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Guided By

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Project Title

**OPTIMIZATION OF PROCESS PARAMETERS IN LASER CUTTING
OF S.S. USING GENETIC ALGORITHM**

Abstract:

The quality of laser cut is of the all most importance in laser cutting process. All cutting parameters might have significant influence on the resulting quality of work. In general, cutting parameters are adjusted and tuned to provide the quality of cut desired. But this

Consumes exhaustive amounts of time and effort. Therefore, it is important to investigate the impact of cutting parameters on quality of cut. The aim of this study is to relate the CO2 laser cutting parameters namely laser power, cutting speed and gas pressure. The process parameters in laser cutting influence the surface finish and cut edge slope. These quality characteristics were observed for the various combinations of cutting parameters like laser power, pulsing frequency, cutting speed and assist gas pressure and minimizing the surface roughness by optimal parameter.

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