

Title (en)  
Centrifugal pump

Title (de)  
Kreispumpe

Title (fr)  
Pompe centrifuge

Publication  
**EP 0694698 B1 19980408 (DE)**

Application  
**EP 95107775 A 19950522**

Priority  
DE 4418153 A 19940525

Abstract (en)  
[origin: DE4418153A1] An impeller (4) sits in a casing (1) and rotates on a shaft (5). An inlet (11) is arranged coaxially with the impeller shaft while two outlets (9,10) sit on the casing outer circumference diametrically opposite each other. Each outlet is fitted with an inward opening (12,13) valve flap hinged at one side. The impeller can rotate in both directions each drawing fluid through the inlet. The valve flaps are hinged so only one will open in each rotational direction allowing simple control of fluid flow by altering the impeller direction.

IPC 1-7  
**F04D 29/50**; **F04D 15/00**

IPC 8 full level  
**F04D 15/00** (2006.01); **F04D 29/50** (2006.01)

CPC (source: EP)  
**F04D 15/0016** (2013.01); **F04D 29/486** (2013.01)

Cited by  
CN111919030A; WO2010124960A1; US7866944B2; US8267648B2; US8734097B2; US9677563B2; US10605246B2; US11353030B2; US11892000B2

Designated contracting state (EPC)  
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