

**TRIP
GUARDIAN**
Know Your Direction

Three-Axis Manual Non-Magnetic Positioning Table

MODEL 1503-TS-SPL

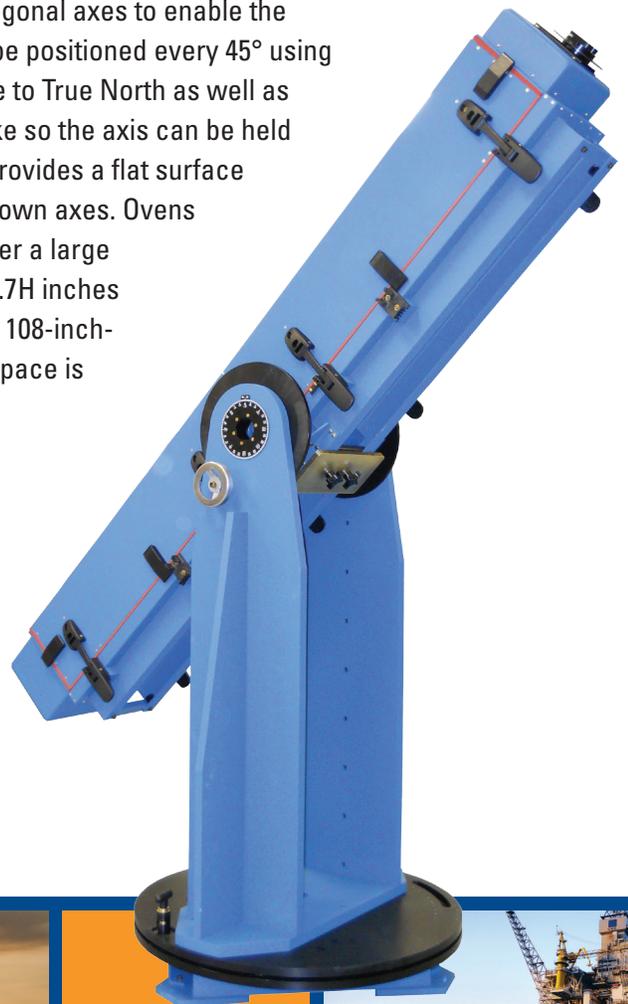
The Ideal Aerosmith Trip Guardian™ Model 1503-TS-SPL test table is a three-axis non-magnetic manual positioning table. This table can be used for testing magnetometers, gyroscopes and accelerometers as well as complete down-hole directional instruments. The table is designed to test instruments using the “Total Field Calibration” method. This method requires a rigid stand but does not require a high absolute positioning accuracy.

The table is constructed of aluminum, brass and phenolic and has three orthogonal axes to enable the instrument to be placed in various orientations. The outer axis (azimuth) can be positioned every 45° using the shot pin and comes standard with an additional plate for aligning the table to True North as well as Magnetic North. The middle axis (inclination) has an engraved dial and a brake so the axis can be held in any position. The work surface is attached directly to the middle axis and provides a flat surface for mounting V-blocks to allow cylindrical packages to be rotated about their own axes. Ovens also attach to the work surface to provide the capability to perform testing over a large temperature range. The usable work space inside the ovens is 4.6W x 72D x 6.7H inches (117W x 1829D x 170H mm) or for longer UUTs, we also offer a three-chamber, 108-inch-deep option. Heating is accomplished using silicone strip heaters. The work space is covered by two ovens. Each oven has its own thermocouple and is controlled separately to minimize temperature gradients. The temperature controller is a dual-zone controller and can be configured to have separate set points or a single set point for the two zones.

AVAILABLE OPTION:

- Chamber Venting Kit for reduced cool-down times
- Various mounting kits
- Recirculation blower

**Contact Ideal Aerosmith for more information.
+ 1 701.757.3400**





MECHANICAL SPECIFICATIONS

Mounting Surface:	Standard: 6-inch diameter x 72 inches (152 x 1829 mm) (without V-blocks or channels). 3-inch diameter X 74 inches (with V-blocks) Optional: 108-inch mounting surface option available. Contact Ideal AerSmith. Test load mounting provisions are sliding phenolic V-blocks.
Table Test Load Capacity:	50 lbs. (22.7 kg) centered
Overall Table Dimensions:	30.5W x 82.9D x 58.9H inches (7,775W x 2,106D x 1,496H mm)
Middle Axis Swing Radius:	43.6 inches (965 mm)
Outer Axis Swing Radius:	37 inches (940 mm)
Height of Mounting Surface:	48.5 inches from floor (1,232 mm)
Bearings:	Bronze bushings
Middle Axis Lock (Inclination):	Mechanical disk brake
Outer Axis Lock (Azimuth):	Shot pin positions every 45°
True North/Magnetic North Alignment Plate:	Secondary shot pin with $\pm 30^\circ$ range from primary shot pin
Axis Rotational Limits:	Unlimited for inner, middle and outer axes (May be limited by wires for heating and user)
Operating Environment:	50° to 95°F (10° to 35°C)
Relative Humidity:	Up to 85%
Approximate Table Weight:	550 lbs. (250 kg)
Color:	Machine blue paint
CE Mark:	CE compliant

THERMAL SPECIFICATIONS

Oven Interior Dimensions:	4.6W x 72D x 6.7H inches (117W x 1,829D x 170H mm)
Construction:	Insulated, aluminum skin 3-sided cover split into two halves
Temperature Range:	Ambient to 392°F (200°C)
Thermal Stability:	$\pm 3.6^\circ\text{F}$ ($\pm 2^\circ\text{C}$)
Temperature Controller:	Watlow F4 microprocessor-based programmer/controller
Computer Interface:	RS-232 (modbus protocol)
Heating Capacity:	1800 watts
Power Requirement Options:	115 VAC, 50/60Hz 15A, 1.8 kW or 230 VAC, 50/60Hz, 10A, 1.8 kW

Specifications are subject to change without notice.

Please call for pricing information.

For special requirements or custom specifications, please contact Ideal AerSmith.

Revision E3