Square-Groove Machining by EDM Using Stepped Plate Electrode

by

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(received on Mar.20,2003 & accepted on July 16,2003)

Abstract

In a previous paper, a method was proposed for machining a square groove by EDM (Electrical Discharge Machining) using simply shaped and framed electrodes. The experiments showed that a square groove can be machined by this method and that the differences in forms and dimensions at the inlet and outlet of the machined square groove are caused by the wear of the electrodes and debris. In this paper, a new method is proposed for diminishing the differences in forms and dimensions at the inlet and outlet and the depth of a machined square groove using a stepped plate electrode. The following experimental results were obtained. (1) The forms and dimensions at the inlet and outlet and the depth of a machined square groove are diminished by EDM using a stepped plate electrode. (2) Square-groove machining from rough to fine finishing is possible by changing the condenser capacity by EDM using a stepped plate electrode.

Keywords: *EDM, Square groove, Stepped plate electrode, Rough to fine finishing*

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