

Title (en)

Pump arrangement for pumping liquid by means of compressed air.

Title (de)

Pumpvorrichtung zum Pumpen von Flüssigkeit mittels Druckluft.

Title (fr)

Dispositif de pompage de liquide au moyen d'air comprimé.

Publication

EP 0410923 A1 19910130 (EN)

Application

EP 90610047 A 19900717

Priority

DK 365889 A 19890725

Abstract (en)

The pump arrangement has a pump chamber (1) with an inlet opening (2) and a discharge opening (3) to which is connected a discharge pipe (4). The inlet opening (2) is placed at a higher level than the discharge opening (3). To the inlet opening (2) is connected an inlet pipe (9) which is taken down to a level in the liquid where the pressure head (H) is higher than the pressure head (h) of the pump arrangement. When the pump chamber (1) is filled with liquid, air is supplied through a pipe (6) from a blower (7), whereby the liquid is forced out through the discharge pipe (4). Then the pump arrangement is aired when a valve (8) opens, thus supplying new liquid to the pump arrangement. The pump arrangement has no valves and has therefore free throughput in the whole of its length. It can therefore pump liquid containing larger impurities such as plastics bags, rope ends, etc. without choking. The pump can also be used for cleaning waste water of sludge. The effect consumption is lower than in known pumps.

IPC 1-7

F04F 1/06

IPC 8 full level

F04F 1/06 (2006.01)

CPC (source: EP)

F04F 1/06 (2013.01)

Citation (search report)

- [A] FR 2227448 A1 19741122 - ECODYNE CORP [US]
- [A] GB 245238 A 19260107 - SAMUEL HENRY ADAMS
- [A] DE 960250 C 19570321 - DIPL BERGING OTTO VEDDER
- [AD] FR 806643 A 19361221 - FLOTTMANNKONZERN G M B H
- [A] GB 241960 A 19251022 - CHARLES BATES, et al

Designated contracting state (EPC)

DE ES FR GB GR IT NL SE

DOCDB simple family (publication)

EP 0410923 A1 19910130; EP 0410923 B1 19930317; DE 69001104 D1 19930422; DE 69001104 T2 19931028; DK 162460 B 19911028; DK 162460 C 19920323; DK 365889 A 19910126; DK 365889 D0 19890725

DOCDB simple family (application)

EP 90610047 A 19900717; DE 69001104 T 19900717; DK 365889 A 19890725