# 300W

# Air-Cooled Pulsed Laser Cleaning Machine

## Compact




LaserSan

# Technical Specifications
## Laser Cleaning Machine (LS-300W)

### Optical Characteristics

| Parameter | Specification |
|---|---|
| Equipment Model | LS-300 |
| Laser Type | Pulsed fiber laser source |
| Average Laser Power | 300W |
| Central Wavelength | 1064 nm |
| Beam Quality ($M^2$) | Configuration-dependent: 2 / 5 / 12 |
| Fiber Length | 5 m |
| Power Adjustment Range | 10%–100%, adjustable |
| Laser Pulse Frequency | 20 kHz–4000 kHz, adjustable |
| Laser Line Width | X: 5–116 mm, adjustable · Y: 5–70 mm, adjustable |
| Scan Area (Adjustable) | X: 5–116 mm · Y: 5–70 mm |
| Field Lens Model | F254 |
| Minimum Optical Fiber Bending Radius | 150 mm |
| Laser Output Instability | < 5% |
| Cooling Method | Air cooling |
| Polarization Direction | Arbitrary |
| Guided Laser Function | Available |
| Anti-High Reflection Function | Available |

# Technical Specifications
## Laser Cleaning Machine (LS-300W)

### General Characteristics

| Parameter | Specification |
|---|---|
| Equipment Model | LS-300 |
| Net Weight | 36 kg |
| Laser Head Weight | 1.1 kg |
| Machine Dimensions | 590 × 267 × 487 mm |
| Operation Type | Handheld |
| Power Supply Voltage | AC 220V / 110V ±10% |
| Grid Frequency | 50/60 Hz |
| Operating Temperature Range | 0°C – 40°C |
| Storage Temperature Range | -10°C – 60°C |
| Power Consumption | < 2 kW |
| Optical Cable Length | 5 m |
| Control Interface | Touchscreen control system |
| Scanning Patterns | 12 preset scanning patterns |
| Process Library | 9 preconfigured cleaning processes |

# Technical Specifications
## Laser Cleaning Machine (LS-300W)

### Performance Characteristics

| Parameter | Specification |
|---|---|
| Beam Quality ($M^2$) | Configuration-dependent: 2 / 5 / 12 |
| Pulse Duration | 0–500 ns |
| Maximum Single Pulse Energy | Available configurations: 1.5 / 5 / 15 mJ |
| Spot Size Range | 8–20 mm |
| Scan Speed* | Up to 6.8 $m^2/h$* |
| Source Rated Lifetime | ≥100,000 h |
| Laser Safety Class | Class 4 |
| Scanning Technology | 2D galvanometric scanning |
| Scanning Patterns | 12 preset scanning patterns |
| Control System | Touchscreen control system |
| Supported Languages | 28 languages |
| Generator Compatibility | Compatible with suitable generator power supply |
| Air Supply Requirement | 0.6–0.8 MPa, oil-free and water-free compressed air |
| Source Brand | JPT (MOPA) |
| Certification | CE, IEC 60825-1 |
| Fume Extraction Compatibility | Compatible with HEPA + activated carbon filtration systems |

*Scan speed is a reference maximum. Actual cleaning performance depends on material, contamination or coating type, layer thickness, selected parameters and operating conditions.

NOTE: All specifications are provided for reference purposes and may vary depending on configuration, machine version and continuous product improvements.

# Technical Specifications
## Laser Cleaning Machine (LS-300W)

## Laser Cleaning Head Platform

LaserSan systems use a common industrial laser cleaning head platform across multiple machine configurations.

The cleaning head has been developed for professional industrial operation, combining low weight, ergonomic handling and stable cleaning performance across a wide range of applications and working environments.

| Feature | Description |
|---|---|
| Head Weight | Approx. 1.1–1.3 kg, depending on configuration |
| User Interface | Integrated mini touchscreen |
| Scanning System | 2D galvanometric scanning |
| Safety Control | Dual safety activation |
| Distance Monitoring | Automatic shut-off outside defined operating range |
| Lens Protection | Dual air protection system |
| Positioning | Red laser guidance |
| Modular Interface | Supports flexible configuration across different cleaning applications |
| Ergonomics | Low-fatigue industrial design |
| Protective Cover | Helps prevent dust intrusion and protects optical components during operation |

**Key Advantages**

- Lightweight ergonomic design
- Stable operation during extended working sessions
- Precision scanning trajectory
- Reduced operator fatigue
- Improved accessibility on complex geometries
- Consistent cleaning results across different materials and surfaces
- Integrated safety and monitoring functions
- Integrated touchscreen with real-time system feedback



# Technical Specifications
## Laser Cleaning Machine (LS-300W)

### Standard Package Contents

The standard package contents supplied with the LS-300W Laser Cleaning System are listed below.

| Supplied Item | Item Picture | Quantity |
|---|---|---|
| User Manual |  | 1 standard |
| Interlock Connector |  | 1 optional, available on request |
| Laser Protective Glasses |  | 1 pair — standard |
| Protective Lenses |  | 5 pcs — standard |
| External Control Cable / External Laser Button |  | 1 standard |
| Power Cable |  | 1 standard |

**LASERSAN SUPPORT INCLUDED**

Each machine is supplied fully tested, configured and prepared for operation. Technical documentation, onboarding, start-up guidance and remote technical support are included as standard.