

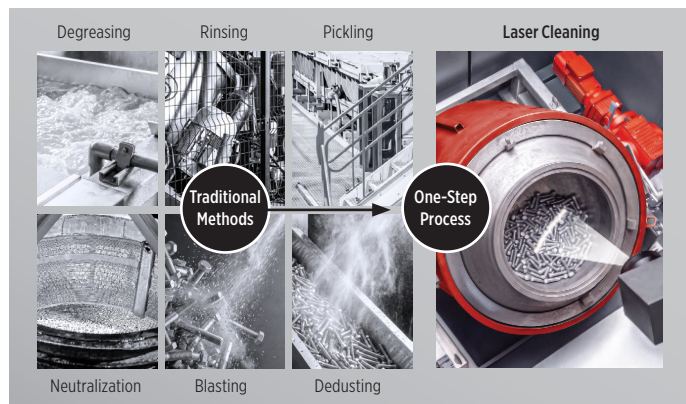


WITH **SLCR**
TECHNOLOGY

Product Sheet
LAMA™

LAMA™ BULK PARTS LASER CLEANING MACHINE

LAMA™ stands for **LA**ser-based preparation of **MA**ss bulk parts for subsequent coating. LAMA™ is a fully automated laser system engineered to clean bulk metal components, such as fasteners, prior to zinc flake coating or electroplating. Next-generation laser technology precisely removes surface impurities and residues, delivering a clean, coating-ready surface. Designed for seamless integration into new or existing Dip-Spin and barrel electroplating lines, it operates in semi or fully automated configurations to meet the needs of any production environment. The LAMA™ cleaning process is already qualified by a major automotive OEM.



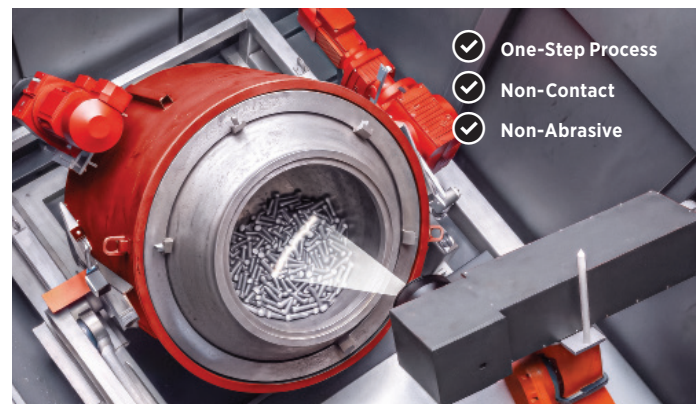
Drive Down Your Operating Costs

LAMA™ eliminates chemicals, blasting media, and water treatment from your pre-treatment process, while cutting energy consumption and CO₂ emissions. Operating costs drop, cleaning consistency improves, and part quality becomes more predictable. For fastener manufacturers under pressure on both cost and compliance, that is a decisive competitive edge.



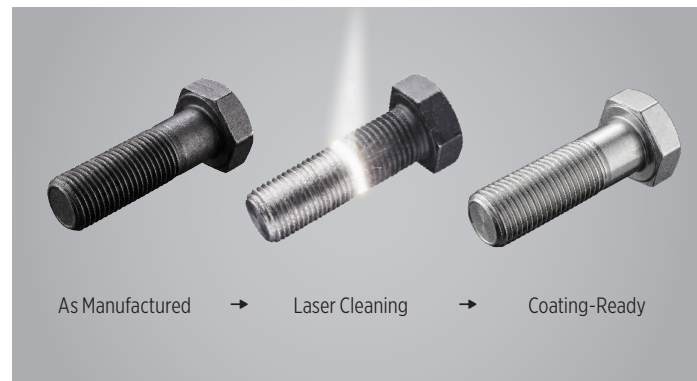
Compact by Design, Powerful by Results

LAMA™ replaces multiple surface preparation stations, delivering the same results in a far smaller footprint. Engineered for full automation, it provides the seamless operation and repeatable consistency fastener production demands, inside a Class 1 laser safety enclosure.



Smarter and More Efficient Process

Laser cleaning delivers residue-free results with repeatable process control. Surface preparation before zinc flake coating or electroplating becomes a single step, replacing lengthy sequences of degreasing, rinsing, pickling, neutralization, blasting, and dedusting. The process is non-contact and non-abrasive, eliminating wear and preserving part integrity.



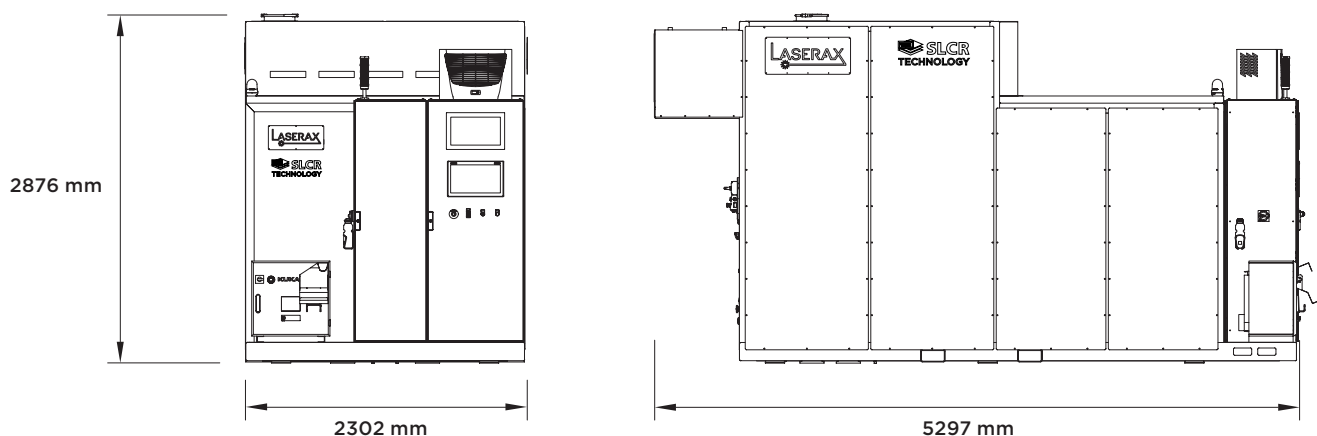
Green and Sustainable Process

LAMA™ is a major step toward sustainable manufacturing. It reduces energy requirements, minimizes disposal costs, and cuts CO₂ footprint by over 35%. By eliminating chemicals and blasting media, LAMA™ helps manufacturers meet tightening environmental regulations while building a cleaner production process.

Specifications

LAMA™ Bulk Parts Laser Cleaning Machine	
Laser Type	Pulsed Fiber Laser
Laser Process	Laser cleaning of bulk part metal components
Part Material	Metals
Cooling	Water-cooling (chiller included)
Communications	Ethernet/IP, PROFINET (others available)
Power Requirements	480V/60Hz or 400V/50Hz
Power Consumption	15kW (without extraction)
Compressed Air	6 bar; [2:4:2] according to DIN ISO 8573-1:2010, (particles/water/oil)
Operating Temperature	5°C to 35°C
Storage Temperature	5°C to 50°C
Operating Humidity	< 70% Non-condensing
Fumes Extraction	>3000m ³ /h
Enclosure	Class-1 certified laser safety enclosure
General Dimensions (W x D x H)	2500 mm x 5500 mm x 3000 mm
Foundation requirements	Industrial concrete floor with a flatness of 10 mm, in accordance with ISO 1101; 1.5t/m ² . Concrete quality C20/C25 according to EN206 Concrete corner min. 180mm
Cleaning throughput	500 - 1500 kg/h
Loading capacity per batch Depending on components	30 - 250 kg 30 - 120 L
Coating performance validated to (non-exhaustive)	Vibration test (DIN 969) Hardness, Vickers (DIN EN ISO 6507-1) Coating adhesion, tape test (ISO 10683) Corrosion resistance, neutral salt spray (ISO 9227) Coefficient of friction after coating (ISO 16047)

Dimensions



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Langerwehe, Germany

Nagoya, Japan

+1 418 478-1029

+1 330 331-6607

+1 330 331-6607

+1 330 331-6607

+49 (0) 7633/836 4935

+49 (0) 2423/950 930