

# SERVICE MANUAL FOR A RIGHT ADJUSTMENT OF BOTTLING HEAD FOR SCREW CAP'S BOTTLING

## Top redraw

During the bottling, the first thing that the bottling head make is forming the top redraw. The right redraw is obtained through an adjustment of spring's pressure inside it.

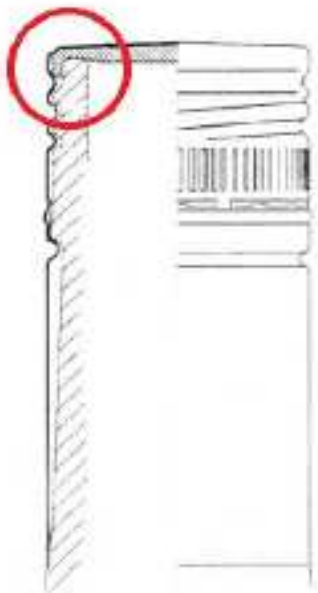
For still wines the spring must exercise a pressure with a force of  $170 \text{ kgs} \pm 10$  forming a redraw on the screw cap's top high 1,5 mm.

For sparkling ones, the spring must exercise an higher pressure force of  $210 \text{ kgs} \pm 10$  forming a redraw on the screw cap's top high 2 mm

Adjust the height of bottling head according to bottle used.

Check that the bottle is in line with bottling head

The top draw makes join the liner inserted into the screw cap to the bottle's mouth.



## Frequent mistakes

The redraw on top of screw cap isn't plenty pronounced

1<sup>st</sup> verification: check that the force exercised on top is appropriated, making sure that the spring is correctly set (normally on spring's box is written the strength to which is calibrated)

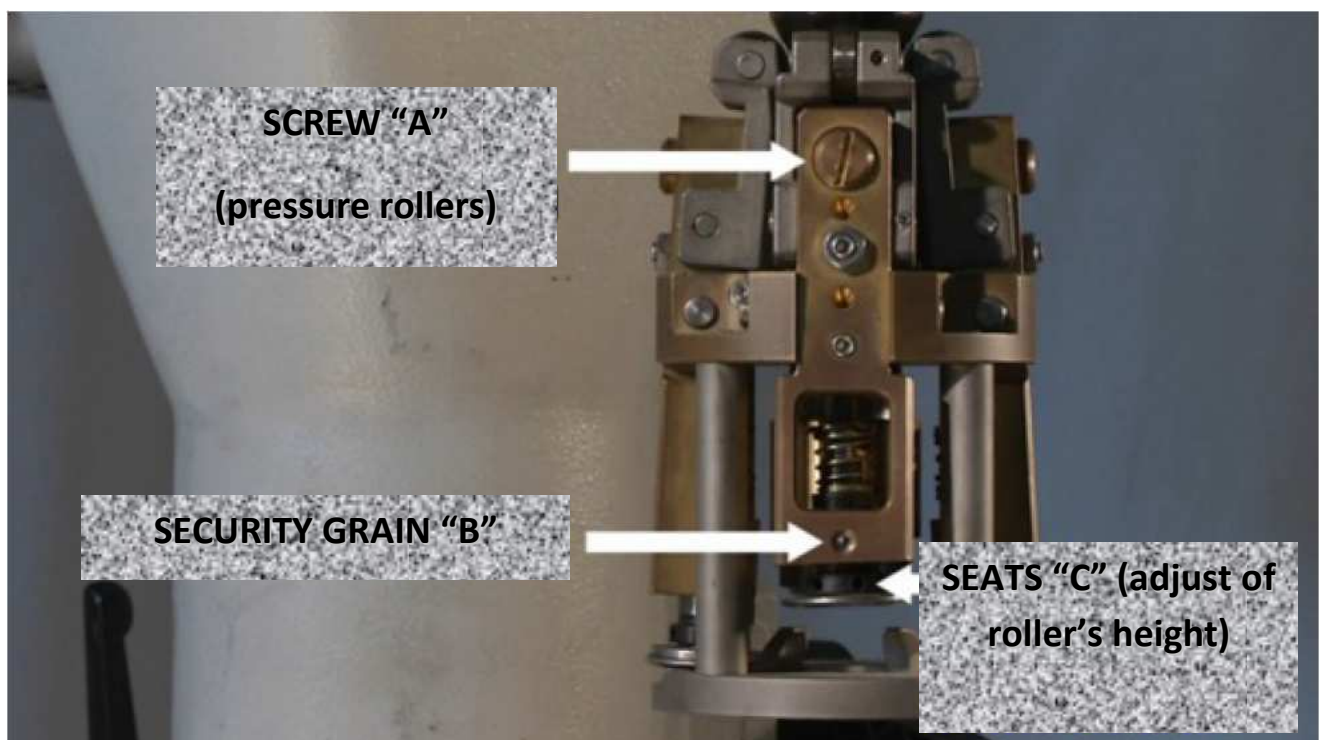
2<sup>nd</sup> verification: check that the redraw has a step plenty pronounced measuring it

The redraw on top's screw cap isn't centered.

Check that during bottling process the bottle is in line with bottling head.

## Thread

To form the screw cap to the correct depth, the 2 thread rollers must be calibrated according to the parameters written on screw caps technical form. The operator has to verify the pressure which the roller exercises on the cap and the height at which it works.



## Frequent Mistakes

The thread isn't plenty deep, the screw cap turn but it can't be opened.

The thread is too deep, the screw cap remains locked.

In both cases you have to do the following checks:

1<sup>st</sup> verification: adjust the thread rollers (they are ones above) according to the technical form verifying:

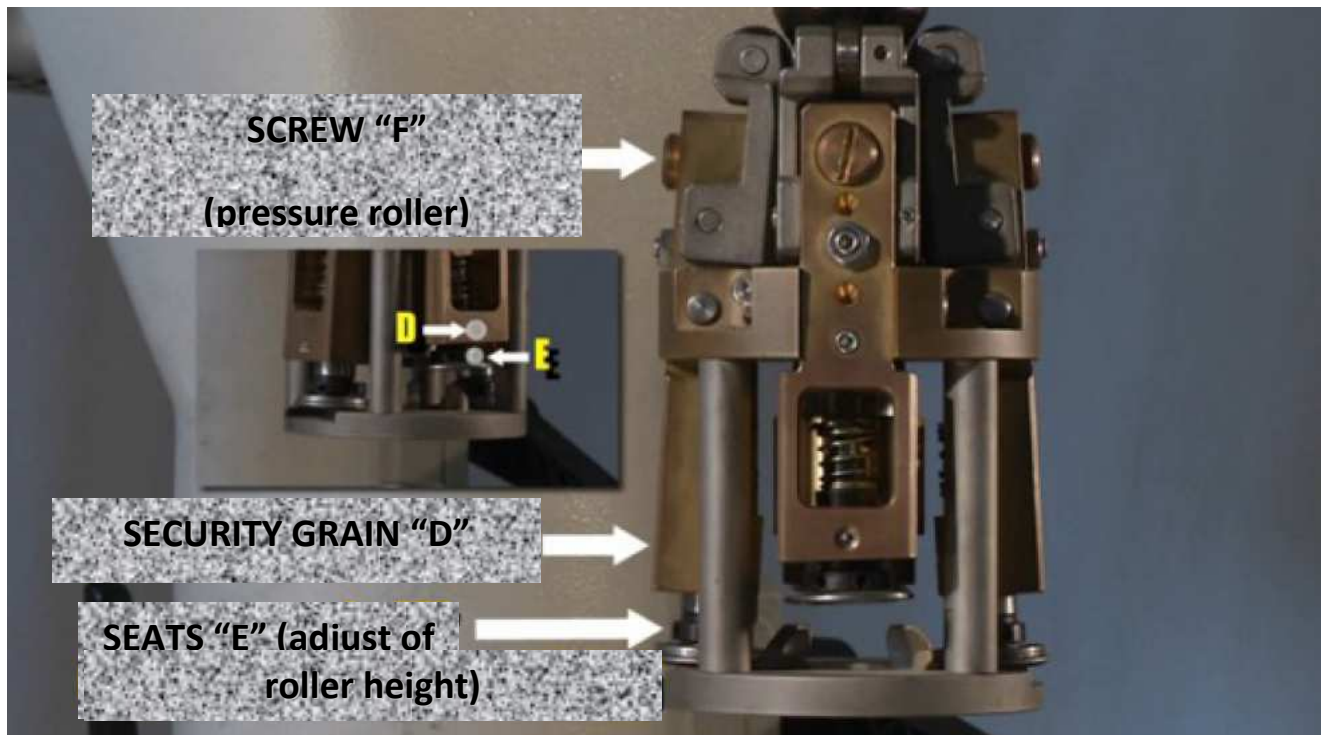
- a) The pressure of roller must be set between 8 and 11 kgs. The calibration is made adjusting the screw A
- b) To make the height regulation, remove the security grain B, freeing rollers thread's bushes. Screw or unscrew the bush using a pin punch that must be inserted in the appropriate seats C

2<sup>nd</sup> verification: check that the glass screw on the bottles is enough pronounced. If it isn't verify the glass technical form and consult bottle's producer.

### **Beading under tuck**

The beading is made by 2 skirt rollers (also called tuck under rollers) that work between 1 and 2 mm under the skirt the aluminium area high about 5 mm.

Also in this case to deform to the correct depth the aluminium under skirt, the 2 rollers must be calibrated according to the parameters written into the attached technical form and the operator must check that both the pressure and the height of rollers are correct.



### **Frequent errors**

The beading isn't sufficient deep, the screw cap slips off so it makes no sealing creating problems of leaking or degassing.

The beading is too deep so the screw cap remains locked or even it cuts the aluminum.

1<sup>st</sup> verification: adjust skirt rollers (tuck under rollers) as written in the technical form verifying:

- c) The height of working roller is included between 1 and 2 mm under skirt. The calibration is made freeing bushes' s skirt rollers taking off grain D, Screw or unscrew the bush using a pin punch that must be inserted in the appropriate seats E
- d) Pressure of skirt roller included between 8/10 kgs. The calibration is made working of screw F

2<sup>nd</sup> verification: check that the glass tuck on the bottle is into a proper height and has a constant thickness. Moreover verify that the diameter of neck's bottle is suitable. If it isn't, check the glass technical form and consult bottle's producer.

### **Flaring of bridges**



The aluminium between screw cap's bridges tends to deform or flange in consequence of the following causes:

- a) The bottling head isn't adjusted to the bottle's height. Check the height of bottling head
- b) The strength exercises by bottling head is excessive. Verify spring's pressure
- c) The beading under skirt is or too high or too low. Check the height of skirt rollers.
- d) The neck's bottle diameter is too wide or flares before the end of the screw cap. Check the glass technical form and consult bottle's producer.

## SCREW CAP OPENING FORCE

To open a bottle stoppered with a screw cap is necessary unscrew it supporting an effort.

If the bottle is correctly stoppered the force necessary to unscrew a screw cap is included between 10/25 lbs x inch ( $\pm 4$  pounds)

If the effort to open a bottle stoppered with a KORKE<sup>™</sup> screw cap appears excessive, please contact us. We could agree you send to our company a stoppered bottle not opened yet, where we will verify with a certified digital dynamometer, the necessary effort for opening it, and we will you send a report of opening strength detected.

Technically the opening force is composed by 2 phases:

- 1) Slip Torque (torsion force of sliding): the screw cap begins to turn
- 2) Bridge Torque (breaking force of bridges): immediately next to the slip torque. Consequently to the first effort, the bridges break and the screw cap can be open.



The strength to unscrew a screw cap can result excessive, due to the following causes:

- a) The thread under skirt is too deep not allowing that the screw cap begins to turn. Check the calibration of skirt rollers.

- b) During the phase in which the bottle is filled up, there were some looses of wine. The residual sugar has led to a pasting between screw cap and bottle's neck making it difficult to unscrew. Check the filler.
- c) The diameter of neck's bottle is too wide than screw cap's diameter or it starts to flare before the end of the cap making a difficult rotation. Check the technical form of glass and consult bottle 's producer
- d) The cut of the aluminium between the bridges isn't' well made inhibiting the separation between the top and the skirt of screw cap. Check the technical form of aluminium and consult the screw cap producer
- e) The dimensioning of the bridges was not performed properly making it difficult their breaking. Check the technical form of aluminium and consult the screw cap producer

**THANK YOU FOR YOUR ATTENTION!**

For any information regarding the assistance and our products, please contact us

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