

## TECHNICAL SPECIFICATIONS

# The Vitop Compact Spout

The Vitop Compact Spout is designed to be associated to the Vitop Compact tap. The Vitop Compact Spout is suitable for a wide range of food applications and to be in contact with many liquids such as wine, fruit juices, water and pure olive oils.



### 1. Associations with Vitop Taps

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Vitop offers two models of taps that can be used in association with the Vitop Compact Spout.

These taps are:



**Vitop Compact Tap:** suitable for a wide range of applications including standard fill temperatures and hot fill and many liquids such as wine, fruit juices, water and olive oils. Vitop Compact tap is available also with an additional foil seal over the pouring hole of the tap. The taps are generally used with Bag-in-Box (BIB) packaging.



**Vitop Uno Compact Tap:** as the Vitop Compact tap, is suitable for a wide range of applications including standard fill temperatures and hot fill and many liquids such as wine, fruit juices, water and olive oils. Vitop Uno Compact Tap is available also with an additional foil seal over the pouring hole of the tap. The taps are generally used with Bag-in-Box (BIB) packaging but are also placed upon stand-up pouches (SUP) and other containers.

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

### 2. Composition

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The Vitop Compact Spout is made of PE (polyethylene).

### 3. Performance

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#### 3.1 Weight

The Vitop Compact tap weighs about:  $3.6 \pm 0.2$  g.

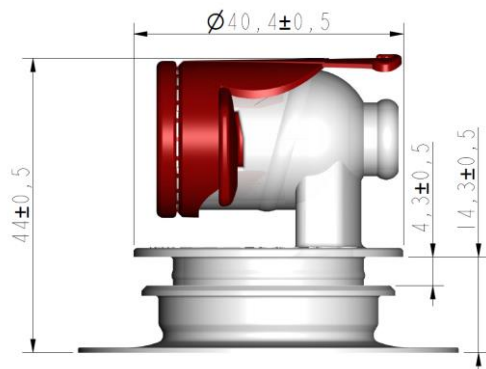
#### 3.2 Colour

The Vitop Compact Spout is translucent (natural).

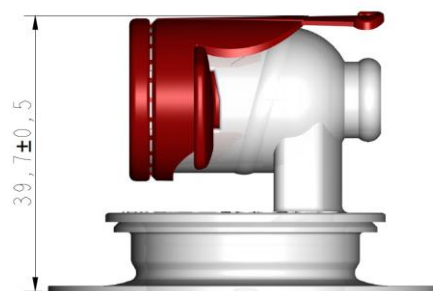
### 3.3 Overall dimensions

Below are images of the Vitop Compact tap and Vitop Uno Compact tap inserted into the Vitop Compact Spout (the images are valid also for the Vitop Compact tap and the Vitop Uno Compact tap with foil). This shows the more common critical dimension necessary relative to filling machines.

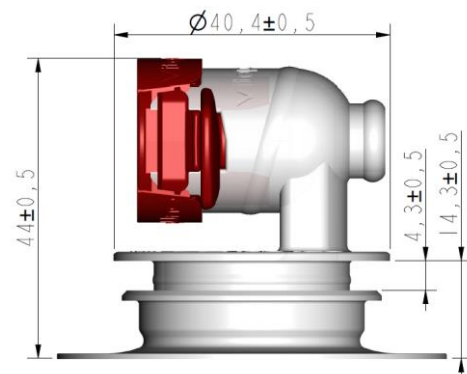
Typical dimensions provided for information purposes. Non-binding and not to be considered as part of our technical specifications.



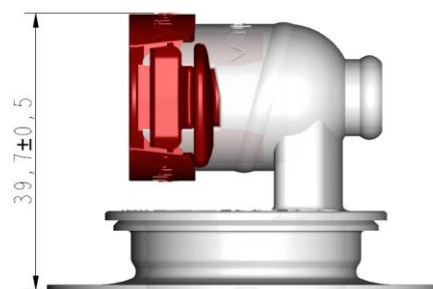
Vitop Compact tap inserted to pre-assembled position with the Vitop Compact Spout.



Vitop Compact tap inserted to assembled (final) position with the Vitop Compact Spout.



Vitop Uno Compact tap inserted to pre-assembled position with the Vitop Compact Spout.



Vitop Uno Compact tap inserted to assembled (final) position with the Vitop Compact Spout.

### 3.4 Force to insert and remove Vitop taps from the Vitop Compact Spout

| Position                    | Description                                                                         | Force's value [Kg] |
|-----------------------------|-------------------------------------------------------------------------------------|--------------------|
| Capping<br>Pre-assembled    | Force to insert the Vitop tap up to the pre-assembled position into the Vitop Spout | 20 - 30            |
| Uncapping<br>Pre-assembled  | Force to remove the Vitop tap from the pre-assembled position into the Vitop Spout  | 5 - 20             |
| Capping<br>Final position   | Force to insert the Vitop tap up to the final position into the Vitop Spout         | 30 - 50            |
| Uncapping<br>Final position | Force to remove the Vitop tap from the final position into the Vitop Spout          | 30 - 50            |

These values were obtained by Vitop at room temperature ( $22 \pm 1^\circ\text{C}$ ), with an insertion/removal speed of 5 mm/s.  
For conversion to other units of force:  $1 \text{ N} \equiv 1 \text{ kg} \times \text{m/s}^2 = 105 \text{ dyn} \approx 0.10197 \text{ kgf}$ .

### 3.5 Resistance

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 Compact Spout 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.

For information, we have been told that, generally (under most conditions) by our:

- Apple Juice customers that they have no stress-crack issues with our gland as long as the fill temperatures do not exceed 85°C and they adopt good hot filling and storage practices. Bags must be cooled down after filling and stored with the taps facing upwards to reduce bending of the glands and reduce the mechanical risk of stress cracking under high temperature. During the cooling (down to around 30°C), it is compulsory to store the filled bags with the tap of the top of the box. Once the bags have been inserted into the boxes, it is recommended to let boxes opened to accelerate the cooling.
- Sangria customers that (because of the alcohol and possible aromatic compounds) the maximum fill temperature should be lower (for example at 65°C).

For additional information relative to temperature resistance or other questions please contact us.

## 4. Food contact and other statements

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The Vitop Compact Spout meets EU and FDA food contact requirements; specific statements for food contact are provided by Vitop on request.

In case of other food requirements are necessary is mandatory to require them before any commercial launch as Vitop cannot guarantee compliance under all conditions.

## 5. Packaging

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Units per box: 2 500 Vitop Compact Spouts.

Pallets:

- 24 cardboard boxes (60 000 Spouts in total) – Dimensions 80 x 120 x 230 cm
- 30 cardboard boxes (75 000 Spouts in total) – Dimensions 100 x 120 x 230 cm

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 Compact Spouts only in the original boxes and keep them sealed until use.

In order to prevent damage to the spouts or box, no pallet should be stacked on another one, except for a short period of time (example: transport not exceeding 48 hours).

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.

The Vitop Compact Spouts 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 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.

The taps are placed in a first (preset) position with the height being determined by the position of the Vitop spout'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.

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

## 8. 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.