

Title (en)  
PUMP

Title (de)  
PUMPE

Title (fr)  
POMPE

Publication  
**EP 2980415 A4 20160309 (EN)**

Application  
**EP 14775949 A 20140203**

Priority  
• JP 2013071064 A 20130329  
• JP 2014000544 W 20140203

Abstract (en)  
[origin: EP2980415A1] A pump (1) includes: a casing (30) forming an outer shell of a suction flow passage (35a), of a pump chamber (131) communicating with the suction flow passage (35a), and of a discharge flow passage (36a) communicating with the pump chamber (131); and a volute unit (130) including a volute flow passage communicating with the suction flow passage (35a) and with the discharge flow passage (36a). The volute portion (130) is provided in the pump chamber (131) as a component independent of the casing (30).

IPC 8 full level  
**F04D 13/06** (2006.01); **F04D 29/42** (2006.01); **F04D 29/62** (2006.01)

CPC (source: EP)  
**F04D 13/0633** (2013.01); **F04D 29/426** (2013.01); **F04D 29/4286** (2013.01); **F04D 29/628** (2013.01)

Citation (search report)  
• [X1] US 2005142003 A1 20050630 - HEMBREE RICHARD D [US], et al  
• [X1] US 4226574 A 19801007 - VILLETTE GUY J  
• [X1] EP 1120569 A1 20010801 - IWAKI CO LTD [JP]  
• [X1] JP H11324969 A 19991126 - SEIKOW CHEM ENG MACH  
• [X1] JP 2008050958 A 20080306 - IWAKI CO LTD  
• [X1] JP S616700 U 19860116  
• See references of WO 2014155925A1

Cited by  
CN112469901A; US11506216B2; WO2020011316A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 2980415 A1 20160203; EP 2980415 A4 20160309; EP 2980415 B1 20200902**; JP 2014194189 A 20141009; WO 2014155925 A1 20141002

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