

Shipping live shellfish beats airfreight by 50% claims Aqualife Logistic

AQUALIFE Logistic's new shipping system, developed in cooperation with container shipping company Maersk Line, allows live shellfish to be transported long distances by container ship or truck at a savings of up to 50% over airfreight.

Currently for long distances, most expensive shellfish such as lobster, oysters or abalone is shipped in ice via costly airfreight. Meanwhile, less expensive shellfish, such as clams or mussels, are either not shipped long distances at all, or processed first and shipped as frozen.

However, with Aqualife's shipping system which can keep 15 tonnes of shellfish alive for 30 days, it is now

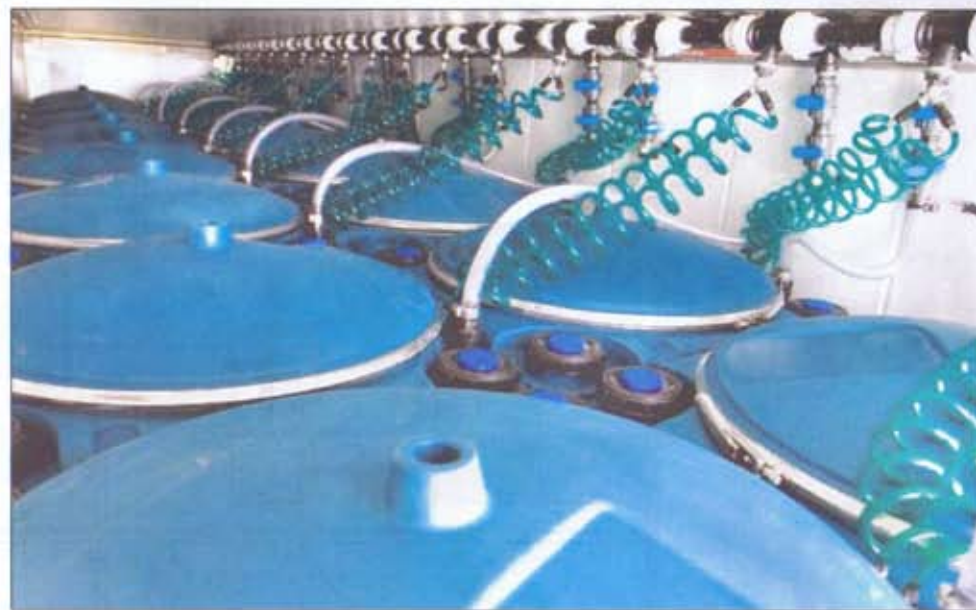
cost-effective to ship mussels and clams live to better-paying markets, or to ship lobsters, oysters or other high-end shellfish in a more cost effective manner.

"The system has been tested thoroughly and is already in operation on routes between Canada, the Netherlands and Spain," says Aqualife CEO Lars Nannerup.

"Up until now only luxury foods such as lobsters and crabs have been cost-efficient to airfreight over longer distances. With Aqualife, it is



now also cost-efficient to ship products such as live clams



Shellfish tanks inside an Aqualife container

Left: Aqualife developed its system along with shipping specialist Maersk Line

Bottom left: Clams in an Aqualife tank

and mussels from one continent to another."

In addition, Nannerup points out that with more and more concern being expressed about shipping food and its 'carbon footprint', Aqualife claims that by shipping by sea instead of by air, the shellfish has 30 times less environmental impact.

Aqualife says its container system keeps shellfish alive in their own environment right up until the moment of consumption. This reduces waste and allows the shellfish to stay in top-quality condition, it adds.

Shellfish are loaded at port-based docking system into specially adapted standard 40ft (12.19m) containers with 20 upright spherical holding tanks. These

are interconnected through a central piping system.

During transportation, either by land, sea or rail, the system operates automatically, recirculating purified, membrane-filtered water which removes dissolved substances.

The container is kept chilled to maintain the shellfish in a state of semi-hibernation, which discourages the build-up of ammonia during shipment, according to Nannerup. Oxygen, carbon dioxide, temperature and ammonia gas are all constantly monitored.

Nannerup says that the tanks are designed using special materials to make them easy to clean and maintain, while the advanced filter technology allows the system to comply with the strict environment and food safety regulations of the EU.

When the ship docks, the containers are removed and plugged into a second docking station at the port, which ensures the shellfish are in perfect condition for onward transportation to the market, either by standard chilled transport, or by putting the container on a truck.

Aqualife claims that to

avoid the spread of any shellfish diseases, all shellfish for transportation will be certified disease-free, while filtered waste water undergoes a process to decompose and remove any potentially harmful bacteria, viruses or pathogens.

"Our technology removes all types of waste and keeps it in a closed system for safe disposal," says Nannerup.

Despite the huge size of container vessels, rough seas can pound the ships, and to design a system which can keep shellfish alive under these conditions has been a trial, according to Nannerup.

"Technically this has been one of our largest challenges," he says. "Operating a live seafood system under extreme conditions has been a challenge, we face tilts with up to 45 degrees and the actual roll can exceed 30m from side to side creating a 2G pressure."

"We have constructed the tanks in close cooperation with the engineering team from Promens and Maersk container industries and they have been crash tested both in terms of strength and operations."

