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#### **COMPANY PROFILE**

TORQ Packaging S.r.I. is an Italian manufacturing company of packaging machines like automatic capping, rinsing machines and In-Line filling equipment.

The range of TORQ capping machines include both fully automatic free-standing machines as well as cappers in turret version that can be integrated in new or exisiting filling monoblocks.

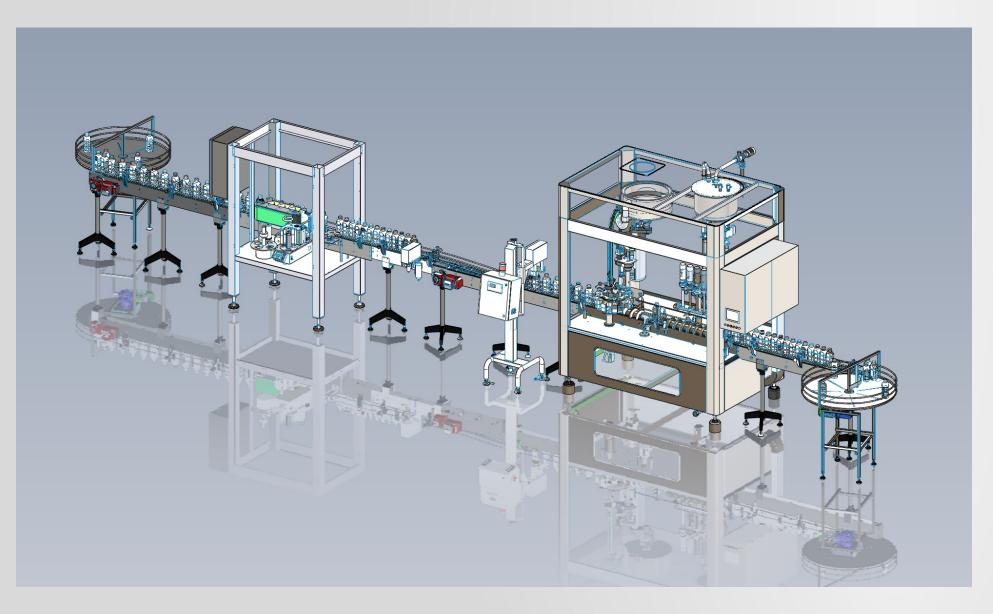
Cappers are available for any speed and any capping technology including servo capper with vision systems.

The range of filling machines is focused on low speed, In-Line hygienic fillers with CIP capability.

Torq is a partner of Apsol srl. ( Italy ) and Clearpack Singapore group of companies.



## **COMPANY PROFILE**



TORQ designs and builds complete filling lines for low speed in semi automatic (manual feeding) or fully automatic version. Line can include:

- Unscrambler.
- Puck inserter
- Filler
- Capper
- Labeller
- Coder
- Check weigher
- Depucker
- Case packing (By Apsol)



## LF SERIES IN LINE FILLER





The LF series in line fillers are available from single filling station + single capping station up to 12 filling station with separated rotary capper.



#### **FILLING SYSTEM**



The filling system is based on magnetic or mass-flowmeter produced by Endress&Hauser.

The control of the filling system is based 100% on off the shelf electronic components.

Filling system can be with standard non contact hygienic nozzles or servodriven diving nozzles.

The diving nozzle cycle is programmable on a receipe basis for each product.



#### **FILLING SYSTEM**



For a perfect bottle positioning and a quick change over, the LF series filler is equipped with a servodriven timing screw. This allows to:

- a) Handle shaped (oval) and soft bottles.
- b) Quick change over without adjusting the valve pitch.
- c) Possibility to handle pucks also by in-screw 90° rotation.
- d) Fast transition speed between filling cycles.
- e) Option for continuos motion following filling nozzles.



#### **FILLING SYSTEM**

Machine can be supplied with pressurized Hygienic buffer tank and/ or positive displacement pump mounted on a skid.

All product contact parts are in SS Aisi 316 L.

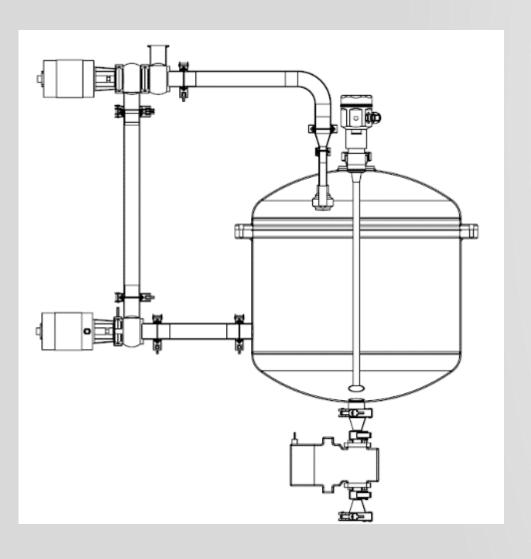
The complete system including the pressure control(air or nitrogene) is based on Endress&Hauser components.

The Tank interior and piping is mirror polished (max roughness 0,8 um). EHEDG certified components are available on request. The complete circuit is fully drainable.





#### PRODUCT CHANGE OVER AND CLEAN IN PLACE



To have a perfectly hygienic filling and to reduce product waste to the minimum, The LF series Fillers are designed for a completely automated CIP and SIP cycle.

The buffer tank has a CIP circuit with a Alpha laval Sanimidget sprayball.

The cycle is programmable from HMI and can be integrated with customers process line.



#### PRODUCT CHANGE OVER AND CLEAN IN PLACE



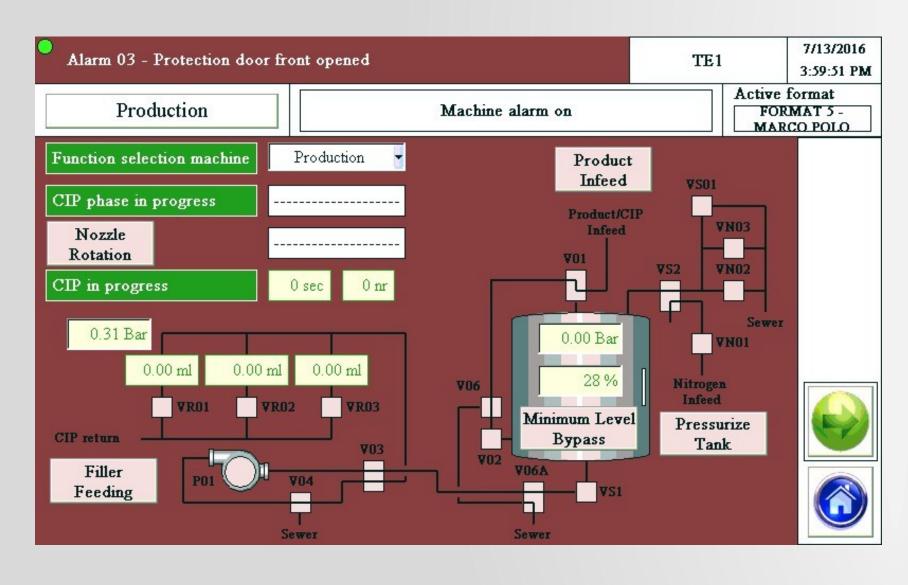
The filling valves are automatically washed by application of CIP cups with DIN 11864-3 clamb type fittings.

The nozzles are cleaned in place both internally and externally (for diving nozzles) by overpressure with possibility of closed circuit.

The cleaning cup connected to the filling nozzle with a quick release fix is designed for an efficient cleaning action by the overpressure and the turbulence of the CIP liquid.



#### PRODUCT CHANGE OVER AND CLEAN IN PLACE



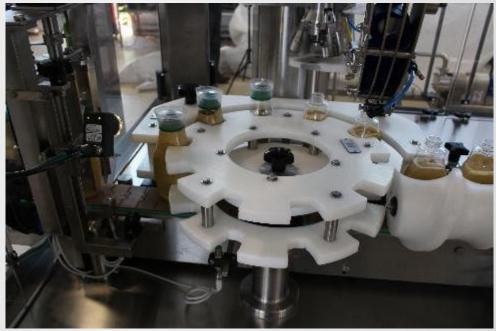
The CIP - SIP cycle is controlled by a touch screen HMI and can be programmed on receipe basis to optimize cleaning and reduce waste of water and energy. Torq offers full flexibility to design and develope customized system.



## **FILLING AND CAPPING**



The LF series filler can be supplied with single head capper in monoblock version or with stand alone rotary capper.





#### **FILLING AND CAPPING**



Capping systems include pump and trigger inserters with or without dip tube guide.

Single head cappers are completely based on servo motor technology for :

- Indexing starwheel
- Capping head electronic cam.
- Capping head motion ( for Torque and positioning control.

In case of monoblock version the complete machine (fillercapper) is controlled by servomotors (Elau-Schneider) as STANDARD



## **FILLING AND CAPPING**



Free standing capper integrated with filler. Capping system also available in wash down version.





## **CAPPING SYSTEMS**





## **CAPPING HEADS**





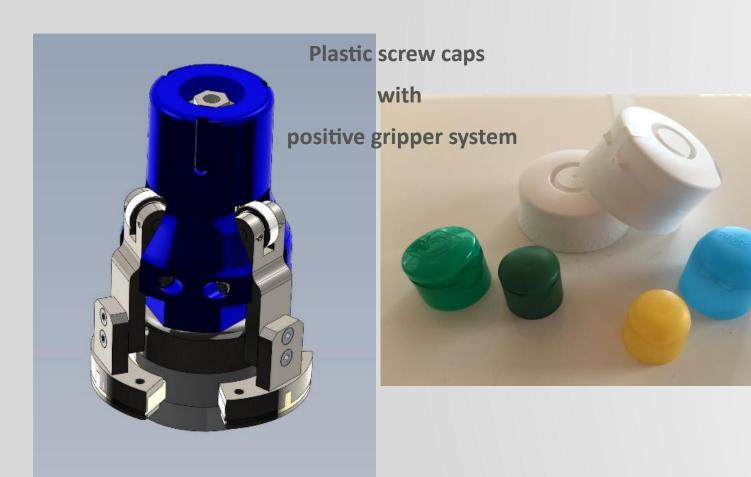


#### CAPPING WITH CAP & CONTAINER ORIENTATION





## **CAPPING HEADS - SCREW CAPS**



# MAGNETIC CLUTCH & HYSTERESIS WASHABLE VERSION





## **CAPPING HEADS - ROPP CAPS**









## **SPECIAL APPLICATIONS - BLADE SERIES**



Gate cutting system is required before PET Blowing especially when the gate type is Long gate.
Our "BLADE" machine is an automatic gate cutter; preforms are feeded by a preform sorter directly connected to machine inlet star.





## **SPECIAL APPLICATIONS - ASSEMBLER**

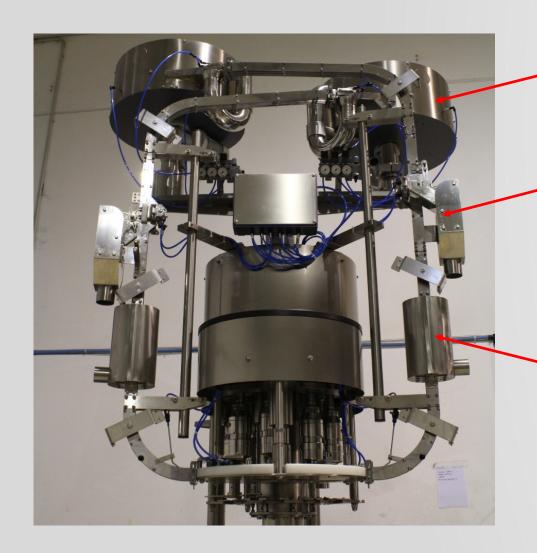


Fully automatic caps assembler equipped with 10 capping heads and camera control system in order to verify the correct closing, speed up to 300cpm.





## **OEM**



DOUBLE CAPS SORTERS FOR EFFICENCY OR QUICK CHANGEOVER

AUTOMATIC REJECT FOR UP-SIDE DOWN CAPS

DUST REMOVER WITH VACUUM SYSTEM & IONIZING SYSTEM