

**LANKHORST ENGINEERED PRODUCTS**

**Lankhorst - partner with 'Our Oceans Challenge'**

Lankhorst became partners with 'Our Oceans Challenge' (OOC), an open online co-creation platform that encourages people from all over the world to share their ideas and develop innovative solutions for a sustainable use of our oceans. This perfectly fits Lankhorst's mission of being a sustainable enterprise.

The foundation 'Our Oceans Challenge', established in 2014, is a vibrant community of entrepreneurs, offshore experts, scientists, students and others who care about the oceans, aiming to share and further develop ideas for a sustainable offshore industry. Although facing difficult times, many industry parties realize that they have to take action and have therefore joined 'Our Oceans Challenge' and have

identified their most urgent sustainability challenges. As Lankhorst has actively been producing innovative products from among others recycled plastics since the 1970's, it was really a logical step to become partner with 'Our Oceans Challenge'. After all from its very beginning Lankhorst has significantly contributed to sustainability. Waste streams such as bottle caps, nowadays found in the 'plastic soup', are

in fact raw materials for our high quality plastic products. Lankhorst supplies high-performance engineered plastic products to meet the demands of the offshore industry, utilizing field proven technology. Not only designed to meet the customers' requirements, but



also meant to be used again and again. The platform was live from the 1st of December 2016 till the 1st of March 2017 after which ten percent of the best ideas are to be further developed. Goal for the coming three months is to determine ten feasible business solutions or start-ups that will contribute to a sustainable offshore industry.

For more information please visit:  
[www.ouroceanschallenge.org/](http://www.ouroceanschallenge.org/)



# LANKHORST YARNS



## The diversity of Lankhorst Yarns

After having closed the year 2016, the Yarn division started at full swing in 2017. Growth is seen in the activities in Murça (Portugal) where we produce electric fencing products such as woven tape, braids, twines and ropes with conductors. Due to increased activity in the market, more orders and inquiries are coming in.

Because of the good properties of our products more and more customers are interested in buying our sewing yarns and semi conductive tapes for the big bag industry. Another application of our tapes is

protection of underwater cables of windmills offshore – cables that distribute the energy towards mainland. Finding new business and customers or applications for our products in other markets also continues.



**Windmills with underwater cable protection made by Lankhorst Yarns**

Some of our products/markets are strongly influenced by the seasons, a.o. the Horti market and the electrical fencing market. Since seasons are inherent to geographical zones, these markets require customers all over the globe in order to have a constant order flow.

'the green plastic', is a biodegradable type of plastic that is manufactured out of plant-based resources such as corn starch or sugar cane, and therefore compostable. With this new product we are able to go outside the existing markets.

Some of our new ideas will be presented at the Techtexil exhibition in May 2017 in Frankfurt, Germany (Hall 4.1, booth B22). One of these ideas is a new PLA mono. PLA (poly lactic acid), also called

So far the Horti market is still our main market for PLA and currently our growth market. We strongly believe there's a promising future ahead for these kind of environmental friendly products.



**Fencing tape with copper or stainless steel, made on narrow weaving looms**



**Cloth, woven with tapes/yarns of Lankhorst Yarns, used as intermediate layer for reinforcing ground and dikes**

## LANKHORST ROPES

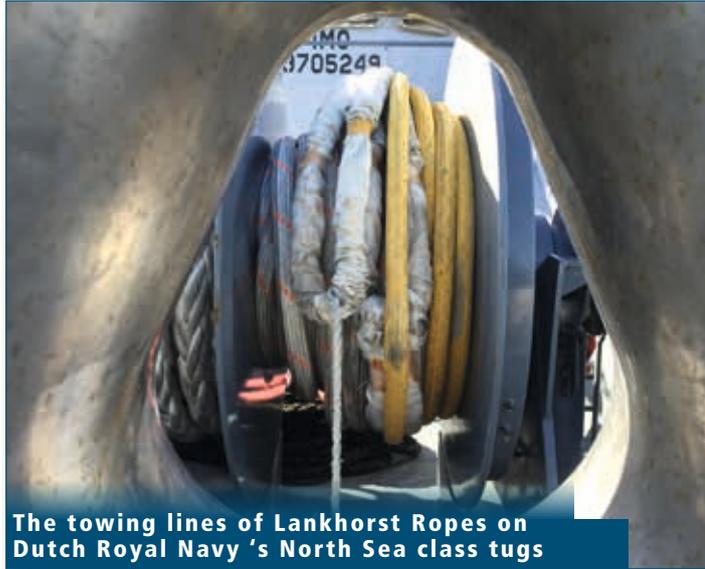


### Lankhorst Ropes for Dutch Royal Navy's North Sea Class Tugs

Maritime ropes producer & supplier, Lankhorst Ropes, has supplied the Dutch Royal Navy with Lanko®force pennants with Defender® jackets. The ropes will be used on Dutch Royal Navy's three new North Sea class tug boats: Noordzee, Waddenzee and Zuiderzee. The vessels will also utilise Strongline mainlines with Euroflex® stretchers previously supplied by Lankhorst.



One of the new Dutch Royal Navy tugboats



The towing lines of Lankhorst Ropes on Dutch Royal Navy's North Sea class tugs

Lankhorst's lightweight Lanko®force rope covered with Dyneema® braid is easy to handle, enabling quick mooring and towing connections. The Defender® jacket provides protection against heavy abrasion from fairleads and bollards, preventing mooring and towing line damage, reducing the cost of ownership and increasing safety.

Commenting on the new tugs, a spokesman for the Royal Dutch Navy said "The new North Sea class tug boats feature the latest technology enabling a large

improvement in towing operation performance over our previous Ling class boats. In addition to the tug, a key component of towing operations are the ropes connecting the vessels. Lankhorst's range provides towing ropes and jackets ideally suited to each role in the towing line. Combining strength and ease of handling, Lankhorst's high performance towing ropes ensure the crew are safe and do not have to work harder than necessary while excellent abrasion resistance means the ropes stay in optimal condition."

### Lankhorst production equipment provides cost benefit to deepwater mooring lines

Production of deepwater mooring ropes continues apace at Lankhorst Ropes Offshore's facility in Viana de Castelo, Portugal. Following factory enhancements last year, we can now handle the largest and heaviest fibre rope packages available in the industry, including the option of storing multiple rope segments on each reel.

A deepwater mooring line is made up of several rope segments. Typically, mooring of a semi-submersible platform in deepwater might involve over 70 mooring line segments of various lengths. By storing two or more rope segments on the same reel, there are major cost savings. It reduces the numbers of reels needed to be transported offshore and thus vessels

costs, as well as mooring line installation times. The reels are stored in a bespoke cradle for ease of transportation.

A batch of 6m diameter reels was recently transported from the rope factory to a nearby quay for shipping to the Gulf of Mexico. The full reel and cradle weighed 140 tonnes, requiring a crane to lift each reel onto a transporter.



Transport of huge reel with deepwater mooring rope

## LANKHORST ROPES



### Lankhorst fibre mooring lines for the world's largest fish farm

Lankhorst Euronete Portugal SA is supplying fibre mooring ropes to Global Maritime Consultancy & Engineering for construction of the world's largest fish farm near the island of Froya, offshore Norway. The new concept fish farm is a pilot facility developed by Ocean Farming, a subsidiary of the SalMar Group.



Lankhorst Ropes mooring lines for world's largest fish farm

The aquaculture facility comprises a slack anchored, semi-submersible structure, permanently moored at a water depth of 300m by eight 170m polyester mooring lines. Each mooring line is made up of an anchor and two lengths of rope, joined by an H-link. Fibre rope is ideal for this kind of application where the mooring allows for some movement of the semi-submersible in line with offshore conditions and tidal changes. Tension on the mooring lines is monitored with load cells.

Construction of the fish farm will begin in March 2017, the facility is equipped with one moveable and two

fixed bulkheads allowing it to be divided into three separate compartments, enabling different fish related operations to be performed. The installation is planned to be fully automated to eliminate heavy manual operations.

The fish farm mooring lines are manufactured at Lankhorst Ropes Offshore's state-of-the-art fibre rope facility at Viana de Castelo in Portugal.

Lankhorst Ropes Offshore is a world leading supplier for fibre rope mooring lines used in oil and gas, deepwater mooring applications around the world.

## EXHIBITIONS 2017



### LANKHORST ROPES

4 – 7 April	Gastech (Japan)
9 – 11 May	Maritime Industry Gorinchem (NL)
25 – 27 September	Seatrade Offshore Marine & Workboats Middle East, Abu Dhabi (UAE)
10 – 11 October	Offshore Energy Amsterdam (NL)

### LANKHORST ENGINEERED PRODUCTS

21 – 23 March	Subsea Tieback, San Antonio, TX (USA)
27 – 29 April	Blech India, Mumbai (India)
1 – 4 May	OTC Houston, TX (USA)
30 May – 1 June	IAF, Münster (Germany)
25 – 30 June	OMAE 2017 (Norway)
11 – 13 July	OGA, Kuala Lumpur (Malaysia)
27 – 28 September	Dag van de openbare ruimte, Utrecht (NL)
27 – 28 September	Kunststoffenbeurs 2017, Veldhoven (NL)
10 – 11 October	Offshore Energy, Amsterdam (NL)
24 – 26 October	OTC Brazil, Rio de Janeiro (Brazil)
24 – 27 October	Corte & Conformacao de Metais, Sao Paulo (Brazil)
6 – 9 November	Metalform/Fabtech, Chicago (USA)
7 – 10 November	BlechExpo, Stuttgart (Germany)
9 November	Water in de Openbare Ruimte, Houten (NL)
13 – 16 November	ADIPEC, Abu Dhabi (UAE)
21 – 23 November	AusRail, Brisbane (Australia)

### LANKHORST EURONETE PORTUGAL

26 – 27 April	Expo 2017, Scotland (UK)
13 September	Icelandic Fishing Exhibition (Iceland)
7 – 9 October	Danfish 2017 (Denmark)
14 – 16 October	Itechmer Lorient (France)

### LANKHORST YARNS

9 – 12 May	Techtextil, Frankfurt (Germany)
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## FROM THE EDITORS

The next edition of Lankhorst Euronete News will be published in July 2017.

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