

Title (en)  
FREE JET DOSING MODULE AND METHOD FOR THE PRODUCTION THEREOF

Title (de)  
FREISTRAHLDOSIERMODUL UND VERFAHREN ZU SEINER HERSTELLUNG

Title (fr)  
MODULE DE DOSAGE A JET LIBRE ET PROCEDE PERMETTANT DE LE PRODUIRE

Publication  
**EP 1488106 B1 20060614 (DE)**

Application  
**EP 03749873 A 20030506**

Priority  
• DE 10220371 A 20020507  
• EP 0304754 W 20030506

Abstract (en)  
[origin: WO03095837A1] A free jet dosing module comprises: a dosing chamber (78) having a dosing chamber volume; an actuating device (64, 68), which is adjoined to the dosing chamber (78) and which, when actuated, reduces the dosing chamber volume by a displacement volume, and; a discharge opening (80) that is fluidically connected to the dosing chamber (78). A nozzle volume is defined by a fluid area existing between the dosing chamber (78) and the discharge opening (80). The ratio of the displacement volume to the sum of the dosing chamber volume and the nozzle volume is greater than the ratio of a free jet pressure to the atmospheric pressure in order to produce a free jet even in the presence of a compressible gaseous medium that essentially fills the dosing chamber volume and the nozzle volume. The free jet pressure is the pressure, which is required inside the dosing chamber and which, for a given discharge opening surface, just suffices in order to generate the surface energy for effecting a free jet at the discharge opening. .

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**B01L 3/0268** (2013.01 - EP US); **B41J 2/14** (2013.01 - EP); **B41J 2/17596** (2013.01 - EP); **F04B 43/046** (2013.01 - EP US); **B01L 2400/0406** (2013.01 - EP); **B01L 2400/0439** (2013.01 - EP); **B01L 2400/0487** (2013.01 - EP); **B01L 2400/0605** (2013.01 - EP)

Cited by  
DE102015224617A1; US11399978B2; EP3450020A1; WO2019043159A1; EP3485974A1; WO2019096993A1

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