



Inspected fast and separated exactly

100 % inspection of whole production batches is the daily topic of quality assurance. WAFIOS Umformtechnik takes this discussion one step further, with its new Inspection and Sorting System HPS. Supported by image processing and computer technique with state of the art speed, this system inspects up to 800 parts per minute, checks for dimensional accuracy, and surface quality, thereafter parts are directed according to their status, good and bad parts are separated. The HPS system inspects cold-formed parts from 2 mm to 10 mm in diameter and up to 80 mm in length.

Customers, who have already worked for many years with WAFIOS Umformtechnik inspection and sorting systems, will appreciate this system for its operational dependability, and ease of operation. With the newest generation of the HPS system, the changes and improvements takes this technique to a higher level. The HPS has been optimized with new Hardware and Software to an image processing system that handles up to 800 pieces per minute. By use of an easy menu

quality standards, WAFIOS Umformtechnik and our partner, Chemnitzer Gesellschaft für Prozessrechner Programmierung mbH (GPP), have further developed the optoelectronic inspection of the HPS system. Already during the transfer to the inspection point, the parts are pre-sorted by a double roller system, foreign parts and parts with under size heads are sorted out, to avoid trouble within the ongoing process. With the installation of up to



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Even colour detection is possible

The evaluation unit separates the parts into a "Good" and "Bad" parts chute. The unit controls via ring sensors the exit chutes to ensure that every inspected part goes into the right container. With an optional special feature the documented and counted parts are packed directly on line preventing mixed parts. The inspection tasks are programmed by means of dialog guided menus. An unlimited number of freely selectable measuring areas lead to high flexibility of the software.

Contrary to products of some of our competitors, special know how for image processing is not necessary. Every program generated can be used again at product change with the use of the same setting parameters.

Algorithm and inspection methods of the GPP-Solution "Screw Inspection" are characterized as follows:

The use of a minimum of two or more digital camera systems is essential; multiple lateral cameras increase the assurance of interpretation.

With lateral cameras lengths, minimum, maximum and middle diameters, radius, various distances, threads (outer diameter, pitch, pitch diameter and angle) various angles, straightness and contours can be measured.

Various individual thread types can be measured, also multiple thread types. With the head camera the system inspects and measures head diameters, circularities, slots and visual cracks. The internal drives are inspected for damage. Width across flats and width across corners are measured.

As an optional function, an automatic and configurable output control, with its verification regarding the inspection result or compressed air control, is offered.



▲ Inspection and Sorting System HPS.

The Inspection and Sorting System HPS you will find at the exhibition stand of Messrs. GPP Hall 15 Stand H06.

guided operating interface, all inspection criteria can be adjusted faster for new jobs. In addition to lateral and head cameras, in special cases, a further color detecting system can be integrated. For screw manufacturers it is essential to use automatic inspection processing for their products. To achieve the requested

three CCD-cameras and the use of computer technology with Duo-Quad Core processors the system can not only collect the measurements of the part but also control the rotational symmetry. Even parts of the same geometry, but with different surface condition can be accurately separated by the use of electronic color detection.