

Title (en)  
TWO STAGE PRIMARY DRY PUMP

Publication  
**EP 0401741 B1 19930303 (FR)**

Application  
**EP 90110602 A 19900605**

Priority  
FR 8907392 A 19890605

Abstract (en)  
[origin: EP0401741A1] Pump characterised in that it comprises in a single common stator a screw pump (10) on the low pressure side, an entrainment pump (20) on the high pressure side, a connecting pipe (30) providing the connection between the screw pump (10) and the entrainment pump (20). <IMAGE>

IPC 1-7  
**F04C 23/00; F04C 29/10**

IPC 8 full level  
**F01C 1/16** (2006.01); **F04B 23/14** (2006.01); **F04C 18/16** (2006.01); **F04C 23/00** (2006.01); **F04C 25/02** (2006.01); **F04C 28/02** (2006.01); **F04D 17/00** (2006.01); **F04D 17/16** (2006.01); **F04D 19/04** (2006.01)

CPC (source: EP US)  
**F04C 23/005** (2013.01 - EP US); **F04C 28/02** (2013.01 - EP US); **F04D 17/168** (2013.01 - EP US); **F04D 19/046** (2013.01 - EP); **F04C 2220/12** (2013.01 - EP US)

Cited by  
US5445502A; EP0798463A3; CN103867436A; EP0898083A3; US6030181A; EP0857876A3; EP0730093A1; US5961297A; EP1101943A3; IT201800009944A1; WO2005033028A1; EP0585911A1; US5564907A; US5709537A; US5951266A; AU2014407987B2; GB2583949A; WO2014001090A1; EP3198148B1; EP3201469B1

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

DOCDB simple family (publication)  
**EP 0401741 A1 19901212; EP 0401741 B1 19930303**; AT E86364 T1 19930315; DE 69000990 D1 19930408; DE 69000990 T2 19930609; ES 2039997 T3 19931001; FR 2647853 A1 19901207; JP H0333492 A 19910213; RU 1771514 C 19921023; US 5040949 A 19910820

DOCDB simple family (application)  
**EP 90110602 A 19900605**; AT 90110602 T 19900605; DE 69000990 T 19900605; ES 90110602 T 19900605; FR 8907392 A 19890605; JP 14604490 A 19900604; SU 4830083 A 19900604; US 53172690 A 19900601