



**COMPLETE  
WINCH SOLUTIONS**

**WINCHES WITH AUTOMATIC CONTROL SYSTEMS**



*Naust Marine headquarters in Hafnarfjordur, Iceland*

## NAUST MARINE

Naust Marine ehf. was founded in 1993. The company's goal is to develop, produce and market equipment for ships and the marine industry. Naust Marine's main products are Electrical winches and Automatic Trawl Winch controls (ATW system), as well as the AutoGen Power Management system and Electrical Spooling Gear (ESG), among other electrical solutions.

Naust Marine has an impressive reference list of domestic and international ships, counting more than **150** fishing trawlers, research vessels and other types of ships all over the world. A Growing number of ship owners are realizing the advantages of electrical winches over hydraulic powered ones and our aim is to hold on to our position as the number one supplier of electrical winches and winch controls.

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# ADVANTAGES OFF ELECTRICAL WINCHES AND CONTROLS

In the recent years, electrical winches have been coming more popular in new building for modern fishing vessels. This is due to its proven stability and easy to control, were the focus is on maximum economy and higher yield of the fishing time.

The electrical driven winches have higher efficiency than similar winches driven by hydraulic motors, which results in minimum 30% fuel saving of fuel needed to run the systems. Furthermore, the electrical systems give back up to 250 kw of regenerated power, during shooting the trawls.

All installation is cheaper with electrical winches, due to the fact that cables are flexible and relatively easy to lay in dedicated areas, while the hydraulic pipes need to be pre-fabricated in workshops, cut and bended as needed before the installation.

## The main advantages of electrical winches, compared to hydraulic winches are:

- ⋮ **Less fuel consumption**
- ⋮ **When the electrical winch is stopped, it immediately cuts off all power consumption**
- ⋮ **Less maintenance cost**
- ⋮ **Less installation cost**
- ⋮ **Less designing cost**
- ⋮ **Environment friendly**
- ⋮ **Easy to control**
- ⋮ **Efficiency is approx. 30 % higher than in hydraulic systems**

**STRONG &  
RELIABLE**

**ELECTRICALLY  
DRIVEN**

**Design and Construction  
based on the  
long experience  
at Naust Marine**

**CUSTOM BUILT  
FOR EACH CUSTOMER**

**- LESS COST -  
MORE EFFICIENCY**

# ATW

## AUTOMATIC TRAWL WINCH CONTROL

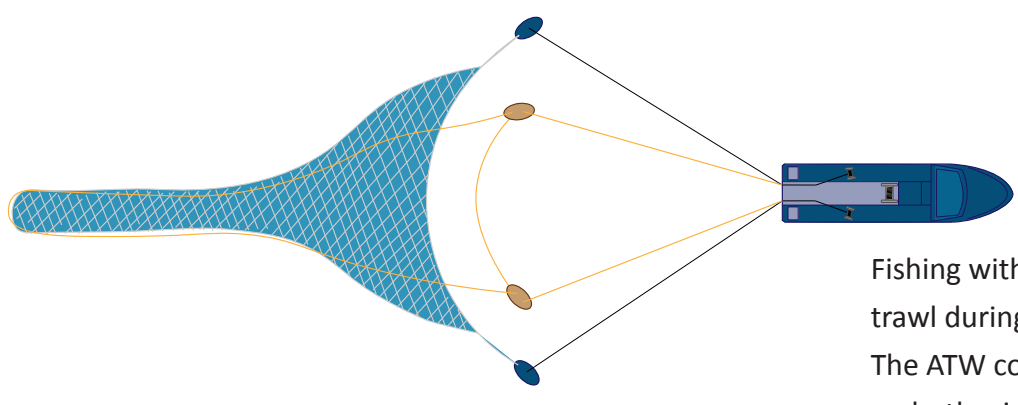
Naust Marine is a world leading manufacturer of control equipment for electrical winches. The ATW Trawl winch control system is the result of development of our employees, performed in close cooperation with fishermen and ship owners for three decades. During this time, the system has changed and evolved and is now one of the most used electrical winch control system in the world.

The ATW Trawl winch control system is based on automatic load control for trawl winches. The ATW software is designed and assembled by Naust Marine technicians. The system shoots the net to pre-set length that is decided by the operator each time, with equal tension on both wires at all times. During trawling, the ATW system keeps the trawl in optimal geometrical position, resulting in maximum catch with minimum operational cost.

The components in the ATW system, as well as in all our systems, are of the highest quality and specially selected in light of over 30 years of experience of automatic trawling in the North-Atlantic. **We know that you need quality components for Heavy-Duty work.**

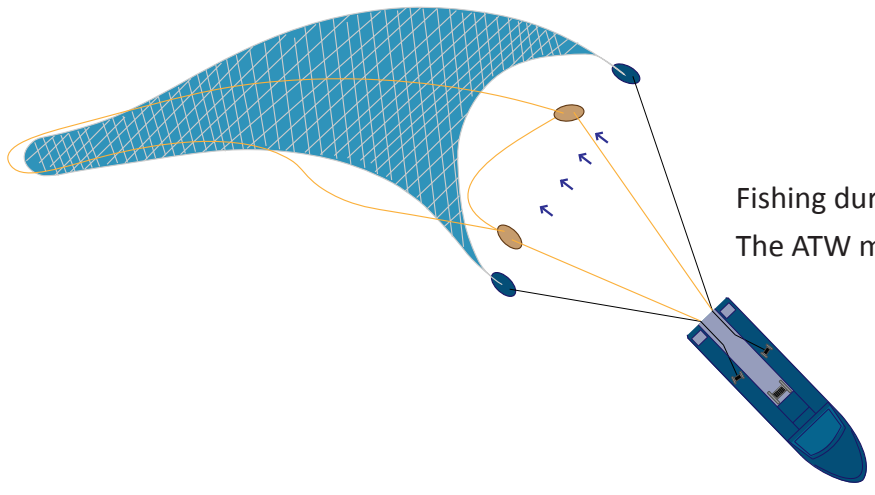
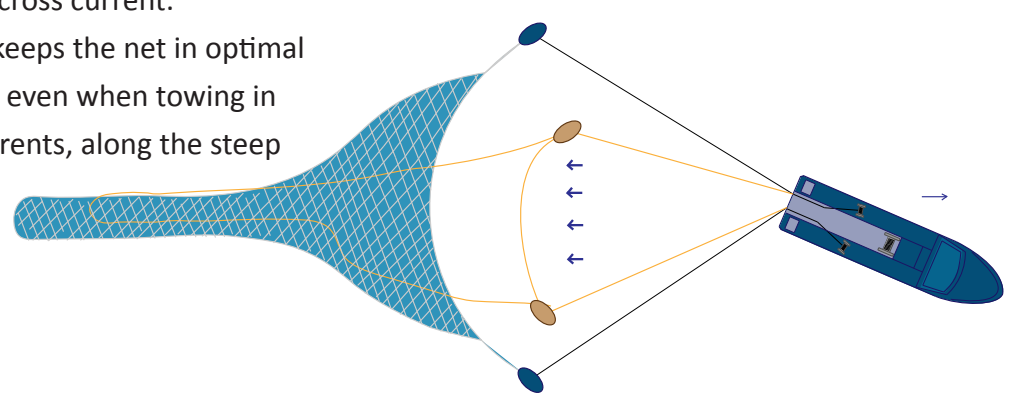


ATW Catch Control      Without ATW Catch Control



Fishing with maximum open trawl during straight ahead. The ATW controls the tension on both wires for securing optimal geometry of the trawls.

Fishing in cross current. The ATW keeps the net in optimal geometry, even when towing in strong currents, along the steep edges.



Fishing during turning. The ATW makes turning easier.

# ATW SMART-TRAWLING

## NEW GENERATION

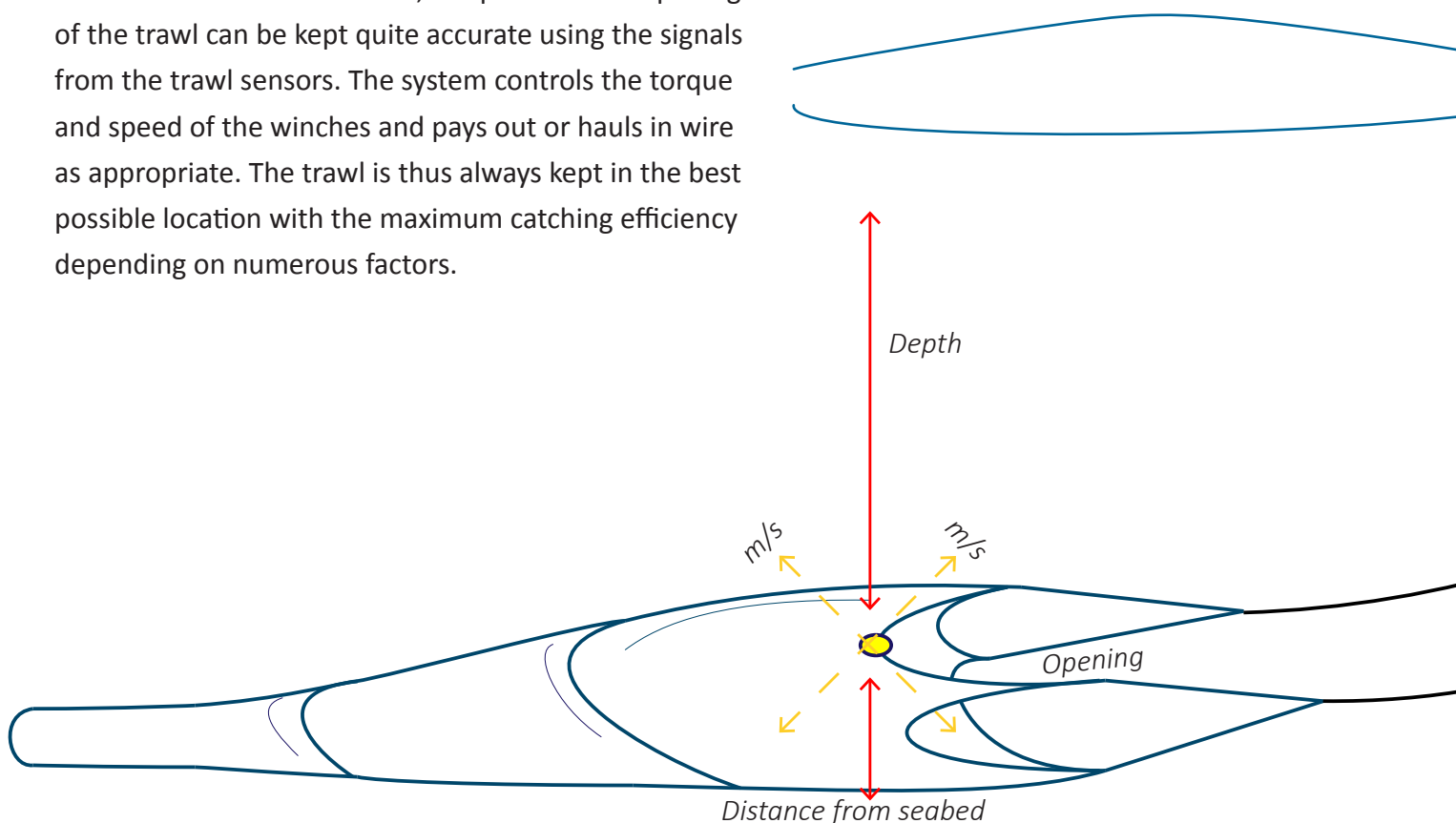
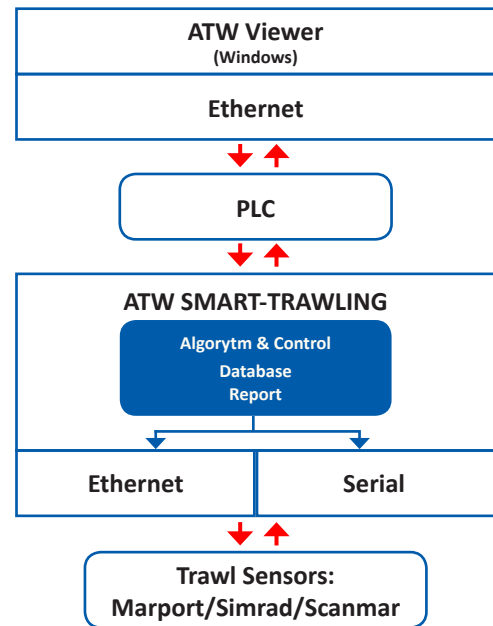
ATW SMART-TRAWLING is a new generation add on to our ATW Trawl winch system.

It is designed for all trawlers, **regardless of whether they have electrical or hydraulic trawl winches.**

The system connects to the vessels Trawl sensor system and uses information from the Trawl sensor/Headline sensor and door sensors to improve the trawls catching efficiency.

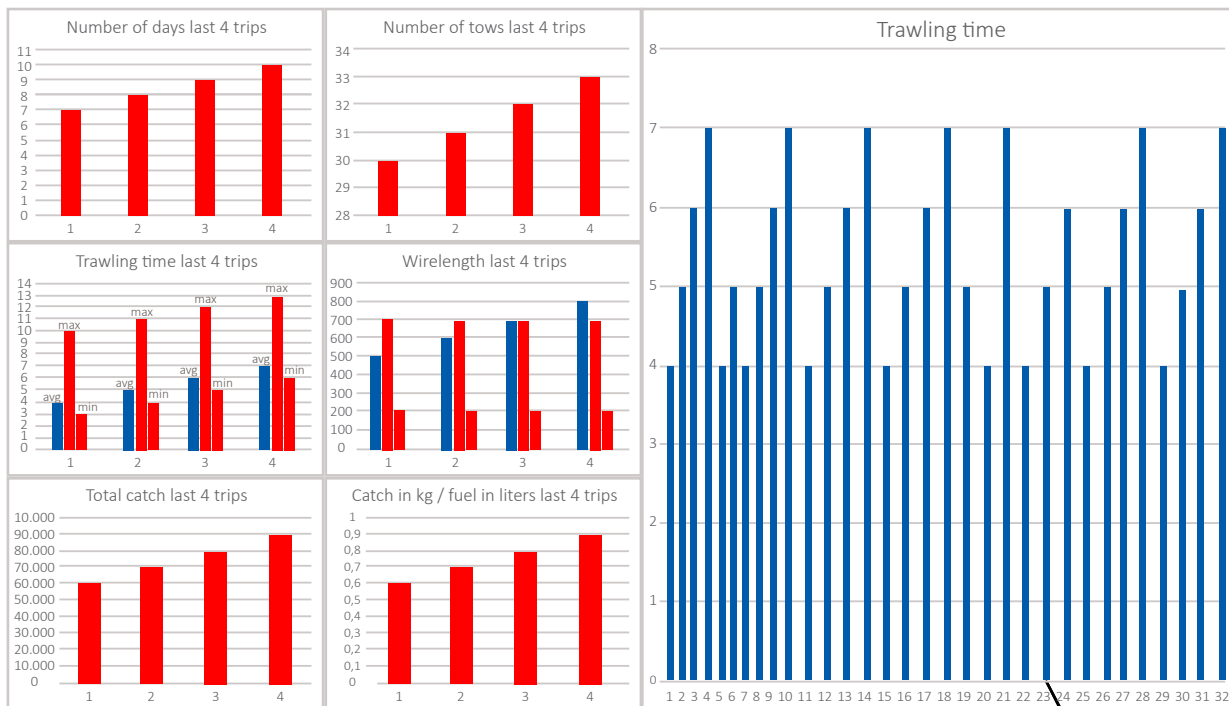
ATW SMART-TRAWLING also connects to various other systems in the vessel and utilizes information regarding depth, wind speed, wave height, speed, heading and movement of the vessel. The system is based on algorithms and pattern analysis based on the data accumulated in the systems database and uses this information to regulate the fishing gears behavior. For example if the ship turns to starboard, the portside winch slowly begins to pay out wire to maintain equal tension on both trawl wires.

With ATW SMART-TRAWLING, the position and opening of the trawl can be kept quite accurate using the signals from the trawl sensors. The system controls the torque and speed of the winches and pays out or hauls in wire as appropriate. The trawl is thus always kept in the best possible location with the maximum catching efficiency depending on numerous factors.

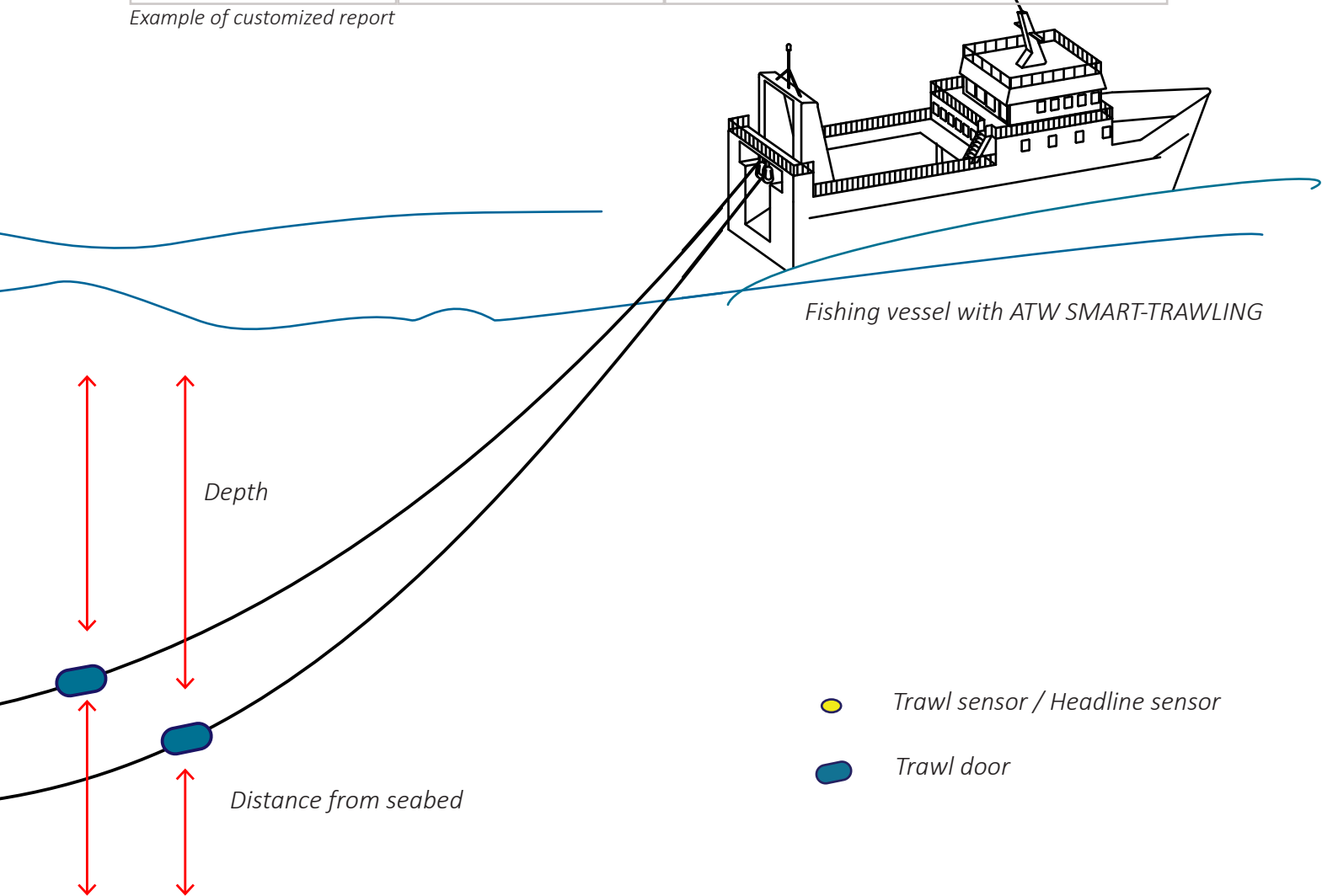


The system utilizes fishing gear sensors and a motion sensor on board to control the location of the trawl along with data collection in a database for later processing and analyses.

Managers and ship owners receive reports on each tow and the whole fishing trip in order to compare the last fishing trips. Also, information concerning maintenance of the trawl winch system will be available such as working hours, usage and tension of the wire.



Example of customized report





## BREKI VE & PÁLL PÁLSSON ÍS

OWNERS: VINNSLUSTÖÐIN VESTMANNAEYJUM & HRAÐFRYSTIHÚSIÐ GUNNVÖR - ICELAND

Delivery in 2016

# NEWBUILDINGS - COMPLETE PACKAGE

Breki and Páll Pálsson are sister ships, built simultaneously in Huanghai Shipbuilding China. The vessels are fresh fish trawlers built for Vinnslustöðin Vestmannaeyjum (Breki VE) and Hraðfrystihúsið Gunnvörn (Páll Pálsson ÍS) in Iceland. Both of the vessels are equipped with Naust Marine designed electrical winches, the ATW Trawl winch control system and Omformers from Naust Marine.

The trawlers are 55.7 meter long and 12.8 meter wide. Delivery is late 2016.

### Electrical Winches from Naust Marine onboard each vessel are:

- |                            |                           |
|----------------------------|---------------------------|
| ⋮ 6 x Sweepline winches    | ⋮ 2 x Net lifting winches |
| ⋮ 3 x Gilson winches       | ⋮ 1 x Net drum            |
| ⋮ 2 x Cod- end winches     | ⋮ 4 x Back strop winches  |
| ⋮ 2 x Out- hauling winches | ⋮ 3 x Retriever winches   |
| ⋮ 2 x Trix winches         | ⋮ 1 x Anchor winch        |





## ENGEY RE, AKUREY AK & VIÐEY RE

OWNER: HB GRANDI - ICELAND

Delivery in 2016 & 2017

## NEWBUILDINGS - COMPLETE PACKAGE

Three new fresh fish trawlers for HB Grandi in Iceland, built at the Celiktrans shipyard in Turkey. The three trawlers are delivered one by one from mid-year 2016 until the second half of 2017. All three trawlers are equipped with Naust Marine designed electrical winches, the ATW Trawl winch control system and Omformers from Naust Marine.

The trawlers are all 54.75 meter overall with a 13.50 meter beam, designed by Nautic Iceland. The form of the vessels is unique, built to save fuel and for harsh conditions.

### Electrical Winches from Naust Marine onboard each vessel are:

- ⋮ 4 x Sweepline winches
- ⋮ 3 x Gilson winches
- ⋮ 2 x Cod- end winches
- ⋮ 2 x Out- hauling winches
- ⋮ 1 x Net drum
- ⋮ 1 x Cable winch
- ⋮ 2 x Back strop winches
- ⋮ 3 x Retriever winches
- ⋮ 2 x Anchor winches



## NORTHERN JAEGER

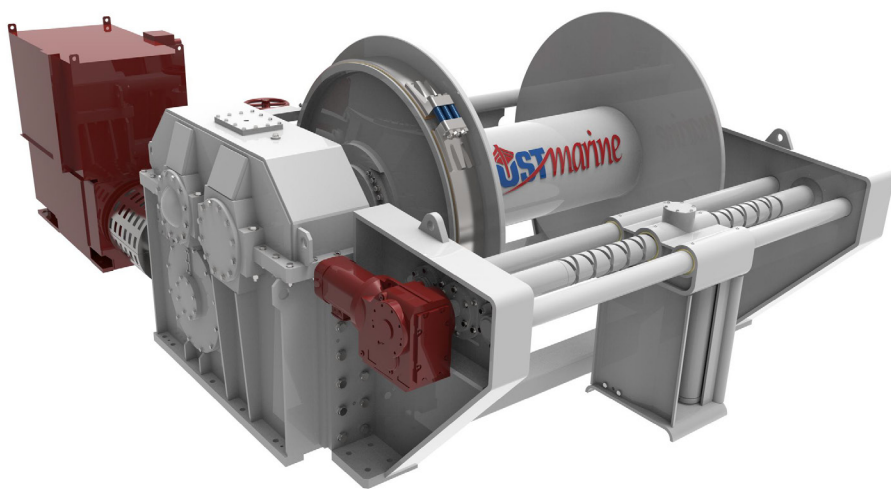
OWNER: AMERICAN SEAFOODS - USA

Delivery in 2016

# FIRST TRAWL WINCHES DESIGNED BY NAUST MARINE

The first pair of Naust Marine trawl winches, installed in Northern Jaeger late in 2016, along with our ATW Trawl Winch system.

Northern Jaeger also has AutoGen Power management system and Electrical spooling gear (ESG) from Naust Marine.



The winches are custom made for F/T Northern Jaeger, holding up to 3600m of 36mm wire, driven by a 380 kW DC Motor @ 620rpm. Northern Jaeger is a 102meter factory trawler, catching Alaskan Pollock in the Bering Sea. The harsh conditions in these areas were taken in account in the design of the winches.

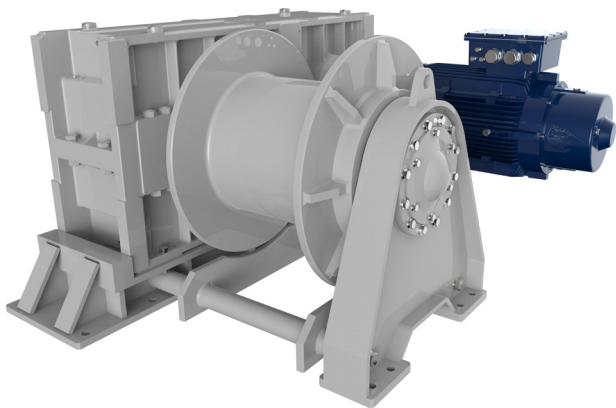
# ELECTRICAL WINCHES FOR SUPER TRAWLERS:

Introducing our own design of ELECTRICAL WINCHES with the reliable ATW Trawl winch control system, design and construction based on our long experience with fishing in harsh conditions all over the world.

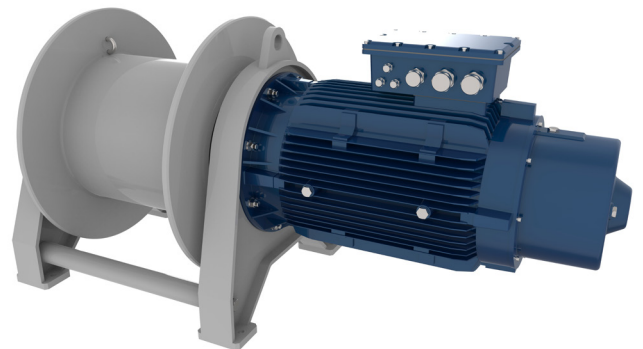
Naust Marine offers a wide range of electrical winches, designed and adapted to our customer's requirements. We offer Trawl winches as well as Auxiliary winches for fishing vessels and research vessels.

Contact us and together we will come up with a solution that is custom made for your vessel with your best interest in mind.

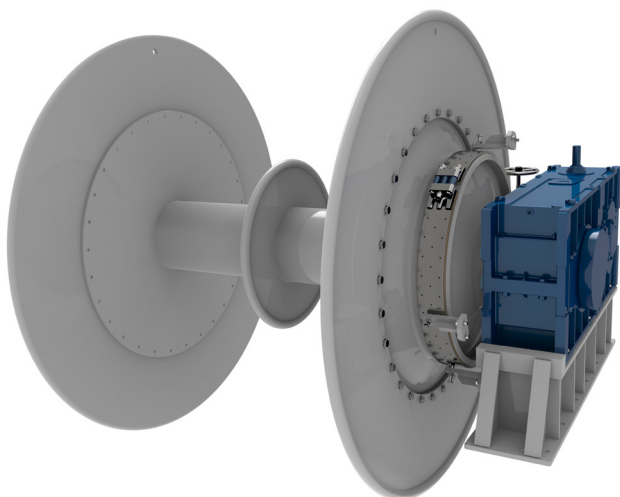
**A sample of our production - These and many more:**



⋮ *Gilson Winches*



⋮ *Cargo Winches*



⋮ *Net drum Winches*



⋮ *Sweep line Winches*

NAUST MARINE HEADQUARTERS

SALES OFFICE  
NAUST MARINE USA

WINCH PRODUCTION  
NAUST MARINE  
SERBIA

SYSTEMS FROM NAUST MARINE  
ARE BEING USED IN EVERY  
MAJOR FISHING GROUND IN  
THE WORLD