



CORROSION CONTROL

Using Induced-Tension Polymer Wraps

- One-piece construction
- Totally UV-stable
- High abrasion resistance
- Easily removable for inspection
- Custom-designed
- Conforms to any size and shape
- Hot work permit not required
- 10-year warranty



RETROWRAP™

- “Active” corrosion protection in splash zone and subsea
- Substrate preparation reduced to its simplest form
- Easy one-piece installation to provide long service life
- Highly abrasion- and impact-resistant
- Environmentally safe

Retrowrap HD2 (Heavy-Duty)

Retrowrap is used for inshore splash zone and underwater corrosion protection for piles, pipelines and risers. Designed for **hard marine conditions** to suit any diameter from 50 mm to 3 meters. Full-length closure flanges are factory-fitted with high marine grade corrosion-resistant fasteners designed to retain Retrowrap in position throughout its long service life. During installation, the flanges permit the creation of induced hoop tension within the multilayer fabric, which induces the corrosion-inhibited gel to flow and totally encapsulate and protect the substrate without the use of primers, fillers or tapes.

FEATURES:

- Easy one-piece installation; no primer, filler or tapes
- Minimal surface preparation
- Full-length flange closure for easy installation
- Provides active protection with environmentally safe corrosion inhibitors
- Abrasion-resistant
- Totally UV-resistant
- May be fitted with corrosion rate monitoring

Retrowrap X (Extreme)

Retrowrap X is a thicker multilayer, reinforced, wrap meant for **extreme marine conditions**. It is specifically designed to provide protection to offshore oil and gas risers or inshore applications subject to external impact damage. As with the HD2, installation has been reduced to its simplest possible form, saving hours of diver and rigging time.

FEATURES:

- Extra Heavy-duty construction for extreme marine conditions
- Supplied in interlocking modular lengths
- Does not require substrate shotblast preparation
- Polyurethane provides highest abrasion resistance
- Full-length closure flanges for easy installation
- Provides active protection with environmentally safe corrosion inhibitors
- Hoop tension forces created within the outer skin resist high wave suction forces
- Cold-applied – no hot work permit required

Before



After





Retrowrap STD2 (Standard)

Retrowrap is used for inshore splash zone and underwater corrosion protection for piles, pipe-lines and risers in **moderate and semi-hard marine conditions**. Designed to suit any diameter from 50 mm to 3 meters and it can be interlocked to accommodate any required protected length.

Full-length closure flanges are factory-fitted with corrosion-resistant fasteners designed to retain Retrowrap in position throughout its long service life. During installation, the flanges permit the creation of induced hoop tension within the multilayer fabric, which induces the corrosion-inhibited gel to flow and totally encapsulate and protect the substrate without the use of primers, fillers or tapes.

FEATURES:

- Easy one-piece installation
- Minimal surface preparation
- Full-length flange closure for easy installation
- Easy removal and replacement for substrate inspection
- Provides active protection with environmentally safe corrosion inhibitors
- Abrasion-resistant
- Totally UV-resistant
- May be fitted with corrosion rate monitoring

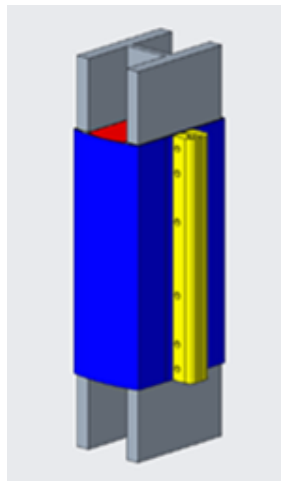
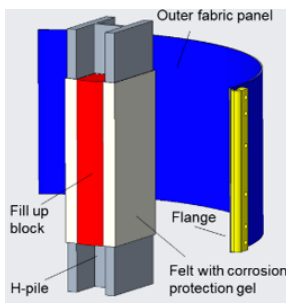
Retrowrap SL (Slim Line)

In the offshore conductor connector industry, severe environmental conditions dictate a need for superior performance with fast and simple installation. As testimonial, Retrowrap SL has been selected for all phases to date on the world's toughest project, the "Hibernia."

Manufactured with the same monocoque fabric as Retrowrap HD2, the SL utilizes a unique mortise and tenon closure, thus eliminating flanges and allowing for easy passage through guide tubes. Due to the unique memory characteristics of the fabric, jackets can be designed to accommodate **dual-diameter** fully upset connectors. The diametric increase at joint areas can be **reduced to 10 mm**. Using our specially designed robust closure tools, installation can be accomplished in less than five minutes.

FEATURES:

- Cold-applied – no hot work permit required
- Minimal surface preparation
- Quick and easy drill floor installation
- Provides easy passage of guide tubes without snagging or damage
- Unaffected by connector running fluid
- Conforms to full upset connectors' external shape without using foam packing
- Easy removal and replacement for pull-back
- Environmentally safe inhibiting corrosion protection gel



Retrowrap H principle



Retrowrap H (for H-piles)

Retrowrap can also be used for custom-made corrosion protection on **special shaped piles and circular structures**.

Retrowrap H is a wrapping solution designed for H-piles, where highly adapted fillup blocks in combination with the elastomeric outer panel hoop tension, provide a fully stable and captured environment for the pile surface covering corrosion protection gel-impregnated inner felt layer.

For H-piles or other special shaped piles, CONTACT US FOR MORE INFORMATION



Retrowrap T (Timberwrap)

Oxygen levels rise as water cleanup continues around coastal areas. O₂ levels as low as 1 ppm will support marine borer activity, compromising timber piles supporting major waterfront structures.

Highly elastomeric, Timberwrap provides a water-tight bottom seal which prevents water pumping action and eliminates the supply of oxygenated water necessary to sustain borer activity. The nontoxic, environmentally safe, time-release additive in Timberwrap accelerates the cessation of existing borer activity.

CONTACT US FOR MORE INFORMATION

Cost Saving Installation

Retrowraps are designed to provide high speed installation for a multitude of sub sea and onshore applications.

A minimum of pre-installation surface preparation is required and Retrowraps are delivered to site ready to be installed, prepared with sufficient type and amount of factory-applied corrosion protection gel.

Thanks to its one-of-a-kind closing mechanism, the installation of Retrowrap is cost effective, fast, reliable and safe.

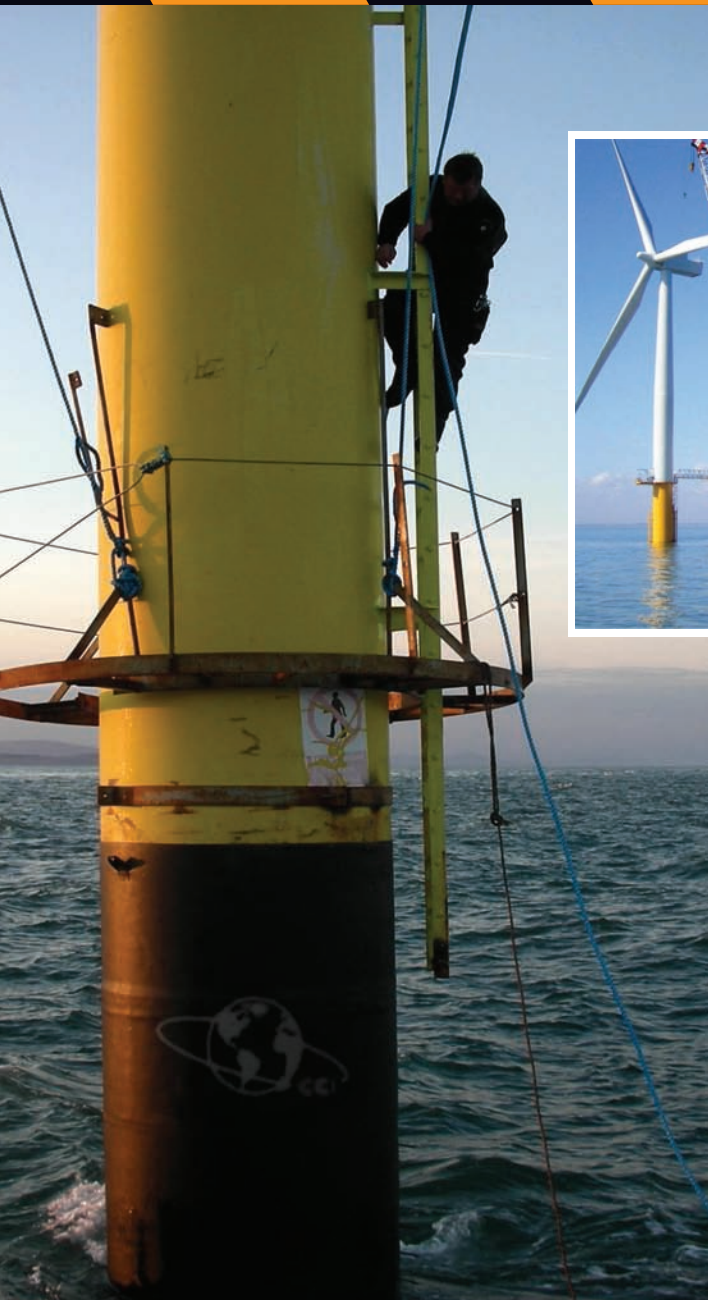
Installation is carried out by using our drawbolt fastening method or reusable strong closure calipers in combination with pneumatically or hydraulically operated driver tools. The factory assembled wrap closure flanges are finally locked together and tightened by high class marine grade Stainless Steel, Monel or Titanium bolt sets.

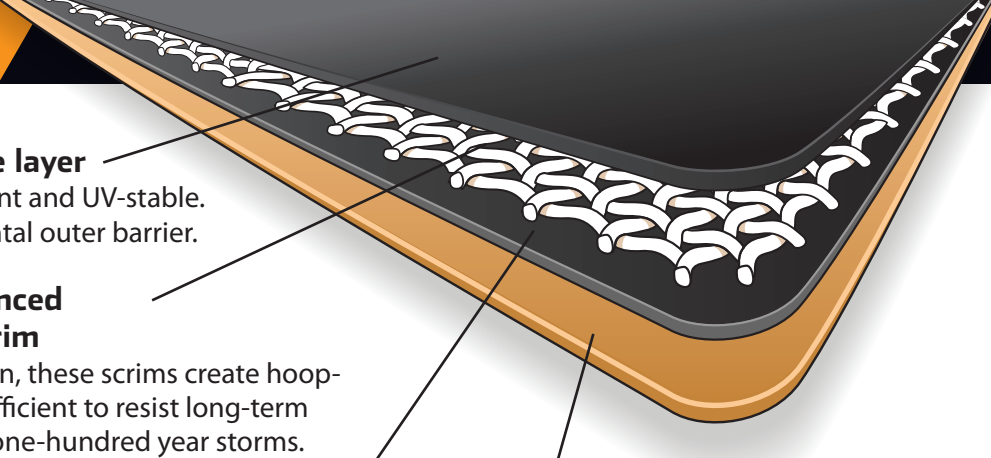
Features

- Easy one-piece installation; no primer, filler or tapes
- Minimal surface preparation
- Full-length flange closure for easy installation
- Easy removal and replacement for substrate inspection
- Cold-applied – no hot work permit required
- Environmentally friendly

Contact us for:

- 🔧 Installation tools
- 🔧 Installation arrangement alternatives or One-Shop solution for products and installation
- 🔧 Installation Supervising & Training Services





Outer polyurethane layer
Highly abrasion-resistant and UV-stable.
Long-term environmental outer barrier.

Memory-enhanced reinforcing scrim
During installation, these scrims create hoop-tension forces sufficient to resist long-term creep, as well as one-hundred year storms.

Inner polyurethane layer

Polyester felt inner layer
Active corrosion inhibitors or biocides are pre-blended into a range of hydrophobic and thixotropic gels. These gels are factory-applied to the absorbent felt inner layer in quantities calculated to provide a service life of more than 25 years.



How Does Retrowrap Work?

Sandwiched between layers of polyurethane are memory-enhanced textile-reinforcing scrims that lock the system in place over the substrate. A unique in-line manufacturing process produces a dedicated monocoque fabric that is cut to shape during factory-assembly and thermal-welded into any size required. Full-length closure flanges are attached to provide a long-term re-enterrable closure. These flanges are factory-drilled to accept a variety of fasteners supplied in materials ranging from A4 grade stainless steel to Inconel 625 or Titanium. During installation, the thixotropic gel is forced into the surface interstices without any requirement for separately applied fillers, primers and tapes. The result is a one-piece, easily installable jacket that provides a long-term service life in a marine environment. Since production began in 1985, Retrowrap has reached the fifth generation of perfection.



Corrosion Control International

Inshore & Offshore Corrosion Protection

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