

Title (en)  
Centrifugal pump

Title (de)  
Kreispumpe

Title (fr)  
Pompe centrifuge

Publication  
**EP 2535591 A1 20121219 (DE)**

Application  
**EP 11004859 A 20110615**

Priority  
EP 11004859 A 20110615

Abstract (en)  
The pump has a fixed seal ring (16) sealingly connected with an impeller (12), and resting against a wall (18) of a housing that surrounds the impeller. The sealing ring surrounds an inlet opening (20) in the wall and is fixed in a radial direction by two projections formed on the wall. The projections are engaged with recesses (26) that are formed at an outer peripheral part of the seal ring. The projections are designed as threaded pins or threaded sleeves (22), and the recesses are formed parallel to a central axis (X) of the seal ring.

Abstract (de)  
Die Erfindung betrifft eine Kreispumpe mit zumindest einem Laufrad (12) und zumindest einem feststehenden Dichtungsring (16), welcher mit dem Laufrad (12) in dichtender Anlage ist, wobei der Dichtungsring (16) an einer Wandung (18) eines das Laufrad (16) umgebenden Gehäuses anliegt, eine Eintrittsöffnung (20) in der Wandung (18) umgibt und in radialer Richtung durch zumindest zwei an der Wandung (18) ausgebildete Vorsprünge (22) oder Vertiefungen fixiert ist.

IPC 8 full level  
**F04D 29/16** (2006.01)

CPC (source: EP)  
**F04D 29/167** (2013.01)

Citation (search report)  
• [X] EP 0905381 A1 19990331 - EBARA CORP [JP]  
• [X] DE 19613486 A1 19971009 - GRUNDFOS AS [DK]  
• [X] DE 102008001814 A1 20091119 - WUERDIG UWE [DE]  
• [X] US 2006147328 A1 20060706 - ITO SHOJI [JP], et al  
• [A] DE 19960160 A1 20010621 - BEEZ GUENTHER [DE], et al

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 2535591 A1 20121219; EP 2535591 B1 20140423**

DOCDB simple family (application)  
**EP 11004859 A 20110615**