

Title (en)
Double diaphragm pump

Title (de)
Doppelmembranpumpe

Title (fr)
Pompe à membrane double

Publication
EP 0942171 B1 20030702 (EN)

Application
EP 99201777 A 19970411

Priority
• EP 97302476 A 19970411
• US 1565096 P 19960412
• US 83723797 A 19970410

Abstract (en)
[origin: EP0942171A2] An air operated double diaphragm pump 10 is provided with an air valve assembly which allows the valve cup 38 to move in a rectangular pattern which greatly reduces the cost and number of parts required for such an air valve. The main housing 12 of the pump 10 is mounted on a fluid base 20 to which the lines of fluid are attached. This allows removal of the pump for servicing by undoing several basic fasteners such as nuts and bolts 18 without requiring removal of the fluid fittings to the base 20. Thus, in the event of a pump malfunction, the pump may be easily replaced while the fluid fittings remain intact. Provision is also made for additional passages 54, 56 into each air chamber 44, 46 for operation via an externally operated solenoid valve. A one-piece check valve 26 construction is utilised with the part having a central sealing disk 26A having a plurality of radially axially extending guide members 26B extending therefrom wherein each of the guide members has an outer diameter sized to slidably fit within a cylindrical cavity 28 and each of the guide members 26B having axially opposite the sealing disk 26A a plurality of spring loaded fingers 26D which serve to bias the check valve 26 into a closed position. <IMAGE>

IPC 1-7
F04B 43/073; F04B 9/135; F16K 15/02

IPC 8 full level
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