

# TECHNICAL SPECIFICATIONS

## The Vitop Standard Tap

The standard Vitop tap is suitable for a wide range of food applications including liquids such as wine, fruit juices, water and edible oils. The taps are generally used with Bag-in-Box (BIB) packaging but are also placed upon stand-up pouches or other containers.



### 1. Associations with Vitop Glands

Vitop offers two models of glands that can be used in association with the Vitop Standard Tap.

These are:

- **Vitop Standard Gland:** suitable for a wide range of liquids such as wine, fruit juices and water.
- **Vitop Gland for Aseptic Applications:** designed to resist high sterilization temperatures for a short period of time.

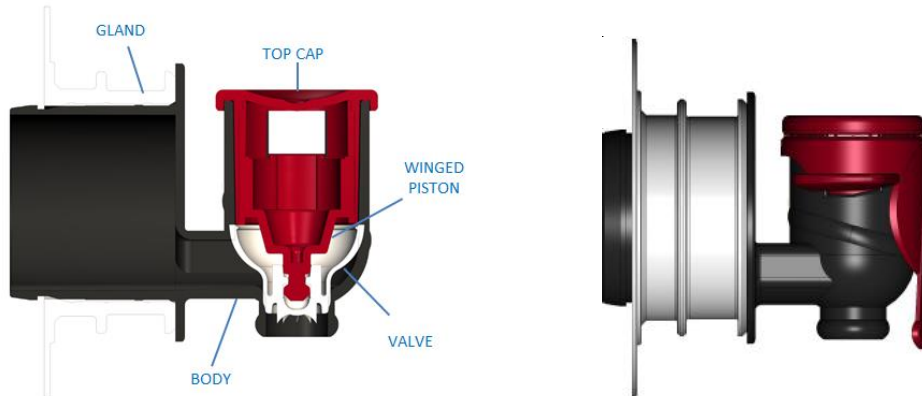
For further details please see our technical specification sheet issued for each Vitop Gland.

SUITABLE GLAND ASSOCIATION FOR THE VITOP STANDARD TAP	VITOP STANDARD GLAND	VITOP GLAND FOR ASEPTIC APPLICATIONS
		

### 2. Components and Materials

The Standard Vitop Tap is made of four components.

COMPONENT	MATERIAL
Body	Polypropylene (PP)
Top cap	Polypropylene (PP)
Winged Piston	Polyethylene (PE)
Valve	Thermoplastic elastomer (TPE)



### 3. Performance

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#### 3.1 Weight

The Standard Vitop Tap weighs about:  $10.2 \pm 0.2$  g.

#### 3.2 Colour

Currently colour options include, for the:

- **body:** black, white and translucent
- **winged piston and top cap:** red, orange, blue, green and black

#### 3.3 Leak proof

Each tap must undergo and pass a tightness test at a pressure of 0.4 bars and Vitop confirms that its standard tap remains tight to 0.5 bars when fully inserted in its gland.

#### 3.4 Oxygen permeability

The Vitop Standard Tap has a typical average Oxygen Transmission Rate of  $\approx 0.1$  cm<sup>3</sup> per day, 21% oxygen, 50% relative humidity, measured using a coulometric sensor at our production plant at room temperature ( $22^\circ \pm 2^\circ$  C).

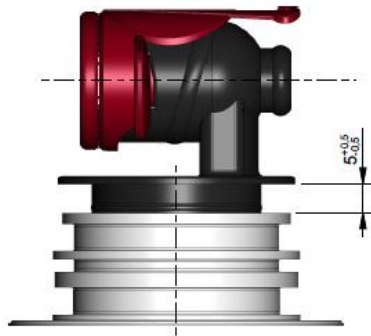
#### 3.5 Flow rate

4 L ( $\pm 0.5$  L) per minute, calculated from the flow rate of 1 L poured from a column of water with measurement taken between 1.5 and 0.5 L levels at room temperature ( $22^\circ \pm 2^\circ$  C).

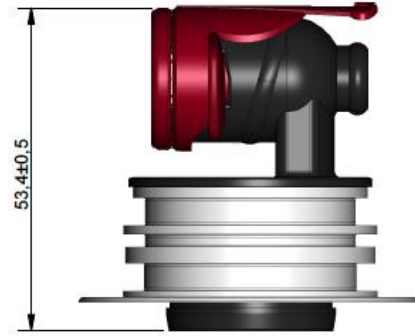
#### 3.6 Overall dimensions

Below is an image of the Vitop Standard Tap inserted into two Vitop Gland options. This shows the more common critical dimension necessary relative to filling machines.

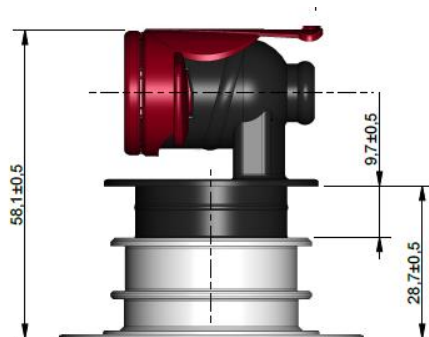
Typical dimensions provided for information purposes. Non-binding and not to be considered as part of our technical specifications.



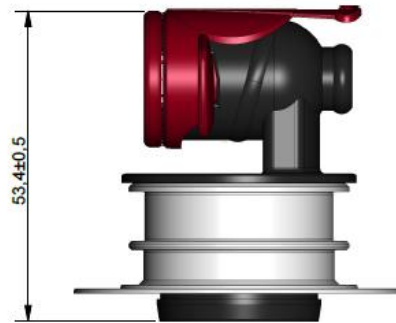
Tap inserted to 1.5 position with the Vitop Gland for aseptic applications



Vitop Tap inserted to second (final) position with the Vitop Gland for aseptic applications



Vitop Tap inserted to 1<sup>st</sup> position with the Vitop Standard Gland



Vitop Tap inserted to second (final) position with the Vitop Standard Gland

### 3.7 Resistance

The Vitop Standard Tap resists steam sterilization at 100°C for 2 seconds.

Given the complex set of product and process parameters at the filling level (that we cannot control), it is essential that customers first test our Vitop Standard Tap for a specific hot fill application (with their specific product and filling technology) before any commercial launch as we cannot guarantee suitability under all conditions.

We have been told however by many of our customers that there is no issue in filling with the Vitop Standard Tap at 80 to 85°C.

Please however also refer to the technical specification relative to the Gland used as its resistance may not be the same as for the Vitop Standard Tap.

After filling, once the bags have been inserted into the boxes, it is strongly recommended to store the bags with the taps facing upwards to reduce bending of the glands and reduce the risk of stress cracking, especially under high temperature.

The Standard Vitop tap is intended for food applications and we do not claim that it is suitable for chemicals.

Customers are always free to test the Standard Vitop tap for a new application (with their specific product and filling technology) over the expected shelf life but it is up to the customer and not Vitop to determine suitability.

Although we cannot furnish an exhaustive list of compatible or non-compatible chemicals, we would expect (based upon information supplied by the resin manufacturer for the valve and some limited information from the field) that the Standard Vitop tap is not compatible with aggressive chemicals such as Hydrogen Peroxide, Chlorine, high alcohol solutions, Chloroform, Trichloroethylene, Tetrachloroethylene, Ethyl Acetate, Diethyl ether, Calcium chloride or Ammonium hydroxide. Many other chemicals may also not be suitable depending on use conditions and targeted shelf life.

## 4. Food contact and other statements

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The Vitop Standard Tap meets EU and FDA food contact requirements for such liquids as wine, fruit juice, water.

Specific statements for food contact, as well as for REACH, heavy metals and the environment, are provided by Vitop on request.

## 5. Packaging

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The Vitop Standard Tap: 1 000 units per box.

Vitop Standard Taps are packed and sent to the customers by truck on pallets of 24 cardboard boxes or by shipping container with 30 boxes per pallet.

Each cardboard box is identified with a proper label and with an identification code that includes the traceability code.

In order to guarantee a correct traceability system, the traceability code must be recorded by bag manufacturers in their production records. Vitop's code must be retrievable when identifying a specific batch of bags with the traceability code used by the bag manufacturer.

## 6. Storage specification and shelf-life

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Store Vitop Standard Taps only in the original boxes and keep them sealed until use.

In order to prevent damage to the taps or box, no pallet should be stacked on another one.

The temperature of the zone where the taps are stocked shall be over 4°C and less than 30°C with relative humidity under 75%. This storage area should be in an inside room that is dry, clean and exempt from odorous or poisonous compounds that could potentially contaminate our product.

Vitop Standard Taps however should be brought to the temperature and humidity conditions prevailing in the room where they are to be converted into finished packages prior to any conversion. Special care should be taken to avoid microbiological or chemical contamination of our products during the various steps involved in incorporating them into containers.

Vitop suggests to use FIFO stock management.

The period of delivery of the taps by Vitop and their installation on the container by the manufacturer shall not exceed one year. Also, the period between delivery of the taps by Vitop to the container manufacturer and their use by the final consumer must not exceed two and half years.

## 7. Filling and fitting information

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Filling centers are provided with Bag-in-Box or Stand-Up Pouch containers with the taps partially inserted in the gland.

Depending on the version on the gland, the taps may be placed in a first (preset) position (Vitop Standard Gland) or in an intermediary (1.5) position (Vitop Gland for Aseptic Applications) with the height being determined by the position of the Vitop gland's inner grooves and oriented inside the gland according to the client's requirements.

On inserting the tap inside the gland, the tap must be centered to prevent any damage to either part.

Additionally, in order to prevent damage to the tap during uncapping and insertion, Vitop recommends to pull up and to push down on the round back-plate of the body rather than on the top of the tap.



On uncapping the tap from the gland pull up on the round back-plate of the body



On inserting the tap inside the gland push down on the round back-plate of the body

Vitop suggests to keep pallets in the production department at least 24 hours in advance to make sure that operations with Vitop taps and glands will be carried out at room temperature ( $22^{\circ} \pm 2^{\circ}\text{C}$ ).

## 8. Reference certification

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Vitop has adopted an appropriate Quality System and internal procedure certified by:

- **UNI EN ISO 9001** (Quality Management System)
- **UNI EN ISO 22000** (Food Safety Management)

## 9. Responsibility

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The information provided above is supplied in good faith and it does not comprise a guarantee or warranty of any kind either expressed or implied. This data should be considered as average typical properties observed rather than a guaranteed specification.

It is the customer's responsibility to test the suitability of these products for its specific application.

Vitop cannot be considered responsible for any improper use of its products by the buyer and/or the final consumer and assumes no liability for any incidents that may arise from the use of this data.

As the regulations and products mentioned in this statement change over time, Vitop advises its customers to ask for a new declaration periodically.

Food contact compliance letters are available upon request.

It is the responsibility of the end user to assure compliance with any packaging regulations applicable to the end use for which the product is manufactured.

This declaration cancels any previous version.