

Title (en)

METHOD OF DRAWING-OFF WORK FROM A BAR OR TUBE EXTRUSION PRESS, AND CONTROL SYSTEM OF A DRAWING-OFF DEVICE THEREFOR

Publication

EP 0300262 B1 19920415 (DE)

Application

EP 88110678 A 19880705

Priority

DE 3723824 A 19870718

Abstract (en)

[origin: EP0300262A1] The strand produced in a bar or tube extrusion press is drawn off with a controlled tensile force which keeps the emerging strand taut but should not influence the formation of the said strand. In order to keep constant the tensile force acting on the strand in the die zone, the procedure according to the invention is as follows: superimposed on this tensile force (draw-off force) matched to the cross-section and flow behaviour in the die is a tensile force (tractive force) which increases in proportion to the length of strand extruded and takes account of the weight per unit length and the coefficient of friction between the strand and the run-out table. The particular method adopted for this purpose is as follows: after a strand has been cut off and removed from the die, the tractive force and the length of the strand delivered are measured and the tractive force divided by the strand length is input as the specific profile friction force to be multiplied by the strand length, the latter being determined by displacement measurement, when a subsequent strand of the same desired cross-section is extruded. Control is carried out as follows: the desired value determined and input for the tensile force exerted on the tip of the strand is, in addition to a value taking into account the resistance to motion of the carriage of the drawing-off device, as the first summand, and a strand cross-section-dependent base value of the draw-off force, as the second summand, an increasing value, the respective product of the result of continuous delivery path measurement and predetermined specific profile friction force between the emerging strand and the run-out table, as third summand, beginning with the grasping of the tip of the strand by the grippers of the drawing-off device. <IMAGE>

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