

Lithium Battery Electrode Sheet Manual Slitting Machine

Item Number: FQ06



Introduction

Manual lithium battery electrode sheet slitting machine delivers controlled 5-480 mm cuts for polymer cell fabrication with roll-knife tooling, stable feeding, compact installation, and dependable operation in laboratory electrode processing workflows.

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Application	Description	Key Benefit
Polymer lithium battery electrode preparation	Slits large positive or negative polymer lithium battery electrode sheets into narrower pieces for subsequent cell-making operations.	Produces electrode strip widths selected through the installed knife die arrangement.
Pouch-cell R&D workflows	Prepares electrode strips from coated sheets used in laboratory pouch-cell development and process trials.	Supports repeatable preparation from sheets up to 400 mm maximum slitting size.
Battery pilot-line sample processing	Handles manually fed electrode material when evaluating strip dimensions and preparing development batches.	Provides a 5-480 mm slitting-width range for varied trial requirements.
University battery research	Enables academic laboratories to process electrode sheets for experimental lithium battery cell fabrication.	Compact dimensions help integrate the unit into research equipment areas.
Electrode format development	Cuts electrode sheets into target widths while teams assess material layouts and cell-format requirements.	Knife-die-based width selection provides a direct mechanical approach to format preparation.
Battery materials laboratory operations	Supports the electrode slitting step between electrode-sheet preparation and downstream assembly work.	Inlet positioning and manual feeding give operators a defined material entry reference.
Controlled strip sample preparation	Produces smaller electrode pieces from a larger sheet for laboratory evaluation and fabrication tasks.	Upper and lower rotary knives separate material after alignment and clearance adjustment.

Parameter	Specification
Site-facing item number	FQ06
Equipment configuration	Frame section; machine body section; feeding section; receiving section; transmission section; slitting knife die section
Intended use	Slitting of polymer lithium battery electrode sheets during lithium battery electrode fabrication
Maximum electrode sheet slitting size	400 mm
Slitting width	5-480 mm
Equipment running speed	10 m/min
Slitting speed	8 m/min
Power supply	220 V grounding protection
Electrical supply frequency and voltage	50 Hz, AC220V
Rated power	0.5 kW
Drive motor	0.37 kW AC asynchronous motor
Reduction gearbox ratio	1:40
Electrical protector	DZ47-15 protector

Parameter	Specification
Push-button switch	T3SN-310 type
Indicator light	20 V, 22 mm diameter
Ambient temperature	0-45°C
Ambient humidity	40-80%
Overall dimensions	740 mm (L) x 620 mm (W) x 740 mm (H)
Weight	Approximately 250 kg
Feeding method	Manual feeding with inlet-board positioning plate
Cutting method	Upper and lower rotary knife dies
Strip-width determination	Determined by the upper and lower knife die set
Knife setup requirement	Align upper and lower knife dies and adjust knife clearance before operation
Knife engagement setting	Adjust until the electrode sheet is just cut through
Operating sequence	Press Start; allow motor-driven rotary knives to reach stable equal speed; feed aligned electrode sheet; remove edge trim promptly
Stop operation	Press Stop to stop the machine during shutdown or material waiting
Installation requirement	Place the equipment in the correct position and keep it level
Pre-start cleaning requirement	Clean the equipment; ensure no foreign material is present between upper and lower knife dies
Gearbox oil service interval	Replace once every three months
Gearbox oil specification	No. 46 gear oil
General lubrication requirement	Keep grease available on the machine at all times
Transmission gear lubrication	Replenish lubricating grease regularly
Fastener inspection	Regularly inspect screws at frequently moving locations
Cleaning restriction	Do not clean the machine body or knives with toxic chemical reagents
Idle storage requirement	Turn off the main power switch when the equipment will not be used for a long period
Knife-die storage	Store unused knife dies vertically on a dedicated knife-die rack in a dry environment; wrap surfaces with oil paper