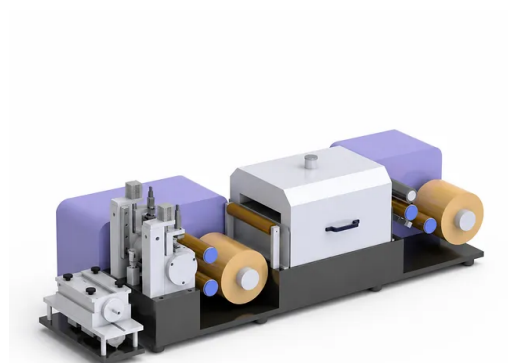


Slot Die Extrusion Coating Machine For Roll To Roll Electrode Coating

Item Number: TB23



Introduction

Slot die extrusion coating machine delivers non-contact roll-to-roll electrode coating with precision syringe pumping, controlled infrared drying, and glovebox-ready compact operation for solid-state battery, functional film, and laboratory process development where repeatable coating, web tracking, and temperature uniformity support results.

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Application	Description	Key Benefit
Lithium-ion battery electrode development	Coats positive and negative electrode slurries onto aluminum or copper foil for laboratory formulation and process studies.	Supports controlled roll-to-roll evaluation of electrode coating conditions.
Solid-state battery research	Supports compact coating workflows that can be placed inside a glovebox for controlled-atmosphere development.	Helps integrate coating and drying into glovebox-oriented R&D environments.
Battery sample-line process development	Used to explore slurry viscosity, solid content, dry thickness, coating speed, and oven conditions before larger-scale processing.	Creates repeatable experimental conditions for process parameter screening.
FCCL manufacturing research	Applies suitable slurry or coating materials to flexible copper-clad laminate substrates during material and process investigation.	Provides continuous web handling with servo tension and EPC guidance.
Optical film coating	Supports development work involving applicable functional slurries and film substrates requiring consistent transport and drying.	Combines non-contact coating with controlled infrared oven treatment.
High-end adhesive tape development	Enables laboratory coating studies for adhesive and related functional layers on roll substrates.	Maintains web alignment and winding control through the process.
Functional film research	Supports coating trials for a range of applicable slurries and substrates in materials-science laboratories.	Accommodates slurry viscosities from 2000 to 10000 mPas and solids contents from 20 to 80%.

Parameter	Specification
Product Item Number	TB23
Coating method	Simple slot die extrusion coating; suitable for continuous coating
Slot die material	SUS630
Slurry feeding configuration	Precision syringe pump
Single material processing capacity	1 L
Coating speed	0~0.5 m/min, depending on drying conditions
Operating substrate thickness - Aluminum foil (Al)	8~30 um
Operating substrate thickness - Copper foil (Cu)	6~20 um
Roller-face design width	230 mm
Guaranteed coating width	Max 200 mm

Parameter	Specification
Coating precision	+/-3 um
Suitable slurry viscosity	2000~10000 mPas
Suitable solid-content range	20~80%
Single-side coating dry-thickness range	10-200 um
Oven length	500 mm
Maximum oven temperature	150C
Oven temperature difference	<= +/-2.5C
Coating roller circular runout	<= +/-1.5 um
Coating roller surface roughness	Ra0.4
Coating roller straightness	<= +/-1.5 um
Coating roller surface treatment	Hard chrome plating
Guide roller surface treatment	Oxidized metal aluminum roller surface
Unwinding and rewinding tension control	Servo automatic tension control
Unwinding and rewinding web-guiding configuration	Photoelectric automatic web guiding; automatic EPC control
Automatic EPC travel	50 mm
Web-guiding alignment accuracy	+/-0.5 mm
Maximum unwinding roll diameter	Φ200 mm
Expanding-shaft maximum load capacity	30 KG
Material loading method	Roll material, 3-inch expanding shaft
Main control system	Touchscreen, PLC, servo system
Power supply	220V/50Hz
Power	4KW
Air source	0.4MPA
Weight	250KG
Overall dimensions	L1650mm x W700mm x H520mm (H650mm after opening the cover)