EXTEND THE SHELF LIFE OF FRUIT AND VEGETABLES ...



A better cooling room climate!

If case of poor air quality in cooling rooms for fruit and vegetable, the quality and duraability is affected negatively.

The MAC500`s technology reduces fungal, micro organisms and unpleasant odours !

Scientific studies have proved the positive effect of UV-C technology in connection with the environment where food products are stored. The study was based on storerooms of up to 60 m3 and the result of this study was up to 14 days more shelf life of stored products within the room.

The results clearly show a big reduction of fungi and bacteria in fruit and vegetables. This can mean big savings due to fewer spoiled products.



Caroline Mærsk has had MAC500s UV-C installed for the past 3 years in the cooling room, where milk, fruit, vegetables and other temperature sensitive products are stored.

Our experience aboard with the MAC500s air cleanser is as follows:

We experience a significantly longer durability of fruit and vegetables, thus reduced waste goods.

The smell is always comfortable in the cooling room.

Poul Engers Pedersen Captain

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MAC500 Air Purifiers Benefit Ships and Extend the Shelf Life of Goods

The ship Caroline Mærsk has had the MAC500 air purifier installed in their refrigerated rooms for the past 3 years, where they store milk, fruits, vegetables, and other temperature-sensitive products. Onboard, they have experienced significant benefits from using the MAC500 air purifier. Fruits and vegetables have had an extended shelf life, resulting in a noticeable reduction in discarded items. Additionally, there is always a pleasant odor in the refrigerated room. Captain Poul Engers Pedersen confirms these positive results.

The container ships Arnold Mærsk and Mette Mærsk have also faced challenges with the shelf life of fruits and vegetables. Even the freshest produce could typically only last for about two weeks under normal conditions. This situation led to frustration in discarding large quantities of spoiled food, while the crew had to endure a limited selection of fruits and vegetables towards the end of the voyage.

After discovering that MAC500 air purifiers were used in commercial kitchens, greengrocers, and supermarkets to extend the shelf life of organic food, they decided to implement the technology.

The MAC500 removes ethylene gas, which accelerates

the ripening process of fruits and vegetables. By having an air purifier constantly running in each refrigerated room, the concentration of ethylene gas was significantly reduced, resulting in an approximately one-week extension of the shelf life of fruits and vegetables and a reduction in the amount of spoiled goods. After just two long voyages, they achieved savings that exceeded the cost of acquiring the air purifiers. Moreover, they streamlined the food procurement process, reduced bacterial concentration in the refrigerated rooms, and avoided inconvenience and frustration. Chief Engineer Harald Aastrup confirms these positive results.

The ship Champion Maersk has purchased a lot of MAC500 air purifiers. Previously, they had issues with poor air quality due to exhaust emissions and other unwanted vapors being drawn into the air intake. These challenges have now been resolved, and they enjoy a clean and pleasant indoor environment on board. Additionally, they experience a significantly extended shelf life of fruits and vegetables, which is a major advantage when they are far at sea with limited access to fresh supplies.

Chief Engineer Uffe Damgaard Hansen highly recommends the MAC500 air purifier.



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AVOID FOOD LOSS DURING TRANSPORTATION AND WHILE STORING FOOD

JIMCO has conducted a test with a recognized, certified, third-party institute in Denmark. We have tested the reduction of ethylene gasses when using the JIMCO air purifier MAC500s.

The test concludes that our technology will reduce ethylene gasses substantially. This can be used to extend the life of fruit and vegetables. Ethylene is produced from essentially all parts of higher plants, including leaves, stems, roots, flowers, fruits, tubers, and seeds. Ethylene speeds up the ripening process and in the end it will make fruit and vegetable rot faster.



(yellow) or off (blue). The decay rate in percentage is between 1.5 % - 2.0 %.

Grapes

Oranges

TREATMENT WITH & WITHOUT UV-C PRODUCED OZONE





Strawberries





Tomatoes

WITH OZONE WITHOUT OZONE WITH OZONE WITHOUT OZONE

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FRESH AIR - AND ELIMINATION OF BACTERIA

JIMCO recommends placing a MAC500s in all rooms and areas where people are present and especially where the risk of disease spreading is high.

The MAC500s must be placed as high as possible in the room and can cover an area of 60 m3.

MAC500s

reduces the amount of bacteria, viruses, mould and fungi within the room and does <u>not</u> produce any NOx.

MAC500s

reduces indoor air pollution and eliminates the sources of headaches, respiratory problems, fatigue, COPD and asthma.



TOTAL BACTERIAL COUNT (TBC) AND TOTAL FUNGAL COUNT (TFC)

Cumulative Time (mins)	TBC (CFU/m³)	TFC (CFU/m³)	SIAQG (CFU/m³)
0	280	60	TBC: 500 TFC: 500
15	900	1190	
30	370	630	
45	310	320	
60	230	220	

Bacteria and fungal are added to the room after 15 minutes, and for



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