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The invention relates to processes for electrophysical metal working, particularly technologies for metal surface hardening by short-time pulsed electric discharges.

The process for metal surface hardening by electric discharges consists in carrying out pulsed electric discharges between the tool electrode, made in the form of a rotary disk of electrotechnical graphite, and the working surface of the part, connected to the discharge circuit of the current pulse generator. The current pulses in the space between the tool electrode and the part are formed by the paired pulse train, the first of which being of direct polarity with a duration of 150...200 μs , and the second one – of reversed polarity with a duration of 10 times smaller at the same quantity of energy released between the tool electrode and the part.

The result of the invention consists in increasing the hardness of metal surfaces, in decreasing the roughness of the worked surface and in preserving the geometry of the working surface.

Claims: 1