

Title (en)  
VANE CELL PUMP

Title (de)  
FLÜGELZELLENPUMPE

Title (fr)  
POMPE VOLUMÉTRIQUE ROTATIVE À PALETTES

Publication  
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Application  
**EP 11813658 A 20110922**

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Abstract (en)  
[origin: WO2012041283A2] The invention relates to a vane cell pump having a rotor which is mounted in a pump housing and is driven by a shaft, a plurality of vane plates which are mounted radially displaceably in the outer circumference of said rotor, and an outer shell which surrounds the rotor and the vane plates and is arranged directly in the pump housing. The invention is based on the problem of developing a novel vane cell pump which does not require any novel vane materials or any novel vane geometries; and which vane cell pump, even in the case of a small, double-action vane cell pump, can already ensure optimum complete filling of the pump chambers in the rotational speed range from 0 rpm to 400 rpm, in the case of a simple structural design, simple inexpensive production and assembly, and which vane cell pump additionally at the same time always operates without maintenance and with high reliability and a high degree of efficiency. According to the invention, this problem is solved by a vane cell pump which is distinguished, in particular, by the fact that the vane movement in the lower rotational speed range is brought about by pins according to the invention, the guide needles (12), which are positively guided, are decoupled from the vane plates (5) and, during pressureless operation, are positively guided on both sides of the rotor (3) in the control grooves, the guide grooves (13), which are arranged according to the invention in the end side/sides of the pump housing (1) and/or in the pump-housing cover/covers (9) which is/are arranged on the end side of the pump housing (1).

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