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The invention relates to methods for electrophysical machining of materials, in particular to technologies for hardening of metal surfaces by pulse electrical discharges of short duration.

The process for hardening of metal surfaces consists in carrying out pulse electrical discharges between the tool electrode in the form of a rotating disk of pyrolytic graphite and the machined surface of the workpiece, connected to the discharge circuit of the current pulse generator as cathode and anode, respectively. Current pulses between the tool electrode and the workpiece are formed of a sequence of paired pulses of normal polarity, the first of which being with a duration of 5...10 μs and the amount of energy released between the tool electrode and the work-piece of 0.001 J, and the second – with a duration of 250 μs and the amount of energy released between the tool electrode and the workpiece of 1.8 J. The gap between the tool electrode and the workpiece is 1 mm.

Claims: 1