



Paradyne Services

# ROPE & LIFTING SOLUTIONS

High-performance synthetic lifting systems for

Offshore

Marine

Heavy Industry

**Paradyne Services B.V.**



# OFFSHORE

Synthetic fibre lifting systems are widely used in offshore construction and installation operations, providing reliable performance for heavy lifting under demanding conditions.

## Typical Product Configurations

HMPE Heavy-Lift Slings | Offshore Lifting Grommets | Synthetic Rigging Assemblies



## Products & Fibre Options

### HMPE

Lightweight, high-strength lifting solutions with minimal stretch and exceptional durability for offshore use.

### Creep-Resistant HMPE

Fibers that retain strength and stability under prolonged loads and high temperatures for safe offshore operations.

## Technical Characteristics

- High load capacity with very low weight
- Reliable performance in marine environments
- Excellent fatigue resistance in cyclic lifting operations
- Reduced installation weight compared with steel lifting systems



# Marine

Synthetic mooring lines are widely used in marine operations due to their ability to provide reliable vessel positioning and safe load management under demanding conditions.

## Typical Product Configurations

HMPE Mooring Lines | Polyamide (Nylon) Mooring Lines | Polyester Mooring Ropes

## Products & Fibre Options

- 01 HMPE Mooring Ropes** – Lightweight, high-strength ropes for durable, safe, and easy handling in harsh marine conditions.
- 02 Polyamide (Nylon) Mooring Ropes** – Elastic, durable ropes that absorb shocks and reduce stress from waves, tides, and vessel movements.
- 03 Polyester Mooring Ropes** – Durable, low-stretch ropes that resist UV, chemicals, and abrasion for reliable long-term performance.

## Technical Characteristics

- High strength with reduced weight
- Excellent fatigue resistance
- Controlled elongation behaviour
- Long service life in harsh marine environments
- Improved handling and safety during mooring operations.



# Heavy Industry

Synthetic rope systems are increasingly used in heavy industrial environments where high strength, reduced weight and operational safety are critical.

## Typical Product Configurations

HMPE Winch Lines | Creep-Resistant HMPE Lifting Lines | Aramid Reinforced Ropes

## Products & Fibre Options

01. **HMPE Single Braid** – Lightweight, high-strength rope made from HMPE fibers with very low stretch, suitable for demanding industrial applications.
02. **Creep-Resistant HMPE** – Advanced HMPE fiber ropes designed to reduce long-term stretch and maintain stability under continuous loads.
03. **Aramid Constructions** – High-performance ropes made from aramid fibers, offering high strength, low stretch, and excellent heat resistance.

## Technical Characteristics

- Very high strength-to-weight ratio
- Low elongation under load
- Reduced handling weight compared with steel wire rope
- Improved flexibility and ease of installation
- High resistance to abrasion and fatigue in demanding environments



# LIFTING

Synthetic lifting slings provide a lightweight alternative to steel wire lifting systems while still maintaining a very high load-carrying capacity. Because they are flexible and much lighter to handle, they improve worker safety, reduce fatigue, and increase efficiency during heavy lifting operations.

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## Products & Fibre Options



### HMPE Lifting Slings

HMPE (High Modulus Polyethylene) lifting slings are high-strength synthetic lifting slings made from advanced polyethylene fibers such as Dyneema and Spectra. They offer an excellent strength-to-weight ratio, making them much lighter than steel wire rope slings while still capable of lifting heavy loads.



### High-Strength HMPE Variants

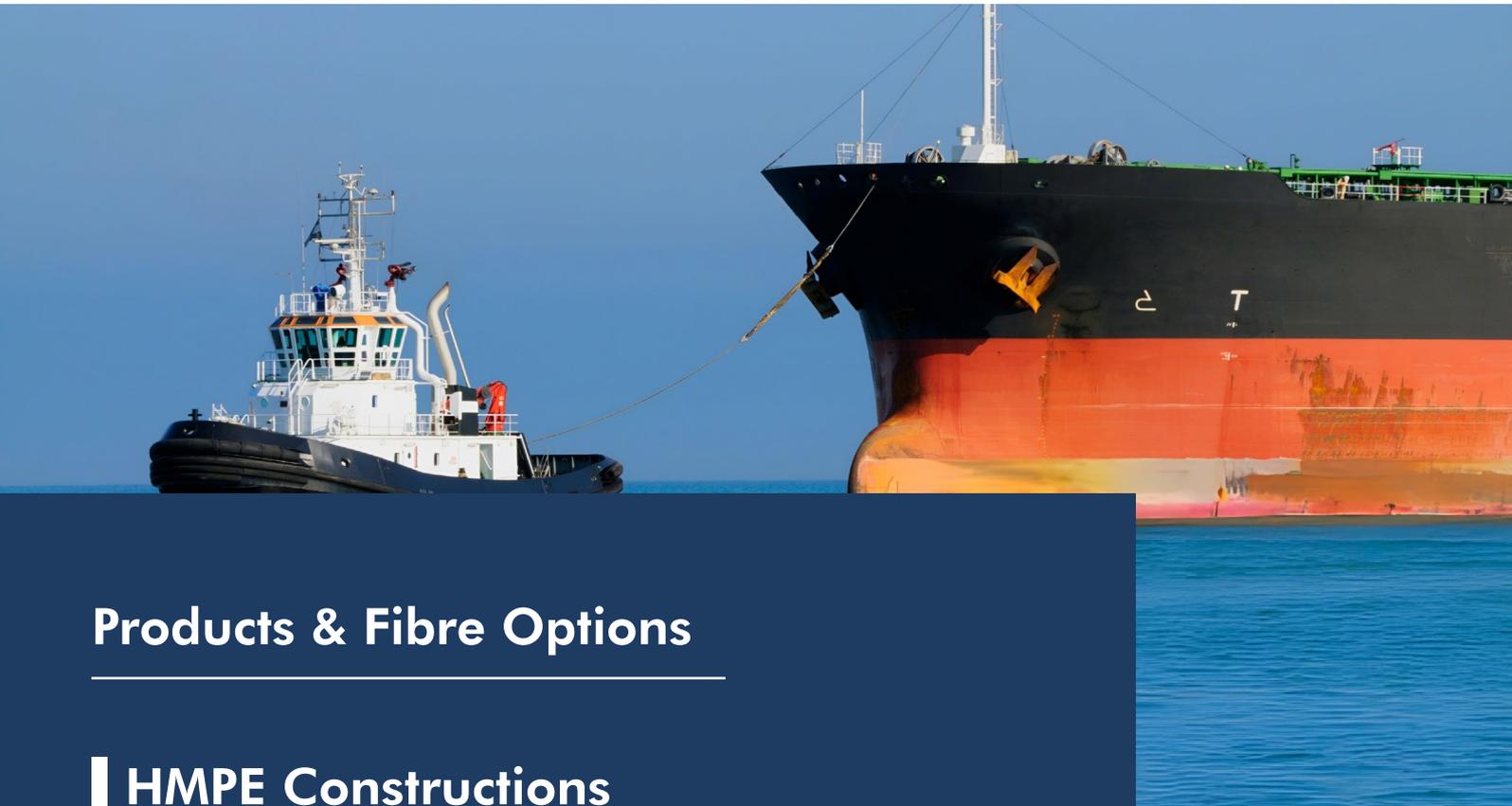
High-strength HMPE variants are advanced types of Ultra-High-Molecular-Weight Polyethylene designed to provide very high strength with extremely low weight. These fibers offer excellent resistance to abrasion, moisture, and chemicals, along with low stretch under load.

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# TUG ASSIST

Our synthetic towlines deliver exceptional strength-to-weight performance, making them ideal for demanding tug assist and marine towing operations. Designed to handle heavy loads with ease, these towlines offer superior flexibility and improved fatigue resistance, ensuring consistent and reliable performance even under continuous or repeated stress.

A photograph showing a white tugboat with a black hull and a red stripe, assisting a large black and red cargo ship. The tugboat is on the left, and the cargo ship is on the right. A thick synthetic towline is visible connecting the two vessels. The background is a clear blue sky and blue water.

## Products & Fibre Options

### HMPE Constructions

In tug assist operations, towlines made from HMPE (High-Modulus Polyethylene) fibers are designed in several rope constructions to meet different operational and safety needs for tugboats. HMPE fibers such as Dyneema and Spectra are widely used because they provide extremely high strength with very low weight.



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