



**G. VAN DER LEE**

ROPE FACTORY SINCE 1545

# DISCOVER THE POWER OF DYNEEMA<sup>®</sup>-BASED ROPES

ULTRA-STRONG, INCREDIBLY LIGHT,  
EXTREMELY DURABLE AND EASY TO HANDLE



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# HMPE DYNEEMA® SK75

**What is Dyneema®? Dyneema® is the world's strongest fibre. Invented and manufactured by DSM Dyneema. It is a HMPE (High Modulus PolyEthylene) fibre made from UHMWPE (Ultra High Molecular Weight PolyEthylene). The extreme strength of the fibre is due to a unique gel spinning process, also developed by DSM Dyneema.**

The result is a fibre which is 15 times stronger than steel on a weight-for-weight basis. Besides having the best strength to weight ratio, Dyneema® offers dynamic properties and is highly resistant to abrasion, bending fatigue, and environmental influences such as UV radiation and salt water.

**Dyneema® SK75 is the multi-purpose grade. This versatile grade is used in most marine and offshore products such as ropes, lines and lifting gear.**

## **Dyneema® rope finishing by Van der Lee**

Van der Lee's rope finishing is based on centuries-old knowledge, experience, and true craftsmanship:

- Termination with hand spliced eyes
- Eyes with or without protection, thimbles, links, etc.
- End-to-end splicing (grommet construction)
- Slings or grommets with or without sleeve
- Tailor-made strands and/or rope construction

## APPLICATIONS

### **Mooring**

Today's largest ships, such as LNG carriers, oil tankers, bulk carriers and container carriers, need mooring lines with a very high breaking load. Traditional steel wire mooring lines are too heavy and difficult to handle with these larger ships, and even conventional synthetic mooring lines made from nylon and polyester are bulky and heavy. Mooring lines made with Dyneema® are the proven, workable solution. They are much lighter and easier to work with than other types. They are as strong as steel wire lines of the same diameter, yet less than one-seventh of the weight. And compared to equally strong polyester or nylon lines, they are around 60% of the diameter and a third of the weight.

### **Towing and salvage**

The increasing size of ships means tugboats are becoming more powerful. The substantial pulling power of modern tugboats increases the tension on the towing lines, which must be strong, durable and lightweight as well as easy and safe to handle. Towing lines made with Dyneema® are ideal.

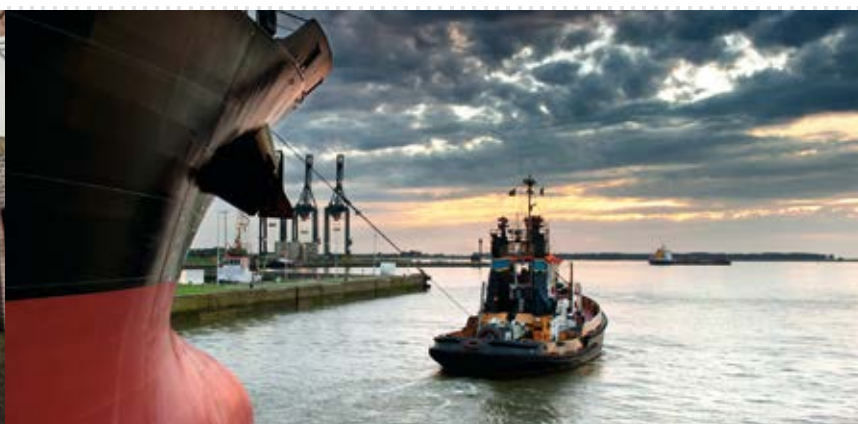
### **Deep sea installation/pipe-laying A&R**

For working in deeper waters, ropes made with Dyneema® have many advantages. Capable of replacing steel wire size-for-size, a Dyneema®-based rope is just 15% of the weight, and actually weightless when submerged. This means the full winch capacity is available for lifting at all depths in ultra-deep operations.

### **Working ropes**

Lightweight, compact ropes made with Dyneema® have flexible tension members meaning they are easy to handle on board, by divers or by Remotely Operated Vehicles. Many offshore applications – including turret pull-in ropes, stinger ropes, anchor retrieval lines and riser tensioning ropes – benefit from replacing steel wire with ropes made with Dyneema®.





### Applications:

- Mooring lines
- Anchor lines
- Towing rope
- Deep sea installation
- Pipe-laying A&R
- Lifting slings & grommets
- Seismic lines
- Fish farms

## TECHNICAL SPECIFICATIONS

Specific gravity:	0.97
Melting point:	150 °C
Elongation at break:	4 – 5%
Water absorption:	None
UV resistance:	Good
Colour:	Orange / red, other colours on request
Construction:	8 and 12 strand

## CHARACTERISTICS

- Maximum strength to weight ratio
- Lowest elongation
- Longer life and easy handling
- Super abrasion resistance due to special coated and twisted yarns
- Non-kinking
- Easy to splice
- Can be overbraided with a jacket for protection
- Produced according to ISO 10325 and ISO 2307
- Mentioned MBL is for new unspliced rope, MBL in spliced condition is minus 10% (according to ISO 10325)

Diameter mm	Circumference inches	Weight Kg/100mtr	MBL Tons	MBL kN
6	3/4	2.3	4.2	41.2
8	1	3.9	6.7	65.7
10	1 1/8	5.9	10.8	105.9
12	1 1/2	9.5	16.5	161.9
14	1 3/4	12.8	22.0	215.8
16	2	16.0	27.5	269.8
18	2 1/4	20.8	35.0	343.3
20	2 1/2	25.5	41.5	407.1
22	2 3/4	30.5	50.0	490.5
24	3	35.8	58.0	569.0
26	3 1/4	41.0	66.0	647.4
28	3 1/2	46.5	74.0	725.9
30	3 3/4	52.0	81.5	799.5
32	4	57.0	88.5	868.2
34	4 1/4	62.5	96.0	941.7
36	4 1/2	68.0	104.0	1,020.2
38	4 3/4	74.0	112.0	1,098.7
40	5	84.0	127.0	1,245.8
42	5 1/4	93.0	140.0	1,373.4
44	5 1/2	102.0	152.0	1,491.1
46	5 3/4	111.0	165.0	1,618.6
48	6	121.0	179.0	1,755.9
50	6 1/4	131.0	193.0	1,893.3
52	6 1/2	141.0	206.0	2,020.8
56	7	163.0	236.0	2,315.1
60	7 1/2	175.0	252.0	2,472.0
64	8	200.0	282.0	2,766.3
68	8 1/2	226.0	316.0	3,099.9
72	9	254.0	348.0	3,413.8
80	10	313.0	422.0	4,139.7
88	11	379.0	503.0	4,934.3
96	12	451.0	588.0	5,768.1



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*G. Van der Lee Rope Factory is member of the Hendrik Veder Group since April 2013. Van der Lee was founded in the 16th century and has been managed by direct descendants of Jan Pietersz van der Lee (1545-1613) ever since. Today the company produces and distributes quality natural and synthetic fibre rope. In the Oudewater factories, fibre rope and high-quality specialised fibre rope is produced, processed and made into final products for the offshore, shipping and defence industries.*

G. van der Lee Rope Factory is a subsidiary of Hendrik Veder Group B.V.