



KINTEK SOLUTION

Coin Cell Crimper Machine Catalog

Contact us for more catalogs of Laboratory Press Machine, Battery Lab Consumables & Materials, Battery Testing & Electrochemical Equipment, Electrode Fabrication Equipment, Cell Assembly & Filling Equipment, etc.

KINTEK SOLUTION

COMPANY PROFILE

>>> About Us

KINTEK Solution is a technology-driven innovator specializing in comprehensive laboratory equipment for battery R&D and advanced materials research. Our portfolio spans the entire cell fabrication workflow—from mixing, coating, and precision pressing (automatic, heated, isostatic) to cell assembly and testing. Also essential in ceramics and powder metallurgy, our systems prioritize precision, safety, and repeatability, empowering researchers and industrial labs to achieve groundbreaking results.



Automated Coin Cell Assembly Machine With Precision Electrolyte Filling And Ccd Inspection

Item Number: CC04



Introduction

Automated coin cell assembly machine for 20 and 24 series batteries, featuring precision electrolyte filling, automatic material handling, tray switching, sealing, CCD inspection, PLC control, and glovebox-compatible operation for consistent laboratory cell fabrication and advanced battery research workflows.

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Application	Description	Key Benefit
Lithium Battery R&D	Assemble and seal laboratory coin cells after electrode, separator, and shell materials have been prepared. The equipment manages component retrieval, electrolyte injection, stacking, and sealing in a repeatable sequence.	Supports consistent prototype preparation and reduces repetitive manual handling during battery development.
Solid State Battery Research	Use controlled tray loading and programmable assembly order for experimental cells requiring carefully sequenced layer placement. The compact format is suitable for glovebox-based research.	Improves workflow organization while supporting assembly in controlled environments.
Electrode Coating Evaluation	Record electrode alignment and coating quality through CCD inspection during coin cell fabrication. Captured inspection data can be associated with each manufactured battery for later review.	Helps researchers connect electrode preparation quality with downstream cell performance.
Electrolyte Formulation Studies	Set the required injection volume through the precision injection pump when comparing electrolyte compositions or filling conditions.	Provides controlled liquid addition across comparative research batches.
Advanced Materials Research	Assemble coin cells used to evaluate new active materials, coatings, separators, and electrode structures. Flexible sequencing accommodates changing experimental procedures.	Gives materials laboratories a configurable platform for repeatable cell fabrication.
Academic and Pilot-Scale Cell Fabrication	Load multiple trays manually and allow the machine to retrieve materials and complete successive assembly cycles. Finished batteries are returned to their corresponding trays.	Increases practical throughput for laboratory programs while retaining operator control over material preparation.

Parameter	Specification
Product Item Number	CC04
Applicable Battery Range	20 and 24 series coin batteries
Assembly Method	Reverse assembly; the negative shell is positioned at the bottom and components are stacked layer by layer
Loading Method	Manual tray loading with automatic material retrieval
Tray Capacity per Cycle	10 batteries, for reference
Equipment Speed	60 batteries per hour, for reference
Electrolyte Injection System	High-precision injection pump
Injection Volume	Settable
Material Transfer	Tray-clamp transfer design with automatic tray switching
Visual Inspection	CCD vision inspection for electrode alignment and coating quality
Inspection Display	Real-time inspection image display

Parameter	Specification
Data Recording	Records electrode alignment, coating quality, and inspection data for each manufactured battery
Injection Port Connection	Chemically resistant flexible tubing
Operating Environment	Glovebox or dry room
Control System	PLC control with touchscreen operation
Process Settings	Battery quantity, injection volume, running speed, and other configurable process parameters
Overall Dimensions	L800 mm x W550 mm x H710 mm
Power Supply	AC220 V / 50 Hz
Rated Power	2 kW
Weight	250 kg

Manual Coin Cell Battery Crimping Machine

Item Number: CC01



Introduction

Manual coin cell battery crimping machine for laboratory research delivers precise hydraulic sealing up to 8T pressure, compact glovebox operation, adjustable safety control, accurate height limiting, and dependable short circuit protection for repeatable sample preparation and pilot production.

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Application	Description	Key Benefit
Coin Cell Battery R&D	Seal coin cells after electrode, separator, and electrolyte placement during laboratory battery development.	Consistent sealing height and monitored pressure improve sample-to-sample repeatability.
Battery Materials Screening	Prepare large numbers of coin cell samples for evaluating cathode, anode, electrolyte, and additive formulations.	Low-effort manual operation supports efficient research batches without requiring a powered production line.
Capacitor Research	Perform controlled sealing of laboratory capacitor samples and related electrochemical test components.	High closing force and precision tooling support secure, stable sample closures.
Glovebox Assembly	Operate the system inside a glovebox when handling air-sensitive electrode materials or electrolytes.	Compact dimensions enable sealing under controlled atmosphere conditions.
Small-Batch Pilot Production	Support limited factory trial production, process verification, and pre-production sample preparation.	Hydraulic force and visible pressure feedback provide a practical bridge between research and pilot workflows.
Battery Disassembly	Use suitable alternative tooling to open or disassemble coin cell samples for post-test analysis.	Interchangeable tooling expands the equipment's usefulness beyond one sealing operation.
Electrode Sheet Pressing	Configure the equipment for pressing electrode sheets during material and process development.	Stable mechanical structure enables controlled laboratory pressing with low operating complexity.
Powder Pellet Pressing	Press battery powder into compact pellets or related research specimens using appropriate dies.	One compact platform can support multiple sample preparation tasks across materials research.

Parameter	Specification
Model	CC01
Equipment type	Manual hydraulic coin cell battery crimping and sealing machine
Primary function	Coin cell battery sealing for laboratory research and small-batch trial production
Additional functions with suitable tooling	Battery disassembly, electrode sheet pressing, and battery powder pellet pressing
Drive method	Hydraulic drive with manual hand lever operation
Maximum pressure	200 kg/cm ² , approximately 8 tons of pressure
Recommended normal coin cell sealing pressure	Pressure gauge reading of approximately 80-100 kg/cm ²
Factory pressure setting	Adjusted before shipment for normal coin cell sealing conditions
Pressure adjustment	Higher pressure can be adjusted for special conditions after consultation with the manufacturer
Manual handle operating force	Less than 5kg
Pressure monitoring	Built-in recessed pressure gauge

Parameter	Specification
Pressure safety system	Internal safety relief oil valve with adjustable pressure and upper pressure limit
Lower die positioning	High-precision positioning ring limits the sealing height
Sealing height adjustment	Loosen the four set screws on the side of the sealing limit nut, rotate the nut to adjust height, then retighten the set screws
Upper die ejection mechanism	Screw-and-spring ejector center inside the sealing cup for forced coin cell removal when stuck
Tooling material	Japanese imported die material
Structural material	High-strength chrome steel
Surface treatment	Environmentally friendly electroplating and spray treatment; designed to resist rust
Short-circuit protection	Structure includes a function designed to prevent battery sealing short circuits
Hydraulic valve operation	Tighten the oil release handwheel clockwise to close and pressurize; loosen it counterclockwise by approximately half a turn to open the die
Valve rotation protection	Handwheel includes limit positions in both directions to help prevent over-rotation and oil leakage
Operating environment	Suitable for operation inside a glovebox due to compact size
Overall dimensions	223mm X 170mm X 325mm
Weight	25kg

Electric Coin Cell Crimping Machine Battery Sealing Press

Item Number: CC02



Introduction

Electric coin cell crimping machine for laboratory battery research, capacitor sealing, small batch production, adjustable pressure, interchangeable dies, vibration free operation, and precise reliable forming across diverse materials processing applications.

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Application	Description	Key Benefit
Battery Material Research	Seal CR20 series coin cells after electrode, separator, and electrolyte preparation during laboratory battery experiments.	Repeatable pressure settings support consistent sample preparation across test batches.
Coin Cell Prototype Development	Produce research samples for evaluating new electrode materials, formulations, and cell assembly procedures.	Controlled electric forming reduces operator effort and improves process consistency.
Capacitor Research Sealing	Perform sealing operations for capacitor research and related laboratory sample preparation.	Adjustable digital pressure allows the operator to establish a defined sealing condition.
Small Batch Factory Trial Production	Support limited trial runs before larger-scale manufacturing or process qualification.	Compact construction and interchangeable dies provide flexible production support without requiring a large press system.
Dry Powder Pressing	Use compatible replacement tooling for dry powder pressing tasks in materials research.	High available force and a rigid structure support repeatable forming operations.
Wet Powder Pressing and Forming	Configure the unit for wet powder pressing, forming, or related sample-making work with suitable dies.	One electric platform can support multiple laboratory forming processes.
Riveting Operations	Adapt the tooling for riveting tasks where a controlled linear forming force is required.	The motorized drive provides stable movement and reduces manual operating effort.
Glovebox-Based Cell Assembly	Position the unit for use with a glovebox workflow when the 360 mm transfer chamber is unobstructed.	Compact dimensions simplify transfer and placement in controlled laboratory environments.

Parameter	Specification
Product Item Number	CC02
Equipment Type	Electric coin cell crimping and sealing machine
Primary Use	Coin cell sample preparation for laboratory battery material research; capacitor research sealing; small-batch factory trial production
Drive Method	Electric drive
Pressure Control	Precise sealing pressure control with freely configurable digital input
Maximum Sealing Pressure	Max. 1000 kg, digitally displayed and settable
Sealing Stroke	25 mm
Standard Sealing Die	CR20 sealing die
Standard Compatible Cell Formats	CR2016, CR2025, CR2032
Optional Tooling	Other sealing dies available; tooling can also be changed for dry powder pressing, wet powder pressing, forming, riveting, and other operations

Parameter	Specification
Power Supply Voltage	Single-phase 110 V to 220 V AC $\pm 10\%$
Frequency	50 Hz / 60 Hz
Rated Power	0.1 kW
Control Interface	HIM touchscreen
Glovebox Transfer Compatibility	Can pass directly through a 360 mm diameter glovebox transfer chamber when unobstructed by components such as a slide plate
Overall Dimensions	L270 mm $\times$ W185 mm $\times$ H570 mm
Weight	30 kg

Pneumatic Laboratory Coin Cell Crimping Machine

Item Number: CC03



Introduction

Pneumatic laboratory coin cell crimping machine for battery research and capacitor assembly with adjustable sealing pressure inert gas operation precision tooling multiple sizes compact design no electricity required safe handling for consistent small batch production and dependable laboratory workflows

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Application	Description	Key Benefit
Lithium ion battery research	Seal laboratory coin cells after placing electrodes, separator, electrolyte, and housing components in a controlled research environment.	Produces consistent test samples for electrochemical evaluation and material comparison.
Solid state battery development	Close coin cell assemblies used to evaluate solid electrolytes, composite electrodes, and interface structures.	Provides adjustable sealing-height control for sensitive experimental stacks.
Supercapacitor research	Prepare small capacitor samples for materials screening, formulation studies, and performance testing.	Supports repeatable closure without requiring electrical power at the workstation.
Glove box cell assembly	Operate with argon or nitrogen gas and route exhaust externally through a KF40-compatible connection.	Helps preserve the controlled atmosphere required for moisture- or oxygen-sensitive materials.
Small-batch pilot production	Seal limited quantities of experimental or pre-production coin cells in a factory or process-development area.	Offers a compact, practical alternative for low-volume production work.
Coin cell disassembly	Use optional interchangeable tooling for opening or removing housings from selected 16, 20, 24, and 30-series cells.	Expands the workstation for post-test failure analysis and sample recovery.
Electrode and powder preparation	Configure compatible dies for electrode sheet pressing or battery powder pellet pressing.	Consolidates several small-format preparation tasks in one pneumatic platform.
Academic materials research	Support repeatable sample fabrication in teaching and research laboratories working with batteries, ceramics, powders, or advanced materials.	Makes controlled pressing and sealing accessible across multiple laboratory workflows.

Parameter	Specification
Product identifier	CC03
Product type	Pneumatic laboratory coin cell crimping machine
Primary function	Coin cell and capacitor sample sealing
Additional functions	Coin cell disassembly, electrode sheet pressing, battery powder pellet pressing with compatible tooling
Standard sealing tooling	CC03 20-series coin cell sealing die
Optional sealing tooling	Additional size configurations available by changing selected die components
Supported optional disassembly sizes	CC03 16-series, CC03 20-series, CC03 24-series, and CC03 30-series configurations
Gas source	0.7 to 0.8 MPa argon or nitrogen gas cylinder, or compressed air
Glove box compressed-air guidance	Compressed air is not recommended for use inside a glove box
Exhaust design	Dedicated exhaust port for external connection

Parameter	Specification
Compatible exhaust connection	KF40 or equivalent components
Gas consumption	Approximately 480 mL per sealing cycle
Sealing pressure control	Manual regulating valve
Recommended operating pressure	0.7 MPa
Sealing stroke	30 mm
Operating principle	Pneumatic actuation controlled by a manual mechanical valve
Electrical requirement	No electrical power required
Installation dimensions	L290 mm x W205 mm x H330 mm
Approximate weight	25 kg
Structural material	High-strength chromium steel
Surface treatment	Environmentally considerate electroplating and spray treatment; designed for corrosion resistance
Safety function	Designed with a function to help prevent battery short circuits during sealing
Battery loading orientation	Place the battery flat in the lower-die locating recess with the negative side facing upward
Sealing-height adjustment	Loosen the four side set screws on the sealing-height limiting nut, rotate the nut to adjust height, then retighten the set screws
Operating sequence	Load battery with the die open, actuate the manual valve to raise the moving template and close the die, reverse the valve to lower the moving template and open the die, then remove the battery
Maintenance requirement	Frequently wipe dirt from guide columns and other moving parts; keep clean and lubricate to maintain smooth movement
Fastener inspection	Periodically inspect screws, nuts, pins, and other fasteners to prevent loosening and reduce equipment or personal safety risks
Operating safety requirement	Keep hands and other body parts away from guide columns, sliding plates, and disassembly hazard areas during operation
Operator requirement	Do not allow two or more people to operate the equipment simultaneously, as this can cause unintended injury



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