

AT Series

Air Bearing Spin Tables

Ultra-Precision Rotary Motion

ABTech inc. offers a full range of friction free air bearing rotary tables for applications requiring a sub-micron, ultra-precision reference axis. Commonly used for runout, roundness, squareness, concentricity and parallelism measurements as well as part alignment and assembly.

Air bearing rotary tables are offered in a variety of standard sizes and can be combined with our tilt and center precision adjustable worktables and direct drive servo motor systems. Combine with **ABTech's** gage stands and granite bases to achieve precise total indicator reading (TIR) measurements.

Ideal for sub-micron measurement, optical lens alignment staging and turbine component assembly.

ABTech's modular design approach and complete engineering support capabilities can respond quickly to provide a solution to your O.E.M. needs for ultra-precision linear motion.



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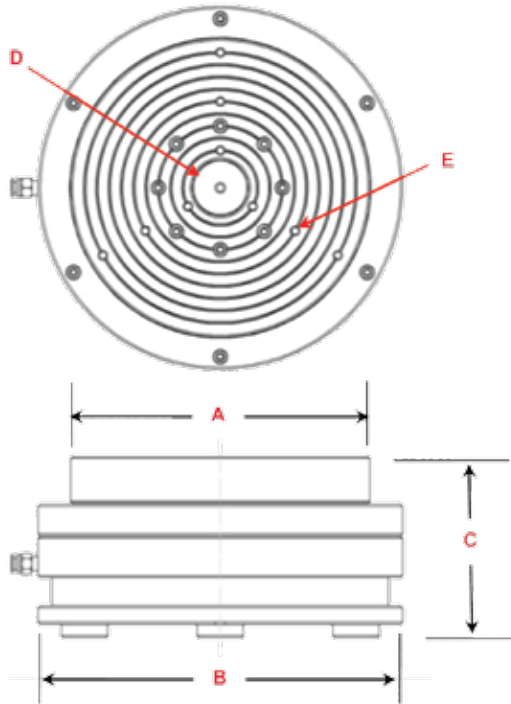
ABTech, Inc.
P.O. Box 10296
126 Monadnock Highway
Swansey, NH 03446

Features:

- Ultra-smooth motion with absolute repeatability
- High load capacity and stiffness with low air consumption
- Robust construction using hardened 440C stainless steel
- Three accuracy grades available for cost effective design options
- Six standard diameters from 4" (100 mm) to 16" (406.4 mm)
- Worktables available up to 24" (609.6 mm) in diameter
- Tilt and center worktables available in 4 knob or 8 knob designs
- Optional motor drives, encoders, drive amplifiers and controls
- Custom tooling and fixturing design and manufacturing available
- Modular design – custom systems can be provided for O.E.M.
- Made in USA

AT Series

Ultra-Precision Air Bearing Tables



Accuracy Class	Radial/Axial	Angular (coning)
A1	1.0 μ " (0.025 μ m)	0.5 μ "/in (0.012 μ m/25mm)
A2	2.0 μ " (0.05 μ m)	1.0 μ "/in (0.025 μ m/25mm)
A5	5.0 μ " (0.125 μ m)	1.0 μ "/in (0.025 μ m/25mm)

Options & Accessories:

- Tilt and center worktables
- Motor drives and controls
- Encoders and amplifiers
- Dual element filter/regulators
- Granite surface plates
- Gage stands
- Custom bolt circle patterns
- Standard and custom sized clear apertures
- Custom fixturing and work holder tooling

Model Number:	AT100	AT150	AT200	AT250	AT300	AT400
Table Dia. (A)	3.937" (100 mm)	5.906" (150 mm)	8.0" (203.2 mm)	10.0" (254 mm)	12.0" (304.8 mm)	16.0" (406.4 mm)
Base Dia. (B)	5.5" (139.7 mm)	8.0" (203.2 mm)	9.75" (247.65 mm)	13.25" (336.55 mm)	15.0" (381.0 mm)	19.0" (482.6 mm)
Bearing Height (C)	2.686" (68.2 mm)	3.50" (88.9 mm)	4.87" (123.7 mm)	5.81" (147.57 mm)	5.875" (149.2 mm)	6.25" (158.75 mm)
Thru-hole Dia. (D)	0.875" (22.23 mm)	1.25" (31.75 mm)	1.51" (38.35 mm)	1.51" (38.35 mm)	1.75" (44.45 mm)	2.0" (50.8 mm)
Tapped Holes (E)	M5 x 0.8*	M5 x 0.8*	M5 x 0.8*	1/4-28 UNF	1/4-28 UNF	1/4-28 UNF
Worktable Sizes	3.937" (100 mm) 5.906" (150 mm)	5.906" (150 mm) 8.0" (203.2 mm)	8.0" (203.2 mm) 12.0" (304.8 mm) 16.0" (406.4 mm)	10.0" (254 mm) 12.0" (304.8 mm) 16.0" (406.4 mm)	12.0" (304.8 mm) 16.0" (406.4 mm) 20.0" (508 mm)	16.0" (406.4 mm) 20.0" (508 mm) 24.0" (609.6 mm)
Axial Load Cap.	125 lbs (57 Kg)	250 lbs (113 Kg)	500 lbs (226 Kg)	750 lbs (340 Kg)	1000 lbs (454 Kg)	2000 lbs (907 Kg)
Axial Stiffness	0.3 lbs/ μ " (5.4 Kg/ μ m)	0.75 lbs/ μ " (13.4 Kg/ μ m)	1.5 lbs/ μ " (26.8 Kg/ μ m)	2.0 lbs/ μ " (35.7 Kg/ μ m)	3.0 lbs/ μ " (53.6 Kg/ μ m)	4.0 lbs/ μ " (71.5 Kg/ μ m)
Air Usage	2.3 CFM	3.4 CFM	3.4 CFM	3.4 CFM	3.4 CFM	4.5 CFM
Unit Weight	10 lbs (4.54 Kg)	20 lbs (9.0 Kg)	65 lbs (29.5 Kg)	130 lbs (59.0 Kg)	190 lbs (86.2 Kg)	300 lbs (136.1 Kg)

* Will accept #10-32 UNF

~Specifications are at 60 psi (4 kgf/cm²)

~Load capacities are balanced and centered on the work table

~Performance can be affected by method of mounting the table, loading and accessories and/or fixtures added to the bearing

~Consult ABTech's applications engineers for details and mounting information

~Specifications are subject to change without notification

Ordering Information:

To order by model number:

AT100/100 - A1 - CA100



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