



## Laboratory Pouch Cell Assembly Lithium Battery Three Roll Transfer Coating Machine

Our Product Introduction

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### Basic Information

- Place of Origin: China
- Brand Name: MRBEST
- Certification: CE
- Model Number: MR-SY300-2J
- Minimum Order Quantity: 1 Set
- Price: Negotiable
- Packaging Details: Standard Export Wooden Packing
- Delivery Time: 7-20 working days
- Payment Terms: T/T, Western Union, MoneyGram
- Supply Ability: 500 sets per month



### Product Specification

- Name: Transfer Coating Machine
- Coating Method: 3 Rollers Transfer Coating
- Roller Width: 330mm (280mm Effective)
- Heating Temperature: RT~150
- Drying Chamber Qty: 2 Sections (1m/section)
- Operating Substrate Thickness: Aluminum Foil(Al): 8-30um; Copper Foil(Cu): 8-30um
- Coating Speed:  $\leq 2\text{m/min}$
- Suitable Slurry Viscosity: 2000-12000 Cps
- Highlight: Laboratory Pouch Cell Assembly, Lithium Battery Pouch Cell Assembly, Three Roll Transfer Coating Machine



### More Images



## Product Description



### Lithium Battery Three-Roll Transfer Coating Machine For Battery Manufacturing

**Model: MR-SY300-2J**

The MR-SY300-2J Laboratory Transfer Coating Machine is a three-roller transfer coating machine that allows for continuous and intermittent coating and is convenient for applications in surface coating processes on a variety of substrates. Particularly suitable for the lithium-ion battery industry, the machine is designed for the convenience of the researcher, while meeting the requirements for coating accuracy and consistency without any variation from production, and has excellent drying results, making it ideal for R&D and small trials on lithium-ion batteries, supercapacitor, nickel batteries and other secondary batteries.

#### Features

- Plasma cleaning function optional.
- Can switch freely to achieve continuous and intermittent coating.
- Substrate tension control, transport stability, configuration correction device.
- Hot air oven, the upper and lower double-sided blowing, high-quality drying effect.
- Three-roll transfer coating, wider coating window.
- Comma scraper measurement, with precision adjustment agencies, access to high-precision coating.
- Power generation with analogue signal control, high accuracy  $\pm 0.3^{\circ}\text{C}$  of the heating system and long life.
- PLC control, Touch screen operation, easy to use.
- Optional solvent recovery device

#### Specifications

No.	Item	Technical parameters
1	Suitable system	Lithium iron phosphate, lithium cobalt oxide, lithium manganese oxide system battery positive and negative electrode coating process
2	Coating method	Continuous coating, intermittent coating
3	Number of oven sections	2 sections 1m/section
4	Mechanical speed	Max. 2m/min
5	Coating speed	0~1m/min
6	Coating gap	Max. 100mm (free setting without limit)
7	Substrate thickness	Aluminum foil: 8 30um Copper foil: 8 30um
8	Roll surface design width	330 mm
9	Ensure coating width	$\leq 300\text{mm}$

10	Coated rollers, rubber rollers	Φ120mm
11	Squeegee rollers	Φ80mm
12	Coating accuracy	±3um
13	Double-coated film weight accuracy (mg/cm <sup>2</sup> )	Coated centre value ±1.0%
14	Slurry viscosity	2000~12000 mpas
15	Single-coated dry thickness range	20-200μm
16	Solvent characteristics	Oily solvent NMP(s.g=1.033,b.p=204 ) Watery solvent H <sub>2</sub> O/NMP(s.g=1.000,b.p=100 )
17	Solid content	20~85%
18	Coating size accuracy (mm)	L≤±1,W≤±0.5
19	Positive and negative alignment accuracy (mm)	L≤±1,W≤±0.5

### Coating Head

No	Item	Technical parameters
1	Roller installing structure	Steel frame firmly installed
2	Roller surface treatment	Metallic aluminum roller surface oxidation
3	Tension control system	Automatic constant tension control
4	Correction method	Automatic EPC control, travel 50mm Roll materials with 3-inch inflatable shaft fixed
5	Feed roll materials method	Unwinding with single inflatable shaft
6	Maximum unwinding diameter	Φ250mm
7	Maximum bearing capacity of inflatable shaft	80Kg
8	Number of unwinding inflatable shaft	1 pcs
9	Main drive motor	Servo motor
10	Scraper structure	Double-sided comma scraper
11	Coating roller(steel roller)	Surface hard chromium plating
12	Back roller(glue roller)	Surface package imported EPDM
13	Scraper intermittent height adjustment	Manual
14	Single machine head position	Installation and operation in front of oven

### Oven

No.	Item	Technical parameters
1	Oven structure	Single layer independent heating, up and down configuration
2	Oven length	1m/section, 2 sections in total
3	Material	SUS304 stainless steel
4	Temperature control	Divided into normal working temperature control, over-temperature monitoring alarm protection control, and cut off the heating main power; all sections are completely independent control
5	Heating method	Electric heating, hot air circulation structure

6	Single oven heating power	6KW
7	Oven internal temperature	Design Max150 ,Single section oven internal temperature difference $\leq$ 2.5
8	Blowing method	Upper and down blowing,upper and down wind chamber shared heating body
9	Tuyere structure	The tuyere groove using a special mold slotted
10	Fan control	Contacto control
11	Heating	Solid-state relay

No.	Item	Technical parameters
1	Scraper	Round beating $\leq$ $\pm$ 1.5um,Ra0.4, straightness $\leq$ $\pm$ 1.5um
2	Coating roller(steel roller)	Round beating $\leq$ $\pm$ 1.5um,Ra0.4 straightness $\leq$ $\pm$ 1.5um
3	Glue roller	Round beating $\leq$ 10um,straightness $\leq$ 10um
4	Correction error	$\pm$ 0.2mm

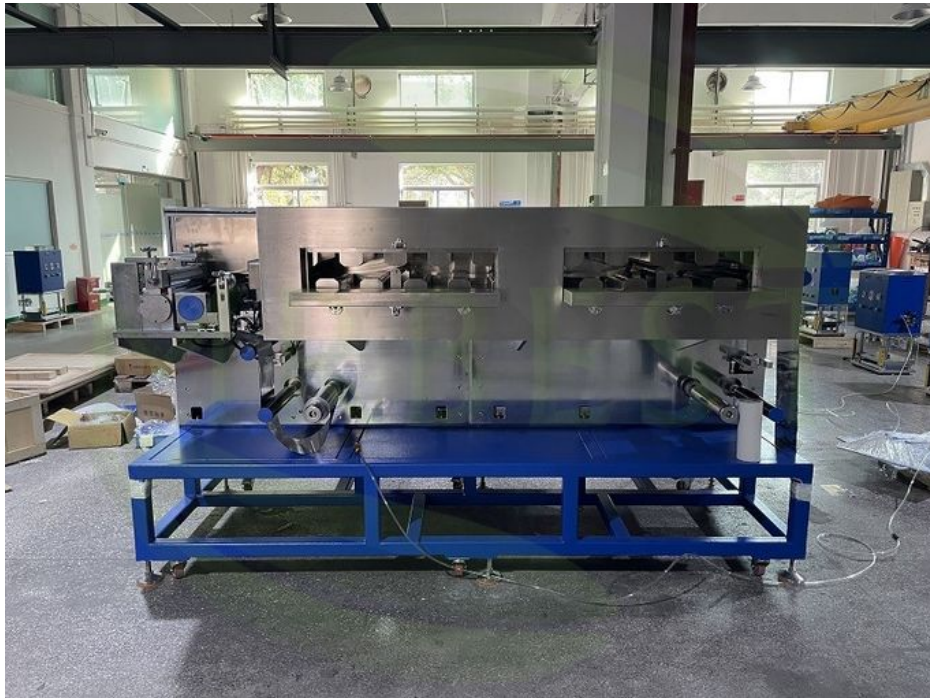
### Installation environment requirements

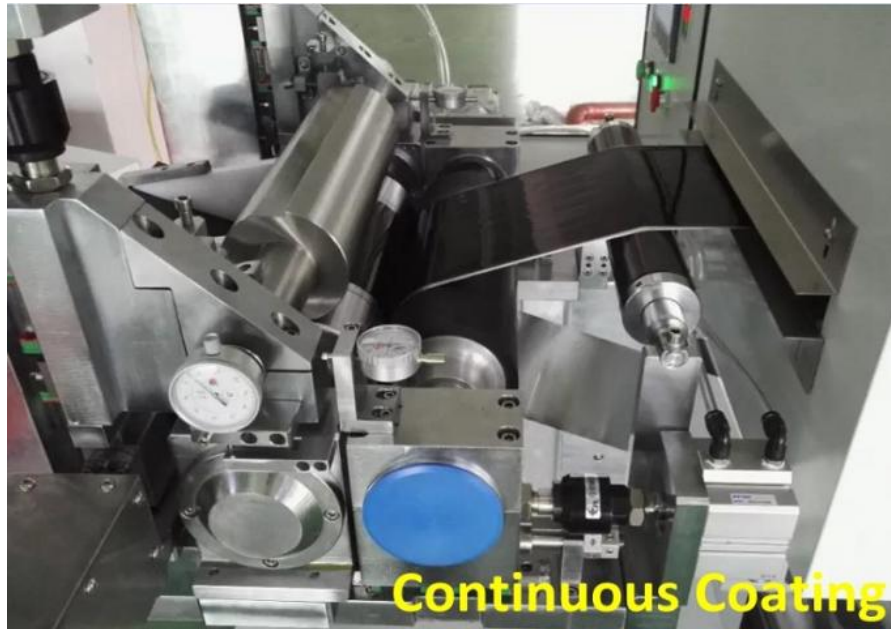
- Machine head ambient temperature 25~30 ,others 10~40 .
- Machine head relative humidity: positive RH  $\leq$ 35%, negative RH  $\leq$ 98%,others  $\leq$ 98%.
- Power supply:3PH 380V,50HZ, Voltage fluctuation range:+8% -8% start total power 15KW.
- Compressed air:After drying, filtration and stabilivolt: outlet pressure 5.0kg/cm<sup>2</sup>.

### Picture Display













## Battery Assembly Line Battery Making Machine

### Coin Cell Machines

		
Planetary Vacuum Mixer	Automatic Film Coating Machine	Rolling Press Machine
	<b>Coin Cell Lab Equipment</b> 	
Coin Cell Punching Machine		Vacuum Drying Oven
		
Glove Box	Coin Cell Crimper	Battery Testing Machine

### Pouch Cell Assembly



## Cylindrical Cell Machines



## Factory Show





Shenzhen Meirui Zhida Technology Co., Ltd. is a Manufacturer specializing in a Complete Set of Lithium Ion Battery Research Equipment. MRBEST has been committed to providing customers with comprehensive Battery Research and Development Equipment to meet customers' new Lithium Battery Technology and New Needs in recent years, such as Sodium Batteries, Solid-state Battery and Semi-solid-state Battery Equipment, special process requirements such as dry process, 4680 large cylindrical battery equipment requirements etc. Create One-Stop Service for Battery Research Equipment for customers and provide Professional Technical Guidance and Support.

MRBEST related products include: Vacuum Mixers, Planetary Vacuum Mixers, Lab Transfer Coating Machine, Automatic Film Coating Machine, Electric Vertical Roller Machine, Pneumatic Die-cutting Machines, Electric Sealing Machines, Vacuum Pre-sealing machine, Secondary Vacuum Sealing Machine, Coin Cell battery Sealing Machine, Battery Winding Machine, Pouch Cell Sealing Machine, Ultrasonic Spot Welding Machine, Glove Box with Purification System etc. MRBEST products have

been sold at home and abroad. Our main customer include: Universities, Research Institutes, Battery Positive and Negative Material Companies, Battery Cell Manufacturers, and New Energy EV Battery Manufacturers etc.



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