

Title (en)
Duplex centrifugal pump.

Title (de)
Doppel-Kreiselpumpe.

Title (fr)
Double pompe centrifuge.

Publication
EP 0464355 B1 19931201 (DE)

Application
EP 91108395 A 19910524

Priority
DE 4021410 A 19900706

Abstract (en)
[origin: EP0464355A2] The invention relates to a duplex centrifugal pump with two impellers supported in a housing and two electric motors arranged side by side in parallel, - the pump housing having a plane side wall containing the inlet and outlet, - the pump housing being fixed by this flat side wall to a second device, in particular a consuming device, - an insert being detachably enclosed in the pump housing which can be slid in through a large aperture in the flat side wall and forms the inlet and outlet as well as internal connecting ducts and - one or more shut-off elements, particularly reversing valves or non- return valves, being arranged in the insert. <IMAGE>

IPC 1-7
F04D 13/14

IPC 8 full level
F04D 13/14 (2006.01); **F04D 15/00** (2006.01); **F04D 29/42** (2006.01)

CPC (source: EP KR US)
F04D 1/00 (2013.01 - KR); **F04D 13/14** (2013.01 - EP US); **F04D 15/0072** (2013.01 - EP US); **F04D 29/426** (2013.01 - EP US);
Y10S 415/912 (2013.01 - EP US)

Cited by
EP1079113A1; EP0735272A1; EP0667455A1; DE102018220150A1; USD834068S; USD839314S; USD839313S; USD839922S; US11732719B2;
US11965512B2

Designated contracting state (EPC)
AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)
EP 0464355 A2 19920108; EP 0464355 A3 19920226; EP 0464355 B1 19931201; AT E98000 T1 19931215; DE 4021410 A1 19920116;
DE 59100652 D1 19940113; ES 2046823 T3 19940201; KR 920002938 A 19920228; KR 970007394 B1 19970508; US 5178520 A 19930112

DOCDB simple family (application)
EP 91108395 A 19910524; AT 91108395 T 19910524; DE 4021410 A 19900706; DE 59100652 T 19910524; ES 91108395 T 19910524;
KR 910010965 A 19910628; US 71855291 A 19910620