# FILLING OF CARBONATED AND NON-CARBONATED DRINKS



## **FILLING METHOD**

overpressure and pressure-free level filling

#### **BASIC PRINCIPLE OF FILLING**

- liquid from the filler tank runs into the bottle down its wall
- air from the bottle is siphoned off by an air tube
- when the level of liquid in bottle reaches the nozzle mouth of the air tube, filling is teminated

# OVERPRESSURE LEVEL FILLING

# **FILLING OPTIONS**

- mineral water
- soft drinks
- · sparkling wine
- beer
- non-carbonated beverages and liquids
- · filling to PET or glass bottles
- The overpressure method allows the bottling of carbonated beverages without the undesired release of CO<sub>2</sub> from the beverage
- filling is carried out under a CO<sub>2</sub> or N<sub>2</sub> controlled atmosphere with guarantees retention of the high quality of the beverage











#### **FILLING TO GLASS BOTTLES**

- for bottling of beer, facilities are avaible with both retain the faste quality and increase the  $O_2$  in the beverage
- 0,03 mg/l for 0,5l glass bottle
- foaming this reduces the volume of air in the space of the bottle neck 0,6 mg/l for a 0,5 l glass bottle



#### **FILLING TO PET BOTTLES**

- the construction of a filler with support from underneath permits the filling of both glass and PET bottles on one machine
- if the requirement is only for filling PET bottles, the manipulation of bottles in the machine is carried out by a grip on the bottle neck adjustment of the machine in the event of switching to another format of bottles is simplified in this manner,
- displacement of air from the bottle before filling is carried out by irrigation of bottle intake of O<sub>2</sub> during filling 0,08 mg/l for 1,5 l PET bottle
- foaming this reduces the volume of air in the neck space of the bottle **0,8 ml for 1,5l** bottle

#### **FILLING OF CANS**

- can filler of our construction permit the filling cans and glass bottles on one machine
- application of inert gas prior to capping





## NON-PRESSURISED LEVEL FILLING

#### SINGLE-CHAMBER FILLING

- filling of wine
- spirits
- low viscosity non-carbonated liquids
- atmospheric pressure or a light under-pressure is maintained above the liquid in tank

#### **DOUBLE-CHAMBER FILLING**

- · filling of juices, syrups
- edible oils and other non-carbonated liquids of higher viscosity
- the filler tank consists of two separated chambers, one with the liquids to be filled and another, to which the air is evacuated from the bottle during filling, where it is facilitates the filling of liquids of higher viscosity

#### **EXAMPLE OF SOLUTION**

 BOHEMIA HEALING MINERAL WATERS CZ, a.s., plant Bílina Filler VERABLOK 20/24/6

