AUTOMATIC FOUR BALL WEAR TESTER AZA1331

The AZA1331 Automatic Four Ball Wear Tester from AZA Lab is an advanced, fully automated tribology testing instrument designed for evaluating the Wear
Preventive (WP) and Extreme Pressure (EP) characteristics of lubricating oils and greases under steel-on-steel sliding conditions.

The instrument complies with internationally recognized testing standards including:

- ASTM D2783 – Extreme-Pressure Properties of Lubricating Fluids (Four-Ball Method)
- ASTM D2266 – Wear Preventive Characteristics of Lubricating Grease
- ASTM D4172 – Wear Preventive Characteristics of Lubricating Fluid

The AZA1331 accurately determines critical tribological parameters such as:

- PB (Maximum Non-Seizure Load)
- PD (Welding / Sintering Load)
- ZMZ (Composite Wear Value)
- Friction Coefficient
- Wear Scar Diameter

Featuring a servo-controlled hydraulic loading system, computerized control platform, real-time monitoring, and advanced data acquisition software, the AZA1331 provides highly precise, repeatable, and reliable results for research laboratories, lubricant manufacturers, quality assurance facilities, and industrial R&D centers.

AZA LAB UNIVERSE

TECHNICAL SPECIFICATIONS

Parameter	Specification
Model	AZA1331
Test Force Range	50N – 10,000N ±1%
Maximum Friction Force	1000N ±2%
Torque Measuring Range	0 – 15 Nm
Spindle Speed	1 – 3000 rpm ±1 rpm
Speed Control	Servo-controlled, stepless
Temperature Range	Ambient – 1000°C ±2°C
Test Mediums	Air, Oil, Water, Mud, Grinding Materials
Time Range	1 s – 9999 min
Stop Method	Manual / Automatic
Oil Chamber Stroke	> 45 mm
Main Spindle Power	3 kW
Data Control System	Industrial computer with real-time curve plotting

TECHNICAL SPECIFICATIONS

Parameter	Specification
Dimensions (L × W × H)	1200 × 870 × 1700 mm
Net Weight	850 kg
Power Supply	AC 220V ±10%, 50Hz

WORKING CONDITIONS

Parameter	Condition
Ambient Temperature	10 – 35°C
Relative Humidity	≤ 80%
Installation	Level and vibration-free surface
Environment	Free from corrosive gases and electromagnetic interference
Power Supply	AC 220V ±10%, 50Hz