

Automatic Coating Film Drying Machine Lithium Battery Laboratory Coating Machine

Item Number: TB05



Introduction

Automatic coating film drying machine and lithium battery laboratory coating machine with 130°C heating, adjustable coating speed, vacuum plate, precision scraper, programmable drying timer for 18650 electrode research smooth reproducible coatings across varied substrates compact bench scale development applications

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Application	Description	Key Benefit
Lithium battery electrode coating	Apply cathode or anode slurry to suitable substrates during early-stage lithium battery material and electrode development.	Provides adjustable speed, travel, scraper gap, and drying conditions for controlled process comparison.
18650 battery electrode research	Produce coated electrode materials for laboratory-scale 18650 cell development and related evaluation work.	Supports long coated sections while keeping equipment requirements and operating costs manageable.
Thick-film preparation	Use the adjustable scraper to form thicker wet films for material screening, formulation studies, and coating-process experiments.	The 0 to 3.5 mm scraper range offers practical control of wet-film thickness.
Slurry formulation evaluation	Compare coating behavior across different slurry compositions, solids loadings, binders, and substrate materials.	Adjustable coating speed and vacuum substrate retention help isolate process variables.
Advanced materials research	Prepare functional films and material layers for academic and industrial research programs beyond battery production.	Flexible substrate handling and a broad travel range support varied experimental formats.
Powder metallurgy and ceramics	Coat laboratory formulations, ceramic slurries, or functional powders onto flat substrates for drying and preliminary process assessment.	Combined coating and controlled heated drying simplify small-batch workflow development.
University and pilot laboratory work	Support repeated coating trials, student research, formulation optimization, and scale-up feasibility studies.	Compact dimensions, digital controls, and automatic movement make routine operation more efficient.

Parameter	Specification
Product item number	TB05
Product type	Battery electrode coating machine; automatic coating film drying machine
Standard coating applicator width	300 mm
Coating speed	0 to 120 mm/s
Adjustable travel	0 to 800 mm
Vacuum plate	Vacuum aluminum flat plate
Vacuum plate dimensions	L900 mm × W350 mm × H32 mm
Vacuum pump	1 oil-free vacuum pump included
Heating and drying system	Strong air-circulation heating and drying
Heating temperature range	Room temperature to 130°C

Parameter	Specification
Temperature control	Digital display temperature controller
Drying timer	Digital display timer with freely adjustable drying time
Scraper adjustment range	0 to 3.5 mm
Power supply	220 V / 50 Hz
Rated power	2 kW
Overall dimensions	L1000 mm × W450 mm × H320 mm
Weight	140 kg