

Automatic Lithium Battery Electrode Sheet Cross Cutting Slitting Machine

Item Number: FQ08



Introduction

Automatic lithium battery electrode sheet cross cutting slitting machine provides programmable fixed length or optical tracking cuts, constant tension unwinding, adjustable speed, and low burr processing for positive and negative electrode production.

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Application	Description	Key Benefit
Lithium-ion cathode sheet preparation	Cuts positive electrode sheets from roll material to programmed lengths for individual-piece preparation.	Configurable length, quantity, and speed support repeatable cathode-sheet cutting routines.
Lithium-ion anode sheet preparation	Processes negative electrode sheets using fixed-length or optical-fiber tracking cutting.	Provides a choice of cutting mode for electrode material handling requirements.
Multi-section electrode cutting	Performs continuous cutting where multiple sections are required from a roll.	Front and rear cut compensation can be set to support controlled cut positioning.
Optical-mark tracked cutting	Uses optical-fiber tracking when cutting must follow a tracked reference rather than only a programmed length.	Specified tracking fixed-length cutting accuracy of ± 0.3 mm supports precise cut control.
Battery R&D sample preparation	Produces electrode-sheet pieces across the stated 1-9999 mm cutting-length range for laboratory cell-development workflows.	Wide programmable length range accommodates varied sample and cell-format work.
Pilot-scale electrode processing	Supports repeated roll-fed cutting of positive and negative electrode sheets during process development.	Automatic constant-tension unwinding, adjustable release speed, and automatic stop support orderly material feeding.
Electrode roll conversion	Cuts material supplied on rolls using a fixed pneumatic expanding shaft for loading and unloading.	Pneumatic shaft handling simplifies roll changes during scheduled cutting work.

Parameter	FQ08-320	FQ08-400
Unwinding	Fixed pneumatic expanding shaft; automatic unwinding tension; constant tension	Fixed pneumatic expanding shaft; automatic unwinding tension; constant tension
Fixed-length cutting speed	5~250mm/s	5~250mm/s
Color-tracking cutting speed	5~150mm/s	5~150mm/s
Maximum unwinding diameter	250mm	250mm
Burr condition	$\leq 25\mu\text{m}$	$\leq 25\mu\text{m}$
Stated width setting range	10~300mm	10~400mm
Applicable cutting width	Width Max320mm	Width Max400mm
Cutting length	1~9999 mm	1~9999 mm

Parameter	FQ08-320	FQ08-400
Cutting method	Fixed-length cutting or optical-fiber tracking cutting; continuous cutting; multi-section cutting; front and rear cut compensation can be set	Fixed-length cutting or optical-fiber tracking cutting; continuous cutting; multi-section cutting; front and rear cut compensation can be set
Cutting accuracy	Optical-fiber-sensor tracking fixed length; cutting accuracy +/-0.3mm	Optical-fiber-sensor tracking fixed length; cutting accuracy +/-0.3mm
Control system	PLC, HMI control	PLC, HMI control
Compressed air	0.5Mpa~0.8 Mpa	0.5Mpa~0.8 Mpa
Power supply	220V/50Hz	220V/50Hz
Power	1.2KW	1.2KW
Overall equipment dimensions	L1500mmW700mmH1000mm	L700mmW800mmH1000mm (guide plate length 800; total machine length 1500mm)
Weight	Approx. 240kg	Approx. 280kg