LASERSAN WOOD SERIES

300W

Air-Cooled Pulsed Laser Cleaning Machine

WOOD

Wood-optimised single-mode JPT MOPA
with a modified optical path design



LaserSan

Technical Specifications

General Characteristics

Parameter	Specification
Equipment model	LaserSan 300 Wood
Average laser power	300 W pulsed
Laser source	Customised single-mode JPT MOPA
Wood-specific design	Modified optical path and wood-optimised configuration
Net machine weight	35 kg
Cleaning head weight	1.7 kg
Machine dimensions (L x W x H)	535 x 358.5 x 470 mm
Cooling	Forced-air cooling
Optical fibre length	5 m
Power supply	Single-phase AC 220 V +/- 10%
Power frequency	50 Hz
Rated power consumption	<= 1,500 W
Compressed-air requirement	0.6 MPa, clean air with oil/water removal
Scanning modes	12 preset scanning patterns

Optical Characteristics

Parameter	Specification
Laser type	Wood-optimised single-mode JPT MOPA pulsed fibre laser
Laser configuration	Modified optical path designed for wood cleaning
Laser output	300 W
Scanning / run length	1-200 mm
Standard field lens	F255
Optional field lens	F165 (selected applications)
Scanning patterns	12 presets across LaserSan pulsed systems
Optical fibre length	5 m

Wood cleaning technology

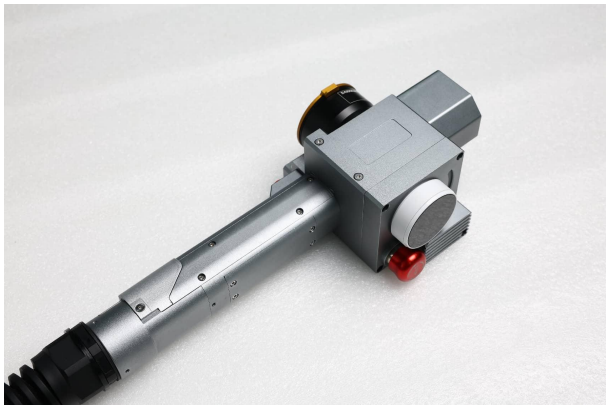
The Wood Series uses a dedicated laser-source and optical configuration developed for selected paint, varnish and coating removal on wood. The second-generation silver cleaning head is compatible with other suitable pulsed models and is not the source of the Wood-specific laser characteristics.

Cleaning Head Platform

Second-Generation Silver Cleaning Head

Parameter	Specification
Head weight	1.7 kg
User controls	Rotary screen and integrated controls
Positioning	Dual red-light focus indication
Air nozzle	Coaxial auxiliary-air nozzle
Emergency stop	Dual emergency-stop and enabling protection
Protective features	Cover-opening and defocus-triggered laser shut-off
Compatibility	Compatible with other LaserSan pulsed models

Second-generation cleaning head



Silver cleaning head - product view



Silver cleaning head - handheld view

Key features

Rotary controls, dual red-light focusing, coaxial auxiliary air nozzle, cover-opening protection and defocus-triggered laser shut-off.

Reference Cleaning Results

Comparative cleaning tests

The following values are reference test results, not guaranteed cleaning rates. Results depend on material, coating composition and thickness, surface condition, configuration and finish requirements.

Parameter	Specification
Transparent varnish, solid wood, 50 um	Standard 300W: 0.75 | Wood 300W: 1.4 m2/h
Coloured varnish, solid wood, 50 um	Standard 300W: 1.1 | Wood 300W: 1.5 m2/h
Oil-based paint, solid wood, 150 um	Standard 300W: 0.4 | Wood 300W: 0.6 m2/h
Deep corrosion (non-wood reference)	Standard 300W: 1.6 | Wood 300W: 1.8 m2/h

Photographic test comparisons

The following pages reproduce the original test photographs. Wood and standard 300W machine results are clearly differentiated; microscopic images are marked 50x where applicable.

Microscopic Surface Comparisons

Transparent varnish on solid wood



Before cleaning



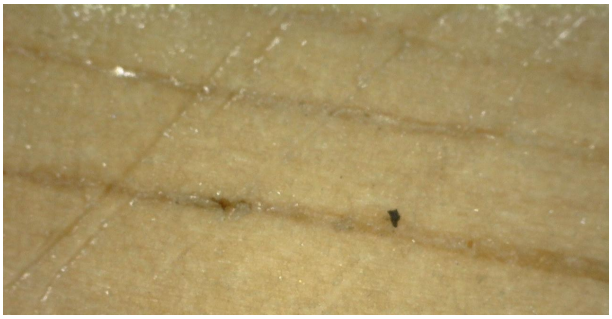
300W Wood - treated



Standard 300W - treated



300W Wood - after cleaning x50



Standard 300W - after cleaning x50

Microscopic Surface Comparisons

Coloured varnish on solid wood, 50 um



Before cleaning



300W Wood - after



Standard 300W - after

Oil-based paint on solid wood, 150 um



300W Wood - treated



Standard 300W - treated



300W Wood - after x50

Microscopic Surface Comparisons

Oil-based paint - magnified results



300W Wood - after cleaning x50



Standard 300W - after cleaning x50

Comparative reference context

These photographs document specific reference applications. The visual comparison is between different machine configurations, not a claim of universal material compatibility or a guaranteed outcome. Individual wood species and coatings require an application assessment.