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Publication  
**EP 2066903 A4 20140122 (EN)**

Application  
**EP 07803741 A 20070911**

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Abstract (en)  
[origin: WO2008031922A1] The invention relates to a pump comprising a pump chamber (1); a suction duct (2) which leads into the pump chamber; a discharge duct (3) which leads out of the pump chamber; in the pump chamber a rotor (4) having a shaft (5) in which the cross-sectional profile of the outer surface is a circular arch, and a spiral flange (6) supported on the shaft; and, parallel to the shaft of the rotor and following the shape of the circular outer surface thereof, a disk (7) that is arranged to rotate in a narrow disk chamber (8) opening into the pump chamber, and is provided with a slot (9) for the spiral flange. In accordance with the invention, the inner surface of the pump chamber (1) is spherical; the periphery of the spiral flange (6) corresponds by shape to the spherical surface, resting tightly against it; the spiral flange makes a full revolution around the shaft (5); and the disk comprises, at intervals of 90°, four radial slots (9) through which the spiral flange is able to slide, so that, as the rotor rotates 360°, the disk will rotate 90°.

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Citation (search report)  
• [A] US 983365 A 19110207 - HASKELL BYRON W [US]  
• [A] WO 8203428 A1 19821014 - TERLING AB GUSTAV [SE], et al  
• See also references of WO 2008031922A1

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