

ENGINEERING
TOMORROW

Danfoss

New ICF Flexline™ stainless steel valve station for the Fishery Industry

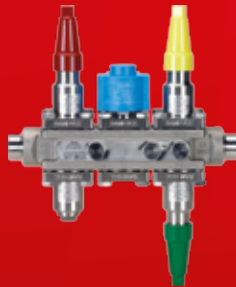
The **missing link** in your fishery refrigeration plant: Meet the new Danfoss ICF Flexline™ **stainless steel** valve station

Danfoss now introduces a stainless steel version of its successful ICF Flexline™ valve station for industrial refrigeration, completing the range of stainless steel products and making efficient, reliable and corrosion-free cooling installations a reality – at sea or on land.

The world's

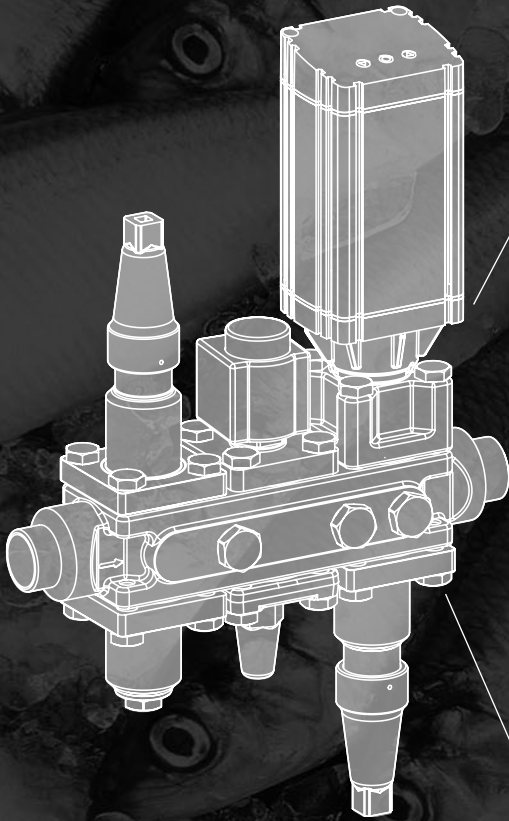
ONLY

stainless steel
valve station



www.Danfoss.com/ICF-stainless-steel

The ICF Flexline™ **stainless steel** valve station from Danfoss



End-user benefits

- Pre-tested and factory-assembled product ready to install
- Precise temperature control for optimum food safety
- Approved for high-pressure refrigerants
- Fewer weldings equal minimized leak risk
- DNV, BV and other marine approvals are available on request

Benefits for the contractor

- Easy to do service on your service contracts
- One code number for easier order and spare parts handling
- Less inventory space needed
- Compact design, low weight
- Fewer weldings equal minimized leak risk
- Full systems design freedom
- All marine approvals in place

One-stop shop

- Just one supplier needed for all component types
- The only stainless steel valve station in the market
- Innovation from the market leader in refrigeration technology
- Full range of support tools available for free
- Based on the tried and tested ICF stainless steel valve station concept
- Full compatibility with all stainless steel components from Danfoss

TWO

weldings instead
of six or more

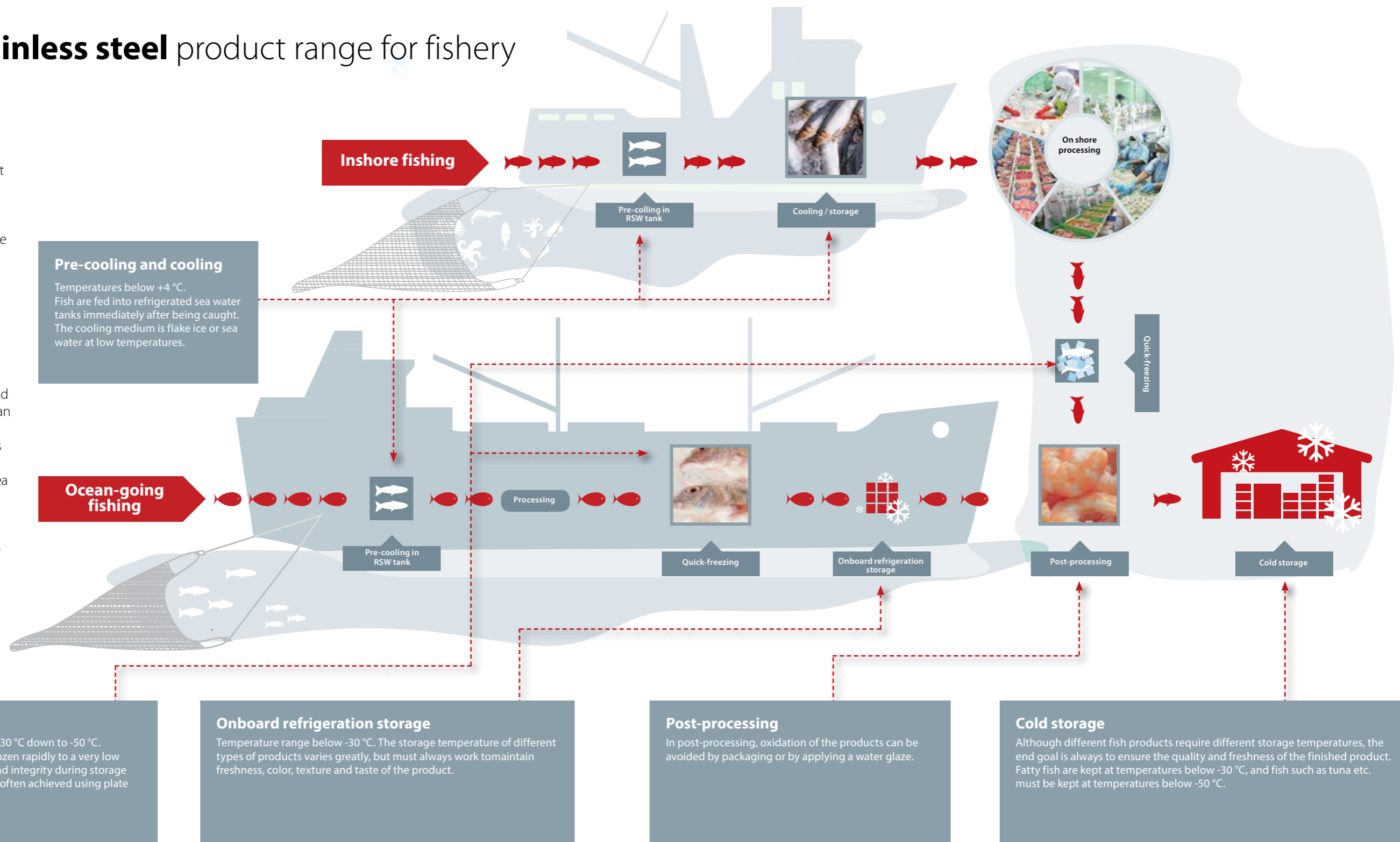
Your total **stainless steel** product range for fishery

In fish handling and processing, fast cooling and high levels of hygiene are essential. At the same time, fishing takes place in a notoriously tough environment both wet and highly saline – in other words, corrosive.

Now, with the introduction of the ICF stainless steel valve station, Danfoss offers a complete range of modern, flexible stainless steel components for the fishery industry.

With the ICF stainless steel valve station and the other stainless steel components for cooling and refrigeration, your installations can become simpler, more hygienic and far more efficient, regardless of the scale of your production and its geographic location at sea or on land.

In this diagram, we show how the stainless steel product range by Danfoss can help producers of fresh or processed fish deliver consistent quality through safe, reliable and precise temperature control.



Quick-freezing

Freezing temperature range from -30 °C down to -50 °C. The processed fish products are frozen rapidly to a very low temperature to maintain quality and integrity during storage and transport. The cooling is most often achieved using plate freezers.

Onboard refrigeration storage

Temperature range below -30 °C. The storage temperature of different types of products varies greatly, but must always work to maintain freshness, color, texture and taste of the product.

Post-processing

In post-processing, oxidation of the products can be avoided by packaging or by applying a water glaze.

Cold storage

Although different fish products require different storage temperatures, the end goal is always to ensure the quality and freshness of the finished product. Fatty fish are kept at temperatures below -30 °C, and fish such as tuna etc. must be kept at temperatures below -50 °C.

Product range

SVL SS Flexline™ range:

The SVL SS Flexline™ range consists of a series of stainless steel valves based on the principle of one housing with many possible valve inserts. All functional inserts fit one of the two valve housings available (one straight, one angled), which makes it possible to keep a very low spare part stock and to service the valves quickly and efficiently.



The new Danfoss ICF Flexline™ stainless steel valve station

Max. operating pressure: 52 bar g (754 psig)
Temperature range: -60/+150 °C (-76 +302°F).

EVRS and EVRST stainless steel solenoid valves

Solenoid valves with three different operation types: Direct, servo or forced servo. Operating pressure up to 52 bar in a temperature range from -40 °C to +105 °C, depending on the coil.

OFV-SS stainless steel overflow valves

Three functions in one: Overflow valve, stop valve and check valve. Operating pressure up to 52 bar.

SNV-SS stainless steel needle valve

Compact and light service valves with sturdy design and high flow characteristics. Operating pressure up to 52 bar in a temperature range from -60 °C to +150 °C.

Introducing the world's first **stainless steel** valve station

At sea, refrigeration and cooling installations are prone to corrosion and must live up to very high demands for hygiene and safety. That's why so many operators of fish processing facilities at sea or on land rely on the qualities of stainless steel for their components. But stainless steel components, particularly valves, are typically big, heavy things with just one functionality per component, so you are left with installations that consist of many valves placed one after the other to achieve the function you need.



Replace many valves with one valve station

With the introduction of the new ICF stainless steel valve station from Danfoss, you can now minimize the weight, size and complexity of your installation. You can replace big, cumbersome valve trains with many weldings with just one stainless steel valve station. It's much smaller,

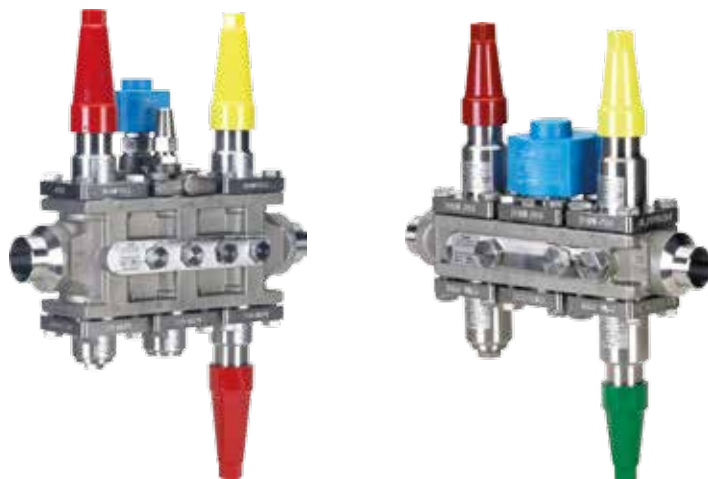
much easier to install and to service, and it's much more hygienic than conventional individual products.

This type of installation has been the standard in the fishing business for decades, but it's far from ideal. It's heavy, cumbersome to install, difficult

to regulate, and the sheer number of welds needed to string five or six valves together is a constant concern in terms of safety and operational reliability. And servicing, of course, can be a real hassle when you have to pick everything apart to get at just one valve.

A complete stainless steel range

The stainless steel ICF stainless steel valve station comes in two sizes: ICF 20 and ICF 25 with multiple connection types and sizes. It fits perfectly with all other stainless steel products for refrigeration in the fishery processing such as the SVL SS Flexline™ range from Danfoss. See our complete stainless steel offering for industrial refrigeration in this brochure.



Danfoss Industrial Refrigeration

A world of expertise at the click of a button

Turn to Danfoss if you want to combine quality components with expert knowhow and support. Try out these free tools, designed to make your work much easier.



DIRbuilder

DIRbuilder is designed to make selection processes for industrial refrigeration projects easier and less time-consuming. Specify the valves you need from an extensive pool of configuration options. The DIRbuilder library comprises all Danfoss Industrial Refrigeration valves. Free of charge – no software needed.



Coolselector® 2 – New calculation software for Industrial Refrigeration

Coolselector® 2 is a calculation and support tool for contractors and system designers, offering complete pressure drop calculations, analysis of pipe and valve design and the ability to generate performance reports. It replaces the well-known DIRcalc™ software and offers several new functionalities.



Danfoss IR app

The free IR App gives you a spare parts tool, which makes it easy for you to find the spare part number for a given Danfoss industrial refrigeration valve.



Download 3D CAD symbols

From our online product catalogue on our website, you can download 3D CAD symbols and illustrations to help you when designing refrigeration plants.



IR application tool

With this interactive PowerPoint slideshow, you can explore all the details of a two-stage ammonia plant. You will find detailed cut-away drawings and information on the valves in the installation along with links to videos, literature and product animations.



Application handbook

The Application Handbook is designed to help you every step of the way when working with industrial refrigeration systems. Among many other things, it contains examples of how to select control methods for different refrigeration systems, their design and which components to choose.

Visit www.danfoss.com/IR-tools and find all the tools you need.