USE OF A PNEUMATIC AND FLUIDIC FOR THE DECISION OF MASSAGE’ PROBLEM

Alexey A. Khitrovo
Institute of Control Sciences, Russian Academy of Sciences, 65 Profsojuznaja st., Moscow 117997, Russia, e-mail: khitrovo@ipu.rssi.ru

More and more a wide circulation methods of treatment, improvement and preventive maintenance of various diseases by mechanical influence on an organism through its surface - massage and acupressure are received. Necessity of great volume of such procedures and greater physical expenses of experts-masseurs induce to automation of performance of these works. Unfortunately, various available mechanical masseurs operate directly, have no automatic feedback on parameters of massage movements and on physiological parameters of massed object. For realization of all set of massage movements are necessary effectors with the impellent opportunities which are not conceding, at least, to hands of a masseur-person that is represented rather complex technical problem, therefore at the initial stage of realization it is expedient to use specialized effectors with the limited set of impellent functions. For realization of the automatic massage functions systems (AMF systems) the certain interest represents application of means of a pneumatic and hydraulics as the most friendly in relation to physiological objects. The opportunity of achievement and application for massage purposes of the pneumatic or hydraulic jet effector with expanded functions, the electro-pneumatic matrix structure of type “artificial skin” (sensitive skin) with the expanded functions and the pneumatic compensation device for the massage head is discussed. The accounts, principles of operation, schemes and characteristics of this devices is resulted.