

# The Festo Checkbox in application: Reliable quality inspection

**FESTO**



## Taeyang Metal Industrial Co., Ltd., Ansan-city, Korea, Reliable quality inspection of threaded bolts

### The task

- Quality inspection of threaded bolts in different designs prior to packaging
- Flexible changeover of parts within the shortest time possible
- Handling is possible without specially trained personnel
- Sorting out parts of a different type which may possibly still be in the bulk-material feed unit

### The solution

- Festo Identbox – standard unit:
- Integrated directly in series with the packaging unit
  - 100 % inspection of all components

### The benefits

- Optimum system productivity thanks to simple handling and fast changeover to new types
- Reliability under rough environmental conditions thanks to industrially compatible design
- Highest quality of delivered parts

# Uncompromising quality for parts inspection!

## The Identbox passes with excellence

Increasing demands in quality, cost awareness and high diversity of variants form the magical trio for innovative production processes. Messrs. Taeyang Metal Industrial Co., Ltd. in Korea offers a wide spectrum of cold forging products, fasteners, steel balls and swaging products, which are predominantly used in the automotive, electronics and machine construction industries.

### Only the best is good enough

Optimum quality and productivity – has been Taeyang's main objective since its foundation in 1954.

This was to be a major factor in Taeyang becoming not only one of the market leaders, but with 650 employees, the largest bolt and screw manufacturer in Korea. The guarantee for success is the consequent quality assurance and constant improvement of production processes.

### The demands

Many types of bolts, some threaded, are cut or pressed from different materials, predominantly steel, and if necessary subsequently surface treated. Close tolerances regarding length and diameter must be met – and the quality of the thread has to be inspected.

Parts of an other type may be present in the feed unit which need to be ejected. Additionally, system conversion from one part to another should be as simple as possible for maximum productivity and throughput.

### Previous method of sorting

Previously, the sorting of foreign parts was carried out purely on a manual basis. Similarly, the quality inspection of parts prior to packaging was also carried out manually – however, only via random sampling. Taeyang was in search of an uncompromising automated solution: with 100 % reliable quality inspection.

### Tight tolerances with high variability

The double demand means there can only be one solution: An optical detection system – the Festo Identbox.

### The result

Trouble-free commissioning and simple handling

- The modular system design with clearly defined interfaces permits direct in-line integration with the packaging unit
- Conversion for different component types can be carried out quickly and requires no specially trained personnel

Precise inspection values and high system reliability

- Defective or foreign parts are automatically ejected
- The line scan camera is protected against extraneous light thus guaranteeing precise inspection results
- 100 % final inspection provides high product quality and satisfied end users

High throughput and low costs

- Reduced down times thanks to fast and flexible change-over to different component types
- Compact, sturdy and industrially compatible design with long service life

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the parts...



the Identbox..



the system...