

Title (en)
CENTRIFUGAL PUMP WITH AN ISOLATING TUBULAR AIR GAP CAP

Publication
EP 0171515 B1 19870902 (DE)

Application
EP 85105626 A 19850508

Priority
CH 345184 A 19840716

Abstract (en)
[origin: US4645433A] In a centrifugal pump containing a sealing shroud the pump impeller is mounted only radially for rotation on a stationary axle or shaft. The stationary axle or shaft is fixed in the suction connection by means of wing rib supports or ribs and possesses an equalizing channel which connects the pump chamber portion at the rear of the pump impeller with the suction connection. This pump chamber portion at the rear of the pump impeller is connected with the delivery or pressure connection, whereas the pump chamber portion at the front side of the pump impeller is also connected with the suction connection as well as with the delivery or pressure connection. Advantageously, throttling rings are provided for self-metering throughflow throttling, depending on the axial position of the pump impeller. Additionally, the throughflow can be regulated by a throttling screw which is provided for the equalizing channel. In this way the pump impeller requires no axial or thrust bearing and can automatically adjust itself to variable requirements within a predetermined range.

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F04D 13/02; **F04D 29/04**

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Cited by
EP0237868A3; EP1329638A1; DE4238132C2; FR2733010A1; CN107313974A; DE202006005189U1; KR101410628B1; WO9632592A1; WO2007112938A3

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