

International Journal on Recent Researches In Science, Engineering & Technology

A Journal Established in early 2000 and upgraded to International journal in 2013 and is in existence for the last 10 years. It is run by Retired Professors from NIT, Trichy. It is an absolutely free (No processing charge No publishing charge etc) Journal Indexed in

DIIF and SJIF.

Research Paper Available online at: <u>www.jrrset.com</u> Chief Editor : 1. Dr. M.Narayana Rao, Rtd. Professor, NIT, Trichy. (Engg.&Technology division) 2. Dr. N.Sandyarani, Ph.D., Professor, Chennai based Engg.College, (Science division) ISSN (Print) : 2347-6729 ISSN (Online) : 2348-3105

Volume 1, Issue 10, Oct. 2013

> DIIF IF :1.46 SJIF IF: 1.329

Effect Of Process Parameters On Performance Measurements Of Electrical Discharge Machining

R. Usha

Abstract : With the Advent of industrial revolution, the need for alloy elements having high hardness, toughness and impact resistance is ever growing. One among such is Wire EDM machining meant for cutting conductive metals of any hardness difficult or impossible to cut with traditional methods. The machines also specialize in cutting complex contours or fragile geometries that would be difficult to be produced using conventional cutting methods. Machine tool industry offered tremendous growth in its manufacturing capabilities in last decade but still machine tools are not utilized to their full extent. This limitation is a result of the failure to run the machine tools at their optimum operating conditions. The problem of arriving at the optimum levels of the operating parameters has attracted the attention of the researchers and practicing engineers for a very long time. An attempt is made in this paper to study the effect of process parameters and electrical measurements of wire and electrical discharge machines. The major contribution of the present paper is to present the detailed review of the process parameters in EDM and their effect on machinability and surface finish, optimal power consumption etc. The results are discussed and the conclusions are listed.