

NON-SUBMERSION ELECTRODISCHARGE MACHINING USING CONDITIONED WATER AS A MEDIUM

ABSTRACT OF THE DISCLOSURE

A workpiece (24) is electrodischarge machined using a machining apparatus (20) having a workpiece holder (22), an electrode (38) holder (36) having an electrode (38) mounted thereto, and a power supply (66) providing an electrical voltage and current.

The workpiece (24) is mounted in the workpiece holder (22), and the electrode (38) is positioned adjacent to a machining location (35) of the workpiece (24). The method further includes furnishing a source (46) of a flow (50) of conditioned water, directing the flow (50) of conditioned water from the source (46) into the machining location (35) of the workpiece (24), without submerging the machining location (35) in a liquid, and applying a voltage from the power supply (66) such that an electrical current flows between the workpiece (24) and the electrode holder (36) so that metal is removed from the workpiece (24) into the flow (50) of conditioned water.

Fig. 1