



STANDARD FEATURES

- **Position Accuracy:** ± 10 arc sec
- Limited Rotation for both axes
- Direct-drive, DC brushless servo system
- 24-inch diameter tabletop
- Test load capacity: 150 lbs (68 Kg)
- AERO 4000 Controller
- Fail-safe brakes

DESCRIPTION

The 1522P Series Automatic Positioning and Rate Table System is a low cost two axis system designed to provide precise positioning for large payloads for the development and/or production testing of inertial packages and their components.

The 1522P Series test tables are servo-controlled systems that feature direct-drive DC brushless motors, precision optical encoders and a microprocessor that provides accurate and reliable motion control. The table can be operated from the AERO Controller front panel for local control or through a computer interface for remote control.

AERO 4000 CONTROLLER

- NET interface over Ethernet
- Front panel display of status and data
- Local and remote operation
- Trapezoidal velocity profiles with programmable velocity and acceleration
- Sinusoidal motion profiles with variable amplitude and frequency
- Profile Modes for simulating complex motion

OPTIONS

- Various slingshot packages or wire wrap configurations
- 18 inch diameter Tabletop
- Custom hole pattern

This test table system is designed for ease of operation and is programmed with the Ideal Aerosmith Table Language (ATL) for remote operation.

For special requirements, please contact Ideal Aerosmith regarding system customization.

For much more detailed information, contact Ideal to request a *Specification Document*.

1522P Series Performance Specifications		
	Inner Axis	Outer Axis
Range of Motion, deg	Standard: ± 200 Optional ± 360 or Unlimited	Standard: ± 200 Optional ± 360 or Unlimited
Position		
• Accuracy, arc sec (deg)	± 10 (0.00278)	± 10 (0.00278)
• Repeatability, arc sec (deg)	± 3 (0.00083)	± 3 (0.00083)
• Homing, arc sec (deg)	± 3 (0.00083)	± 3 (0.00083)
• Display Resolution, deg (approx)	0.0001	0.0001
• Encoder Resolution, deg (approx)	0.00002	0.00002
• Encoder Resolution, counts per rev	16,777,216	16,777,216
Slew Rate		
• Maximum, deg/sec*	100	100
• Minimum, deg/sec (approx.)	0.0001	0.0001
• Command/Display Resolution, deg/sec (approx.)	0.00001	0.00001
Acceleration/Bandwidth (24 inch table top, no load)		
• Peak, deg/sec ² **	650	150
• Max Continuous, deg/sec ²	330	70
• -3dB Bandwidth (no load)	50 Hz	10 Hz
Axis Wobble, arc sec (deg)	5 (0.00139)	5 (0.00139)
Axis Orthogonality, arc sec (deg)	± 5 (0.00139) between consecutive axes	

* For a limited rotation axis, maximum rate is limited to ± 100 deg/sec and may not be achievable as it is dependent upon acceleration capabilities (varies with load) and travel limits.

** Peak Acceleration is for a 2 second duration.

System Physical Configuration		
Table Interface Characteristics		
• Diameter	Standard size: 24 inches (610) Optional: 18 inches	
• Table top hole pattern	Standard: $1/4$ - 20 UNC tapped holes on a 2 inch (50.8 mm) grid pattern. (Not all holes are available.) Optional: custom hole	
• Face Flatness, inches (mm)	0.005 (0.127) TIR	
• Face Runout, inches (mm)	0.002 (0.051) at a 6 inch (152.4 mm) Radius	
• Material & Surface Finish	Aluminum with 32 RMS Surface Finish	
• Tabletop Connectors	Standard: No connectors Option: Two MS style connectors	
Test Load Capacity, lbs (Kg)	150 (68) (Balanced).	
User Harness/Slip ring Options	Standard: No user harness Options: slip ring packages are available and custom user harnesses.	
Controller	Consult AERO 4000 specification for more detailed information	
Power Requirement	208-230 VAC $\pm 10\%$, 1 phase, 50/60 Hz, 12A (FLA), 15A breaker, SCCR 5 kA	
Table Dimensions		
• Overall Table Dimensions, inches (mm), approx. (includes swing radius)	60.3 W x 29.1 D x 55.8 H (1532 x 739 x 1417)	
• Height of Table top, inches (mm) approx.	55.5 (1410) nominal	
• Table Weight, lbs (Kg), approx.	1450 (658)	

For additional information or special requirements, contact Ideal Aerosmith. Specifications subject to change without notice. Please call for pricing.

Rev B