

Service Reference Sheet Construction Support

1.0 Related Services

Comprehensive Services, Pre-Construction and Installation Engineering, Project & QHSE Management, Operations & Maintenance, Client Representation, Procurement & Financial Support.

2.0 Offshore Construction Support

Primo Marine has extensive offshore expertise and experience to ensure the effective planning, scheduling and thorough execution of all offshore scopes. Offering a dedicated offshore team, each with over twenty five years' experience related to offshore construction works.

The members of the team have been carefully selected due to their vast operational experience related to installation, trenching, dredging, surveying, rock placement and piling. This expertise enables the multi-tasking and prioritisation of crucial offshore operations in order to ensure projects are safely executed to a high quality. Incorporated within the construction support service is the management of:

- Crucial offshore operations related to installation, protection and construction support.
- Crucial operations in proximity to marine/subsea assets and infrastructures.
- The liaising and interfacing with all key stakeholders and authorities, covering the permitting and approval process.
- Ensuring thorough oversight of works and safe operations (zero harm to people, equipment, product and assets).

3.0 Offshore Scopes

Primo Marine has provided offshore expertise into many of Europe's largest installation projects, from interconnectors i.e. BritNed, NordBalt, NorNed to Offshore Wind Farms i.e. Butendiek, Luchterduinen, Thanet. Scope completed cover the full spectrum of full field construction, from burial campaigns, foundation piling, heavy lifting, installation and surveys to specialised services such as remedial burial, rock placement and cable repair management.

Primo Marine provides the following Construction Support Services:

4.0 Construction Support – Survey Capabilities

Primo Marine offers a dedicated offshore survey service, either standalone or within a comprehensive pre-construction and installation engineering packages. A dedicated experienced team of surveyors can prepare, monitor and manage survey campaigns, including hydrographic, geophysical and geotechnical disciplines. The survey campaigns are designed to monitor the seabed, including specialist packages such as UXO, as well as supporting all installation activities during the offshore campaign, including complete as built dossiers and final reporting. These survey campaigns can also be designed to support the pre-construction phase by acquiring crucial data for route engineering. Incorporated within the survey service is:

- Management of maintenance survey scopes including specialist packages such as UXO campaigns, seabed mapping, etc.
- Survey campaigns including multi-beam, side scan, acoustic doppler current profiler, sub bottom profiler, magnetometer, vibro core and cone penetration testing.

- Data analysis and processing including charting, profiles, volumes, route engineering and GIS.
- Definition for geophysical and geotechnical survey campaigns.
- Definition of survey scope of work and specification for tender campaigns.

5.0 Construction Support - Protection Campaigns

Primo Marine offers a dedicated offshore service related to protection campaigns, either standalone or within a comprehensive pre-construction and installation engineering package, related to design, installation and protection i.e. route engineering. A dedicated team, with in depth and practical experience will ensure successful protection campaigns either involving amongst others trenching or rock placement:

- Trenching - expertise relating to all trenchers from jetting (including sleds), mechanical cutter and ploughs, to all scope types i.e. pre-cutting, simultaneous lay and burial to post burial. With practical experience to assist contractors performance in all soil types i.e. sands, clays, glacial till and boulders.
- Rock placement – expertise relating to all rock placement scopes including protection (due to insufficient trencher burial), construction of “sleepers” to support a products in undulating seabed and protection of products at crossing locations. Also covering evaluation and environmental conditions, geometry, layer thickness, grading and building up of filter layers.

6.0 Construction Support - Business Continuity & Emergency Response

Primo Marine offers a dedicated offshore service related to Business Continuity and Emergency Response scenarios, covering the full field support and management of all repairs from fault finding to deburial, recovery, repair, jointing and reburial (see Operations & Maintenance for further details). Incorporated within the Business Continuity & Emergency Response is:

- Specialist remedial burial campaigns.
- Dredging.
- Specialist rock placement remedial campaigns.
- Cable protection and repair.
- Mass or controlled flow work scopes.

7.0 Construction Support - Full Field Operations

Primo Marine offers a dedicated offshore service related to the provision of full field construction including management of monopile installation, foundation piling, heavy lifting, WTG installation and marine coordination activities.

8.0 Construction Support – QHSE Advisory Services

Primo Marine offers a dedicated offshore service related to the provision of Offshore Safety Advisors. Incorporated within the QHSE advisory is:

- Project Support, including HIRA, Hazop, Toolbox Talks, adherence compliance from operational performance to statutory and regulatory i.e. environmental performance.
- Vessel Assurance (see QHSE).
- Risk Management (see QHSE).
- Incident Management (see QHSE).