

#### **Company Mission**

- # To provide comprehensive exemplary equipment and resources, technical services & support to the oil & gas, marine related industries inshore and offshore.
- # The objective is to become one of the major players in this region's marine and oil & gas industry.

#### **Company Vision**

To be the household name as an Integrated Underwater Engineering Solutions in the service company, providing a quality and value for money products and marine services.

#### **Strategic Alliances**

GlobalTechserve Marine has regional strategic alliances with companies which provide services for the marine and oil & gas upstream developments. Among the companies that GlobalTechserve Marine is currently associated with, are as follows:-

- **Seahorse Services Corporation VIETNAM (ROV Operator)**
- **NUYTCO -Vancouver, CANADA**
- Conclinic Co. Ltd KOREA (underwater constructions, inspections & rehabilitations)
- # UTS Technology Pte Ltd SINGAPORE (Commercial Diving Equipment Supplier)
- Forum Energy Technologies Ltd UNITED KINGDOM (ROV operator / Supplier)
- PT Dual oilfield- INDONESIA
- **SERS GROUP SINGAPORE**

#### **Credentials / Certifications**













#### Licensing / Registration















#### **List of Clients**

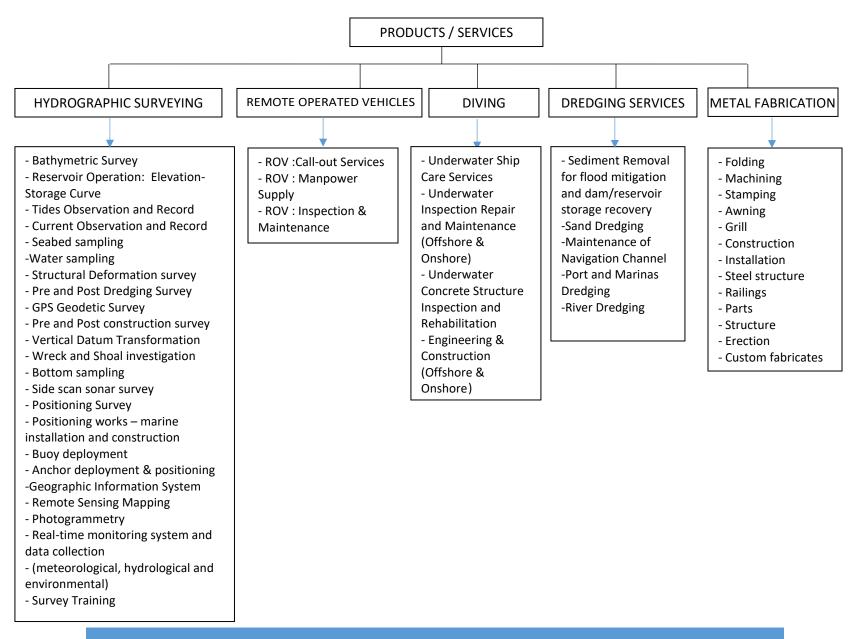
- # Westports & Nortport Malaysia
- # Lembaga Pelabuhan Kelang (LPK)
- # LUNAR Shipping Sdn Bhd
- **Dickson Marine Sdn Bhd**
- # Orkim Ship Management Sdn Bhd
- # Kementerian Tenaga, Teknologi Hijau dan Air ( KeTTHA)
- # Agensi Pengurusan Bencana Negara (NADMA
- # Kumpulan Semesta Sdn Bhd (KSSB)
- # Muda Agricultural Development Authority (MADA)
- # Konsortium ABASS Sdn Bhd
- Syarikat Air Melaka Berhad (SAMB)
- # Perbadanaan Bekalan Air Pulau Pinang (PBAPP)
- **Barikat Bekalan Air Selangor Sdn Bhd**
- # Jabatan Pengairan & Saliran (JPS)
- # Jabatan Taman Laut Malaysia

## ⊕ PSCs:

Petronas Carigali TL Offshore Sdn Bhd VESTIGO Petroleum Sdn Bhd Petrofac (Malaysia) Limited (PML) Petamina

- Perisai Petroleum Teknologi Bhd
- Tanjung Offshore Berhad
- # Malakoff Bhd
- Jimah O & M Sdn Bhd
- # Kapar Energy Venture (KEV)
- # Panglima Power Sdn Bhd
- # Pahlawan Power Sdn Bhd
- # TNB Repair & Maintenance Sdn Bhd (REMACO)
- # Projek Penyelenggaraan Lebuhraya Berhad (PROPEL)







# **DIVING SERVICES**

# Engineering & Construction(Offshore & Onshore)

- Engineering and Construction of Underwater / Subsea Structures onshore and offshore
- Underwater Welding, Cutting, Drilling and Painting
- Salvage Works
- Cofferdam Construction

# Underwater Concrete Structure Inspection and Rehabilitation

Underwater Concrete Inspections by Visual, Photographic, Video (GVI or CVI), NDT (Ultrasonic Testing via Underwater Ultrasonic Pulse Velocity Meter that meets international standards BS-4408 and ASTM C-597), Core Extraction (evaluation the effects of corrosion on the embedded reinforce steel, structure compressive strength, chloride and carbonation penetration into structure, sulphate & cement test, etc)

Rehabilitation and Retrofit Works of Underwater Structures ie. Dams, Bridges, Jetties, Tunnel, Pier, Wharf, Sewer, etc. by conventional method (formworks, grouting, high pressure grouting, etc.) and advance retrofit system (to coat and repair concrete & steel underwater structure against corrosion, erosion, etc.)

#### Underwater Ship Care

- Underwater Ship Care Services ie. Propeller Super Polishing, Hull Cleaning, Blanking, NDT, Cofferdam Insert Repairs, etc.
- Maintenance and Inspection of Vessel
- Boat Landing Rubber Fender Installation

## Inspection Repair & Maintenance

- Hydrojet Cleaning
- Silt and Scour Survey
- Ground Truthing
- Marine Growth Survey Inspection and Marine Growth Cleaning / Removal
- Maintenance of Pile Structures by Jacket Installation, etc.
- Sediment Removal by Dredging (Hydraulic Submersible Pump) and / or Air Lifting
- Underwater / Subsea Pipeline and Cable Laying Support, Inspection and Repair
- SBM Installation, Inspection and Maintenance
- Geo-membranes Installation
- Dam & Penstock Inspection
- Dam Repair & Maintenance



# Inspection Repair & Maintenance (Con t)

- Wharf/Jetty Fender Maintenance
- Outfall & Tunnel Inspection
- Cable Route Survey
- Dock, Piers & Jetties Inspection & Repairs
- Bridge Inspection & Maintenance
- Inspection & Maintenance of Power Plant Intake
- Underwater Inspection of Steel Structures by Visual, Photographic, Video (GVI or CVI) and NDT (UT, ET, MPI, CP and FMD)
- Offshore IRM (Inspection, Repair and Maintenance) of platforms, rigs, pipeline, etc.
- Offshore Subsea Installations ie. Riser, Riser Support Clamp, PLEMS, Subsea Tie-ins, Jackets, etc.
- Underwater Remote Solutions by Integrated Services comprises of Commercial Diving, ROV,
   Hydrographic, Oceanographic, Acoustic and laser Services and Technologies.
- Underwater Blasting/Painting
- Anode Installation



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# HYDROGRAPHIC SURVEY

GLOBALTECHSERVE MARINE (GTM) Hydro Division is principally engaged in Hydrographic Surveying.

GTM provides precise positioning services for marine construction projects, hydrographic and oceanographic surveys and data acquisition, processing, analysis, interpretation and data management.

GTM services include various hydrographic surveying such as bathymetry, side scan sonar survey, survey for dredging and reclamation, marine construction surveys such as ports, jetties, bridges, environmental survey for EIA analysis, water sampling, sea bed soil sampling, current metering, oceanographic data collection, tide observation and tidal analysis, barge monitoring system, real time data transfer and data analysis, water quality observation, and other related hydrographic surveys.

#### We offer to our valued clients:

#### **Bathymetric Survey**

 Bathymetric survey involves depth measurements in order to describe the topography of seabed and producing hydrographic plans.

## Pre/Interim/Post Dredge Survey

 To provide bathymetric survey, positioning services and barge monitoring services, computing dredged volume, assisting alignment of dredged channel or any other related survey works throughout dredging works.

## Seabed Mapping

 To map and investigate seabed of any pockmarks, corals, existing pipeline on the seabed or hazard survey for any debris or shipwreck. The survey normally conducted prior to pipeline or cable laying, dredging works, sand search, installation of marine structures, marine constructions.

#### Marine Construction Support Surveys

• GTM offers hydrographic and oceanographic surveys such as bathymetric, tidal analysis, wave analysis, water samplings, seabed samplings, current metering, side scan sonar, sub-bottom shallow profiling, pipe/me route surveys, geological studies, and EIA investigations.

#### **DGPS Positioning Services**

 This included positioning of marine structures, construction barge, assisting anchor handling vessel, dredging barge and other related positioning services.

#### **Current Metering**

• Measuring of the sea currents, speed and direction for the purpose of feasibility studies for marine constructions, navigation channel, and hydraulic modeling studies

#### Tidal Analysis

• In-house Total Tide Solutions software capable of processing observed tidal data, tidal analysis, determining tidal harmonic constituents and producing tidal prediction table for specific survey area.



#### Oceanographic data collection and studies

• Provide positioning and sampling of seawater and seabed soil that to be analyzed for its pH turbidity, temperature, salinity, conductivity, dissolved oxygen, particle size distribution, or other related tests. Real time data transmission and data monitoring system can also be implemented.

# Submarine Lay Guidance

Positioning services to assisting construction barge during pipe lay or cable lay operations.

#### Submarine pipeline route investigation and inspection

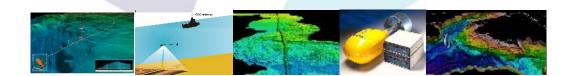
 To identify the best proposed route for new pipeline, as-built pipeline route survey and span investigation for newly built and existing pipeline.

#### Water sampling

• To collect water samples at specific locations.

## Soil sampling

• To collect seabed soil samples at specific locations.



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# **ROV SERVICES**

#### Introduction:

Globaltechserve Marine (GTM) through its associate Seahorse Services (SSC) operates Work Class (WROV), Light Work Class (LWROV) and Observation Class Remotely Operated Vehicle (OBSROV). The group has diversified fleet of high performance ROVs for multiple tasks

The group provides ROV suitable tools for offshore Oil & Gas projects such as 3D Sonar, Sonar Profiler Scan, Underwater Hydraulic Grinder & Cutter, VX ring removal, High Pressure Pump, PH meter, CP probe, Boom Camera, etc.

# ROV Call-out Services:

The group owns and operates a fleet of ROVs capable of providing Jacket & Pipeline Installation, Drilling Support, IRM, Site Survey, Underwater Inspection In Lieu of Dry Docking (UWILD), Intervention, Subsea Installation and Construction Services, etc.

# **ROV Manpower Supply:**

Our associate is a member of the International Marine Contractors Association (IMCA). All of our pilots were trained strictly to IMCA operational/maintenance procedures. The group provides ROV Pilots for ROV offshore operation or ROV Engineers for Repair/Maintenance at Client's facility.

The group is proud to provide you a team of engineers who will address your hardware problems with professionalism. We also provide project management, procurement for all of your ROV requirements.

# ROV Repair and Maintenance:

We are capable to provide all repair and maintenance works for observation and work class ROV, all types from electric to hydraulic by our Manager with 25+ years' experience in ROV engineering; over 50 experienced ROV engineers and technicians; 10,000m² Workshop and facility; Large ROV test pool with 3 knot real time current to wet test ROV system prior to mobilization; Comprehensive workshop equipment and tooling; Lathe, milling, hydraulic test bench, electronic workshop, clean room for sophisticate component, etc.







# Facilities:

Headquarter

Total Area : 10,000 m<sup>2</sup>

Workshop 1 : 600 m<sup>2</sup> Office 200 m<sup>2</sup> Warehouse 100 m<sup>2</sup> Host Crane

7.5 tons SWL.Comprehensive ToolingMill, Lathe, Welding Electrical Lab Mechanic Equipment

Workshop 2  $: 800 \text{ m}^2$ 1,100 m<sup>2</sup> 200 m<sup>2</sup> Office Warehouse : 20 ton SWL. Host Crane

Meeting Room : Full Equipment Multimedia Conference : Well Equipment for 40 Students

Training Room

**Transportation** : Truck 8 tons with crane

**ROV test Pool** : 12 x 8 x 4.5 meter – 3 knots real time current

**ROV Simulation Lab** : 4 terminals













# **DREDGING SERVICES**

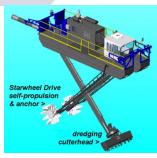
Despite more than few decades of research, sedimentation is still probably the most serious technical problem faced by the water and irrigation industry worldwide. As the sediments accumulate in reservoir, rivers and canal; the system gradually losses its ability to store or flow water for the purposes for which it was built (or its existence). The problem if left unaddressed, may ultimately result in major flash floods and expiration of the system itself (ie. interruption of water supply for irrigation, problem to flood mitigation system, etc).

With vast experiences in dredging sediments off reservoirs, rivers, marinas, coastal, canals, etc. in several countries worldwide by a unique dredge system (that can be customised to meet customer's project requirements ie. cutterhead, pumping system and propulsion systems; GlobalTechserve Marine through its associate (the world's leader in design and construction of one truck transportable, self-propelled dredging systems) would be able to provide the solutions to the sedimentation problem within the said areas.

# Advantages of Versatile Dredges/dredging system:

- High productivity: up to 4 times over excavators and nearly twice more than other similar dredges
- Patented *Starwheel*® *Drive* self-propulsion; no cable/tug
- Able to operate anywhere on water, not just from sides
- No extra work to operate and move a disposal barge, besides having to operate excavator
- No wasted time unloading material into barge and moving elsewhere (no multiple-handling of material)
- Horizontal cutterhead maintains even water bottom
- Dredge allows consistent work pattern
- Fewer workers, with low stress & danger
- High-tech system; better public perception











# **FABRICATION STEEL**

Metal fabrication is the process of turning raw metals into pre-made shapes for assembly use. Anything you see around you, from a safety pin to heavy machinery or buildings, are all products of fabrication. Metal fabrication has applications across several industries and products. Famous for its strength, versatility, quality and value, steel is one of the most widely used materials in construction; however, it simply wouldn't be possible to enjoy those many benefits of steel without the work of fabricators. There are several kinds of fabrication processes, of which the most common are: cutting, folding, machining, punching, shearing, stamping and welding.

GlobalTechserve Marine with the expert fabricator provides precise fabrication services for construction, building and etc.

## GTM Fabrication works;

Work	Year
Compressor Mounting Frame Work for aircond University SEGI Kota Damansara	2014
Axle trolley fabrication for Mercedes assembly plant, Pekan Pahang	2014
Mezzanine Floor Work at Segambut, Kuala Lumpur	2014
Piping work for Yeoh Hiap Seng, Shah Alam	2015
Machinery & Plant installation for YHS Shah Alam	2015
Football player rest place work- Army Camp Mindef	2015
New conveyor system fabrication for FELDA (FGV), Lebah Utara 6, Pahang	2017
Steel structure fabrication in Kundang	2018









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# SHIP CARE SERVICES

GlobalTechserve Marine provides under water ship care services to its clients. We are specialize in;

- -Underwater General Visual Inspection (GVI)
- -Underwater Inspection in Lieu to Dry docking (UWILD)
- -Propeller Clearance, Cleaning and Polishing
- -Vessel Hull Cleaning
- -Underwater Welding and Cutting
- -Anode Removal / Replacement





Note:GlobalTechserve Marine Sdn Bhd is an integrated subsea contractor which also provide engineering and subsea services - ROV, Hydrographic Survey, Dredging, Drilling support, Procument etc.

> Any enquiries please call or email us at 03.7652 2805 sales@globaltechservemarine.com







# ATMOSPHERIC DIVING SYSTEM (ADS) SERVICES

#### Introduction:

An Atmospheric Diving Suit (ADS) is a small one-man submersible that can be used for deep dives of up to 1000fsw. The use of an ADS eliminates the majority of physiological dangers associated with deep diving as there is no need for the occupant to decompress, there is no danger of decompression sickness or nitrogen narcosis or the requirement for special gas mixtures. The traditional approach to offshore construction, maintenance and inspection programs, IRM has been to use either ROVs or divers or a combination of both. The ADS system, however in many ways combines the advantages of ROVs and divers and reduces the number of disadvantages by combining the Two.

The ADS system is capable of using a range of hand-held diver tools with little or no modifications. Constructions tasks and all subsea activities are completed utilising standard diver or ROV tooling, in many case there is no modifications required to any of the tooling. Decompression considerations are eliminated and horizontal excursion capability is comparable to that of an ROV.

#### Features & Advantages of ADS System

Following are the features and advantages of ADS System:

- 1. Atmospheric Diving Suits(ADS) would cost cheaper compared to Saturation Diving System.
- 2. Up to 1000ft sw (subject to system depth rating) for many hours.
- 3. Eliminates the majority of physiological dangers
- 4. Combines the advantages of ROVs & divers.
- 5. Capable of using a range of hand-held diver tools with little or no modifications (standard diver or ROV tooling)
- 6. Eliminate all of the disadvantages of diving include depth or decompression limitations
- 7. Savings in mobilization / demobilization costs, daily operating costs, manning levels and can also be operated off of a Platform / Pontoon
- 8. Less People compared to Saturation Diving
- 9. Mobilized at a significantly faster
- 10. Small personnel requirements
- 11. Flown remotely without the need for a pilot to be in the suit (can be used for remote inspection / observation operations)









#### Communication:

- · Full duplex intercom over copper
- 6 intercom stations (pilot +5)
- Highly reliable
- No subsea power required
- Excellent voice quality (low noise)
- Aux In and Out jacks (topside)
- IP intercom out
- Allows audio to be recorded synchronously with project video
- Acoustic thru water communications
- Backup in case of hardwire communications failure
- Compatible with communications hardware used commonly by manned submersibles

#### Umbilical:

- 1250 feet long nominal
- OD 0.980" nominal
   Minimum bend radius 27"
- Breaking strength 7200lbs
- Neutrally buoyant

#### Power Requirement:

208-240 3 phase, 50 A, 50-60 HZ

#### **Emergency Equipment:**

- · Umbilical jettison capability
- Thruster jettison capability
- Emergency battery
- Powers thru water comms, O2 analyzer and carbon dioxide scrubber

# Ancillary Equipment:

- · HD camera, H.264 (Blu-Ray Codec) camera
- SONAR
- Imagenex miniature 852 scanning sonar
- Newtsun LED lights
- 2 x 150 W LED lights
- 9,600 lumens (each)
- For comparison a 250W quartz lamp produces 3,500 lumens
- 4500 deg K (cool white)

