

DSM Dyneema Press Release

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MAINSTREAM EXTENDS RELIANCE ON MØRENOT NETS MADE WITH DYNEEMA®

*Confidence boosted with Dyneema® based containment nets for salmon farming,
delivering major cost performance and environmental benefits*

URMOND (NL), June 8, 2009 - Mainstream Group, the Norwegian based global leader in salmon farming, has placed an order for an additional 28 PLEXUS® nets made of Dyneema® - the world's strongest fiber™. The new order follows a three year trial period of using Dyneema® based cage nets from major Norwegian manufacturer and official DSM Dyneema licensee MøreNot AS, which has yielded a range of performance, economic and environmental benefits.

Mainstream had been experiencing problems of poor durability with their 90m circumference nylon nets and began trialing two 120m Dyneema® based PLEXUS® nets from MøreNot in 2006. Mainstream followed with the purchase of ten 120m cage nets in 2007, all of which are used for salmon farming at the company's Nordland and Finnmark sites. In spite of current economic headwinds, the recent order demonstrates Mainstream's confidence with MøreNot nets made with Dyneema®. Thanks to the lighter, thinner twines made with Dyneema®, Mainstream found that the PLEXUS® net cages, even when larger, were easier to handle, held their shape better and were less prone to deformation in strong currents.

Dyneema® based nets contribute towards a sustainable future in the aquaculture industry. The use of anti-fouling treatment can be cut by up to 50% per annum lowering maintenance costs and benefiting the marine environment. Moreover, the thinner twines can potentially improve oxygenated water flow through the netting, creating a healthier environment for the fish, and increase harvest productivity. The lighter weight of the cage nets allows for easier installation and improved safety when handling. Cage nets made with Dyneema® are expected to last up to 10 years, twice as long as traditional nylon nets.

"We are really pleased with how the PLEXUS® cage nets have performed. This convinced us to extend our investment in larger nets made with Dyneema®," commented Truls Hansen, Production Manager, Nordland Region at Mainstream. *"The nets have demonstrated they are easier to handle, more durable, give better protection and are healthier for both the fish and sea. We are currently considering replacing all of our 120m nylon nets with net cages made with Dyneema®."*



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André van Wageningen, Marketing Manager, Commercial Fishing, DSM Dyneema added: *“We are delighted with this order and the increased confidence in the strength and versatility of Dyneema® fiber it represents. It is a reflection on how closely we have worked together with our licensee Mørenot, and our combined commitment to the market to successfully develop and market innovative and better net products that bring genuine benefits to fish farmers such as Mainstream.”*

The net cages made with Dyneema® are assembled and serviced by Helnessund Bøteri AS, a company in the Mørenot-group. *“Our knowledge of Mainstream’s preferences regarding net cages and local conditions, combined with all the advantages of the PLEXUS® netting from Mørenot made from Dyneema® fiber has proven to be a solid concept for fish farming net cages,”* said Kenneth Larsen, Managing Director at Helnessund Bøteri. *“Both Mørenot and Helnessund Bøteri are convinced that PLEXUS® net cages are the future solution for large net cages for fish farming in tough conditions.”*

The size of net cages has grown steadily over the years, from 40-60 meter circumference in the early 1980's to 160 meter circumference today. Larger net cages of up to 160m in circumference and made of nylon can weigh up to 4-5 tons. These large nets are difficult to handle requiring heavy equipment (boats and cranes) resulting in more time and cost for farmers. Moreover, with the growing worldwide demand for high quality fish, farmers will increasingly look to move offshore as sheltered locations become scarcer. Larger and stronger nets will be needed, that are able to be deployed and managed economically, and that can tolerate the harsher sea and weather conditions. In addition, nets made with Dyneema® help protect against predators, like sea lions, in exposed environments.

“Dyneema® based nets are the way of the future in aquaculture and we are really pleased with our recent appointment as an official trademark licensee in the DSM Dyneema licensing program,” said Dag Davik, Sales Manager at MøreNot. *“The material advantages Dyneema® offers mean we can design larger capacity cage nets that last longer, hold more fish, and are easy to handle, which improves our customers overall return on investment. Working together with DSM Dyneema provides us access to the latest materials technology. Furthermore, the technical and marketing support helps us to develop these products and successfully bring them to market.”*

Netting made with ultra-strong yet light Dyneema® fiber is only half the weight of nets made with nylon twines at the same mesh breaking strength. Moreover, the material is extremely durable, displays minimal elongation, and is highly resistant to most chemicals, including salty seawater. The exceptional strength and light weight of Dyneema® fiber means larger nets can be manufactured that meet these performance and handling requirements, helping fish farmers to upscale while reducing overall cost of ownership.

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MøreNot introduced the first PLEXUS® net cage made with Dyneema® in 2003. Since then, the company has sold over 200 PLEXUS® net cages worldwide. Most of these have gone to cod farmers because of the material's excellent bite resistance and protection against predators along with escapes. In the last 2-3 years they have started to market and sell PLEXUS® net cages to salmon farmers.
