

Professional R&d / Highly Efficient / Low Failure Rate



## HIGH SPEED Z-TYPE CUTTING AND MULTI-SLICE STACKING INTEGRATED MACHINE

## PRODUCT INTRODUCTION

Based on advanced technologies such as laser cutting technology, Z-Type multi-slice stacking technology, electromagnetic preheating, CCD vision, etc., the equipment can achieve high-speed slicing, stacking, hot pressing and other processes of coil materials, and ultimately produce qualified cells. The process including: high-speed slicing of anode and cathode, tab forming by laser cutting, V-angle cutting, cutting of electrode belt using the hardware die, completion of high-speed stacking through high-speed vacuum belt transportation, gluing, preheating, hot pressing, hi-pot testing, thickness measurement, QR code pasting, weighing and other processes. It's mainly including anode and cathode electrode die-cutting machine, high-speed vacuum conveyor belt, multi-slice stacking stand, preheating mechanism, hot pressing mechanism, hi-pot testing and gluing module and .

### Equipment technical parameters

- Equipment operating speed:  $\leq 600$ ppm (electrode width  $\leq 150$ mm)
- Equipment production qualification rate:  $\geq 99\%$  (only referring to failures due to equipment causes)
- Equipment fault rate:  $\leq 2\%$  (referring to the failures due to equipment causes, excluding regular equipment maintenance, pre-production preparation, etc.)
- Equipment size (mm): 19000 \* 6500 \* 3000 (L\*W\*H)

## Specifications of Equipment

Specification				
SN	Item	Parameter	Unit	Remarks
1	Electrode width	$<600$	mm	
2	Electrode coiling diameter	$\leq \Phi 800$	mm	
3	Electrode weight	$\leq 800$	kg	
4	Inner diameter of electrode drum	6	cun	
5	Electrode plate width	150	mm	
6	Diaphragm width	$<600$	mm	
7	Diaphragm coiling diameter	$\leq \Phi 350$	mm	
8	Diaphragm weight	$\geq 100$	kg	
9	Inner diameter of diaphragm coiling block	3 or 6	Inch	3 cun, compatible with 6 cun as well
Process				
SN	Item	Parameter	Unit	Remarks
1	Equipment dimension	19000*6500*3000	mm	For incoming materials of maximum size, hot pressing time $< 150$ s
2	Speed	$<600$	ppm	For the maximum electrode width
3	Yield rate	$\geq 99$	%	
4	Failure rate	$\leq 2$	%	
Output				
SN	Item	Parameter	Unit	Remarks
1	Cutting precision	$\pm 0.1$	mm	
2	Equipment dimension	Surface with coating area $\leq 12$ , Surface without coating area $\leq 30$	um	
3	Burrs cutting by laser	Cutting burrs $\leq 12$ horizontally and lower than the coating 12 vertically	um	
4	Adjacent alignment	$\pm 0.3$	mm	
5	Overall alignment	$\pm 0.5$	mm	
6	Auxiliary time	0.25	s/JR	