

highest uptime  
< 1sec welding process  
customized formats



## ASSEMBLY OF LI-BASED CELLS **TAB WELDING**

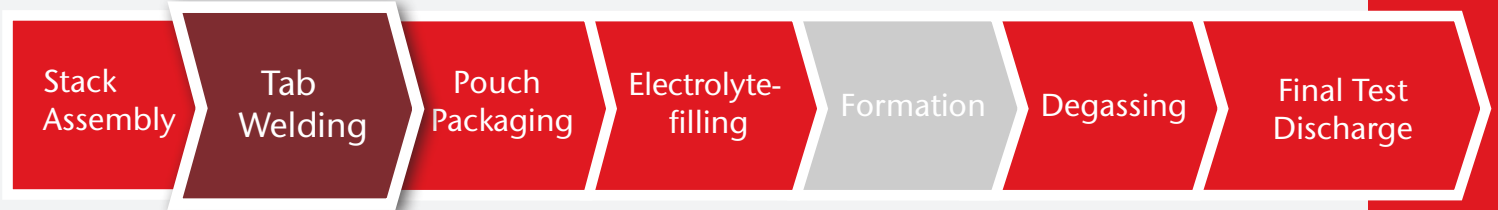
For years, Jonas & Redmann has been automating complex assembly and production processes for innovative products with highly sensitive components. Our owner-operated company brings its expertise and industry-tested technologies to the lithium-ion battery industry with our pouch and prismatic cell production 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 welding
- repeatable position accuracy
- high quality welding seam, distinguished by its resistance and uniformity
- qualified for clean and dry rooms

## Cell Production



### Features:

MATERIAL INPUT	INPUT QUALITY CONTROL/ MEASUREMENT	WELDING PROCESS	OUTPUT QUALITY CONTROL / MEASUREMENT	MATERIAL OUTPUT
foil stacks from: carrier previous production step	vision system (tab position) others on request	ultrasonic welding	optical inspection of welding seam others on request	blister or magazine packing buffer direct interlink to production line
tab: from magazine unrolling and blanking		laser welding particle exhaust (ventilation)		

- welding of layers of different material
- precise placement of individual conductors with close tolerances
- automated tab handling
- developed for high capacity production lines
- constant process quality
- customized configuration available: e.g. number of layers, thickness of foils and tab, welding seam dimension
- complete assembly line integration
- inline process control and customized quality check



### Options (others on request)

INPUT	PROCESS	OUTPUT	GENERAL
resistivity measurement (e.g. Hi-Pot) to detect short circuit between anode and cathode	simultaneous heating and compression of cell package	resistivity measurement to detect short circuit between anode and cathode	standard HMI, operator languages English, Chinese, others
	automatic feeding and welding of protection tape separated handling of anode and cathode		MES connection, e.g. Secs GEM, XML according Semi PV02