

Title (en)
Double-diaphragm pumps

Title (de)
Doppelmembranpumpe

Title (fr)
Pompe à membrane double

Publication
EP 1113174 A2 20010704 (EN)

Application
EP 00311302 A 20001218

Priority
GB 9930809 A 19991230

Abstract (en)
A double diaphragm pump comprises a pair of axially spaced apart pumping chambers (1,2), each chamber has a pumping diaphragm (3,4) to divide each chamber into an inner (5,6) and an outer compartment (7,8). The outer end of each pumping chamber is closed by a cover (9,10) and the inner ends of both pumping chambers (1,2) are closed by a central element (11). Connection cylinder (12) extend between the diaphragms (3,4) and through the central element (11). The supply (13) of operating fluid to the outer compartments (7,8) causes the diaphragms (3,4) to oscillate and vary the capacities of the inner compartments (5,6). Each of the inner compartments (5,6) has an inlet (14) and outlet port (15) leading to unidirectional valves (16,17) to allow fluid to be drawn into one of the compartments (5,6) when the appropriate diaphragm (3,4) moves outwardly and expelled from that compartment when the diaphragm moves inwardly. The central element has a unitary partition wall (20) which extends between and closes the inner ends of the inner compartments (5,6), said wall being substantially solid over a major portion of its area apart from a sealed aperture (21) to allow the connection cylinder (12) to pass through it and being enlarged at its outer periphery (22) to carry the inlet and outlet ports (14,15) which are located respectively at the lower and upper portions of the element (11). <IMAGE>

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CPC (source: EP US)
F04B 43/0736 (2013.01 - EP US); **F04B 53/08** (2013.01 - EP US)

Citation (applicant)
• EP 0181756 A1 19860521 - FLOTRONICS AG [CH]
• EP 0132913 A1 19850213 - FLOTRONICS AG [CH]

Cited by
CN107013442A; CN108506532A; GB2470348A; GB2470348B; US8469681B2; WO2010125328A1

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