



ApplicationFocus Multi-Lumen Tubing



Inspection and measurement of Multi-Lumen Tubing

Multi-Lumen tubing typically has a number of individual channels running through its interior. These lumens are arranged in various configurations and in a variety of sizes and shapes including circular, oval, triangular, square and crescent. Applications include catheters, analytical equipment, fiber optic instruments, specialty medical instrumentation, audio cables,

endoscopes and multi-sensor instruments. Variables in sample dimensions that must be measured include outer diameter (OD), numerous inner diameters (ID's), and various wall (between ID and OD) and web (between ID's) thicknesses.

System Challenge

Inspection of Multi-Lumen Tubing is difficult because it requires:

- Measurement of the true position as well as the dimensional size of lumens
- Minimal sample preparation and operator involvement during inspection
- Automated rapid inspection with minimal manipulation of samples
- Automated data reporting with instantaneous pass/fail analysis
- Many of these samples are very difficult to image due to poor illumination methods in the past

Nikon's Solution

NEXIV VMZ-R Vision Systems with Automeasure Software

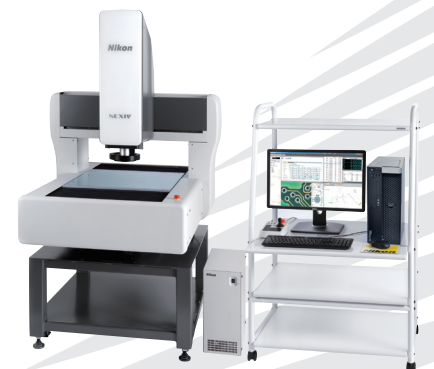
- Rapid setup with automatic rotation of X and Y coordinates to sample position
- Accurate, repeatable measurement of critical features in any orientation
- Consistent measurements independent of operator involvement
- Automated MS Excel reporting format with real time pass/fail analysis
- Automatic network data archiving

Feature recognition and pattern search functionality with image rotation help further reduce set up times

For more information, go to www.nikonmetrology.com or email sales.nm@nikon.com

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