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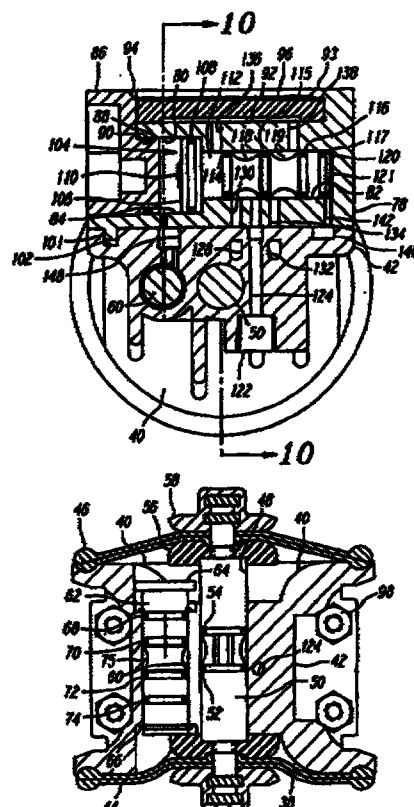
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(54) Title: AIR DRIVEN DIAPHRAGM PUMP**(57) Abstract**

A pump having a center section (36) including an air valve (76) is arranged with air chambers to either side of an actuator housing. Diaphragms are associated with the air chambers to create enclosed cavities. Pumping chambers are positioned outwardly of the diaphragms and formed by intake and exhaust manifolds (20, 22). The actuator uses a pilot shifting shaft (62) which is shuttled by movement of the diaphragms. An air valve is controlled by the shuttle shifting shaft to control flow to and from the air chambers. The passageways from the air chambers to exhaust find the passage to the outlet being at least as restrictive to air flow as the remainder of the passageways. A diffuser includes a thin space between two surfaces, one of the surfaces being part of a porous block (96) of material.



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