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(54) Title: **ENCAPSULATED VALVE SYSTEM**

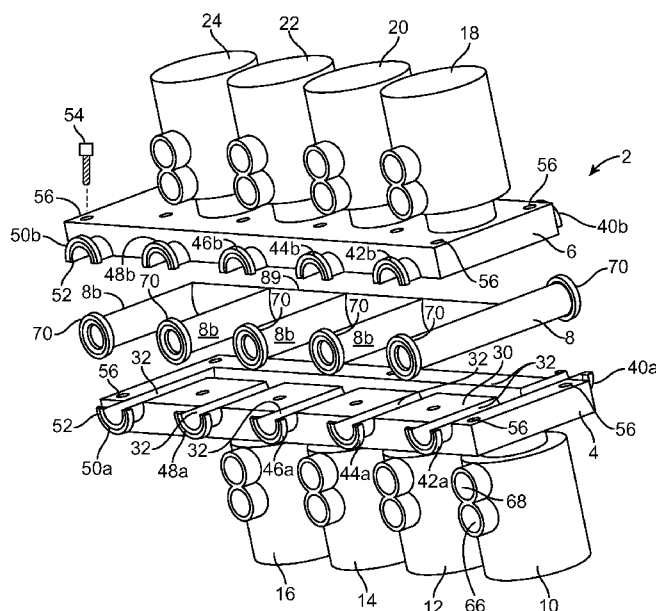


FIG. 1

(57) Abstract: An encapsulated valve system includes a first housing portion having a first facing surface, the first facing surface comprising a plurality of branch pathways formed as a recess within the first facing surface. The valve system further includes a second housing portion having a second facing surface, the second facing surface comprising a plurality of branch pathways formed as a recess within the second facing surface. A disposable conduit is configured to be interposed between the first and second housing portions and disposed within the recess of the first facing surface and the recess of the second facing surface. The disposable conduit is thus sandwiched between the first and second facing surfaces. A plurality of pinch valve actuators are mounted on one or both of the first housing portion and the second housing portion, the plurality of pinch valve actuators configured to pinch the disposable conduit at selective branch pathways.