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(54) Title: DEVICE FOR INCREASING FLOW CAPACITY OF A FLUID CHANNEL

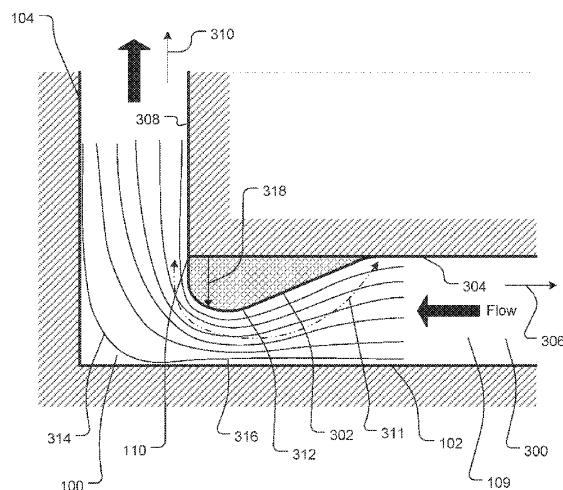


Fig. 3

(57) Abstract: A fairing (302), in the form of a contoured restriction, submerged on a fluid channel surface (304/308) of a fluid channel (300) through which liquid flows, re-distributes velocity fields and flow geometries upstream and in some embodiments downstream of a discontinuity (110), thereby preventing flow separation (207), reducing cavitation potential and increasing flow capacity. Such discontinuities (110) include, but are not limited to: joints, for example elbow joints (100), T-joints (1500) and Y-joints; valve-trims (1200); entrance regions to centrifugal pumps; and entrance regions to rotary valves, steps, reductions, expansions and ledges. The fairing (302) may be fitted into the channel (300) or integrally fabricated with the channel (300).

[Continued on next page]

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