

Title (en)
ROTARY-VANE VACUUM PUMP AND OUTLET ASSEMBLY THEREOF

Title (de)
DREHSCHIEBER-VAKUUMPUMPE UND AUSLASSBAUGRUPPE DAFÜR

Title (fr)
POMPE À VIDE À AILETTES ROTATIVES ET SON ENSEMBLE DE SORTIE

Publication
EP 3536962 A1 20190911 (EN)

Application
EP 18382144 A 20180307

Priority
EP 18382144 A 20180307

Abstract (en)
A vacuum pump, based on a rotor with at least one vane housed in a pump chamber, which prevents fluid extraction flow from being blocked by means of an assembly of multiple outlets. Said outlet assembly comprises at least a first outlet conduct (100) with a first inner aperture (110) and a first outer aperture (120), and at least a second outlet conduct (200) with a second inner aperture (210) and a second outer aperture (220). The first inner aperture (110) and the second inner aperture (210) extract a fluid from an internal cavity (300) of the vacuum pump, whereas the first outer aperture (120) and the second outer aperture (220) expel the extracted fluid into an outside area (400) the vacuum pump. By disposing the first inner aperture (110) and the second inner aperture (210) at different heights, any accumulated particle which could block the extraction flow tends to gather around the first outlet conduct (100). Therefore, even in case said first outlet conduct (100) is partially or fully blocked, the second outlet conduct (200) can carry on with the extraction.

IPC 8 full level
F04C 25/02 (2006.01); **F04C 18/344** (2006.01); **F04C 29/12** (2006.01)

CPC (source: CN EP)
F04C 18/34 (2013.01 - CN); **F04C 18/344** (2013.01 - EP); **F04C 25/02** (2013.01 - CN EP); **F04C 29/12** (2013.01 - CN EP)

Citation (applicant)
• US 3468260 A 19690923 - BELDEN WILLIAM PERRY, et al
• US 6296460 B1 20011002 - SMITH STEVE C [US]
• US 6688862 B2 20040210 - JERONYMO CARLOS [CA], et al

Citation (search report)
• [A] DE 102015118111 A1 20170427 - HELLA KGAA HUECK & CO [DE]
• [A] DE 102015120304 A1 20170524 - HELLA KGAA HUECK & CO [DE]

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 3536962 A1 20190911; **EP 3536962 B1 20210602**; CN 110242574 A 20190917; CN 110242574 B 20221101; ES 2887960 T3 20211229; WO 2019170610 A1 20190912

DOCDB simple family (application)
EP 18382144 A 20180307; CN 201810730019 A 20180705; EP 2019055332 W 20190304; ES 18382144 T 20180307