

Title (en)

Apparatus for dissolving gas into liquid

Title (de)

Vorrichtung zur Lösung eines Gases in einer Flüssigkeit

Title (fr)

Dispositif pour introduire un gaz dans un liquide

Publication

**EP 1466661 B1 20080618 (EN)**

Application

**EP 03252180 A 20030407**

Priority

EP 03252180 A 20030407

Abstract (en)

[origin: EP1466661A1] An apparatus for effectively dissolving gas into liquid medium to obtain high concentration of gas solution comprises a mixer and a tank enclosure, wherein the mixer primarily comprises a quasi-Venturi tube and an expansion chamber. During operation, gas is introduced into the liquid in the quasi-Venturi-typed mixer. A valve mounted at the inlet of the mixer is used to regulate the gas flow so that the flow rate of the gas entering the mixer is lower than the rate of the gas drawn into the quasi-Venturi tube. With the gas drawn-in capability of the quasi-Venturi tube, gas can be mixed with the liquid flow through the quasi-Venturi tube under negative pressure and forms small gas bubbles in the liquid. The liquid carrying small gas bubbles flows out of the mixer, and subsequently flows into the tank enclosure and forms a whirlpool therein. As such, the gas bubbles can remain in the liquid for a prolonged time, which helps the gas dissolve in the liquid. The mixing apparatus is applicable for producing high gas concentration of water. <IMAGE>

IPC 8 full level

**B01F 3/04** (2006.01); **B01F 5/04** (2006.01)

CPC (source: EP US)

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Cited by

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