

Automatic Supercapacitor Cell Casing Machine

Item Number: CX07



Introduction

Automatic supercapacitor cell casing machine for precise insertion of welded cells with assembled covers and O rings delivers adjustable depth reliable sealing high throughput safe PLC operation and flexible production integration for battery manufacturing applications efficiently at scale

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Application	Description	Key Benefit
Supercapacitor Cell Assembly	Presses welded supercapacitor cells with preassembled covers and O-ring seals into cylindrical outer cases.	Consistent seating of the internal sealing ring and controlled casing depth.
60-Series Supercapacitor Production	Supports 60-series products with lengths from 50 to 204 mm, with other specifications available through customization.	One adjustable platform can support a broader product range.
Interference-Fit Case Assembly	Uses the optional high-frequency heating function for cases and positive current collectors requiring interference-fit installation.	Expands process capability for specialized mechanical assembly designs.
High-Volume Energy Storage Manufacturing	Provides automatic insertion, production counting, and a specified utilization rate of 98 percent.	Improves repeatability and supports stable production scheduling.
Pilot and Scale-Up Battery Lines	Adjustable height, depth, and pneumatic speed make the system suitable for new product introduction and production transfer.	Simplifies process adaptation when cell dimensions or assembly conditions change.
Automated Component Sealing Processes	Positions the cell and sealing components accurately before full insertion into the external housing.	Helps establish a repeatable sealing assembly sequence and reduce manual variation.
Laboratory and Engineering Validation	Supports controlled casing trials for supercapacitor development, process qualification, and equipment verification.	Provides adjustable operating conditions for engineering evaluation and optimization.

Parameter	Specification
Product Model	CX07
Applicable Product	60-series battery supercapacitor
Applicable Product Length	50-204 mm
Other Product Sizes	Other specifications can be customized
Insertion Depth Accuracy	±0.1 mm
Insertion Depth	Adjustable
Insertion Speed	50 mm/s, adjustable
Tooling and Mold Service Life	More than 500,000 cycles under normal use
Production Capacity	≥3 PCS
Utilization Rate	98%
Required Air Source	0.5-0.8 MPa, adjustable
Recommended Air Supply	Dried compressed air at 0.5-0.7 MPa pressure
Air Consumption	0.5 m³/min

Parameter	Specification
Power Supply	220 V / 50 Hz
Rated Power	0.5 kW
Working Temperature	10-35°C
Working Humidity	10-80% RH
Working Dimensions	L700 mm × W500 mm × H2200 mm
Transportation Dimensions	L700 mm × W500 mm × H1900 mm
Weight	300 kg
Control System	PLC control with human-machine interface display
Safety System	Electronic light-curtain protection
Heating Option	Optional high-frequency heating casing function
Casing Height Adjustment	Adjustable for different product heights
Pneumatic Cylinder Speed	Adjustable
Production Counting	Integrated product counting function
Casing Process	Inserts welded supercapacitor cells with assembled top covers and O-ring seals into the outer case
Sealing Position	O-ring seal is seated and retained in the internal sealing position
Installation and Handling Requirement	For first-floor placement, handling height must be ≥ 2 m
Upper-Floor Transport Requirement	Elevator route must be at least 1 m wide, ≥ 2 m high, and more than 1.3 m deep
Logistics Planning	Transport route from outside the factory to the workshop and installation method must be confirmed in advance