

GULMAR OFFSHORE

'our world is under the sea'



Gulmar Group of Companies and Corporate Structure

Gulmar Offshore Group - About us

The Gulmar Offshore Group is a subsea contractor specialized in subsea engineering, subsea construction and subsea inspection, repair and maintenance. Related support activities include geophysical and geotechnical surveys, umbilical installation, subsea structure installation, landfall support activities, pipeline services, pipeline stabilization and general subsea work using Divers and ROV intervention technologies. Operational capabilities range from the shallowest to the deepest waters.

Since its creation in 1998, the **Gulmar Group of Companies**, led by an experienced team has grown and developed its skills and now enjoys a reputation for its innovation and professionalism. Gulmar Group owns/operates four DP vessels, "Gulmar Falcon", "Gulmar Eagle", "Gulmar Condor" and "Gulmar Badaro". Gulmar is taking delivery of two newbuild vessels: "Gulmar Atlantis" and "Gulmar Da Vinci" in 2011.

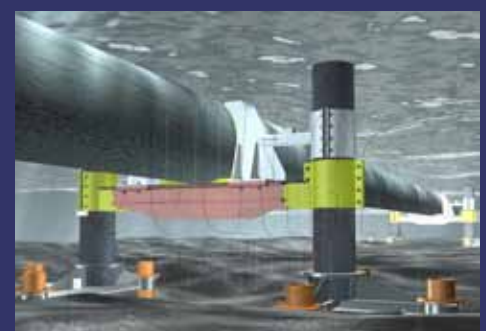
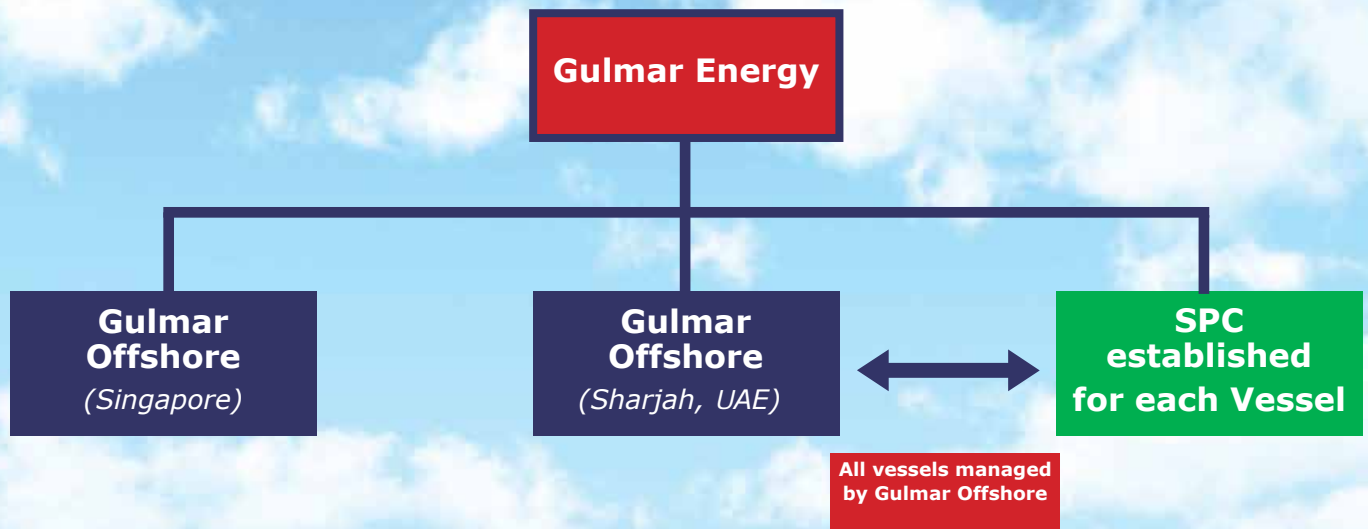
Gulmar Offshore is a member of IMCA Diving, Marine and Survey Divisions.

Gulmar's Vessels are operated under an ABS monitored ISM system.

Gulmar Offshore is operating under ABS monitored ISO and OHSAS certified schemes

- ✓ ISO 9001:2008
- ✓ ISO 14001:2004
- ✓ OHSAS 18001:2007

Gulmar Group Structure - How we are organized



Gulmar Core Competencies and Work Processes

Gulmar Core Competencies - What we do

SURF, Subsea & Marine Construction

We have the capability to install and commission Subsea infrastructure, Umbilical, Riser and Flowline systems (SURF) as well as general Subsea & Marine Constructions. Activities related to this business have been performed for several customers

Inspection, Repair & Maintenance (IRM)

We have the capability to provide a comprehensive range of subsea Inspection, Repair and Maintenance (IRM) services. Our services in this business segment include both diver and remotely operated vehicle intervention. The IRM segment represents the majority of the Gulmar business model

Field Mapping, Pipeline Route Survey & Investigations

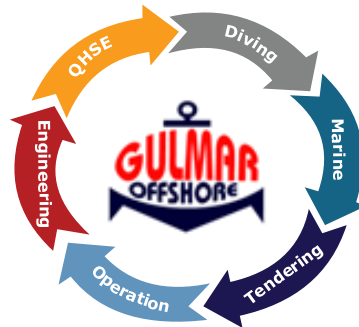
We have the capability to provide with own resources as well as from subcontracted partnership a complete package for Field Mapping, Pipeline route survey and Investigations (FPI) of the root causes related to field and pipeline anomalies. These services are provided to complement our main IRM activities

Gulmar Processes - How we do it

- Coordination & Custodian of Company ISO certifications (9001, 14001 & OHSAS - 18001)
- In the process of establishing ISO - 29001
- Overall Training & Motivation programs

- Dedicated Gulmar engineering resources to support operational projects
- Marine engineering: ship upgrade, modification, new build
- Construction engineering: offshore methodology, mobilization, execution and reporting
- System engineering: specific machines and installations aids
- R&D: pipe repair program, heavy spool installation, flow line program

- Product Activity Control Incl. Planning, Cost Control, Document control & Change Control
- Project Onshore & Offshore Executions
- Project As-built Management, Experience Feed Back & Overall Close-out



- 'Diving department' in charge of all diving related Issues
- 'Specific training programs designed for operational efficiency & IMCA compliances
- 'No project related casualties

- 'Marine department' in charge of all vessel related issues
- In charge of ship certifications, maintenance, scheduling & ISM Certification / IMCA compliances
- Very low vessel downtime due to thorough vessel Inspections and crew capabilities
- Ability to solve emergency situations

- Full tendering team with respective leaders for each tender
- In-house models used to perform tender analysis
- Successful track record on technical side of tender
- Solid network of agents located in major Oil & Gas centers in contact with potential clients



Gulmar Fleet Overview



Gulmar Eagle



Gulmar Falcon



Gulmar Condor

Flag	Panama	Panama	Marshall Islands
Class	RINA 100A1.1, DYNPOS AM/AT R	DNV +1A1, SF, DSVIII, DYNPOS-AUTR ICE-I, s-s-r	RINA C (MALTESE CROSS), SUPPLY VESSEL, SPECIAL SERVICE (RESEARCH SHIP), DYNPOS AM/AT R, ELI, ABS DPS-2
Type	DP2 ROV / Diving Support Vessel	DP2 Class/Diving Support Vessel	DP2 Diving Support Vessel
Built	1975, Kaarbos Mek. Versted A/S Harstad, Norway	1975, Martin Jensen Ostfriesland, Germany	1978, Far East Livingstone Shipyard, Singapore
Rebuilt	Upgraded to DP2 in 1999 (Poland), 2006 (UAE) built-in Airdive spread	Upgraded in 2003 & 2004 (UAE) DP system, Accommodation & Machinery	Reconstructed in 2002 (Poland), 2007 (UAE) New cranes & Gas storage
LOA	63.45m	84.53m	104.00m
Beam	13.00m	16.01m	18.80m
Draft	5.75m	4.37m	4.60m
Helideck	Not Available	Marine 17.5m, DNV Class	Marine 20.1m, max load 9.3t, RINA class approval ELI
DWT	1,039 MT	1,311 MT	3,139 MT
GRT	1,598 GT	2,645 GT	4,070 GT
Deck Space	340 m2	484 m2	1,100 m2, with SAT 750 m2
Bunkers	500 m3 MDO	770 m3 MDO	950 m3 MDO
Fresh Water	210 m3, Water maker 23t/day	364 m3, Water maker 25t/day	1,095m3, Water maker 24t/day
Main Engines	2x Mack 453 AK / 2,100hp each	4x Hedemora V18A / 2,060hp	2x Wichmann 5AX 2,000kW each 5x CAT Gen 1,135kW each
Bow Thrusters	1x 450 kW Brunvoll 1x 425 kW Ulstein	2x 736 kW Brunvoll	1x 750 kW Brunvoll 2x 736 kW Brunvoll
Stern Thrusters	1x 450 kW Brunvoll 1x 425 kW Ulstein	2x 736 kW Brunvoll	1x 500 kW Brunvoll / Tunnel 2x 1,425 kW Brunvoll / Azimuth
Cruising Speed	10 knots	10 knots	9 knots
Fuel Consumption			
- Full Speed	12.5t MDO/day	15t MDO/day	24t MDO/day
- Cruising Speed	10t MDO/day	12t MDO/day	16t MDO/day
- DP Mode	8-10t MDO/day	15t MDO/day	8-16t MDO/day
DP System	Kongsberg SDP 21, Simrad HiPAP 500 Taut Wire Dual C-NAV 2050 3x Gyro	Kongsberg SDP 521 HiPAP 350 Taut Wire LWTW Mk5 Dual C-Nav 2050 FANBEAM MDL 4.1 3x Gyro	Kongsberg SDP2 HiPAP 500 Taut Wire MK15 Dual C-Nav 2050 Fanbeam MDL 4.2 3x Gyro
Cranes	Port: Nautilus 15t @ 10m Stbd: Hydralift 2.5t @ 10m A-Frame: 40t @ 6m	Port: 30t @ 10m & 15t @ 20m Stbd: 2t @ 11m	Port: Hydralift 38t @ 9m Port: Liebherr 10t @ 2.5-22m Stbd: Hydralift 120t, 2,060 wire
Accommodation	60 berths	73 berths	128 berths
Moon-pool	2.5m x 3.0m	Work: 6.13m x 4.15m Diving bell 2.60m diam.	7.60m x 6.10m
Diving Systems & Other	Air / Mixed Gas Diving System 2x Twin lock chambers 2x Twin LARS Bauer Nitrox Mixing Unit 8x HP Air storage flasks	Integrated 9 man Draegerwerk AG Saturation Diving System 1x 2/3-man diving bell 1x 9 man HRC freefall launched 1x Air / Mixed Gas DDC 2x LARS	SMP Portable 12-man sat system 1x 3 man bell 1x 12 man davit launched SPHL 1x DDC with 2x LARS Airdiving

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Gulmar Badaro



Gulmar Atlantis



Gulmar Da Vinci

Marshall Islands
ABS +A1 (E), +AMS, +ACCU DP2
DP2 Cable Ship / ROV/ Oceanographic / Accommodation Vessel
1992, Keppel Fels Ltd., Singapore
Upgraded in 2007 (Singapore) DP2, Accommodation & Main Crane
151.541m
21.6m
6.8m operational, 7.8m fully loaded
Marine 21m, CAP 437, ABS class statement
8,396 MT
12,518 GT
1,800 m ²
1,980 m ³ MDO
820 m ³ , Water maker 2x 40t/day
3 x 9R23D Wartsila, 2,900 kW each
2 x 1470 kW tunnel, CP Propellers
2 x 3100 kW Azimuthing, CP Propellers w/ Nozzles
11 knots
32t MDO/day
25t MDO/day
16-20t MDO/day
Kongsberg SDP 201 Taut wire Dual C-Nav 2050 1x HPR Subsea acoustic 1x Fanbeam 4.2
80t nominal, Manitowoc 150 pedestal mounted 120' boom stern 2x 10t Hydralift @ 20m stern 2x 5t Hydralift @ 15.7m fore
244 berths
N/A
Cable Tanks 1x 1,086 m ³ main + 1x 500 m ³ main + 1x 365 m ³ + 2x 41 m ³ auxiliary, max cable weight 3,500t Stern Cable Engine 1 x Dowty 21 paired rubber tire, Tractor type Bow Drum Cable Engine 2 x Dowty, 3.5 m dia., 1.0 m, Drum width with fleeting ring & knives, Bow Sheaves 2 x 3 m dia. Stern Cable Fairlead 1 x trough / chute

Marshall Islands
DNV +1A1 SF, E0, DYNPOS AUTR DK(+), HELDK-SH, COMF V(3), CLEAN, FIFI II, DSV, SAT/SURFACE, ADDITIONAL NOTATION: CRANE
DP2 Diving Support Vessel, MT6022XL design
2011, Hanjin Yard, Busan, South Korea
N/A
115.40m
22.00m
7.0m
For Sikorsky S92, CAP 437, DnV class
6,401 MT
9,195 GT
1,120 m ² main + 214 m ² ROV deck
1,440 m ³
1,165 m ² , Water maker 2x 40t/day
3x 2,510kW, 690V/60Hz, 720rpm 2x 1,880kW, 690V/60Hz, 720rpm 2x 835kW, 690V/60Hz, 1200rpm Wartsila, 2x 1,935kW tunnel thrusters Wartsila, 1x 1,500kW retractable
Wartsila, 2x 3,000kW azimuth
12 knots
18t MDO/day
14t MDO/day
8-10t MDO/day
Converteam ADP-21, dual redundant 2x Veripos LHD 1x CYSCAN Laser Reference System 2x Taut Wire MK15 500m wire length 1x Hydroacoustic USBL Ranger Pro
TTS 140t AHC knuckle boom, 56mm wire, hook depth 2,500m TTS 40t, 28mm wire, hook depth 600m. OPTIONS: 80t A-frame & 2x 30t davits
120 berths
5m x 5m clear internal space 2.5m perimeter strengthened for work structure installation.
Drass Galeazzi 18-man system, 300msw 2x 3-man bells (each 6m3) Bell Handling System with active shock absorption system (launch in 4m seas) 2x 6-man DDC & 2x 3-man DDC 2x SPHL (18 man each) 2x TUP chambers Gas storage 18,000 m ³ 2x DDC and 2x 2-man LARS Air Dive

Marshall Islands
DNV +1A1 SF, E0, DYNPOS AUTR DK(+), HELDK-SH, COMF V(3), CLEAN, FIFI II, DSV, SAT/SURFACE, ADDITIONAL NOTATION: CRANE
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Specializations & Services

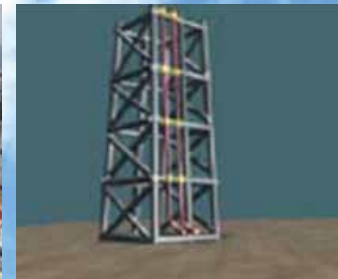
Subsea Structure installations

- Installation of subsea structures such as PLEMS, manifolds, valve skids, riser bases & mid-water arches
- Complete installation of mooring systems with suction piles, driven piles or conventional anchors for floating units including FPSO's
- Installation of offshore loading systems including floating & subsea hoses
- Installation of suction, gravity or piled anchor systems arches



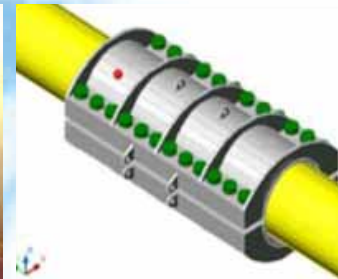
Rigid & Flexible Spool & Riser installations

- Fabrication and transportation of rigid spools
- Installation of rigid pipe spools with flanged connections or remote subsea connectors
- Installation of flexible tails with flanged connections or remote subsea connectors
- Platform preparation to receive riser
- Rigid riser transportation and installation
- Flexible / Dynamic risers inclusive of I- or J-tubes
- Tie-ins using diver or diver-less intervention methods



Subsea Field Inspections & Repairs

- Subsea NDT & Visual inspections of jackets & subsea structures using divers or inspection ROV
- Subsea NDT & Visual inspections of pipelines using inspection ROV
- Subsea structural repairs using conventional or purpose made tooling and equipment
- Pipeline repairs using conventional or purpose made clamps / connectors, sleeves or other repair means



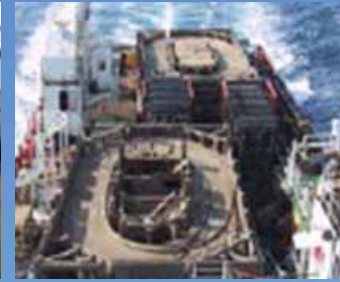
Shore Approach & Coastal work

- Equipment to be utilized depending on local circumstances
- Landfall preparation & construction
- Trenching & burial activities
- Outfall construction



Subsea Pipeline & Cable installations

- Power cable installations
- Fibre optical cable installations
- Platform hook up to ultimate location
- Pre and Post-lay testing
- Installation of up to 6" OD rigid pipelines using DSV-based pipelay spreads. Utilizing manual welding processes



Subsea Stabilization & Protection

- Our capabilities include pipeline anchoring & subsea module anchoring / protection
- Pipeline freespan correction using textile grout bags installed by diver or work class ROV
- In cases of high freespans correction using mechanical anchors offering long term stabilization.
- Installation of stabilization mattresses, tunnel blocks, shock absorbing systems, rock dumping, post trenching techniques or anti-scouring systems



Subsea Field Maintenance

- Modification & repair of jackets and subsea structures using divers' conventional tools or special tools developed for the occasion
- Installation of re-enforcement clamps or sleeves at platform legs / bracings
- Anode retrofits on platforms or pipelines
- Free span and scouring corrections using grout bags, rock dump, support anchors or other suitable means
- Maintenance of loading systems



Subsea Field Decommissioning Work

- Power cable recovery of subsea structure by subsea dismantling using conventional or purpose made tooling and equipment
- Recovery of pipelines, umbilicals & cables in full or partially
- Management of decommissioned items through subcontractors
- Environmental accounting
- Salvage or de-commissioning reporting capabilities



Worldwide Activities - **Where we work**



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