

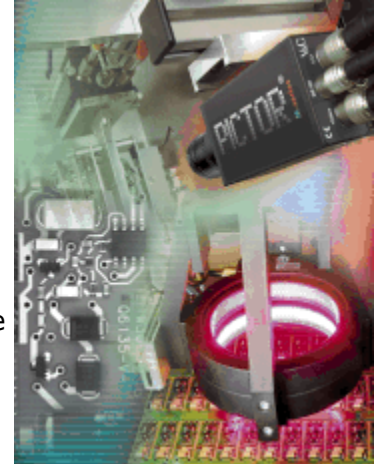
Applications Examples

Systems offered by FS Systems and components supplied by Vision Control can be found in virtually all areas of the processing and production industries, all over the world.

Our most important aim is insuring that product quality is improved and is maintained at a high standard via 100% inspection, that processes operate reliably and that the level of automation is raised.

Some application examples (below) display the breadth of industries and tasks where FS Systems and Vision Control components are in use

- Precise measurements
- Robotics
- Short cycle times
- Rough environmental conditions
- Difficult lighting
- Multiple products / Small batches



The types of problems that can be successfully solved by use of FS Systems supplied components and systems are extremely varied and the possibilities for employing them are practically limitless. Typical sorts of problems involved are:

Measurements:

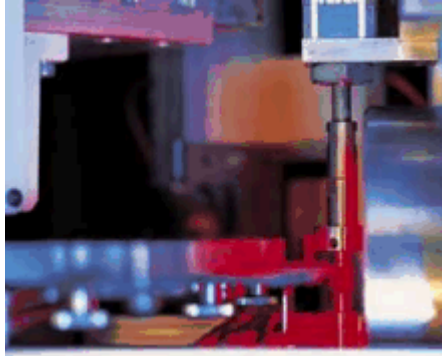
- length
- width
- height
- angle
- orientation
- size
- area
- center of gravity
- straightness
- roundness
- shape
- contour
- colour
- brightness

Testing:

- attributes
- distances, positions
- completeness-/presence
- colour- and pattern recognition
- degree of a feature
- read / recognize signs and characters
- code reading
- object recognition / identification
- material flow control
- proof of process capability (ISO 9000 cont.)
- process control: optimization of yield
- surface inspection
- print check control
- check of assembly
- recognize structures and textures
- recognition of position and rotation (robot vision)

Applications where lighting is the key

Inspection of steering components for cracks



The task:

After forging, safety relevant steering components must be inspected for cracks, cavities and other defects. The inspection of the domed surface of the ball-head presents a real challenge for the lighting technology.

The benefits:

- product liability demands can be met
- 100% quality can be assured
- material defects can be recognised at an early stage in the processing



Components used:

- PICTOR®
- VCN series entocentric lens
- VICOLUX® SF64 shadow-free lighting