

Title (en)  
NATURALLY-ASPIRATED PUMP ASSEMBLY

Title (de)  
SELBSTANSAUGENDE PUMPENAGGREGATION

Title (fr)  
ENSEMBLE DE POMPES À AMORÇAGE AUTOMATIQUE

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Application  
**EP 08784638 A 20080705**

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Abstract (en)  
[origin: WO2009007075A2] The invention relates to a naturally-aspirated pump assembly which constitutes a series connection of a liquid ring pump, which operates as a rotating positive-displacement pump, and a normally-aspirated centrifugal pump, wherein the centrifugal pump has, in a housing which is provided with an inlet opening and a pressure pipe, a rotatably mounted shaft with a rotor, wherein an interior space which is delimited by a housing casing of the positive-displacement pump is connected by means of the inlet opening to a suction-side interior space of the centrifugal pump and a feed worm is arranged in the housing casing, which feed worm is fastened to the shaft which extends through the rotor and into the housing casing, and wherein a recirculation line is provided which directly or indirectly connects a pressure-side region of the centrifugal pump to the interior space. The invention refines the naturally-aspirated pump assembly of the generic type in such a way that the flow-related conditions for the flow of the liquid to and in the recirculation line are improved, the arrangement is of compact overall design and prefabrication of the recirculation line and its connecting points is provided. This is obtained in that the recirculation line (9) is connected at the centrifugal pump side by means of a first connecting point (9a) to a pressure-side interior space (3; 3\*, 3\*\*, 3a), which is connected downstream of the rotor (4) as viewed in the flow direction, within the housing (2.1/2.2).

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