Influence of surface geometry and structure after non-conventional methods of parting on the following milling operations

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This investigates influence of non-conventional methods of parting of steel 11 373.0 on structure transformations and associated geometry. Wire electro discharge machining (WEDM), plasma and laser cutting methods were used and compared as competitive methods from the point of view of structure transformations, associated geometry of a part and associated cutting forced produced during the following milling process. Results of this study indicate that significant differences can be found among the mentioned technology since the different thermal load of machined surface. Furthermore, structure and geometry alteration occurring after parting strongly affect cutting forces during the following milling operations.

Keywords: laser, plasma, WEDM, milling, cutting forces

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