

# Refill & Reuse



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*GreenSpense and Fillinfinite join forces to provide a reuse solution for the spray industry...*

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In the face of increasingly stringent regulations governing single-use packaging, suppliers of consumer goods and industrial products worldwide are actively seeking sustainable solutions to reduce their environmental impact.

Collaboration between GreenSpense and Fillinfinite has led to a solution that safely and conveniently allows individuals and professionals gas-free filling and refilling of continuous dispensers over and over again, in the comfort of their home, in the convenience of their office or perhaps at the point of sale. The system empowers individuals to refill continuous dispensers hassle-free and with a cost savings.

## The Partnership

The collaboration aims to tackle the growing concern of single-use packaging waste and offer a Greener and more practical alternative for consumers and businesses alike.

GreenSpense developed and manufactures the EcoDrive—proprietary, patent-protected, propellant-free, non-pressurized dispensers with continuous 360° diffusion for a variety of applications. The full-barrier Eco-Drive is compatible with a wide range of liquid and viscous formulations and enables customers to enjoy brand differentiation with a vast selection of designs, as well as sustainable packaging materials, including Post Consumer Recycled (PCR).

Fillinfinite developed and manufactures a proprietary, patent pending, desktop filling and refilling machine constructed of 100% recycled thermoplastic material in cooperation with Ecopixel.

## How it works

The propellant-free, desktop filling and re-filling system caters to a variety of applications. It centers on GreenSpense Eco-Drive refillable continuous dispensers, which do not contain compressed air or propellant gas of any kind and are safe to use in any environment, including home, office or retail point of sale. Eco-Drive dispensers can be easily replenished with a desired product, such as hair serum or conditioner, body lotion, disinfectant, olive oil, lubricant and many other liquids, while maintaining hygiene and product quality.

The Fillinfinite refilling machine is Internet of Things (IoT)-enabled and is designed for simple installation, maintenance and operation. It has mobile application activation and labeling and is safe, having been equipped with pressure and loading sensors and a fully controlled high-pressure pumping system. The machine can

be provided with Radio Frequency Identification (RFID) technology for the automatic identification and verification of the dispensers, and full control of product weight and filling time. It can also be equipped with a numerator that controls the refilling capacity and ensures that the machine is shut off when its maximum number of uses has been reached.

At home and at professional service centers, users can conveniently refill their dispensers using refill packs specifically designed for this purpose. The packs are environmentally friendly and cater to different needs. Additionally, retail shops can offer refilling stations, allowing customers to replenish their dispensers while shopping.

## Benefits for consumers

The technology brings several significant benefits for consumers. First, it helps eliminate the need for frequent single-use packages purchases, thereby reducing waste and environmental impact. Refill packs are designed to be cost-effective, offering long-term savings for individuals and families. The ease of refilling at home or through retail also helps save time and provides a smooth experience for users, encouraging widespread adoption.

## Implications for businesses

Sustainability factors and climate compliance have become a global imperative, placing companies under increasing scrutiny. For businesses operating in the aerosol market, incorporating GreenSpense and Fillinfinite technology may have several advantages. By offering refilling stations or selling refill dispensers, retail shops, salons, clinics, garages and other professional service providers can meet applicable regulation and achieve 3R (Recycle, Reduce, Reuse) goals and position themselves as environmentally conscious establishments, attracting eco-conscious customers. Moreover, the reduction in single-use packaging waste can contribute to a positive brand image and enhance customer loyalty.

Additionally, there are opportunities for businesses to explore new revenue streams through the sale of refill machines and dispensers, or by developing customized dispensers. Finally, the technology helps increase the sustainability of aerosol products and allows stakeholders in this challenging industry to develop reuse strategies that may be eligible for subsidies.

## Potential industry impact

GreenSpense refillable dispensers can help reduce greenhouse gas emissions. The impact of this technology can be extended to various markets, including personal care, household cleaning, food condiments and even pharmaceuticals. Organizations in the aerosol ecosystem may positively impact the Life Cycle Assessment (LCA) of current and/or future products and manufacturing processes without negatively impacting spray performance or requiring any changes to traditional production lines. By considering this solution, companies across sectors may contribute to a Greener future and address the global challenge of waste. **SPRAY**

