

The invention relates to the electrodeposition, in particular to processes and devices for composite electroplating deposition on intracylindrical surfaces.

The process for galvanic composition deposition is realized with several electrolyte suspension current flows different in velocity and direction.

The device for realization of the claimed process contains a cylindrical bath (1), a cell consisting of a unit (4) with holes (5) in the upper part and an anode (10) installed with the possibility of rotation. The lower part of the unit (4) contains a protrusion for piece-cathode fixation and is made in the form of confuser (6), wherein it is placed with clearance, coaxially with the anode, a pipe (7), and inside it there is installed an axial impeller (8) of the pumping mechanism. One end of the pipe (7) begins from the anode (10) and the other end does not reach the bottom (2) of the bath (1). In the upper part of the assembly unit (4), under the holes (5), there is installed an annular diffuser (12), and onto the upper end of the anode (10) – an insulating cover (11). The bottom (2) of the bath (1) is made in the form of funnel situated onto the anode axis, intersected in the centre by a cone (3).

The cell, according to the first variant, contains a hollow cylindrical anode, optionally soluble, coaxially placed into a unit, the soluble anode is provided with an extension for cell hermetic sealing, which contains an inlet pipe, and holes made at an angle of  $30...40^\circ$  in radial direction and of  $50...60^\circ$  with the anode axis and placed in the lower and upper parts of the anode. The lower part of the assembly unit contains a protrusion for piece-cathode fixation and is made in the form of confuser, and the anode lower hole is covered with a plug with conic head. In the case of the soluble anode it is set on an insoluble tube, having annular segments with holes placed in the lower and upper parts of the tube.

The cell, according to the second variant, as compared with the first variant, contains an anode with holes, made at an angle of  $120...130^\circ$  with the anode axis, placed in the middle and upper parts thereof. The lower parts of the unit and of the anode are extended accordingly by a confuser and a funnel, and the intraanodic space is divided in the middle and between the holes by a plug.

Claims: 4

Fig.: 7

