

Title (en)
ROTARY VANE MACHINE

Title (de)
DREHSCHIEBERMASCHINE

Title (fr)
MACHINE À PALETTES ROTATIVES

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Application
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Abstract (en)
[origin: WO2010081464A2] The invention relates to a fluid energy machine (20), which can be used as a pump, turbine, compressor, vacuum pump, power transmission (drives) and jet propulsion unit. It comprises: an outer housing (21), comprising a circular or elliptic inside bore (recess) (23), the shape of which is designed cylindrical, and the housing (21) has at least one fluid inlet (26) and at least one fluid outlet (27). The fluid energy machine further comprises a circular rotational body (24) which is arranged coaxially on the inside of the housing (21) and has at least one blade (31), and the blades (31) are provided on both sides with shafts (33) in order to fasten two differently sized bearings (34) thereon on top of each other, which describe (follow) the path of a stepped force control (35) in the housing bottom (36) and housing lid (36) in order to completely extend or retract the blade (31). For this purpose, one of the two bearings (34) to be fastened on top of each other on the blade (31) is used to extend the blade (31), and the other bearing (34) is used to retract the blade (31) with the help of the stepped force control (35) in the housing bottom (36) and housing lid (36). The circular rotational body is rotatably mounted by bearings (25), the radial outside diameter being smaller than the radial inside diameter of the housing, thereby leaving a chamber (gap) (28) between the circular rotational body (24) and the inside diameter of the housing (21), fluid medium entering the chamber (gap) (28) from the fluid inlet (29) and exiting the same in the rotational direction through the fluid outlet (30).

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