Title (en)

METHOD AND MIXING DEVICE FOR CONTROLLING THE INTRODUCTION OF A PULVERULENT MATERIAL INTO A LIQUID FOR AN INLINE MIXING METHOD

Title (de)

VERFAHREN UND MISCHVORRICHTUNG ZUR STEUERUNG DER EINBRINGUNG EINES PULVERFÖRMIGEN STOFFES IN EINE FLÜSSIGKEIT FÜR EIN INLINE-MISCHVERFAHREN

Title (fr)

PROCÉDÉ ET DISPOSITIF DE MÉLANGE POUR LA RÉGULATION DE L'INTRODUCTION D'UNE SUBSTANCE SOUS FORME DE POUDRE DANS UN LIQUIDE POUR UN PROCÉDÉ DE MÉLANGE EN LIGNE

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Abstract (en)

[origin: WO2018228714A1] The invention relates to a method for controlling the introduction of a pulverulent material (P) into a liquid (F) consisting of at least one component for an inline mixing method according to the preamble of claim 1 or the preamble of sub-claim 2 and to a mixing device for carrying out the method, said method and mixing device ensuring that the disadvantages of the prior art which have become known are prevented. This is achieved by a first method in that, among others, • the pulverulent material (P) is supplied in a discontinuous manner in pulses by means of a chronological sequence of metering pulses (i), each of which is characterized by a mass flow of the pulverulent material ($\dot{m}P$), a duration of the metering pulse ($\Delta t1$), and a time interval between adjacent metering pulses ($\Delta t2$), • a time-dependent power consumption (l(t)) is ascertained which is proportional to a stirring and/or shearing and homogenizing power required for a temporarily available mixing product (M*), and • at the end of the time interval between adjacent metering pulses ($\Delta t2$) and in the event of a deviation of the time-dependent power consumption (l(t)) from the reference power consumption (lo) by more than a specified tolerance, either upwards or downwards, the duration of the metering pulse ($\Delta t1$) for the following metering pulse (i) is shortened in the first case and lengthened in the second case while maintaining the ratio ($V = \Delta t1/\Delta t2$).

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