

Title (en)

Device for pumping or compressing a multi-phase fluid comprising tandem blading

Title (de)

Vorrichtung zum Pumpen oder Verdichten eines mehrphasigen Fluids mit einer Tandem Beschaufelung

Title (fr)

Dispositif de pompage ou de compression d'un fluide polyphasique à aubage en tandem

Publication

EP 0781929 B1 20030319 (FR)

Application

EP 96402879 A 19961224

Priority

FR 9515624 A 19951228

Abstract (en)

[origin: EP0781929A1] The pumping system comprises a hollow casing having an inlet orifice and a fluid outlet orifice. A rotor rotates inside the casing. The rotor comprises a hub with a blade (Gj) fixed to the hub. The blade has a first (A1j) and second (A2j) blades each having a leading edge (aij) and a trailing edge (fij). The angle making tangent to the curve of the outline leaving from the leading edge to one of the first or second blades relative to the peripheral or tangential direction of the system is between 0 and 45 degrees . The relative positioning of the different groups of blades is determined from a parameter chosen from four parameters. The tangential gap (h) relative to the pitch (t) expressed as the ratio h/t is between 0.60 and 0.8. The ratio of the axial overlap rj to the total chord CTj corresponding to a group of blades Gj is between -0.01 and 0.05. The chord ratio CFj/CRj) is between 0.5 and 1.5. The curvature ratio of the first blade to the second blade is between 0.1 and 1.0.

IPC 1-7

F04D 31/00; **F04D 29/22**; **F04D 19/02**; **F04D 29/54**

IPC 8 full level

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CPC (source: EP US)

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Cited by

CN104389810A; FR2787837A1; FR2787836A1; EP0917905A1; FR2771024A1; US6305911B2; EP2078824A1; FR2926322A1; US8021113B2; US6210126B1; US6382919B1; US6273672B1

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DOCDB simple family (application)

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