

AR-250-3

High-capacity 3D rotary stage

This high-capacity three-axis rotary stage comprises a high-rigidity mechanical base, a servo drive and an angular measurement system. It is capable of independent or combined motion along all three axes and is used to support large test specimens for spatial attitude simulation and angular position testing.



Product Features

- High load capacity
- High coaxial accuracy across all three axes
- Wide speed range
- Supports both positioning and speed modes
- Customisable table dimensions
- Supports remote control

Suitable scenarios

Suitable for the defence and telecommunications sectors, specifically for anechoic chamber testing of antennas for radar, satellite communications, base stations and military electronic equipment.

Technical Specifications

Parameter categories	Parameter items	Parameter values
Accuracy Performance	Angular position accuracy	$\pm 5''$
	Angular position repeatability	$\pm 2''$
	Speed stability	5×10^{-5} (averaged over 360°)
Dynamic Performance	Maximum angular velocity	Inner frame: $\pm 400^\circ/\text{s}$ Middle frame: $\pm 300^\circ/\text{s}$ Outer frame: $\pm 200^\circ/\text{s}$
	Maximum angular acceleration	Inner frame: $2500^\circ/\text{s}^2$ Middle frame: $1500^\circ/\text{s}^2$ Outer frame: $1000^\circ/\text{s}^2$
Range of Motion	Range of movement (lateral/vertical)	All three axes offer continuous, unlimited 360° rotation
Mechanical Specifications	Load capacity	≥ 20 kg
	Table diameter/dimensions	Work surface diameter: 250 mm; usable load area: approx. $\Phi 250$ mm $\times$ 300 mm
Environmental Protection	Operating temperature	$20^\circ\text{C} \pm 8^\circ\text{C}$
Power and Communications	Power supply requirements	Single-phase 220 V AC $\pm 10\%$ / 50 Hz
	Control interface	Rs422 / RJ45 network port