

Cylindrical Capacitor Case Cnc Grooving Pre Sealing Machine

Item Number: CX01



Introduction

CNC grooving and pre sealing machine for cylindrical supercapacitor cases delivers servo controlled forming, precise dimensions, stable concentricity, programmable HMI operation, and durable tooling for reliable high quality capacitor assembly production.

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Application	Description	Key Benefit
Cylindrical supercapacitor case grooving	Forms the required groove in cylindrical supercapacitor enclosures before pre-sealing operations.	± 0.02 mm grooving-depth precision supports controlled case geometry.
Supercapacitor pre-sealing curl forming	Produces the pre-sealing rolled edge on suitable cylindrical supercapacitor products.	Slowdown at the curl-forming stage supports gradual, controlled forming.
60-series diameter battery case processing	Processes battery products in the stated 60-series diameter category.	Programmable HMI settings support precise adjustment to the required dimensions.
Customized-diameter cylindrical case production	Supports cylindrical battery or supercapacitor case work where a custom diameter is required.	Diameter can be customized to match the intended product requirement.
Repeatable high-volume case preparation	Performs repeated grooving and sealing operations for production environments requiring stable forming results.	Tooling life exceeding 5 million normal-use operations supports long-term production continuity.
Automated capacitor assembly lines	Serves as a controlled grooving and pre-sealing station within a broader automated manufacturing sequence.	PLC control and HMI display support automation-oriented process management.

Parameter	Specification
Site-facing identifier	CX01
Applicable products	60-series diameter batteries and supercapacitor products
Diameter option	Diameter can be customized
Process functions	Grooving; pre-sealing curl forming
Grooving drive	Servo motor screw drive
Sealing drive	Servo motor screw drive
Feed control	Accurate control of feed distance and stable feed speed; no rebound during feed
Grooving and sealing setting method	Data set through human-machine interface; automatic precision adjustment to required data
Sealing feed sequence	Fast feed first; slow feed during pre-sealing curl forming
Workpiece holding method	Jacket-style clamping fixation
Clamping characteristics	Stable without shaking; high centering coaxiality
Forming quality	Uniform grooving and sealing; good roundness
Feed guidance	High-precision linear guide assembly
Grooving height precision	± 0.05 mm

Parameter	Specification
Grooving depth precision	±0.02 mm
Capacitor height after sealing	±0.05 mm
Grooving method	Die roller grooving method
Tooling and die service life	More than 5 million operations under normal use
Capacity	≥3 PCS
Utilization rate	98%
Control system	PLC control
Display and operation	Human-machine interface display
Safety protection	Intelligent external protective enclosure
Air supply	0.5~0.7 MPa, adjustable
Air consumption	0.2 m³/min
Power supply	220V/50HZ
Power	2.5KW
Overall dimensions	L1100mm *W 900mm * 1700mm
Weight	800kg