

The invention relates to the mechanical engineering technology, namely to processes for electric discharge machining of mated faces of the machine elements, for example of the gear-wheels, pump bolts etc.

The process includes communication to the tool-electrode, made in the form of a body of revolution, of a rotary motion and advance to the piece from the tracking mechanism of the machine tool. The tool-electrode is made as an even element, imitating the real conditions of execution by means of coordinated displacements with respect to the mobile ( $X_1Y_1Z_1$ ) and fixed ( $XYZ$ ) coordinate systems, the origin of which coincides with the precession motion center, the  $Z_1$  axis forming with the  $Z$  axis the nutation angle and describing a conic surface with the apex in the precession center. The tool-electrode is communicated a supplementary motion with respect to the  $X_1$  and  $Y_1$  coordinates, the axis of the tool-electrode passing through the precession motion center at an angle with the plane formed by the  $X_1$  and  $Y_1$  axes.

Claims: 3

Fig.: 1