



Coastal Marine Construction & Engineering Limited



Engineering & Constructing the Next Generation of Marine Marvels

EPCC

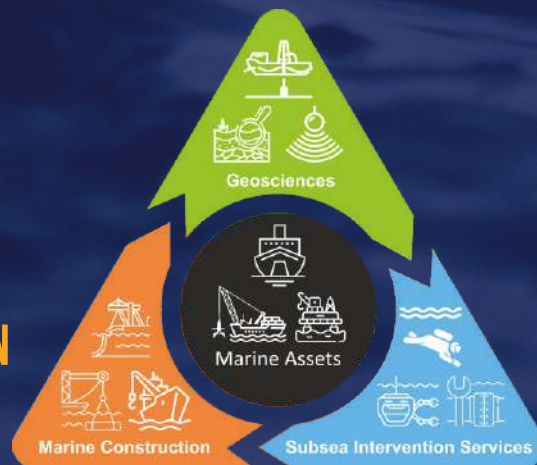
- Marine Construction
- Subsea Pipelines- Fluid & Gas

GEOSCIENCE

- Geotechnical Engineering
- Geophysical Survey & Oceanography

SUBSEA INSPECTION & INTERVENTION

- Seawater Intake & Outfall (SWIO)
- Ports & Terminals
- Subsea Pipelines



TRACK RECORD & ACHIEVEMENTS

Key projects and milestones include:

DEEPWATER GEOPHYSICAL & GEOTECHNICAL INVESTIGATIONS

Only Indian company capable of deepwater geophysical and geotechnical surveys up to 800 meters.

INDIA AND QATAR'S FIRST LAND-TO-SEA MICRO-TUNNEL

Pioneered subsea recovery of a micro-tunnelling system.

INDIA'S 1ST AND ONLY VLCC JETTY (3,20,000+ DWT)

Commissioned India's only Very Large Crude Carrier Jetty with 30m depth and steel raked pile design.



INDIA'S LARGEST SEAWATER INTAKE & OUTFALL SYSTEM

Executed intake and outfall EPC projects with up to 180,000 m³/hr throughput in a single installation.

CONCRETE SLEEVE EXO-SKELETAL ANCHORING SYSTEM

Globally recognized for innovative marine construction design and execution.



Our robust history of achievements is a testament to our expertise, with over 1,50,000+ LKm of geophysical surveying, 1,30,000+ meters of drilling, and more than 100,000 meters of submarine pipeline installations.

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*Integrated-Quality Driven-
Cerebral Engineering Services
for Exceptional Project Outcome*

Domain v/s Business Offerings



Oil & Gas



Power



Port & Harbor



Water



Renewable Energy



Infrastructure



Industrial



Municipal



Coastal Marine Construction & Engineering Limited



EPCC

Engineering, Procurement,
Construction, and
Commissioning.



End-to-End Solutions for Marine Construction

COMACOE's EPCC Division is at the forefront of specialized marine construction services, delivering complete, turnkey solutions across a diverse project portfolio. From Seawater Intake & Outfall Systems, Submarine Pipe & Cable lay to complex Marine Construction,

We handle every phase-from engineering and procurement to construction and commissioning-with precision and reliability.

With deep expertise in Offshore Foundation Engineering and the fast-growing Marine Renewable Energy sector, our EPCC Division is dedicated to providing safe, cost-effective solutions for offshore installations worldwide.

Guided by rigorous standards and innovative methodologies, we bring each project to fruition with a focus on efficiency, safety, and environmental responsibility.



Marine Construction

ENGINEERING - THE EDGE OF INNOVATION

In the realm of marine infrastructure, where the relentless forces of nature intertwine with human ingenuity, **COMACOE** stands as a beacon of leadership, relentlessly pushing the boundaries of what's possible in Marine Construction. Our legacy is anchored in engineering excellence, where cutting-edge technology meets profound maritime expertise to create resilient, sustainable structures that serve as testaments to innovation.

At **COMACOE**, Marine Construction transcends the mere act of building structures; it embodies our commitment to shaping environments that harmonize with nature, enhance ecosystems, and serve as vital arteries for commerce, energy, and community development. From the intricate design of seawater intake systems to the robust construction of breakwaters and embankments, our approach is comprehensive, precise, and unwaveringly dedicated to quality.



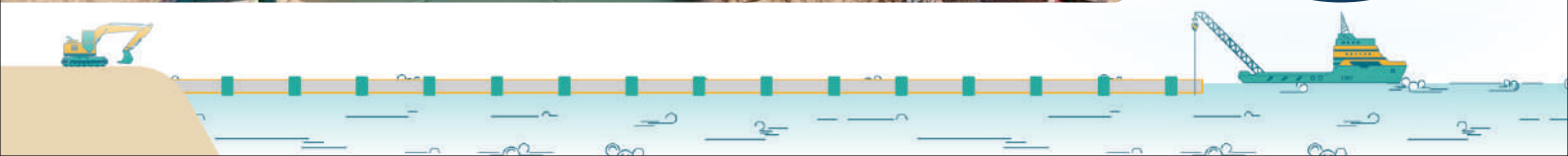
Subsea Pipelines - Fluid & Gas

THE LIFELINE OF COASTAL AND OFFSHORE/ONSHORE INFRASTRUCTURE

A Leader in Intake, Effluent & Subsea Pipeline Solutions

Recognized as a market leader in India, **COMACOE** has successfully delivered over 90% of the country's large-diameter marine intake & outfall projects in the past decade. Our expertise transcends mere construction; we provide comprehensive end-to-end solutions that encompass everything from site surveys and deep-sea excavation to the installation of high-capacity pipelines and advanced maintenance practices.

We pride ourselves on being agnostic to both the material of construction (**GRP, HDPE, DI, MS, CS, SS, DSS, Composite materials**) and the types of contents our pipeline systems convey. From seawater, freshwater, effluent, greywater for industrial & municipal requirements or oil, petroleum product or gas for exploration & refineries, we design and build meeting the required standards and specifications for safe and efficient transportation bespoke to each requirement.





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GEOSCIENCE

Exploring the Deep



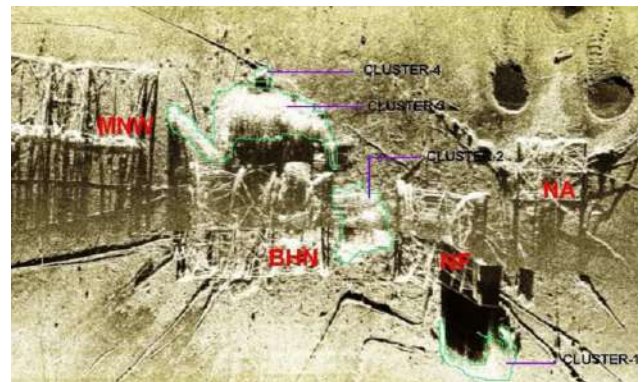
Mapping Mysteries Below the Waves

At COMACOE, we unveil it all and bring data, values, maps, images, and actionable engineering to the table. Our Geoscience Division, a cornerstone of specialized knowledge, driving innovation in the intricate and challenging world of marine geophysical surveys, meteorological and oceanography studies and geotechnical engineering solutions. With over 30 years of experience, we are dedicated to excellence, diving deep into the sub-seabed to reveal critical insights that shape the infrastructure, across domains, of tomorrow.

Pioneering Marine Geophysical Surveys and Geotechnical Solutions

Excelling in a vast range of critical services, from comprehensive geophysical surveys to advanced geotechnical investigations designed specifically for complex marine engineering projects. We bring to the table value added service to our end-to-end solution starting with our Pre-Engineering service to Pre-Construction, Monitoring and As-Laid or As-built Post construction services, besides the Positioning Services during the critical construction phase.

We also carry out marine boreholes using Heave compensated drill ships, Self elevating jack up platforms to collect in-situ samples, and conduct VC and PGC to collect seabed samples to carry out Advance Laboratory tests to obtain mechanical soil properties. For more precision, we also conduct PCPT, HPD, PS Logging, In-situ vane shear, PMT, Ball Penetrometer, T-Bar, Cross hole to determine efficiency and authenticate the lab results. Finally, workout accurate foundation Engineering design studies using various advance software for Engineering analysis and design report.



GEOPHYSICAL SURVEY & OCEANOGRAPHY

Geophysical Survey Vessel and Resources

- ⊗ Integrated GPS, Gyro, and USBL Navigation Systems
- ⊗ Single & Multibeam Echo Sounders (SBES, MBES)
- ⊗ Pipeline Profiler
- ⊗ Boomer & Sparker Sub-Bottom Profiling (SBP)
- ⊗ Hi-Resolution 24 Channel streamer with Air Gun source
- ⊗ Side Scan Sonar (SSS)
- ⊗ Wind, Tide, Current & Wave Recorders
- ⊗ Water & Benthic Sampling Capabilities

Comprehensive Survey, Inspection & Monitoring Services

- ⊗ Bathymetry & Sonar Surveys
- ⊗ Feasibility Studies
- ⊗ Metocean Studies for Engineering Design and EIA
- ⊗ Pre-Construction & Post-Construction Surveys



GEOTECHNICAL ENGINEERING

Dynamically Positioned (DP2) Geotechnical Vessel

- ⊗ Heave Compensated Geotechnical Drilling & Sampling Rigs
- ⊗ Drilling, Sampling, and In-Situ Testing
- ⊗ Wilson Wireline Downhole Cone Penetrometer Test (CPT) & Seabed CPT
- ⊗ Vibro, Piston & Jumbo Piston Gravity Coring
- ⊗ In-situ Vane Shear (VST) & Seismic Cone Penetrometer Test (SCPT)
- ⊗ High Pressure Dilatometer Test (HPD)
- ⊗ On-Board and On-Shore Soil Testing Laboratory (NABL Accredited)



NUMBERS THAT SPEAK

130000+ Mtrs
Seabed Drilling

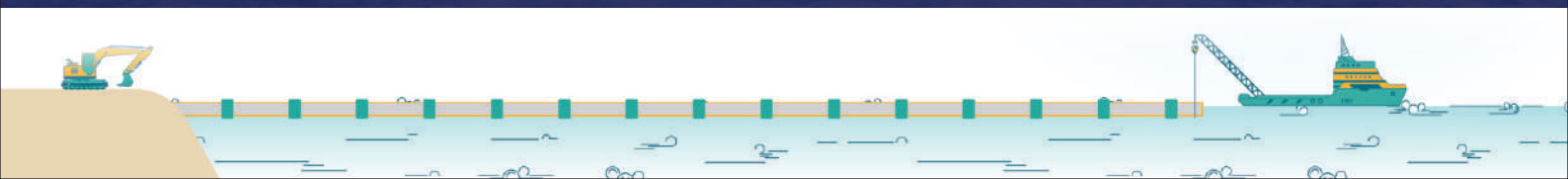
150000+ Lkm
Seabed Survey

711+
Rig Sites

243+
Platform Sites

29+
SPM Sites

450+
Projects





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SUBSEA INSPECTION & INTERVENTION



Specialized Services

-  Seawater Intake & Outfall (SWIO)
-  Ports & Terminals
-  SBM Installation, Commissioning & Dry Docking
-  Subsea Construction & Installation Support

Tailored Solutions Across Complex Environments

Our Subsea Support & Intervention Division excels in challenging environments, bringing unmatched expertise to every project—from the dynamic conditions of high-tide coastal installations to the precision required at offshore terminals.

Ensuring Operational Excellence

COMACOE's Subsea Inspection & Intervention Division is essential for the effective management of marine infrastructure. This expert team is dedicated to ensuring the ongoing inspection, performance, and longevity of vital marine assets, including Single-Point Mooring Systems (SPM), ports, and subsea pipelines. Through meticulously crafted operational strategies, construction and post-construction intervention support, as well as subsea repairs and maintenance, we uphold the highest standards in marine operations.

NUMBERS THAT SPEAK

1350+

Tanker Operations

167000+MT

Crude Oil Handled

9700 +

Diving Hours

Tier 1

Oil Response Category



PORTS AND TERMINALS | ANCHORING RELIABILITY IN EVERY TIDE

Key Offerings COMACOE's Ports & Terminals division delivers exceptional value through:

- **Marine Support Services:** Efficient support for SPM terminal owners.
- **Turnkey Solutions:** Comprehensive services including SPM operation & maintenance, hose handling, pilotage for tanker berthing, pollution response services, and advanced diving support.
- **Commissioning Services:** Seamless new terminal setup and integration.
- **Inspection Services:** Specialized above- and below-waterline inspections for floating, SPM, and land-based facilities.
- **Project management Capabilities:** End-to-end management from conceptualization to execution.



SEAWATER INTAKE & OUTFALL (SWIO)

SUSTAINING THE FLOW OF VITAL RESOURCES

Our Expertise COMACOE Delivers Integrated SWIO Solutions, Ensuring Seamless Operation, Optimal Performance, And Environmental Responsibility. Our Comprehensive Services Encompass:

- **24/7 Subsea Support & Intervention:** Round-the-clock management ensuring uninterrupted SWIO system operation, encompassing all electromechanical equipments, underwater pipelines, and associated marine structures.
- **Comprehensive System Management:** Full-spectrum expertise covering vertical turbine and centrifugal pump operations, Desalination plant management and Allied electro-mechanical system handling.
- **Inspection & Maintenance:** Routine and preventive maintenance of intake screens in the sea, underwater pipelines, and marine growth removal, coupled with quarterly inspections conducted by certified divers to maintain optimal system performance.
- **Environmental Monitoring & Compliance:** Ensuring eco-friendly operations through Water sample analysis, Marine growth prevention systems, and Silt accumulation management in adherence to environmental standards.



SUBSEA PIPELINES | SUBSEA SERVICES

Key Offerings COMACOE's Subsea Services division delivers exceptional value through:

- Pre-Engineering and Pre/Post-Construction Surveys
- Installation of Riser Clamps and Risers, J-Tubes and I-Tubes, Flexible Risers and Umbilicals, Clamp-On Structures, Conductors, Subsea Manifolds and PLEMs, SBMs and PLEMs, Mooring Terminals
- Free Span Correction
- Post Trenching
- Mattress Installation (pipe stabilisation/pipe crossing)
- Subsea Grouting Operations, Spool Installation and Tie-ins
- Emergency Pipeline Repair Systems (EPRS)
- Inspection, Repairs, and Maintenance of Subsea Structures
- Recertification Surveys
- Pilotage services for terminal operations
- Underwater Inspection in Lieu of Drydocking (UWILD)
- Subsea Pipeline repair and strengthening with composite wrapping





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SUBSEA PIPELINES- FLUID & GAS



The Lifeline of Coastal and Offshore/Onshore Infrastructure

Intake, Outfalls, Pipelines – for fluid & gas distribution & conveyance!

Intake & Outfall Systems are not just components of marine infrastructure; they are the lifeblood of essential domestic and industrial processes, driving power generation, refineries, industries, captive and municipal desalination, water supply, effluent and wastewater management. At COMACOE, we have mastered the intricate art and science of designing, constructing and maintaining these vital systems, ensuring they operate with unmatched efficiency and reliability.

A Leader in Marine Intake, Effluent & Subsea Pipeline Solutions

COMACOE is India's trusted expert, delivering over 90% of the nation's large-diameter marine intake and outfall projects in the last decade.

We provide end-to-end solutions, from site surveys and deep-sea excavation to pipeline installation and advanced maintenance.

Our expertise spans various materials (GRP, HDPE, DI, MS, DSS, composites) and applications, including water, effluents, oil, gas, and industrial needs. Employing cutting-edge techniques like Microtunneling (MT) and Horizontal Direction Drilling (HDD), we overcome marine challenges with precision and environmental care.

With a proven track record, we design resilient, efficient systems tailored to client and environmental requirements.



OUR PROJECTS ENCOMPASS

● Subsea Pipelines

-Carbon Steel concrete coated oil & gas (below 40m water depth)
-HDPE, GRP, MS – large diameter

● Large-Diameter Intake Well Caissons

Robust and meticulously engineered to ensure efficient water flow while withstanding the challenges posed by marine conditions.

● Innovative Velocity Cap Structures

Designed to optimize water intake while minimizing environmental impact, these structures exemplify our forward-thinking approach to marine engineering.

● Multiport Diffusers

Engineered to enhance dispersal efficiency and mitigate environmental effects, our diffusers ensure a seamless integration of inflow and outflow systems.

● Desilting Basins

Essential for maintaining water quality, our basins are designed to effectively manage sedimentation and facilitate smooth water flow to pump houses.

● Pump Houses/ Forebay

Built to ensure reliable operation and efficient management of water resources, our pump houses are the backbone of our intake and outfall systems with complete EPC solution of electrical/ sub-station, mechanical, SCADA/ PLC, DCS, Instrumentation, IT, equipment handling units, firefighting systems, chlorination system, ABS system etc.

● Gates and Screens

Precision-engineered to control flow and prevent debris from entering the system, ensuring optimal performance at all times.

● Filtering Systems

Our advanced filtering technologies guarantee the highest standards of water purity, catering to the diverse needs of our clients.

● Low Temperature Thermal Desalination (LTTD)

As a pioneering solution to combat water scarcity, COMACOE's LTTD systems leverage innovative technology to transform seawater into fresh water efficiently. By utilizing low-grade thermal energy and harnessing natural temperature differentials, our systems draw cold water from deep ocean depths of approximately 600 meters and mix it with warm surface water in a flash chamber, promoting effective condensation. This method not only minimizes energy consumption and environmental impact but also ensures a sustainable approach to addressing water scarcity. We take pride in successfully designing, building, and operating three LTTD plants in the picturesque Lakshadweep Islands, India.

● Ocean Thermal Energy Conversion (OTEC)

leverages the temperature difference between warm and cold seawater to generate energy while integrating LTTD to produce freshwater, making it a sustainable solution for both energy and water needs.

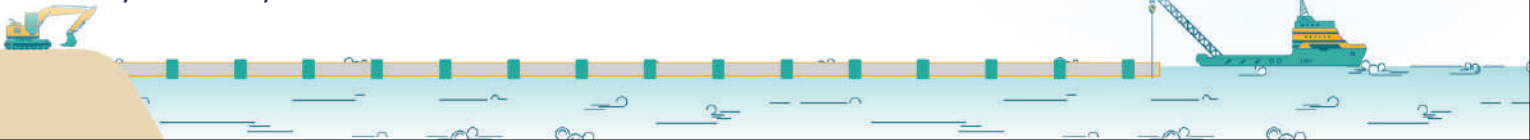
● Inbuilt Pipeline Cleaning and Maintenance System

Successfully designed and installed pipeline cleaning systems like Air Bursting, Air bubble curtain, hypochloride dosing & Pigging systems with innovative design to facilitate line maintenance of intake structures/pipelines and extend the periodic maintenance cycle.

● Air Evacuation & Degassing Systems

Air ingress or release of dissolved gases is a common phenomenon which have a detrimental effect on the hydraulics as well as stability on marine intake & outfall pipelines. We have successfully designed and installed suitable bespoke systems for such mitigation.

Through these innovative designs and solutions, **COMACOE** not only enhances operational efficiency but also prioritizes environmental sustainability, ensuring that our projects harmonize with the ecosystems they inhabit.





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MARINE CONSTRUCTION ENGINEERING - THE EDGE OF INNOVATION

COMACOE leads in marine infrastructure, combining advanced technology and maritime expertise to create resilient, sustainable structures that harmonize with nature and support commerce, energy, and communities. From seawater intake systems to breakwaters, jetties, terminals, and land reclamation, our solutions emphasize precision, quality, and environmental care. Utilizing innovative methods like micro-tunneling (MTBM) and horizontal directional drilling (HDD), we deliver robust, eco-friendly outcomes in the most challenging marine environments.



The Impact of Our Shoreline Protection Measures

Our commitment to shoreline protection has yielded immense satisfaction, saving thousands of hectares from becoming saline wastelands. These measures have not only safeguarded precious land but have also prevented the destruction of hundreds of coastal homes, preserving the heart of communities along the shoreline. Furthermore, our innovative techniques have created vibrant beaches where none existed before, transforming barren landscapes into inviting havens for recreation and biodiversity.



OUR SERVICES

MARINE CONSTRUCTION

- Jetties, Wharfs, Marinas, Quays
- River/Marine Bridge Construction
- RO-RO Jetty
- Temporary Load Out Jetty for Heavy Lift
- Offshore FPSO, SBM – Installation & Commissioning
- Offshore Windfarm – Pile/Jacket Foundation, Installation, Cable Laying
- Transportation & Installation of Jackets, Platforms (marginal fields) Submarine Cable & Pipe laying
- Piling (Large Diameter BCIS in soil/rock, Driven steel piles vertical/raked)
- Caissons & Cofferdams
- Foundations for River/Sea Transmission Towers
- Seawater Intake, Outfall & Effluent Systems
- Subsea Pipeline/Structure In-situ rehabilitation
- Embankments, Island Breakwaters
- Trenching, Dredging & Reclamation
- Capital Dredging for Navigational Channels for transporting men & material
- Subsea Rock Blasting
- Subsea Support Services during construction, remediation (freespan correction, grout, scour)

SHORE/RIVER PROTECTION

- Submerged Reefs
- Groynes, and Embankments (Rock and/or Geo-synthetics)
- Island breakwaters
- Land Reclamation, Compaction, Ground Development

COASTAL/NEAR SHORE/ONSHORE

- River water/reservoir Intake Systems
- Shore pull
- Cable & Pipe laying
- Fluid Conveyance (water, sewage, effluent, crude oil, POL) system
 - Pipelines
 - Microtunnel
 - HDD
- Civil, Electro-mechanical
 - Pump House
 - Desilting Basin
 - Hydraulic structures
 - Shipyards, Barrage, Slipways
- Piling, Ground Development, Cofferdams, Diaphragm walls, Deep Excavations and Earthworks
- Effluent/Sewage Treatment
- Seawater Filtration Systems

DESIGN

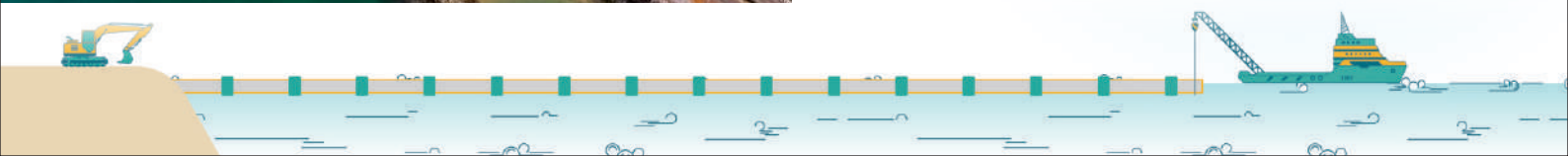
- FEED
- Modelling
- Construction & Installation Engineering
- Detailed Design & Engineering
- Foundation, foundation design optimisation
- Marine structures
- Intake & outfall systems
- Stress analysis
- Hydraulic analysis
- On-bottom stability

KEY HIGHLIGHTS

Engineering Excellence: Our projects represent a harmonious blend of innovative designs and precise engineering, ensuring both durability and sustainability.

Environmental Stewardship: At COMACOE, we are dedicated to crafting solutions that fulfill human needs while safeguarding and enhancing marine ecosystems.

Comprehensive Services: From deep-sea construction to shoreline protection, our Marine Construction Division offers a full spectrum of services tailored to meet the unique challenges posed by marine environments.



30 YEARS of mind™ over water



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