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TECHNOLOGY GROUP

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so your equipment works exactly as you specify.

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Expert team | Trust guarantee | 100% satisfaction

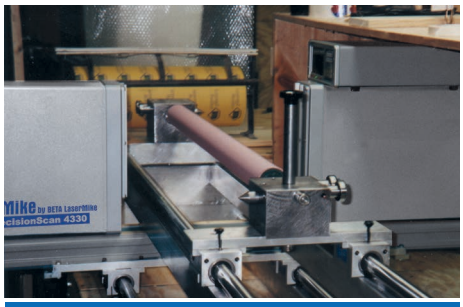
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Visit our website - *Click HERE*

NDC TECHNOLOGIES

Z-MIKE™ BENCHTOP SYSTEMS

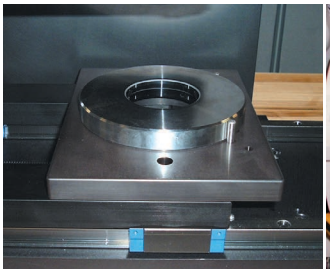


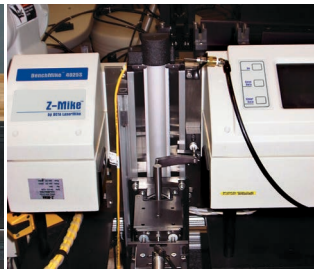


Precision off-line dimensional measurement for metrology applicaitions

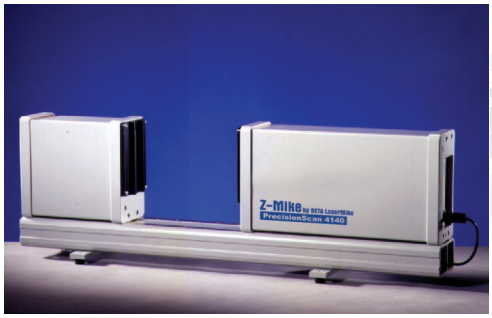
- Accuracy
- Reliability
- Ease of use











Measured by Commitment

BETA LaserMike

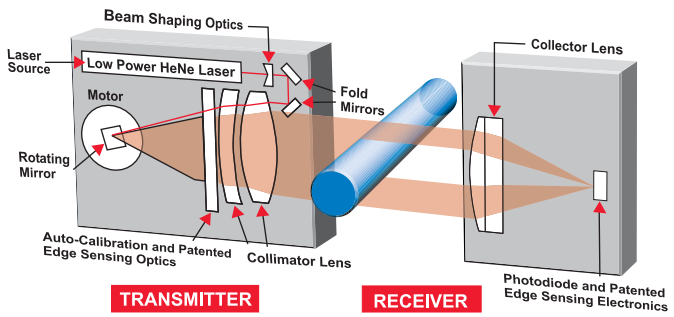
Innovative Technology

We live in a world where increasingly tighter tolerances are a way of life – and so is the pressure to turn out precision parts efficiently. That's why you can't compromise on the accuracy of your measurement systems – which is precisely why we don't compromise on our measurement solutions.

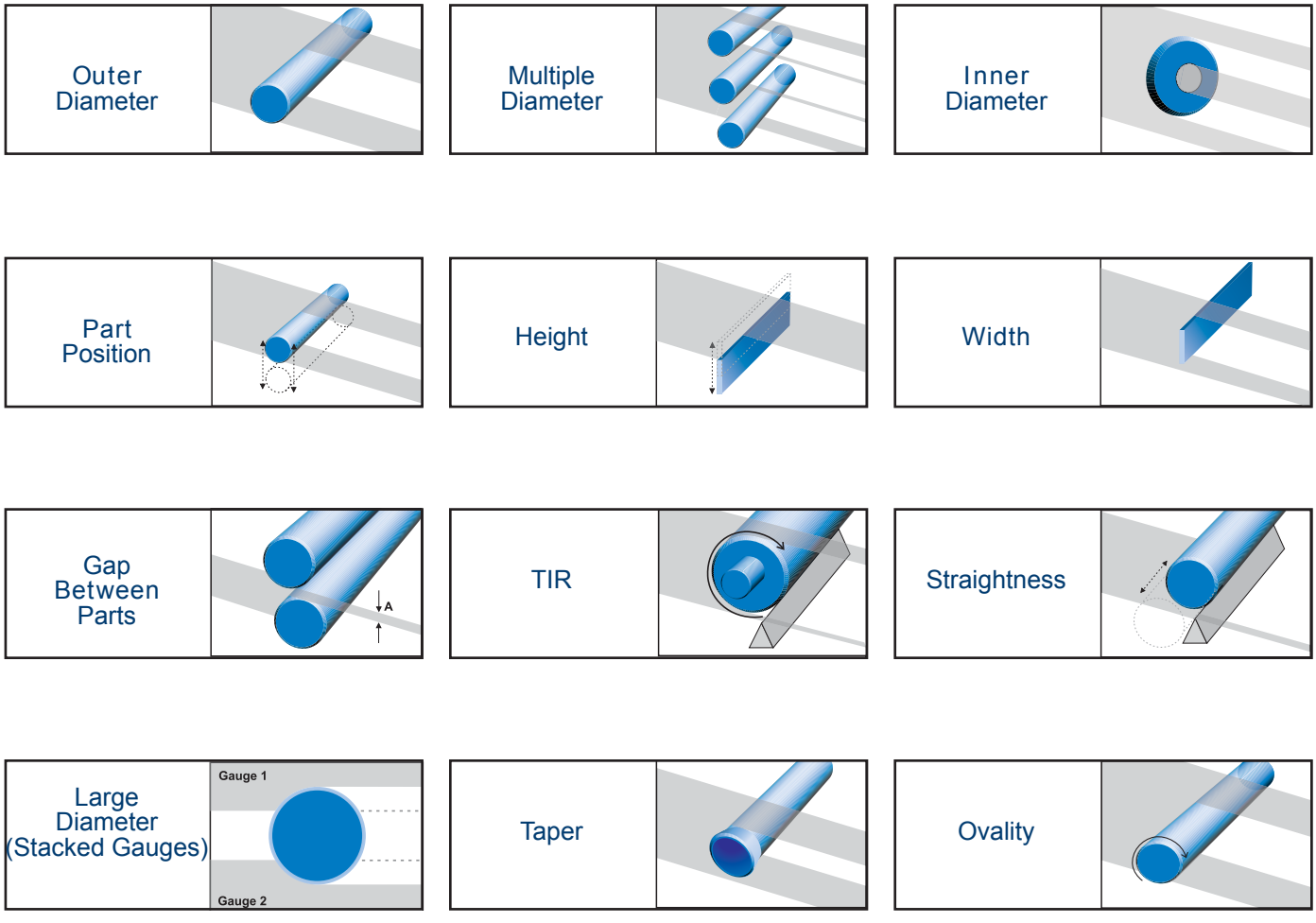
Our non-contact laser measuring devices give you the absolute truth about your parts. And because nothing but laser light touches your product, there's no part distortion or operator influence to affect your measurements. You can measure soft, delicate, brittle, hot, even radioactive parts with complete confidence.

Z-Mike gauges are designed with the versatility to measure a wide range of part dimensions. Listed below are examples of the many types of dimensional measurements that can be made.

Laser Gauging Principle of Measurement



Measurement Capabilities

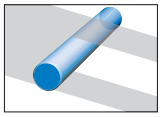


Measurement Solutions

As the leader in non-contact gauging, we know that you are looking for solutions, not just sensors. That's why we've been dedicated to providing customers like you with the industry's best applications support. Our staff of measurement experts will help guide you to the right standard product solution or create a solution customized to meet your specific measurement needs.

Diameter

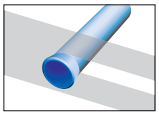




Outside Diameter of the lobe on a camshaft is determined by the shadow created when the shaft obscures the laser beam as it scans across the measurement area. The camshaft is mounted on a linear slide so that outside diameters can be determined for each cam.

Taper

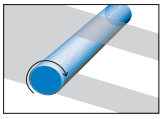




The taper angle of a crankshaft bearing is determined by traversing the part on a linear slide with an encoder. The OD is measured at two locations and taper is determined by calculating the change in diameter divided by the change in position of the slide.

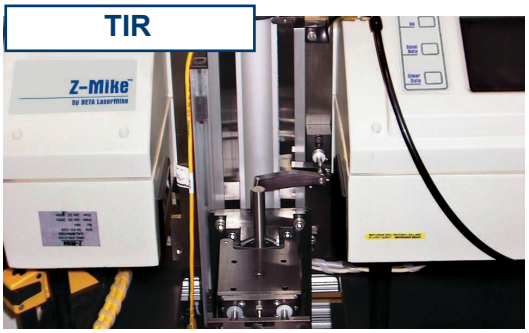
Ovality

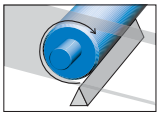




A rubber print roller is manually rotated to measure maximum and minimum diameter. Ovality is displayed as Max OD - Min OD.

TIR

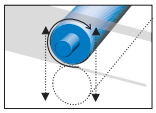




A cutting-tool blank is rotated on a v-block while measuring the gap between the blank and a reference edge. TIR is measured as the total change in the size of the gap.

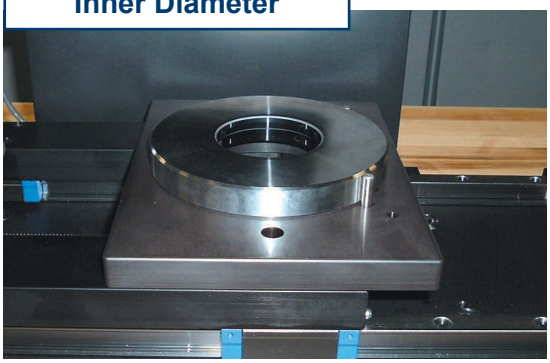
Effective Cutting Diameter

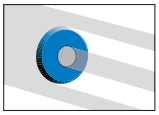




The effective diameter of a part is determined by rotating it in a fixture with near-zero runout. The position of the part and its diameter are monitored simultaneously as the part rotates, to determine the maximum circle inscribed by the part.

Inner Diameter





The inside diameter of a tube forming die is measured by traversing the die across the scanning field. As the die is traversed, the software looks for the "peak" or maximum size of the inner light segment. This system can measure dies from as small as 0.5 in. ID to 5.5 in. ID without any changes to the fixturing or configuration.

Benchtop Measurement Solutions



BenchMike separates itself from other measurement devices with features that make it the industry's most accurate, reliable and easiest-to-use gauging system.

Accuracy

- Patented optical design and electronics provide unequaled accuracy and exceptional repeatability
- Auto-calibration maintains accuracy throughout the measurement range and adjusts for temperature variation in shop-floor environments

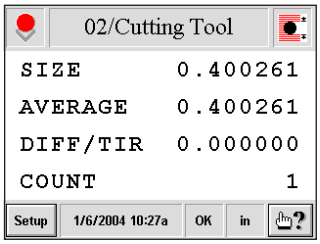
Reliability

- Non-contact technique eliminates operator-influenced measurement error
- Little or no adjustment is required to measure a wide range of part sizes or dimensions
- Rugged cast housing is sealed against dust and moisture for use in factory-floor environments

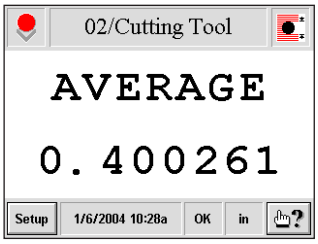
Ease-of-use

- Touch-screen interface and color graphical display provides a simple, yet powerful user interface
- Multiple product types can be stored and recalled at the touch of button
- Integrated I/O allows seamless use of automated part handling and motion control.

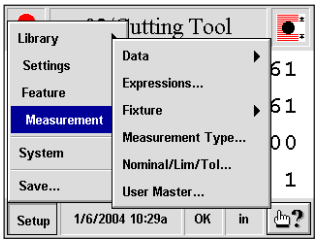
Data display



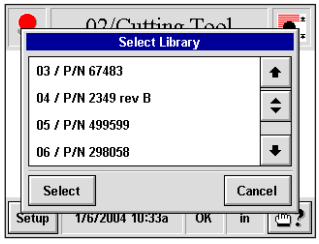
Magnified display



Pop-up menus



Library (part) selection





	4025S	4025G	4050S	4050G
Measurement Range[1]	0.004 to 1.0 in. (0.10 to 25.4 mm)	0.004 to 1.0 in. (0.10 to 25.4 mm)	0.010 to 2.0 in. (0.25 to 50 mm)	0.010 to 2.0 in. (0.25 to 50 mm)
Repeatability	±0.000010 in. (±0.25 µm)	±0.000005 in. (±0.13 µm)	±0.000020 in. (±0.5 µm)	±0.000010 in. (±0.25 µm)
Linearity	±0.000036 in. (±0.9 µm)	±0.000020 in. (±0.5 µm)	±0.000060 in. (±1.5 µm)	±0.000030 in. (±0.76 µm)
Measurement Area Passline	2.21 in. (56.1 mm)	2.21 in. (56.1 mm)	3.05 in. (77.5 mm)	3.05 in. (77.5 mm)
Measurement Area Depth of Field	±0.030 x 1.0 in. (±0.75 x 25 mm)	±0.030 x 1.0 in. (±0.75 x 25 mm)	±0.060 x 2.0 in. (±1.5 x 50 mm)	±0.060 x 2.0 in. (±1.5 x 50 mm)
Laser Beam Spot Size[1]	0.004 in. (100 µm)	0.004 in. (100 µm)	0.010 in. (250 µm)	0.010 in. (250 µm)

[1]Model 4025 available with special 0.001 in. (25 µm) laser beam spot size designed for applications measuring small parts or characteristics.

(Note: Measurement range limited to 12 mm maximum)

Measured by Commitment

Precision Measurement Heads

A complete line of scanning laser gauges is available for applications where a bench top solution is not required. The Z-Mike family of gauges offers a wide choice of measurement ranges, accuracies, and sizes to provide the perfect product to fit your measurement needs.

4000 Series High Precision Gauges

	Model	Meas. Range	Repeatability	Linearity	Dimensions (L x H x W)	PrecisionPro Compatibility 6000	2000
	**PrecisionScan 4120C**	2.5 - 112 mm (0.1 - 4.4 in.)	±0.5 µm (±0.000020 in.)	±5.0 µm (±0.000200 in.)	990.6 x 254 x 254 mm (39 x 10 x 10 in.)	yes	no
	**PrecisionScan 4120F**	0.25 - 115 mm (0.01-4.5 in.)	±0.8 µm (±0.000030 in.)	±5.0 µm (±0.000200 in.)	990.6 x 254 x 254 mm (39 x 10 x 10 in.)	yes	no
	**PrecisionScan 4120HP**	0.25 - 115 mm (0.01 - 4.5 in.)	±0.5 µm (±0.000020 in.)	±3.8 µm (±0.000150 in.)	990.6 x 254 x 254 mm (39 x 10 x 10 in.)	yes	no
	**PrecisionScan 4130C**	0.25 - 130 mm (0.01 - 5.1 in.)	±0.8 µm (±0.000030 in.)	±5.0 µm (±0.000200 in.)	990.6 x 254 x 254 mm (39 x 10 x 10 in.)	yes	no

2000 Series General Purpose Gauges

	Model	Meas. Range	Repeatability	Linearity	Dimensions (L x H x W)	PrecisionPro Compatibility 6000	2000
	**PrecisionScan 2050**	0.36 - 50 mm (0.014-2.0 in.)	±0.64 µm (±0.000025 in.)	±2.5 µm (±0.00010 in.)	536 x 142 x 60 mm (21 x 5.6 x 2.4 in.)	yes	yes
	**PrecisionScan 2100**	1.3 - 100 mm (0.050-4.0 in.)	±1.5 µm (0.000060 in.)	± 6.4 µm (±0.00025 in.)	682 x 192 x 94.6 mm (27 x 7.6 x 3.73 in.)	yes	yes
	**PrecisionScan 2140**	0.76 - 140 mm (0.030 - 5.5 in.)	±5 µm (±0.0002 in.)	±20 µm (±0.00080 in.)	990.6 x 344 x 130 mm (39 x 13.5 x 5.1in.)	yes	yes
	**PrecisionScan 2190**	1.1 - 190 mm (0.050 - 7.5 in.)	±7.5 µm (±0.0003 in.)	±25 µm (±0.0010 in.)	1326 x 454 x 130 mm (52.2 x 17.9 x 5.1 in.)	yes	yes
	**PrecisionScan 2330**	6.35 - 330 mm (0.250 - 13.0 in.)	±12 µm (±0.0005 in.)	±76 µm (±0.0030 in.)	2069 x 689 x 159 mm (81.5 x 27.1 x 6.3 in.)	yes	yes

Versatile Controller Options

PrecisionPro Series

PrecisionPro 6000

An integrated touchscreen and Windows style graphical user interface make this new, affordable dimensional measurement processor incredibly easy to learn and use. But don't let the simplicity of operating the PrecisionPro 6000 fool you. This measurement processor has the data handling sophistication to provide the data you need in the form you need it on a clear, colorful flat-panel touch-screen display.



The PrecisionPro 6000 Capabilities:

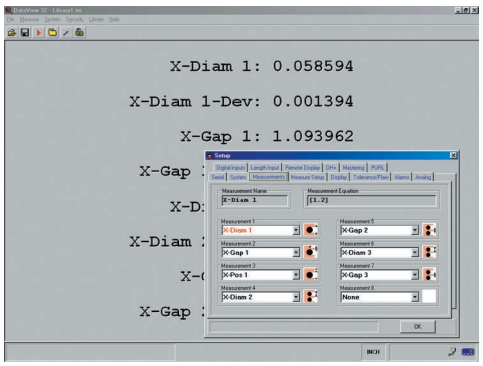
- Support for up to 2 dimensional gauges
- Display up to 32 data items (eight simultaneously)
- Color coding of out-of-tolerance measurements
- Interfaces to motion control and position sensing devices
- Programmable measurement and data manipulation

Dimensions (H x W x D)	235 x 394 x 349 mm (9.25 x 15.5 x 13.8 in.)	**Quadrature Encoders**	1 input standard (2nd input optional)
Enclosure Rating	IEC IP-52 (NEMA 12)	**High Current Drivers**	4 open collector outputs standard (8 additional optional)
Ambient Temperature	4-50°C (40-125°F)	**Printer Interface**	Parallel printer port compatible with dot-matrix or ink jet printers
Power Requirements	108-264 V AC, 50/60 Hz 90 VA maximum consumption	**Programmability**	User definable measurement types User definable data formats Arithmetic, trigonometric, and data conversion functions
Display	10.4 in. Diagonal Color Flat Panel Touch Screen Display		
RS-232C Serial Port	2 standard (up to 115.2 Kbps)	**Multi-Feature Part Measurement**	32 features per part
Programmable I/O	4 inputs and 4 outputs standard (8 additional outputs and 4 inputs optional)		

PrecisionPro 2000

With the Beta LaserMike PrecisionPro 2000 Data Processor, we just made it easier for you to connect a laser gauge to your existing computer system to create a complete, customized gauging system. The PrecisionPro 2000 is uniquely designed to transmit high-speed data measurements from a Beta LaserMike laser scanner to your host PC, giving you an easy-to-use, reliable way to process and examine measurement data to verify the quality of your product.





In addition, an easy-to-use, Windows-based application simplifies setup and data display on your PC. With the DataView program, you can easily access setup parameters through user-friendly menus, help pages, and setup wizards. You can use either the provided libraries of set-up parameters or you can design your own libraries for a specific product requirement. DataView also supports Windows' Dynamic Data Exchange (DDE), allowing each data item to be easily integrated into other Windows-based programs.

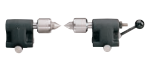
Dimensions (H x W x D)	83 x 165 x 275 mm (3.25 x 6.5 x 10.8 in.)	**Power Requirements**	108-264 V AC, 50/60 Hz 40 VA maximum consumption
Weight	1.95 kg (4.3 lbs.)	**LED Indicators**	Power, Scanner OK, Data Transmit, Data Receive, Status
Enclosure Rating	IEC IP-52 (NEMA 12)	**RS-232C Serial Port**	Standard: 2 (up to 512 Kbps)
Ambient Temperature	4-50°C (40-125°F)		

Modular Fixtures

Ready-to-Mount Flexibility

An extensive line of ready-to-mount modular fixtures are available from simple manual fixtures to fully automatic and intelligent fixtures. These fixtures hold workpieces properly and effectively for any gauging need. Simply attach these easy-to-install fixtures to your gauge for precise, reliable measurements without calibration.

We provide a full line of heavy-duty fixtures to measure large parts, along with automatic motorized fixtures for part translation and rotation. For your custom needs, our Special Engineering group excels at developing fixtures for special applications.

	Fixture	Description	Part #
	**Universal V-Block**	Used for measuring parts positioned on their outside diameter.	7060-0117-06 (4025) 7060-0117-07 (4050)
	**Modular V-Block**	Used for measuring parts positioned on their outside diameter. Must be mounted on a slide or insulated base support.	83881 (4025) 83627 (4050)
	**Flat Test**	Designed for use when measuring the thickness of a flat part or the width of a rectangular cross-section, as well as for holding flat surface parts. Must be mounted on a slide or insulated base support.	83640 (4025) 83641 (4050)
	**Universal Manual Slide**	Used to linearly position parts by hand. Available in 18, 25 or 32 in. (457, 635 or 829 mm) lengths.	83610 (18 in.) 83611 (25 in.) 83618 (32 in.)
	**Heavy Duty Manual Universal Slide**	Supports large parts with diameters up to 4.5 in. (115 mm) and loads up to 305 lb. (138 kg).	7070-0304-01
	**Digital Readout Slide**	Used to linearly position parts to predetermined positions for measurement, and/or measure the distance between two points on a part. Available in 18, 25 or 32 in. (457, 635 or 829 mm) lengths.	83616 (18 in.) 83617 (25 in.) 83863 (32 in.)
	**Adjustable V-Block**	Supports parts that must be held on their outside diameters. Must be mounted on a slide.	83609
	**Adjustable Dead Centers**	Holds variable length shaft-type parts with centers. Must be mounted on a slide.	83607
	**Adjustable Live Centers**	Holds variable length shaft-type parts on lathe centers. Must be mounted on a slide.	83621
	**Manual Concentricity**	Supports cylindrical parts on their outside diameter for measuring concentricity.	83924
	**Motorized Concentricity**	Supports cylindrical parts on their outside diameter for measuring concentricity.	1334-000-002
	**Auto-Rotating Chuck**	Motorized rotation of shafts or wires to detect variation in diameter around the circumference. Keyless precision chuck holds diameters 0.030 to 0.50 in (0.76 to 12.7 mm).	84015
	**Ultra Fine Wire V-Block**	Designed for ultra fine wire or other material that must be held under tension for accurate measurement. Holds wires in the range of 0.001 to 0.010 in (0.025 to 0.254 mm)	84252
	**Micrometer Adjustable V-Block**	Designed for ultra fine wire or other material that must be centered for best measurement accuracy. Holds wires in the range of 0.001 to 0.400 in (0.025 to 10.16 mm)	84260
	**Reference Edge**	Used in applications requiring gap measurement, such as straightness, concentricity and run out.	85138 (1 in.) 85139 (2 in.)
	**Insulated Base Support**	Support Base for Flat Test and Modular V-block.	83639

Solutions & Services

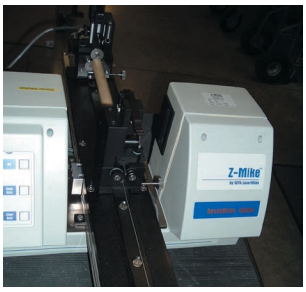
Custom Solutions

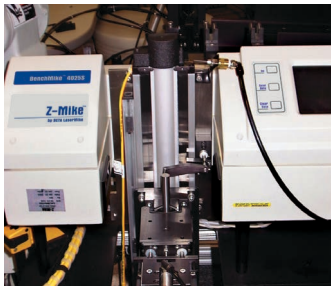
Providing our customers with the total measurement solution is a priority at NDC Technologies. If you've reached the end of this document and still haven't found a standard Z-Mike product that's just right for your needs, we have great news for you. We offer Custom Solutions to ensure a perfect fit for your particular application.

We can modify an existing product, design and build special fixturing, customize a PrecisionPro software application, or engineer a unique system just for you. Let us show you examples of the numerous custom solutions we have provided for a wide range of applications. Getting started is easy - just contact your local Beta LaserMike product representative to be on your way to a solution tailored to your needs.









Customer Care Services

Our Customer Care Services team employs certified product specialists working with you to ensure the optimum performance of your precision measurement equipment, controllers, processors, and software. There is only one factory-authorized service organization that protects your Z-Mike product investment. We guarantee your satisfaction!

Free Telephone Support

Call any of our global product specialists for product and/or technical support.

Free Website Support

E-mail us anytime at service@betalasermike.com and you will receive a reply within one business day.

Calibration

Calibration services can be performed in either your factory or one of our convenient service centers.

Depot & Field Service

You can choose to send your equipment to one of our convenient service centers or we will send one of our regional service engineers to your factory to repair your equipment.

Commissioning

Frequently, Z-Mike systems go into complex applications. In these instances, we provide complete commissioning and training services overseeing new product installation and system set-up while optimizing equipment performance and monitor results.

Training

We will teach you how to set up, operate, maintain, calibrate and troubleshoot your Z-Mike product(s). Training is customized to each customer's needs and available at your factory or at a Beta LaserMike regional service center.

Spare Parts

We have the largest inventory of spare parts in the industry available for immediate delivery to your facility.

Recommended Spare Parts Kits

Designed to save you time and money, these handy kits contain all the basics you need to maintain your Z-Mike product(s) ensuring that your production line will continue to operate without interruption.

NDC TECHNOLOGIES

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

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Date of Issue: January 2015
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Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

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