

Title (en)

Centrifugal pump with coaxial magnetic coupling

Title (de)

Kreiselpumpe mit koaxialer magnetkupplung

Title (fr)

Pompe centrifuge dotée d'un embrayage magnétique coaxial

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Application

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Priority

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Abstract (en)

[origin: US2010028176A1] The invention relates to a magnetic coupling pump, with the motor-driven part of the magnetic coupling lying radially inward and the radially outward part of the coupling, together with the pump rotor, having a floating fit in the pumped fluid such that the rotating part of the floating bearing is also radially arranged over the outer magnets. The wall of the pump housing can itself be embodied as the stationary part of the floating bearing with the possibility of direct external access (lubrication, sensor mechanism) and an effective convectional cooling. Dry running on operational faults can be avoided by means of the floating bearing arranged far to the outside, as the damaging gas fraction collects in the radial interior of the pump and remaining traces of liquid are continuously driven outwards and thus contribute to bearing lubrication. By means of an additional annular barrier, the loss of residual fluid can be prevented. The disclosed novel floating bearing permits a large volume separating case which itself permits components of the roller bearings of the motor-driven magnetic coupling section so much installation space that the axial installation length of the complete pump can be significantly shortened.

IPC 8 full level

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CPC (source: EP KR US)

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