

THE ELABORATION OF A MODELING METHOD FOR THE HYDRAULIC AUCTIONING AND THE SIMULATION OF THE FUNCTIONALITY FOR THE PLASTIC INJECTION PISTON DEVICE LIKE A TRANSLATION AXIS OF A ROBOT (PART I)

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In this paper work is analyzed the functionality of the plastic injecting device, for driving, according to the mathematic model, the injection technological process. For this the piston of the injecting machine was assimilated with a translation axis with hydraulic auctioning of a robot. A scheme has been conceived for driving the injecting machine piston, using the numerical computer. It has been elaborated a mathematic module of the hydraulic auctioning, in this case the injecting machine piston, using different types of regulators and creating optimization bases of the working speeds according to the technological process of injecting.



Fig. 4. The machine for injecting plastic materials.

Reference:

Tripe Vidican Aron – *Optimizarea constructivă și funcțională a manipuletoarelor și roboților industriali cu acționare hidraulică* – Teză de doctorat

Tripe Vidican Aron, Tripe Vidican C., Tocuț Pavel D., *Study of hydraulic rotation axes behavior for industrial robots by computer simulation* – ROBTEP 8th International Conference Slovak Republic 2006

Bulzan Florin – *Programarea sistemelor robotizate în turnătorii pe baza modelului matematic al procesului tehnologic* - Teză de doctorat

Tocuț Pavel Dănuț - *Optimizarea constructivă și funcțională a dispozitivelor de prehensiune neconvenționale* - Teză de doctorat