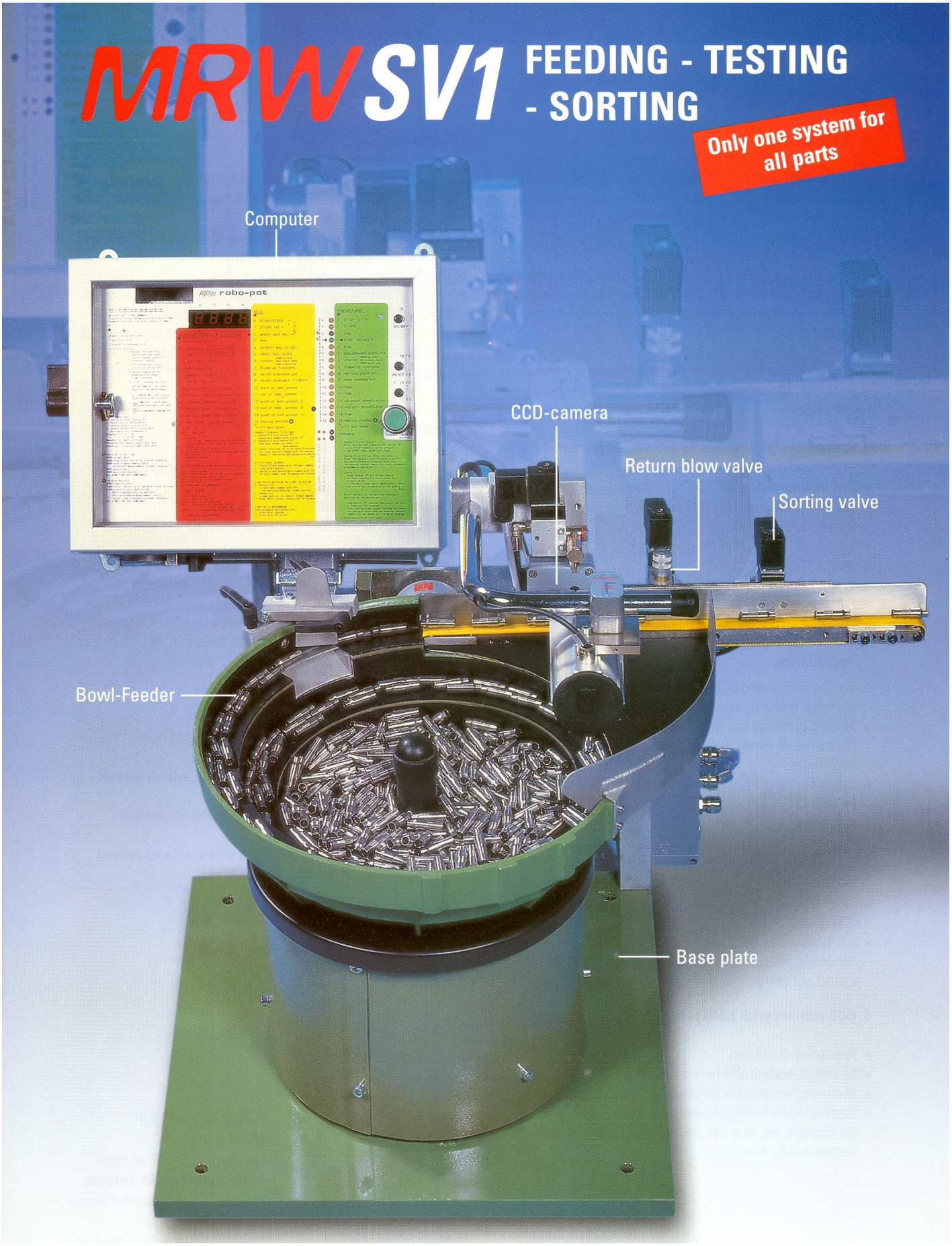
MRW SV1 FEEDING - TESTING - SORTING

Only one system for all parts



Description of MRW SV1

1. General information

The MRW SV1 is a complete compact feeding, sorting and testing device mounted on a base plate, consisting of a bowl feeder (3 available sizes), a conveyor belt with integrated camera system and a brand-name computer.

Derived from the MRW ROBO-POT System, which bas been tried and tested for 16 years, the MRW SV1 has now been provided with the most important consistently standardised functions and functional units.

MRW SV1 is also available without bowl feeder and base plate and can easily be assembled by the user with the familiar bowl feeder systems.

2. What types of parts can be sorted and tested?

- Generally all parts that can be transported in stable positions are suitable, preferably rotationally symmetric parts with the following dimensions:
- Length: 3 mm – 78 mm
- Height: 0,5 mm – 25 mm
- Width: 0,5 mm – 22 mm
- Programming by the teach-in procedure (select a part, let it pass by the camera, start the device)

Applications

- The feeding/testing of large part assortments with rapid changing times is possible
- Feeding in connection with the testing of parts as well as the sorting of wrong parts can avoid machine downtimes and rejects
- Even parts with difficult or almost imperceptible contours, for which mechanical sorting units usually fail, can be fed and tested

3. Output

- Depends on the length of the part and the size of its differences
- e.g. bolts with a 45° bevelled edge, length: 50 mm, orientation depending on bevelled edge: approx. 200 parts/minute in their correct positions

4. CCD-camera with 2.048 pixels

- Resolution: 0,014 mm
- Minimum recognisable height difference: 0,05 mm
- Minimum recognisable length difference: 0,2 mm
- (Depending on quality of parts and conveyor belt speed) All contours are, as a rule, tested; it is possible to block out certain testing areas

5. Computer

- Independent computer integrated into Rittal housing, robust, easy to operate; parts can be programmed within seconds
- 31 parts can be stored
- All operational values can be changed and adjusted by the user without additional devices if necessary
- Display of test functions and test results
- Input and current supply for START/STOP sensors (e.g. accumulation zone is full) and for programmable controller (PLC)
- The integrated control for magnetic bowl feeders regulates the bowl feeder speed depending on the distances between the parts travelling on the conveyor belt (bowl speed is freely selectable)

6. Conveyor belt

- The design is specially tailored to the camera system, easily accessible, compact and easy to maintain
- Length: 460 mm, width: 20 mm or 30 mm
- 1 valve with throttle for blowing parts in incorrect positions back into the bowl
- 1 valve for sorting defective or wrong parts
- 1 valve above the CCD camera which will be automatically activated whenever the camera is soiled
- Conveyor belt motor suitable for industrial purposes, controlled by tachometer and adjustable from 10-25 m/min. or 6-12 m/min. or 20-40 m/min. Maintenance-free

7. Bowl feeders

- Three sizes are available: Upper Ø 400, 540, 650 mm

8. The complete system is easy to change, which means:

1. Malfunctions or faults can very easily be located without additional effort
2. Faulty components can be easily and safely replaced without the use of any special tools

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