

Title (en)

PRESSURISED WATER RELEASING NOZZLE FOR GENERATING MICROBUBBLES IN A FLOTATION PLANT

Title (de)

DRUCKWASSERABGABEDÜSE ZUR ERZEUGUNG VON MIKROBLÄSCHEN IN EINER FLOTATIONSANLAGE

Title (fr)

BUSE DE DETENTE D EAU PRESSURISEE POUR GENERER DES MICROBULLES DANS UNE INSTALLATION DE FLOTTATION.

Publication

EP 1680213 B1 20070307 (FR)

Application

EP 04791465 A 20041005

Priority

- FR 2004002510 W 20041005
- FR 0311910 A 20031010

Abstract (en)

[origin: US7651620B2] The inventive nozzle comprises a first releasing stage (1) for producing a pre-release by absorbing from 5 to 20% of available pressure, a second releasing stage (2) wherein a substantial release is carried out and the pressurised water passes from a saturation pressure to an output nozzle pressure, an intermediate chamber (3) in the form of a transition chamber in which the pressurised water approaches the saturation pressure by absorbing from 5 to 30% of the available pressure and an outlet tube (3) consisting of a sudden release and cavitation confinement tube whose minimum length (1) substantially corresponds to a distance separating the end of said tube on the second release stage side from a readhesion point of jets to the tube wall at the angle of divergence (alpha) thereof ranging from 3 to 12 DEG before readhesion.

IPC 8 full level

B03D 1/14 (2006.01); **B05B 1/34** (2006.01)

IPC 8 main group level

B01F 23/00 (2022.01)

CPC (source: EP KR US)

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FR 2860735 A1 20050415; **FR 2860735 B1 20061222**; AT E355889 T1 20070315; AU 2004280269 A1 20050421; AU 2004280269 B2 20100729; BR PI0415137 A 20061128; BR PI0415137 B1 20141014; CA 2540866 A1 20050421; CA 2540866 C 20120515; CN 100413569 C 20080827; CN 1867393 A 20061122; DE 04791465 T1 20070118; DE 602004005230 D1 20070419; DE 602004005230 T2 20070705; DK 1680213 T3 20070402; EP 1680213 A1 20060719; EP 1680213 B1 20070307; ES 2267418 T1 20070316; ES 2267418 T3 20070916; HK 1093460 A1 20070302; KR 101136337 B1 20120419; KR 20060122827 A 20061130; NZ 546480 A 20100625; PL 1680213 T3 20070928; PT 1680213 E 20070330; RU 2006115380 A 20071220; RU 2324531 C2 20080520; SI 1680213 T1 20070831; US 2007119987 A1 20070531; US 2009218293 A1 20090903; US 7651620 B2 20100126; WO 2005035105 A1 20050421

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