

Reefer Cargo Shipment

Modified Atmosphere and Controlled Atmosphere (MA/CA)

Retarding the respiration rate of fruit and vegetables is an effective means of prolonging shelf life. This can be achieved within a container by modifying the composition of the refrigerated air surrounding the cargo.

Specialist containers that can control the critical mix of nitrogen, carbon dioxide and oxygen in the atmosphere are available.

Packaging

Packaging is a fundamental element in the transport of temperature controlled cargoes.

It is essential to protect cargoes from damage and contamination. The correct design and highest quality of materials need to be used to ensure it can withstand the refrigeration process and transit.

Where appropriate, packaging materials must be able to:

- Protect products from damage as a result of 'crushing'.
- Be able to withstand 'shocks' occurring in intermodal transport.
- Be shaped to fit on pallets or directly into the container for stowage.
- Prevent dehydration or reduce the water vapour transmission rate.
- Act as an oxygen barrier preventing oxidation.
- Withstand condensation and maintain its wet strength.
- Prevent odour transfer.
- Withstand temperatures of -30°C or colder.

Perishable fruits and vegetables require packaging that allows refrigerated air to circulate around the products to remove the gases and water vapour produced by their respiration. Often cargoes are carried in cartons; these cartons must be capable of being stacked to the maximum height allowed in the container; this is approximately 2.5m (9 feet) in a hi-cube integral container, higher than most land based palletised operations.

Many packaging types used for other forms of transport, for example for road haulage, may be inadequate for sea transport. Shippers are advised to thoroughly test their packaging to ensure it is suitable for transit by sea in a refrigerated container.

Shipping process

Planning

As TRANSADRIATICA valued customer, the following factors are taken into consideration before the cargo is booked in order to provide you with the best possible service.

- Equipment type
- Product quantity
- Transit times
- Departure and arrival times
- Market and regulatory requirements

TRANSADRIATICA also determines the most cost-effective and logistically efficient service to meet your needs.

Rest assured, TRANSADRIATICA works in partnership with your suppliers, equipment manufacturers and others to develop special handling procedures and choose equipment for door-to-door transportation.

Booking

Customers should provide the following critical shipment information: Pickup and delivery dates are coordinated.

TRANSADRIATICA personnel confirm space reservations and assign the shipment a booking number.

- Product(s) being shipped
- Origin and destination
- Quantity, weight and cubic measurement
- Type of packaging: boxed, drums, pallets, hanging carcass
- Preferred carrying temperature (specify in °F or °C)
- Fresh-air exchange requirements (specify in cfm or cmh)
- Modified or controlled atmosphere requirements
- The date when product is available at origin and required delivery date at destination
- Special handling requirements (e.g. dehumidification, cold treatment etc.)