

RunOut Gages

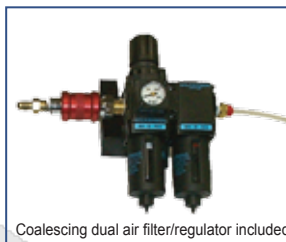
Ultra-Precision Rotary Measurements

Compact Turn-Key Air Bearing Gage Systems

ABTech RunOut gages provide an accurate and repeatable platform for tight geometric tolerance measurements. These compact gages are engineered for easy setup and reliable O.D., I.D. and flatness runout (also called T.I.R. or total indicator reading) measurements, piece inspection, lens alignment and assembly of precision components. When measuring optical lenses and other manufactured parts for total indicator readout (T.I.R.) it is critical to have a stable, repeatable gauging method. Using an air bearing as the rotary table for the reference axis provides the highest possible accuracy.

ABTech's RunOut gages combine AT series manual spin rotary air bearing tables with adjustable tilt and center (tip/tilt) worktables for precise alignment of parts to the axis of rotation, limiting misalignment errors from measurement results. With a natural granite base, robust gage holder, and a dual stage coalescing filter regulator assembly, these systems solve your most demanding T.I.R. applications.

ABTech's gages are compact and extremely precise yet economical and can be enhanced with tunable vacuum parts holding feed; and our electronic packages including lever-type gage heads, ruby tip probes and analog or digital amplifiers.



Coalescing dual air filter/regulator included



Model #TIR100/150
(shown without optional electronic gage package)

Features:

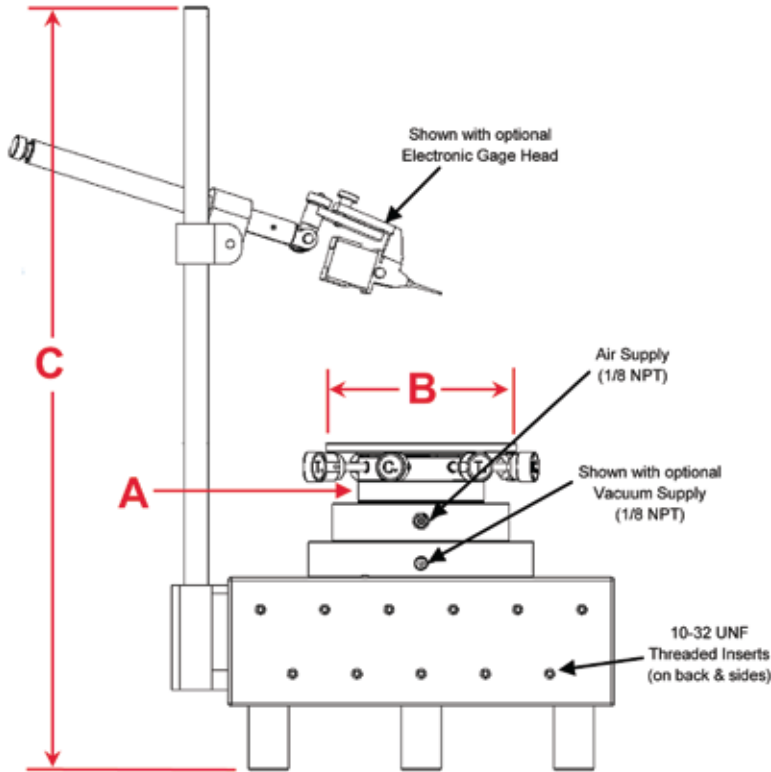
- Complete system accuracies to $5.0 \mu\text{m}$ ($0.125 \mu\text{m}$)
- Ultra-smooth reference axis with no static friction
- 4" AT series air bearing spin tables with 6" diameter worktables
- 8 knob tilt and center worktables lock in adjustment settings
- Granite base with thru-hole and threaded inserts for accessories
- Highly stable gage holders with fine adjust and swivel post
- Optional air actuated vacuum feed thru center with controller
- Optional electronic gage head and amplifier packages
- Dual element air filter/regulator for air bearing supply
- Made in USA

Phone: 1-603-358-6431
Fax: 1-603-358-0196
info@abtechmfg.com
www.abtechmfg.com

ABTech, Inc.
P.O. Box 10296
126 Monadnock Highway
Swansey, NH 03446

RunOut Gages

Rotary Air Bearing Measurement Stations



Model Number:	TIR100/150
Air Bearing Diameter (A)	3.94" (100 mm)
Worktable Diameter (B)	5.90" (150 mm)
Overall Height (C)	20.0" (508 mm)
Granite Dimensions	12" x 12" x 4" (305 x 305 x 102 mm)
Total Weight	85 lbs (39 kg)
Footprint	18" x 18" (457 x 457 mm)
Tilt Travel	+/- 1°
Centering Travel	+/- 0.05" (1.3 mm)
Axial Load Capacity **	125 lbs (57 Kg)
Work Envelope	8" dia. x 10" ht. (200 x 250 mm)
Air Usage	2.3 CFM

* Maximum load capacities for centered and balanced loads
 ~ Consult ABTech application engineers for realistic practical loads, moment loading and stiffness recommendations
 ~ Specifications are at 60 psi (4 kgf/cm²)
 ~ Specifications are subject to change without notification

System Accuracy:

Radial & Axial:	5.0 μ" (0.125 μm)
Angular (coning):	1.0 μ"/in. (0.025 μm/25mm)
Worktable Flatness:	Circular: 0.00025" (6.35 μm) Radial: 0.0005" concave (12.7 μm)

ABTech tests and certifies our RunOut gages with all of the components installed that could influence the final accuracy of the system. The accuracies listed here represent the aggregate errors for the complete gage system.

Options & Accessories:

- Electronic packages: lever-type electronic, gage head, ruby tip probe and amplifier
- Venturi generated vacuum feed thru center with controller for securing small delicate parts **# 04337A**
- Multiple gage holder assemblies **# GH-18P/8A**
- Additional horizontal arms for gage holders **# GH-8A**
- 3-jaw scroll chuck **# SC-150/3J**
- Custom tooling/fixture design and manufacture
- Custom work holder bolt patterns



Gages can be supplied using other size air bearings, worktables, gage stands and/or bases.