NATE - nápojová technika a.s.
EQUIPMENT FOR THE BEVERAGE INDUSTRY

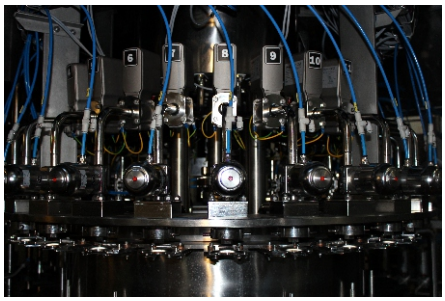
FILLING OF NON-CARBONATED DRINKS

FILLING METHOD

- volume filling with a flowmeter

FILLING OPTIONS

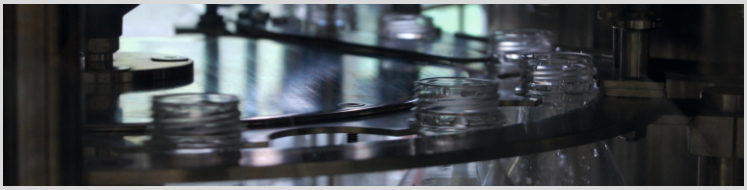
- still water
- juice, natural juice with fibre
- ice tea
- dairy-based beverages, drinks with higher viscosity (kefir, acidophilus milk)
- filling glass and PET bottles



Filler PETBLOK 24/28/6 ULTRACLEAN

BASIC PRINCIPLE OF FILLING

- the drink flows into the bottle into the valve of a tube, which is fitted with an inductive flowmetre that senses the flow of fluid and transmits impulses to the control system
- once the control system registers the relevant number of impulses (volume), it closes the filling valve
- the liquid flows into the bottle – air leaves the bottle freely into the atmosphere during filling



DESCRIPTION OF FUNCTION - PRINCIPLE

- neither the valve nor tube comes into contact with the bottle
- the air leaves the bottle entirely outside of the tank
- drinks with small particles can be filled
- it is possible to change the filling speed – reduction of drink foaming
- the filling valve is not affected when changing the filling volume
- minimum drink residue when operation ends
- drink foaming in a semi-septic and aseptic environment

EXAMPLE OF SOLUTION

- Dairy Valašské Meziříčí, Czech Republic
  PETBLOK 24/24/6
- Korenovskyy Konservno-Molochnyy Kombinat, Korenovsk - Krasnodar region, Ukraine
  PETBLOK 30/30/6 ULTRACLEAN
  PETBLOK 24/28/6 ULTRACLEAN
- Libella Bottlers Almaty, Kazakhstan
  PETBLOK 30/60/78/8 ULTRACLEAN

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- the bottle is treated before the actual filling by rinsing the inside of the bottle with a solution, disinfectant and subsequent rinse with water
- it is possible to have exterior rinse of the bottle installed

MACHINE COVERING

- only the rinser, filling valves and closing heads affects the working space H 14 HEPA filters applied - class of air purity class in the workspace ISO 7
- part of the closing machine, tank and filling pipes are located outside of the machine´s clean zone

FM (flowmeter) type filling machines in ultra-clean and aseptic design are fillers that are suitable for filling microbiologically sensitive non-carbonated products in glass or PET bottles.
The modern filler system ensures long life of the product, which is processed only using heat and without the use of chemical preservatives.
The entire machine is equipped with exterior covering, ensuring a sterile environment for the filling process. The external side of the covering is fitted with a filter unit with an H14 class HEPA filter, which ensures overpressure of sterile air that corresponds to purity in accordance with the ISO 7 standard.

PETBLOK 24/24/6
Dairy Valašské Meziříčí, ČR

- filling fresh milk with an expiration date within 10 days
- the case study was carried out at the Dairy Valašské Meziříčí
- filler PETBLOK 24/24/6

sanitation attachment

end-piece to be used to fill milk

end-piece to be used to full kefir and yogurt

The special design of the filling valve makes it possible to perform perfect sanitation:

- of the filling valve
- the internal product piping
- the filler tank in a closed cycleThis is also supported by the simple design of the CIP adapter

TECHNICAL FEATURES

- all of the parts that come into contact with the drink are made from stainless steel
- sealing is made from EPDM seal, which guarantees the health safety and resistance to heat and cleaning solutions
- formatted parts are easy to change (for various bottle sizes)
- machine output regulation – sensors at the entry and exit for checking the presence and supply of bottles
- frequency converter for smooth operations and output regulation
- contactless sensors for the presence of bottles and controlling bottle filling valves
- easy sanitation of filling valves and filler tanks – prepared for interconnection with closed CIP circuit
- roofed structure table for easy drainage of fluids from the machine's table
- components DANFOSS, FESTO, SIEMENS, SEW EURODRIVE, IFM - electronic