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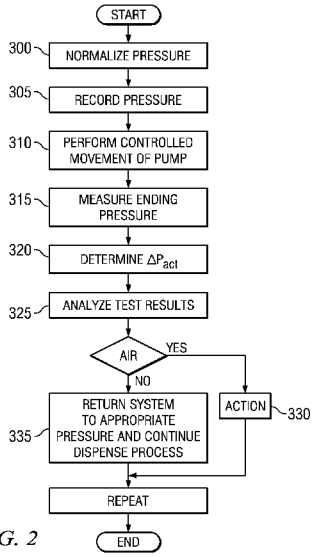


FIG. 2

(57) Abstract: Embodiments can detect air in a pumping system. A portion of the system may be isolated from other components located upstream or downstream. The isolated portion may include a chamber, tubing, lines, valves or other components of a pump. In one embodiment, the difference between the starting pressure and an ending pressure taken after a piston has moved a predetermined distance. The pressure difference can be compared with an expected value established for the particular system set up and/or fluid property to detect the presence of air in the system. In some embodiments, a distance between the starting and ending positions of a pump component may be determined after a predetermined pressure difference has been achieved. The distance can be compared with an expected distance to detect the presence of air in the system.

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