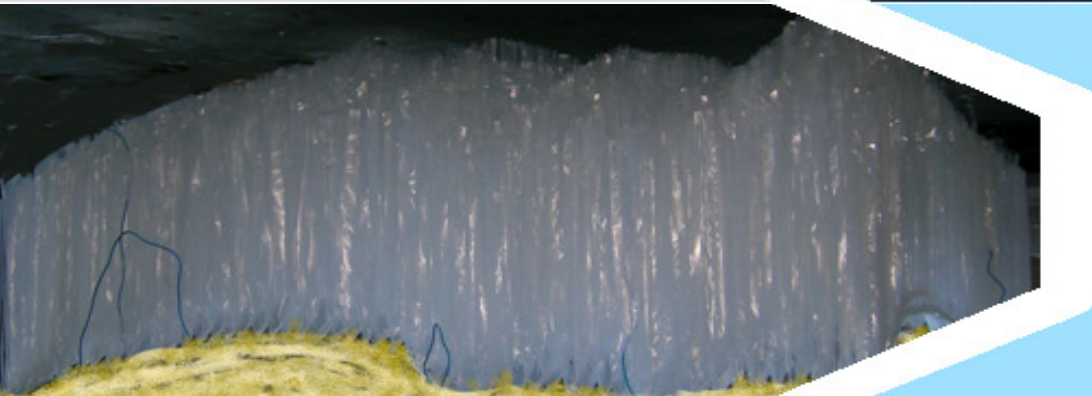




SUBSEA PROTECTION SYSTEMS

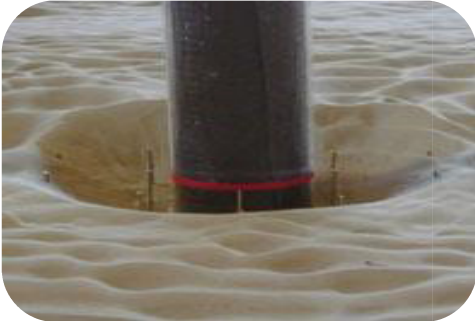


Anti-Scour Frond Mattresses

Protecting subsea installations from scour

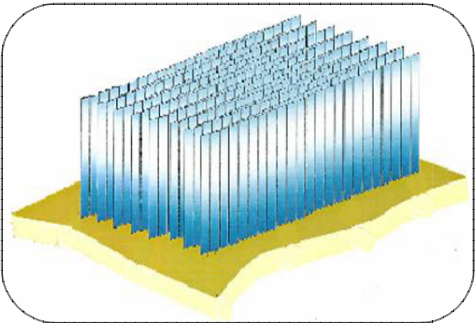


SUBSEA PROTECTION SYSTEMS



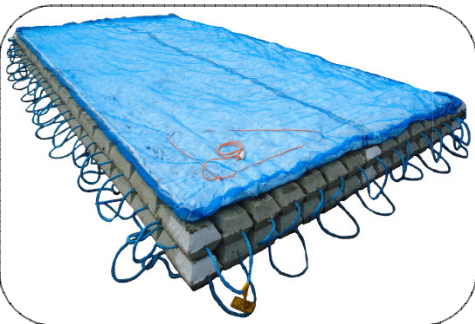
Scour

Scour around subsea structures can be particularly problematic where structures are vulnerable to movement in the seabed. The main effect of scour is erosion of the sediment supporting subsea structures – for foundations, scour can create depressions adjacent to the structure; for pipelines and cables, erosion of the supporting sediment causing a ‘free span’. Both scenarios can result in stress and ultimately fatigue or failure of subsea assets.



Anti-Scour Frond Mattresses

SPS’s Anti-Scour Frond Mattress is economically tried, tested and proven solution for preventing scour around subsea structures. The mattresses are constructed of aerated polyethylene fronds that when installed on the seabed will naturally float to resemble natural seaweed. As local currents transport sediment through the frond mattress strands encouraging sand, silt, or soil to be deposited onto the mattress. Forming a natural fibre reinforced sand bank to protect the area in question.



Technical

SPS’s Anti-Scour Frond Mattresses comprises of lines of aerated polyethylene fronds 1.2m in height 500 per square metre attached to a framework of webbing that extends around the periphery of the mattress. Anti-Scour Frond Mattresses are available in standard sizes and can also be made to suit customer requirements.

Installation Methods

- Diver – Diver installed Anti-Scour Frond Mattresses are supplied rolled on an installation spindle, once placed, anchors are driven into the seabed.
- Ballasted – Weight ballast bags attached around the perimeter of the Anti-Scour Frond Mattress allowing quick installation from a SPS lifting frame.
- Concrete Fronded Mattresses – For higher subsea currents the Anti-Scour Frond Mattress can be supplied pre-fitted to a concrete mattress offering quick and instant scour protection



Subsea Protection Systems

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