

Title (en)
CENTRIFUGAL PUMP FOR PUMPING HOT FLUIDS

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EP 0484582 B1 19930127 (DE)

Application
EP 90121433 A 19901108

Priority
DE 3914652 A 19890503

Abstract (en)
[origin: EP0484582A1] Centrifugal pump, especially for pumping hot liquids, with at least one shaft passage to the outside through the pump housing and sealing of the shaft passage by means of a face seal (14, 15) and a scavenging and cooling flow for the face seal derived from the pumped medium. This flow is drawn from a higher pressure chamber, the pressure chamber (3), spiral chamber (6) or spiral side chamber (7) of the pump and led through at least one duct (8) provided in a housing cover (10) to an annular gap (13) formed between the housing cover (10) and an intermediate housing (11) inserted from the impeller wheel side into the housing cover, and from this close to the sealing face of the face seal (14, 15) into the seal chamber containing the face seal. After flowing through the seal chamber (16) the flow is fed via a choke gap to a low pressure chamber of the pump. In order to improve the scavenging and cooling effect it is proposed, according to the invention, that between the duct (8) and the annular gap (13) a distribution annulus be arranged, the width of which is a multiple of the annular gap (13) directed with radial direction components at the sealing face area of the face seal (14, 15) and that the pressure drop in the choke gap (17) be many times greater than the pressure drop from the higher pressure chamber (7) to the seal chamber (14).

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F04D 29/12

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Cited by
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