

Title (en)

Method and apparatus for mixing solids and fluids.

Title (de)

Verfahren und Vorrichtung zum Mischen von Festkörpern und Flüssigkeiten.

Title (fr)

Procédé et appareil pour mélanger des solides et des fluides.

Publication

EP 0445875 A1 19910911 (EN)

Application

EP 91200440 A 19910301

Priority

US 49156190 A 19900309

Abstract (en)

A method and apparatus useful for dispersing solids in liquids. A mixer device implementing the method is capable of continuously mixing solid and liquid materials whose physical properties may be allowed to vary over a wide range of values without degradation of product quality. Basic components of the mixer consist of a rotatable turbine 22 enclosed in a casing 20. The turbine is configured so as to open an "eye" in the rotating liquid where solids may be introduced into the liquid stream. Make-up liquid is supplied at a controlled pressure to the turbine through an annular suction inlet. The mixer is configured so that the ratio of solid material to liquid material remains constant from their initial contact with one another to their discharge from the apparatus as a mixed product. A more thorough mixing of solids and liquids is achieved by directing the flows of materials by the method described, and the reliability and dynamic range of the mixer are significantly improved with respect to the performance of devices taught in the prior art. <IMAGE>

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IPC 8 full level

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CPC (source: EP)

B01F 25/743 (2022.01); **B01F 27/80** (2022.01)

Citation (search report)

- [AD] US 3326536 A 19670620 - ZINGG WARREN M, et al
- [A] EP 0239148 A1 19870930 - SCHLUMBERGER CIE DOWELL [FR]
- [A] EP 0241056 A1 19871014 - SCHLUMBERGER CIE DOWELL [FR]
- [A] WO 8103143 A1 19811112 - ARRIBAU J, et al
- [A] EP 0310984 A2 19890412 - ABNOBA HEILMITTEL GMBH [DE]
- [A] DE 1085851 B 19600728 - BAYER AG

Cited by

FR2767720A1; FR2767719A1; CN105984039A; US5466063A; EP2895258A4; AU2012389829B2; WO9910092A1

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