



Seafood Processing

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Product Category	<ul style="list-style-type: none"> ● CIP (Clean-in-Place) ● Peracetic Acid for Seafood Processing
Application	<ul style="list-style-type: none"> ● Process decontamination
Key Function(s)	<ul style="list-style-type: none"> ● Food safety ● Food hygiene ● Keep seafood freshness

What is a seafood processing plant?

Seafood processing plants, also known as plants or processors, are facilities in which a range of procedures are done to prepare wild-caught and/or farmed seafood for eventual retail and consumption.

As seafood is highly perishable, special care is needed to preserve it after harvesting – this is where plants come in. Some facilities have both seafood farms and plants connected, some are onboard fishing vessels, and some plants are standalone.

What happens at a seafood processing plant?

As there is huge variety in species of seafood consumed worldwide, there is no uniform procedure for processing. However, there is a general flow of product that happens at most processing plants, with the ultimate goal being to preserve the shelf life of the seafood.

Steps of production at seafood processing plants:

1. Receipt of the product
2. Processing which can include washing, chilling, skinning, gilling and gutting, filleting, shucking, cooking, smoking, salting, drying, preserving, or canning (this step varies depending on which species of seafood is being processed and if it is sold fresh or frozen)
3. Storing
4. Dispatching
5. Transporting (except from retail premises to consumer, or in a vehicle from which the seafood will be sold by retail)



Arguably the most important aspect of processing is the hygiene, handling, and food safety controls in place.

For more information of product



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Why are seafood processing plants important?

Without seafood processing plants, the shelf lives of seafood products would be much shorter. Additionally, plants are the step in the seafood production chain which gives the product a form that is appealing to the consumer (for example, skinning and deheading fish).

Plants also help reduce food loss and food waste. Naturally, there are a lot of by-products in seafood processing (bones, shells, heads, etc.), and processing plants work to minimize the amount of waste in the production chain. These by-products can be used in animal feed ingredients (fishmeal and fish oil), biofuel and biogas, pharmaceuticals (omega-3 oils), and fertilizer. Using by-products from already processed seafood products helps reduce the pressure on fisheries resources.

The sources of spoilage and pathogenic microorganisms in fish- and shellfish-processing facilities include raw materials, workers, equipment, containers, floor drains, ventilation systems, and water applied under pressure during cleaning and sanitation procedures. Even when cleaning and sanitizing operations are regularly performed, not all microorganisms are eliminated from food and nonfood contact surfaces.

If microorganisms are not destroyed, they can grow during processing, distribution, retailing, and preparation, which reduces the quality of the product and can present a possible food safety hazard. The removal of contaminant microflora from surfaces in processing facilities can be achieved using different sanitizers.

Sanitizers and sanitation

The question of which sanitizer to use will depend on cost, availability, the nature of the soil in the facility, the processing equipment and facility materials, and the conditions under which food is processed. Sanitizer selection is made more difficult by the increased resistance to antimicrobials exhibited by adherent cells (biofilms) and the fact that information on the effectiveness of most sanitizers was obtained from tests on suspended planktonic cells.

When microorganisms settle on or adhere to a surface, they can be protected by irregularities in the surface that hamper the action of sanitizers. Therefore, the efficiency of sanitizers under specific application conditions must be well defined for effective sanitation programs to be implemented.

Peracetic acid

Peracetic acid possesses many advantages when compared to sodium hypochlorite, one of the most common sanitizers. One important advantage is that it does not react with proteins to produce toxic or carcinogenic compounds. It also has a low environmental impact, and has been reported more effective than sodium hypochlorite against biofilms.

- **Peracetic acid** can be used over wide spectrums of temperature (0 to 40 degrees-C) and pH (3.0 to 7.5), in clean-in-place processes, and with hard water. In addition, protein residues do not affect its efficiency. However, it may not provide the microbial reduction sometimes achieved by sodium hypochlorite.
- **Peracetic acid** does not react with proteins to produce toxic or carcinogenic compounds
- **Peracetic acid** is used for sanitizing of food contact surfaces, sanitizing and disinfecting of animal premises and as a food processing aid for antimicrobial intervention without imparting odors, colors, or flavors to the finished product.

Peracetic Acid may be used in process water and ice used to commercially prepare fish and seafood.

Stellar Unity has a long experience in dealing with how process equipment hygiene for seafood manufacturing could be cared for and managed.

Stellar Unity has provided range of products to clean, detergent, rinse, and disinfect the whole process equipment to make sure that seafood produce is free from harmful and pathogenic microorganism and extend the shelflife as long as it could. Please contact our sales representative and we are happy to exchange our experience.



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