

## Guidelines for a proper use of SUPERCAP®

### PREMISE

Given the wide variations in wine types, production methods and bottling procedures, we strongly recommend the use of SUPERCAP® closures only after proper, comprehensive trialling on the customer's part. The guideline information contained below is the result of the extensive experience Supercap Srl has in this area of winemaking. Each winemaker may need to slightly adjust their bottling operating parameters according to the type of wine being made, the equipment used, the local climate and varying elements relating to warehousing, bottling and shipping.

### STORAGE

- 1 - Keep Supercap's packaging sealed right up to the moment of usage. Corks should be stored at an ambient temperature of between 12°C and 28°C in a clean, dry place away from cork-based products.
- 2 - SUPERCAP® products should be used before the use-before date which is printed on every product pack (day-month-year). Should the use-before date expire before the product is used then, upon agreement with Supercap Srl, the pack can be returned to our company for evaluation and, if necessary, re-treating (please contact our head office for more information).
- 3 - Part-used packages should be carefully re-sealed and kept in a secure environment (see note 1).

### BOTTLING GUIDELINES

- 4 - To avoid the risk of premature oxidation, before bottling the dissolved oxygen in the tank should be less than 1 ppm.
- 5 - Existing bottling regulations should be checked as should the operational guidelines set down by the bottle manufacturer/supplier.
- 6 - The part of the bottling equipment that comes into contact with SUPERCAP® closure should be thoroughly cleaned so that no trace of cork or cork dust remains.

- 7 - If you use heated jaws, check that they are turned off and in room temperature.
- 8 - Pull out SUPERCAP® from the protective polyethylene sack and load the corking-machine hopper (to avoid the contact of SUPERCAP® with dust, carry out this operation just before starting the bottling).
- 9 - The jaws of the bottling line should be periodically examined, sliding some corks in vane: if they are mis-aligned or damaged they may cause scorings on the surface of the closure.
- 10 - As the cork passes the jaws' vice, it should not meet any obstruction in the conical support side of the bottle (e.g. jaws 16mm, hole diameter 16,5 mm).
- 11 - The pusher diameter should not be smaller than 13,5 mm. The best results are obtained with a 15 mm diameter pusher and a 16 mm diameter vice. Where possible, substitute the pusher and the jaws.

## FILL LEVELS CHECK

Bottling lines using inert gas “bottle-washing” and vacuum system in the space of the head are recommended.

12 - Wine temperature during bottling should range from 15°C to 22°C.

NOTICE: Bottling at a temperature lower than 20°C involves wine expansion as the temperature increases.

13 - The depressant should be set to maintain pressure inside the bottle neck as neutral as possible (measured at 20°C). Pressure recommended: MAX 3 PSI / MIN 3 PSI (negative). Headspace pressure should be regularly monitored while bottling. A pressure gauge APHROMETER/VACUUM GAUGE is recommended, better with a corkscrew piercing corks. (NOTICE: in the first 4-5 hours after bottling the cork, still not settled, may turn and/or move inside the bottle neck).

## FILL LEVELS

14 - Filling levels should respect the regulation in force, complying the bottle manufacturer's technical specifications. We also recommend to adopt a closure that ensures about 16 – 20 mm of empty space between the stopper and the wine level.

## CO<sup>2</sup> LEVELS – RESIDUAL SUGAR LEVELS

SUPERCAP® is recommended for still wines. Please consider the following indications:

- 2100 ppm of CO<sup>2</sup> produce 3 PSI of internal pressure at 16°C.
- If you wish to use SUPERCAP® with wines having residual sugar level at 2% and CO<sup>2</sup> exceeding 1800 ppm, we recommend a trial bottling, examining bottles in the next 48 hours and verifying the perfect cork sealing (please contact our head office for more information).

## SO<sup>2</sup> LEVELS

SO<sup>2</sup> levels are variable, they may change according to wine typology, storage conditions and winemaker preferences. Every winery should control SO<sup>2</sup> levels to obtain the desired results, as for any kind of closure in commerce.

Please contact our head office for further information about SO<sup>2</sup> levels related to the type of wine produced.

ONLY WHEN A VACUUM SYSTEM CORKING MACHINE IS NOT AVAILABLE, THE FOLLOWING INSTRUCTIONS ARE RECOMMENDED.

- 15 - SUPERCAP® owns a higher elasticity and impermeability to oxygen than traditional corks, this allows:
- Quicker bottle sealing
  - A greater pressure in the neck of the bottles, due to the minor overflow of air while bottling. In the event that the filling level should not be well calculated, the cork might undergo a lifting from the top of the bottle. In any case we recommend to keep bottles at a constant temperature for 48 – 72 hours after corking.
  - A greater quantity of oxygen in the head space, between the cork and the wine level. This phenomenon, in the first months of permanence of the wine in the bottle, leads to a reduction of 25 – 30% of SO<sup>2</sup> initial levels. A premature ageing may happen due to the low antioxidant power of the free sulphurous, fallen at its minimum levels. We recommend to increase the initial levels of SO<sup>2</sup> to balance this reduction, caused by the oxygen present in the bottle neck.

## STORAGE

- 16 - After bottling, bottles can be arranged horizontally (no unexpected overflow), or vertically (corks don't need to be moistened).
- 17 - SUPERCAP® closures reach their optimum performance level some 48 -72 hours after bottling. Verify that the bottles are not exposed to excessive temperature swings during this period.

## CONSERVATION AND SHIPPING OF WINE

- 18 - It is generally recommended that the wine should be stored at a constant temperature which should not exceed 20°C.
- 19 - During shipping, never expose the wine at high temperatures for a long time.

## Guidelines for a proper use of SUPERCAP® C champagne corks

Given the wide variations in wine types, production methods and bottling procedures, we strongly recommend the use of SUPERCAP® C closures only after proper, comprehensive trialling on the customer's part. The guideline information contained below is the result of the extensive experience Supercap Srl has in this area of winemaking. Each winemaker may need to slightly adjust their bottling operating parameters according to the type of wine being made, the equipment used, the local climate and varying elements relating to warehousing, bottling and shipping.

### STORAGE

- 1 - SUPERCAP® C closures are packaged in heat-sealed polyethylene bags in a CO<sub>2</sub> enhanced environment. These bags should be kept sealed right up to the moment of usage. The corks should be stored at an ambient temperature of between 12°C and 28°C in a clean, dry place away from cork-based products.
- 2 - SUPERCAP® C should be used before the use-before date which is printed on every product pack (day-month-year). Should the use-before date expire before the product is used then, upon agreement with Supercap Srl, the pack can be returned to your nearest distributor for evaluation and, if necessary, re-treating (please contact our head office for more information).
- 3 - Part-used packages should be carefully re-sealed and kept in a secure environment (see note 1).

### BOTTLING GUIDELINES

- 4 - Before starting the bottling line, existing bottling regulations should be checked as should the operational guidelines set down by the bottle manufacturer/supplier.
- 5 - Check the fill level against the recommended level, which can be found on the lower part of the bottle.
- 6 - The part of the bottling equipment that comes into contact with the SUPERCAP® C closure should be thoroughly cleaned so that no trace of cork or cork dust remains.
- 7 - The jaws on the bottling line should be periodically examined; if they are mis-aligned or damaged they may cause scorings on the surface of the closure.

- 8 - SUPERCAP® C has been designed to make the traditional bottling procedure easier. The closure is perfectly symmetrical prior to bottling and adopts the characteristic mushroom shape only after insertion. NOTICE: If using the C1 closure with one bevelled end then a dedicated feeder should be used.
- 9 - Check that the jaw height is not greater than 45mm. Run SUPERCAP® C closure through the bottling line WITHOUT A BOTTLE and check that in the compression phase the closure does not protrude from the lower part of the jaws.

If SUPERCAP® C closure is not held by the jaws, please contact our head office.

THE JAWS MUST BE REGULARLY CHECKED TO ENSURE THAT THEY ARE WORKING CORRECTLY.

- 10 - Check that the diameter of the pusher is not smaller than 13.5 mm.
- 11 - Check that the pusher is in line when the jaws close and that the pusher centres the base of the SUPERCAP® C closure.
- 12 - Adjust the pusher so that the part of the closure inserted in the bottle has an height of 20mm, and as a result the portion that stands outside the bottle neck is equal to 20mm.
- 13 - A metal cage should be applied around the closure.
- 14 - After the bottling process is completed bottles can be stored upright, inclined or on their sides.
- 15 - SUPERCAP® C closures reach their optimum performance level some 48-72 hours after bottling. Ensure that the bottles are not subjected to excessive temperature swings during this period.

### CONSERVATION AND SHIPPING OF WINE

- 16 - It is generally recommended that the wine should be stored at a constant temperature which should not exceed 20°C
- 17 - During shipping, never expose the wine at high temperatures for a long time.

For further information please contact our offices.

## Guidelines for a proper use of SUPERCAP® T

### STORAGE AND CONSERVATION

- 1 - Keep boxes sealed until the time of use. Please preserve stoppers at a temperature between 12°C and 28°C, in a clean and dry place, away from natural cork products. Please take the stoppers to a 18°C temperature, at least 48 hours before bottling.
- 2 - The stock of the products must be used within the expiry date (USE BEFORE), when indicated on the label of each package. After the best before date, in accordance with SUPERCAP Srl, the material can be returned to the company in order to be controlled, and where possible, bring back to its original specifications (please contact our offices).
- 3 - Partially used boxes must be resealed and stored in appropriate cartons, in a clean and dry place, away from natural cork products.
- 4 - Clean carefully the hopper of the capping machine from dust or any residue of previous productions. Pull out SUPERCAP from the polyethylene protection bag and load the hopper of the capping machine. (To avoid the contact of SUPERCAP with any powder do this only just before starting with the bottling).
- 5 - Check the correct set-up of the guide that leads the cap to the pusher, making some caps going around in circles. It is necessary at least a tolerance of +1.5 mm. compared to the diameter and height of the stopper.

### FILLING LEVEL CONTROL

- 6 - It is recommended to maintain the filling level to the minimum limit set by the filling specification of the bottle used. IMPORTANT!! In case of bottling at temperatures below 20°C, it is necessary to calculate the exact filling level considering that the volume of the liquid increases with the temperature raise.

- 7 - SUPERCAP® owns a higher elasticity and impermeability to oxygen than traditional corks, and this allows:
  - better bottle sealing
  - a minor wine oxydation, constant ageing from bottle to bottle
  - higher pressure inside the bottle neck, due to the minor air overflow during the bottling, and also during the growth of the filling level when temperature changes; that event might cause, in some cases, the lifting of the cap from the bottle mouth, particularly if the filling level has not been calculated properly. (see note 6)

WE RECOMMEND TO AVOID TO SUBMIT THE BOTTLES TO ANY RELEVANT TEMPERATURE SHOCK, IN PARTICULAR DURING THE FIRST 48 HOURS AFTER THE BOTTLING. IT IS ALSO RECOMMENDED TO PROTECT THE CLOSING WITH A SHRINK-CAPSULE IMMEDIATELY AFTER INSERTING THE STOPPER.

After the first uncorking, the pressure inside the bottle decreases.

- 8 - For the ALUMINIUM TOP and CRYSTAL TOP versions we suggest to handle the boxes carefully. We recommend to fill the corking-machine hopper of the bottling line at the minimum, so to avoid the deformation of the heads or scratches in the heads surface.

SUPERCAP® is resistant to any mould and parasites, DOES NOT ALTER THE TASTE OF YOUR PRODUCT.

For any further information please contact our offices.

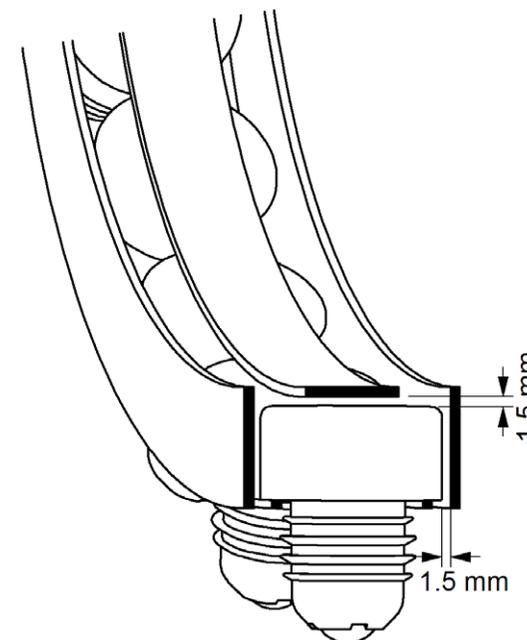
## Guidelines for a proper use of SUPERCAP®T No-Refill® Tech

SUPERCAP No-Refill® Tech is a new generation stopper, made of innovative materials. Its shape has been specially designed to be applied with a normal capping machine, just following all the advices listed in this guide. For a successful bottling, it is important that each point must be verified prior to start the action of the line.

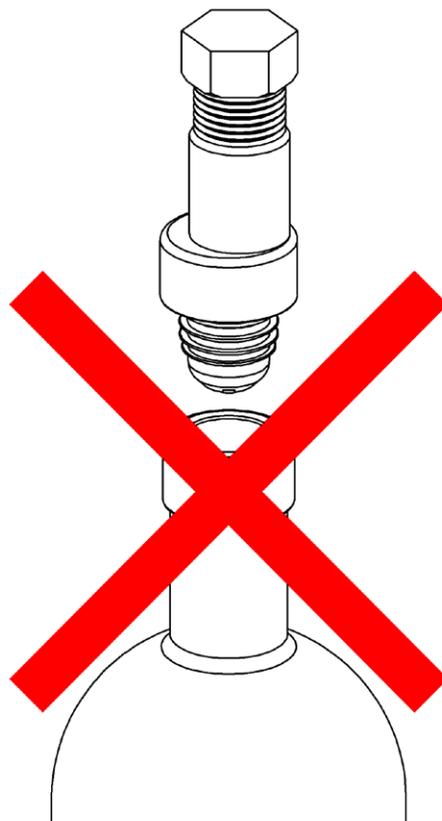
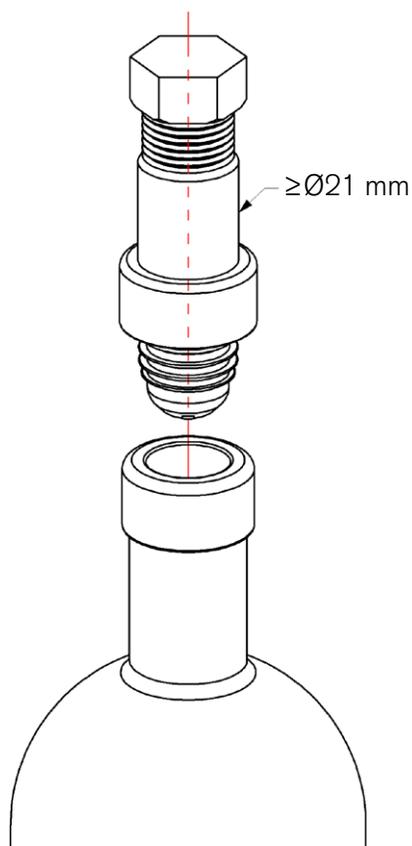
### STORAGE AND CONSERVATION

- 1 - Keep boxes sealed until the time of use. Please preserve stoppers at a temperature between 12°C and 28°C, in a clean and dry place, away from natural cork products. Please take the stoppers to a 18°C temperature, at least 48 hours before bottling.
- 2 - The stock of the products must be used within the expiry date (USE BEFORE), when indicated on the label of each package. After the best before date, in accordance with SUPERCAP Srl, the material can be returned to the company in order to be controlled, and where possible, bring back to its original specifications (please contact our offices).
- 3 - Partially used boxes must be resealed and stored in appropriate cartons, in a clean and dry place, away from natural cork products.
- 4 - Clean carefully the hopper of the capping machine from dust or any residue of previous productions. Pull out SUPERCAP No-Refill® from the polyethylene protection bag and load the hopper of the capping machine. (To avoid the contact of SUPERCAP No-Refill® with any powder do this only just before starting with the bottling). For all CRYSTAL and ALUMINUM HEAD versions we suggest to move the boxes carefully. In particular, it is recommended to fill the hoppers of the bottling plants to the minimum, in order to prevent any deformation or scratch of the tops.

- 5 - Check the correct set-up of the guide that leads the cap to the pusher, making some caps going around in circles. It is necessary at least a tolerance of +1.5 mm. compared to the diameter and height of the stopper.



- 6 - Make sure that the stamp has a diameter of 21 mm or bigger. The pusher must be adjusted in order to work perfectly in the center of the stopper head and the center of the bottle neck.



Supercap No-Refill<sup>®</sup> is NOT lubricated like the most common T – stoppers. WE RECOMMEND to wash the bottle neck before filling in order to facilitate the insertion of the stopper.

**A thrust force equal to 65/75 Newton is required for a proper insertion of the stopper**

7 - FILLING LEVEL CONTROL

It is recommended to maintain the filling level to the minimum limit set by the filling specification of the bottle used.

IMPORTANT!! In case of bottling at temperatures below 20°C, it is necessary to calculate the exact filling level considering that the volume of the liquid increases with the temperature raise.

WE RECOMMEND TO AVOID TO SUBMIT THE BOTTLES TO ANY RELEVANT TEMPERATURE SHOCK, IN PARTICULAR DURING THE FIRST 48 HOURS AFTER THE BOTTLING. IT IS ALSO RECOMMENDED TO PROTECT THE CLOSING WITH A SHRINK-CAPSULE IMMEDIATELY AFTER INSERTING THE STOPPER.

SUPERCAP<sup>®</sup> No-Refill<sup>®</sup> is resistant to any mould and parasites, DOES NOT ALTER THE TASTE OF YOUR PRODUCT.

For any further information please contact our offices.