

# Optical Sorting

## Technical Data Sheet



### DESCRIPTION

Counting  
Removing Foreign Objects / Contamination  
Recess Depth Check  
Thread Fill  
Length Check / Diameter Check  
Head Height

Diameter: M3 - M12  
Length: 10mm - 120mm



### OPTICAL SORTING MACHINE

With the increasing use of automatic assembly systems, it is essential to have good quality fasteners. The Optical Sorting Machine makes this possible by rejecting defective parts. The machine will also separate the accidental mixtures of work inevitable in any high volume plant production.

#### The machine can check:

- Shank length
- Shank diameter
- Presence of a good thread
- 2-start threads
- Head diameter
- Head height

#### Machine features:

- High speed
- Quick setting - easy changeover
- Parts counted
- Batching facility
- Anti-jam mechanism
- Close tolerances

### DEFECT FREE

The use of this equipment enables work to be virtually defect free as far as dimensions are concerned, such that an extremely low number of defects in 1,000,000 can be obtained.

### CONTAMINATION FREE

A far less discriminatory method of automatic screening can be used that will remove contaminants from a batch by using a significant characteristic.

### 2-START THREADS

A vertical row of cells compares the leading and trailing edges of the thread shadow as it crosses the screen, rejecting parts which uncover the cells in a different sequence.

### COUNTING FACILITIES

Six figure counters are provided to indicate the total number of parts checked and the number of good parts selected. In addition to these counters, there is a five figure batch counter which stops the machine when a pre-set number of good parts has been counted.

### LENGTH CHECK

Two individually adjustable length cells are provided. These are set on the screen relative to the component's ten-times enlarged shadow to give the required tolerances. When checking parts less than 20mm total length, extra length cells can be provided to check head height and shank length simultaneously

### DIAMETER CHECK

The shadow is set against the reference cell, then the two adjustable cells are set to give the required tolerance.

### THREAD CHECK

Two vertical lines of cells on the array are spaced so that the shadow of a blank or a thread of reduced height will fit between them. Therefore, any parts with threads missing or malformed threads can be rejected. Varying degrees of malformed threads can be detected by adjusting a sensitivity control.

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