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(54) Title: SYSTEM AND METHOD FOR A VARIABLE HOME POSITION DISPENSE SYSTEM

(57) **Abstract:** Embodiments of the present invention provide a system and method for reducing the hold-up volume of a pump. More particularly, embodiments of the present invention provide a system and method for determining a home position to reduce hold-up volume at a dispense pump and/or a feed pump. The home position for the diaphragm can be selected such that the volume of the chamber at the dispense pump and/or feed pump contains sufficient fluid to perform the various steps of a dispense cycle while minimizing the hold-up volume. Additionally, the home position of the diaphragm can be selected to optimize the effective range of positive displacement.



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