

TWIST OFF CAP APPLICATION GUIDE

GUIDE INTENDED FOR HAND APPLICATION

Silgan White Cap's world famous Twist Off is a versatile vacuum-holding metal lug closure . A quarter of a turn seals , removes and reseals it . It is air tight and liquid tight prolonging the shelf life of the product.

Whilst the bulk of Twist Off caps are applied by machine it is possible to hand apply successfully . However , particular care must be taken as follows :



DO NOT OVER TWIST

DO NOT CROSS THREAD

APPLY CAP IMMEDIATELY AFTER FILLING

DO NOT OVERFILL JAR /BOTTLE

THE FOLLOWING GUIDELINES SHOULD BE OBSERVED:

- 1) Filling – in order to allow space to create a vacuum do not fill the jar / bottle to within 5 % of the overflow (95 % of the volume) or approximately 10 mm from the rim .



Cross Threaded/Cocked cap. Lug not engaged in the thread

- 2) Capping – pre heat the cap if possible and in particular if cold fill . Do not overheat the cap , maximum 60 c. This softens the sealing compound which takes the pressure off the lugs and makes for a better seal . Apply cap finger tight taking care not to cross thread and ensuring the cap lugs are engaged in the glass thread . Once finger tight apply torque (pressure) by $\frac{1}{4}$ to $\frac{1}{2}$ of an inch or 7 to 12 mm . The amount of torque applied is probably the most important aspect of Twist Off cap application as this can be the difference between achieving a good vacuum , i.e. a perfect seal , and a loss of vacuum which can lead to mould , caps coming off if subjected to shock , etc. Over tightening can also lead to high torque removal problems .Please remember this is not a screw cap and must not be over tightened .



Picture shows over tightened cap causing lugs to bend.



Finger Tight

Apply Torque (Pressure.)

THE TWO METHODS OF CHECKING TORQUE ARE AS FOLLOWS:

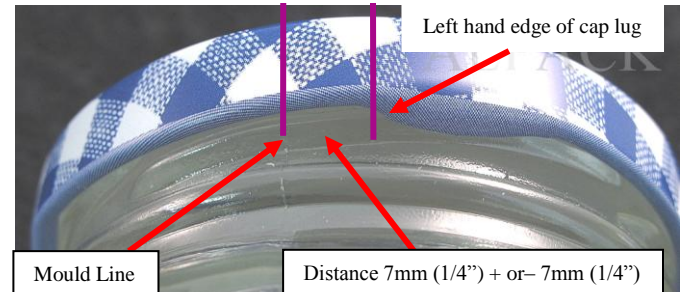
- 1) Tilt the jar on its side and observe the position of the cap lug on the glass thread . Ideally this should be approximately a third of the way down the thread . Beyond half way will start to stretch the lug causing the cap to ring and a loss of vacuum . Too little torque could lead to the cap coming off if subjected to shock .
- 2) Take the mould line on the glass jar / bottle as a reference line , this will always be in the same position on the rim of the thread . To make identification easier mark the line with a felt tipped pen . Likewise with a felt tipped pen mark the left hand side of the lug again using this mark as a reference point . When the cap is applied measure the distance between the two marks . This distance should be $\frac{1}{4}$ inch (7 mm) plus or minus a $\frac{1}{4}$ inch (7 mm) . Again if the lug mark is beyond the mould line mark stretching of the lug will start .

QUALITY CONTROL CHECKS.

- 1) Cap seal – check torque measurements as described above on a regular basis . Outside these guide lines will lead to the cap ringing or the cap coming loose when subjected to shock resulting in a loss of vacuum .
- 2) Compound impression – a good seal will leave a 360 * impression of the glass rim in the cap sealing compound . An uneven impression can indicate a cross threaded cap and will not result in a good seal N.B. Pre-heating the cap will improve the compound impression and seal .
- 3) Make a visual check on the depression in the centre of the cap which should be concave . A good vacuum will pull down the centre of the cap creating a pop when the seal is broken . No vacuum will appear as a convex in the centre of the cap . This will be the case with a cold fill .



Picture shows ideal position of the cap lug on the glass thread. Approximately 1/3 of the way down the thread. Never more than half way .



Picture shows the distance between the glass mould line & the left hand side of the cap lug. The ideal distance should be 7mm (1/4 inch) plus or minus 7mm (1/4 inch).



Good Compound impression

No Compound Impression



Good vacuum centre of cap pulled down.(Conave)

No vacuum centre of cap raised (Convex).

4) Check that the jar / bottle / cap are dry before packing and in particular under the cap rim . Moisture entrapment between the cap and glass rim could lead to rusting .

Storage

Keep in a warm and dry well ventilated warehouse without being subjected to sudden variations in temperature to avoid condensation .

Stacking

Allow cooling before stacking

Complaints

In the event of a complaint keep the carton label as this contains production and quality records for traceability purposes . Please contact us at any time should you require support.

Disclaimer:

The present processing guideline has been checked for correctness. The recommendations and descriptions contained are based on decades of experience in dealing with the glass and closure packaging systems. Alpack does not assume any liability for damages which may directly or indirectly result from faults and/or omissions in the general processing guideline or from faults and/or omissions or conflicts, which may arise between the general processing recommendations and currently, used processes.