

# PREVENT MOLD GROWTH & FOOD WASTE



EST. 1992

# MULTI AIR CLEANER



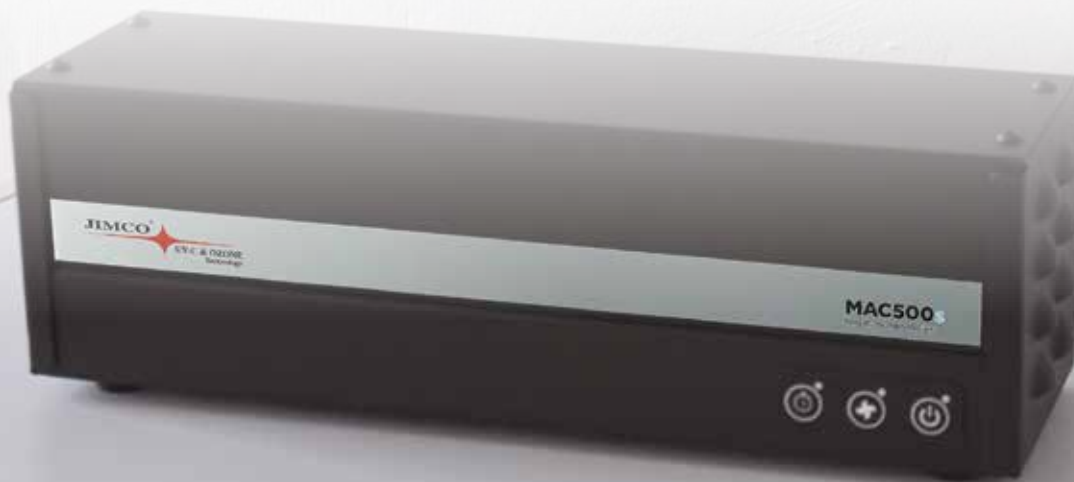
JIMCO.DK

COLD STORAGE



# PREVENT FOOD WASTE

WITH ENVIRONMENTALLY FRIENDLY  
UV-C TECHNOLOGY



## REFERENCE: CAROLINE MÆRSK

Caroline Mærsk has had the MAC500 UV-C air purifier installed in the cold storage room for the past three years, where milk, fruit, vegetables, and other temperature-sensitive goods are stored.

Our onboard experience with the MAC500 air purifier is as follows:

We have noticed a significantly extended shelf life for fruits and vegetables, resulting in reduced food waste.

The air in the cold room always smells fresh and pleasant.

Poul Engers Pedersen  
Captain

Permanent Solution to Odor Problems –  
Without Chemicals

The odor will not return unless  
the source is still present.

A simple, effective, and chemical-free  
way to keep storage areas fresh.

Reduces Bacteria, Viruses, Mold and Fungi  
Does **NOT** produce NOx (nitrogen oxides)

Reduces Sources of  
Headaches, Respiratory Issues,  
Fatigue, COPD and Asthma

More  
info  
: [jimco.dk](http://jimco.dk)

# PREVENT FOOD WASTE

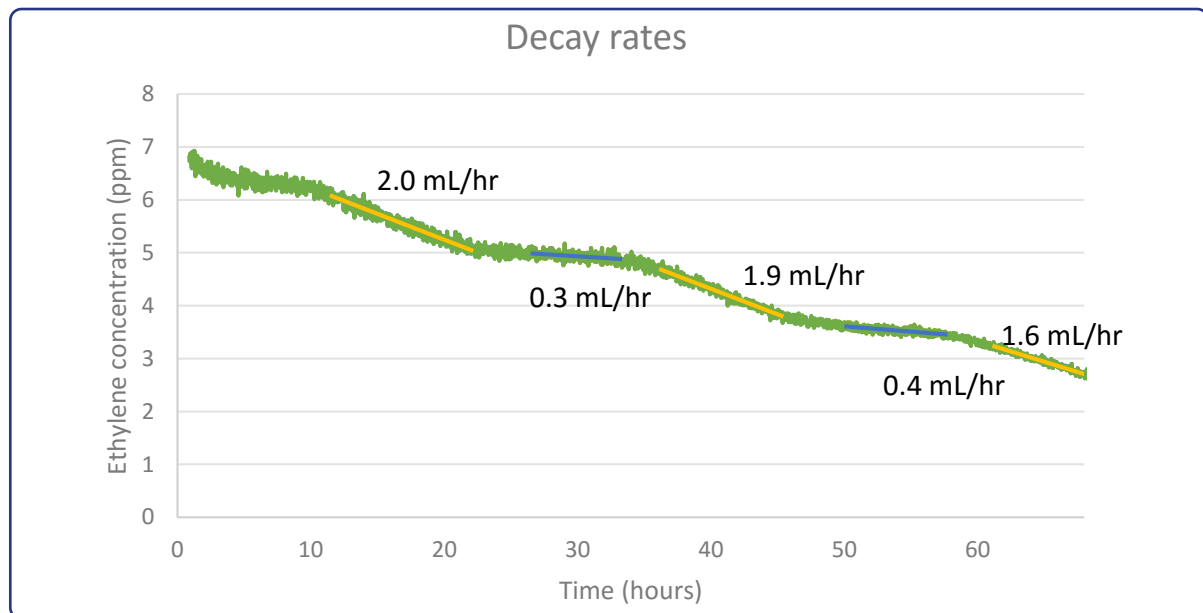
## DURING FOOD TRANSPORT AND STORAGE

JIMCO has conducted a test in collaboration with a recognized and certified third-party institute in Denmark.

We tested the reduction of ethylene gas when using the JIMCO MAC500 air purifier.

The test concludes that our technology significantly reduces ethylene gas levels. This reduction helps extend the shelf life of fruits and vegetables.

Ethylene is produced by almost all parts of higher plants – including leaves, stems, roots, flowers, fruits, tubers, and seeds. It accelerates the ripening process and ultimately causes fruit and vegetables to spoil more quickly.



Decomposition rates were determined with the air purifier turned on (yellow) and off (blue). The reduction rate of ethylene gas is between 1.5% and 2.0%.

## TREATMENT WITH AND WITHOUT UV-C GENERATED OZONE





# MAERSK PREVENTS TONS OF FOOD WASTE

**The container ships Arnold Maersk and Mette Maersk are typically at sea for three weeks at a time. With a MAC500 installed in the cold storage rooms, the crews avoid having to discard large amounts of spoiled food each year.**



The 100,000-ton container ship Mette Maersk is typically at sea for three weeks at a time. The crew consists of 14 permanent members, along with a varying number of trainees and others – meaning there are often more than 20 people onboard relying on well-stocked cold storage rooms. But during long voyages, large quantities of food are at risk of spoiling.

*"We've especially had problems with fruit and vegetables,"* says Chief Engineer Harald Aastrup.

*"Even when we buy the freshest possible produce, it usually doesn't last more than two weeks under normal conditions."*

Having sailed for many years with Maersk, Aastrup has seen firsthand how much food often has to be thrown away on long trips.

*"It's incredibly frustrating to discard large amounts of rotten fruit and vegetables – especially knowing others are going hungry. It's also a waste of money, and the crew typically has to make do with a very limited selection of fresh produce during the final week of the voyage,"* he explains.

## **Air Purification That Extends Shelf Life**

Some time ago, Aastrup became aware of the MAC500, a Danish-produced air purifier that uses UV-C light to reduce viruses, bacteria, fungi, and gases in the air.

*"I found out that commercial kitchens, green-grocers, and supermarkets use the MAC500 to extend the shelf life of organic produce. It works by reducing ethylene gas, which accelerates ripening."*

MAC500 units were installed on a trial basis in the cold storage rooms aboard Mette Maersk and Arnold Maersk.

According to Aastrup, the results were striking:

*"With a MAC500 running continuously in each cold room, the concentration of ethylene gas is reduced so much that the shelf life of fruit and vegetables is extended by one to two weeks. As a result, the amount of spoiled food has been reduced to an absolute minimum."*

## **Paid for Itself in Just Two Voyages**

Aastrup confirms that the investment has already paid off many times over:

*"After just two long voyages, the savings already exceeded the cost of the unit. On top of that, we've avoided unnecessary hassle and frustration, streamlined our provisioning, and significantly reduced bacterial levels in the cold room."*

*All in all, the MAC500 is a very good investment."*

Following the successful trials, the shipping company is now considering purchasing units for other vessels in the fleet.

**After 6 Days Without a MAC500**



**After 6 Days With a MAC500**



# BACTERIA & MOLD



## MAC500s

Reduces the amount of bacteria, viruses, mold and fungi in the room – and does not produce NOx (nitrogen oxides).

## MAC500s

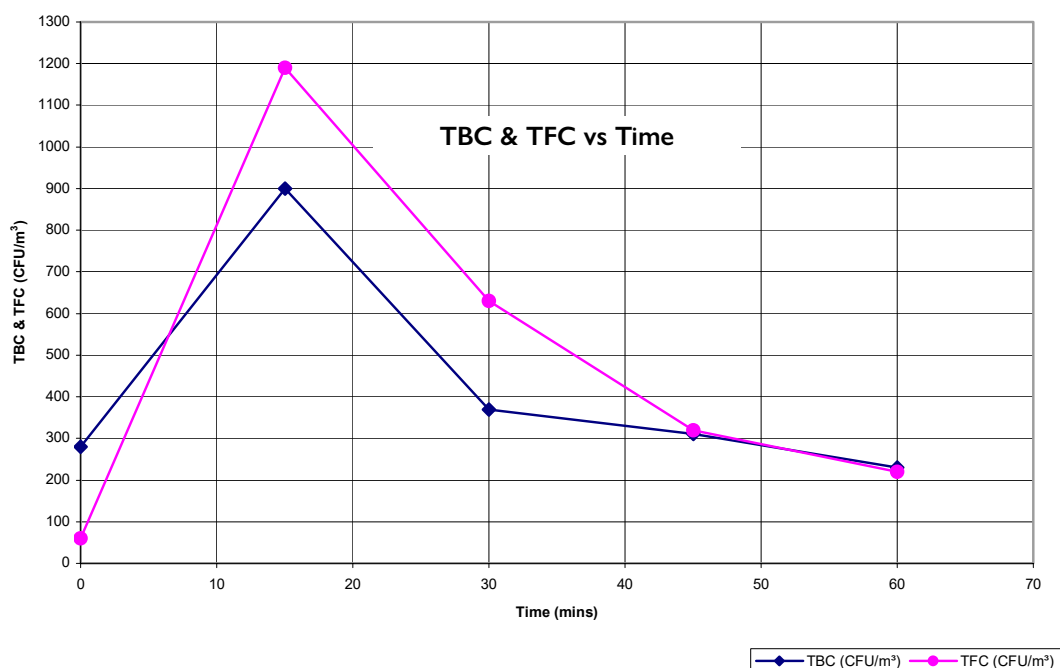
Reduces indoor air pollution and eliminates sources of headaches, respiratory issues, fatigue, COPD and asthma.



## TOTAL BACTERIAL COUNT (TBC) OG TOTAL FUNGAL COUNT (TFC)

Cumulative Time (mins)	TBC (CFU/m <sup>3</sup> )	TFC (CFU/m <sup>3</sup> )	SIAQG (CFU/m <sup>3</sup> )
0	280	60	<b>TBC: 500 TFC: 500</b>
15	900	1190	
30	370	630	
45	310	320	
60	230	220	

Bacteria and fungi are introduced into the room after 15 minutes, and over the following 45 minutes, the MAC500 significantly reduces the count of both.



Refers to the amount of bacteria and fungal spores in a given environment or sample.

TBC (Total Bacterial Count) and TFC (Total Fungal Count) are important measurements when assessing air and surface quality in environments such as hospitals, food production facilities, and laboratories.

Measuring TBC and TFC can help identify potential health risks and indicate the need for further cleaning and disinfection.



**JIMCO's MAC<sub>500</sub>  
HAS KEPT THE  
COOLING COIL  
COMPLETELY CLEAN**



**“WE INSTALLED THE MAC<sub>500</sub> IN OCTOBER 2022,  
AND I HAVEN'T SEEN A TRACE OF MOLD SINCE,”**

*SAYS MASTER BUTCHER LARS BO HANSEN.*

“Our cold storage room has struggled with recurring mould for as long as I can remember – and I’ve worked here for over 25 years. Just 2–4 weeks after a chemical cleaning, the mould would always start coming back.

We installed JIMCO's MAC500 to eliminate airborne fungal spores and prevent mold from growing on ceilings, lamps, walls, shelves, cardboard boxes, and inside the cooling coil.

It's now been a few years, and I haven't seen a single trace of mold since. In addition, our cooling coils have stayed completely clean,” says a very satisfied Lars Bo Hansen, Master Butcher at SuperBrugsen Sønderød.

*SuperBrugsen is part of Coop, the largest supermarket chain in Denmark, with more than 1,000 stores nationwide.*





# MOLD

A Familiar – and Unwelcome – Guest in Many Cold Rooms  
Dark, damp, and poorly ventilated spaces provide the perfect conditions for mold to grow.

Once fungal spores have taken hold, it takes time, effort, and chemical cleaners to remove them.

Only for the mold to return shortly after – and the whole process starts over again.

## TIRED OF CONSTANTLY FIGHTING MOLD?

LET JIMCO'S MAC500 HANDLE IT FOR YOU.

This environmentally friendly technology breaks down mold spores, prevents new mould from forming, and reduces bacteria in your cold storage room.



A positive side effect of using the MAC500 in your cold room is that meat stored overnight retains its natural red colour.

We are extremely satisfied with the MAC500 in our cold storage room and can only recommend the product.

**Lars Bo Hansen, Master Butcher**  
*SuperBrugsen Sønderød*





At JIMCO, we have been working with air purification and surface disinfection solutions for more than 30 years.

Our unique technology and product range have undergone extensive safety and efficiency testing. The solutions are well-documented, thoroughly tested, and approved by recognized third-party institutions.

Since launching our first product in 1992, we haven't looked back.

Today, we help improve indoor environments for a wide range of industries and organizations around the world – and we'd be happy to help you find the right solution too.

- [Eurofins](#)
- [Dansk Teknologisk Institut \(Virus test\)](#)
- [UL \(AEEA - Air-filtering Appliances\)](#)
- [CARB \(California Air Resources Board\)](#)
- [EU's miljøpris](#)
- [FDA registreret](#)



**PLACE YOUR MAC500 ORDER HERE**



**JIMCO®**

**UV-C & OZONE  
Technology**

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