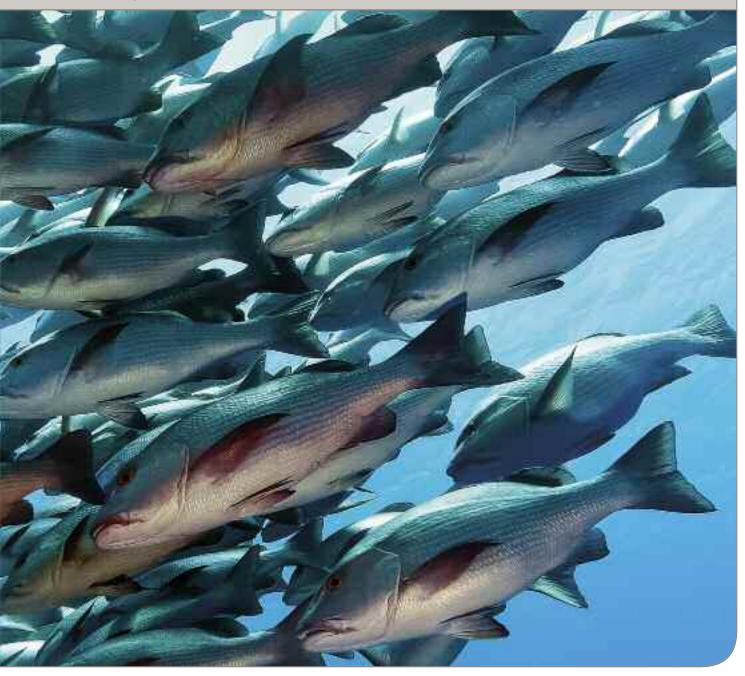


Catching revenue

Building surimi opportunities – worldwide



Better recovery - better profit opportunities

With an Alfa Laval surimi solution, fish processing operations get greater recovery – and thus greater profits – from any catch.

Impeccable quality and engineering ensure customers important sources of added revenue, backed by the highest standards of reliability, consistency, durability and hygiene.

An Alfa Laval surimi solution is your assurance of new revenue opportunities and a rapid return on investment, along with minimal operating and maintenance costs.



"Pet er Pan is one of America's best-known names in seafood products, but the surimi business was new for us. We were looking for a space-saving, compact plant, and we got it with the AlfaPlus™ decanter system – along with a lot of help from Alfa Laval.

The system is easy to operate, requiring only two operators. We have now exceeded Alfa Laval's initial yield guarantees, and we only produce good quality surimi under the Peter Pan label. The buyers are pleased to get a consistent surimi, which is very white and has the gel strength and moisture content they expect."

Glenn Guffey, Assistant Plant Manager, Peter Pan Seafoods, Inc., Seattle, USA

Surimi tastes of revenue

Alfa Laval technology allows seafood processing companies to increase their revenues from any catch

Alfa Laval brings the maximum benefits of modern technology to the traditional production of surimi – along with all our practical experience in applying and implementing such systems. The Alfa Laval surimi solution allows seafood processing companies to boost their catch revenues by turning fish fillets – or headed and gutted fish, deboned meat from fish frames and even lower quality fish residues – into an attractive, marketable product.

Alfa Laval provides major new business opportunities for seafood processing companies interested in adding surimi manufacture to their existing production activities – or in establishing specialist surimi manufacturing facilities with the full benefit of modern technology.

By adding an AlfaPlus™ processing line, it is possible to achieve a significantly higher yield – and greater profits – from almost any catch.

Surimi from different species

The new technology from Alfa Laval means that companies now have opportunities to process a wide range of different fish species into a marketable product, and thus into a profitable business opportunity. Alfa Laval decanters use centrifugal force so that more species, including oily fish, can now also be processed into premium grade surimi.

Surimi profits instead of just fishmeal

Alfa Laval surimi solutions can be installed towards the end of several kinds of conventional production lines used in fish processing facilities.

This makes it possible to produce profitable surimi with a market price almost triple that of fishmeal, which is otherwise often the only saleable end product after seafood processing has been completed.

Recovery is the key

One of the keys to commercial success is to ensure maximum recovery from any specific volume of fish. Use of AlfaPlus™ decanter-based recovery systems has led to a 25% increase in the surimi yield from round fish in US plants.

The bottom-line difference

The Alfa Laval surimi solution produces a consistent premium quality product that ensures maximum market value from any raw material. It also results in significantly better recovery rates. Together, these result in direct bottom-line benefits.

Since the system also saves both space and manpower, as well as keeping hygiene standards consistently high, costs of both production and maintenance can be kept to a minimum.

Less is more

Alfa Laval surimi systems mean greater reliability, lower manpower costs, better hygiene, a more versatile installation and lower service costs

From screw press to decanter-based systems

In the traditional manner of producing surimi, the raw material passes through two or more washing or leaching stages, and then through dewatering screens.

It then enters the refining stage, before passing into a screw press that produces primary grade surimi based on 40% of the original fish mince. The rest of the bone and meat residue is passed on to a second leaching refiner and screw press, resulting in a secondary grade surimi based on 15% of the mince. Total recovery thus reaches 55%.

More compact, greater yield

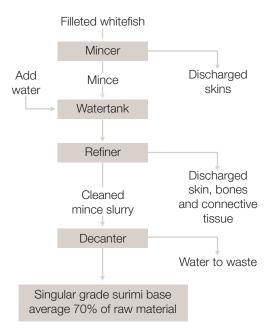
In the new decanter-based process from Alfa Laval, the screw presses as well as several washing and dewatering stages are eliminated, making the entire production plant much more compact.

An Alfa Laval system gives yields that are as much as 50% higher, as well as providing a higher quality end product based on 70% of the original mince.

Less is more

An Alfa Laval solution takes up little space, making it possible to either expand capacity in existing surimi production facilities or to install surimi facilities in smaller premises on land or in shipboard plants.

Despite its smaller size, Alfa Laval equipment recovers a huge amount of the valuable small protein fibres that were previously lost in the screening stages.



Alfa Laval-based production process (AlfaPlus™)





Keeping it aboard

Highland Light Seafoods, part of the American Yardarm Knot Group, operates the *Highland Light* to harvest Alaskan pollock into roe, fillets block and surimi while still at sea. The 270-foot vessel is equipped with an Alfa Laval surimi system. "We installed an Alfa Laval decanter on our fish filet production line to get more out of our fish leftovers," says Mike Coleman. "It gives us surimi that lives up to all expectations, and our recovery has also increased due to the consistent operation

Mike Coleman, General Manager, Highland Light Seafoods, USA

of the equipment. Yield is up, and basically we are making money from material we used to throw back into the ocean."

Cleaner is better

Alfa Laval surimi solutions also provide the added benefit of better hygiene. In modern food production, this is an increasingly important parameter for consumer success. An Alfa Laval solution is completely enclosed and is designed to meet the most rigorous world-standard hygiene requirements.

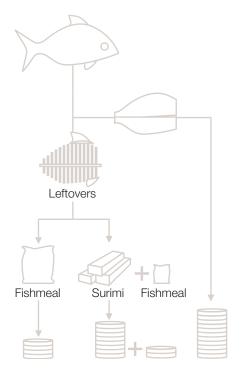
Less manpower, greater flexibility

Unlike traditional surimi processes, which rely on constant manual adjustment and inspection, an Alfa Laval system is fully computerized in order to provide maximum efficiency at minimum

operating cost.

Automatic control means that companies can now be sure of exact control of the moisture content in the final product, with far less supervision and lower manpower costs.

An Alfa Laval surimi solution also makes it easier to vary production levels to meet both supply and demand. Scaling production levels up and down is simply a question of adjusting the necessary computer settings. The pumps, valves and all other ancillary systems are then automatically set to achieve the desired production levels.





Superior surimi

Using Alfa Laval surimi production technology allows manufacturers to produce a surimi base with a consistent, easily marketable quality, all the way through

Al faPl us™ features

- Simple, compact installation
- Easy to install, even in smaller vessels
- Inline production
- CIP (Cleaning-in-Place)
- Production levels are fully scalable, as and when required
- Low investment and labour costs
- Rapid return on investment

Al faPl us™ benefits

- Effective washing in only one or two steps
- One single grade means lower handling and storage costs
- Controlled quality during inline production
- Increased yield without extra equipment or additional investment
- Flexible capacity





Cadr e Mar i ne Expor t produces 7,000 metric tons of frozen seafood a year, and exports its products under the Meena brand name to Japan, South Korea, Taiwan, China, Singapore, Australia – and soon also to the EU. The company has five years of experience with Alfa Laval decanters. "We came across Alfa Laval when we were looking for ways of achieving optimal solid/liquid separation, and heard about their surimi process. We now use the Alfa Laval decanters to separate the solids from wash water, and they have increased our recovery rate considerably. For us, it's important that Alfa Laval is located right near our factory – we wanted to be sure of getting help in time, if needed. Alfa Laval also provides us with the sophisticated technology we need, and we will certainly contact Alfa Laval next time round."

Deepak Gadre, Managing Director,

Nonstop Performance

A lifetime commitment

For us at Alfa Laval, our obligation to you as a customer does not stop short at delivery. Our Parts & Service organization is there to ensure that your process always runs at peak performance. This is a commitment that extends throughout the lifetime of the system. We call it Nonstop Performance.

Nonstop Performance is based on our global network of experts, who are always on standby to provide you with genuine spare parts on site, in more than 50 countries, 365 days a year, right around the clock.

In terms of service, we speak your language. Alfa Laval service is based on a profound insight into the needs of the surimi industry. We see every product as part of a process and understand the role it plays within that process. We can therefore work in close collaboration with you to tailor an individual service package that matches your requirements perfectly.

Service must result in bottom-line benefits. We therefore help you to calculate the savings that will result from any proposed service package, and the real-term benefits it will provide.

Challenge us to show you!





Alfa Laval in brief

Alfa Laval is a leading global provider of specialized products and engineered solutions.

Our equipment, systems and services are dedicated to helping customers to optimize the performance of their processes. Time and time again.

We help our customers to heat, cool, separate and transport products such as oil, water, chemicals, beverages, foodstuff, starch and pharmaceuticals.

Our worldwide organization works closely with customers in almost 100 countries to help them stay ahead.

How to contact Alfa Laval

Contact details for all countries are continually updated on our web site. Please visit www.alfalaval.com for more information.

