

Title (en)
DIAPHRAGM MACHINE

Title (de)
MEMBRANMASCHINE

Title (fr)
MACHINE À MEMBRANES

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Application
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Abstract (en)
[origin: WO2011018394A1] The present invention relates to a multi-cylinder diaphragm machine having at least two hydraulically driven diaphragms, comprising: a drive unit (1) for generating at least two pulsed hydraulic fluid flows for driving the diaphragms, and a delivery unit (2) which serves for delivering a delivery medium and has at least two pump chambers, the volumes of which can be varied by the movement of in each case one diaphragm, wherein each delivery chamber is connected via a pressure valve to a pressure line and via a suction valve to a suction line. In order to provide a multi-cylinder diaphragm machine which eliminates or at least reduces the stated disadvantages, which is extremely compact and therefore of space-saving and material-saving design, which has high energy efficiency and a high degree of flexibility for adaptation to the conditions at the installation location, and with which it is simultaneously ensured that the individual diaphragms and valves can be mounted and dismantled in a simple manner, it is proposed according to the invention that the delivery unit is composed of a diaphragm body, in which the pressure line and suction line are arranged, and of at least two hydraulic bodies, wherein each hydraulic body is connected to the drive unit, wherein a cavity is formed between each hydraulic body and the diaphragm body, in which cavity one of the diaphragms is arranged such that, as a result of the generation of the pulsed hydraulic fluid flows, the diaphragms are moved within the cavities and a delivery medium is transported periodically from the suction line into the pressure line.

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