CIENTEC

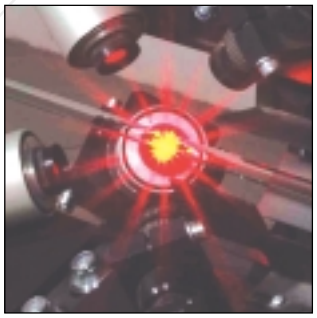
FALCON VISION

Specialist in machine vision systems for in-line metrology

IN-LINE INSPECTION • QUALITY CONTROL • PROCESS DIAGNOSTICS

Falcon-Vision product applications

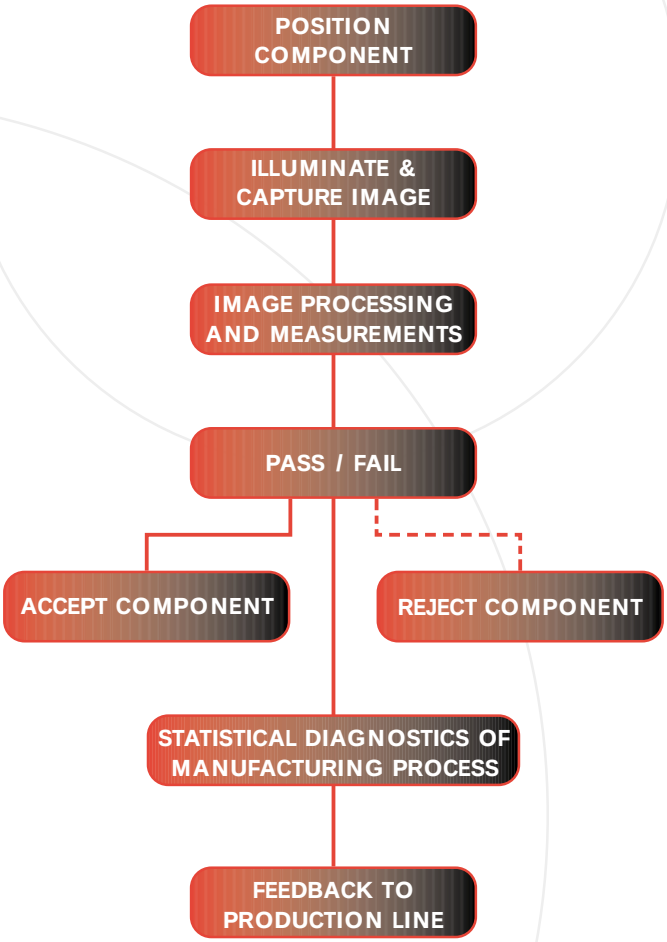
Machine vision metrology systems in industry



Falcon-Vision in-line inspection systems are widely used in the following industries:

- Automotive
- Automotive supply
- Glass
- Plastic components
- Light-bulb products
- Pharma / healthcare
- Paper
- Food
- Electronic assembly

A rigorous attention to detail in the inspection and measurement process guarantees the reliable and repeatable measurement of every component.



in-line inspection

QualiLine range of machine vision products

QualiLine-C
In-line casting inspection systems

QualiLine-C uses multiple camera and illumination arrangements for a variety of casting applications, including engine blocks, cylinder heads, transmission systems and brake parts. Statistical analyses of the measured process parameters are used to warn of tool wear and other manufacturing anomalies.

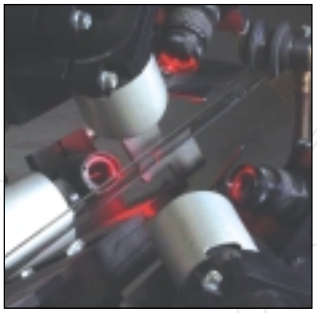
Key features:
- Non-contact inspection
- Accurate, repeatable, reliable
- Cycle time matched to production line speed
- 3-D measurements
- Fully integrated into production line
- Real-time statistical process data and feedback

Aluminium cylinder head inspection

QualiLine-G
In-line glass tube inspection systems

QualiLine-G is used on glass tube production lines and in particular in specialist light bulb manufacture. The system measures wall thickness and other critical parameters.

Key features:
- Can be adapted for different tube diameters
- Measures circularity and surface quality in addition to diameter
- Suitable for any transparent tube



Glass tube inspection

QualiLine-R
In-line multiple camera robotic inspection systems

With cameras mounted on a robot arm, QualiLine-R is ideally suited for completeness checks of complex assemblies.

Key features:
- Flexibility
- 3-D inspection
- Robot can easily move to view areas not accessible by fixed cameras
- Easily reconfigurable for checking different components

Inspection of rear-view mirror

QualiLine-L
In-line precision measurement and inspection systems

The QualiLine-L series of inspection systems can be used for final product or work in progress inspection of welds, filament shape or the geometrical parameters of other small metal and plastic components.

Key features:
- Can be installed in different positions along the production line
- Provides real-time yield statistics
- 3-D inspection
- Supplies statistical process control data

In-line measurement system

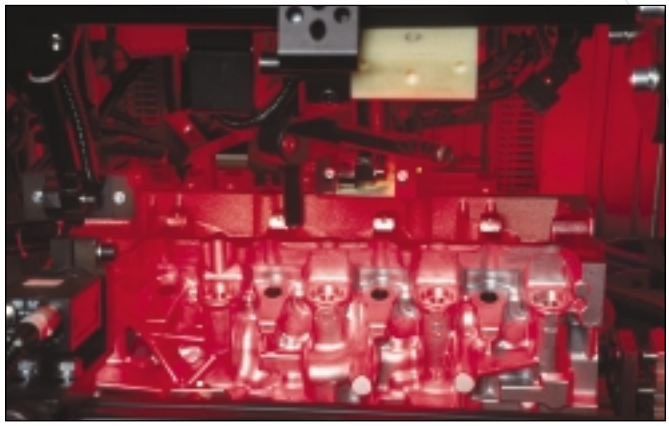
reliable, repeatable measurement

Dedicated to supporting manufacturing industries

Falcon-Vision was founded in 1996 by a team of engineers who had previously worked together for many years providing machine vision solutions for industry. As manufacturers throughout the world strive to achieve "zero defect" on their production lines, 100% quality control is rapidly becoming the default industry standard. Falcon-Vision has developed the QualiLine range of machine vision products to meet these needs with non-contact,100% inspection in real time.

Complete integration

Falcon-Vision QualiLine products are fully integrated into the production line, bringing the twin benefits of 100% inspection of products and statistical analysis of the quality of the production process itself. The company is an established supplier of vision based products and systems to leading multinationals across a broad range of industries.



zero defect

NON CONTACT 100% INSPECTION

Seeing the benefits

Many companies have benefited from the use of Falcon-Vision products. The company's vision technology has been instrumental in the modernisation and further automation of the lighting industry in Hungary which is recognised as a world-class supplier. Falcon-Vision products have also played a critical role in allowing new companies in the automotive supply chain to meet 'just in time' manufacturing requirements by supplying 100% inspected components to assembly lines in Germany, France and other countries.

Design, development and production

Falcon-Vision has a dedicated team of mechanical and electronics engineers, physicists and systems engineers responsible for the design, development and production of its QualiLine in-line metrology products. This highly skilled team pays meticulous attention to detail in meeting the needs of Falcon-Vision's customers.

Product development

A host of key technologies ranging from mechanical engineering to image processing and analysis have been brought together to create a range of metrology products that are in daily use in industries as diverse as automotive supply, electronics and healthcare. The product range utilises different approaches for different production line requirements. Falcon-Vision products also collect relevant statistical data from the measurements, which provide users with a powerful real-time analytical tool of the state of the production process.

Getting it right

CAD facilities, image processing toolkits and software development tools are routinely used to produce each generation of machine vision products. The latest technology and components are incorporated in new products to ensure that they are at the forefront of machine vision technology. The company also works closely with customers' production and design teams to seamlessly integrate the inspection and measurement systems into the production lines.

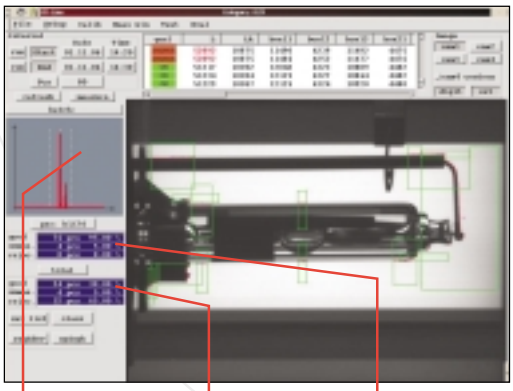
ISO 9001 Certification

Falcon-Vision's business is dedicated to the production of machine vision products and systems which are used for 100% inspection of components as part of the production and quality control process. The company's own manufacturing procedures have been accredited to ISO 9001 since 1997.

ISO 9001 BUREAU VERITAS Certification

UKAS QUALITY MANAGEMENT 008

100% quality control



Measurements and measurement threshold

Batch statistics

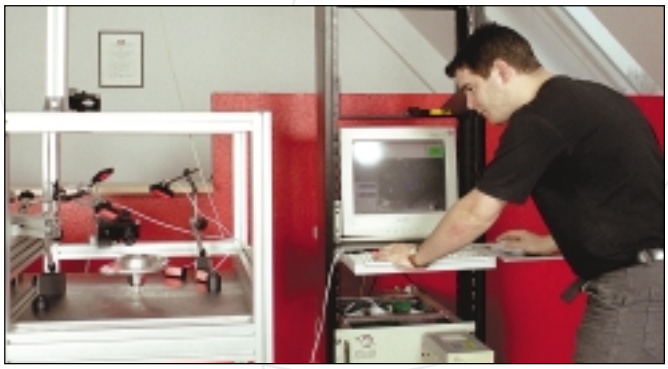
Cumulative statistics

Service and support

Falcon-Vision provides first class technical, service and preventative maintenance support.

Manufacture, testing, installation & commissioning

All systems are rigorously tested before shipment. Fully qualified engineers complete the on-site installation and carry out the commissioning of all products.



Training and post-installation support

Falcon-Vision provides full training for both operating and maintenance staff and develops a close working relationship with its customers. The team is also well placed to respond to any future development needs, as production line requirements or specifications change.

Service and maintenance

Service contracts can be tailored to offer guaranteed response times to minimise any production line down-time, whatever the location of the installation. Regular scheduled maintenance visits are a key component of service contracts and keep systems operating at peak performance. In addition, engineers are on hand via telephone and e-mail to deal with any maintenance queries. Diagnostic capabilities using internet-based tools may be optionally incorporated into the QualiLine product range to provide sophisticated remote diagnostic capabilities.

international distribution network

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