VINSPEC
Optical, Fully Automated Surface Inspection
Optical surface inspection and geometrical inspection with VINSPEC

Inspection of visible, sealing and functional surfaces

Geometrical inspection

- dimensions
- edges
- angles
- center of gravity
- contour
- type verification
- distance
- position

Surface inspection

- scratches
- nicks
- dents
- pimples
- pressure marks
- surface zones
- foreign particles, gels
- contaminations
- stains
- cracks
- blisters, bumps
- striations, streaks, folds
- clouding
- transparency fluctuations

VINSPEC – fully automated, optical surface inspection

VINSPEC machine vision systems objectively and reliably inspect the surfaces and edges of flat and structured parts for deviations, flaws and functional defects. The fully automated 100 percent inspection and objective defect classification enable the implementation of a zero defect strategy at production speed and high throughput.

VINSPEC can even handle challenging visual inspections where the inspection tasks are extremely complex. Even the smallest defects are detected, so that defective parts can be excluded from the production process at an early stage.

High-speed, high-resolution area scan and line scan cameras are used for the inspection.

With VINSPEC, VITRONIC provides a turnkey system, which, thanks to its modular design, can be adapted very flexibly to individual customer requirements. Based on our many years of experience, VITRONIC can even support you by supplying turnkey surface inspection systems and machines from a single source.

The benefits to you:

- Inspection based on CAD data eliminates the need for the time-consuming selection and archiving of a “golden sample”, and enables fast teach-in of inspection areas and tolerance zones, even when intricate and complex
- Efficient minimization of pseudo defects by means of three-dimensional methods, image filtering and the classification of defects based on more than 100 features
- Optical distortions, lateral and angular can be compensated on base of known geometry
- Documentation and archiving of inspection results in an integrated database – with a photo if required – as proof of quality
- Statistical functions enable the early detection and correction of process deviations and drifts before causing scrap
- Standardized communication with the PLC system and the MES (horizontally and vertically)
- The systems are field proven and globally used
We are a medium-sized, owner-controlled German company that operates worldwide. Since the establishment of the headquarter in Wiesbaden in 1984, VITRONIC has offered industrial machine vision systems in the three core sectors of industrial automation, logistics and traffic technology. Our range stretches from standardized to custom-made system solutions.

All products are developed, designed and produced by VITRONIC in Germany. The company is a global leader in the field of industrial machine vision. VITRONIC products are currently used in over 40 countries.

Further to our international subsidiaries, VITRONIC is also represented by numerous sales offices, service sites and partners all around the world. Feel free to contact us – we look forward to hearing about your projects.

All contact addresses can be found at www.vitronic.com