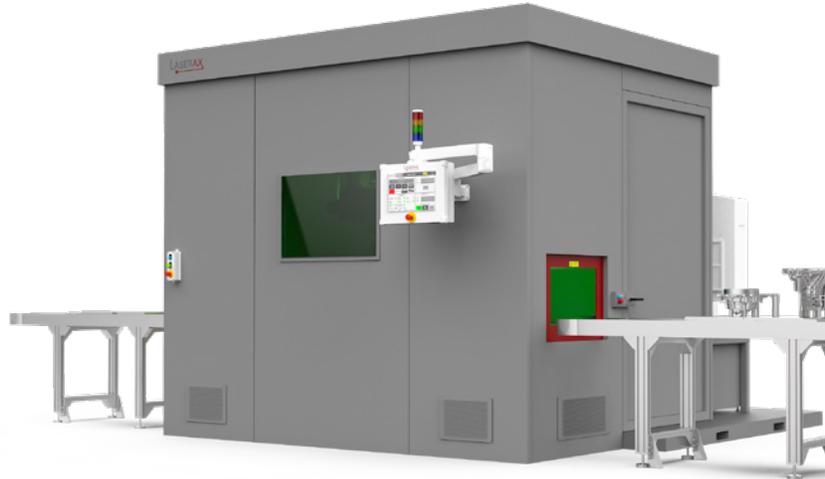




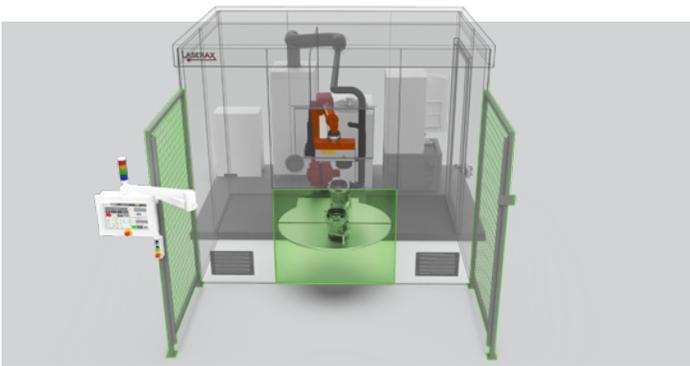
ROBOT LASER CLEANING MACHINE

Laserax's Robotic Cell combines laser precision with robotic dexterity, offering unmatched performance for high-volume processing of parts with various shapes. Highly adaptable and supported by our complete service offer, it's designed to fulfill your production needs, from process development to full integration. The Robotic Cell is your all-in-one solution to enhance your quality and throughput while reducing operating costs.



MAXIMUM THROUGHPUT, STEADY QUALITY

Precise robotic movements coupled with specialized laser processing ensure uniform quality and peak throughput. The six-axis robot arm offers exceptional adaptability for process orientation and production changes far beyond the capabilities of gantry or planar systems.



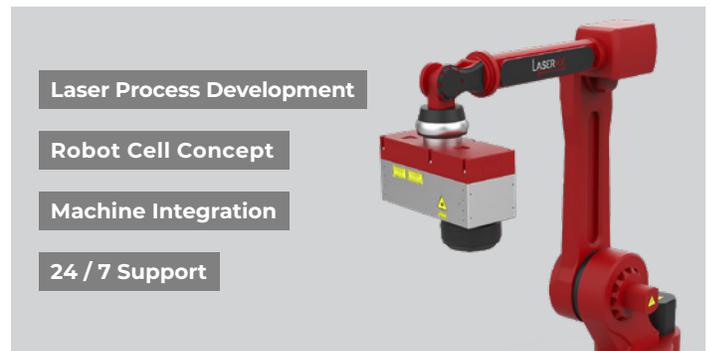
CUSTOMIZABLE & FLEXIBLE SOLUTION

The Laserax Robotic Cell offers diverse part feeding options (manual, rotary, conveyor) for varying part dimensions and complexity. Its flexibility allows customization of robot cell dimensions and equipment placement to suit your production floor. The robot programming ensures adaptability to production changes and laser orientations.



PROTECT PART INTEGRITY

By integrating dust and fume extraction systems directly onto the robot arm, the controlled airflow prevents contamination and ensures part integrity. Combined with precise laser process, our solution eliminates the necessity for masking in surface preparation processes such as adhesive or sealant bonding.



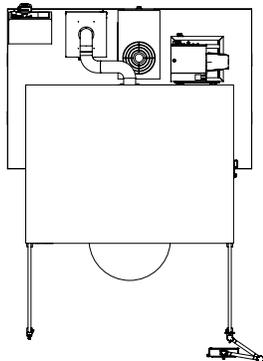
YOUR PROJECT, OUR EXPERTISE

Choosing Laserax as your business partner means incorporating laser and robotics experts into your project. Our test engineers create the ideal laser process and robot cell tailored to your part requirements, optimizing speed, throughput, and yield. Our project management team manufactures your customized solution and facilitates on-site production integration with your team. We provide 24/7 comprehensive support, ensuring complete knowledge of the solution, anytime and anywhere.

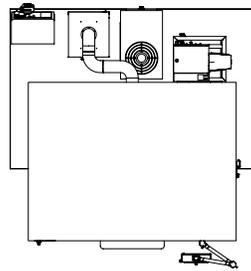
LASER SPECIFICATIONS

Robot Laser Cleaning Machine	
Laser Process	Cleaning, Texturing, Engraving, Marking
Part Material	Nickel-plated steel, aluminum, copper, stainless steel and all other metals
Laser Power	100-3000W Single or Multi-mode based on application
Laser Type	Ytterbium-doped fiber
Wavelength	1064 nm
Laser Source MTBF	100,000 hours
Industrial Robot	ABB, FANUC, KUKA, others
Part Loading Options	Front Door, Inline Conveyor, Rotary Table Other options available upon request
Laser Cooling	Air or Water-cooled - Based on Laser Power
Fumes Extraction	Localized, optimized for the application
System Control	Industrial PLC with Laserax LXQ Controller, Web Interface on Operator HMI
Communications	Ethernet/IP, PROFINET, EtherCAT (other options available)
Power Requirements	480V/60Hz or 400V/50Hz
Power Consumption	From 18kW to 30kW (Varies from Laser Power)
Air Supply	Filtered - 80 psi minimum
Operating Humidity	< 70%
Operating Temperature	15°C to 45°C *Cooling options available
Vision	Available as an option based on the application
Robot Enclosure	Class-1 certified laser safety enclosure with interlocked doors
Robot Cell Dimension	Typical
Typical Workspace*	2000 mm x 950 mm x 950 mm *To Validate with Laser Process
General Footprint (W x D x H)	4 m x 4 m x 3 m
Typical Robot Reach	2000 mm to 2300 mm
Typical Robot Payload	40-70 kg

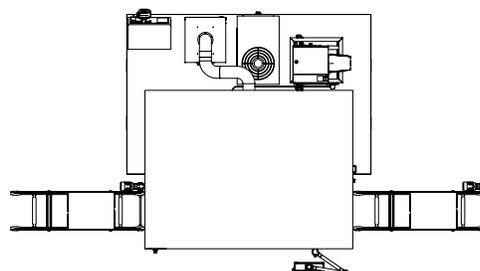
CONFIGURATIONS



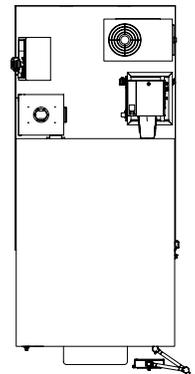
Rotary
4.2 x 5.5 x 3 m



Front Door
4.2 x 4 x 3 m



Conveyor
6.2 x 4 x 3 m



Compact
2.65 x 5.8 x 3 m



INDUSTRIAL LASER SOLUTIONS
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