

SWISS FLEXIBLE AUTOMATION SOLUTION

 available in  
**DESKTOP** version



**DEEP LEARNING**  
INSIDE

## **Automatic visual inspection machine for micro-technical parts**

### DESCRIPTION

Designed to perform automatic visual inspection of micro-technical parts, the **Microparts inspector** machine is a self-learning production machine that operates based on artificial intelligence and neuronal networks. By mimicking human functions,

the technology enables inspection tasks that cannot be performed by traditional industrial vision systems to be automated. The **Microparts inspector** machine can be used to inspect parts positioned flat in trays, and can be equipped with a standalone system for stacking and unstacking the trays (optional).

### ADVANTAGES



#### Turnkey

It is no longer necessary to develop a complicated code for performing visual inspection.



#### Easy to use

The parts are simply placed in a tray. It is not necessary to position precisely the parts for inspection.



#### Flexibility

The machine can inspect parts of various shapes and sizes.



#### Performance

The inspection is superior to the best quality inspector.



#### Modularity

The standard modules are compatible with additional options.



#### Speed

The inspection cycle time is optimised.



#### Traceability

The device saves all the inspections performed.



#### Service

Remote assistance for diagnostics and intervention.

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APPLICATION EXAMPLES

**1** Functional and aesthetic defects

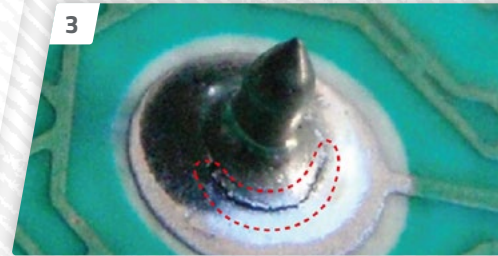
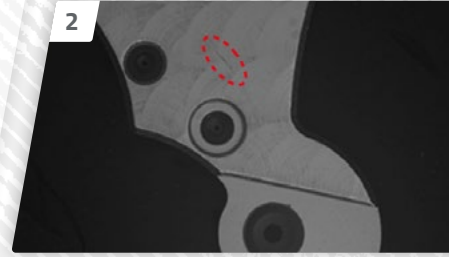
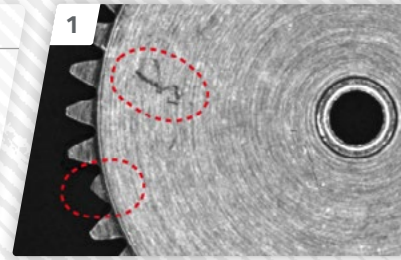
Detection of functional defects such as deformation of a gear tooth or the presence of swarf on mechanical parts (e.g. toothed wheels, moving wheels, pinions, etc.).

**2** Aesthetic defects

Detection of aesthetic defects such as scratches, cuts and imperfections on polished or decorated surfaces of watch parts (e.g. bridges, main plates, bearings, etc.).

**3** Functional defects

Detection of functional defects such as defective weld beads, insufficient bonding or lubrication on various materials (e.g. plastic, metal, leather, etc.).



TECHNICAL FEATURES

Cell dimension (without standalone module)	1000 x 1100 x 2250 mm (L x D x H)
Cycle time	1-3 s / inspection
Positioning	motorised linear XYZ axes (Gantry)
Field of view	11 x 14 mm (option : 45 x 48 mm, 70 x 70 mm)
Lighting	coaxial / ring light
Average operator training time	~ 2 h
Machine self-learning time	~ 1 h / recipe
Machine user	non-specialised operator
Weight	800 kg
Power consumption	220 V / 50 Hz 10 A

TECHNICAL DRAWING

