

Title (en)
SWITCHED SUCTION JET PUMP

Title (de)
GESCHALTETE SAUGSTRAHLPUMPE

Title (fr)
POMPE À JET ASPIRANT COMMUTÉE

Publication
EP 3592988 A1 20200115 (DE)

Application
EP 18712808 A 20180307

Priority
• DE 102017203877 A 20170309
• EP 2018055584 W 20180307

Abstract (en)
[origin: WO2018162542A1] The invention relates to a single-stage or multistage suction jet pump comprising a propelling nozzle (5), one or more suction nozzles (2), a diffuser (7), and a volume flow limiting valve in or directly in front of the propelling nozzle. The volume flow limiting valve has a valve element (4) in the overpressure region (1) of the suction jet pump, said valve element having an opening (8) with a cross-sectional area which is smaller than the cross-sectional area of the propelling nozzle (5). The valve element spans at least one additional gap opening (9) which first releases the cross-section of the gap opening (9) when the pressure difference between the overpressure region (1) and the suction region (2) increases and which switches in the event of a defined large pressure drop and the valve element (4) reduces or closes the cross-section of the gap opening (9) such that the volume flow flowing over the opening (8) is limited to a defined level even in the event of a further increasing pressure difference.

IPC 8 full level
F04F 5/00 (2006.01); **F04F 5/46** (2006.01)

CPC (source: EP US)
F04F 5/00 (2013.01 - EP); **F04F 5/22** (2013.01 - US); **F04F 5/461** (2013.01 - EP US); **F01M 13/022** (2013.01 - US); **F01M 13/04** (2013.01 - US); **F01M 2013/026** (2013.01 - US); **F04F 5/466** (2013.01 - US)

Citation (search report)
See references of WO 2018162542A1

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 2018162542 A1 20180913; CN 110352302 A 20191018; CN 110352302 B 20210202; DE 102017203877 A1 20180913; EP 3592988 A1 20200115; EP 3592988 B1 20210505; US 11022149 B2 20210601; US 2021131451 A1 20210506

DOCDB simple family (application)
EP 2018055584 W 20180307; CN 201880013683 A 20180307; DE 102017203877 A 20170309; EP 18712808 A 20180307; US 201816488017 A 20180307