

Geotechnics

Marine Foundation Engineering

Multiconsult foundation design – the sound basis for any project.

We are more than 20 dedicated and highly motivated geotechnical engineers, who deliver a wide range of services within the field of marine foundation engineering.

Multiconsult possesses special qualifications and expertise required in order to develop the optimal foundation concept for all conditions in nearshore to deepwater developments. The main challenges related to developing the optimal foundation concept include: functional requirements, installation requirements and cost.

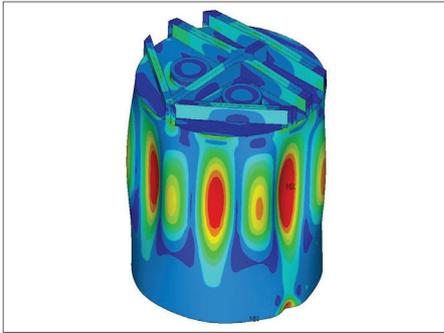
Multiconsult delivers geotechnical design for all marine foundations, such as subsea structures, anchoring systems, large concrete platforms (GBS), jacket steel structures, offshore wind foundations and deep water bridges.

REFERENCES

- Johan Sverdrup (concept and pre-FEED)
- Johan Castberg (concept and pre-FEED)
- Goliat subsea structures
- Åsgard subsea compression
- Aasta Hansteen production templates
- Moho subsea structures
- Kaombo subsea structures
- Ghana OCTP subsea structures
- Gorgon subsea structures
- Ichthys subsea structures
- Jack & St. Malo subsea structures
- Sakahlin GBS
- Hebron GBS
- Mariner Jacket
- Oseberg C and B jacket
- Dudgeon offshore windfarm
- Fecamp offshore windfarm
- Hywind offshore windfarm
- Bjørnafjorden floating cable-stayed bridge



Moho subsea foundations | Illustration: Total



Top: Buckling analysis of CCF | Illustration: Multiconsult
Bottom: Goliat foundation installation | Photo: ENI / Aker Solutions

Right: Offshore wind farm | Photo: Statoil

OIL AND GAS

Having been part of the “Norwegian oil and gas adventure” right from its start, Multiconsult looks back on 40 years of experience in the field of offshore installations. Today, Multiconsult contributes with multidisciplinary engineering competence to the development of oil and gas fields worldwide. The foundation concepts for the oil and gas industry typically consist of mudmats, suction pile(s), piling and gravity base structure (GBS).

OFFSHORE WIND

Multiconsult holds broad experience in foundation design for offshore wind turbines. Our project portfolio includes both floating and fixed wind turbines, and typical foundation concepts are, suction anchors, monopiles (both driven and suction assisted) and gravity base structure (GBS). Multiconsult is also involved in PhD- work for horizontal support of large-diameter monopiles.

INFRASTRUCTURE

Multiconsult is involved with deep-water bridges for e.g. fjord-crossings on the Norwegian West coast. This work includes a PhD for application of offshore foundations for infrastructural projects.

MULTIDISCIPLINARY COMPETENCE

Our geotechnical engineers are part of the strong interdisciplinary environment in Multiconsult, and work closely with other engineering disciplines such as structure, energy and infrastructure. This unique competence allows Multiconsult to offer interdisciplinary elaboration of complete working packages.

SERVICES

- Planning and supervision - offshore soil investigations
- Feasibility/Concept studies
- Front End Engineering Design (FEED)
- Detail Engineering
- Follow-on engineering
- Site supervision
- Offshore Installation
- Decommissioning/removal