

# Laboratory Transfer Interval Coating Machine For Battery Electrode

## **Basic Information**

Place of Origin: China
Brand Name: MRBEST
Certification: CE

Model Number: MR-SY300-2J

Minimum Order Quantity: 1 SetPrice: 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 Interval Coating Machine

Coating Method: 3 Rollers Transfer CoatingRoller Width: 330mm (280mm Effective)

• Heating Temperature: RT~150

• Drying Chamber Qty: 2 Sections (1m/section)

• Operating Substrate Aluminum Foil(AI): 8-30um; Copper Foil(Cu):

Thickness: 8-30um

Coating Speed: ≤2m/minSuitable Slurry Viscosity: 2000-12000 Cps

• Highlight: Laboratory Transfer Interval Coating Machine,

Battery Electrode Transfer Interval Coating

Machine

# **Transfer Interval Coating Machine for Battery Electrode**



#### 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**

|     |                                | T  |
|-----|--------------------------------|--|
| 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<br>Copper foil:8 30um   |
| 8   | Roll surface design width      | 330 mm   |
| 9   | Ensure coating width           | ≤300mm   |
| 10  | Coated rollers, rubber rollers | Ф120mm   |

| 11 | Squeegee rollers                              | Ф80mm   |
|----|---|---|
| 12 | Coating accuracy                              | ±3um  |
| 13 | Double-coated film weight accuracy (mg/cm2)   | 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 )<br>Watery solvent<br>H2O/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<br>Roll materials with 3-inch inflatable shaft<br>fixed |
| 5  | Feed roll materials method                        | Unwinding with single inflatable shaft   |
| 6  | Maximum unwinding diameter                        | Ф250mm   |
| 7  | Maximum bearing capacity of inflatable 80Kg shaft |  |
| 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-<br>temperature monitoring alarm protection control, and cut<br>off the heating<br>main power; all sections are completely independent<br>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≤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               | Contactor control  |
| 11 | Heating                   | Solid-state relay  |

| No. | Item                         | Technical parameters                            |
|-----|------------------------------|---|
| 1   | Scraper                      | Round beating≤±1.5um,Ra0.4, straightness≤±1.5um |
| 2   | Coating roller(steel roller) | Round beating≤±1 .5um,Ra0.4 straightness≤±1.5um |
| 3   | Glue roller                  | Round beating≤10um,straightness≤10um            |
| 4   | Correction error             | ±0.2mm  |

#### Installation environment requirements

- Machine head ambient temperature 25~30 ,others 10~40 .
- Machine head relative humidity: positive RH  $\le$ 35%, negative RH  $\le$ 98%,others  $\le$ 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/cm2.

#### **Our Advantages**

- 1. Steady and high quality !-cause we are a manufacturer of Lithium Battery Equipment, and we only focus on one thing that is make professional Lithium ion Battery Equipment for customer around the world.
- 2. Friendly use! all MRBEST Battery Equipment with teach manual and support live teaching via media.
- 3. Reliable factory! My factory located in Shenzhen city of China, support factory visit and video factory visit .
- 4. 1 year warranty plus lifetime technical support.
- 5.All the parts use on machine, in stock forever.
- 6. Powerful technical support, NOT TRADE COMPANY! We are professional on Lithium Battery Equipment, the chief engineer team have

more than 20 years experience on lithium battery area, so we can easy do diagnose on machine if customer have question.

7. 100% PATIENCE to all customers! Our patience not only before consult order, also after-sale service, one by one .



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