FREESPAN RECTIFICATION

Since its inception, the core business of Neptune's subsea stabilisation division has been the rectification of pipeline freespans using pipeline supports manufactured from fabric formwork. The vast expertise developed by the company over the years has culminated in the extremely efficient methods that are now available to clients. All support forms can be diver or ROV installed using specialised ROV installation equipment.

SBP SERIES GROUTBAG

Stabilised Base Pyramids provide an enlarged base, high payload and stable support for pipeline freespan correction. The standard design of the SBP formwork provides clients with time and cost savings associated with positioning and filling the forms and the cement required. The SBP form construction comprises multiple compartments with internal structural partitioning and base height limiting straps to provide form shape during inflation.

GM SERIES GROUTBAG

GM series Groutbags provide an economical solution to pipeline support and are used for small spans. GM forms can also be used in conjunction with SBP forms to form pipeline crossovers.

CUSTOM MANUFACTURE

Through the combination of its in house engineering capabilities, design expertise and extensive offshore installation experience, Neptune's subsea stabilisation division can provide clients with custom designed and manufactured products tailored to meet their specific project needs.

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INNOVATIVE PIPELINE STABILISATION SOLUTIONS

Offering a range of solutions for:

- Pipeline Stabilisation
- Freespan Rectification
- Cathodic Protection
- Pipeline Crossovers
- Scour Control

Neptune's subsea stabilisation (formerly Sea-Struct) is a recognised service provider of stabilisation and protection systems to the oil and gas industry. With offices in Australia, Singapore and Indonesia, Neptune is renowned for its ability to provide clients with innovative and cost effective solutions.

In 1998, subsea stabilisation expanded its core business and pioneered the installation of pipeline supports using ROVs. This pushed the boundaries of both the depth and efficiency that could be achieved for the professional rectification of freespan problems on deepwater submarine pipelines and cables.

Four years later in 2002, the division won a prestigious WAISS Award for Innovative Design from the West Australian Government for the commercial development of its unique SEAMAT product.

Representing an entirely new concept of concrete stabilisation mattress manufacture, SEAMAT has enabled Neptune to supply clients operating in remote offshore locations with a quality product, at an affordable price.

In the offshore oil and gas industry, the innovative range of subsea stabilisation products and services have been used by numerous notable clients including Shell, Esso, BP, Chevron, Conoco, ADNOC, Petronas and Woodside. Similarly, contractors such as Hyundai, Global, Santos, Technip, Saipem, McDermott, NPCC and Clough have also utilised the various solutions.

With the expansion of its engineering team and the development of software such as MATSTAB for the assessment of mattress stability, Neptune's pipeline stability solutions have gained international verification from class societies including DNV and Bureau Veritas.

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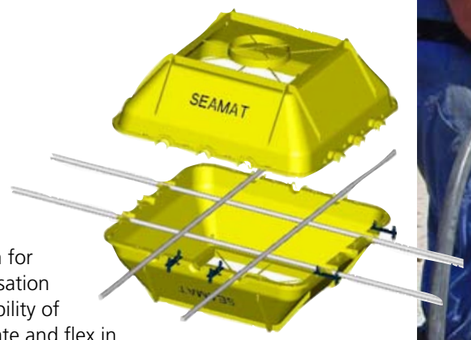
PIPELINE PROTECTION AND STABILISATION

Neptune can provide protection and stabilisation of submarine pipelines and cables via the following products: SEAMAT, ANCHORMAT, BITUMAT and GROUTMAT. Each product can be used in isolation or combined with in house engineering expertise and procedures to provide a turnkey solution.

www.neptunems.com

SEAMAT



SEAMAT has been developed to provide the oil & gas industry with a fully articulating concrete mattress system for pipeline and cable stabilisation and/or protection. The ability of the mattresses to articulate and flex in all directions allows it to adapt to the contour of the seabed. A unique feature of SEAMAT is the portable moulding system which allows large numbers of mattresses to be manufactured quickly and efficiently at the proposed project load-out location. The density of concrete used in the SEAMAT moulds can be altered to adjust mattress weight. Similarly, individual block weights within a single mattress can be increased as required with the use of extremely heavy aggregates without any loss in manufacturing time.

ANCHORMAT

ANCHORMAT is a natural progression of the SEAMAT concept. Using the SEAMAT moulded casing system, the mattress is constructed in two sections which are connected via certified polyester webbing slings. Cast into the concrete during the manufacture process, the slings transfer the load from the mattress onto the pipeline without any increase in the pipeline profile.

SMARTMAT

SMARTMAT combines the proven technology of the articulating SEAMAT with an integrated cathodic protection system. This combination provides stabilisation with the added benefit of cathodic protection for 30 years, up to three kilometers in either direction from the location of the SMARTMAT. As a result, SMARTMAT provides an excellent solution for the retrofit of aging or damaged pipelines and subsea structures, particularly where scour is of concern. Smaller diameter flowlines and short-run pipelines can also benefit from the ballast provided by SMARTMAT. Hydrodynamics and cathodic protection engineering is conducted in-house to ensure stability of the final product and to provide a formulated corrosion protection system for any scenario.

GROUTMAT

GROUTMAT is a custom manufactured mattress injected with grout to provide stabilisation and dropped object protection. Mats are available in any size or shape to suit the project requirements.

BITUMAT

BITUMAT contains bitumen-bound materials allowing the mattress to mould around a pipe or cable to provide a high level of protection against impact damage. The bitumen rich mix prevents chemical breakdown or corrosion, thus preserving the integrity of the mattress in situ. The BITUMAT mattresses are manufactured with internal reinforcement and certified lifting points, can be custom designed to virtually any size required and can be constructed in a range of densities.