

AerSMASH  
pure improvement.

Improve the air,  
and keep it fresh

# INNOVATION IN THE SPOTLIGHT: AERSMASH – PURE ENVIRONMENTAL CONDITIONS

## What is AerSMASH?

AerSMASH eliminates fungi, odours and bacteria, pollen, spores, smoke and other harmful substances from the air, which doesn't just result in pure, clean air, but at the same time improves the (working) environment and the quality of your products. AerSMASH is a proven concept, which has been marketed both nationally and internationally. AerSMASH – Pure Improvement. Improving the air, the environment and the quality of your products.

## How AerSMASH works in the fisheries sector

AerSMASH is making a difference to the fisheries sector. Odours, bacteria, viruses, fungi and other micro-organisms are eliminated, so your fresh fish products retain their quality for longer. With AerSMASH, you can meet the high quality standards for longer and keep the risk of undesirable contamination at bay. Your fish stays fresh for longer, enabling you to reduce costs and (product) losses. Because the AerSMASH units remove these micro-organisms from the air, the fish stays fresher for longer and it retains its good quality for longer.

**AerSMASH – Pure Improvement.  
Improving the air, the environment  
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## How does AerSMASH work in practice?

1. All of the air in your environment is purified. The air contains all kinds of substances that can affect the decay of products. AerSMASH removes the harm from these chemical substances or even eliminates them altogether, so your products stay fresh for longer, and the rotting process is delayed significantly.
2. Bacteria that are 'aerosols' (suspended in the air), are cleared away, so they are no longer able to discharge spores either. The source of the contamination is therefore eliminated.
3. Fungi spores are eliminated, so the spread of fungi is reduced significantly. There is little to zero cross-contamination and fungi have little to zero opportunity to decay your products.

## Proven applications

AerSMASH delays melanosis in lobsters (and other crab and limpet-like creatures), melanosis is a well-known phenomenon: blood pigments change, causing certain organs to turn black. The melanosis is caused by an enzyme (PPO) in the lobster. This process is often prevented by placing the lobsters in a bath of sulphite. The sulphite removes the content of their stomach, thereby delaying the melanosis.

If a lobster is dead, PPO will grow rapidly. Bacteria and fungi are now able to penetrate too, accelerating the release of PPO and turning the lobster's shell darker faster.

AerSMASH eliminates bacteria and fungi from the air, which delays the melanosis and enables the fish to retain the required quality for longer.

## AerSMASH reduces listeria

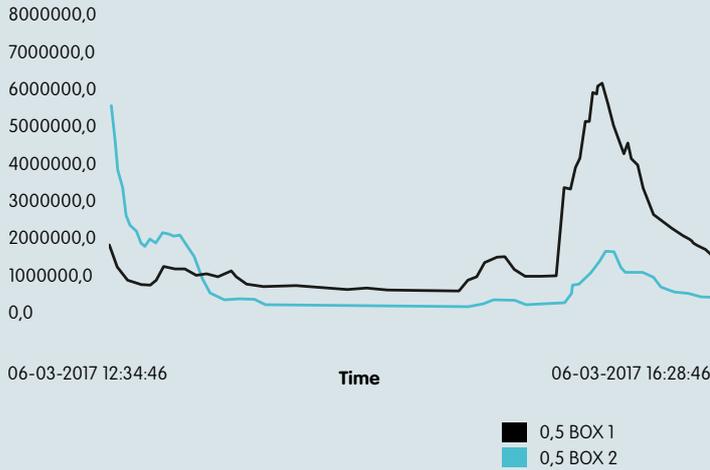
Listeria is a bacteria that can spread at temperatures to under freezing point. It is a major problem in the food industry and the fishery sector as a whole.

Listeria spreads in a number of ways, including by sticking to coarser particles of dust in the air. These particles of dust may occur due to cleaning greasy surfaces with a pressure washer, but even by spraying with low pressure. The force of the pressure washer causes the grease to which the listeria is stuck to shoot into the air. The particles of grease (carriers) containing the listeria may then land on surfaces that have just been cleaned, causing the listeria to spread again.

Because AerSMASH draws in the air during cleaning, it renders the carriers and the listeria bacteria stuck to them harmless, thereby tackling the listeria problem in the food industry and significantly reducing it or resolving it completely.



**Particals 0,5**



This Particals count graph shows that AerSMASH rapidly removes particles and that during cleaning work (in a humid space), the number of particles increases rapidly and AerSMASH has them under control.

**How does AerSMASH technically work?**

The AerSMASH unit purifies air based on a patented concept. By injecting ionised plasma, a chemical reaction removes hydrogen molecules from the harmful air particles, causing these particles to decay and lose their harmful charge. AerSMASH units thereby also have a positive effect on human health. The ionisation process of plasma originates in nature. Because humans produce more contaminated air than nature is able to purify, AerSMASH gives nature a helping hand. Depending on the quantity of contaminated air and the size of the room to be kept clean, we calculate the quantity of plasma the unit needs. We also consider the best way of installing the unit or adding it to the existing air treatment system.

**Further information?**

For further information, please call +31 (0)522 230850, send an e-mail to [info@aersmash.com](mailto:info@aersmash.com) or visit [www.aersmash.com](http://www.aersmash.com).

**Responses of companies that use AerSMASH**

**Jelle Pasterkamp Oromar Urk**

Oromar has installed AerSMASH units in the cold stores and processing rooms. A significant improvement can be seen in terms of odour in particular. The shelf life of the products in the stores where the units are installed has also improved. Tests carried out in the company support this result.

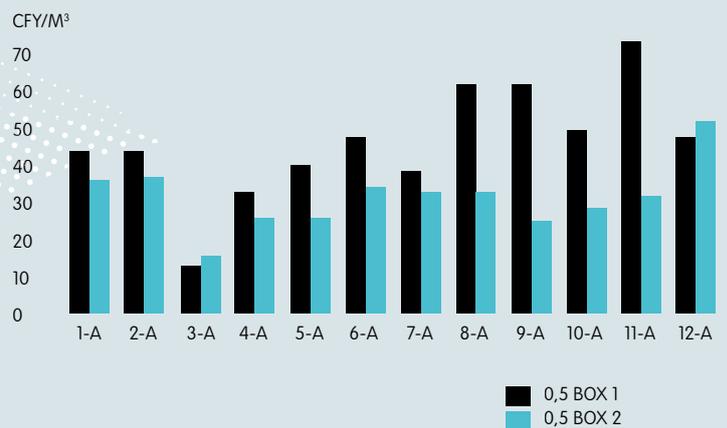
**Jacob van Urk UK 158**

Oromar has installed AerSMASH units We have had an AerSMASH unit installed in the fish hold for the past six months now. Customer feedback indicates that this has had a positive effect on the quality of our product.

**Hendrik and Dirk Romkes MDVI**

An AerSMASH unit has been running in the processing hold for a few weeks now. We have noticed that the intense odour in the hold has reduced significantly and that when we come on board on a Monday morning, it even smells fresh.

**CFY measurement results**



Comparative measuring result of CFY (colony forming unit) in fish processing company Box 1 without AerSMASH and Box 2 with AerSMASH. This proves that constant recirculation causes bacteria pressure to decrease. This graph shows the decrease between 10 and 15 minutes.



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