

Abstract**Method of and device for electrochemical machining**

Method of electrochemically machining an electrically conductive workpiece in an electrolyte by applying electric pulses between the workpiece and an electrically conductive electrode, one or more machining pulses (MP) alternating with voltage pulses (PP) for depositing passivation layers on the workpiece. The amplitude of

5 the voltage pulses is adjusted during an adjustment procedure in which the amplitude of the voltage pulses is increased gradually from zero to the voltage at which the workpiece starts to dissolve in the electrolyte. After each voltage increase the resistance of the gap between the electrode and the workpiece is measured. The voltage for the highest gap resistance is memorised and used during further machining. The duration of

10 the voltage pulses may be subdivided in time slices (Δt) and for each time slice the voltage is adjusted for maximum gap resistance during that time slice.

(Fig. 8)