The invention relates to the field of electrochemical dimensional working, particularly a tool electrode and a process for electrochemical perforation and can be used in mechanical engineering for the manufacture of articulated joints.

The tool electrode, according to the invention, includes a T-shapely made hollow body, where dielectric is the upper part of the electrode, to which it is fixed the tool with a current-conducting working surface made of elastic material, for example metalized rubber, having sectors with different elasticity and equipped with insulating dielectric spines, to the lower end of the working surface it is fixed a part of the dielectric material and inside the body, in the central part, it is installed a transverse partition with holes for fixation of the electrolyte supply channel, which is made in its lower part in the form of flexible silphon, the body in the upper part is equipped with a branch for gas supply into the internal cavity.

The process, according to the invention, includes making on the surface of a metal piece connected to the positive pole of the current source by the method of anode dissolution of a conic cavity, then perforation of the piece on the axis of symmetry of the conic cavity with the formation of a cylindrical channel and the electrochemical dimensional working of the channel with the tool electrode claimed in claim 1, with the formation of the necessary cavity due to the pressure in the body cavity, which modifies the dimension and form of the working surface, the cathode deposition on the working surface of the tool electrode of a metal layer and subsequent removal of the primary working surface by means of chemical working, filling of the electrode cavity with plastic mixture or liquid metal, and in the space between the article and the enclosed surface it is introduced an antifiction substance.

Claims: 3 Fig.: 6