

Title (en)
METHOD AND DEVICE FOR DETERMINING THE EFFECTIVE DELIVERY RATE OR FOR ADJUSTING THE SPEED OF A PERISTALTIC PUMP

Title (de)
VERFAHREN UND VORRICHTUNG ZUR BESTIMMUNG DER EFFEKTIVEN FÖRDERRATE ODER EINSTELLUNG DER DREHZAHL EINER PERISTALTISCHEN PUMPE

Title (fr)
PROCEDE ET DISPOSITIF POUR DETERMINER LE DEBIT EFFECTIF OU POUR REGLER LE REGIME D'UNE POMPE PERISTALTIQUE

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Abstract (en)
[origin: WO2006097199A1] The invention relates to a method and a device for determining the effective delivery rate of a peristaltic pump with which a liquid is delivered inside an elastic hose pipe. The invention also relates to a method and a device for adjusting the speed of a peristaltic pump in order to match the effective delivery rate of the pump to the desired delivery rate. The inventive method and device are characterized in that the effective delivery rate is calculated based on the nominal speed of the pump and the pressure inside the hose pipe upstream of the pump depending on the running time of the pump. The stroke volume of the pump is multiplied by the nominal speed of the pump and the product from the stroke volume and the speed of the pump is corrected by means of a correction function describing the dependence of the stroke volume of the pump on its running time and the pressure inside the hose pipe upstream of the pump, thereby determining the effective delivery rate of the pump. The correction function is preferably a polynomial having one or more parameters for describing the relative decrease of the delivery rate with the running time of the pump and a polynomial having one or more parameters for describing the relative decrease of the delivery rate with the pressure inside the hose pipe upstream of the pump.

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