

Controlled Liquid Dosing: Squeeze Dose

Market and Background

As the world continues to urbanize, the everyday use of soaps including hand soap, shampoo, conditioner, body wash, dish soap, and laundry soap, etc. will continue to rise. Additionally, the importance of hand hygiene is more apparent than ever following a global pandemic. According to Business Wire, the top-dispenser market will increase by more than 6% by 2026. Because of this increase in use, the soap dispenser is going to have to develop to become more user-friendly and ergonomic. One of the many problems that today's dispensers of hand soap and other liquid soaps have is portion control. Being able to have consistent control over the amount of soap that is dispensed will give users a better and more comfortable experience, and it will also allow users to save money as they won't be overusing their product.

Research and Development Status

University of Wisconsin – Platteville researchers have worked to develop a technology, the Squeeze Dose, that would provide a solution to the problem of dispensing uneven soap portions. The Squeeze Dose is designed to accurately dose soaps, shampoos, conditioners, and body washes. The container is originally closed via a spring holding a piston dumbbell against the lower hole. When the user squeezes the bottle, the piston dumbbell opens the lower hole and closes the upper hole. The liquid rapidly fills the dosing size, and is dispensed when the pressure is released. The dose size is regulated via screwing the upper hole up and down. A conceptual prototype of the Squeeze Dose has been developed; however, further optimization and testing is needed.

WiSys is seeking strategic partners for further optimization of the design for efficiency and manufacturing, followed by marketing, sales, and distribution.

Applications and Key Benefits

- The Squeeze Dose can be applied to a wide variety of liquid dispensers
- Provides efficient and ergonomic designs for liquid portion control
- Can be used on a wide variety of liquids, including soap
- Potential to save end users money, as it prevents consumers from overusing product
- Increased use of dispensers leading to an overall rise in the use of soap

Intellectual Property

A U.S. Patent has been issued for this technology. For more information, please contact licensing@wisys.org.