

**Model 1501T**  
**SINGLE-AXIS MANUAL POSITIONING TABLE**



**FEATURES**

- Manually operated horizontal tilt axis
- Position Accuracy:  $\pm 10$  Arc-Sec
- Position Repeatability:  $\pm 5$  Arc-Sec
- Precision-ground anodized aluminum tabletop
- 35 line user signal

**DESCRIPTION**

The Model 1501T is a single-axis manual tilt table. Designed for testing an IMU (Inertial Measurement Unit), this system supports the IMU on the upper mounting surface and additional electronics on the lower mounting surface. The lower mounting surface helps to counterbalance the IMU and minimizes the counterweights required. The system provides optical access to the IMU mirror at the specified heights.

**OPTIONS**

- A variety of user cable configurations
- Various connectors for user signals
- Various tabletop sizes
- Temperature Chambers for environmental testing
- *For special requirements, accuracies or custom specifications, please contact Ideal Aerosmith, Inc.*

## Model 1501T Specifications

Overall Table Dimensions	67L x 24D x 47.2H inches (1702L x 610D x 1199H mm)
Approximate Table Weight	750 Lbs.
Upper Surface Mounting Characteristics:	<ul style="list-style-type: none"> <li>• Load Capacity 300 Lbs.</li> <li>• Dimensions * 24L x 24D inches</li> <li>• Test Load Moment Capacity – Maximum 225 Ft-Lbs.</li> <li>• Surface Flatness .005 inch TIR</li> <li>• Material Aluminum</li> <li>• Optical Access to Test Load Four (4) lines of sight. Two parallel to tilt axis, two orthogonal to tilt axis 18.42 inches above and below tilt axis.</li> <li>• Surface Finish 32 RMS</li> <li>• Tilt Axis to mounting surface Co-linear</li> <li>• Height – floor to mounting surface 35.33 inches</li> </ul>
Lower Surface Mounting Characteristics:	<ul style="list-style-type: none"> <li>• Load Capacity 50 Lbs.</li> <li>• Dimensions * 16L x 12D inches</li> <li>• Test Load Moment Capacity – Maximum 15 Ft-Lbs.</li> <li>• Material Aluminum</li> <li>• Tilt Axis to mounting surface 7.67 inches (below the axis)</li> <li>• Height – floor to mounting surface 27.66 inches</li> </ul>
Swing Radius (through base)	28 inches
Tilt Axis Rotational Limits	-20° to 200° or 20° to -200° (Limited by user cable)
Tilt Axis Manual Positioning Capability	2 Cardinal Positions ( 0° and 180°)
Accuracy:	<ul style="list-style-type: none"> <li>• Positioning Accuracy ± 10 Arc-Sec</li> <li>• Repeatability ± 5 Arc-Sec</li> </ul>
Coning Angle	± 10 Arc-Sec Maximum
Calibration:	Provisions are provided on the upper surface and axis end for the mounting of an opto-mechanical precision indexing instrument (optical polygon) to calibrate and verify the position accuracy of the tilt axis.
Leveling:	<ul style="list-style-type: none"> <li>• Range ±1 Degree</li> <li>• Resolution Continuous</li> </ul>
Axis Balancing:	<ul style="list-style-type: none"> <li>• Method Sliding Counterweights</li> <li>• Range 0-150 Lbs.</li> <li>• Resolution Continuous</li> </ul>
Azimuth Adjustment:	<ul style="list-style-type: none"> <li>• Range ± 1.5 Degrees</li> <li>• Resolution Continuous</li> </ul>
Operating Environment:	<ul style="list-style-type: none"> <li>• Temperature 50° F to 95° F</li> <li>• Relative Humidity 5% to 85%</li> </ul>
Bearings	Precision Ball Bearings
Color:	Mounting Surfaces: Black Anodized Base: Machine Blue Paint

\* Test load mounting provisions are tapped holes. Contact Ideal for size and hole pattern.

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

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