

Title (en)
CENTRIFUGAL PUMP

Title (de)
KREISELPUMPE

Title (fr)
POMPE CENTRIFUGE

Publication
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Application
EP 94918260 A 19940624

Priority
• CH 9400129 W 19940624
• CH 216093 A 19930716

Abstract (en)
[origin: WO9502768A1] Proposed is a pump with an impeller (1) which is securely mounted by its boss (3) on a shaft (4) so that it cannot rotate. The rear (driven) edges of the impeller rotate, leaving a narrow clearance (a), over the rear wall (5) of the pump housing. Together with the impeller (1), this wall forms a labyrinth gap (6) which connects the pump chamber (2') with a hollow space (7) in the boss. Connected in this hollow space (7) to the impeller (1) so that it cannot rotate is a coaxial flywheel designed to impart a vigorous rotational motion to the liquid in the hollow space (7) and hence force it out of the space. The space (7) has a peripheral opening (12) to allow the liquid to pass out. The air which collects near the shaft (4) escapes through a gap (10) between the boss-housing wall (20) and the shaft (4). The peripheral opening (12) is located in the boss-housing wall (20) and designed as a propulsion nozzle. It opens out into a space (11) adjacent to the hollow space (7) in the boss and connected to it by the gap (10), the nozzle pointing towards a diffusion tube (13) and forming a jet pump (12, 13) through which the liquid emerging from the hollow space (7) in the boss flows.

IPC 1-7
F04D 9/06; F04D 7/04; F04D 9/00

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