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# СИСТЕМЫ УПАКОВКИ И РАЗЛИВА MODIFIED ATMOSPHERE PACKING

## Технические характеристики



# Inert Gas Packing (Modified Atmosphere Packing/ MAP)

GEA Modified Atmosphere Packing (M.A.P.) technology is helping customers to prolong the shelf life of their powdered products. By removing oxygen from the powder and replacing with inert gas the flavor of a powdered product is maintained over a longer period.

GEA recognizes that as customer requirements for flexibility in product manufacture change, the functionality of their packing systems must also be able to accommodate this need. Using a combination of nitrogen and carbon dioxide to effectively blanket the product prior to closing the bag can increase the shelf-life up to several years - making it an ideal solution for companies wishing to bulk store products to suit their manufacturing cycle or to take advantage of seasonal demand and pricing around the world.

## Overview

As powdered products are shipped around the world and are often held in storage for extended periods, there is a real risk of degradation - which might limit the shelf-life of the product. For more than 20 years, GEA has been supplying inert gas packing technology to the food and dairy industries to enable our customers to deal with the logistics of storage and shipping valuable powdered products.

Oxygen sensitive products are prone to exhibiting changes to flavor when exposed to high O<sub>2</sub> levels for a prolonged time. In order to reduce the affect of oxidation, inert gas can be added to the product prior to filling and closing. This is performed in several steps.

The powder in the hopper above the filler is pre-charged with nitrogen - usually done during the transport stage when using vacuum to transfer the powder. This reduces the residual oxygen level (RO) to around 1-2%. The filling system pre-flushes the bag with nitrogen before filling with the gassed powder from the hopper above.

## Upgrade Option

GEA now offers customers who purchased non-gas packing machines the opportunity to upgrade their plant to take advantage of the benefits of MAP, such as

- increased shelf-life of powdered products

- flexibility to handle a wider range of products

- reduced risk of oxidation

- ability to store products at higher ambient temperatures

- improved flavor during longer periods of storage

All GEA fillers in our current range can be upgraded to include Modified Atmosphere Packing (M.A.P.).

In addition to the filler modifications, the upgrade may require additional modification to the powder feed system.

GEA can advise on these and any other M.A.P. requirements.

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