ACCUSCAN 6000 SERIES

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

NEW!

The industry’s only four-axis diameter and ovality gauges for products up to 50 mm
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.

AccuScan 6000 Series provides 100% ovality accuracy unlike 3-axis.

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

1. **Provides up to 100% Ovality Accuracy**

   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 delivers a higher average ovality accuracy than can be reached with three-axis, and delivers 100% accuracy when the product is aligned with the measurement axes.

   AccuScan 6000 Series provides 100% ovality accuracy unlike 3-axis.
The AccuScan 6000 Series gives you more accuracy than two- and three-axis

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. **Offers 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%.

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 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 - 2.00 in)

**Gate size**
- AS6012: 16 mm (0.63 in)
- AS6050: 60 mm (2.36 in)

**Accuracy**
- AS6012: ±0.0005 mm (±0.000020 in)
- AS6050: ±0.001 mm (±0.000040 in)

**Repeatability (Single Scan)**
- AS6012: ±1µm±0.025%
- AS6050: ±2µm±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.

Contact us today with your unique application needs.

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**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
- 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