



# Offshore wind cable protection system

## NjordGuard

NjordGuard is an innovative cable protection system designed and developed to protect offshore wind farm power cables in both monopile and J-tube applications.

### Offshore efficiency

NjordGuard has been engineered for ease of vessel-based assembly, a key factor in reducing offshore time, vessel costs, and operational risk. This efficiency is achieved without compromising on cable protection, ensuring safe, consistent performance even in harsh offshore environments.

### Latch connector design

The system's external stiffener and connector are delivered preassembled with a pull-in tool and rigging, reducing deck work and speeding up the cable pull-in process. Its ROV removable compact design ensures smooth entry into the monopile aperture with minimal resistance. The optimised part count and robust design ensure a reliable and trouble-free operational life, which can accommodate a larger range of aperture tolerances.

### Super duplex interconnectors

A major advancement is the anode free super duplex interconnectors, which allows for rapid assembly without the need for rotational or symmetrical alignment. This simplifies offshore handling and significantly reduces installation time, while offering strong structural performance and corrosion resistance. The design also has significant thermal benefits over the previous version, as well as offering a 44 % increase in packing efficiency. The main wall of the PU profiles now offers a 40 % improved wear resistance / life and a 5 kJ impact rating.

### Sleek ballast

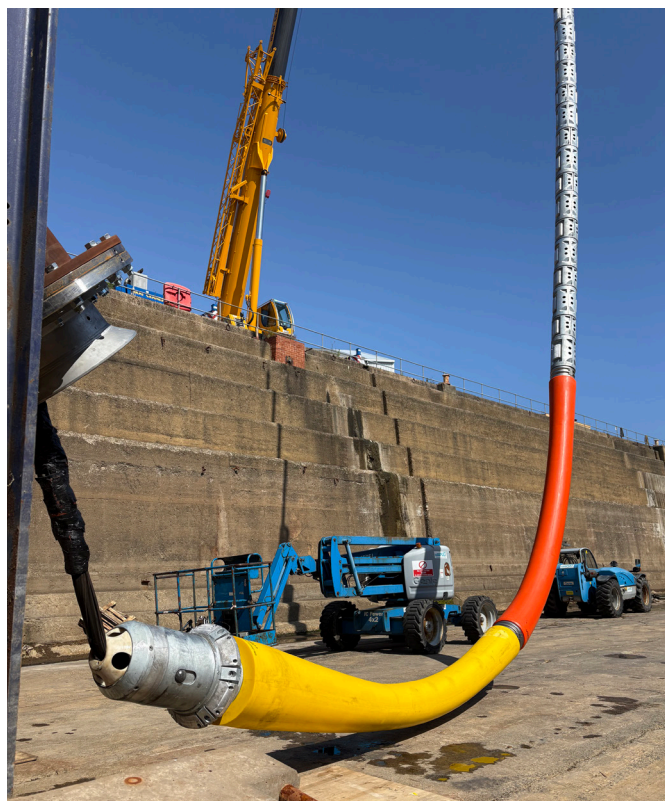
The sleek ballast is available in preassembled lengths of up to five metres. Its simplified two-part design reduces the number of components that need to be handled during offshore operations. Its smooth outer profile ensures clean travel over cable lay vessel rollers and through the overboarding chute, supporting efficient and consistent installation. Its smooth inner profile minimises potential wear points on the cable, reducing the risk of cable failure due to internal abrasion. The anodes now sit inside recessed pockets, to protect them during handling, installation and life subsea.

## Benefits

- **Reduced offshore time and vessel costs**  
Engineered for fast vessel-based assembly using anode-free super duplex interconnectors, eliminating rotational or symmetrical alignment requirements and cutting installation time and cost.
- **Lower operational and installation risk**  
Preassembled components with fewer connections and simplified handling reduce deck work, manual intervention and risk.
- **Fast, trouble-free cable pull-in**  
External stiffener and connector with pre-assembled pull-in tool and rigging speeding up cable pull-in installation and reduce offshore complexity.
- **Superior installation flexibility**  
Compact, ROV removable connector enables smooth entry into the monopile apertures with negligible pull-in load and accommodates a wider range of aperture tolerances.
- **Enhanced structural, thermal and wear performance**  
Super duplex interconnectors offer excellent corrosion resistance and thermal performance, while 40 % thicker API 17L certified PU delivers 5 kJ impact rating and longer wear life.
- **Improved packing efficiency and logistics**  
44 % increase in packing efficiency and preassembled ballast sections reduce transport volume, cost and offshore handling.
- **Reduced cable wear and long-term reliability**  
Smooth inner ballast profile minimises internal abrasion, while recessed pockets protect anodes during handling, installation and subsea life.
- **Adaptable system design**  
Available in a wide range of bore sizes, easily extendable and suitable for any cable diameter.

## Applications

- Wind turbine generators
- Offshore substation platform



CRP Subsea delivers innovative and reliable offshore solutions that maximise business performance to meet your needs. Our dedicated and highly skilled staff are always on hand to provide seamless process support from initial idea, through to delivery and beyond.