

Customer

A large scale Automobile and Assembly industry

Customer Requirements

Reliable presence detection of small punch holes on high-capacity rotary machine

Epsilon Solution

iVu TG vision sensor with 50mm C-Mount lens, lens extender and remote touch screen

Why Epsilon?

Speed: - Sensor performs inspections within 20-25 ms on Parts traveling at 120-200/minute

Product Image



Learn More

Visit www.epsilonfiberoptics.com for more Application solution

Image Sensor Inspects & Verifies Punch holes Presence on High-Speed Rotary Machine



Deployed 160mm from its target, plus with 12mm lens inspect for the location and presence of Punch Holes on a high-capacity rotary Machine

Background

A large-scale automobile ancillary manufacturing company. The Company uses high-capacity rotary Machine to keep pace with the demand for their products.

Challenge

The rotary Machine produces 100-120 parts per minute. Sometime parts come Without holes onto the line The Company needed a solution capable of detecting holes on the metal parts as well as required number or missing holes.

Description

To verify that the expected number of holes exist on a small metal part that is not rigidly fixed, use an iVu plus Series sensor configured for a Match application. When holes are punched, the sensor evaluates all the holes to make sure that they are present or absent. If any are not, the sensor sends a fail output to the line where the part is automatically rejected by air jet. The trick is to not teach the whole component as one pattern but to take one hole as one pattern and then count the number of patterns.