Title (en)

FLUID DELIVERY SYSTEM

Title (de)

FLÜSSIGKEITSAUSGABESYSTEM

Title (fr)

SYSTÈME DISTRIBUTEUR DE FLUIDE

Publication

**EP 3725527 A1 20201021 (EN)**

Application

**EP 19170390 A 20190419**

Priority

EP 19170390 A 20190419

Abstract (en)

A fluid delivery system is revealed. A double diaphragm pump (1) provided with two inlets (13, 16) and two outlets (14, 17) is mounted in the fluid delivery system. An introducing pipeline (2) of the fluid delivery system is connected to one set of inlet and outlet (13, 14) while a return pipeline (3) of the fluid delivery system is connected to the other set of inlet and outlet (16, 17). Thereby a pneumatic mechanism (10) in the double diaphragm pump (1) drives two diaphragms (11, 12) therein to draw in and expel fluid in the system so that the fluid flows in and out through the two sets of inlets and outlets. Thus the pressure remains constant and the volume flow rate is uniform during delivery and returning of the fluid. A drain-back tube (6) provided with a control valve (61) is arranged between the introducing pipeline (2) and the return pipeline (3). The fluid is returned and delivered under control of the control valve (61) while changing fluids or cleaning pipelines of the system.

IPC 8 full level

**B41F 31/08** (2006.01); **B41F 31/20** (2006.01); **B41F 35/00** (2006.01); **F04F 1/00** (2006.01)

CPC (source: EP)

**B41F 31/08** (2013.01); **B41F 31/20** (2013.01); **B41F 35/00** (2013.01); **F04B 43/0736** (2013.01); B41P 2231/20 (2013.01)

Citation (search report)

- [IY] US 4643124 A 19870217 - SWITALL THOMAS G [US]
- [IY] DE 10225681 A1 20040108 - WINDMOELLER & HOELSCHER [DE]
- [A] US 5003876 A 19910402 - HARRISON JOHN R [US], et al

Cited by

CN114643784A; US11724511B2; WO2021204748A1

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 3725527 A1 20201021**; **EP 3725527 B1 20220330**; ES 2913645 T3 20220603

DOCDB simple family (application)

**EP 19170390 A 20190419**; ES 19170390 T 20190419