

Wet Film Thickness Gauge High Precision Eccentric Wheel Meter For Liquid Coatings

Item Number: DS06



Introduction

Achieve precision wet film thickness measurement across battery coatings and functional films with this precision eccentric wheel gauge, engineered for flat and curved substrates to deliver unmatched consistency in demanding quality control and laboratory research.

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Application	Description	Key Benefit
Battery Electrode Slurry Coating	Verifying wet film deposition thickness of cathode (NMC, LFP) and anode (graphite, silicon) slurries immediately after slot-die or doctor blade coating.	Prevents mass loading variations, optimizes active material density, and eliminates batch rejection before costly drying phases.
Functional Optical & Conductive Films	Monitoring wet layer depth for anti-reflective, transparent conductive, and barrier coatings on rigid glass and polymer substrates.	Guarantees optical clarity, uniform sheet resistance, and precise dry film target thickness prediction.
Industrial Automotive Finishes	Measuring primers, basecoats, and clearcoats applied over stamped sheet metal and contoured automotive body components.	Ensures uniform appearance, prevents paint sagging or solvent popping, and verifies compliance with OEM coating specs.
Protective & Anti-Corrosion Coatings	Quality auditing of marine epoxy, polyurethane, and zinc-rich coatings applied to pipelines, tanks, and structural steel beams.	Validates protective barrier thickness on flat surfaces and curved pipe outer diameters to prevent premature corrosion failure.
Ceramic & Solid Electrolyte Tapes	Controlling tape casting layer thickness during doctor-blade spreading of ceramic slurries and solid-state electrolyte green tapes.	Assures uniform green tape density and prevents sintering warpage, cracking, or dimensional inconsistencies.
Printing Inks & Overprint Varnishes	Inspecting fluid ink deposition depth and UV-curable overprint varnishes on rigid packaging panels and metal sheet printing lines.	Prevents color density drift, avoids excessive drying times, and minimizes coating material consumption.
Coil Coating Quality Control	High-speed spot-checking of continuous coil coating lines processing aluminum and steel strip substrates.	Provides instant real-time thickness feedback to line operators to maintain continuous cross-web profile uniformity.
Adhesives & Laminating Resins	Quantifying applied wet film thickness of pressure-sensitive adhesives, hot-melts, and laminating resins before bonding.	Guarantees required bond strength, eliminates squeeze-out defects, and controls adhesive raw material expenditure.

Parameter	DS06-100	DS06-200	DS06-500	DS06-1000
Full Scale Range	0 - 100 µm	0 - 200 µm	0 - 500 µm	0 - 1000 µm
Recommended Operational Range	10 - 90 µm	20 - 180 µm	50 - 450 µm	100 - 900 µm
Scale Graduation Interval	5 µm	10 µm	25 µm	50 µm
Machining Tolerance	±5% across full scale	±5% across full scale	±5% across full scale	±5% across full scale
Measurement Wheel Architecture	3-wheel eccentric system	3-wheel eccentric system	3-wheel eccentric system	3-wheel eccentric system
Graduation Display Unit	Micrometers (µm)	Micrometers (µm)	Micrometers (µm)	Micrometers (µm)
Substrate Compatibility	Flat and single-axis curved	Flat and single-axis curved	Flat and single-axis curved	Flat and single-axis curved
Minimum Substrate Margin	≥25 mm from edge	≥25 mm from edge	≥25 mm from edge	≥25 mm from edge

Parameter	DS06-100	DS06-200	DS06-500	DS06-1000
Structural Material	High-grade stainless steel	High-grade stainless steel	High-grade stainless steel	High-grade stainless steel
Operating Mechanism	Manual 180° rolling	Manual 180° rolling	Manual 180° rolling	Manual 180° rolling
Solvent Resistance	Full resistance to NMP, ketones, alcohols, and esters	Full resistance to NMP, ketones, alcohols, and esters	Full resistance to NMP, ketones, alcohols, and esters	Full resistance to NMP, ketones, alcohols, and esters