



Laser Cleaning & Laser Surface Preparation

Laser cleaning systems for commercial applications have advanced greatly over the last 10 years. Today, these handheld, powerful yet quiet units perform work at a cost-effective speed, removing coatings or contaminants from virtually any substrate safely without damaging the substrate and with little to no collateral waste or environmental pollution.

How It Works

The laser allows the operator precise manipulation of the light beam to clean challenging, high value surfaces without water, chemicals, or abrasive materials, neither creating nor altering existing profiles or anchor points and leaving irregular or flat substrates like welds, flanges or gasket surfaces in their original state. When activated, the laser's powerful light-beam removes coatings while the internal vacuum hose draws residue into the disposal chamber.

Benefits Of The Laser

- **Quick:** Set-up and start production in literally minutes
- **Safe:** Stable and reliable, the laser performs work in a non-hazardous fashion
- **Mobile:** The "laser head" used by the operator can be up to 150 ft. from the power generation unit, providing flexibility
- **Minimal Interference:** Little to no impact on work in surrounding areas
- **Clean:** Reduces noise, chemicals, fumes, dust, particulate
- **Reduced Disposal:** no spent media, significant reduction in disposal volume and costs
- **Environmentally-safe:** Filtration and fume extractor draws residue into disposal chamber and draws dust and fumes into HEPA/activated carbon filters

"At Maviro, we continue to invest in new technologies and processes to improve safety and efficiency in the workplace."



MAVIRO

Solving old problems
with new technology



Remove rust and contaminants with ease



Delicately cleans complex surfaces



before/after of turbine blade





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Ideal Laser Jobs

- **Hazardous Coatings and Rust Removal**

Laser removes contaminated coatings and deposits such as lead, asbestos, PCB, oil, and rust.

- **Weld Inspections**

Laser leaves a fully exposed weld in clean condition, enabling NDT inspection without worry of residues affecting results.

- **Delicate Work or Sensitive Areas**

Use on fine surfaces or in areas where sandblasting is not an option due to grit, or on sensitive equipment (i.e. electric equipment, QA/QC issues).

- **Architectural Cleaning**

Restore monuments, plaques, buildings, and structures safely, without damaging the original surface.

- **Environmental Issues**

A laser process is the cleanest surface prep option available as all materials are collected in the vacuum system, making it ideal for areas like waterways.

- **Interference Issues**

Since the laser causes minimal interference issues, other work can be done in the same space without affecting safety, quality, or scheduling.

Substrates

The laser cleaning and surface preparation solution can be utilized on a wide variety of substrates, including:

- Metals (steel, aluminum, etc.)
- Composites
- Stone
- Cement
- Wood and other organic materials



MAVIRO

Safe, precise, and accurate cleaning of difficult, high value surfaces.



Removal of lead paint



Suitable for NDT Weld Inspections



Refractory hanger and boiler tube cleaning

