

Hampidjan's Dynlce® Warps made with Dyneema® have a wide range of benefits to offer the commercial fisherman

As a well-known supplier of an extensive range of equipment to the trawler industry, Hampidjan is well aware of the challenges faced by professional fishermen in the 21st century. Many of the company's products are directed towards both sustainable fishing practices and improving catch performance for its customers – and not least its Dynlce® Warp lines.

These are made with Dyneema®, the Ultra High Molecular Weight Polyethylene (UHMWPE) fiber from DSM, to considerably reduce weight, enhance trawl opening, improve handling and make a significant contribution to low oil consumption during expeditions.

Dynlce® Warps are heatset and stretched with a specially moulded core to make them very compact and stiff. The high strength lines have extremely low elongation and high cross-sectional stability. This gives them similar qualities to steel wires but with much less weight – a set of 40 mm diameter Dynlce® Warps weighs only four tonnes, while a set of comparable steel warps weighs in at around 25 tonnes.

Hampidjan was founded in 1934, initially as a manufacturer of nets, ropes and long lines for the Icelandic fishing fleet. It has subsequently evolved into one of the largest fishing gear and high tech ropes manufacturers in the world, with 14 sites on four continents and over 500 employees.

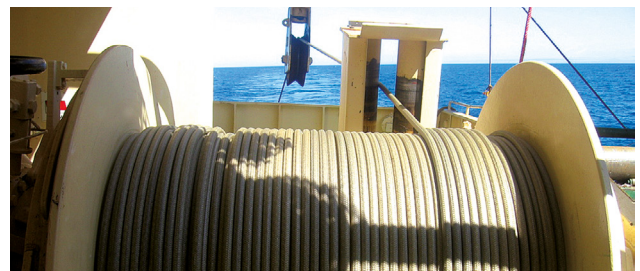
It is headquartered in Reykjavik, where 6,500 square metres of buildings house its head office, workshop and stock. The company's main 21,500-square-metre production facility is at Hampidjan Baltic in Lithuania.

With a policy of relentless product development and a reputation for both employing and producing the cutting edge of known technology, Hampidjan is ISO 9001 certified for quality assurance, ISO 14001 certified for environmental issues and OHSAS 18001 certified in respect of the health and safety of its employees. Its risk management certification is from leading quality assurer DNV (Det Norske Veritas).

Hampidjan's products range from filaments to the most advanced tailor-made fishing gear, as well as high performance ropes made from Dyneema®.

It now has more than six years of experience with its Dynlce® Warp range and has overcome a number of technical challenges by fine-tuning other equipment on the trawler to ensure its warp lines provide a significant list of advantages for fishermen.

In addition to the weight savings, for example, these lines will not rust or degrade as steel warps do. The full trawl opening can be achieved sooner, since the doors to which the warps are attached – which are responsible for effecting the horizontal spread of the net – do not have to square out the weight of steel wire. As a result, the same spread can be achieved with smaller doors, or larger doors positioned at a lower angle, resulting in less drag against the boat.



The warps also provide for easier trawling at the surface, because any sinking effect of wire is absent and it is faster and easier to pull the trawl up, to avoid rough 'bottom' – debris on the floor of the sea – or to catch schools higher in the water. The warp length close to the surface can also be longer, enabling trawling to take place with more distance between the trawler and its trawl, which minimises the potential damage to sensitive species such as herring and mackerel from the boat itself. And because the stern load is reduced, it's easy to improve sea keeping qualities and speed.

A trawl's tendency to collapse during turning is also avoided because the sinking effect of the heavy wire is absent.



“During turning, the wire at the innermost bend to the curve is under less tension and with steel warps this reduces the pulling tension which is keeping the door up,” explains Hampidjan’s General Manager Baltic Hjörtur Erlendsson. “As a result, the door can start to sink, helped by the weight of the wire. The other warp wire is under higher tension and the attached door tends to rise up above the surface of the water. While one door is at the surface the other could be 50-100 m under sea level. At the same time, the spreading force is decreased and the doors come closer to each other, which partly closes the trawl.”

Because Dynlce® Warps are lighter, the full spread between the doors is maintained throughout the turning – both doors are near the surface and the trawl is actually fishing as normally during the turn.

“In addition, with steel warps, it takes some time after the turn to regain full control of the doors and the trawl to get back to full fishing efficiency,” says Mr Erlendsson.

Dynlce® Warps proved to offer a solution to all above drawbacks bringing increased efficiency and cost savings!” As the skipper of the Icelandic trawler Ingunn, Gudlaugur Jónsson started using a set of Dynlce® Warps in September 2007 and believes they will easily last into the middle of 2013.

“Not buying wire for six years, making substantial fuel savings and seeing better fishing is what’s called a hat-trick in football. Our comparisons show a 75% reduction in fuel consumption, which translates into a three-hundred-and-sixty thousand litre

saving over the three hundred days we spend at sea every year.” Steel warps generally only last around two years in Iceland and Norway, since they are used more or less constantly all the time. In Ireland and Scotland, where ships generally only trawl for two or three months of the year, they can last for up to five years, but their lifetime is still limited by corrosion.

The Ingunn is one of over 50 trawlers now successfully fishing with Dynlce® Warps and with the high cost of oil today, Gudlaugur Jónsson is not alone in emphasising the fuel consumption savings that they are making possible.

“We save at least ten per cent in fuel using Dynlce® Warps,” says Jack Bronson, skipper of the Alaskan catcher boat Great Pacific. “We are able to use threehundred-and-fifty fathoms of warps instead of twohundred fathoms when fishing at around fifty fathoms, which is the most common fishing depth for Alaska Pollack. We also gain ten fathoms’ more trawl opening and the trawl shape is more consistent while turning, fishing around currents and moving when the bag fills up.”

There are two other advantages to using Dynlce® Warps worth noting. The first is that the safety risk from the backlash of lines breaking is greatly reduced compared to steel, and fishing is made even safer because there is no risk of steel thread sticking out from the warps and potentially causing hand injuries.

Secondly, in respect of maintenance and handling, the synthetic warps are less abrasive on blocks and wire guiders, there is less scratching of inner winch drum flanges and no lubrication is required. Dynlce® Warps can be easily spliced too.

“I am starting my fifth year’s fishing with the same set of Dynlce® Warps,” says another Icelandic fisherman, Birgir Thor Sverrisson, skipper of the bottom trawler Vestmannaey. “When Hampidjan’s sales people came to me for a resale, I had to tell them that my Dynlce® Warps looked like they had another three years of life in them.”

For more information visit:
www.dyneema.com, www.hampidjan.is

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