

Title (en)
FLUID CONDUIT

Title (de)
FLUIDLEITUNG

Title (fr)
CONDUIT DE FLUIDE

Publication
EP 3379528 A1 20180926 (EN)

Application
EP 17162150 A 20170321

Priority
EP 17162150 A 20170321

Abstract (en)
A fluid conduit having a rigid fluid conduit wall (H) provided with a plurality of acoustically transparent openings (O) that prevent fluid from passing through the openings. The acoustically transparent openings (O) may cover at least 6 % of a surface of the rigid fluid conduit wall (H). The acoustically transparent openings (O) may be substantially evenly distributed over the rigid fluid conduit wall (H). A diameter of the acoustically transparent openings (O) may be between 5 and 35 mm, and preferably about 10 mm. For an optimal acoustic transparency of the acoustically transparent film compared to the rigid fluid conduit wall (H), a coincidence frequency of the acoustically transparent openings (O) is at least 5 times a coincidence frequency of a remainder of the rigid fluid conduit wall (H). The acoustically transparent openings (O) may be formed by perforations, in which case the rigid fluid conduit wall (H) is further provided with an acoustically transparent film to prevent the fluid from passing through the perforations in the rigid fluid conduit wall (H). The rigid fluid conduit wall (H) may be covered by an acoustically transparent protective cover. The fluid conduit may be used in a fluid pump device, further comprising a fluid pump. The fluid pump may have a perforated fluid pump housing covered by the acoustically transparent film.

IPC 8 full level
G10K 11/16 (2006.01); **A45D 20/12** (2006.01); **F24F 13/24** (2006.01); **F24H 3/04** (2006.01)

CPC (source: EP)
A45D 20/12 (2013.01); **G10K 11/161** (2013.01); **F24F 3/14** (2013.01); **F24F 13/24** (2013.01)

Citation (search report)
• [X] US 2006269077 A1 20061130 - BOLTON J S [US], et al
• [X] US 4130175 A 19781219 - HEHMANN HORST W W
• [X] US 2011284689 A1 20111124 - THOMAS CHRISTIAN [DE], et al
• [X] US 4700805 A 19871020 - TANAKA HIDEHARU [JP], et al
• [A] US 2009283356 A1 20091119 - TSUGIHASHI KAZUKI [JP], et al
• [A] US 2007123159 A1 20070531 - VENKATAPPA SUHAS [US], et al

Cited by
US11217218B2; CN112178933A

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 3379528 A1 20180926

DOCDB simple family (application)
EP 17162150 A 20170321