

Title (en)
HEAT EXCHANGER AND FLUID RESERVOIR

Title (de)
WÄRMETAUSCHER UND FLUIDBEHÄLTER

Title (fr)
ÉCHANGEUR DE CHALEUR ET RÉSERVOIR À FLUIDE

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Abstract (en)
[origin: US2006021745A1] Improved fluid reservoir designs providing for little or no dead volume or un-swept volume while providing efficient heat exchange are disclosed. Representative fluid reservoirs can have a serpentine flow passage with a cross-section selected such that fluid flow sweeps the entire cross-sectional volume while reducing or eliminating dead volume. The cross-sectional shape of the flow passage can be selected to have a larger surface contact with the cooling environment relative to circular cross-sections. The fluid reservoirs can be molded from two sheets of polymer material that are joined to form the fluid reservoir. Alternatively, the fluid reservoir can be formed from flexible polymer materials that are bonded along seams to demarcate a flow channel. Fluid reservoirs can be located either upstream or downstream of a filtering system to provide chilled filtered liquid. Fluid reservoirs can be associated with an appliance, such as a refrigerator. Methods of fabricating the fluid reservoirs are also disclosed.

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