

Title (en)
Constant output pump.

Title (de)
Gleichstrompumpe.

Title (fr)
Pompe à débit constant.

Publication
EP 0386610 A1 19900912 (EN)

Application
EP 90103929 A 19900301

Priority
• US 32022789 A 19890307
• US 43486989 A 19891113

Abstract (en)
A volumetric pump (12) for a filtering system for dispensing into the system a predetermined constant amount of the liquid slurry over a period of time despite pressure variations at the pump outlet is disclosed. The pump (12) comprises an inlet (26) connected to a supply tank and a pair of pump housings (34, 36), each having a flexible diaphragm (40, 42) forming first and second chambers on opposite sides thereof within a housing. A link (44) extending between said housings interconnects the diaphragms (40, 42) so that they move together. A first check valve (50, 52) connected to one side of each housing (34, 36) and to said inlet (26) allows liquid to move into a first chamber of one of said housings (34, 36) when its diaphragm (40, 42) is moved in one direction and allows liquid into the first chamber of the other said housing (34, 36) when its diaphragm (40, 42) is moved in the opposite direction. A second check valve (56, 60) is connected on one side to the pump outlet (32) and on the other side to the first check valve (50, 52) and thus also to said one side of the diaphragm for each housing (34, 36). A valve (70) controls the supply of air pressure first to one side of one housing (34, 36) and then to one side of the other housing (34, 36) in alternating cycles for moving the diaphragms (40, 42) within their respective housings (34, 36) at a preselected periodic rate. A timer (78) controls the frequency of the alternating air pressure cycles so that the pump (12) will operate to meter a precise predetermined amount of liquid at its outlet (32) from the liquid supply tank over a period of time despite any variations in outlet back pressure.

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CPC (source: EP US)
F04B 43/0736 (2013.01 - EP US)

Citation (search report)
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