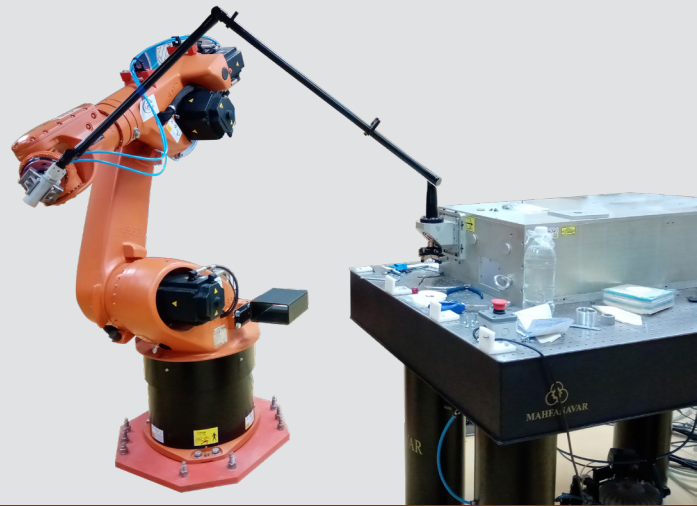


Laser shock peen

PSLIC1064N2JPX



DESCRIPTION

Improvement of material surfaces has become an integral part of industrial operations.

Laser shock peening (LSP) is a relatively new surface treatment for metallic materials.

Laser shock peening (LSP) is a very useful surface treatment technique in practical applications. It can create a compressive stress of a significant magnitude using shock waves generated by laser pulses, beneath the treated surface and deep into the treated metallic components. Compressive stress created by LSP can significantly improve the mechanical performance and increasing life time of components.

Particularly, in aerospace components because of exposure to the high degree of dynamic load, using the LSP technique leads to preventing of failure of parts by means of eliminating the residual stress.

ADVANTAGES

- Flexibility
- Deep penetration of laser-induced shocks with precise control of the intensity of energy.
- shorter process times
- high speeds
- accuracy
- free form surface
- The ability of robot coupling via the articulated arm.

APPLICATIONS

- improve the mechanical and metallurgical properties such as fatigue life, corrosion resistance, and wear and erosion resistance, Stress Corrosion
- rejuvenation of fatigue life of pre fatigued specimens and hybrid technique to rejuvenate the damaged components
- improving fatigue performance in terms of modification of microstructure, surface morphology, hardness and strength
- Increasing life time

INDUSTRIAL USERS

- Aerospace industries
- Defense Industries

SUPPORT FEATURE

- One-year warranty and full after-sales
- Product delivery with installation.
- Complete training with safety tips by expert trainers.
- Maintenance of all products in case of technical issues.
- Product guide with detail explanation.

TECHNICAL SPECIFICATION

Laser type	Nd: YAG
Wave length	1064 nm
Peak Power	2 j
Laser mode	Short pulse
Laser pulse width	8–12 ns
Repetition	5–20Hz
cooling	Cold water
Beam delivery	Articulated arm
Number of Axis	6 main axes (include: X, Y, Z, A, B, C)
Reach	1150 mm
Positioning Accuracy	0.03 mm
Repeatability	0.05 mm
Rotational speed	90/s
Main process system	Main Process: 2.4 MHz Field bus protocol: ether CAT I/O: 64 AO: 2(0–10) V dc