

SOME CONSIDERATIONS CONCERNING THE ABRASIVE JET MACHINING

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Abstract: A machining process based on abrasive particles transported by an air jet can fulfill different objectives. When colliding with the surface layer of the workpiece, the abrasive particles in motion can remove small quantities of the workpiece material. This paper presents some aspects related to the characteristics of the abrasive jet machining and the possibilities to perform some experimental research concerning the phenomena that are specific to this machining process. The result of the impact of the abrasive particles with the workpiece material is analyzed. In addition, new equipment destined to allow the study of the impact effect by modifying the experimental conditions is proposed, taking into consideration the possibility of modifying the distance between the nozzle and the surface of the test piece, as well as the direction of the abrasive jet relative to the workpiece surface.

Key words: abrasive jet machining, impact effect, research equipment