

AUTOMATED DIAMETER MEASUREMENT

Task

In a drawing die production facility the need for diameter testing, sorting, and documentation is critical and time consuming. Diameter testing can be costly in terms of time, labour costs and test equipment. In order to increase production volume, reduce production cost, and improve the quality of the finished product, the wire and cable industry needs to improve these processes.

Solution

Conoptica delivers an Automatic Die Feeder & Sorter (ADFS) which combines with an ElectroOptical Frame to form a highly efficient team. Dies are fed one by one into the EO-Frame from input tubes or a bin, automatically measured, and then sorted according to the measurement results. The ADFS can be combined with the EO-Frames CU4 or CU5 for diameter and ovality measurements, or with the CU10 or CU5 in order to include profile data measurements, e.g. the reduction angle, blending radius, bearing length, etc.

Benefit

A Conoptica measurement system will on its own substantially increase efficiency, compared to other methods. Automating with the ADFS will maximize the efficiency by minimizing human errors and allocating personnel resources to other tasks.



Step by Step

Typically a batch of dies is processed in the following manner:

- Fill input tubes or bin with dies.
- Choose sorting options
- Click the start button
- The dies are measured and sorted in the output cart with up to 70 sorting criteria. During this process, the data is automatically saved in a spreadsheet and/or database, and the operator is free to prepare the next batch of dies or to perform other tasks.
- One die is measured and sorted in 7 seconds (i.e. 12 000 dies every 24 hours)