

SMART HC-1000 SERIES

COST-EFFECTIVE
INDUSTRIAL TECHNOLOGY



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PRODUCT DESCRIPTION

Laser cleaning is a new technology based on the interaction between laser and material, which can remove the contaminant and attachments on the surface of objects. Compared with traditional cleaning methods, laser cleaning has the advantages of non-contact, no damage to the substrate, precise cleaning, environmental protection, online availability, and is especially suitable for high-speed online cleaning in designated areas.

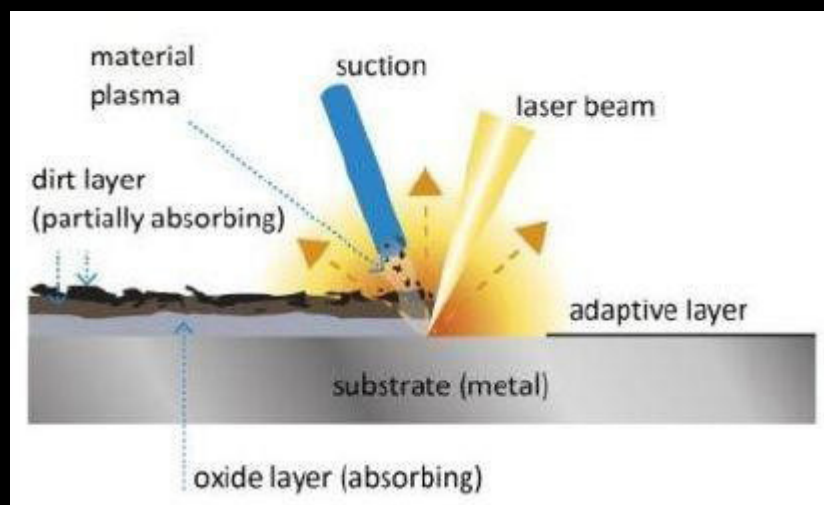


Figure 2.1

Schematic diagram of laser cleaning

The laser cleaning equipment is a new generation of high-tech surface treatment products, which are easy to install, operate and can be automated. It is simple to operate. Turn on the power, let the equipment on, and the cleaning can be carried out without chemical reagents, medium, dust, and water. It can be fitted to the curved surface, with good cleaning effect. It can remove resin, paint, oil stains, stains, dirt, rust, coating, plating and oxide layer on the surface of objects, and it is widely used in the industry, covering ships, auto repair, rubber molds, high-end machine tools, rails, and environmental protection.



PRODUCT FEATURES AND EXECUTIVE STANDARDS

- Non-contact cleaning, no damage to the substrate
- Precise cleaning, can achieve selective cleaning of precise position and size
- No chemical cleaning fluid, no consumables, safe and environmentally friendly
- Simple operation, can be hand-held or fitted with manipulator to realize automatic cleaning
- The ergonomic design greatly reduces the labor intensity of operation
- High cleaning efficiency and save time
- The laser cleaning system is stable and requires almost no maintenance
- Optional mobile battery module

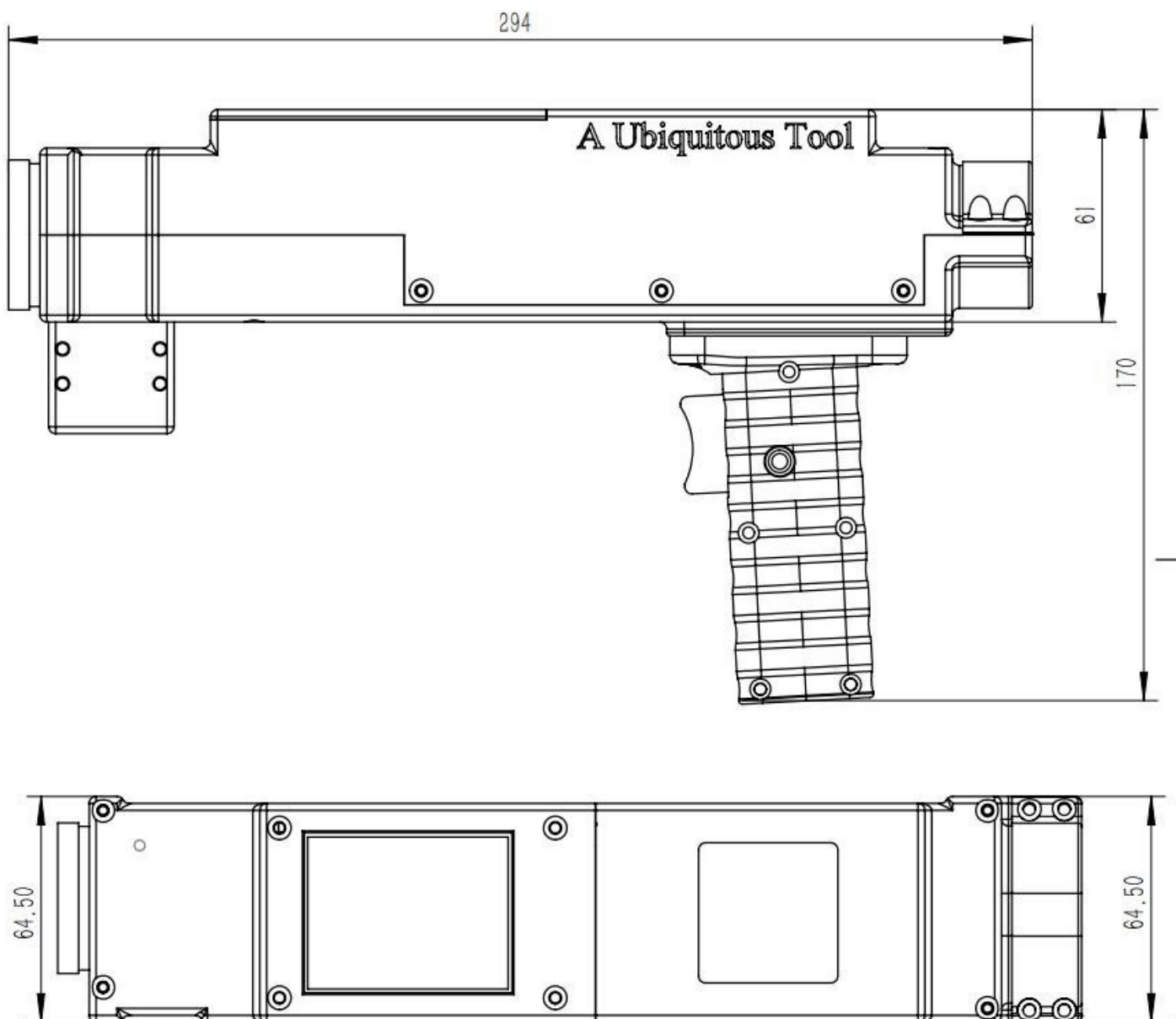
OPERATING ENVIRONMENT AND PARAMETERS

Operating Environment	
Parameter Content	SMART HC-1000
Voltage	220V/380V, alternating current at 50/60Hz
Power Consumption	Lower than 8000W (including water cooler)
Working Temperature	5°C - 40°C
Working Humidity	≤ 80%
Optical Parameters	
Average Laser Power	≥ 1000W
Power Stability	Better than 5%
Power Adjustment Range (%)	10-100 (gradient adjustable)
Repetition Frequency (kHz)	20-100 (gradient adjustable)
Fiber Length	Better than 5%
Cooling Method	Water-cooled
Cleaning Head Parameters	
Scanning Range (length * width)	5mm~120mm, Continuously adjustable
Scanning Frequency	Not less than 300Hz
Focal Length of Field Lens (mm)	160mm (Optional 160mm~500mm)
Depth of Focus	Max. 10mm
Mechanical Parameters	
Overall Size (length, width, and height)	About 1055mm×620mm×1090mm
Total Weight	About 190Kg
Cleaning Head Weight (including isolator)	About 1.9Kg
Operation Method	Hand-held/ Automated



PRODUCT STRUCTURE AND DIMENSIONS

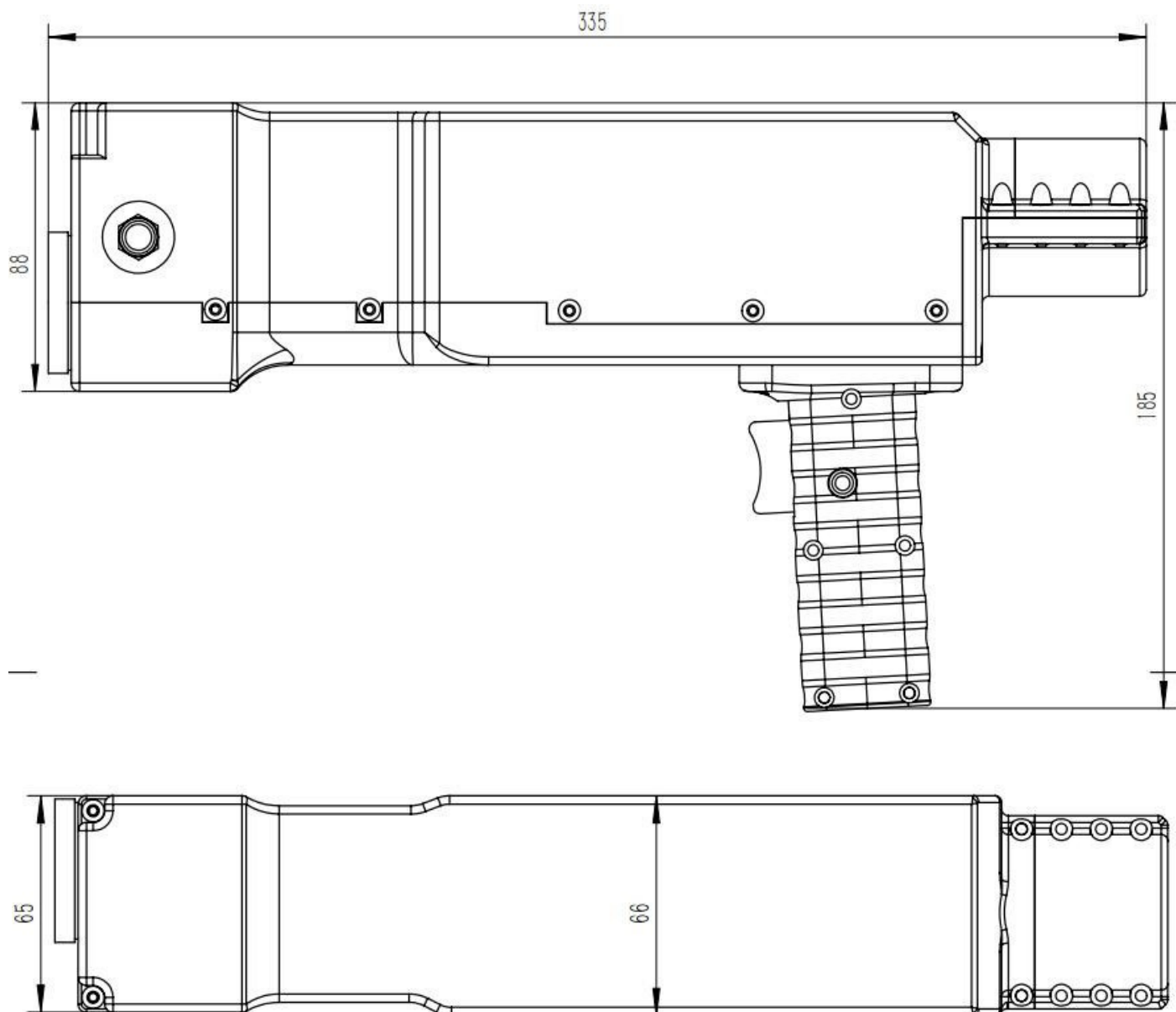
1. Cleaning head dimension figure





PRODUCT STRUCTURE AND DIMENSIONS

1. Smart series laser cleaning head dimension figure

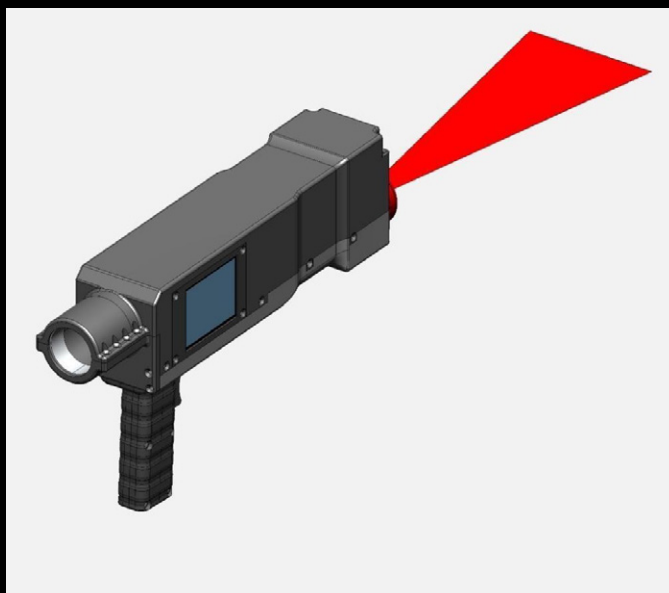




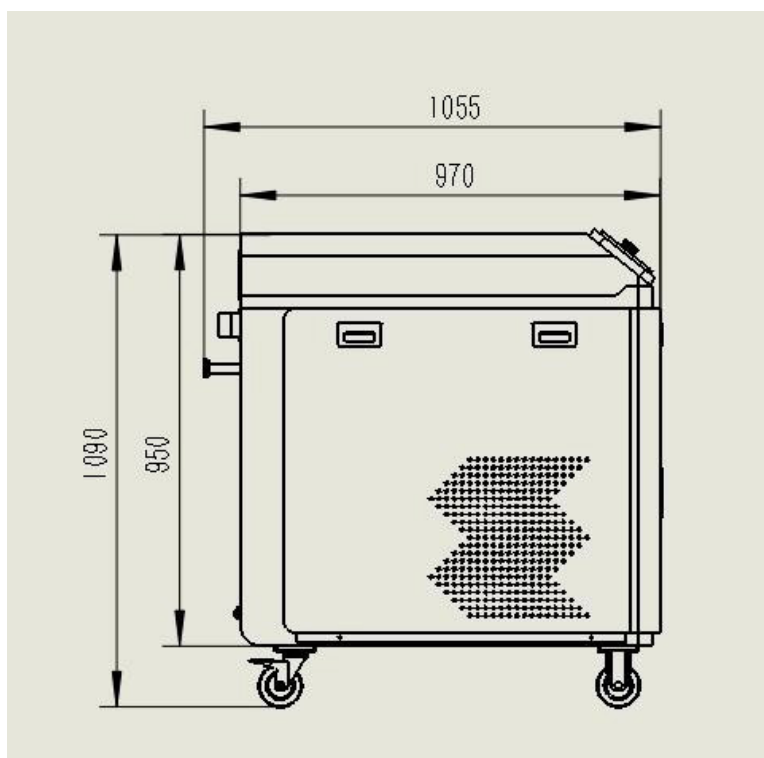
PRODUCT STRUCTURE AND DIMENSIONS

Figure 2.2

GY-FLCS-S020T laser cleaning head
dimension figure



FULL MACHINE DIMENSIONS





CONFIGURATION LIST

Name	Model Specification	Unit	Quantity	Remarks
Laser Cleaning Mainframe	SMART HC-1000	-	1	5m Operating Cable
Laser cleaning head	Smart	-	1	
Process of technical database	Built-in	Set	1	
Laser protective glasses	SD-3	Pair	1	
Field lens spare parts	GY-M39-F160	Set	1	
Lens cleaning kit		Set	1	