



ASSEMBLY OF LI-BASED CELLS STACKING

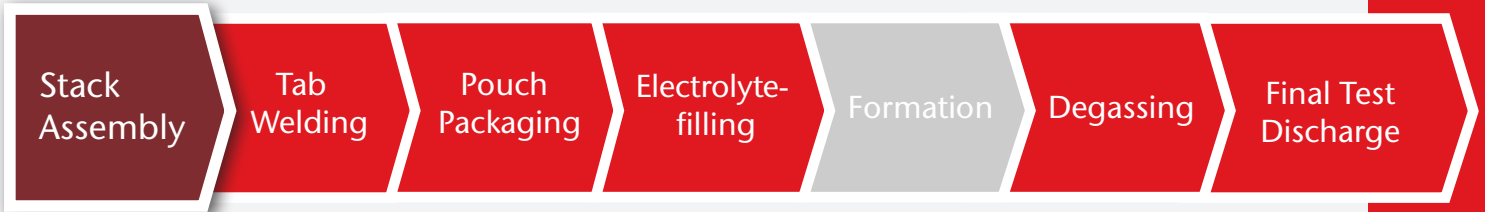
For years, Jonas & Redmann has been automating complex assembly and production processes for innovative products with highly sensitive components. Our owner-operated company brings its expertise and industry-tested technologies to the lithium-ion battery industry with our pouch and prismatic cell production lines. We have developed and delivered equipment for all the production steps after coating, including lines for complete module assembly.

At Jonas & Redmann, we know that we can not be successful unless our customers are successful. Therefore, our goal is to develop long-lasting partnerships with our customers. We accomplish this by understanding our client's needs and adapting the equipment to their specific requirements. Together, we work with our customers throughout the project, which does not end with equipment delivery. We continue by offering the support and service to deliver the best partnership possible. Jonas & Redmann doesn't measure success by the project. We measure it by the strength of the partnership.

Features:

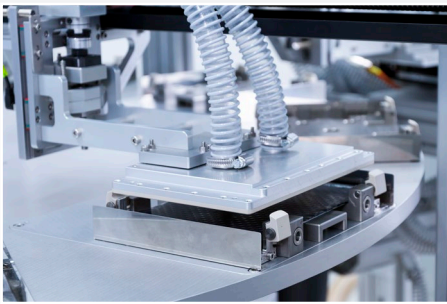
- high speed stacking and position accuracy repeatable to 0,1 mm
- fast and gentle handling of different separator foil types including tension control
- high stacking reliability
- qualified for clean rooms and dry rooms

Cell Production



Features:

MATERIAL INPUT	INPUT QUALITY CONTROL / MEASUREMENT	STACKING PROCESS	OUTPUT QUALITY CONTROL / MEASUREMENT	MATERIAL OUTPUT
cut from coil: laser cutting, knife cutting	vision systems - particle, defects	foil stacking for pouch cells	control of compartment accuracy	blister or magazine packing
foils in: carrier magazine	vision systems - shape cutting inspection others on request		measurement of electric parameters others on request	direct interlink to production line



- suitable for a large variety of cell formats
- developed for high capacity production lines
- flexible integration of high-precision cutting systems
- active tension control system for precise feeding and unrolling of foils
- cross contamination prevention
- complete assembly line integration
- inline process control and customized quality check

Options (others on request)

INPUT	PROCESS	OUTPUT	GENERAL
automatic coil change + and splicing cleaning of foil material	automatic exchange of finished stack	stack taping	standard HMI, operator languages English, Chinese, others
			MES connection, e.g. Secs GEM, XML according Semi PV02