

MAP APPLICATIONS in FOOD INDUSTRY with NITRON NITROGEN GENERATORS

When it comes to food freshness and packaging, technology of nitrogen gas gains importance in the food industry. Through continuous search and industry experience of Megatek, Nitron nitrogen generators has been supplying lasting solutions for the food industry for many years. Modified atmosphere packaging (MAP) is one of the most important applications of nitrogen gas. Nitrogen is an environmentally friendly substance comprising 79% of the earth's atmosphere. It is a chemically non-reactive, colorless and odorless gas. MAP is a precise description of what shelf-life extension technique is and its working principle ensures that the producers and the retailers use the optimum gas mixtures for different food products.

In this technology, earth's normal breathable atmosphere in the food package is modified. Modified-atmosphere packaging (MAP) used in Nitron Nitrogen Generators refers to the technique of sealing actively respiring produce in polymeric film packages to modify the O₂ and CO₂ levels within the package atmosphere. It is often desirable to generate an atmosphere low in O₂ and/or high in CO₂ to influence the metabolism of the product being packaged, or the activity of decay-causing organisms to increase storability.

When a fresh fruit, vegetable or animal product is harvested or slaughtered, its natural environment is suitable for bacteria and mold growth. This process causes degradation of food including undesirable taste, colour change, loss of flavour. To prevent this undesired change, gaseous nitrogen is used to displace the oxygen in the sealed package.

Ever changing and improving MAP techniques of Nitron Nitrogen Generators offer many advantages for the manufacturers, suppliers and retailers. Demand for more convenient and healthy food has caused the industry to make significant changes in the trading forms and relations. By using MAP technology of Nitron Nitrogen Generators, depending on the product, shelf-life of the product can be extended to %50 to %500. Product with extended shelf-life will have more chance to be sold and less chance to be thrown away. In this way waste is minimised, re-stocking and ordering can be more flexible. Companies using the right MAP technology will have the chance to bring their delivery range to a global market.

MAP technology provides quality not only for the retailers but also for the food consumers. Obvious quality changes in the product are seen in its journey starting from the production area onward to the kitchen or refrigerator.





What Are The Advantages of Modified Atmosphere Packaging with Nitron Nitrogen Generators?

- Nitron Generators increase shelf-life of the product %50-%500
- Nitron Generators eliminate the economical losses
- Nitron Generators decrease the distribution cost
- Nitron Generators help provide high quality products
- Nitron Generators help centralized packing control
- Nitron Generators prevent using chemical preservatives
- Nitron Generators prevent water loss and cross-contamination
- Nitron Generators prevent bad odor and texture change



We can not keep food fresh forever but we all know that there are some ways to slow down the process of spoilage. Besides, we can keep food attractive and edible for as long as possible. The easiest way is refrigeration and adding some artificial preservatives. Fortunately keeping food fresh for as long as possible without additives is possible with the Modified Atmosphere Application of Nitron Nitrogen Generators. Sealing the food product in a package which contains a mixture of natural gases in carefully controlled proportions that significantly slow down the process of decay by inhibiting processes of oxidation and the growth of microbes is enough. This is the principle of Modified Atmosphere Packaging of Nitron Nitrogen Generators: the atmosphere in which the food is packaged is modified so that spoilage is markedly reduced and the shelf life of the product is increased.

It should be noted that to package a product in a modified atmosphere requires sophisticated machinery to flush out air from the packaging chamber and replace it with a different gas or precisely defined mixture of gases, then seal the product in the packaging so that only the modified atmosphere surrounds the product and not any other unwanted gas.

Nitron Nitrogen Generators use the latest technologies developed to maintain that the gas mixture is the correct one, and to test that once sealed the packages contain the right mixture.