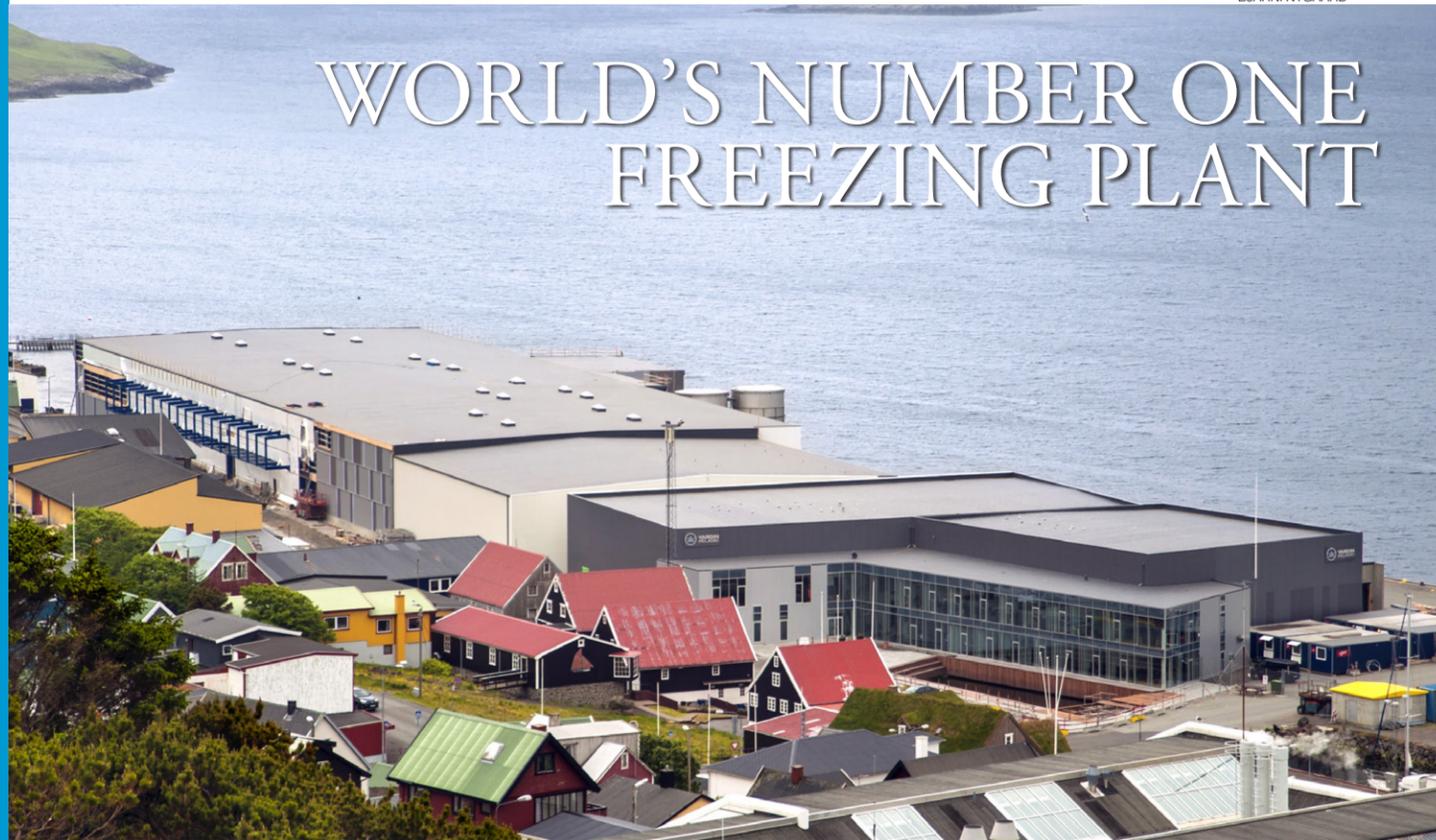


BJARNI NYGAARD

WORLD'S NUMBER ONE FREEZING PLANT



Varðin Pelagic's rebuilt facility at Tvøroyri is expected to be completed and fully operational by August this year (2018); Partial view of the front side of the building (below); Pelagic trawler Finnur Friði, one of Varðin's vessels (bottom).

Completely rebuilt after burning down in 2017, Tvøroyri's new Varðin Pelagic processing plant is equipped with cutting-edge automation technology, unmatched freezing capacity, and computer vision-aided quality assurance.



BJARNI NYGAARD



VARÐIN

IF THE VARÐIN Pelagic freezing plant at Tvøroyri wasn't already one of the world's foremost processing facilities of its kind—and it certainly was—it will now be ranked at the very top. Originally opened in 2012, the factory is being reopened this summer (2018) after a fire burned it to the ground in June 2017, now completely renewed, redesigned and rebuilt. Logistically, technologically and otherwise, the facility has been upgraded significantly compared to its previous incarnation.

In brief, the new layout and makeup of the processing plant is more optimized for product quality, productivity and operational stability, according to CEO Bogi Jacobsen.

"We were faced with the sobering fact that most of the facility had been destroyed by the fire," he noted. "There was, however, a silver lining to that—because, after all, this

disaster offered a unique opportunity to take the entire plant to the drawing board and build it from scratch, which we decided to do. So instead of having several units cobbled together as earlier with obvious weak points when it comes to flow of production, we went for the ultimate solution to allow for the highest quality in the most cost effective way, all under one roof."

That solution is all about continuous flow process and automation, using the latest technology for quality, more complete control throughout the various stages of the process, and less vulnerability to disruptions. Notably, the advancement in processing technology since 2012 has been substantial, not least in robotics and computer vision-based systems.

"In fact, our new factory is quite a step up compared with the former," Mr. Jacobsen said. "I would say the main difference is that



VARÐIN



RÚNI THOMSEN



MARIA OLSEN

CEO Bogi Jacobsen; Left, top to bottom: Tróndur í Gøtu, Varðin flagship vessel; Newly installed processing equipment in the rebuilt facility.

the fish processing chain has become more perfected for securing maximum product quality."

Part of the secret to higher levels of process control is new technology, including machine vision, with cameras in key positions throughout the plant, complemented by high-accuracy weight controls and temperature sensors. Process flow data is thus recorded throughout the production and fed back to control units which then, in real time, execute actions and adjustments.

KNOWLEDGE AND SKILLS

The main processing lines in the Varðin Pelagic plant are now three, rather than two which they were earlier. Not only does this enable a higher processing capacity but it also means that any disruptions that may occur will have a less costly effect compared to earlier.

"Should one processing line break down for whatever reason, it will mean reduced productivity by one-third during that down period. Previously, one processing line down would set back productivity by as much as one-half."

All seamless and integrated, the vision systems now integrated throughout the production lines represent nothing less than a quiet revolution promising dramatic growth potential. For example, when catch is pumped from a vessel into Varðin Pelagic's receiving tank, it is transferred onward by pocket belt conveyors, with the vision system then inspecting every single fish and removing any damaged fish or unwanted species.

Then in-feeding, before automatic grading

by size, takes place gently as adjusted continuously—each pocket of the conveyor is weighed automatically and the relevant data sent to control units which, in real time, regulate the speed of the conveyor.

Moreover, Varðin Pelagic's freezing capacity has been raised from a maximum 1,000 tonnes per day to approximately 1,200 tonnes, with the option of raising it further to a whopping 1,700 tonnes per day—a capacity that appears to be unmatched worldwide.

"This new processing system offers a high degree of flexibility," Mr. Jacobsen added. "For example, we can now have one processing line run a special production batch for a client without sacrificing overall productivity or, if necessary, we can use even more processing capacity for special production runs."

The facility's value chain integration with parent company Varðin's fleet of modern pelagic vessels offers a further, serious advantage.

"Having a joint owner with our fishing vessels helps us work closely with them, which is critical to securing the highest possible product quality. It has much to do with timing, the length of fishing trips, and the volumes of fish as related to the amount of pressure the fish is exposed to during trawling."

However, successfully implementing and operating Varðin Pelagic's advanced processing technology takes a well trained workforce.

"We've been keen on getting up to speed in the use of all this equipment, and I'm very pleased with the incredible level of relevant knowledge and skills that our staff have already demonstrated," Mr. Jacobsen said.

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Varðin Pelagic is the Faroe Islands' leading processor of wild-caught fish.

In business since August 2012, the company was founded by Varðin — the largest vessel owner in the pelagic fish industry of the Faroe Islands — and Delta Seafood, one of the most experienced and respected seafood processors in the whitefish industry.

Varðin Pelagic in brief:

- The company has a well-trained workforce;
- Highly advanced machinery and electronics — new and upgraded machinery as of 2018 after facility rebuilt;
- Able to control product quality throughout value chain, from fishing grounds to marketplace.
- Production capacity per 24 hours: 1,200 tonnes.
- Fully automatic processing with newest cooling technology, highest hygiene standards.
- Products: Whole round, H/G, flaps, fillets, byproducts.
- Species: Mackerel, herring, blue whiting, capelin.
- Own cold storage facility — storage capacity: 15,000 tonnes.
- Access to largest pelagic quota share in Faroes, fleet of state-of-the-art pelagic vessels.
- Latest cooling technology on vessels as well as in factory.
- New: IQF freezing.
- New: processing line for mince and surimi from blue whiting.