

Fibre vs YAG laser cleaning, a comparison based on cost and quality

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Laser cleaning is one of the fastest evolving markets for lasers. It's growth rate is comparable to laser cutting and laser marking. With a huge number of possibilities this new tool is being continuously tested on a large variety of materials, coatings and contaminants. Videos of the characteristic bright scanned line leaving behind it stripes of renewed material are taking the internet by storm. In this presentation we will try to provide information towards the yet persevering questions of laser effectiveness of a variety of interesting materials, associated costs, determining the laser type and power for the application of interest and environmental impact. Tests using handheld and mechanised cleaning with both Nd:YAG and fibre lasers on rust, stone, paint, oil and other materials are presented, contrasting between cost and quality achieved by each laser. The case of laser cleaning as an environmentally friendly method is also reviewed, considering hazards arising from products of ablation and indications of managing those.