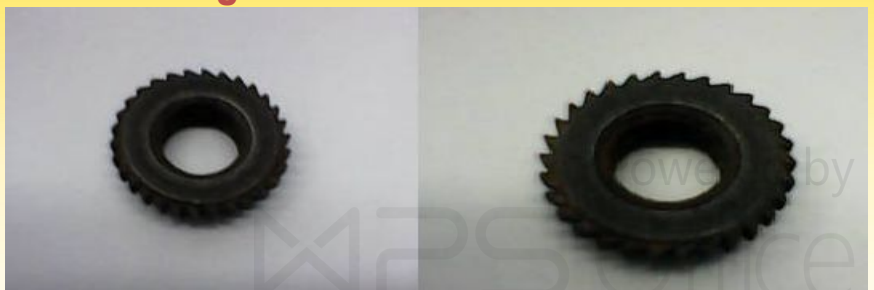
Challenge

The size of the Products are small, color of the parts are not same it may be shiny and traveling at speeds of up to 30/minute. These factors go against the vision system.

Solution

The Epsilon iVu Plus TG image sensor provides a simple way to perform gear teeth verification using match tools, Epsilon iVu plus TG sensor can provide additional reliability for Gear. The image of the Gear is compared with the pre-Saved image for each batch. In event of a wrong teeth one electronic output is generated from Camera. In this case, output is used to eject the faulty Product by air purge cylinder.

Product Image