

Blog

Bag-on valve, what is it and what are the benefits?

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Bag-on valve technology is a key area of packaging expertise at LINDAL. Its popularity as a dispensing system continues to grow thanks to the sustainability, usability and flexibility advantages it offers products and applications across multiple sectors. In this blog, we look more closely at the unique benefits of BOV.

What is BOV and how does it work?

BOV is a form of barrier packaging used in aerosol dispensing solutions. It is a well-established aerosol system presenting an effective alternative to hydrocarbon-based dispensing. The active ingredient is contained separately inside a foil-based bag which is welded to a valve inside the can. Instead of using a liquified gas as a propellant inside the can, nitrogen or compressed gas fill the space between the bag and the can to establish pressure. The bag is filled directly through the valve and into the can, further increasing pack pressure. When the actuator is activated, the propellant expands, forcing the product out evenly.

BOV benefits

The concept behind BOV is relatively simple, yet there are ample benefits:

- **Improved sustainability**

As consumer interest in environmentally friendly packaging increases, market interest in BOV rises alongside it. In terms of material use, standard aluminium cans are typically used with BOV systems which means they are highly recyclable. Also, the use of compressed air prevents Volatile Organic Compounds being released into the atmosphere during dispensing, reducing the impact on both outdoor and indoor air pollution. In addition, the high

99% product excavation rate inherent in BOV technology means less product is wasted, a factor which also improves the value proposition for consumers.

- **Greater flexibility**

BOV can be used for multiple products in various markets. It is ideal for the healthcare industry as it can be used to dispense saline solutions and burn gels alike. It's also effective for homecare products like air fresheners and glass cleaners, plus industrial applications such as nail guns. In cosmetics and beauty, body lotions, deodorants, shaving gels and fine facial mist sprays can be effectively dispensed with BOV too. Its versatility in dispensing products of varying viscosities also makes it ideal for food industry products, from oil-based dressings and flavourings, to mousses and creams.

- **Increased brand opportunities**

As well as being sustainable and flexible, brands also have greater product scope. Because the formulation is isolated from the propellant and the atmosphere until it is dispensed, shelf life can be extended for oxygen-sensitive products, with no preservatives needed. This means dispensing options are opened up for products that otherwise may not have been compatible with aerosol packaging. Brands also have the choice of using varying can sizes, a range of different actuators and either male or female valves, providing significantly increased capacity for differentiation and design.

- **Positive user experience**

A defining feature of BOV is the effortless and very quiet, gentle spray it can produce. An example of this is our award-winning Enhanced Mist Technology (EMT); a two-part insert compatible with BOV and specifically designed to produce improved mist spray, this may be used for facial mists or air fresheners, for example. Consumers can also spray from multiple angles for convenience and because the formula is separate from the propellant there is reduced risk of product contamination.

With so many demonstrable benefits for brands, manufacturers and consumers it's easy to see why BOV is gaining traction as a sustainable packaging solution. If you'd like to learn more about barrier pack technology at LINDAL, [please get in touch](#) with our sales team.