

Title (en)  
VORTEX PUMP

Title (de)  
FREISTROMPUMPE

Title (fr)  
POMPE NON COLMATABLE

Publication  
**EP 3317544 A1 20180509 (DE)**

Application  
**EP 16733062 A 20160627**

Priority  
• DE 102015212203 A 20150630  
• EP 2016064855 W 20160627

Abstract (en)  
[origin: WO2017001340A1] Vortex pump with an impeller (2). Said impeller (2) comprises blades (7) for delivering solids-containing media. The blades (7) are arranged in bundles (12). The distance (14) of the blades (7) in said bundles (12) is smaller than the distance (13) of the bundles (12) from each other.

IPC 8 full level  
**F04D 29/22** (2006.01); **F04D 29/24** (2006.01)

CPC (source: CN EP RU US)  
**F04D 7/04** (2013.01 - RU); **F04D 29/2244** (2013.01 - CN EP RU US); **F04D 29/242** (2013.01 - CN EP US); **F05B 2240/30** (2013.01 - EP US); **F05B 2250/15** (2013.01 - EP US); **F05B 2260/63** (2013.01 - EP US)

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)  
**WO 2017001340 A1 20170105**; AU 2016288451 A1 20180104; AU 2016288451 B2 20200514; BR 112017027545 A2 20180821; BR 112017027545 B1 20221116; CA 2990990 A1 20170105; CA 2990990 C 20231010; CN 107810331 A 20180316; CN 107810331 B 20200221; DE 102015212203 A1 20170105; DK 3317544 T3 20211101; EP 3317544 A1 20180509; EP 3317544 B1 20210811; ES 2896450 T3 20220224; HR P20211632 T1 20220121; HU E056972 T2 20220428; PL 3317544 T3 20211227; PT 3317544 T 20211112; RU 2018103265 A 20190731; RU 2018103265 A3 20190904; RU 2705785 C2 20191111; SA 517390579 B1 20210401; SI 3317544 T1 20220131; US 10738792 B2 20200811; US 2018187692 A1 20180705

DOCDB simple family (application)  
**EP 2016064855 W 20160627**; AU 2016288451 A 20160627; BR 112017027545 A 20160627; CA 2990990 A 20160627; CN 201680037160 A 20160627; DE 102015212203 A 20150630; DK 16733062 T 20160627; EP 16733062 A 20160627; ES 16733062 T 20160627; HR P20211632 T 20160627; HU E16733062 A 20160627; PL 16733062 T 20160627; PT 16733062 T 20160627; RU 2018103265 A 20160627; SA 517390579 A 20171221; SI 201631388 T 20160627; US 201615741157 A 20160627