



# FABRICFORM Pile Jacket



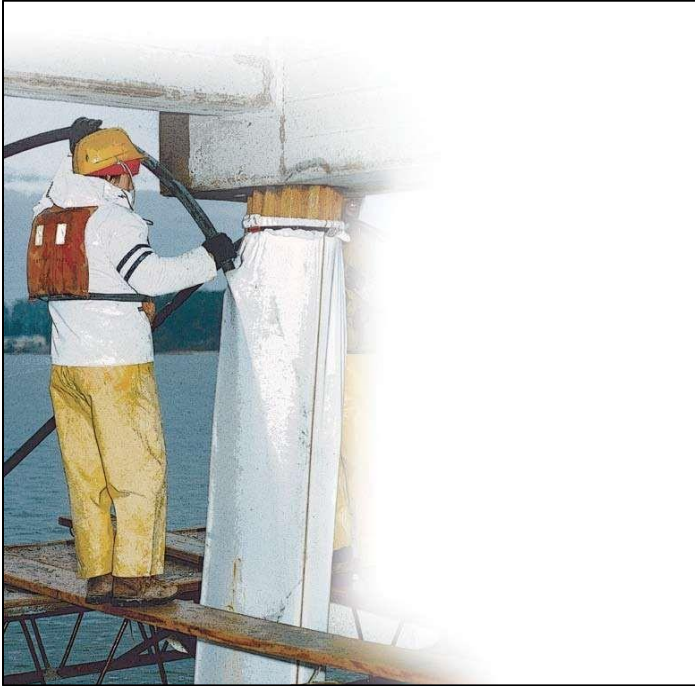
CONCRETE PILE | TIMBER PILE | STEEL PILE

Designed and tailored for your needs



# FABRICFORM Pile Jacket

Environmentally Friendly | Economical | Adaptable | Durable | Easy to Install



## THE CHALLENGE

Constant exposure to water, sea salts, waves, marine organisms and other environmental elements, in addition to increasing load demands can cause marine piles in waterfront structures to suffer extensive abrasion and corrosion over long term periods. In order to preserve the structural integrity of marine facilities and in the interest of safety, periodic inspections and corrosion control processes are integral to maintaining and extending the service life of these structures.

## THE SOLUTION

SPT FABRICFORM Pile Jacket is an innovative method of carrying out restoration and repairs on marine structures, offering facility owners and operators not only extensive savings in relation to Cost and time but also enables repairs to be carried out without causing disruption or interruption to existing services. The use of high-tech, lightweight, durable marine-grade fabric eliminates the need for bulky and heavy equipment otherwise required using conventional methods, and enables a small team of engineers to carry out restoration and repairs on submerged and above water marine piles with greater mobility more efficiently and effectively.

## HOW IT WORKS

The SPT FABRICFORM Pile Jacket acts like a sleeve which encases an individual marine pile. Specially designed High Tenacity Polyester creates a water permeable fabric that is used to wrap and secure a structural pile before Chloride Resistant Non Washout Self Consolidating Remediation Concrete (SPT SCRC) a design mix consisting of aggregates, water and admixtures is Proportionately pumped into the fabric. Using a controlled method, excess water is then forced through the fabric to maintain the integrity of the water-to-concrete mix ratio. The use of a lightweight temporary steel cage meanwhile, allows the mixture to take on the shape of pile as it hardens. The fabric remains bonded and creates increased durability, strength and enhanced resistance to chlorides, corrosion and abrasion damage to the piles.



Cutaway view showing the original concrete pile and the new SPT FABRICFORM Pile Jacket







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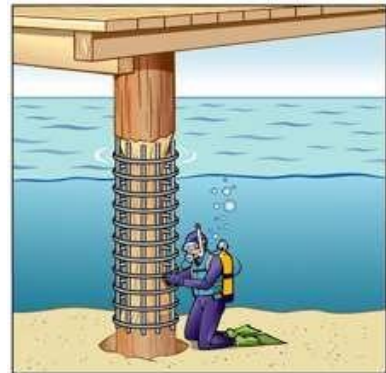
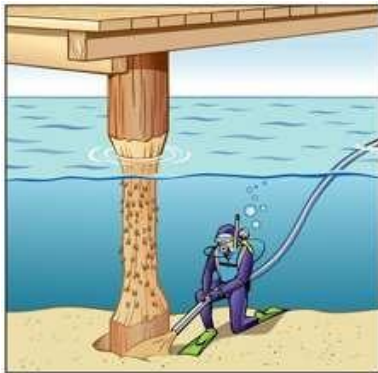
**Benefits:**

- Durable, strong and lightweight material
- Easy to install
- Fast results – reduces time for restoration and repairs
- Economical
- Can be efficiently and effectively installed with the use of minimum manpower
- Allows uninterrupted restoration and repair works to be carried out
- Eliminates the use of bulky and heavy equipment
- Environmental Friendly system
- Chloride Resistant

**Installation Procedure**

The SPT FABRICFORM can be installed below the mud line where needed. The sea floor is excavated to permit installation over one foot of sound pile (Step 1). The piles are then cleaned to produce a sound substrate (Step 2).

Reinforcing steel is placed based on design (Step 3). The FABRICFORM is hung from a suspended ring, zipped, closed and secured at the bottom (Step 4). The use of an external temporary steel cage is recommended to be installed allowing the concrete mix to take shape of the piles as it hardens. A special mix of Chloride Resistant Non-Washout Self Consolidating Remediation Concrete (SPT SCRC) is pumped through hoses extending to the bottom of the FABRICFORM (Step 5.) The hanger assembly is removed and the job is complete (Step 6).





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## Installation of SPT FABRICFORM Pile Jacket

Inspection of the SPT FABRICFORM



Easy Installation of the SPT FABRICFORM

- Light weight and can be handled by a single operative



Steel cage being installed and observed by client representative



Chloride Resistant Non-Washout  
Self Consolidating Remediation Concrete (SPT SCRC)  
has been systematically pumped into the Jacket



Product Data Sheet		
Reference	PDS/Fabricform/22	Rev 1.0

## FABRICFORM Pile Jacket

The SPT FABRICFORM is woven together at regular intervals to form Filter Points. These Filter Points allows water to permeate through the mattress to relieve hydrostatic pressure, while holding back even fine concrete. The fabric is stronger and durable than other fabric making it suitable for the marine environment.

- SPT FABRICFORM sleeves are measured to desired dimensions
- A small team of engineers proceed to install the sleeves by wrapping the fabric around individual marine piles
- Special Chloride Resistant Non-Washout Self Consolidating Concrete (SPT SCRC) is systematically pumped into the jacket
- The use of a temporary steel cage allows the concrete mixture to take on the shape of the cylindrical pile as it hardens

	Material Properties
Style picks	1100/192 dtex High Tenacity Polyester 7.2g/dtex - 22.6% Elongation
Ends/Picks	29.0/23.9 per cm Threads are counted for both layers
Fabric Mass	600g/m <sup>2</sup>
Grab Tensile Strength	Warp above 3688N/50mm per fabric layer Weft above 2309N/50mm per fabric layer
Tear Strength	Warp and Weft above 1200N per layer
Grab Elongation	Warp: 25% & Weft: 23%

**Distributor**  
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