

ID-420-1

Portable Single-Axis Automatic Turntable

This portable single-axis automatic turntable comprises an ultra-hard aluminium platform, a drive system and a control system. It enables the load to rotate at a set rate ($5\text{--}30^\circ/\text{s}$) and angular acceleration ($100^\circ/\text{s}^2$), and provides angular position accuracy of $\pm 10''$ for position, rate and repeatability testing of inertial devices.



Product Features

- Load capacity up to 25 kg
- Table surface flatness: 0.03 mm
- Angular position accuracy: $\pm 10''$
- Repeatability: $\pm 3''$
- Resolution: 3.6''
- Angular acceleration: $100^\circ/\text{s}^2$

Suitable scenarios

Suitable for the inertial navigation testing industry, it is used to calibrate and test inertial measurement units such as gyroscopes and accelerometers, and can also serve as a high-precision single-axis positioning or rate reference in laboratory settings.

Technical Specifications

Parameter categories	Parameter items	Parameter values
Accuracy Performance	Angular position accuracy	$\pm 10''$
	Angular position repeatability	$\pm 3''$
	Speed smoothness	$\pm 0.01^\circ/\text{s}$
Dynamic Performance	Maximum angular velocity	$30^\circ/\text{s}$
	Maximum angular acceleration	$100^\circ/\text{s}^2$
Range of Motion	Range of azimuth/elevation movement	Continuous, unlimited (azimuth)
Mechanical Specifications	Load capacity	25 kg
	Table diameter/dimensions	420 × 240 mm
Environmental Protection	Protection rating	Ip40
	Operating temperature	0°C to +40°C
Power and Communications	Power supply requirements	AC 220V / 50Hz
	Control interface	Rs232 / Ethernet