

Title (en)
CRYOGENIC PUMP WITH A DEVICE FOR PREVENTING MEMEORY EFFECT

Title (de)
KRYOPUMPE MIT EINER VORRICHTUNG ZUR VERHINDERUNG DES MEMORY-EFFEKTS

Title (fr)
POMPE CRYOGENIQUE AVEC DISPOSITIF DE PRÉVENTION D'EFFET MÉMOIRE

Publication
EP 2577064 A1 20130410 (DE)

Application
EP 11722718 A 20110525

Priority
• CH 8332010 A 20100527
• CH 2011000122 W 20110525

Abstract (en)
[origin: WO2011147042A1] The invention relates to a device (21) for avoiding the memory effect in cryogenic pumps having a first cooling stage (23) and a second cooling stage (25) which adjoins the first cooling stage (23) in the axial direction. A cylindrical shield (31) has an opening (37) and a base (35), which base (35) is penetrated centrally by the two-stage cooling head (21) in such a way that the first cooling stage (23) is arranged outside the shield (31) and the second cooling stage (25) is arranged within the shield (31). An intermediate chamber (34) is formed between the shield (31) and the first cooling stage (23), and the base of the shield (31) is connected in a thermally conductive manner to the first cooling stage (23) by means of a thermal bridge (33). A cooling panel (43) which serves as pumping surface is connected to the second cooling stage (25) and is provided within the shield (31). A baffle (39) is arranged in the region of the opening (37) of the cylindrical shield (31) and is in thermally conductive contact with the shield (31) and/or the first cooling stage (21). The thermal bridge (33) is provided between the shield (31) and the first cooling stage (23) at a spacing from its end side (55). The invention also relates to a housing (12) which encloses the cooling head (21) and to a cryogenic pump (11), in which the cooling head (21) is accommodated.

IPC 8 full level
F04B 37/08 (2006.01)

CPC (source: EP US)
F04B 37/08 (2013.01 - EP US)

Citation (search report)
See references of WO 2011147042A1

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

DOCDB simple family (publication)
WO 2011147042 A1 20111201; BR 112012029924 A2 20190924; CH 703216 A1 20111130; EP 2577064 A1 20130410;
EP 2577064 B1 20140319; RU 2012157281 A 20140710; RU 2565477 C2 20151020; US 2013104571 A1 20130502; US 8955339 B2 20150217

DOCDB simple family (application)
CH 2011000122 W 20110525; BR 112012029924 A 20110525; CH 8332010 A 20100527; EP 11722718 A 20110525;
RU 2012157281 A 20110525; US 201113700425 A 20110525