

### **TK Active Fresh**

Controlled atmosphere solution for protecting fruits and vegetables.

OPTIMIZE CARGO QUALITY DURING LONG VOYAGES





## Ideal atmosphere in record time. Perfect quality.

Thermo King Active Fresh air management solutions protect your valuable cargo. TK Active Fresh reduces the ripening generated from the cargo's respiration by controlling O<sub>2</sub> and CO<sub>2</sub>.

Fruits and vegetables of the best quality, taste and appearance are in demand around the globe, throughout the year.

Thermo King has taken its existing technology to a new level with TK Active Fresh, the active controlled atmosphere solution that preserves your cargo as it moves by container vessel to consumers all over the world.

Fresh fruit, vegetables and flowers are living organisms that "breathe" oxygen  $(O_2)$ , produce carbon dioxide  $(CO_2)$  and water  $(H_2O)$  and release heat.

This process continues after harvest and causes shrinkage, quality deterioration, and a greater possibility of decay. The quick removal of O<sub>2</sub> is imperative to slow down these ripening processes and extend post-harvest life by reducing the respiration rate.



## Active controlled atmosphere.

Conventional, controlled atmosphere technologies use the passive, natural respiration process of fruits and vegetables to attain the correct atmosphere.

Thermo King TK Active Fresh provides active pull-down to replace  $O_2$  and  $CO_2$  with Nitrogen  $(N_2)$  for the specific cargo.

This immediately decelerates the ripening process so that produce is maintained at peak condition throughout shipping.

Active technology allows for more precise control over the reefer environment, resulting in fresher, tasty, and just-right high quality fruits and vegetables.

TK ACTIVE FRESH

## Expand your reach. Increase your value.

Putting the brakes on ripening accelerates value. TK Active Fresh allows growers to harvest produce closer to natural maturity and peak flavor and bring distant markets within reach for high-value produce. TK Active Fresh means new customers and increased value at an affordable cost.

Many global shipping lines are reaping the rewards of Thermo King controlled atmosphere technology, which complements the temperature control system inside the container by maintaining the gas mixture that provides the best conservation.

#### With TK Active Fresh you enjoy:

#### PREMIUM PRICE FOR TOP PRODUCTS

Elevate your fruit's quality, taste, nutrition, and appearance by shipping at peak ripeness while reducing post-harvest treatment.

#### **EXTENDED SHELF LIFE**

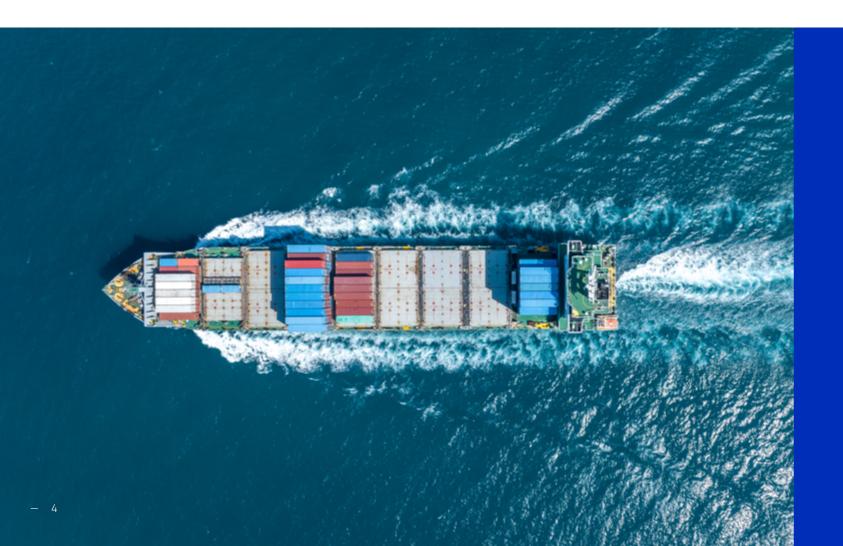
Keep your produce fresh longer, reducing loss and waste and increasing cargo value.

#### **EXPANDED REACH**

Safely transport delicate fruits to distant markets, opening up new opportunities.

#### **COST-EFFECTIVE SHIPPING**

Lower transportation costs and more sustainable compared to airfreight, improving your bottom line and helping to achieve your environmental goals.



When compared to passive systems – that rely solely on the respiration of produce to eventually generate an initial atmosphere – active controlled atmosphere systems have the added benefit of promptly establishing and regulating the desired environment in the reefer container.

Thus, TK Active Fresh is more effectively extending the shelf life of the produce.

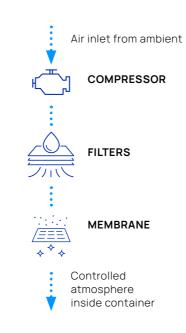
#### TK ACTIVE FRESH

## Quality control.

TK Active Fresh is a **controlled atmosphere active system** that infuses **nitrogen** into the container to adjust the atmospheric balance so that **both O\_2 and CO\_2 can be maintained at specific levels**. Applications are virtually unlimited because CO $_2$  and O $_2$  concentration can be as low as 3% and as high as 21%.

This increased control provides the best assurance against losses in product quality such as:

- Delayed ripening, aging and decay.
- Reduced water loss and weight shrinkage.
- Maintenance of firmness and crispness.





## Ship fresh. Stay fresh.

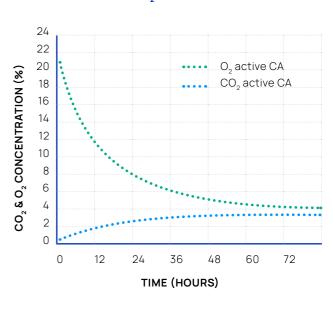
TK Active Fresh is an option on Thermo King reefers equipped with an MP-5000 controller.

Take active control of your fresh cargo with Thermo King's **TK Active Fresh**. Maintain quality over longer distances and expand into new markets. **The optimal atmosphere control for perfect fruit.** 

Take avocados for instance. In 24 hours, the avocado shipment temperature reaches 5°C. When pulling down  $O_2$  levels to 3% and keeping  $CO_2$  level below 10%, there is still 6 weeks of transit time to reach stores in optimal quality. **Ready to be enjoyed!** 



#### FAST PULLDOWN CAPABILITY. REACH 5% O<sub>2</sub> IN JUST 48 HOURS



# TK FRESH How to protect your precious cargo? Select the products you're transporting to discover the optimal temperature settings.

## Check the TK Fresh app

Discover our comprehensive database of optimal temperature settings for any type of fresh cargo on thermokingfresh.com or scan the QR code.



#### TK ACTIVE FRESH

#### Breathe easy. Your cargo is secure.

#### PRESERVES QUALITY AND APPEARANCE

TK Active Fresh maintains the freshness, taste, and nutritional value of fruits and vegetables, ensuring they reach consumers in optimal condition.

#### **EXTENDS SHELF LIFE**

By slowing down the ripening process, TK Active Fresh allows for longer storage and transportation times, reducing the risk of spoilage.

#### ENABLES SHIPPING TO DISTANT MARKETS

As voyages take longer with slow steaming vessels and more port calls, this technology enables growers to ship produce around the world, expanding their market reach and potential for higher value.

#### **REDUCES POST-HARVEST TREATMENT**

TK Active Fresh minimizes the need for additional treatments and preservation methods after harvest, saving time and resources.



Head to **thermoking-globalsolutions.com** to find out more!

#### **III** THERMO KING

Thermo King – by Trane Technologies (NYSE: TT), a global climate innovator – is a worldwide leader in sustainable transport temperature control solutions. Thermo King has been providing transport temperature control solutions for a variety of applications, including trailers, truck bodies, buses, air, shipboard containers and railway cars since 1938.

For further information thermoking-globalsolutions.com



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