

DYNPR140EN0509

BLUEWATER AND DSM DYNEEMA COOPERATE ON FLEXIBLE LARGE BORE CRYOGENIC HOSES FOR THE NEXT GENERATION OFFSHORE LNG TRANSFER

*Innovative hose, result of 10-year extensive R&D, underlined
with strategic commitment between both companies*

HOOFDDORP/URMOND (NL), 25 May, 2009 - Bluewater Energy Services B.V., a member of the Bluewater group of companies, has introduced a Composite Cryogenic Hose made with Dyneema[®] fiber which is the first truly flexible large bore hose for high volume offshore LNG transfer. This is the first cryogenic application in which Dyneema[®] fiber has been used.

In transferring LNG, hoses ideally need to be large-bore, durable and able to handle the sustained and potentially high loads induced by the offshore marine environment. Additionally, they should be flexible to allow operability in harsh weather conditions. Large volume fluid transfer enabled by these large-bore hoses (up to 5,000 cubic meters of LNG/hour with 16-inch hose) reduces the duration of the marine transfer operation and, therefore, the overall risk exposure.

This is a challenging requirement as the low LNG temperatures along with unfavorable environment severely restrict the range of materials that can be used for hose construction.

Dyneema[®] provides exceptional strength, light weight and resistance to low temperatures all of which perfectly meet performance needs. Bluewater's large-bore hose construction includes a patented circular braided layer made from Dyneema[®], a key enabling component providing the Composite Cryogenic Hose with high axial strength combined with excellent flexibility along with increased pressure capacity.

Key characteristics of the light weight Composite Cryogenic Hose are its excellent and unprecedented tensile load performance, pressure capability, flexibility and bending endurance. This allows easy and controlled offshore handling and reliable operations.

The Composite Cryogenic Hose is the result of an extensive 10-year research and development program. DSM Dyneema and Bluewater cooperated closely for the last two years and both companies have now committed to a strategic partnership which will involve cooperation on marketing and further product innovation developments.

DSM Dyneema Press Release

“The high strength and material properties of Dyneema® matched our performance needs perfectly, and was a critical component in developing the new hose. Working together with DSM Dyneema has been pivotal to the successful commercialization of this innovative product. I am extremely pleased to seal the cooperation with our new strategic agreement which underwrites our continued commitment to our customers.” says Hugo Heerema, President and CEO of Bluewater.

Jorn Boesten, Segment Manager Offshore for DSM Dyneema added: *“This hose is another extension to the range of demanding applications where Dyneema® fiber is used in harsh marine and offshore environments, ranging from LNG tanker mooring lines, deepwater installation lines to offshore platform mooring lines and heavy duty lifting slings.”*

Natural gas is the most environmentally friendly fossil fuel source for energy production. LNG (Liquefied Natural Gas) is considered to be the ideal means to transport stranded natural gas, found in remote offshore areas, where the traditional pipeline infrastructure cannot reach. Mining of stranded gas is not always economically or physically viable. However the world’s growing demand for energy is driving industry to explore new production solutions and the new large bore flexible cryogenic hose will enable safer, more efficient harnessing and transportation of new gas reserves.

LNG transfer operations include the offloading from a tanker to an offshore Floating Storage and Regasification Unit (FSRU), ship-to-ship (STS) transfer of LNG from a Floating Production, Storage and Offloading (FPSO) vessel to a shuttle tanker in an exposed location, STS lightering operations and even exposed ship-to-shore LNG transfers.

Bluewater will showcase the Composite Cryogenic Hose at their stand (S40) during the GASTECH 2009 exhibition, held between the 25th and 28th of May in Abu Dhabi.

About Bluewater

The Bluewater group of companies has built a technological lead specializing in lease and operation of tanker-based Production and Storage (FPSO/FSO) systems, and has become a leading provider of advanced Single Point Mooring (SPM) systems. Bluewater operates worldwide with offices in The Netherlands, United Kingdom, United States, Nigeria, Angola, South Africa, Malaysia, Russia and China. For more information: www.bluewater.com

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About DSM Dyneema

DSM Dyneema is the inventor and manufacturer of Dyneema[®], the world's strongest fiber[™]. Dyneema[®] is an ultra strong polyethylene fiber that offers maximum strength combined with minimum weight. It is up to 15 times stronger than quality steel and up to 40% stronger than aramid fibers, both on weight for weight basis. Dyneema[®] floats on water and is extremely durable and resistant to moisture, UV light and chemicals. The applications are therefore more or less unlimited. Dyneema[®] is an important component in ropes, cables and nets in the fishing, shipping and offshore industries. Dyneema[®] is also used in safety gloves for the metalworking industry and in fine yarns for applications in sporting goods and the medical sector. In addition, Dyneema[®] is also used in bullet resistant armor and clothing for police and military personnel. Dyneema[®] is produced in Heerlen (The Netherlands) and in Greenville, North Carolina (U.S.A.). DSM Dyneema is also a partner in a high modulus polyethylene (HMPE) manufacturing joint venture in Japan. Further information on DSM Dyneema is available at www.dyneema.com and www.lesspressureoffshore.com.

DSM – the Life Sciences and Materials Sciences Company

Royal DSM N.V. creates innovative products and services in *Life Sciences and Materials Sciences* that contribute to the quality of life. DSM's products and services are used globally in a wide range of markets and applications, supporting a healthier, more sustainable and more enjoyable way of life. End markets include human and animal nutrition and health, personal care, pharmaceuticals, automotive, coatings and paint, electrics and electronics, life protection and housing. DSM has annual net sales of EUR 9.3 billion and employs some 23,500 people worldwide. The company is headquartered in the Netherlands, with locations on five continents. DSM is listed on Euronext Amsterdam. More information: www.dsm.com.

Dyneema[®], Dyneema Purity[®] and Dyneema[®], the world's strongest fiber[™] are trademark(s) (applications) owned by Royal DSM N.V..

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Note for the editor, not for publication

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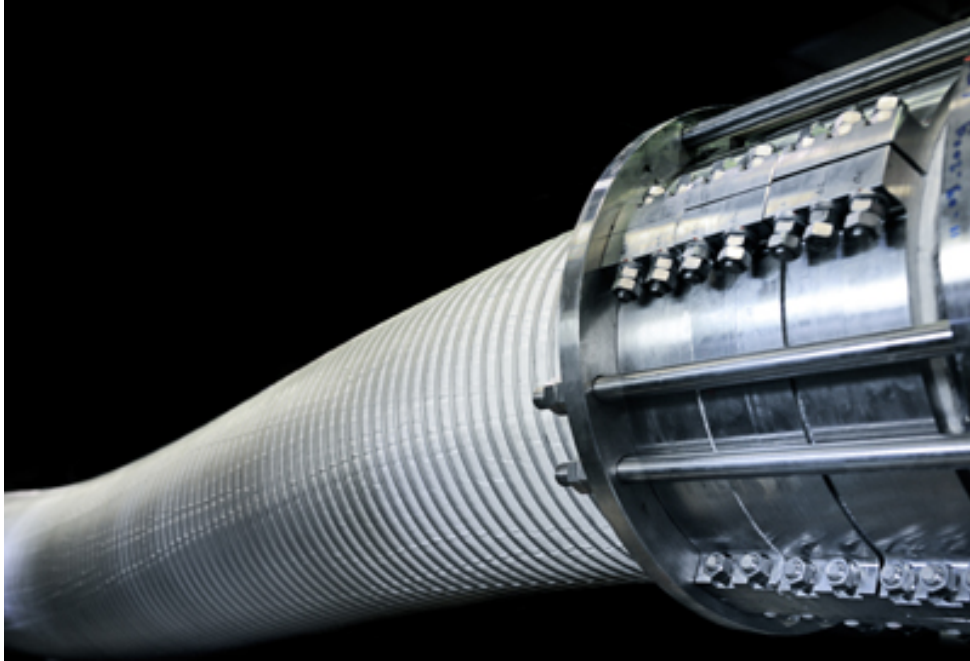
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This press release and relevant photography can be downloaded from

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Alternatively for very high resolution pictures please contact Anouk Luykx

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Bluewater's composite cryogenic hose for LNG transfer made with Dyneema®
(Photo Bluewater, DYNPR140)