**Study of Micro EDM Machining Parameters on Maraging Steel Alloys**

**-A Review**

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# ABSTRACT

Micro Electrical Discharge Machining (Micro EDM) is a machining process used for drilling micro holes on hard materials like tool steels,heat treated materials etc.It is characterized by thermo electric energy between workpiece and an electrode. This process is found more advantageous as holes produced are accurate on the workpiece because of the non contact and thermal characteristics of tool electrode material. Micro hole drilling is being done on various alloys like Ti-6Al-4V,Inconel 718 etc. by using electrodes like copper,brass,tungsten etc.The micro EDM process is found useful in the field of micro electro mechanical systems(MEMS),automobile industry,defence and bio medical applications.

Keeping in view of the recent developments that are occurring in the field of micro EDM machining process,this paper focuses on the various studies that are performed on Maraging Steels,one of the hardened steel alloy which is used majorly in aerospace applications.Maraging steels are the steels that undergo both martensitic and ageing heat treatment which gives high toughness and strength without losing ductility. These steels contain Ni,Co,MO,Ti,Al as alloying elements.

Micro EDM is known for its high material removal rate and good surface quality.This paper gives detailed information about the various performance measures of this machining process like MRR,TWR,surface roughness,pulse time,voltage gap etc. on the various Maraging Steel alloys.The study is based on the parameters like effect of changes in the composition of various alloying elements,selection of tool electrode,current,time etc. during machining process.

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