

New Energy Solutions

Offshore Marine Terminals & Floating Storage Units



SPM Tower with Midship Loading Arm

- For LNG transfer in harsh conditions



Disconnectable Mini-Turret Buoy

- Disconnectable mooring
- Quick connect and disconnect
- Standard open interface
- Suitable for harsher conditions

Island Jetty with PLEM or Loading Tower

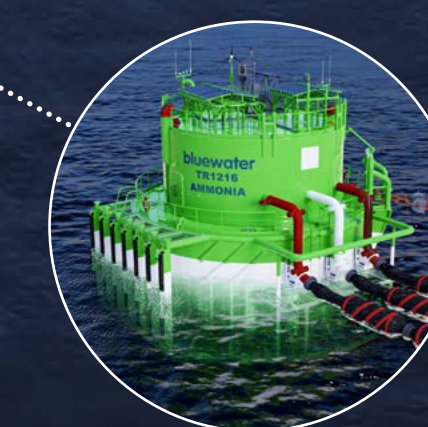
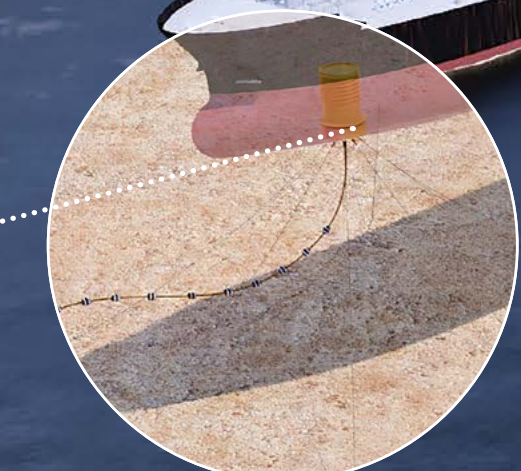
- Weathervaning option
- Or in combination with dolphins
- Hoses can be both freehanging (catenary) or floating
- Suitable for midship loading and/or bow loading

CALM Buoy

- Proven concept
- For harsher environments than MBM
- Design allows for weathervaning
- 400+ systems supplied worldwide, Bluewater provided 100+ systems

Multi Buoy / Spread Mooring

- Proven concept for benign areas where no weathervaning is required
- Low Capex, higher Opex
- Subsea hoses or aerial hoses



New Energy Solutions

Bluewater is an independent privately-owned EPCI contractor and operator with decades of experience in designing and delivering floating offshore units. We have an excellent project execution track record that ensures quality and delivery within schedule and budget.

These systems are used for mooring offshore production, storage and offloading units like not only FPSOs, FSOs, FSRUs and FLNGs, but also for New Energies like ammonia, methanol and CO₂.

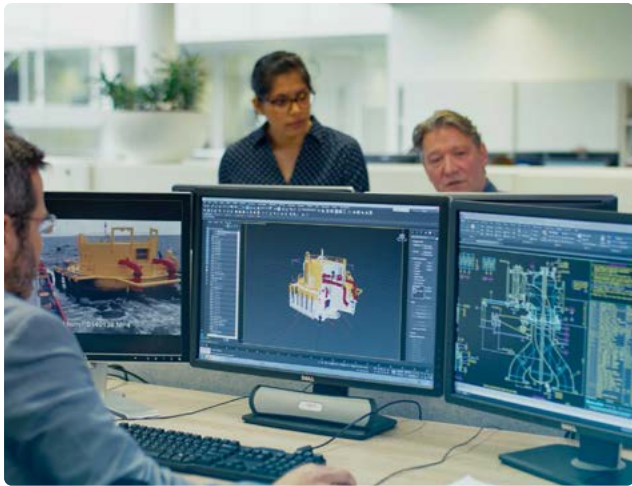
The weathervaning of the vessel results in minimised vessel motions and minimised environmental loads. This maximizes production uptime and enables higher offloading availability.

Our solutions range from lean systems for benign areas and shallow water depths to the most complex systems, for the harshest conditions in deep waters.

Bluewater's proprietary swivel system enables the transfer of fluids, power and signals from the geostationary mooring line arrangement to the weathervaning vessel.

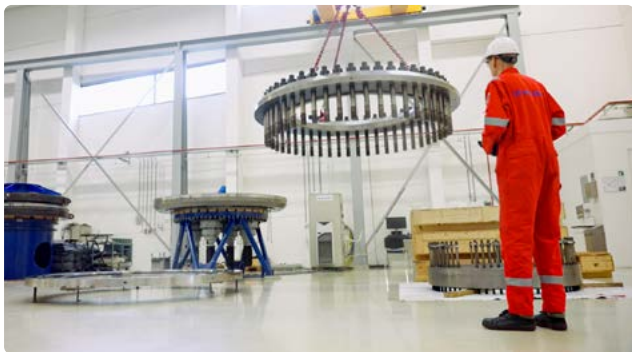
Bluewater provides tailor-made solutions that are easy to integrate and install, while being credited for its robustness, minimal maintenance throughout its lifetime and inherently safe operation.

Bluewater Benefits



Efficient Project Execution

- Full EPCI contractor, excellent project management to ensure quality, schedule and budget;
- Open culture, flat organisation and short communication lines; around 200 engineers in one office location, easy to contact, always consulting with customers;
- Reliable and predictable, focussed on bespoke cost-effective project solutions for your field and location;
- As FPSO fleet owner and operator we understand our customers' need to operate to the highest HSEQ standards in the offshore industry;
- Our in-house developed FPSO 'safety case' DNA is an integral part of our project execution and our TMS design philosophy;
- Excellent track record in safety and reliability; with products that stood the test of time in the most challenging and harshest offshore locations all over the world;
- Dedicated supply chain for equipment providers and fabrication yards based on decades of track record and long-term relationships.



Excellence in Technology

- In-house technology and engineering for all critical components;
- Designs suitable for all conditions worldwide;
- Compact slender turret design and robust dual bearing system with efficient load introduction into the hull, requiring minimal maintenance, resulting in lower weight and lower overall cost;
- Proprietary modular swivel design with in-house testing facilities;
- Experience with strict regulatory regimes and harsh environmental conditions;
- Condition-based maintenance of mooring, bearing, swivel or structural items is available;
- Monitoring with safe operation and maintenance in mind, using our operational experience.



Robust Mooring Systems

- Fully passive system, with unrestricted weathervaning capabilities;
- Full design optimization towards project-specific requirements, using field-proven materials (chain, steel wire rope and polyester);
- Both permanent or disconnectable systems can be provided, to suit field-specific and/or operational requirements;
- Proven mooring line connector design, if required with double-articulated arrangements and exchangeable during field life; retractable chain stoppers can be provided;
- Both catenary and semi-taut moorings are available;
- Various options for re-tensioning mooring lines can be provided if needed; in the turret, in the line or at the seabed;
- Underwater components maintenance-free.



Modular Swivel Stacks

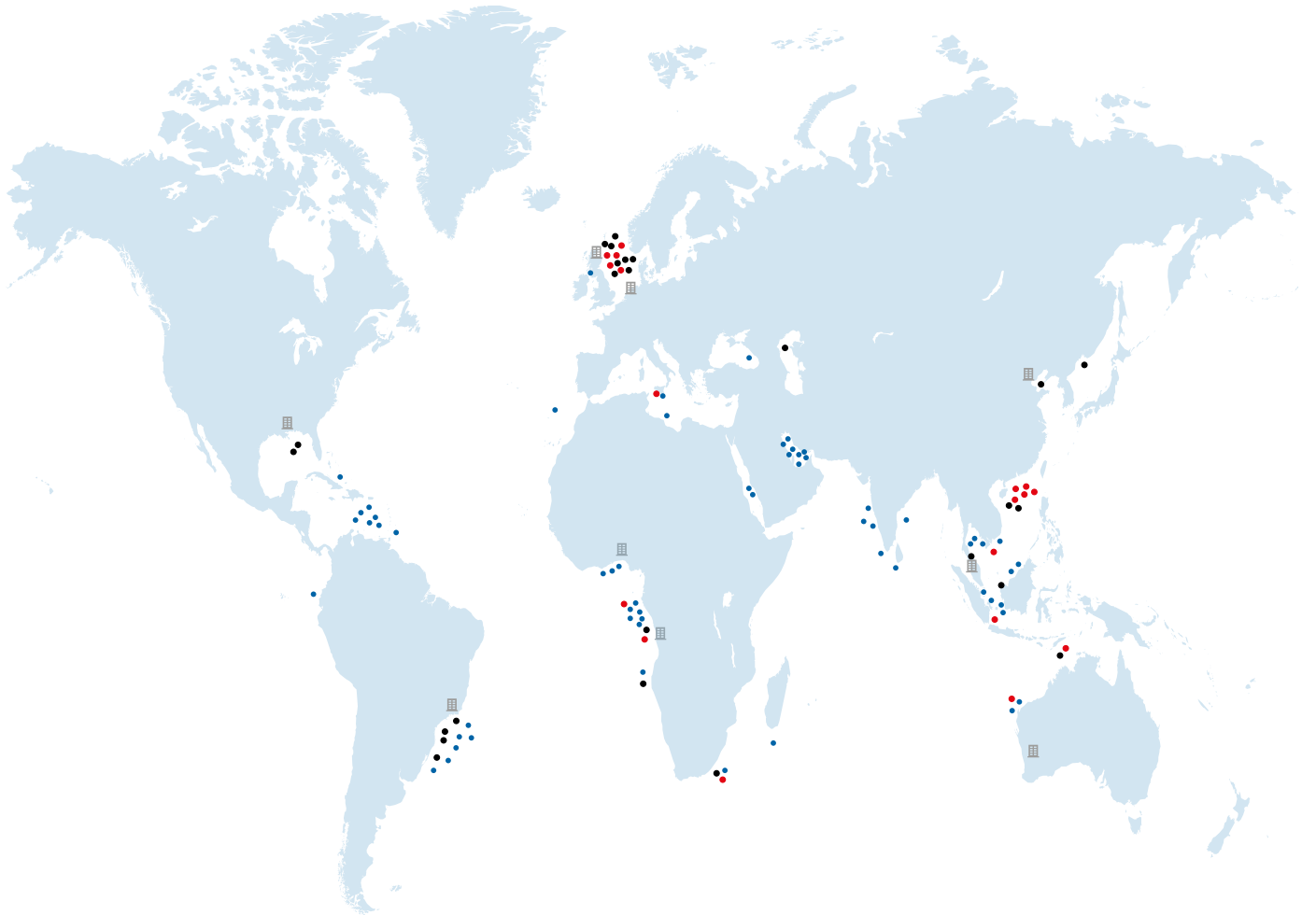
- All process equipment is situated in naturally ventilated open areas to improve safety;
- Robust and proven designs for process, utilities and power/fibre-optic/control swivels;
- Project-specific arrangement based on standardized stackable and interchangeable swivel modules and passive (or active), double or triple sealing arrangements; option with spare seal containers;
- High voltage sliprings, for e.g. green power import;
- High pressure/high temperature process swivel modules;
- Swivels modules available for import/export of 'new fluids', e.g. NH₃, MeOH, compressed H₂, CO₂;
- HP utility swivel modules and multicore (fibre-optic) control sliprings.





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References



-  Bluewater Offices
-  FPSO & FSO Systems
-  Turret & Tower Mooring Systems
-  Buoy Terminal Systems



Download the digital brochure