

The invention relates to the field of dimensional electrochemical machining, in particular to the technology for producing arbitrary cavities within the machined material and can be used to create a high-performance tubular heat exchanger with vortex generator elements.

The tool electrode for dimensional electrochemical machining comprises a cylindrical body (1) of metallized elastic rubber, on which are placed rigid dielectric rings (3), made of different widths and equipped with fluoroplastic limiters, the rings form along the body (1) working parts with variable form. The body (1) is connected to a low-voltage source (2).

The process for dimensional electrochemical machining consists in feeding the electrolyte into the gap between the tool electrode mentioned above and the workpiece, connecting the cylindrical body to a low-voltage power supply, increasing the pressure inside the cylindrical body with changing its shape along the entire length, subsequent making cavities of preset dimensions on the inner surface of the workpiece by anodic dissolution, after that the pressure inside the body is reduced to the initial pressure and it is removed.

Claims: 2

Fig.: 3

