

Title (en)

VACUUM-GENERATING PUMPING SYSTEM AND PUMPING METHOD USING THIS PUMPING SYSTEM

Title (de)

VAKUUMERZEUGENDES PUMPSYSTEM UND PUMPVERFAHREN MIT DIESEM PUMPSYSTEM

Title (fr)

SYSTÈME DE POMPAGE POUR GÉNÉRER UN VIDE ET PROCÉDÉ DE POMPAGE AU MOYEN DE CE SYSTÈME DE POMPAGE

Publication

EP 3198148 B1 20200226 (FR)

Application

EP 14777077 A 20140926

Priority

EP 2014070691 W 20140926

Abstract (en)

[origin: WO2016045753A1] Vacuum-generating pumping system (SP) comprising a main vacuum pump which is a dry screw pump (3) having a gas inlet intake (2) connected to a vacuum chamber (1) and a gas delivery outlet (4) opening into a pipe (5) discharging the gases to a gas exhaust outlet (8) from the pumping system. The pumping system comprises a nonreturn valve (6) positioned between the gas delivery outlet (4) and the gas exhaust outlet (8), and an auxiliary vacuum pump (7) connected in parallel with the nonreturn valve. The main vacuum pump (3) is switched on to pump the gases contained in the vacuum chamber (1) and deliver these gases via its gas delivery outlet (4), at the same time as the switching-on of the auxiliary vacuum pump (7). Furthermore, the auxiliary vacuum pump (7) continues to pump all the time that the main vacuum pump (3) pumps the gases contained in the vacuum chamber (1) and/or all the time that the main vacuum pump (3) maintains a defined pressure in the vacuum chamber (1).

IPC 8 full level

F04C 25/02 (2006.01); **F04C 18/16** (2006.01); **F04C 28/02** (2006.01)

CPC (source: EP KR RU US)

F04C 2/16 (2013.01 - US); **F04C 11/003** (2013.01 - US); **F04C 15/06** (2013.01 - US); **F04C 18/16** (2013.01 - EP KR RU US); **F04C 23/001** (2013.01 - EP KR US); **F04C 23/005** (2013.01 - EP KR US); **F04C 25/02** (2013.01 - EP KR RU US); **F04C 28/02** (2013.01 - EP KR RU US); **F04C 28/06** (2013.01 - KR); **F04C 28/06** (2013.01 - EP US); **F04C 2220/12** (2013.01 - EP KR US)

Citation (examination)

EP 0401741 A1 19901212 - CIT ALCATEL [FR]

Citation (opposition)

Opponent : **Edwards Limited**,

- JP 2003139055 A 20030514 - ULVAC CORP
- JP 2003129957 A 20030508 - ULVAC CORP
- JP 2003155988 A 20030530 - ULVAC CORP
- US 2004173312 A1 20040909 - SHIBAYAMA KOUJI [JP], et al
- US 2003068233 A1 20030410 - ROYCE DOUGLAS [US], et al
- JP 2003139055 A 20030514 - ULVAC CORP
- JP 2003129957 A 20030508 - ULVAC CORP
- JP 2003155988 A 20030530 - ULVAC CORP
- US 2004173312 A1 20040909 - SHIBAYAMA KOUJI [JP], et al
- US 2003068233 A1 20030410 - ROYCE DOUGLAS [US], et al

Designated contracting state (EPC)

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DOCDB simple family (publication)

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