

hörort

Automated
Measuring and
Sorting of
Turned Parts

hörmlle

Feeding and Assembly
Technology

hörSort: For the automated control and sorting of rotationally symmetric parts

The hörSort System was developed specifically for the control of rotationally symmetric parts. It is based on image processing and can be adjusted individually to your requirements. The central unit is the image processing system which includes numerous and complex monitoring and control functions. The turned parts are guided accurately on a glass chute, measured and sorted.



We are certified in accordance with DIN EN ISO 9001

All components can be adapted to your individual requirements and the space available.



› Your component range

The glass chute can quickly be adjusted as V or L track to match the parts to be checked:



V track

for cylindrical parts with diameters from 2 to 34 mm, such as shafts, axes, screws, pins, etc.

L track

for discoid parts with a weight of up to 80 g, such as disks, bushes, sleeves and flat stamped parts.

› Steep conveyor and bunker



A steep conveyor and bunker are used for the automated and protective feed of the parts. It holds 80 – 500 kg.

Filling height 800 mm

Discharge height 1800 mm

› Feed



Using a vibratory bowl feeder the parts are separated and placed on a conveyor belt at equal distances.

Diameter 450 mm 600 mm



Delivery includes

- › Automated sorter with bunker
- › Pre-selector unit
- › Parts guide with good/reject switch
- › Basic frame with side panel
- › Cameras with high quality lenses
- › Image processing system
- › Software
- › 15"-TFT-Monitor, keyboard, mouse
- › IR lighting system
- › Documentation in quality ring binder
- › Programming examples and tutorial

Technical Data

- › Measuring accuracy ± 0.01 mm for parts- \emptyset max. 17 mm and parts length max. 23 mm
- › Measuring accuracy ± 0.02 mm for parts- \emptyset max. 34 mm and parts length max. 52 mm
- › Measuring accuracy ± 0.04 mm for parts- \emptyset max. 90 mm and parts length max. 130 mm
- › Optional with higher resolution
image window 56; resolution 0.005 mm
image window 28; resolution 0.0025 mm
image window 12; resolution smaller than 0.001 mm
- › Throughput 100 – 300 parts/minute
- › Measurement of diameter, lengths, thread, deviation in shape,...
- › 1 – 5 cameras, also with precision carriage, depending on model
- › Infrared lighting systems
- › Graphic user interface
- › Quick teach-in of new parts
- › Standard PC – Windows 2000
- › Modularly extensible

› Auto-visual Inspection



The parts are placed on a glass chute and scanned and controlled by 1–5 high resolution cameras. Simultaneously the outer dimensions are measured and the shapes inspected at a throughput of up to 300 parts per minute.

› Sorting



The good parts and rejects are sorted out separately (using a guide) and a test protocol generated.

› Packaging



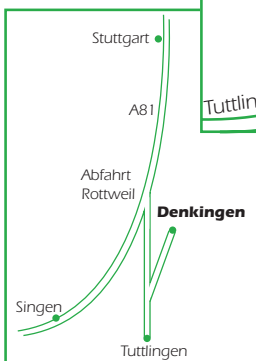
The good parts are discharged via a conveyor belt from which the parts pass to a packaging conveyor or rotary table for packing, where the packaging units are placed (cases/boxes).

Accessories

- › 2 – 3 cameras in lateral position
- › Cameras 3 and 4 from above
- › Camera for thread and surface defects
- › Steep conveyor
- › Discharge conveyor
- › Chute
- › Packaging conveyor
- › Rotary packaging table

Product Range

- › Feeding technology – oscillating conveyors
- › Step conveyors
- › Belt conveyors – bunker systems
- › All types of bowl coatings
- › High-speed centrifugal sorting machines
- › Linear conveyors
- › Measuring units/systems
- › Individual solutions
- › Robot systems
- › Control units
- › Optical measuring systems
- › Handling systems
- › Separation units



Furthermore hörmle offers you:

- › Consultancy
- › Development – Construction
- › Manufacture and Assembly
- › Optimisation of existing Equipment and Machines
- › Single Source Solutions
- › Service

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