

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