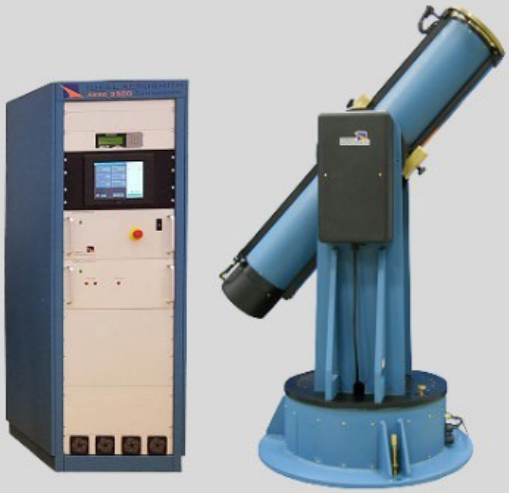
AUTOMATED THREE AXIS
NON-MAGNETIC POSTIONING TABLE
MODEL 2203-TH-NM



The Ideal Aerosmith Trip Guardian™ 2203-TH-NM Automated Three-Axis, Non-Magnetic Positioning Table System is intended for use in calibration and verification of MWD downhole directional instruments, including magnetometers, gyroscopes, and accelerometers.

Constructed of aluminum, brass, and phenolic, the 2203-TH-NM is a limited rotation system with ±30 arc second position accuracy. It has three orthogonal axes to enable instrument placement in various orientations. The table features servo-controlled drive packs, controlled using a front panel touchscreen or remotely via host PC. An integral thermal chamber provides testing and calibration at elevated temperatures and comes with the Ideal Aerosmith Air Amplifier kit for faster cooling of the device under test (DUT) and chamber.

STANDARD FEATURES

- Limited rotation on all three axes
- ±30 arc second position accuracy
- Thermal chamber and controller
- AERO 3500 Commander controller
- Air amplifier for cooling the DUT
- Temperature range ambient to 225°C

OPTIONS

- Customizable design
- Custom fixtures for mounting DUT
- Customized turn-key solutions
- Professional installation

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MECHANICAL SPECIFICATIONS

Mounting Surface, inches (mm)	4 (101.6) diameter x 54 (1371.6) long		
Table Test Load Capacity, lbs (kg)	50 (22.7) Centered		
Overall Table Dimensions, inches (mm), approx	85.8 H x 40.0 W x 40.0 D (2179 x 1016 x 1016)		
Table weight, lbs (kg), approx	750 (340)		
Axis Orthogonality, arc sec	±30 between consecutive axes		
	Inner Axis	**Middle Axis**	**Outer Axis**
Angular Freedom, deg	±185	±185	-5 to +365
Mechanical Stop Locations, deg	±190	±190	-10 to +370
Stow Lock Positions, deg	Every 90°	Every 90°	Every 90°
Axis Feedback Type	Optical Encoder		
Position			
• Accuracy, absolute, arc sec (deg)	±30 (0.00833)	±30 (0.00833)	±30 (0.00833)
• Repeatability, arc sec (deg)	±15 (0.00417)	±15 (0.00417)	±15 (0.00417)
• Homing, arc sec (deg)	±30 (0.00833)	±30 (0.00833)	±30 (0.00833)
• Display Resolution, deg	0.001	0.001	0.001
• Encoder Resolution, deg/edge	.0005	.0005	.0005
• Encoder Resolution, counts per rev	720,000	720,000	720,000
Slew Rate, maximum	80 deg/sec	10 deg/sec	10 deg/sec
Axis Wobble, arc sec	30	30	30
Operating Temperature, °F (°C)	50 to 95°F (10 to 35°C)		
Non-Operating Temperature, °F (°C)	-20 to +120°F (-29 to 49°C)		
Relative Humidity	20% to 85% non-condensing		
Color	Machine Blue Paint		
Motion Controller • Type & Configuration	AERO 3500 Commander		
• Dimensions	23.3 W x 30.0 D x 73.6 H (592 x 762 x 1869)		
• Command Entry	Via front panel touch-screen or remote PC		
• Communication Interfaces	Standard: IEEE-488, RS-232, Ethernet		
• Operating System	Windows Embedded Standard 7		

THERMAL SPECIFICATIONS

Oven Interior Dimensions, inches (mm)	4 (101.6) diameter x 54 (1371.6) long
Temperature Range	Ambient to 225°C (437°F) measured at outer surface of test load mounting tube
Thermal Stability	± 2°C (± 3.6°F)
Temperature Controller	Microprocessor-based Programmer/Controller
Cooling Method	Air cooled via Air Amplifier
Cooling Air Valve	Cooling Air Control – Air valve controlled by the temperature controller input 10-50 Psig on when cooling is demanded by the temperature controller
Heating Capacity	2885 watts @ 230 VAC
Power Requirement	208-240 VAC, single phase, 30A, 50/60 Hz

For special requirements or custom specifications, please contact Ideal Aerosmith, Inc. For special requirements or custom specifications, please contact Ideal Aerosmith, Inc.

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