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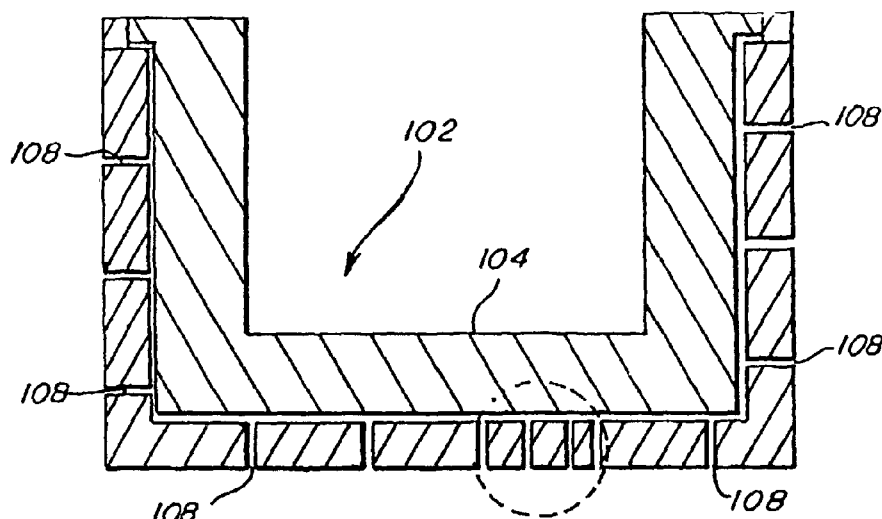
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(54) Title: PERFORMANCE POLYMER FILM INSERT MOLDING FOR FLUID CONTROL DEVICES



(57) Abstract: The present invention relates generally to a system and method for including a thin protective containment polymer film (100), such as Peek in the molding process for fluid processing devices utilized in the semiconductor processing industry. The thermoplastic film of predetermined size and shape is selectively placed along a shaping surface (110) in a mold cavity (106) for alignment with a desired target surface of a molded material. The molding processes causes a surface of the film (100) to bond to a contact surface of the moldable material such that the film (100) is permanently adhered to the moldable material. As a result, a comparable polymer film can be selectively bonded only to those target surfaces where performance characteristics such as abrasion resistance, heat resistance, chemical resistance, outgassing prevention, rigidity enhancement, fluid absorption prevention, ultraviolet resistance, friction reduction and the like is needed.



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