

100 % safety in medical technology

Quality inspection for the assembly process of cannulae

The task

Vein-insertion hypodermic syringes for infusion systems are inspected at several stations during the assembly process. Vitronic's machine vision system VINSPEC checks and classifies the hypodermics from several angles with regard to the following quality criteria:

- Undamaged bevel
- Twisting of the hypodermic
- Correct cutting

and checks the correct assembly of the individual components (hypodermic, capillaries)



Optical cannula inspection

Benefit

Due to the size of the components alone, a visual check of these highly sensitive medical products by humans is usually only made on a random sample basis. Fully automatic, 100 % inspection by VINSPEC, however, guarantees consistently high quality. Defective products are separated and rejected. The individual inspections have proven themselves over many years to be safe and reliable.

Realisierung

The inspection system works at a throughput of 80 parts per minute, at guaranteed measuring tolerances of 1.7 µm and 1°. VINSPEC is a modular system, consisting of several individual tests that can be used in different combinations, depending on the production line.

Technical data

Cameras:	2 - 6 CCD-matrix cameras, depending on the production line
Illumination:	Tailored LED
Resolution:	Measurement accuracy approx. 1.7 µm
Speed / Throughput:	80 parts per minute
Image acquisition:	up to 6 image acquisitions per station