

Title (en)
SYSTEM AND METHOD FOR DELIVERY OF GAS-SUPERSATURATED FLUIDS

Title (de)
VERFAHREN UND SYSTEM ZUR LIEFERUNG GASÜBERSÄTTIGTER FLUIDE

Title (fr)
SYSTEME ET PROCEDE DE DELIVRANCE DE FLUIDES SURSATURES EN GAZ

Publication
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Application
EP 98922038 A 19980416

Priority
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Abstract (en)
[origin: WO9846340A1] A system and method for delivering a gas-supersaturated fluid comprising a fluid reservoir (12), a fluid pump (14), a gas source (16), a high pressure gas exchanger (18), and one or more arrays of capillary channels (20) is disclosed. Suitable controls such as differential pressure gauge (22) and valves are provided to maintain a near constant hydrostatic pressure of the fluid within the semi-permeable membrane gas-fluid interface (26) of the gas exchanger at approximately 1 % to 20 % higher than the gas partial pressure of the fluid within the gas exchanger. Gas-supersaturated fluid output from the gas exchanger via the capillary channels is at a flow velocity of greater than 0.05 m/sec, thereby facilitating delivery of large flow rates of gas-supersaturated fluids without cavitation inception.

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