Title (en)

SURFACE AERATION IMPELLERS

Title (de)

LAUFRûDER F R EINE OBERFLûCHENBEL FTUNG

Title (fr)

ROTORS D'AERATION DE SURFACE

Publication

EP 1581745 A4 20101215 (EN)

Application

EP 02802924 A 20020916

Priority

US 0229280 W 20020916

Abstract (en)

[origin: CA2499051A1] A surface aeration impeller for use in a liquid filled tank. The impeller is rotatable about an axis perpendicular to the static liquid surface. The impeller has a plurality of blades mounted on the underside of a disc or dis c- like surface. Each blade has a multi-faceted or curved geometry ranging from vertical at the point of attachment to the disc to partially inclined at the bottom. The blades are spaced circumferentially about the axis and are disposed at acute angles to radial lines from the axis of rotation of the impeller. The lower portions of the blades, which are inclined but non- vertical, are positioned at or below the static liquid surface. When the impeller is rotated, the lower portion pumps the liquid up onto the vertical portion of the blades where the liquid is discharged into a spray umbrella i n a direction upwardly and outwardly away from the impeller. The design of the invention produces substantially higher oxygen transfer efficiency and overa ll liquid pumping rates than prior art designs and is particularly useful in th e aeration of sewage and other wastewater.

IPC 8 full level

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CPC (source: EP)

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Citation (search report)

- [X] DE 2418679 A1 19751030 - SOTRALENTZ SA
- [X] DE 2003759 A1 19710923 - BAMAG VERFAHRENSTECHNIK GMBH
- See references of WO 2004025125A2

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