

Application Note



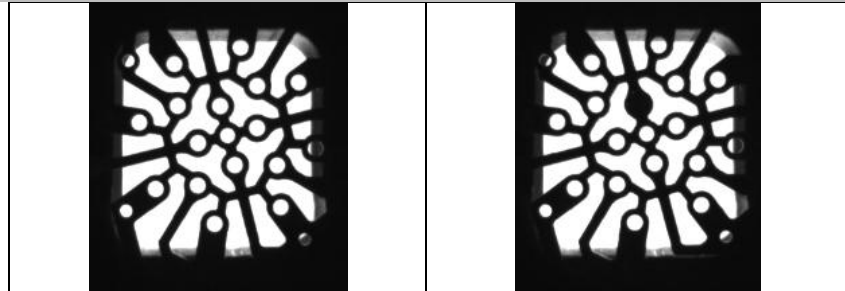
Title: Metal Stamping Error Proofing with Cognex 3G7

No. VS 501

Application Overview: Vision sensing is becoming a key production quality tool for metal stamping companies to insure that they can meet the stringent global quality standards. These companies need a reliable sensing solution that is “Easy to Use” and able to be applied to many inspection jobs. The tasks may change from presence of features or attributes to in-process dimensional gauging.

Application Requirements

- Inspect parts in motion
- Inspect for missing holes
- Catch and contain reject parts
- Match reject part counts to captured parts
- Provide documented inspection process



Good Part

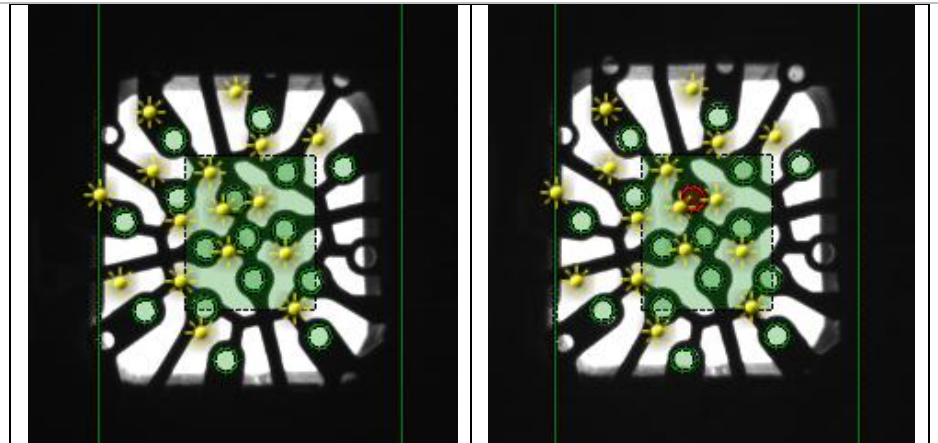
Bad Part

Broken punch results in missing perforation on part causing a defective part.

Cognex 3G7 Sensing Solution

- Enhanced inspection resolution
- Easy for customers' to learn and apply
- Robust and reliable
- Flexible usage

Parts are dropped out of the die onto a part out chute. A milled viewing window with backlighting is placed in the critical area. A fiber-optic trigger sensor is used for image capture.



Good Part – All Tools Pass

Bad Part – Red Circle (Missing Hole)

One area sensor able to replace 16 discrete sensors for reliable formed part inspection.