



Permanent mooring track record

We manage the whole lifecycle from design to installation, maintenance and decommissioning.



We act on mooring expertise

As a full-service integrator, we deliver end-to-end permanent mooring solutions that combine technical expertise with operational reliability. Our flexible lifecycle approach spans design, installation, maintenance, and decommissioning, ensuring continuity of knowledge and optimised performance at every stage.

Mooring is all we do, and our deep domain experience enables us to reduce project risk, improve safety, and meet global standards while acting locally. For complex offshore challenges, we provide dependable solutions that accelerate timelines and enhance commercial efficiency.

Our engineered mooring systems are built for long-term security in harsh and variable environments. By applying geotechnical insight and anchor innovation, we minimise lifecycle risk and deliver high holding capacity with minimal maintenance. Strategic partnerships, globally with Jumbo Offshore and in West Africa with Risqserve, strengthen our ability to increase project reliability and reduce intervention risks. From design through operations, we focus on safety, environmental performance, and cost efficiency - providing trusted solutions for optimised mooring performance.

100 – 9,500 ft

Experience and expertise in all water depths

Asia Pacific

Year	Client	Project name	Water depth (ft)	Work summary
2026	Star Petroleum Refining Public Company (Thailand)	SPRC Refinery	90	Replacement of SPM CALM Buoy and PLEM <ul style="list-style-type: none"> • Project Management • Engineering and procedural development • Marine Spread Charter • Offshore Preparation and Execution
2022 - 2024	Chevron (Gulf of Thailand)	Pattani FSO, Erawan SPM 1 & 2	256	FSO and Single Point Mooring 1 & 2 Disconnection, Removal and Towing, Pipeline Tie-in Disconnection <ul style="list-style-type: none"> • Project Management • Engineering and procedural development • Marine Spread Charter • Offshore Preparation and Execution
2019 - 2021	COOEC (China)	Lingshui	5,000	Pre-lay, tow and hook-up: <ul style="list-style-type: none"> • Installation of 16 driven suction piles using a pile deepwater hammer package • Project management and engineering • Pre-lay, pre-tensioning, tow & hookup of system to FPU • Offshore preparation and execution
2019-2020	COOEC (China)	Liuhua	1,300	Pre-lay, installation and hookup: <ul style="list-style-type: none"> • Project management and engineering • Installation engineering • Offshore preparation and execution
2019	MISC (Malaysia)	Mampu-1 FPSO	250	Transportation and installation for Mampu-1 FPSO: <ul style="list-style-type: none"> • Heavy lift of the ESP module • Chute installation on the WHP • Dynamic subsea power cable lay • Hook-up and termination • Testing and commissioning
2019	Pertamina (Indonesia)	Balongan	96	Installation and hook-up of mooring system: <ul style="list-style-type: none"> • One Pipeline End Manifold (PLEM) • Six driven piles • One Single Point Mooring (SPM) buoy • Floating hoses • Umbilicals and hawsers
2018	MISC (Thailand)	Benchamas FSO 2	230	Tow operations from shipyard to field: <ul style="list-style-type: none"> • Project management, engineering and manpower • Engineering and analysis for hook-up of the FSO and installation of the riser system • Charter of anchor handling vessels for station keeping
2016	Shell (Singapore)	Malikai TLP	1,640	Float-off marine operations: <ul style="list-style-type: none"> • Engineering analysis and procedures • Project management for nearshore operations • Management of chartered vessels • Offshore personnel and various ancillary services
2015	Atwood Oceanics	Atwood Eagle	35	<ul style="list-style-type: none"> • Project management, engineering, procurement and installation of chains, and wire replacement scope for a semi-submersible rig • Changeout of 32 km of wire and 8 km of chain
2014	Offshore Oil Engineering (COOEC) (South China Sea)	Panyu FPSO	345	<ul style="list-style-type: none"> • Project management and engineering • Installation of the mooring system using the existing mooring pattern and mooring changeout conducted ensuring that the existing floating production, storage and offloading vessel (FPSO) remained in production throughout the installation

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2014	COOEC (South China Sea)	Enping FPSO	300	Installation of a new FPSO, including full single point mooring system, a fixed manned drilling and pipeline production platform, and a 2.2 km subsea flexible: <ul style="list-style-type: none"> • Onshore and offshore project management • Installation engineering and procedures development
2012	Offshore Oil Engineering (COOEC) (South China Sea)	LuFeng NHSK Floating Storage and Offloading Unit (FSOU)	433	Upgrades, relocation and hookup services: <ul style="list-style-type: none"> • Project management and engineering • Provision of anchors, ground chain and excursion chain during pre-lay stage • Provision of buoy hookup, dip-zone chain and riser joint support ships (JSS) wire during hookup stage • Installation of 8 inch static flow line and 8 in. dynamic riser between FL13-2 platform and the NHSK buoy • Provision of guide frame and gravity base for the midwater arch
2011	Murphy Sabah Oil (Malaysia)	Kikeh Spar	4,362	<ul style="list-style-type: none"> • Hawser changeout • Tender-assist drilling (TAD) hookup • Provided offshore personnel



Americas

Year	Client	Project name	Water depth (ft)	Work summary
2026	Saipem	Buzios 10 FPSO	7,217	Supply of anchoring equipment for subsea gas export pipeline installation for FPSO Buzios 10
2025	Modec	MV18 FPSO	4,593	Decommissioning: <ul style="list-style-type: none"> • Personnel and equipment
2025	Trident Energy	P8 Platform	1,329	Emergency response plan
2025	Karoon	Cidade de Itajaí FPSO	984	Engineering: <ul style="list-style-type: none"> • Emergency response plan • Mooring line fatigue assessment • Mooring equipment inspection
2025	Brava	Papa Terra FPSO	4,049	<ul style="list-style-type: none"> • Provision of equipment • Spooling operation
2025	Equinor	Peregrino FPSO	433	Engineering: <ul style="list-style-type: none"> • Emergency response plan
2025	PRIO	Frade FPSO and Forte FPSO	3,652 - 4,127	Supply of mooring equipment
2024	Trident Energy	P65 Platform	312	Engineering: <ul style="list-style-type: none"> • Emergency response plan • Personnel and equipment • Spooling operation
2024	Equinor	Titan Platform	4,000	Mooring line repair: <ul style="list-style-type: none"> • Project management • Engineering analysis • Procurement • Offshore execution • Heading control • Personnel
2024	Altera	Petrojal I FPSO	458	Decommissioning: <ul style="list-style-type: none"> • Project management and engineering support • Engineering analysis, offshore procedures • Personnel and equipment • Spooling operation
2024	Saipem	Buzios 7 FPSO	7,217	Supply of installation aids and equipment for FPSO Buzios 7 installation and hook up
2023-2024	Altera Ocyan	Cidade de Itajaí FPSO	984	Mooring line inspection: <ul style="list-style-type: none"> • Project support • Engineering analyses, offshore procedures • Personnel and equipment
2022-2025	Karoon	Cidade de Itajaí FPSO	984	Replacement of broken mooring lines: <ul style="list-style-type: none"> • Recovery, inspection and repair procedures • Chain cleaning and inspection equipment • Survey equipment and personnel • Equipment and offshore personnel
2022-2023	Trident Energy	P65 Platform	312	Replacement of broken mooring lines: <ul style="list-style-type: none"> • Recovery, inspection and repair procedures • Chain cleaning and inspection equipment • Survey equipment and personnel • Equipment and offshore personnel

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2022	Chevron (Gulf of Mexico)	Blind Faith	6,500	<ul style="list-style-type: none"> • Removal of 5" of 5,092' chain from Blind Faith Platform to reduce overall platform payload for Ballymore Field tieback • Project Management and Engineering • Procurement of equipment • Offshore personnel • Fabrication
2022	ExxonMobil	Hoover Diana Platform	4,808	Replacement of nine top chains and one full mooring line: <ul style="list-style-type: none"> • Project management • Engineering analysis • Procurement • Vessel selection • Offshore execution • Heading control • Personnel
2021	Trident Energy	P08 Platform	N/A	Top chain replacement: <ul style="list-style-type: none"> • Project management • Engineering • Procurement • Offshore execution
2020	Subsea 7/ BP (Gulf of Mexico)	Argos FPU	4,448	Towing and installation of permanent mooring systems: <ul style="list-style-type: none"> • Project management and engineering • Engineering analyses and installation procedures • Fabrication fit-up test witness • Marshalling yard and dock support • Offshore operations • Personnel and equipment
2019	MODEC/Ardent	Cidade do Rio de Janeiro MV14 FPSO	N/A	Mooring master and positioning system for MV14 disconnection and tow out: <ul style="list-style-type: none"> • Positioning equipment and tow master provision for MV14 salvage plan • Tow out
2018	Shell	Fluminense FPSO	2,297	Mooring line remedial work: <ul style="list-style-type: none"> • Project management • Engineering • Procurement • Marine base services • Offshore execution
2017, 2019, 2022, 2024	MODEC	Various FPSOs	N/A	FPSO fleet mooring system inspection: <ul style="list-style-type: none"> • Project management • Cleaning and measurement, tooling provision • Offshore executions • Reporting
2017	Teekay (Brazil)	Petrojarl I FPSO	458	Installation of eight mooring lines: <ul style="list-style-type: none"> • Project support and engineering • Engineering analyses • Offshore procedures • Offshore operations • Personnel
2015 - 2016	Subsea7 / Shell (Gulf of Mexico - Stones Field)	Turritella FPSO	9,500	Project management and fabrication of two suction piles to be used as umbilical tether anchors: <ul style="list-style-type: none"> • Mooring leg tensioning through ILMC, excess chain cutting (subsea) and removal. • Riser pull-in rope stretching and transfer to FPSO

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2015	Anadarko Petroleum Corp.	Heidelberg Spar	5,300	Installation and hook-up of the first three moorings (storm safe): <ul style="list-style-type: none"> • Engineering • Offshore operations services • Analyses, procedures, and offshore support for polyester stretch removal activities
2014	LLOG Exploration Company LLC (Gulf of Mexico)	Delta House FPS	4,400	Installation of Delta House FPS including: <ul style="list-style-type: none"> • Project management and engineering services for design of 12 suction pile anchors • Fabrication of 12 suction pile anchors (16' Ø x 85' piles) • Installation of 12 pre-set chain / polyester mooring lines and 12 suction pile anchors • Hook-up of the FPS
2011	Shell Offshore	Auger Tension Leg Platform	2,861	Removal of the existing eight platform wires and the installation of new platform wires, including: <ul style="list-style-type: none"> • Development of the project execution plan • Design and fabrication of installation aids • Provision of offshore personnel
2011	Anadarko Petroleum	Innovator Platform	3,000	Moorings maintenance and upgrade (change-out of rig wires, upgrade of five mooring legs with new anchors and components for possible life extension and inspection): <ul style="list-style-type: none"> • Project management • Engineering • Mooring design • Regulatory interface • Procurement • Offshore execution
2010	ATP Oil & Gas Corporation (ATP) (Gulf of Mexico)	Mirage FPU	4,000	<ul style="list-style-type: none"> • Engineering services for mooring design • Oversight and guidance for the mooring system strength and fatigue analyses • Tow out and upending • Driven anchors and mooring preset installation and hook-up • Served as a Certification Verification Authority (CVA)
2010	MODEC Inc. (Brazil)	Cidade de Angra dos Reis MV22 (MV22) FPSO	7,050	<ul style="list-style-type: none"> • Project management / engineering support • Offshore personnel • Offshore equipment • Mooring hook-up and riser pull-in procedures along with passage plan and station keeping procedures

Europe

Year	Client	Project name	Water depth (ft)	Work summary
2023-2024	Anasuria	Anasuria FPSO	308	Mooring line replacement and inspection: <ul style="list-style-type: none"> • Project management • Engineering analysis • Vessel selection • Rigging procurement • Management and bridging docs – dive scope • Heading control • Offshore execution • Personnel
2023	Ithaca Energy	FPS1	N/A	Design and installation of chain hang-off plates: <ul style="list-style-type: none"> • Project management • Design engineering • Offshore installation • Personnel
2023	Dana Petroleum (E&P)	Western Isles FPSO	N/A	Engineering for chain/line replacement mooring line inspection
2023	TotalEnergies	Gryphon FPSO	367	Mooring line inspection and repair: <ul style="list-style-type: none"> • Project management • Engineering analysis (repair scope) • Rigging procurement • Heading control • Offshore execution • Personnel
2022-2023	Repsol Sinopec Resources UK	Bleo Holm FPSO	N/A	Chain changeout: <ul style="list-style-type: none"> • Project management • Engineering analysis • Procedure writing • Marine consultancy • Installation analysis • Offshore chain inspection (recovered lines) • Heading control • Offshore project support personnel
2022	Petrofac	Global Producer 3 FPSO	476	Chain change-out life extension scope: <ul style="list-style-type: none"> • Project management • Engineering analysis • Procurement • Offshore execution • Heading control • Personnel
2022	Dana Petroleum (E&P)	Western Isles FPSO	N/A	<ul style="list-style-type: none"> • Development of skidding procedures • Marine consultancy
2022	Enquest Heather	Enquest Producer FPSO	N/A	Quayside mooring analysis
2022	Repsol Sinopec Resources UK	Bleo Holm FPSO	N/A	Chain inspection and fatigue load testing of FPSO chain: <ul style="list-style-type: none"> • Loading analysis • Cyclic fatigue load testing • Integrity management plan
2022	Carnival	Queen Victoria II	N/A	Full chain inspection and recertification of ship's anchor chain: <ul style="list-style-type: none"> • Inspected to ABS standards • Inspected under AOSS 413 accreditation • Inspection of all chain connecting links • Chain inspection consultancy

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2021	Petrofac Facilities Management	Global Producer 3 FPSO	N/A	<ul style="list-style-type: none"> • Thruster change out • Heading control
2021	Ponticelli UK	Ailsa FSO	295	<p>Ailsa hawser line replacement:</p> <ul style="list-style-type: none"> • Project management • Engineering and installation analysis • Procurement • Disconnection and recovery of old and new hawser • Heading control operations • Procedure development • Offshore personnel
2021	Ithaca Oil and Gas	Captain FPSO	N/A	<p>Top chain replacement:</p> <ul style="list-style-type: none"> • Project management • Engineering analysis • Procedure writing • Marine consultancy • Installation analysis • Offshore chain inspection (recovered lines) • Heading control • Offshore project support personnel • Chain procurement • Onshore chain inspection support • Rigging procurement
2020	EnQuest Heather	Northern Producer	N/A	Mooring integrity review
2019	EnQuest Heather	Northern Producer	N/A	<p>Top chain replacement:</p> <ul style="list-style-type: none"> • Project management • Engineering analysis • Procedure writing • Offshore analysis
2019	Repsol Sinopec Resources UK	Bleo Holm FPSO	N/A	<p>Chain changeout:</p> <ul style="list-style-type: none"> • Project management • Engineering analysis • Procedure writing • Marine consultancy • Installation analysis • Offshore chain inspection (recovered lines) • Heading control • Offshore project support
2019	Chevron UK	Alba floating storage unit (FSU)	459	<p>Replacement of 12 mooring lines:</p> <ul style="list-style-type: none"> • Engineering and offshore procedures • Equipment and personnel • Survey and positioning services • Full project management and vessel charter
2018	Total E&P UK (North Sea)	Ailsa FPSO (Culzean)	300	<p>Tow and permanent mooring:</p> <ul style="list-style-type: none"> • Project support • Engineering analyses • Offshore procedures • Personnel and equipment • Survey and positioning services
2012	Saipem UK Ltd. (Italy)	Firenze FPSO	2,674	<ul style="list-style-type: none"> • Installation and hook-up support, including: • Mobilisation of navigation equipment: Three heading control tubs (HCT), a diving support vessel (DSV), and offshore construction vessel (OCV) • FPSO positioning and heading control analyses • Optimisation of anchor handling scenarios for the FPSO mooring hook-up • Marine and survey procedures • Procurement of FPSO aft and forward towing equipment • Tow masters and surveyors for offshore operation

Africa

Year	Client	Project name	Water depth (ft)	Work summary
2024	RMC/GMT (Nigeria)	Agbami FPSO	4,800	Mooring line replacement: <ul style="list-style-type: none"> • Project management and engineering • Installation engineering • Equipment and offshore personnel • Offshore prep and execution
2023-2024	RMC/GMT (Shell)	Bonga FPSO	3,084-3,366	Top chain replacement on all 12 mooring lines: <ul style="list-style-type: none"> • Project management • Engineering analysis • Offshore execution • Heading control • Personnel
2021	Chevron Nigeria	Escravos FSO	138	Replacement of six mooring lines: <ul style="list-style-type: none"> • Project management and engineering • Installation engineering • Equipment and offshore personnel • Offshore preparation and execution
2020	MODEC Management Services	FPSO Baobab Ivoirien MV10	N/A	Top chain replacement: <ul style="list-style-type: none"> • Project management • Engineering analysis • Procedure writing • Marine consultancy • Installation analysis • Offshore chain inspection (recovered lines) • Heading control • Offshore project support personnel
2019	MODEC Management Services	FPSO Baobab Ivoirien MV10	N/A	Mooring line repair: <ul style="list-style-type: none"> • Project management • Engineering analysis • Procedure writing • Marine consultancy • Installation analysis • Offshore chain inspection (recovered lines) • Heading control • Offshore project support personnel
2019	Chevron Nigeria	Escravos FSO	138	Replacement of broken mooring line: <ul style="list-style-type: none"> • Recovery, inspection and repair procedures • Chain sizing and length requirement • Survey equipment and personnel • Equipment and offshore personnel
2018-2019	Maersk Supply Service (for MEGI)	Serpentina FPSO	1,558	Removal of temporary mooring system and installation of new permanent mooring system: <ul style="list-style-type: none"> • Design, fabrication and installation of nine suction embedded plate anchors (SEPLAs) and their ground chains • Disconnection and laydown of nine temporary mooring lines and installation and hookup of the new permanent mooring lines • Recovery of temporary anchors from the seabed • Equipment and offshore personnel
2018	Esso Exploration and Production Nigeria	Erha FPSO	3,832	Replacement of nine mooring lines: <ul style="list-style-type: none"> • Project management and engineering • Equipment and offshore personnel

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2018	Tullow Oil (Ghana)	Kwame Nkrumah FPSO (Jubilee)	3,609	Installation of anchors for permanent spread moorings: <ul style="list-style-type: none"> • Project management and engineering • Offshore operations personnel • Fabricated and installed eight SEPLAs
2016-2017	Tullow Oil (Ghana)	Kwame Nkrumah FPSO (Jubilee)	3,609	Installation of six interim turret remediation moorings: <ul style="list-style-type: none"> • Project management and engineering • Offshore operations personnel • Installed six stern mooring lines on the FPSO
2015-2016	Cabinda Gulf Oil Company (Chevron) (Angola)	Sanha FPSO	197	Replacement of nine mooring lines: <ul style="list-style-type: none"> • Project management, engineering and procedures • Procurement and offshore operations personnel
2015	MODEC International (Cote d'Ivoire)	FPSO Baobab Ivoirien MV10	3,182	Maintenance of one mooring line: <ul style="list-style-type: none"> • Engineering and procedures • Offshore operations services
2015	Bumi Armada Nigeria	Armada Perkasa	50	Top chain replacement of ten FPSO mooring lines: <ul style="list-style-type: none"> • Repositioning of two mooring lines, with no production shutdown required
2015	Boskalis/MEGI (Equatorial Guinea)	Zafiro Producer	591	Inspect and replace old mooring chains and wire ropes for nine of twelve mooring lines: <ul style="list-style-type: none"> • Provided engineering and offshore operations services • Replaced two drag anchors
2014	MODEC International (Cote d'Ivoire)	FPSO Baobab Ivoirian MV10	3,182	<ul style="list-style-type: none"> • Development of procedures for replacing mooring lines • Provision of offshore crew

We act across the project lifecycle




Acteon business lines

Intermoor
Mooring and Anchors

Menck
Marine Foundations

UTEC
Geo-services

Solutions

	Site investigation and characterisation	Offshore construction	Asset integrity management	Life extension and decommissioning
	<p>Geophysical and geotechnical surveys</p> <p>Geospatial surveys</p>	<p>Positioning and construction support</p> <p>Integrated marine foundation installation services</p> <p>Mooring solutions</p>	<p>Offshore inspection</p> <p>Monitoring and digital solutions</p> <p>Mooring inspection, maintenance, repair and replacement</p>	<p>Decommissioning engineering</p> <p>Removal and disposal services</p> <p>Asset life extension</p>
Why Acteon	<ul style="list-style-type: none"> Comprehensive data collection Well-organised data orchestration Insightful interpretation Enhanced asset value 	<ul style="list-style-type: none"> Robust experience in the most challenging environments Advanced equipment Intelligent approach 	<ul style="list-style-type: none"> Extensive data-gathering Insightful analysis Highly efficient maintenance, repair and replacement 	<ul style="list-style-type: none"> Tailored decommissioning and life extension plans early in the project lifecycle Efficient offshore execution
What we deliver	<ul style="list-style-type: none"> Mitigating risks Optimising design, construction and maintenance 	<ul style="list-style-type: none"> Ensuring safety Reducing total cost of installation Accelerating schedule 	<ul style="list-style-type: none"> Ensuring compliance Realising maximum asset lifetime value Reducing total cost of operations 	<ul style="list-style-type: none"> Maximising asset value Limiting decommissioning costs Minimising environmental risks 

2H Underpinned by agile engineering consultancy that enhances project-critical decisions, optimises economic viability and minimises risk throughout the energy project lifecycle.