



## What is Vessl™?

Vessl™ is a patented closure and delivery device, which provides instant mixing of two ingredients immediately prior to use.

The system provides formulators and marketers with a unique opportunity to significantly increase and enhance the functional efficacy, dosing, mixing and sensory impact of their products.

**Problem** – Over time active ingredients may settle, separate, lose their efficacy and expire. In other cases, products require a complicated mixing process by the consumer, which is often time consuming, prone to error and messy.

**Solution** – By purging oxygen from headspace and preserving the active content under pressure of an inert gas such as nitrogen, Vessl™ reduces or prevents degradation and eliminates the need for chemical preservatives in perishable items. For chemical, medical and pharmaceutical applications, the precise dosing and instant mixing provided by Vessl™ eliminates complexity and allows for revolutionary packaging systems.

**Opportunity** – Applications include food, beverages, nutraceuticals, aeration, hygiene, hair care, pharmaceuticals, chemical and much more. Vessl™ can be customized to fit an array of base containers in a variety of design & aesthetic options.

**Differentiation** – There is no change in consumer behavior. Upon opening the container, Vessl™ automatically propels and instantly mixes a stream of active ingredients (vitamins, flavors, gases, serums, colors, etc.) into the base, providing an exciting visual display and confirmation to the user that they have activated their product.



**Vessl™ provides an exciting “Wow Factor” which serves as visual confirmation of functional, consumer and marketing claims.**



## FAQ:

### What are the advantages of using Vessl™?

- Requires no change in consumer behavior to activate
- Active ingredients retain freshness
- Improves product integrity
- Eliminates preservatives
- Prolongs product shelf life
- Provides instant mixing
- Assures accurate dosing
- Environmentally friendly

### Is Vessl™ compliant with food contact regulations?

- Yes. Vessl™ is internationally compliant and uses materials intended for food contact. (Data available upon request)

### What size of bottleneck or thread does Vessl™ require?

- The functionality of the closure is independent of the bottle or container and can therefore be adapted to fit a wide variety of standard and custom neck diameters and thread configurations.

### Can Vessl™ withstand sterilization?

- Yes. Vessl™ can be sterilized utilizing a variety of standard processes, including thermal, radiation or chemical treatments. The current production version can withstand sterilization up to 180° Fahrenheit or 80° Celsius.

### What volume of active ingredients can be stored in the Vessl™ chamber?

- The current production version has a 5.4ml chamber, and depending on the application it can contain between 1ml to 3.7ml of liquid ingredients. The size of the chamber can be significantly increased or reduced depending on the intended application.

### Is Vessl™ recyclable?

- Yes.

### Can customers have their own unique looking Vessl™?

- Yes. The exterior appearance of the Vessl can be customized, subject to technical limitations and minimum sales volume

### What is the cost of Vessl™?

- In order to accurately provide pricing for the Vessl™, we would need to determine:
  1. Depends on whether your interest is in the current production version of 28mm PCO 1810, or a new Vessl™ with a specific neck finish and thread dimension.
  2. Annual volume over the first three years.
  3. The size and chamber requirements of the closure.
- Standardization and volume are always key to efficient costs. We can discuss pricing options after thoroughly understanding your production needs.

### How do I fill and pressurize Vessl™?

- The Vessl™ team has the capability to either fill your product for application to the final container, provide full turnkey products or to provide the filling equipment needed for you to fill, pressurize and apply the closure in-house.

## Brands currently using Vessl™:

### Tea of a Kind™

- Non-GMO
- No Preservatives
- Antioxidants
- Gluten Free
- Vegan



### Nutriline™ Phyto2Go™

- Full turnkey manufactured product for Amway™ Nutrilite™
- Nutraceutical beverage packed with Vitamin C and Zinc for extra immune support
- Launched in 32 countries in one year
- Reusable bottle & “closure only” application



Following the successful launches of Tea of a Kind™ and Phyto2GO™, the stage is set for applications on new products within a wide variety of market verticals:



PCO 38mm, 10ml



Sport Cap Push Pull



Glass-ROPP



Twist Crown Cap



Coffee & Tea



Non-Alcoholic Beverages



Dairy



Beer, Wine, Spirits



Hair Coloring



Garden Chemical



Household & Industrial Chemical



Aeration