

Title (en)

METHOD AND APPARATUS FOR CONTROLLING FLUID FLOW

Title (de)

VERFAHREN UND VORRICHTUNG ZUR STEUERUNG EINES FLÜSSIGKEITSFLUSSES

Title (fr)

MÉTHODE ET APPAREIL DE CONTRÔLE DE L'ÉCOULEMENT DE FLUIDE

Publication

**EP 2016286 A4 20120718 (EN)**

Application

**EP 07794396 A 20070427**

Priority

- US 2007010277 W 20070427
- US 41314306 A 20060427

Abstract (en)

[origin: US2007253832A1] A method and apparatus for controlling bi-directional fluid flow. The apparatus has a pump that operates in a continuous pump cycle having a pressure phase and a vacuum phase. A conduit connects a common pump port to a utility port. An electrically-controlled valve regulates air flow through the conduit. The valve operates between a first position isolating the pump and the utility port, and a second position connecting the pump and the utility port in fluid communication. A detector continuously detects and communicates a signal identifying whether the pump is operating in the pressure or vacuum phase of the pump cycle. A controller uses the detector signal to synchronize actuation of the valve with the pump cycle to generate either continuous positive or continuous negative pressure at the utility port.

IPC 8 full level

**F04B 17/00** (2006.01); **B01L 3/02** (2006.01); **F04B 43/00** (2006.01); **F04B 45/04** (2006.01); **F04B 45/047** (2006.01); **F04B 53/16** (2006.01)

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Citation (search report)

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- [XII] US 4475666 A 19841009 - BILBREY ROBERT A [US], et al
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- [XII] US 2004050861 A1 20040318 - LISEC THOMAS [DE], et al
- [X] WO 2005035126 A1 20050421 - HIRSCHMANN LABORGERAETE GMBH [DE], et al
- See references of WO 2007127389A2

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DE FR GB

DOCDB simple family (publication)

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