

Continuous Intermittent Battery Laboratory Coating Machine

Item Number: TB18



Introduction

Continuous intermittent battery laboratory coating machine combines stable web tension correction precision comma blade metering three roll transfer coating and dual sided hot air drying for dependable electrode process development with PLC touch screen operation and optional solvent recovery handling.

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Application	Description	Key Benefit
Lithium-ion battery electrode R&D	Applies electrode slurry to moving substrate during laboratory development of coated battery electrodes, with continuous or intermittent coating selected according to the study.	One system supports comparison of continuous and intermittent coating procedures.
Electrode slurry formulation evaluation	Provides a controlled coating and drying route for evaluating how a prepared slurry behaves during transfer coating and comma-blade metering.	The broad coating window supports practical assessment of coating conditions.
Intermittent electrode pattern development	Supports intermittent coating studies where discrete coated sections are required for the intended laboratory process.	Freely switchable operation avoids dedicating a separate coater to intermittent work.
Continuous web-coating process studies	Runs continuous coating on a tension-controlled, guided substrate path with integrated downstream hot-air drying.	Stable web travel supports orderly process trials over a moving substrate.
Coating metering optimization	Uses comma-blade metering with a precision adjustment mechanism to refine the applied coating condition during experimental work.	High coating precision supports more controlled comparison between test conditions.
Electrode drying-condition assessment	Dries coated substrate in a hot-air oven with airflow from both upper and lower sides, using a precision-controlled heating system.	Double-sided airflow and $\pm 0.3^{\circ}\text{C}$ heating precision support high-quality drying studies.
Solvent-based coating laboratory configuration	Configures the coating system with the optional solvent recovery treatment device when solvent handling is part of the laboratory requirement.	Optional treatment capability allows the equipment specification to align with solvent-related process needs.

Parameter	Specification
Site-Facing Identifier	TB18
Coating Modes	Continuous coating and intermittent coating; freely switchable
Coating Method	Three-roll transfer coating
Coating Window	Broad coating window
Metering Method	Comma-blade metering
Coating Precision Provision	Precision adjustment mechanism for high coating precision
Substrate Handling	Substrate tension control
Web Transport	Stable tape or web travel
Web Alignment	Correction device configured
Oven Type	Hot-air oven
Drying Airflow	Upper and lower double-sided blowing
Drying Performance	High-quality drying effect

Parameter	Specification
Heating Power Control	Analog-signal-controlled power heating
Heating System Precision	+/-0.3°C
Heating System Service Characteristic	Long service life
Control System	PLC control
Operator Interface	Touch-screen operation
Optional Configuration	Solvent recovery treatment device