Title (en)

PROCESS AND DEVICE FOR DISSOLVING A QUANTITY OF GAS IN A FLOWING LIQUID QUANTITY.

Title (de)

VERFAHREN UND ANORDNUNG ZUR LÖSUNG EINER GASMENGE IN EINER STRÖMENDEN FLÜSSIGKEITSMENGE.

Title (fr)

PROCEDE ET INSTALLATION POUR DISSOUDRE UNE QUANTITE DE GAZ DANS UN FLUX D'UNE QUANTITE DE LIQUIDE.

Publication

EP 0669852 A1 19950906 (DE)

Application

EP 93920760 A 19930918

Priority

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Abstract (en)

[origin: US5762687A] PCT No. PCT/EP93/02527 Sec. 371 Date May 12, 1995 Sec. 102(e) Date May 12, 1995 PCT Filed Sep. 18, 1993 PCT Pub. No. WO94/11097 PCT Pub. Date May 26, 1994The invention relates to a process for solution of a quantity of gas in a flowing quantity of liquid, in particular for solution of CO2 gas in beer, a flow of liquid and a flow of gas being combined and the gas in the liquid being dispersed, mixed with, and a part of it being mixed in the liquid. The object of the invention is to increase the amount of gas actually soluble in a liquid under certain conditions in comparison to prior art processes. In addition, the device for application of the process is to be simple in structure, cleanable in continuous flow (CIP-compatible), and its adaptation to specific practical requirements and its control are to be as simple as possible. From the process engineering viewpoint this is accomplished by guiding the gas/liquid mixture into curved paths, as a result of which separation into a bubblefree liquid flow (L1*) and a gas/liquid flow (G*/L2) to be recirculated. The device for application of the process is characterized in that a separating unit (6) is provided in which separation of undissolved gas bubbles from the liquid is accomplished by centrifugal forces in the rotating liquids, the mixing unit (5) or the solution section (5a) discharging into an inlet (6a) of the separating unit (6), and an extended pipeline section (1b) of the pipeline (1) for the bubblefree liquid flow (L1*) being connected to the outlet (6b) of the separating unit (6) and the return line (7) for the remaining gas/liquid flow (G*/L2) being connected to an area of the top of the separating unit (6).

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