



# ROBOT CLEANING MACHINE

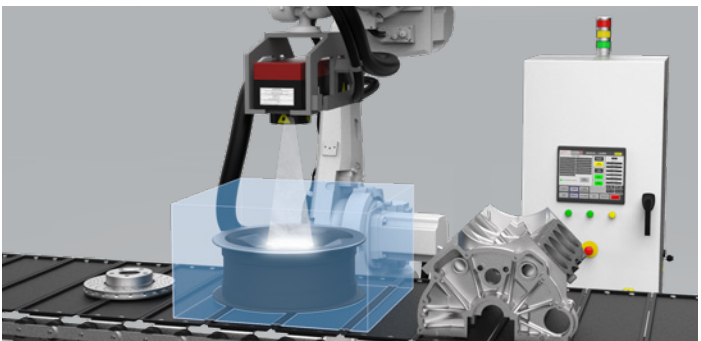
The Robot Cleaning Machine is our most flexible laser cleaning solution. It allows you to benefit from the high-speed of the LXQ-HP laser system and the flexibility of a multiple-axis robot arm. This fully automated solution can process any part geometry as well as complex surfaces with several cleaning and texturing zones. It is designed to run 24/7 while maintaining very low operation costs.

Fume extraction and filtration are integrated with a suction nozzle attached to the robot gripper. It efficiently captures fumes and dust particles generated by the process, hence maintaining the quality and repeatability of laser surface treatments.



## PROCESS COMPLEX 3D PARTS

The robot cleaning machine is ideal to process complex 3D parts such as engine blocks, transmission cases and wheels. By combining a robot arm with our unique autofocusing capabilities, the positioning of the laser head is greatly simplified, allowing you to apply precise cleaning and texturing patterns.



## HIGH-VERSATILITY WITH MULTI-PART CAPABILITIES

The robot cleaning machine is perfectly suited to clean multiple parts within the same robot cell. It is a highly versatile and future-proof solution that allows you to easily add part variants as you start new programs over the years.



## CUSTOMIZED FOR YOUR APPLICATION

The robot cleaning machine is an advanced production tool that can be adapted to your most complex projects. The robot's reach and number of axes can be adapted to your specifications. Quality control of the treated surfaces can be performed inline with our vision camera and automatic 3D focus adjustments.



## ADVANCED FUME MANAGEMENT

The embedded fume management system ensures the constant quality of the process and the work environment's safety. In addition to customized nozzle configurations, the temperature and flow in the extraction unit are continuously monitored to detect any issues, ensuring that the operation is 100% safe for your employees.

## TECHNICAL SPECIFICATIONS

### ROBOT CLEANING MACHINE (RCM)

<b>Laser Power</b>	20 to 500W
<b>Laser Type</b>	Ytterbium-doped fiber
<b>Wavelength</b>	1064 nm
<b>Laser Source MTBF</b>	100,000 hours
<b>Laser Process</b>	Cleaning & Texturing
<b>Typical Weight</b>	650 kg
<b>Cooling</b>	Air cooling (water cooling with 500W)
<b>Power Requirements</b>	600V 3P / 15-40 AMP
<b>Power Consumption</b>	1.5 kW to 5.8 kW
<b>Operating Temperature</b>	10°C to 45°C
<b>Communications</b>	Ethernet/IP, PROFINET, Profibus
<b>Multi-Parts Cleaning</b>	Yes
<b>Part Size</b>	Adaptable
<b>Part Temperature</b>	Up to 450°C
<b>Part Material</b>	Aluminium, Zinc, Magnesium, Steel, Iron (All Metals)
<b>Part Positioning Tolerance</b>	Cleaning +/- 3 mm (+/- 70 mm with Autofocus) Texturing (Engraving) +/- 1 mm (+/- 30 mm with Autofocus)
<b>Typical Reach</b>	2m
<b>Dimensions (W x H x D)</b>	Cabinet : 772 x 2000 x 685 mm 2D Head : 619 x 156 (212**) x 166 mm 3D Head : 897 x 207 x 285 mm



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