



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

## MANUFACTURER AND SUPPLIER OF THE COMPLETE FILLING LINES



NATE = manufacturer and supplier of the complete filling lines

NATE = 60 years of tradition in the delivery of lines worldwide

NATE = project adapted to the customer's needs

NATE = effective lines that are environmentally friendly

NATE = cooperation with research institutes - Research Institute of Beer and Malt, the Food Research Institute, the Institute of Chemical Technology in Prague

NATE = fast service of the machines

NATE = 200 employees - 50 technicians

### PRODUCTION PORTFOLIO

- Filling equipment
- Bottle washers
- Inspection equipment
- Mixers
- Conveyors
- Palletization, Depalletization
- Loaders, Unloaders
- Packing machines
- Washers for crates, KEGs and barrels
- Lines for washing and filling of KEGs
- Washer and filler for 19 l barrels

### CUSTOMER SERVICES

- improving the performance efficiency of lines
- design, development, construction
- manufacture, assembly, sales
- project management
- delivery of complete lines
  - consultation
  - layout proposals
  - completion of delivery
  - management of delivery

### SUPPLIER OF COMPLETE FILLING LINES AND ACCESSORIES

- Blowing machines
- CIP stations
- Pasteurizers
- Labelling machines
- Handle applicator
- Syrup plants
- Reconstruction of used lines



# FILLING EQUIPMENT



- Glass bottle fillers
- PET bottle fillers
- Can fillers

## TYPES OF FILLED DRINKS

- carbonated, non-carbonated
- water, soft drinks, juice
- drinks with fruit
- beer, milk

## PURITY CLASS

**CLASSIC**- still, carbonated, flavoured water, carbonated soda, beer, wine, spirits

**SELECT**- still, carbonated, flavoured water, carbonated soda, beer, wine, spirits

**ULTRA**- still water, flavoured water, multivitamin, juice

**ASEPTIC**- multivitamin, juice, ice tea, dairy products

## PRINCIPLES OF FILLING

- pressurized level filling with electronic control
- pressurized and non-pressurized surface filling
- mechanical volumetric filling with measuring cylinders
- volumetric filling with an electro flowmeter
- volumetric filling with a flowmeter
- pressurized filling with a flowmeter

# BOTTLE WASHERS



## CONTINUOUS BOTTLE WASHER

- **returnable** (single ended)- ATHENA, DELTA
- **continuous** (double ended)- LAGUNA

Bottles

0.2 - 1.0 litres

## OUTPUT DISTRIBUTION

Very low outputs	1.500 - 6.500 bottles/hour
Low outputs	3.500 - 10.000 bottles/hour
Medium outputs	8.000 - 28.000 bottles/hour
High outputs	17.000 - 45.000 bottles/hour



# INSPECTION EQUIPMENT



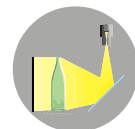
Check of full and empty bottles - glass and PET bottles, crates  
Output up to 60.000 bottles/hour



cleanness of  
base



mouth  
integrity



cleanness of  
wall

## CHECK METHODS

- camera CCD
- high frequency
- infrared ray
- inductive
- optical

## CHECK BEFORE FILLING

- presence of residual liquid
- residual lye film on walls
- cleanliness of bottoms and walls
- neck integrity
- detection of taller and shorter bottles
- shape of bottles and colour of glass

## CHECK AFTER FILLING

- check for incompletely filled and unclosed bottles (checking of level and caps)
- presence and position of labels
- overlap of all around labels, printed date
- check of crate fullness

# MIXERS

## SVO - water carbonator with deaeration

- production of carbonated and low-carbonated non-alcoholic and alcoholic drinks
- water, mineral water, production of sparkling wines

## OSN - volumetric beverage mixer

- production of carbonated and low-carbonated non-alcoholic and alcoholic drinks
- fruit, energy and ice tea
- selection for 40 kinds of drinks recipes
- mixing accuracy 0.1 Brix

Saturation up to 8g CO<sub>2</sub>/l

Output of the line 2.000 - 36.000 l/hour



# CONVEYORS



## MANUFACTURED ASSORTMENT

- plate conveyors for bottles
- air conveyors for PET bottles
- conveyors for crates and packages of bottles
- KEG conveyors
- rubber partition conveyors with a hopper
- controlling and monitoring of the bottle transport
- central lubrication

# REFERENCES

THE CZECH REPUBLIC	
<ul style="list-style-type: none"> <li>Brewery Chotěboř s.r.o.</li> <li>ONDRÁŠOVKA a.s., plant Ondrášov</li> </ul>	<p>Bottle washer for very low output ATHENA 16/06.2.CN</p> <p><b>Complete Bottle Filling Line for carbonated and non-carbonated water with Capacity of 12.000 BPH for filling of 1.5 L</b></p>
ESTONIA	
<ul style="list-style-type: none"> <li>VÄRSKA VESI AS, Varska</li> </ul>	<p><b>Glass Filling line with capacity of 1.800 BPH for filling of saturated water into 0.33 L Bottles</b></p>
GERMANY	
<ul style="list-style-type: none"> <li>FrieslandCampina Germany GmbH, Köln Am Rhein</li> <li>RHODIUS Mineralquellen und Getränke GmbH &amp; Co. KG</li> <li>Marien Brunnen Erfrischungsgetränke GmbH</li> </ul>	<p>Elevator, PET bottle conveyors, Bottle capper for PET bottles Manual manipulator MKR 300, Gravity conveyors</p> <p>Bottle washing machine ATHENA 24/22.3, Bottle filling machine VERAL 80/15/15, Bottle conveyors, Central lubrication</p> <p>Bottle filling machine PETBLOK 48/64/10, Volumetric beverage mixer - OSN 21, Bottle inspector EXAN VIEW CCD, Bottle inspector EXAN CRATES, Crate washers MP 3000, Bottle loader NPAK 4</p>
ROMANIA	
<ul style="list-style-type: none"> <li>PEPSICO S.C.Quadrant Amroq Beverages</li> </ul>	<p><b>Disassembly, removal and installation of line with capacity 12.000 BPH for filling carbonated drinks into PET Bottles</b></p>
RUSSIA	
<ul style="list-style-type: none"> <li>ООО КОМПАНИА ЧИСТА́Я ВОДА НОВОСИБИРСК</li> </ul>	<p><b>Bottle Filling Line for carbonated and non-carbonated Water with Capacity of 6.000 BPH for filling of 1.5 L</b></p>
<ul style="list-style-type: none"> <li>ОАО “Завод пивоваренный Моршанский”</li> <li>ЗАО “Корсаковский завод пива и напитков” „Северная звезда“ - Nord Star</li> </ul>	<p><b>Glass filling line with capacity of 12.000 BPH for filling of beer into 0.5 L Bottles</b></p> <p><b>Complete PET filling line with capacity of 7.000 BPH for filling of beer into 1.5 L PET bottle</b></p>
SCOTLAND	
<ul style="list-style-type: none"> <li>Angus Dundee Distillers PLC</li> </ul>	<p><b>Removal of glass filling line with capacity 12.000 BPH for filling into 0.7 L in glass bottles</b></p>
UKRAINE	
<ul style="list-style-type: none"> <li>DE JSC “Obolon”-“Zibert’s Brewery”, Fastiv</li> </ul>	<p><b>Complete PET filling line with capacity of 18.000 BPH for filling of beer into 1.0 L PET Bottles and 14.000 BPH for filling of beer into 2.0 L PET Bottles</b></p>
UNITED ARAB EMIRATES	
<ul style="list-style-type: none"> <li>Al Ain AAMW Company</li> </ul>	<p><b>Complete filling line for carbonated and non-carbonated water with capacity of 2 .000 BPH</b></p>