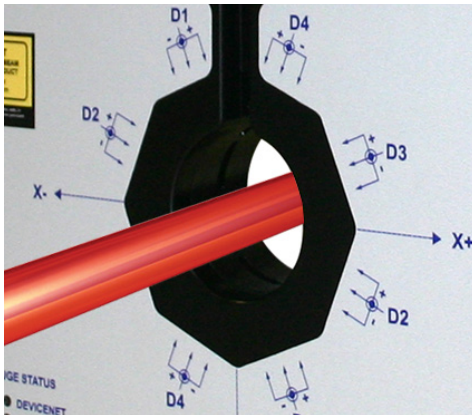
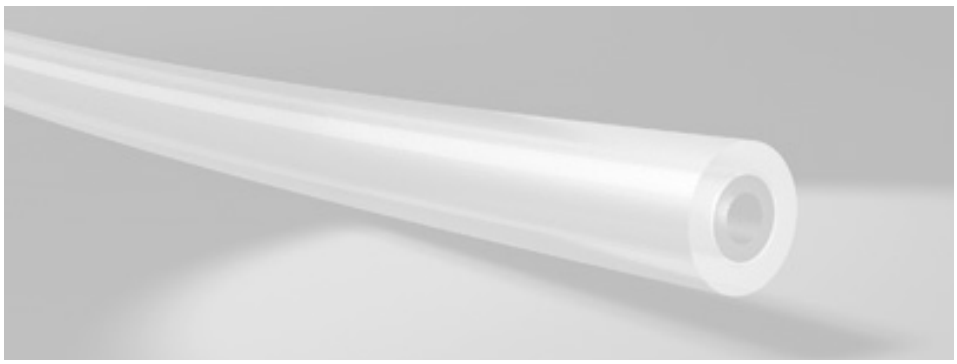
NDC TECHNOLOGIES

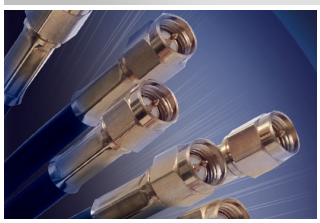
ACCUSCAN 6000 SERIES

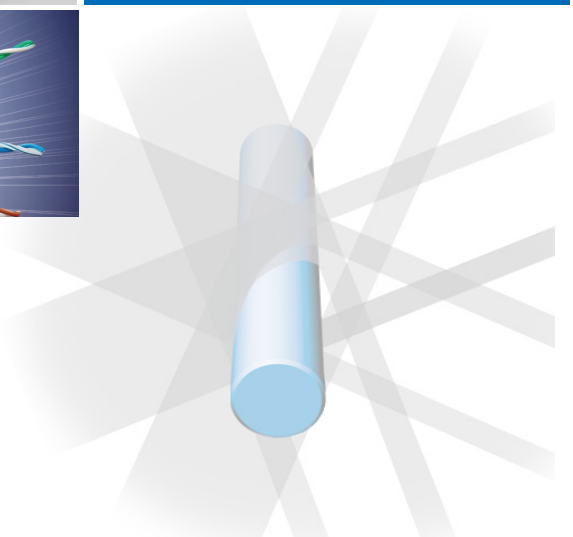


NEW!



The industry's first four-axis diameter and ovality gauges for products up to 50 mm





- Most comprehensive measurement coverage provides more accurate average diameter
- Improves ovality accuracy up to 100%
- Provides highest flaw detection accuracy with 25% improvement over 3-axis
- Delivers highest product quality yield for significant manufacturing savings

Measured by Commitment

BETA LaserMike

Four-Axis Diameter & Ovality Measurement is Finally Here!

Get ready to experience unmatched performance and numerous quality and production advantages.

The need to precisely measure the diameter and ovality of cylindrical round products to ensure they meet tight design and quality specifications is of paramount importance to manufacturers of medical tubing, high-performance communication cables, and other important extruded products. Producing any medical tubing product with an "out-of-tolerance" diameter or roundness, often down to ten-thousandths of an inch, affects the performance of life-critical devices such as catheters, drug delivery and surgical tubing, and other medical devices. With communication cables, such as Coaxial and twisted-pair LAN products, any error in the diameter or roundness of the conductor or insulation directly impacts the cable's performance characteristics -- rendering the product useless for the designed application.

Side display mounting available on the AccuScan 6000 Series

Step Aside Two-Axis and Three-Axis…**Meet Four-Axis**

Over the years, industry has relied on conventional dual-axis and three-axis diameter and ovality gauges for on-line and off-line measurement applications. But, the increasing production line speeds and the uncontrollable rotation and vibration of products still pose measurement accuracy challenges. The **new AccuScan 6000 Series four-axis diameter and ovality gauge** solves this problem and provides unmatched performance where it counts while enabling you to realize numerous quality and production advantages.

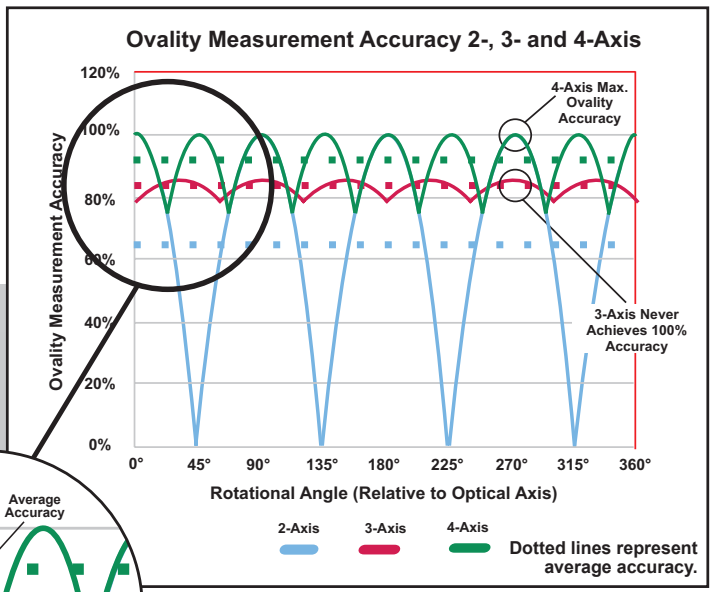
Four reasons why you need the new AccuScan 6000 Series four-axis gauge:

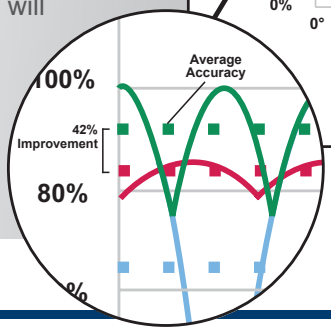
1 *Improves Ovality Accuracy by up to 100%*

Depending on the orientation of the product within the measurement region, two- and three-axis gauges will only provide a certain degree of ovality accuracy. You will only get accurate readings when an elliptical product is perfectly aligned with the measurement axes to detect the maximum and minimum diameters.

>> The Data for Four-Axis Ovality Measurement Accuracy Speaks for Itself

When the product is aligned with the measurement axes, three-axis gauges can provide an average ovality accuracy better than two-axis gauges – but will never deliver 100% accuracy. On the other hand, the AccuScan 6000 Series four-axis gauge offers a 42% improvement in ovality error over three-axis gauges and delivers 100% accuracy when the product is aligned with the measurement axes.





42% improvement in ovality error from 3-axis to 4-axis

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The AccuScan 6000 Series gives you more accuracy than two- and three-axis

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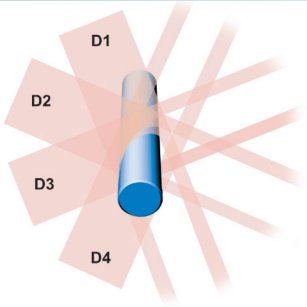
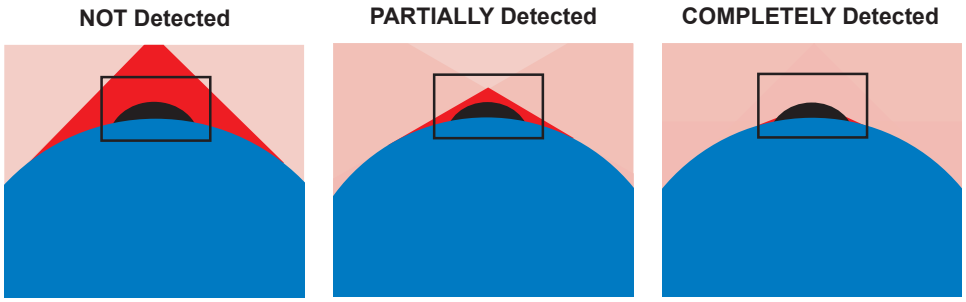
2 Better Measurement Coverage for More Accurate Average Diameter



The AccuScan 6000 Series four-axis scanning capability provides the most comprehensive measurement coverage around the product's circumference compared to two-axis and three-axis gauges. The AccuScan 6000 Series performs ultra-fast diameter and ovality measurements at 2400 scans per second per axis, totaling 9600 measurements per second – enabling you to instantly detect changes in the product diameter. Using a unique calibration algorithm, the AccuScan 6000 Series provides the **highest single-scan accuracy in the industry with single-scan repeatability down to 1 micron**. This means with each and every scan you get a true and more accurate diameter measurement.

3 Provides the Highest Flaw Detection Accuracy with 25% Improvement Over 3-Axis

More measurement axes mean better flaw detection. In the illustration below, a lump with a given height in the "blind area" (highlighted in red) will not be detected. As you can see, the blind area in the two-axis gauge is significantly larger than the three-axis and four-axis gauges. Similarly, the blind area in the three-axis gauge is larger than the four-axis gauge. With each additional axis, you increase the probability of detecting lumps and neckdowns by 25%.



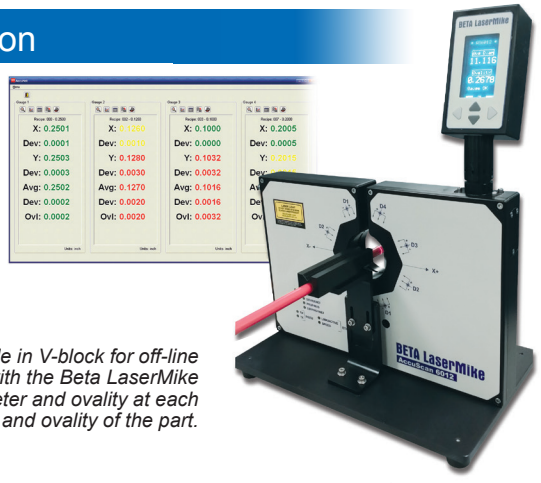
The AccuScan 6000 Series High-Speed Tolerance Checking option permits the early, precise and dependable detection of product flaws such as lumps and neckdowns

4 Delivers the Highest Product Quality Yield for Significant Manufacturing Savings

With the new AccuScan 6000 Series gauge you get the best of all worlds: unmatched four-axis scanning coupled with high-accuracy, ultra-fast measurements. This winning combination lets you instantly detect changes in the product diameter so you can produce more quality product faster for maximum quality results. This level of measurement accuracy and quality coverage helps you reduce scrap and significantly lower manufacturing costs, so your operation is profitable for the long term.

Four-Axis for High-Accuracy Off-line Part/Sample Inspection

You can quickly and easily set up an off-line part measurement system with the AccuScan 6000 Series four-axis gauge and a Beta LaserMike PC-based display system to check samples and track, manage and analyze critical product data. This high-accuracy solution is ideal for use in a lab or at a production floor QC station. Optional customized bases and part fixtures are available to ensure rapid and accurate mounting of the part.



AccuScan 6012 shown with medical tube sample in V-block for off-line sample/part inspection. It can be used with the Beta LaserMike AccuNet software to display the diameter and ovality at each location, as well as the overall diameter and ovality of the part.

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Applications, Specifications, Options & Accessories

AccuScan 6000 Series Specifications

Performance	
Number of axes	4
OD range	
AS6012:	0.1 - 12 mm (0.004 – 0.47 in)
AS6050:	0.5 - 50 mm (0.020 - 1.97 in)
Gate size	
AS6012:	16 mm (0.63 in)
AS6050:	60 mm (2.36 in)
Accuracy	
AS6012:	±0.0005 mm (±0.000020 in)[1]
AS6050:	±0.001 mm (±0.000040 in)[1]
Repeatability (Single Scan)	
AS6012:	±1µ±0.025%
AS6050:	±2µ±0.025%
Resolution	0.00001 mm (0.0000004 in)
Scan rate	2400 scans/sec/axis (total 9600 scans/sec)
Communications	
Standard	RS-232, DeviceNet, Profinet, Ethernet, EtherNet/IP, TCP/IP, quad Analog-Digital output, and relay contacts
Optional	Profibus
Environmental and Physical Data	
Power	24 VDC, 21.6 W, 0.9 A
Temperature	5-45° C (41-113° F)
Protection rating	IP65 (NEMA 4)
Weight	
AS6012:	4.5 kg (10 lbs)
AS6050:	19.5 kg (43 lbs)
Dimensions	
AS6012:	360 x 240 x 40 mm (14.1 x 9.4 x 1.5 in)
AS6050:	580 x 500 x 58 mm (22.8 x 19.7 x 2.3 in)

[1]*±0.02% of product size.*

Published technical data and instructions are subject to change without notice.

Applications

The AccuScan 6000 Series four-axis gauge can be used in a wide range of applications where the highest accuracy, repeatability and performance are critical for a wide range of product diameter measurements.

- Plastic Medical Tube – including catheters, drug delivery tubing, surgical tubing and other small medical tubing
- Wire and Cable – including LAN (category), coaxial, medical, automotive and specialty cable
- Plastic Automotive Tube
- Plastic Heat Shrink Tube
- Cord and Line
- And other extruded or drawn cylindrical, flat or unique profile products

Software Options

- Glass logic for measuring transparent/translucent products
- Single-scan flaw detection for Lump and Neckdown detection
- In-head FFT analysis of the diameter measurement. Output available via Profibus, DeviceNet or CANopen.
- STAC logic for measuring stranded, twisted, armoured or corrugated products
- Fast Analog for detecting and trending diameter at high speeds

Accessories

The AccuScan 6000 Series can be equipped with various accessories to meet your specific application needs.

- Ultra-Bright Display
- Height Stand
- Guide Rollers
- Light Stack
- Calibration Set

Contact us today with your unique application needs.

NDC Technologies is represented in over 60 countries worldwide. **www.ndc.com/betalasermike**

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Document #: C&T-BROC-AccuScan 6000-EN-20151030
Date of Issue: November 2015

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