



# BATTERY LASER CLEANING MACHINE

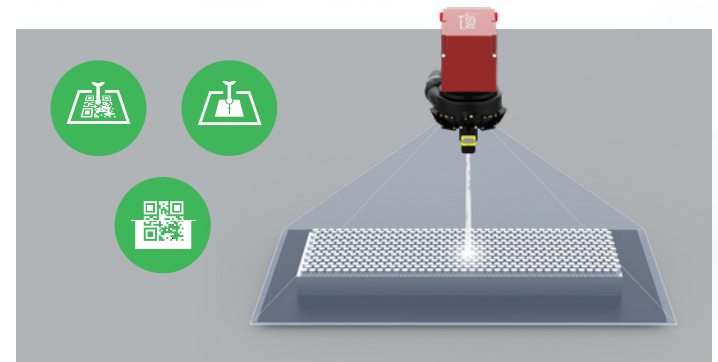
The Battery Cleaning Machine is a complete solution for battery-module-related applications running on conveyors. You can use it to clean, texture and mark battery components in a single operation.

The machine is highly customizable to accommodate for various requirements, such as manual, robot, or conveyor part loading, or large modules with several areas to process. Certified Class-1, it includes everything you need to ensure safety.



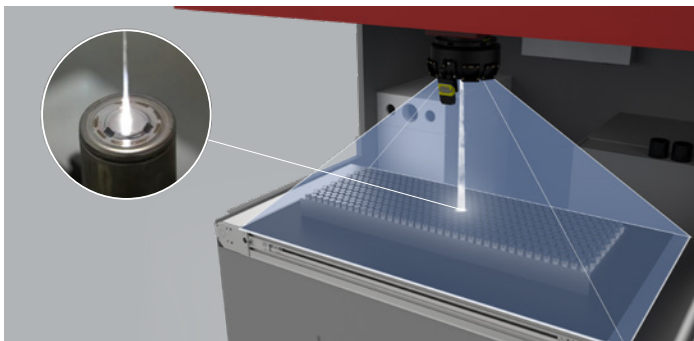
## FLEXIBLE INTEGRATION

Our adaptable station allows loading parts via a conveyor, a robot or manually. Doors can be included or not to speed up part loading. You can even start with a manually loaded machine during ramp up, then automate the machine later with minimal upgrade. Our team will customize the machine for an easy integration and optimal production.



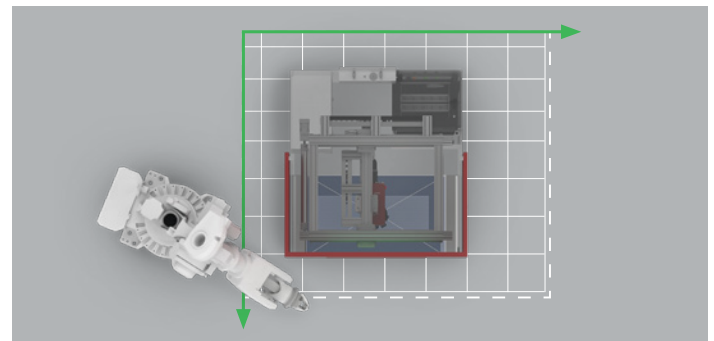
## CLEAN, MARK, TEXTURE

Laserax is the only one that offers a solution to perform multiple operations at the same time. You can clean and texture surfaces, etch barcodes—all of this with a single unit.



## FAST AND PRECISE CLEANING

Our laser is preprogrammed to only clean battery pole areas needed for bonding/welding, minimizing the total cleaning time. Our vision system also detects module positioning errors and adjusts laser cleaning accordingly.



## ADAPTED TO YOUR CUSTOM REQUIREMENTS

Laserax is an agile company and so is our machine design, which can be adapted to meet specific requirements such as footprint limitations, different module sizes, and short cycle times. Typical examples of features to meet your requirements include choosing between one or multiple laser heads, and deciding between a fixed, single-axis or gantry-mounted laser head.

## TECHNICAL SPECIFICATIONS

BATTERY LASER CLEANING MACHINE	
Laser Power	20W, 30W, 50W, 100W, 200W, 300W, 500W
Laser Type	Ytterbium-doped fiber
Wavelength	1064 nm
Laser Source MTBF	100,000 hours
Laser Process	Laser cleaning, laser texturing, laser marking
Typical Weight	1000 kg
Cooling	Air cooling (20W to 300W); water cooling (500W)
Power Requirements	120V, 230V, 240V / 15-40 AMP
Power Consumption	1.5 kW to 5.8 kW
Operating Temperature	10°C to 45°C
Communications	Ethernet/IP, PROFINET, Profibus
Part Loading Options	Conveyor (default) Robot (optional) Manually (optional)
Typical Part Size (W x D x H)	1000 mm x 920 mm x 230 mm Larger sizes are possible by scaling up the machine.
Part Material	Nickel plated steel, Aluminium, Copper, Stainless steel (All Metals)
Cell Positioning Compensation	Integrated 2D vision system (default) From external 3D point map (optional)
Fumes Extraction	Included
General Dimensions (W x D x H)	1400 x 1270 x 2000 mm The machine's dimensions can be scaled to your part dimension requirements if required.



**INDUSTRIAL LASER SOLUTIONS**  
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