

Title (en)
MULTI-STAGE SIDE CHANNEL PUMP

Title (de)
MEHRSTUFIGE SEITENKANALPUMPE

Title (fr)
POMPE REGENERATIVE A PLUSIEURS ETAGES

Publication
EP 1005615 B1 20040225 (DE)

Application
EP 98946409 A 19980821

Priority
• DE 19736678 A 19970822
• EP 9805338 W 19980821

Abstract (en)
[origin: DE19736678A1] The rotor wheels (20,22) of the pump are coupled to a common drive shaft (24) and the geometry of each step (12, 14) is adapted to the specific volume of the medium at its inlet by suitably dimensioning the diameter of the wheel and its flow diameter. The steps (12,14) can be integrated with the drive motor in one structural unit whereby the rotor wheels of all steps are fixed on the common shaft.

IPC 1-7
F04D 23/00

IPC 8 full level
F04D 23/00 (2006.01)

CPC (source: EP KR US)
F04D 23/008 (2013.01 - EP US); **F04D 29/00** (2013.01 - KR)

Designated contracting state (EPC)
CH DE DK ES FR GB IT LI NL PT SE

DOCDB simple family (publication)
DE 19736678 A1 19990225; AU 739307 B2 20011011; AU 9345898 A 19990316; CN 100520079 C 20090729; CN 1268208 A 20000927; DE 59810855 D1 20040401; EP 1005615 A1 20000607; EP 1005615 B1 20040225; JP 2001514361 A 20010911; KR 100594410 B1 20060703; KR 20010023129 A 20010326; US 6394748 B1 20020528; WO 9910656 A1 19990304

DOCDB simple family (application)
DE 19736678 A 19970822; AU 9345898 A 19980821; CN 98808389 A 19980821; DE 59810855 T 19980821; EP 9805338 W 19980821; EP 98946409 A 19980821; JP 2000507940 A 19980821; KR 20007001751 A 20000221; US 48605900 A 20000222