

## Specification: Restoratives 200w Pulsed Fibre Laser

200w Suitcase Fibre Laser	
Model	RT-200W Dual Axis
Laser source	Fibre laser
Laser Power	200W
Fibre Cable Length	5 m
Laser Wavelength	1060nm
Pulse Energy	5 mJ
Pulse frequency	40-5000KHz
Cooling	Air cooling
Dimension	530"280"650 mm
Weight	35Kg
Cleaning area	10-250mm (dependant on power)
Lens focusing distances	100mm, 160mm, 254mm
Operating Temperature	5-40 °c

Restorative Techniques ThermaLase is a 200W Class 4 dual-axis fibre Laser. It has been designed by our team of experts, providing industry-leading thinking on safe and environmentally friendly masonry cleaning and conservation.

Whether the subjects are historic buildings, landmarks or sculptures, our Laser Cleaning Machine is designed for the targeted removal of stubborn deposits from even the most delicate of substrates. Its precision-cleaning capabilities can deliver an unrivalled finish, and it has been trusted across sculpture and architectural conservation projects for its precision, portability, and safety.

It is engineered for ease of transport and use, weighing only 35 kg and capable of running on standard domestic power supplies (110-240V AC).

### System Components:

- Key-operated power switch for restricted access
- Emergency stop button 10m range as standard
- Power input cable 5m IEC lead
- Laser cleaning head with 5m umbilical cord
- Bluetooth remote control unit with 8 cleaning patterns
- CE-marked laser safety eyewear



# RESTORATIVE TECHNIQUES

Practical Solutions - Technical Expertise & Support

## Key Specifications



Model: RT-200W Dual Axis Suitcase Fibre Laser



Laser Source: Pulsed Fibre Laser



Wavelength: 1060nm (Infrared)



Max Power: 200W



Pulse Energy: 5 mJ




Portability: 30kg, runs on 110v/230v domestic supply.



## Adjustable Parameters - The 'Control Levers'

Laser Power:  1-100%

Scan Width (X) & Scan Height (Y): 

Clean Speed:  Up to 7 m/s

Frequency:  40-700 KHz

Pulse Width:  2-500 ns

Six distinct control parameters provide precise command over fluence levels, allowing for tailored application on a vast range of substrates.

## Safety & Operation:

- **Personnel:** Only trained operators should use the system.
- **PPE:** Mandatory use of CE-marked laser safety eyewear to specification of D LB8 R LB8 for 1064nm wavelength.
- P3 press to check face-fitting masks should be used within the enclosure as an absolute minimum.
- No bare skin should be on show and the use of coveralls (Tyvek suits etc) should be used.

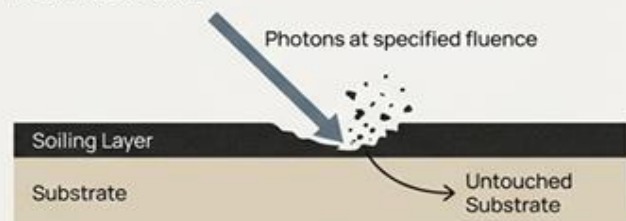
## The Principle of Selective Ablation

A laser is a device that transforms electrical energy into a concentrated, pure beam of light. Lasers use photons to target soiling at specified fluence levels (Energy Density, measured in J/cm<sup>2</sup>).

### How a Laser Works



### How It Cleans



**Selective & Sensitive**  
Targets only the unwanted material.



**Accurate & Precise Controls**  
Fine-tuning for delicate surfaces.



**Low Environmental Impact**  
No chemicals, abrasives, or water.



**Minimal Clean-up**  
No secondary waste streams.