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ENHANCEMENT OF SURFACE ROUGHNESS AND METAL REMOVAL RATE BY USING COMBINED ABRASIVES DURING MAGNETIC ABRASIVE FINISHING

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ABSTRACT

Magnetic abrasive finishing (MAF) is one of advanced finishing process which play a major role in important applications (medical, aerospace, dies). This paper was focused on using combined abrasives instead of single abrasive which included two types of abrasives were added to iron powder and mixed together to perform mixture of magnet. parameters were used (concentration of abrasive and type of abrasive, gap, speed) in experiments then show that the surface roughness of work material enhanced from 1.58µm to1.05µm when using double abrasives instead of single abrasive (silicon carbide and boron) also the metal removal rate was enhanced from 0.050gm to 0.077gm.

KEYWORDS: *Double Abrasive, Sic + B, MAF, Surface Roughness, MRR*