

# Pressurization of PET Bottles and Cans



Without NITRODOSE

## A controlled pressure in thin walled PET bottles and cans will provide :

- Sufficient rigidity and strength for labelling and transportation
- Stackability
- Vending machine compatibility
- Firm packaging for customer appeal

The **NITRODOSE** system has been developed to meet these requirements and cut cost at the same time by providing a precise charge of liquid nitrogen.



With NITRODOSE

### How does a NITRODOSE system work ?

A precisely timed drop of liquid nitrogen is being dosed into the head space above the beverage of a bottle/can after filling and before sealing/capping.

The cold liquid nitrogen (-196°C) turns into nitrogen gas at room temperature and expands rapidly (1 g of liquid nitrogen yields 850 ml of nitrogen gas). With the bottle being capped at a certain time after dosing, this process will create a defined internal pressure in the bottle/can.

## Applications

Filling of beverages like mineral water, ice tea, juices, sport drinks, beer, vegetable oil

## Advantages

- Consistent pressure from container to container to ensure no deformation of container
- Weight reduction of bottle/can
- Reduction of oxygen content
- Very low consumption of liquid nitrogen
- Nitrogen is completely inert and is accepted in the food and beverage industry. It is totally tasteless and odourless.

## Our service – Your guarantee – VBS Europe

- We – **VBS Europe** – have more than 20 years of experience in liquid nitrogen dosing and piping systems.
- The manufacturer of our equipment – **Vacuum Barrier Corporation, USA** – is the world market leader.
- More than 1000 NITRODOSE installed, more than 200 of them by VBS Europe in Europe and Middle East.
- VBS Europe supplies complete systems, installation, commissioning, training and service.