

CHEMICAL FREE SOLUTIONS FOR ONLINE CAP STERILIZATION

ULTRA-CLEAN FILLING IN BOTTLING MARKET

CLARANOR ESSENTIAL®



- Flat caps from: ø 28 mm to 55 mm
- From 2 to up to 3 log reduction on bacteria and moulds

Speed up to 16 000 bph

Water, flavored waters, dairy products, refrigerated juices, soft drinks ...



CLARANOR FLAT AND SPORT CAP



- Caps from: Ø 28 mm to 55 mm all shapes, with or without liner
- From 3 to up to 5 log reduction (internal surface) on B. *subtilis* and A. *brasiliensis*

Speed up to 90 000 bph

Water, flavored waters, dairy products, refrigerated juices, soft drinks ...



EXTENDED SHELF LIFE (ESL) > 60 DAYS

CLARANOR PULS'FULL CAP®



- Flat caps from: Ø 28 mm to 55 mm
- From 3 to up to 5 log reduction on B. atrophaeus and A. brasiliensis

Speed up to 60 000 bph

Juices, milk ESL > 60 days

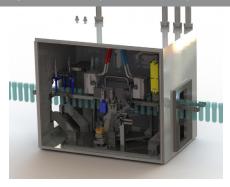




CHEMICAL FREE SOLUTIONS FOR ONLINE CAP & PREFORM STERILIZATION

ULTRA-CLEAN FILLING IN BOTTLING MARKET

CLARANOR PREFORM NECK



- All formats for ultra clean lines
- From 3 to up to 5 log reduction on bacteria and molds

Speed up to 90 000 bph

Flavored waters, dairy products, refrigerated juices, soft drinks ...



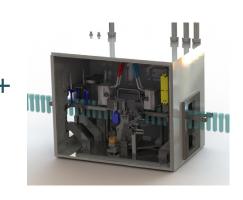
CLARANOR PULS'COMBI PET®

1 ELECTRONIC BAY + 2 OPTICAL CABINETS

Double bay



Preform cabinet*



Cap optical cabinet



- All sizes of caps and preforms
- Sterilization of both caps and preforms:
 - Cap with pulsed Light : from 3 to up to 5 log reduction on bacteria and molds
- **Preform** with a combined technology: pulsed light and blowing heat: 4 log reduction on A. *brasiliensis*

Speed up to 90 000 bph

Beverage and sensitive liquid products:water, flavored waters, dairy products, refrigerated juices, soft drinks...









^{*}The preform optical cabinet must be installed inside the blowing machine.