

**MODEL 1503-24-EN  
THREE-AXIS MANUAL POSITIONING TABLE**



**FEATURES**

- Manually operated
- Optical encoders for precise feedback
- Position Accuracy:  $\pm 1$  arc minute
- Position Repeatability:  $\pm 30$  arc sec
- 24-inch table top
- Digital display
- Manual fine adjustment mechanism for locking table into position

**DESCRIPTION**

The Model 1503-24-EN Three-Axis Manual Positioning Table is designed to provide precise position feedback via the optical encoder for the development and/or production testing of navigation sensor systems such as tilt sensors and turn and bank indicators. The 1503-24-EN system may be integrated with a customer developed test station and it may be used to test single or multiple test articles at any given time. Users can obtain any position data by way of utilizing the digital display and manual brake on the 1503-24-EN.

<b>System Physical Configuration</b>	
<b>Overall Table Dimensions (mm)</b>	43.8 (1,113) wide x 28.2 (716) deep x 51.8 (1,316) high
<b>Approximate Table Weight, lbs (kg)</b>	625 (283)
<b>Table Characteristics:</b>	
• Axis Arrangement	Vertical Outer, Middle Orthogonal to Outer, Inner Orthogonal to Middle
• PayLoad Capacity, lbs (kg)	150 (68) Centered
• Table Top Diameter (mm)	24 (610)
• Surface Flatness, inches	.005 inch TIR
• Material	Aluminum
• Hole Pattern, inches (mm)	¼ - 20 tapped holes on a 2 inch (50 mm) grid pattern
• Surface Finish	32 RMS
• Axis Brake and Adjustment	Manual operation with fine adjustment Encoder/Position digital display
• Height of Tabletop, inches (mm)	36 (914) nominal (Varies with adjustment of leveling feet)
<b>Leveling Range:</b>	±1 Degree
<b>Electronic Chassis:</b>	
• Size, inches (mm)	7.24 (184) high x 19 (483) wide x 17.95 (456) deep
• Face panel size, inches (mm)	6.97 (177) high x 19 (483) wide
• Weight, lbs (kg)	35 (15.8)
• Power Requirement	Standard: 115V, 50/60 Hz, 0.5 A Optional: 230 VAC, 50/60 Hz, 0.25 A

<b>Performance Specifications</b>			
<b>Rotational Freedom</b>	<b>Inner Axis</b>	<b>Middle Axis</b>	<b>Outer Axis</b>
		Unlimited	± 185
<b>Axis brake adjustment range, deg</b>	± 0.5	± 0.5	± 0.5
<b>Position</b>			
• Range, deg	0.000 to +359.999	-185.000 to +185.000	-185.000 to +185.000
• Accuracy, arc min	± 1	± 1	± 1
• Resolution, deg	0.001	0.001	0.001
• Repeatability, arc sec	± 30	± 30	± 30
<b>Mechanical Alignment Specifications</b>			
• Axis Wobble, arc min	± 1.2	± 1.2	± 1.2
• Orthogonality between consecutive axes, arc min	± 1.2		

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

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