

Title (en)
MAGNETICALLY COUPLED CENTRIFUGAL PUMP FOR CORROSIVE MEDIA

Title (de)
MAGNETGEKUPPELTE KREISELPUMPE FÜR KORROSIVE MEDIEN

Title (fr)
POMPE CENTRIFUGE À ENTRAÎNEMENT MAGNÉTIQUE POUR DES MILIEUX CORROSIFS

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Application
EP 08715923 A 20080221

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Abstract (en)
[origin: WO2008101698A1] The invention relates to a magnetically coupled centrifugal pump for pumping a fluid medium, comprising a housing (1) in which a separating can (3), which has a bottom (4), a shell (5) and a flange (6) clamped between two parts (2, 7) of the housing (1), separates a pump chamber (8) through which the medium flows from a driving rotor (10) carrying permanent magnets (11) on the circumference thereof, the rotor being driven by a motor (27). The pump furthermore comprises an intake opening (25) flowing into the pump chamber (8) and an outlet opening (26) leading out of the pump chamber (8), and an impeller (22) disposed in the pump chamber (8), the impeller being rotationally fixed to a hub (13), which is supported on an axis (14) by means of one or more ceramic rolling bearings (15, 16) and bears permanent magnets (12), which are opposite from the permanent magnets (11) of the driving rotor (10). According to the invention, the ceramic rolling bearings (15, 16) and the permanent magnets (12) provided in the hub (12) are disposed in the separating can (3), while the impeller (22) is disposed outside of the separating can (3) in the pump chamber (8) and the permanent magnets (11) of the driving rotor (10) are disposed in a section of the driving rotor (10) that at least partially encloses the shell (5) of the separating can (3), and at least the surfaces coming in contact with the medium in the pump chamber (8) are not metal.

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Citation (search report)
See references of WO 2008101698A1

Citation (third parties)
Third party :
BARTZ W.J. ET AL: "HANDBOOK OF TRIBOLOGY AND LUBRICATION", vol. 12, 2003, EXPERT VERLAG, ISBN: 3-8169-2050-0, article "konstruktionsbeispiele von Wälzt-und Gleitlagerausführungen", pages: 122 - 123, XP003025472

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