LED laser polishing

Femtosecond laser polishing of polymers and stainless steel for optics, medical tools, and industrial applications.

Laser polishing, also known as laser re-melting, is a laser-based micro-melting process that is used to improve the surface quality of materials.

Therefore, this review presents a unique examination of the mechanisms and primary user-set parameters for both continuous wave (CW) and pulsed laser polishing. The objective is to ...

The analysis conducted on the technology of laser polishing aims therefore at evaluating the potential applications in industrial engineering, mainly with regard to the surfaces quality ...

With both ISO 9001 and ISO 13485 accreditation, the company works in areas including laser micromachining and ablation and macro technologies such as laser cleaning and laser polishing.

Various laser parameters, such as low- and high-power beams, ablation rates, and the depth of melt pool, have been investigated in studies to machine features and improve the surface ...

Whether polishing stainless steel or enhancing the surface quality of delicate electronic components, laser polishing offers a high degree of precision and quality, adaptable to a wide range of materials ...

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Laser polishing, also referred to as laser re-melting, is a type of micro-melting process employed for improving surface quality of materials. As opposed to other conventional polishing processes, this process does not involve removal of materials from the workpiece surface. In this process, the laser is made incident on the workpiece to melt the surface down to a certain depth, thus enabling subsequent betterment of surface parameters due to re-solidification of the melted material.

In this study, a state-of-the-art laser working in burst and biburst modes was used for copper and stainless-steel milling and polishing. The number of sub-pulses in MHz and GHz bursts and biburst ...

A particular focus of this contribution is given to a comparative study of the applied polishing laser energy input and polishing strategy with the overall objective to optimize the function of the optical ...

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