Quality In Control
Vision Profiler

:: Data Sheet ::

The Vision Profiling system uses flat bed scanners or cameras to measure and tolerance all types of cross sections of small to large objects. Using either lighting from above or built-in scanner illumination, the Vision Profiler's high resolution, large measuring field and low cost make it an excellent choice where the measuring plane is flat and has no recesses. The system is ideally suited for measuring profile sections, tubes, pipes, gaskets, and stamped parts.

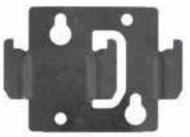
The software offers manual point and click measurements and an optional automatic inspection module for convenient tolerancing using predefined specifications stored in a database. All images, with or without measurement overlays, can be saved or printed. Results can either be printed or exported to a database and/or a text file.

VP-Cam is a customized version of the VP that utilizes a camera instead of a scanner to measure objects more suited to that type of image acquisition.

TYPICAL PROFILES

Cable insulations and tubes

Castings



Stamped parts

Soft plastic and rigid profiles

Steel clips and channel sections

Caps and bottles

RANGE OF TOOLS

Standard measurement tools

Point-to-point Distance measurement
4-point angle measurement
Maximum clamp (arbitrary, horizontal & vertical)
Minimum clamp (arbitrary, horizontal & vertical)
External edge-to-edge distance
Internal edge-to-edge distance
4-point angle measurement
Maximum clamp (arbitrary, horizontal & vertical)
Minimum clamp (arbitrary, horizontal & vertical)
Radius / diameter (internal & external)

Smart measurement tools

Circular / Figure 8 cable measurement tools
Layer thickness tool
Tube measurement tools
Curve coordinate output tool

Fully automatic inspection / tolerancing

The best way to use the VP3600 software is to use the automatic inspection procedures (called recipes). This makes the whole inspection process fully automatic while removing the possibility of operator errors. These procedures lock all scanning parameters and ensure absolutely repeatable independent inspections. Once created the operator either types in the product code or selects and runs a recipe to obtain tolerancing and pass/fail type quality assessments.

BENEFITS

- High resolution, large measurement field
- Low cost
- Measure and tolerance all types of cross-section
- Flexible, customisable system
- Camera-based system can measure recessed dimensions
- Manual point and click measurements
- Automatic inspection module
- Store electronic images of products
- Store results in a text file or database
- Manual, semi-automatic and fully automatic system and insection tools
- Excellent resistance to dust and dirt

Vision Profiler

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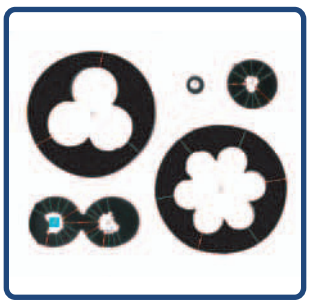
TYPICAL APPLICATIONS

Profiles

Easily measures all profiles with highest accuracy. Excellent measurement of floppy sections.



Cables and tubes

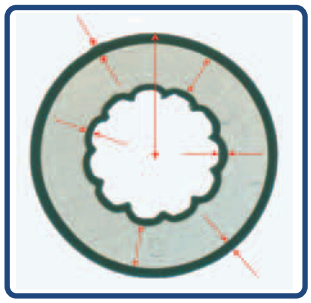
Measures most common cross-sections. Scans and checks tens of identical samples at once.

Metal components

Quickly check stamped, machined and drilled parts for correctness.

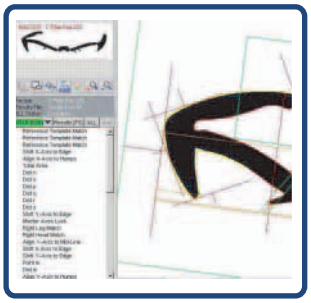
Caps and bottle necks

Measure diameter, thread pitch, neck angles and clearance.



Smart tools

Customisable tools to provide a number of results through a single tool.



Fully Automatic Inspection

Most advanced system has co-ordinate system tools for automatic inspection of highly complex profiles & images

EXAMPLES OF SMART TOOLS

Cable / Tube Tools
Measure min/max wall, OD, eccentricity, ovality and area.

Cross-Section Area Tool
Measure cross-section area of tubing, insulation and other complex profiles.

Multi-Layer Tool
Measure all layers at once and display as % of total or in actual thickness.

Curve Output Tool
Store any section of a complex curve in X/Y format on disk.

SPECIFICATIONS (using scanner)

Optical resolution	< 0.01 mm
Measurement resolution	< 0.001 mm (interpolated)
Measurement area	3 x 3 mm to A4 (subject to scanner)
Measurement speed	from 0.5 s to 5 s *(after scanning, assuming fully automatic inspection)*
Scan time	from 10 seconds up *(subject to scan area and chosen resolution)*

[All specifications subject to exact system configuration]

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