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(54) Title: DOWNHOLE FLUID FLOW CONTROL SYSTEM AND METHOD HAVING DIRECTION DEPENDENT FLOW RESISTANCE

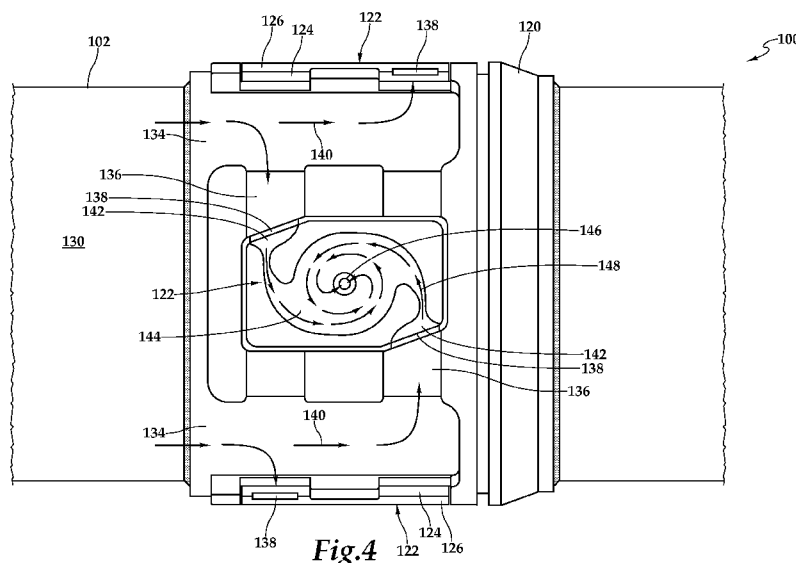


Fig.4

(57) Abstract: A downhole fluid flow control system (100). The flow control system (100) includes a flow control component (122) having direction dependent flow resistance created by a vortex chamber (144). Production fluids (140) that travel through the flow control component (122) in a first direction enter the vortex chamber (144) traveling primarily in a tangential direction (148) to experience a first pressure drop. Injection fluids (150) that travel through the flow control component (122) in a second direction enter the vortex chamber (144) traveling primarily in a radial direction (152) to experience a second pressure drop. The pressure drop created by the tangential flow (148) of the production fluids (140) is greater than the pressure drop created by the radial flow (152) of the injection fluids (150).





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