# Norway's Leading Processor of SUPERIOR QUALITY OMEGA 3 FISH OIL





Fortuna Oils is based within the beating heart of Norway's fishing industry – Kristiansund, with it's centuries old history, traditions and expertise in fishing, fish processing and the development of fish based products.

Kristiansund 🤇

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## One of the leading Global suppliers of refined, marine Omega 3 oils

Fortuna Oils refinery was established in Kristiansund in 2004. Here we process and produce the finest quality fish oils for a constantly expanding global market in our state-of-the-art, food grade facility. Modernised in 2017, the plant is certified to ISO 9001-2015 and has a capacity of 1400 metric tons of the finest quality refined oil per annum.









### Quality assurance and control

Before entering the facility all raw materials are sampled, analysed and approved by our QC department. The actual refining process is subject to the approval and certification of the Food Safety Authority and HACCP System (critical control points) and once the refining is complete the oils are subjected to a rigorous final analysis prior to certification and approval.

CERTIFICATE

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## A Brief Overview of the Plant and Refining Process

Prior to the refining and production process, crude oils are stored in four storage tanks with a total capacity of 1400 metric tons. They are then processed as follows:

**Process 1**. Bleaching: This process which paradoxically does not involve bleach, is designed to maximise colour and eliminate pigments and other impurities.

**Process 2.** The crystalisation and filtering process is designed to enhance the content of unsaturated fatty acids and maintain their integrity in cold storage. The gradual cooling process is carefully controlled using a 'cooling curve' determined by our data system and can take anything between eight and twelve hours, dependent on the quantity of oil being processed.

**Process 3**. The deodorisation process removes environmental and toxic contaminants as well as any volatile substances that could cause un-wanted odours or taste.

This process is carried out by using a horizontal reactor. The plant can operate with 5% (stripping) steam compared to an industry standard of 1--2%

**Process 4**. The required levels of vitamins and antiaxidants are secured through this final drumming and packaging process. It is semi-manual to ensure product safety and stability.

The plant has its own nitrogen injection system – membrane filter technology – and is capable of producing 1400 tons at full capacity.









#### Healthy salmon

Typically, salmon are anadromous: they hatch in fresh water, migrate to the ocean, then return to fresh water to reproduce. However, populations of several species are restricted to fresh water through their lives.

Farmed salmon has become a staple of healthy and affordable diets around the worldthy.

#### Schematic overwiew of value chain





#### THE SUPERIOR TASTE AWARD

Fortuna Oils was awarded to iTQi's «The Superior Taste Award 2018» with two gold star. Two of our Omega-3 cod liver and herring oil got this great certification. This achievement emphasizes that our Herring Oil and Cod Liver Oil are a superior Omega-3 ingredient for functional foods and high nutritional supplements.







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