



PRECISION MEASUREMENT SOLUTIONS

At ABTech, we set the standard for precision motion solutions. Our systems deliver the accuracy, efficiency, and usability required for advanced metrology. This flyer highlights three systems: **FormCheck™** for fast, repeatable TIR checks; **FormStack™** for turbine engine assembly and runout inspection; and **MicroForm™** for ultra-precise geometric form measurement. Together, these systems demonstrate how ABTech develops purpose-built solutions for industries that demand precision.

FormCheck™ Gages

Accuracy may be the most important metric in precision measurement, but efficiency and usability are also significant factors. The FormCheck™ gage is designed for speed, ease of use, and consistent results, making it ideal for operators of all skill levels.



Precision Measurement Made Simple

- Faster setup and operation than more complex metrology equipment
- High accuracy with repeatable and reliable results
- Designed for throughput in measuring OD, ID, and faces of cylindrical parts

FormCheck™ is extremely versatile. It can be purchased as a standalone electronic indicator package for in-process checks, used with existing measurement stations, or as a complete metrology system that includes an air-bearing mechanical platform.

The FormCheck package includes:

- Precision lever-type electronic indicator with fine adjust
- Touchscreen display with both analog-style needle and digital readouts
- Automatic capture of max/min readings and TIR to eliminate operator subjectivity
- Results that can be saved or printed for customer verification or part travelers, and parts can be identified with inputted numbers and descriptions.

Configurable options include:

- Friction-free, ultra-precise air-bearing rotary table
- Gage stand, tilt-and-center worktable, and granite surface plate

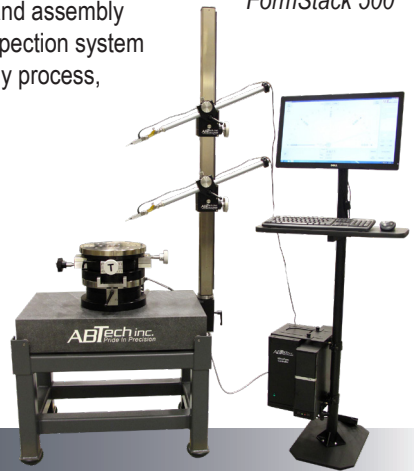
FormStack™

Engine Assembly Systems

Where FormCheck™ is built for quick TIR measurements, FormStack is built for component runout inspection and assembly guidance of turbine systems. This fully integrated inspection system brings precision engineering into the engine assembly process, ensuring accuracy is maintained at every stage.

FormStack™ systems can be configured for a range of assembly operations, providing runout inspections with results geared for alignment and stacking of turbine assemblies. Results are instantly recorded, traceable, and ready for quality verification. Each system integrates our air-bearing technology for frictionless, maintenance-free motion, paired with high-resolution measurement to keep tolerances tight from start to finish.

FormStack 500



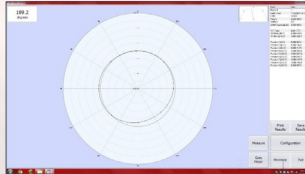
Precision at Every Stage of Assembly

Features:

- Optimizes inspection process to integrate with assembly workflows
- Enhances efficiency by reducing part handling and setup changes
- Operator-friendly design for consistent results across varying skill levels



TIR Meter/Setup screen



Results Screen

The application-specific FormStack™ systems are sized-based on engine family and part size and include:

- Granite and Base Frame
- Air Bearing Rotary Table with T&C
- Gagestand(s) and electronic indicators
- ABTech's FormStack Electronics and Software Suite
- Computer Cart with PC

Applications:

Component inspection preparing for rotor assembly across a wide range of Turbine Engine Manufacturers. Results are used with manufacturer-supplied post-processing, such as "Stack Projection" of Turbine assemblies.

PRODUCT LINEUP

FormStack-P
Portable system

FormStack 500
Max axial load: 500 lbs

FormStack 1000
Max axial load: 1000 lbs

FormStack 2000
Max axial load: 2000 lbs

FormStack 3000-1T
Single gage tower
Max axial load: 3000 lbs

FormStack 3000-2T
Double gage towers
Max axial load: 3300 lbs

MicroForm™ Roundness Gages

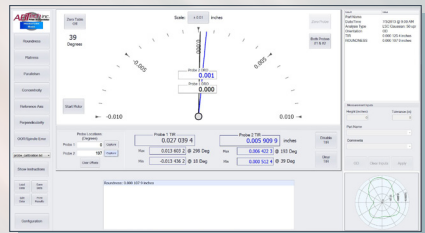
Our MicroForm™ Roundness Gages combine precision, reliability, and ease of use, featuring an air-bearing rotary table with certified system accuracy better than 5 millionths of an inch. Designed for shop floors and QC labs, they measure roundness, flatness, concentricity, and more, with intuitive touchscreen software, an analog-style TIR meter for quick alignment, and advanced harmonic analysis. From tabletop systems to gages with heavy duty rotary tables and counterbalanced towers, MicroForm™ gages streamline inspection and quality control with unparalleled accuracy and efficiency.

MFG400
MicroForm™
Roundness Gage



Ultra-Precision Roundness Measurement

When the goal is pinpoint measurement of roundness, concentricity, and other geometric form errors, the MicroForm™ gage delivers unmatched accuracy in a straightforward, operator-friendly package.



Features:

- Measures roundness, concentricity, flatness, perpendicularity, parallelism, and runout with extreme precision
- Higher sensitivity than general-purpose metrology equipment for micro-level form analysis
- Simplified setup for efficient operation in lab or shop-floor environments

MicroForm™ Roundness Gages use ABTech's air-bearing rotary table as a stable, friction-free reference axis, combined with high-resolution sensors and an inspection-grade granite base to ensure repeatable results.

A precision positioning system allows for fine adjustment of the part and probe, while the user interface captures and displays data in easy-to-read formats—reducing operator influence and ensuring consistent measurement quality.

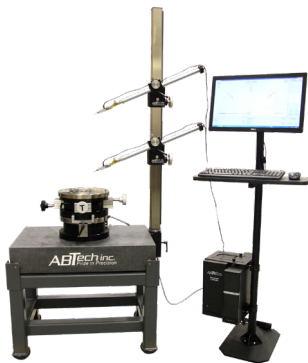
Applications:

Ideal for industries requiring the highest geometric tolerances, including optics, aerospace, precision bearings, and high-performance automotive components.

AT A GLANCE:

PRECISION MEASUREMENT SOLUTIONS

Wondering which system best fits your application? This chart stacks up their capabilities and applications side by side for a clear, at-a-glance comparison.



How do they stack up?

Quick Comparison Guide	FormCheck	FormStack	MicroForm
Features:			
TIR	✓	✓	✓
Portable	✓		
Interrupted Surfaces		✓	✓✓
Polar Chart Results/PDF	✓	✓	✓
Harmonics			✓
Exportable Data Results		✓	✓
Results Intended for Turbine-Specific Post-Processing "Stack Projection"		✓	
Form (Roundness)		✓	✓
Part Template Builder		✓	
Applications:			
Turbine Components		✓✓	✓
Optics			✓
Job Shop/Universal Form Inspection			✓

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Pride In Precision

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