GET IN TOUCH

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ENGIC
EPCM+M

- ENGINEERING
- PROCUREMENT
- CONSTRUCTION MANAGEMENT
- MANUFACTURING

OUR COMPANY

Who Are We?

ENGIC (Pte.) Ltd. Established in 2009 in Singapore, is one of the leading EPCM (Engineering, Procurement and Construction Management) services provider in Singapore and region. A Statutory Members of SBF (Singapore Business Federation) and SAC ISO 9001, 14001, 45001 and BizSafe Star certified services company to Oil and Gas, Power and Alternative Energy, Marine and Shipbuilding, Water Supply and Sewage, Aerospace and Aviation, Industrial Process, Civil Infrastructure, General Construction and 'Etc.' Industries.

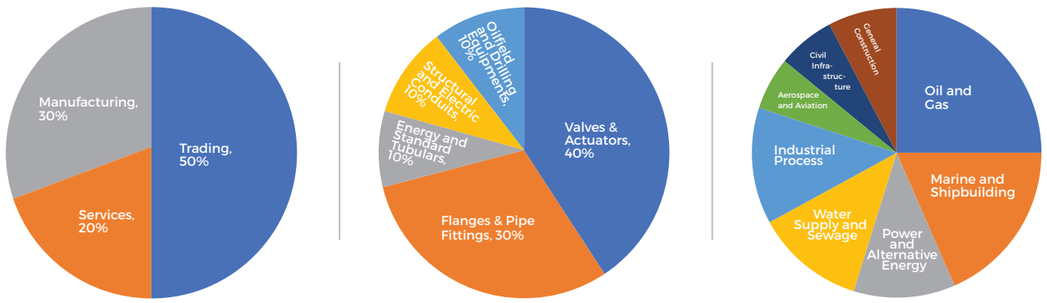
ENGIC has expanded to include manufacturing of flanges and fittings and has a sales office in Chennai, India and a Manufacturing Plant in Mumbai, India as of 2019. The facility specialize in manufacturing, supplying and distributing high pressure, large diameter, high yield, and specialty flanges and pipe-fittings in accordance to international standards.

The company operations are divided into 3 segments: **Trading, Services and Manufacturing.**

The **Trading Division** handles sourcing and supplying of various materials that fall within our scope of supply. These include but not limited to Valves and Actuators, Flanges and Pipe Fittings, Energy and Standard Tubulars, Structural and Electric Conduits and Oilfield and Drilling Equipment's. We officially represent some well-known brands in the market and are competitive both in pricing and delivery.

The **Services Division** together with contractors, sub-contractors and joint venture partnership handles Project Management, Engineering and Design, Procurement, and Maintenance activities. We offer these services as independently or jointly cooperating with other EPC (Engineering, Procurement and Construction) contractors. No project is too small or large, from a review of a single drawing to multi-million-dollar engineering efforts requiring large teams, we ensure we deliver quality to our clients with all the safety in place.

The **Manufacturing Division** produces flanges and pipe-fittings in various materials and configurations according to international standards. The target markets can be divided into up/mid/downstream, which includes onshore and offshore/subsea plants, oil & gas pipelines, refineries, and power generation such as nuclear and thermal power plants. The company manages the whole cycle of production, distribution and after-sales services in all these markets.



> "Together with our partners and customers we are building the modern world and industries and we take great pride in designing, facilitating, enabling, accelerating, managing and maintaining all those developments."

How Do We Do It?

Engineering Connections: We partner and work with EPC (Engineering, Procurement and Construction), EPCM (Engineering, Procurement and Construction Management), PMC+C (Project Management Consultancy + Contractor(s)) and sub-contractors all over the world to deliver our services to various industries globally.

Sourcing Network: We has a vast network of manufacturers and global mills with manufacturers /mill-direct pricing, which enables us to minimize cost, time and hassles while maximizing the overall quality and purchasing experience. we are also in partnership as exclusive agents and representatives to some of the known brands out there.

Global Quality Assurance: Our skilled global team of professionals and engineers, experienced manufacturers and logistics experts works together to make sure that the integrity of our products is compliant from order to delivery, in additional we work with inspection and testing agencies and firms as required to further ensure our supply and services are in accordance and meet standards to satisfaction.

Last-Mile Delivery: There is no place on earth where we cannot deliver to the last mile – by truck, rail, barge, ship or air. we manage every aspect of shipping -your materials, including optimal packaging, handling, clearance, transport and delivery and where needed storage.

Trade Finance: Backed by a syndicate of prestigious banking institutions across the globe, we are able to tailor flexible terms that will work for your needs. We provide flexible financing solutions that help your project(s) become a reality.

Our Assurance: When you choose us, you are leveraging a team of experts with experience and a deep understanding of your industry and your particular needs. The company has built a reputation as a leader by living up to the highest standards for quality and standing by our commitments, every time. References can be provided upon request.

Visions, Mission and Value

As a business, we always look to the future, challenging ourselves to define the best way to make a positive impact across the rapidly changing industries. To guide us in this we've set out a clear vision, mission and values which we share across our organisation.

Our Vision:
To be a multinational company in engineering, procurement, contracting and management (EPCM) with operations in various markets globally.

- Provide high-quality products and services globally in order to be recognized as a key player in our clients and partners' success.
- Respond to market requirements by maintaining and making innovations in our systems.
- Ensure high motivation to our personnel for the achievement of their professional and personal growth.

Our Mission:
- To improve Engineering, Procurement, Contracting and Management (EPCM) services for the industries in which we work.

Our Values:
- Working Safely and Responsibly – safety is our number one priority and we are committed to the goal of zero harm. We work as a team to take care of each other and ensure everyone goes home safely. We pursue success safely and responsibly, ensuring that we operate both sustainably and ethically.
- Our People – our people are our key assets. As a team of insightful people, we are dedicated to delivering value to our clients. We treat people as individuals by rewarding their successes, supporting their aspirations and empow ering them to make a difference.
- Our Commitments – we deliver on our commitments to both our clients and each other. By working together as "One", we ensure high-quality work, on time and within budget, every time.
- Technical Excellence – we value and cultivate our technical leadership in order to help our clients. We support each other by sharing knowledge across the business and the industry. Enabling critical knowledge to flow allows us to address our clients' complex challenges.
- Commercial Success – we encourage profitable entrepre neurship and actively manage risk to drive sustainable and commercially successful growth of our business.

INDUSTRIAL VALVES

The company provides a broad range of valves that are available in a wide variety of materials from today's leading valve manufacturers to fully meet even the most complex and unique requirements, we source and provide global quality, total reliability valves for our customer worldwide. All our manufactures and associated suppliers are selected according to standards of reliability.

Customer service is expressed in the capability of offering personalized advice based on individual needs, we therefore enjoy a good reputation not only as supplier of valve but also a reliable partner to our customer in plant design, manufacture and maintenance projects.

VALVE AUTOMATION

The company has been providing automated valves ever since it's incorporation, from simple bolt-up, quarter-turn to an advanced, fully integrated quarter-turn, multi-turn and linear automation provider. The combination of our global strength and our local, technical service simplifies automation maintenance by enabling us to become the single point of contact for all aspects of our customers' automation needs.

We represents the premier valve automation lines in the industry. We provide our customers with everything from simple on-off packages to throttling applications, high pressure gas systems, over pressure protection and emergency shutdown assemblies. Our qualified, technical staff will customize your valve automation requirements to your unique product specifications and identify the most efficient solution for your needs.

TYPES OF VALVES

Ball Valves:
- Cryogenic
- Flanged
- Threaded & SW
- Floating
- Metal Seated
- Plastic Lined
- Resilient Seated
- Trunnion
- Top Entry
- "V" Port

Butterfly Valves:
- High Performance
- Plastic Lined
- Resilient Seated
- Triple Offset

Plug Valves:
- Lubricated
- Non-lubricated
- HF Acid
- Plastic Lined

Multi-Turn Valves:
- Gate
- Globe

Check Valves:
- API6A / API6D
- Lift Check
- Piston Check
- Swing Check
- Wafer Check
- Y Pattern Check

Specialty Valves:
- Bellow seal
- Control
- Cryogenic
- Diaphragm
- HF Acid
- Knife Gate
- Needle
- Pinch
- Pressure Seal

Subsea Valves:
- Ball
- Gate
- Choke

TECHNICAL SPECIFICATIONS

- Types: As listed Above. (enquire with us for other types of valves)
- Valve Size: ½" through 60" (larger sizes available upon request)
- Pressure Ratings: Class 150 ~ Class 2500 and 4500; PN 6 ~ PN 400; Size: 1/2° ~ 48°.
- Port Size: Full Port (FB), Reduced Port (RB).
- Body: Carbon Steel, Stainless Steel, Alloy, Duplex, Cast /Ductile Iron, PVC /CPVC /PP /PVDF and Exotics.
- Operation: Handwheel, Lever, Worm Gear, Electric, Pneumatic and Hydraulic actuator.
- Seating: Soft Seated or Metal Seated.
- Connection: Butt Welding (BW), Flanged (RTJ, RF, FF), Socket Weld (SW), threaded.
  - End to end flanged valves are in accordance with ASME/ANSI B16.5, 16.47 (Series A & B) and B16.10 or DIN Standard. Socket Weld ends to ASME/ANSI B16.11. Thread ends to ASME/ANSI B1.20.1. Butt Weld ends to ASME/ANSI B16.25

Design, Manufacture & Test Standards for Valves

- **Gate Valves:** API 602, API 606, BS 5352, JPI-7S-36, API 6D, API 597, API 600, ISO 10434, API 603, BS 1414, MSS SP 42, JIS B 2073, JIS B 2083, JPI-7S-46, ASME B16.34, MSS SP 81, BS 5157, API 6A; ISO 5996, ISO 7259, API 595, MSS SP 70, BS 5150, BS 5151, JIS B 2031, JIS B 2062, JPI-7S-37, JIS B 2043, JIS B 2044, JIS B 2052, API 604, BS 5163; MSS SP 80, BS 1952, BS 5154, JIS B 2011, JIS B 2013, JIS B 2023, JIS B 2028; DIN 3352, DIN 3202, EN 558, GOST 5762, GOST 3706.
- **Globe Valves:** JPI-7S-46, JIS B 2071, JIS B 2072, JIS B 2081, JIS B 2082, BS 5352, JPI-7S-36, ASME B16.34, BS 1873, MSS SP 42, BS 5160; MSS SP 85, JIS B 2041, JIS B 2042, JIS B 2051; DIN 3356, DIN 3202, API 6D, MSS SP 80, BS 5154, JIS B 2011, JIS B 2021, JIS B 2026, JIS B 2027, JIS B 2022, ASME B16.15.
- **Check Valves:** JIS B 2074, JIS B 2084, JIS B 2071, ASME B16.34, MSS SP 42, API 6D, ISO 14313, API 594, BS 1868, BS 5352, BS 5160, BS 1873, JPI-7S-36, MSS SP 71, BS 5153, JIS B 2045, BS 5152, JIS B 2053, MSS SP 80, BS 5154, JIS B 2024, JIS B 2025.
- **Ball Valves:** ISO 7121, MSS SP 72, API 6D, ISO 14313, JPI-7S-48, BS 5351, BS 5159, ASME B16.34, API 608.
- **Plug Valves:** BS 5158, MSS SP 78, API 593, JIS B 2191, JIS B 2192, DIN 7113, DIN 7116, ASME B16.34, BS 5158, API 599, API 593, BS 5353, BS 1570, API 6D, ISO 14313.
- **Butterfly Valves:**API 609, BS 5155, BS 3952, MSS SP 67, MSS SP 68, JIS B 2032, JIS B 2024.
- **Test & Inspection:**API 598, ASME B16.34, ISO 5208, MSS SP 61, EN 10266.1, NF M87-401, API 6D, API 6A, API 600, JIS B 2003, GOST 356-80, BS 6364, ISO 10497, API 607.

Manual Actuators:
- Spring-Return Handles
- Gear Operators
- Valve Indicators
- Switches

Limit Switches:
- Mechanical
- Proximity Type

Positioners:
- Digital
- Electro-Pneumatic
- Pneumatic

Electric Actuators:
- Fail-safe
- Modulating
- On-off

Fluid Power Actuators:
- Electro-Hydraulic
- High Pressure Gas System
- Piston
- Rack & Pinion
- Scotch Yoke
- Spring Diaphragm
- Vane
- Water-Hydraulic

INDUSTRIAL FLANGES

The company specializes in manufacturing, supplying and distributing high pressure, large diameter, high yield, and specialty flanges. Our flanges can be manufactured as Slip-On, Weld Neck, Blind, Lap Joint, Threaded, Socket Weld, Reducing, Orifice and other less common face types like Large Groove or Female Faces are also available.

We are well equipped to meet customer requirements. In conjunction with our stocking distributors, a massive inventory of our flanges is in stock and ready to ship – allowing us to meet tight deliveries with quality product and customer service.

Types	Slip-On Flanges, Weld Neck Flanges, Blind Flanges, Lap Joint Flanges, Threaded Flanges, Socket Weld Flanges, Reducing Flanges and Orifice Flanges.
Sizes	1/2" ~ 72" (larger size available upon request) - All Wall Thicknesses & Schedules
Pressure (ASTM)	150#, 300#, 600#, 900#, 1500#, 2500#
Pressure (DIN/EN)	PN2.5, PN6, PN10, PN16, PN25, PN40, PN63, PN100, PN160, PN250, PN320, PN400
Standards	ANSI /ASME /AWWA /API /MSS /DIN /EN /BS /JIS/KS /GB /GOST and UNI
Coating/Surface Treatment	Anti-rust Paint, Oil Black Paint, Yellow Transparent, Zinc Plated, Cold and Hot Dip Galvanized.

Our flanges comply to NACE MR0175, NACE MR0103, ISO 15156-2

Materials:
The most common materials for pipe flanges (forged grades) are: ASTM A105 (carbon steel high temperature to match A53/A106/API 5L pipes), A350 Grades LF1/2/3 (carbon steel low temperature to match A333 pipes), A694 Grades F42 to F80 (high yield carbon steel to match API 5L pipe grades), ASTM A182 Grades F5 to F91 (alloy steel flanges to match A335 pipes), A182 Grade F304/316 (stainless steel flanges to match A312 SS pipes), A182 Gr. F44/F51/F53/F55 (duplex and super duplex to match A790/A928 pipes) and various nickel alloy grades (Inconel, Incoloy, Hastelloy, Monel).

Carbon Steel Flanges:

- ASTM A105 (high-temperature carbon steel) to match A53, A106, API 5L carbon steel pipes
- ASTM A350 LF1, LF2, LF3 (low-temperature carbon steel) to match ASTM A333 pipes
- ASTM A694 F42, F52, F60, F65 (high-yield carbon steel to match API 5L X42, X52, X60, and X65 steel pipes.
- ASTM A694 F46, F48, F50, F56, 70 (High -yield carbon steel flanges)
- CSA Z245.12 (359 CAT2 - 483 CAT2)

Stainless Steel Flanges:
The key elements that differentiate stainless steel materials for flanges, compared to other grades, are the Nickel (Ni), Chrome (Cr), and Molybdenum content (Mo).

- ASTM A182 F304, F304H, F304L, F304N, F304LN, F309H, F310, F310H, F31MoLN, F316, F316H, F316L, F316LN, F316Ti, F317, F317L, F321, F321H, F347, F347H, F348, F348H
- A182-F304 (8% Cr, 8% Ni Stainless Steel) to match Corrosive services and atmospheres from -450°F to 1000°F (-268°C to 537°C)
- A182-F316 (18% Cr, 8% Ni, 2% Mo Stainless Steel) to match High resistance to corrosion from -450°F to 1000°F (-268°C to 537°C).

Specialty Flanges:
Alloy Steel, Duplex & Super Duplex, Nickel Alloy, Copper Nickel Alloy Flanges, Incoloy®, Monel®, Hastelloy®, Titanium, Cast /Ductile /Malleable Iron, Brass, Copper, Bronze and PP / PTFE / PVC / CPVC / UPVC Flanges.

PIPE FITTINGS

The company produces a wide range of fittings, such as elbows, tees, reducers, caps, bends and many others from 1/2" to 120" diameter in all material grades, according to international standards and clients' requirements.

The target markets of can be divided into up/mid/downstream, which include onshore and offshore/subsea plants, oil & gas pipelines, refineries, and power generation such as nuclear and thermal power plants. The company manages the whole cycle of production, distribution and after-sales services in all these markets.

EPC companies represent the largest part of its capacity. Close co-operation with clients gives the company the opportunity to develop the market and the products in line with trends in the field of energy.

Standard Fittings

TYPE OF PRODUCT	DIMENSIONS	STEELS	EXECUTION
Elbows	Up to 120"	All grades	Seamless and welded (cold formed, hot formed and by mandrel)
Equal and reducing tees	Up to 120"	All grades	Seamless and welded (cold formed and hot formed)
Concentric and eccentric reducers	Up to 120"	All grades	Seamless and welded (cold formed and hot formed)
Caps	Up to 120"	All grades	Seamless (cold formed and hot formed)

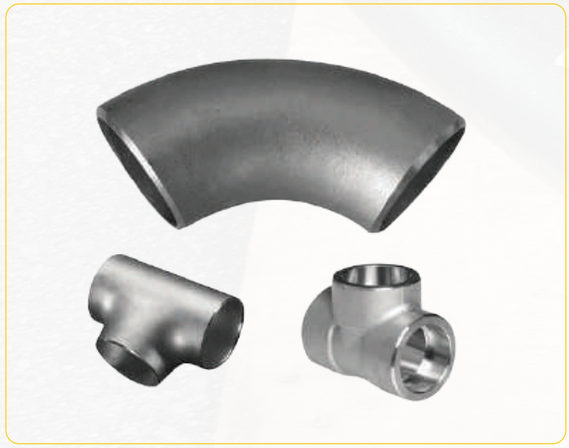
Special Fittings

TYPE OF PRODUCT	DIMENSIONS	STEELS	EXECUTION
Reducing elbows	Up to 60"	All grades	Seamless and welded
Special radius bends (3D)	Up to 56"	All grades	Seamless and welded segmentable
Special radius bends (2,5D 3D 4D 5D 7D 1OD 18D)	Up to 60"	All grades	Seamless and welded (hot induction and cold formed)
Barred tees	Up to 120"	All grades	Seamless and welded (cold formed and hot formed)
Special flow tees	Up to 120"	All grades	Seamless and welded
Equal and reducing crosses	Up to 120"	All grades	Seamless and welded
Equal and reducing laterals	Up to 120"	All grades	Seamless and welded

Special Products

TYPE OF PRODUCT	DIMENSIONS	STEELS	EXECUTION
Headers and extruded manifolds	Up to 120"	All grades	Seamless and welded
Split tees	Up to 120"	All grades	Seamless and welded
"Y" pieces	Up to 120"	All grades	Seamless and welded

SPECIAL PRODUCTS AS PER CUSTOMER DRAWINGS.



Materials used and related International Standards

CARBON AND ALLOY STEEL FOR ROOM, MODERATE AND ELEVATED TEMPERATURES	STAINLESS STEEL	HIGH YIELD STEEL FOR PIPELINE AND OFFSHORE	DESIGN CODES
ASTM / ASME A/SA 106 **API5L: Gr.B- Gr.C** **ASTM / ASME A/SA 335:** Gr.1 - Gr.11 - Gr.12 - Gr.5 Gr.22 - Gr.9 - Gr.91 **ASTM / ASME A234:** WPB WPC-WP1 -WP11 -WP12 WPS -WP22 -WP9 -WP91 WP92 **EN 10216-2:** P195GH P235GH - P265GH 20MnNb6 - 16Mo3 - 8MoB5 4- 14MoV63 1 0CrMoS-5 - 13CrMo4-5 10CrMo9-10 15NiCuMoNb5-6-4 X11 CrMo5 - X11 CrMo9-1 X1 0CrMoVNb9-1 X1 0CrWMoVNb9-2 X20CrMoV11-1 andequivalent grades **EN 10253-1 EN 10253-2** **RCC-M:** CL2 - CL3 - NC grades P265GH - P280GH P295GH - P355NH -TU42C AE250B1 (other grades can be supplied upon request).	**ASTM / ASME A/SA 312:** TP304 -TP304L -TP304H TP304LN -TP304N TP316-TP316L-TP316H TP316LN -TP316N -TP317 TP317L -TP321 H -TP347 TP347H - S31254 and equivalent grades **ASTM / ASME A/SA 403:** WP304 -WP304L -WP304H WP304LN -WP304N WP316 -WP316L-WP316H WP316LN -WP316N WP317 -WP317L -WP321 WP321 H -WP347 WP347H -WPS31254 **RCC-M:** CL 1 - CL2 - CL3 grades Z2CND17.12 Z2CN18.10 - Z2CND18.12N (other grades can be supplied upon request) **ASTM A774:** TP304L TP316L TP317L -TP321 TP347 Equivalent grades of EN 10253-3 EN 10253-4 (former AFNOR-DIN-BS equivalent grades).	**API 5L:** Gr. X42 - X46 - X52 X60 - X65 - X70 - X80 **EN 10208-2:** L245NB L290NB - L360NB - L415NB L360QB - L415QB - L450QB L485QB - L555QB - L360MB L415MB - L450MB L485MB and equivalent grades. **ASTM A860/MSS-SP75:** WPHY 42 WPHY 46 -WPHY 52 -WPHY 60 -WPHY 65 WPHY 70 grades-WPHY 80 only as per MSS-SP75 **COPPER ALLOY** **Copper-nickel ASTM /ASME B/SB 466:** UNS C70600 (Cu Ni 90/10) UNS C71500 (CuNi 70/30) and equivalent grades. **NICKEL ALLOY** **ASTM / ASME B/SB 366:** UNS N04400 - UNS N06600 UNS N06625 - UNS N08020 UNS N08800 - UNS N08811 UNS N08825 - UNS N10276 and equivalent grades.	ASME B31.1 -ASME B31.3 ASME B31.4-ASME B31.8 EN 13445 - 13480 – 12952 (former BS PD 5500 Swedish ordinance AFS 1994:39) DIN 2413 - TRD301 AD 2000 Merkblatt B2-B3-B9 STOOMWEZEN rules for pressure vessels MSS- SP-75 **MANUFACTURING** ASME B16.9-ASME B16.25 MSS-SP43 - MSS-SP75 DIN 2605 - 2606 – 2615 2616 - 2617 - BS 1640 GOST 17374 – 17375 17376 - 17377 - 17378 17379 – 17380 EN 10253 ISO 15590 BS/EN 14870
CARBON AND ALLOY STEELFOR LOW TEMPERATURE SERVICE	**AUSTENITIC/FERRITIC STAINLESS STEEL**	**TITANIUM ALLOY**	
ASTM / ASME A/SA 333: Gr.6, Gr. 3, Gr. 8 and equivalent grades ASTM / ASME A/SA 420 WPL6 -WPL3	**ASTM / ASME A/SA 790:** UNS 31803 (duplex) - UNS 32750 (superduplex) UNS 32760 (superduplex) UNS 32550(superduplex) and equivalent grades **ASTM / ASME A/SA 815:** UNS 31803 (duplex)	**ASTM / ASME B/SB363:** WPT2-WPT12 and equivalent grades	

ENERGY TUBULAR'S

The company line of Energy Tubular include carbon and alloy products for the energy industry for the upstream, midstream and downstream operations. These products are manufactured in accordance with international standards and specifications that are used in exploration and production (E&P), the recovery and production of crude oil, natural gas and LNG, drilling of exploratory wells, operating the wells, as well as processing, storing, transportation and distribution.

LINE PIPES

Line pipe is generally used for the conveyance of oil and gas in transmission lines, distribution main lines, and offshore pipeline systems. We supply welded and seamless API 5L grades through X 100 for high pressure applications, including Sour Service Solution A or B. we work closely with our customers to present solutions to match the required grades and specifications.

Material / Grade:	API 5L Grade B, API 5L X42, X52, X56, X60, X65, X70, X80, X100, PSL 1 and PSL 2
Weld Alternatives:	ERW, HF, DSAW/SAWL, SMLS, HSAW
OD Size Range:	ERW: 0.375" through 30" HF: 0.840" through 24" DSAW/SAWL: 12.75" through 144" SMLS: 0.840" through 26" HSAW: 8.625" through 144"
Wall Ranges:	ERW: 0.120" through 1.000" HF: 0.120" through 1.000" DSAW/SAWL: 0.250" through 6.000" SMLS: 0.250" through 2.500" HSAW: 0.250" through 1.000"
Lengths:	Single Random Double Random Custom (up to 300")
Surface Finishes:	Bare, Oiled, Mill Varnish, Galvanised, FBE, FBE Dual, 3LPE, 3LPP, Coal Tar, Concrete Coating and Tape Wrap.
End Finishes:	Beveled, Square Cut, Threaded & Coupled.
Additional Services:	Internal Coating

Oil Country Tubular Goods (OCTG)

As the oil and gas industry has moved into more challenging extraction scenarios, the demands on drill pipe, tubular and casing have become increasingly rigorous. Whether the demand is from high pressure, thermal stresses or environmental factors, Engic Gulf knows what it takes to meet the needs of today's energy sector.

TUBING

The company supplies high-quality tubing designed to withstand the rigors of transporting oil and gas from the production zone to the surface. This tubing is currently in use by our customers as an integral part of well production in numerous locations worldwide.TUBING

Material / Grade:	API 5CT H-40, J-55, L-80, N-80 Type1, N-80Q, C-90, T-95 and P110.
Weld Alternatives:	ERW and Seamless
OD Size Range:	1.050" through 4.50"
Lengths:	Range 1, Range 2
Surface Finish:	Bare or Regular Mill Coating
End Finishes:	NU T&C, EU T&C, Buttress Thread, Premium
Non- Upset T&C Weight Range:	1.14#/FT through 26.10#/FT
External Upset Weight Range:	1.20#/FT through 12.75#/FT
Additional Services:	Internal Coating

CASING

One of the main building blocks of well completion, casing is designed to isolate the well bore from the formation while resisting external collapse pressure as well as internal pressure from within. Our world-class casing is manufactured to API 5CT specifications, in sizes from 4-1/2" to 20" OD.

Material / Grade:	H-40, J-55, K-55, L-80, N-80 Type 1, N-80Q, L-80 Type1, L-80 9Cr, L-80 13Cr, C-90, C-95, T-95, P-110, Q-125.
Specifications:	API 5CT
Weld Alternatives:	ERW and Seamless
OD Size Range:	4.5" through 20"
Weight Range:	9.5#/FT through 169#/FT
Lengths:	Range 1, Range 2, Range 3
Surface Finishes:	Bare or regular Mill Coating.
End Finishes:	Plain End, 8RD, STC and LTC, Buttress Thread, Premium Connection
Additional Services:	Vertical and Horizontal Slotti

DRILL PIPE

Drill Pipe are designed and recommended for well drilling in natural oil- and gas exploration projects. Tabulated sizes and upsets are available acc. to API specification 5DP. Other Sizes and Upsets will be delivered on request. Drill Pipe with friction welded (FW) tool joints, ready for drilling operations, manufactured together with our well named cooperation mills are supplied to our final customers.

Further more finished and unfinished drilling goods, subject to final Drill Pipe manufacture, like drill pipe bodies with standard or special upset ends, are also applicable for delivery, within our capabilities.

Material / Grade:	E-75, X-95, G-105, S-135.
Specifications:	API 5 D
Weld Alternatives:	Seamless
OD Size Range:	2.375" through 6.625"
Weight Range:	6.27#/FT through 27.72#/FT
Lengths:	Range 2, Range 3
Surface Finishes:	N/A
End Finishes:	Internal Upset, External Upset, Plain End Upset, Non Upset
FW Tool Joints:	Numbered Connections (NC), Internal Flush (IF), Full Hole (FH)

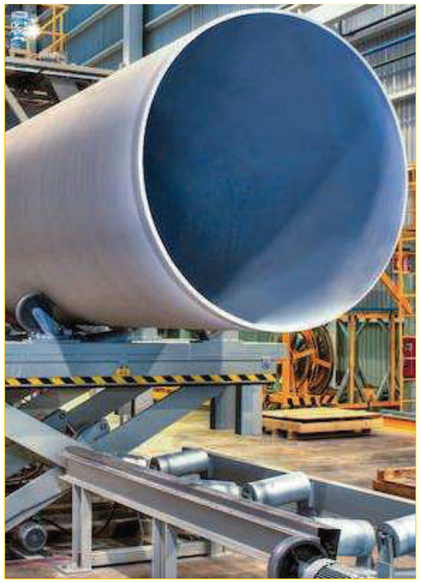
STANDARD TUBULAR'S

Our line of Standard Tubulars includes carbon and alloy products for the conveyance of liquids, gases, semi liquids (fluids), slurries or powders among many applications. These products are also often used for structural applications. They are manufactured in accordance with international standards and specifications for their specific applications.

Standard Pipe

Standard Pipe is generally used for mechanical and pressure applications as well as for steam, water, air and gas lines. Our supply welded and seamless steel pipe in ASTM and API specifications and grades for liquid, semi-liquid, steam and gas conveyance; including for high pressure service and lower and moderate temperatures.

Material / Grade :	A53 Grades A/B, ASTM A106 Grades B/C, AWWA, C200, ASTM A139, ASTM A120, API5L- B ASTM A671, A672 (Stress Relieved, Normalized and/or Tempered) in Various Classes
Fabrication Alternatives:	ERW, HF, DSAW/SAWL, SMLS, HSAW
OD:	ERW: 2.375" through 30" HF: 0.840" through 24" DSAW/SAWL: 12.75" through 144" SMLS: 2.375" through 26" HSAW: 8.625" through 144"
Wall Ranges:	ERW: 0.154" through 0.750"
HF:	0.120" through 1.000"
DSAW/SAWL:	0.250" through 6.000"
SMLS:	0.219" through 2.500"
HSAW:	0.250" through 1.000"
Lengths:	Single Random, Double Random, Custom lengths are also available Surface Finishes:Bare, Oiled, Mill Varnish, Galv, FBE, FBE Dual, 3LPE, 3LPP, Coal Tar Enamel, Tape Wrap, Paper, Wrap, Cement Mortar, Liquid Epoxy Lining and Glass,Cloth. Vertical Slotting available up to 0.500" w/t
End Finishes:	Beveled, Square Cut, Bell & Spigot, Flanged, Victaulic, Threaded & Coupled. Additional Services:Vertical and Horizontal Slotting



Abrasive Resistant Pipes

Abrasive Resistant Pipe is designed for the conveyance of highly abrasive materials. we work closely with its customers to present solutions to match the required grades and specifications. The grades and specifications are made to control the hardness and resistance to abrasion factors, among other factors.

Material /Grade :	Gr. 2/3, X42, X52, X60, X65, X70, X80, X100 and 1035 Steel
Specifications :	ASTM A252, API 5L, AR
Weld Alternatives :	ERW, SAW, Spiral
OD Size Range :	10.75" through 48", Custom ID Sizes Available
Wall Ranges :	0.250"-1.00"
Lengths :	Single Random, Double Random, Custom
Surface Finishes :	Bare, Mill Varnish, Coated
End Finishes :	Beveled, Square Cut, Flanged

Ductile Cast Iron Pipes

Ideal for water and wastewater systems requiring proficient corrosion resistance, ductility, and strength, our ductile iron pipe is easy to install and thrives in tough terrain. Mortar lined, available with push-on joints and exterior coating, including asphalt or epoxy options.

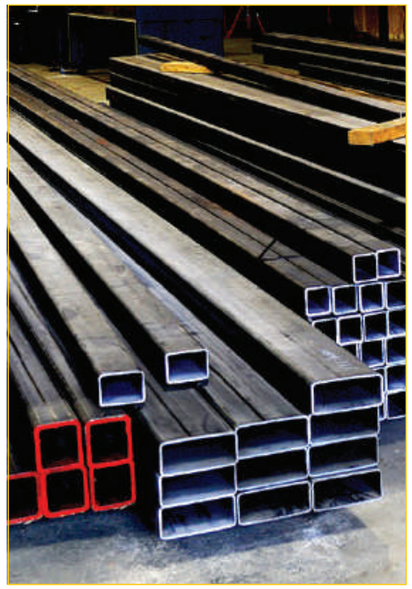
Material /Grade :	AWWA, ASME, ASCE, ASTM, NACE, NFPA, ISO, ANSI
OD Size Range :	4" (DN 100) through 48" (DN 1,200).
Wall Range :	K8, K9, K10, K12
Lengths :	20' (6M)
Surface Finishes :	Zinc coating, Bituminous Coating, Cement Lining.
End Finishes :	Bell and spigot, push-on-joint, mechanical joint, flanged joints.

STRUCTURAL'S PRODUCTS

Structural Pipe

Structural Pipe is generally used for heavy civil, highways & bridges, airports, railroad bridges, harbor berths & seawalls, tubular structures, utilities, building, foundation, and offshore platform building.

Material:	API 2B Gr. B up to X80, ASTM A252 Gr. 2/3, ASTM A500 Gr. A/B/C, ASTM A513, ASTM A36, ASTM A572 Gr. 50, Surplus and other grades available.
Fabrication Alternatives:	CW, ERW, HSAW, SAW, SMLS
OD (Outer Dimensions):	
CW:	0.375" through 4.50"
ERW:	2.375" through 24"
HSAW:	16" through 144"
SAW:	18" through 144"
SMLS:	2.375" through 26"
Wall Ranges:	
CW:	Inquire
ERW:	0.154" through 0.750"
HSAW:	0.250" through 1.125"
SAW:	0.250" through 2.500"
SMLS:	0.219" through 2.500"
Lengths:	Single Random, Double Random, Custom lengths are also available
Surface Finishes:	Bare, Oiled, Mill Varnish, Galv, FBE, 3LPE, Coal Tar, Tape Wrap
End Finishes:	Beveled, Square Cut, Threaded and Coupled.



Steel Beams and Shapes

Steel shapes are formed to specification following certain standards of chemical composition and strength. They can also be defined as hot-rolled products, with a cross section of special forms like angles, structural steel channels and beams/joints. Structural shapes are generally used for the riveted, bolted or welded construction of bridges, buildings and other structures.

Material/Grade:	ASTM A-36, ASTM A-572 Gr. 50, ASTM A-572 Gr. 60, ASTM A-572 Gr. 65, ASTM A-588 Grade A, ASTM A-588 Grade B, ASTM A-588 Grade C
Product Alternatives:	Wide Flange Beams, H-Pile, Channel
Size Range:	WF Beams: 4"x4" - 44"x16"
HP Shapes:	8"x8" - 10"x10"
Channel:	C3x4.1# - C12x25#
Weight Range:	WF Beams: 13#/FT - 335#/FT
Lengths:	20', 40', 60'
Surface Finish:	Bare
End Finish:	Mill

Plate Products

Steel plate is generally used for the oil and gas installations, ship building, storage tanks, rail cars, offshore platforms, pressure vessels, dams, bridges and highway construction and machinery.

Steel Plates for Structural Use :

JIS :	G 3101 SS330 SS400, G 3106 SM400, G 3131 SPHC SPHD SPHE, G 3136 SN400, G 3106 SM490 SM490Y, G 3136 SN490, G 3140 SBHS400, G 3106 SM520, G 3106 SM570*, G 3140 SBHS500, G 3128 SHY685 SHY685N SHY685NS, G 3140 SBHS700
ASTM:	A36, A131, A283, A529, A573 Gr. 58, A572, A573, A633, A709 Gr. 50, A841, A572 Gr. 60 Gr. 65, A678 Gr. C Gr. D, A841, A514 A709 Gr. 100
API:	API 2H-42 2W-42, API 2H-50 2W-50, API 2W-60
BS /DIN:	EN10025 S185 S235 S275, EN10113 S275, EN10025 S355 E295, EN10225 S355, EN10113 S355, EN10225 S400, EN10113 S420, EN10225 S460, EN10025 E335, EN10113 S460, EN10137 S460, EN10137 S500, EN10025 E360, EN10137 S550 S620, EN10137 S690, EN10137 S890 S960
WES:	HW 355, HW 450, HW 450CF, HW 490, HW 490CF, HW 550, HW 620, HW 685, HW 885
SHIP Class :	A, B, D, E, A32, 36, 40 D32, 36, 40 E32, 36, 40 F32, 36, 40, A420, D420, E420, F420, A460, D460 , E460, F460, EH47, A500, D500, E500, F500, A550, D550, E550, A620, D620, E620, A690, D690, E690, F690

Steel Plates for Low Temperature Service:

JIS :	G 3127 SL2N255, G 3127 SL3N255 SL3N275 SL3N440, G 3127 SL9N520 SL9N590, G 3126 SLA325A SLA325B SLA360 SLA410
ASTM :	A203 Gr. A Gr. B, A203 Gr. D Gr. E, A353, A553
BS /DIN :	EN10028 12Ni14, EN10028 X8Ni 9, EN10028 X7Ni 9, EN10028 P275'L' P355'L', EN10113 P275'L' P355'L' P420'L', EN10028 P460'L'
WES :	LT450, LT490, LT550, LT685
SHIP Class :	KL2N30, KL3N32, KL9N60, KL24, KL33, KL37

Atmospheric Corrosion Resistant Steel Plates:

JIS :	G 3114 SMA400, G 3114 SMA490, G 3140 SBHS400W, G 3114 SMA570*, G 3140 SBHS500W, G 3140 SBHS700W
ASTM :	A242 Type2, A588

Steel Plates for Boiler and Pressure Vessel:

JIS :	G 3103 SB410 SB450 SB480, G 3115 SPV235 G 3118 SGV410 SGV450, G 3115 SPV315 G 3118 SGV480 G 3124 SEV245, G 3115 SPV355, G 3124 SEV295, G 3115 SPV450, G 3124 SEV345, G 3115 SPV490, G 3103 SB450M SB480M, G 3119 SBV, G 3120 SQV, G 4109 SCMV, G 4304 SUS, G 3601 SUS G 3602 Ni , G 3603 Ti
ASTM :	A285 A515, A516 Gr. 55 Gr. 60 Gr. 65, A299 A455 A516 Gr. 70 A537 Cl. 1A841, A612, A537 Cl. 2 A738 Gr. B A841, A543 Cl. 1, A517 A543 Cl. 2, A204, A302, A533, A542, A387, A240, A263, A264, A265
BS /DIN :	EN10028 P235GH P265GH, EN10028 P295GH, EN10028 P355N, EN10028 P355GH, EN10028 P460N, EN10028 16Mo3, EN10028 Steel 621, EN10028 13CrMo4-5 10CrMo9-10 11CrMo9-10
WES :	HW 355, HW 450, HW 490, HW 620, HW 685, HW 885
SHIP Class :	KP42, KP46, KP49, KPV24, KPV32, KPV36, KPV46, KPV50, KPA46, KPA49, KPA56
Supply Types :	HR and CR Steel Sheet, Super Thick Plate, Heavy Plate.
Weld Alternatives :	SAW or SMLS
OD Size Range :	SAW: 14" through 144" SMLS: 2.375" through 26"
Wall Ranges :	SAW: 0.250" through 10" SMLS: 0.219" through 2.5"
Lengths :	Single Random, Double Random, Custom (up to 360')
Surface Finishes :	Bare, Oiled, Mill Varnish, Galv, FBE, TLPE, Coal Tar, Tape Wrap.
End Finishes :	Beveled, Transitions, Square Cut, other specialty ends.

Offshore Structures

Structural Products for offshore platforms or oil rigs are used as elements for their construction, assembly and operation. we supply risers, conductor pipes, deck and jacket legs and piles among many other specialized tubular products.

Material/Grade:	ASTM A709, ASTM A588, ASTM A36, A573 Gr. 58/70, A572 Gr. 42/50, A516 Gr. 60/65, ABS A131, API 2H Gr. 50, API 5L X80.
Weld Alternatives:	Hot Rolled, Control Rolled, Thermal Mechanical Controlled Processed, Coiled, Normalized, Q & T, Stress Relieved, Blasted and Painted.
Thickness:	Up to 8"
Width:	Up to 154"
Lengths:	Up to 720" for plate and 80,000 # Weight for HRC.
Edge:	Mill Edge, Custom Edge.

Combi-Wall & Tubular Sheet Pile

Combi-Wall systems add strength by combining king pile – steel beam or pipe pile – with sheet pile or tubular sheet pile attached by interlocks to withstand greater loads than traditional sheet pile wall. These retaining walls are ideal for temporary or permanent structures such as cofferdams, river frontages, quays, wharfs, docks, harbor works, permanent foundations and sea walls.

Weld Alternatives:	CW, ERW, Spiral, SAW, and SMLS
OD Size Range:	CW: 0.375" through 4.50" ERW: 2.375" through 24" Spiral: 16" through 144" SAW: 18" through 144" SMLS: 2.375" through 26"
Wall Ranges:	CW: Inquire ERW: 0.154" - 0.750" Spiral: 0.250" - 1.125" SAW: 0.250" - 2.500" SMLS: 0.219" - 2.500"
Lengths:	Single Random, Double Random, Custom (Up to 190')
Surface Finish:	Bare, Oiled, Mill Varnish, Galv, FBE, TLPE, Coal Tar, Tape Wrap.
Clutch:	P-P, P-T, and Sheet Pile Manufacturers compatible connectors.

ELECTRICAL CONDUIT'S

Our line of Electrical Conduits include hot-dipped and in line galvanized piping products for protection and routing of electrical wiring, supplied in rigid, IMC and EMT variations. They are manufactured in accordance with international standards and specifications to meet their specific requirements.

EMT, IMC & Rigid

Electric Metallic Conduit is thin-walled and lighter than other types of metallic conduit, with moderate flex for bendability. Made of high-grade strip steel, our Electric Metallic Conduit (EMT) meets UL 797 specifications and is manufactured to ANSI C80.3

Material/Grade :	ANSI C80.1, ANSI C80.3, ANSI C80.6, UL6, UL797, UL1242, NTC171, NTC105, NTC169
Weld Alternative :	ERW
OD Size Range :	0.5" through 6"
Wall Ranges :	0.042" through 0.266"
Types :	Rigid, EMT, IMC
Surface Finishes :	Rigid: Hot-Dipped Galvanized IMC: Hot-Dipped Galvanized EMT: In-line Galvanized and Interior Coated
End Finishes :	Plain End, Beveled or Threaded

OILFIELD AND DRILLING EQUIPMENT'S

We can fulfill all your needs for the work you do either in explorations or production, serving drilling and rig clients, we have acquired a reputation of excellence. we earned this reputation by providing not only top quality products but with our attention to detail and commitment to excellent customer consulting and service. We have the ability to meet all your needs and your unique specifications.

Mud / Solids Control Equipment
- Shale Shakers
- Mud Cleaners
- Desanders
- Desilters
- Degassers
- Centrifuges
- Centrifugal Pumps
- Agitators Mud/Gas Separators

Well Control Equipment
- Blowout Preventers (BOPs)
- Choke & Kill Manifolds
- Valves & Fittings
- Control Stations

Capital Drilling Equipment
- Top Drives
- Mud Pumps
- Draw-works
- Rotary Tables
- Traveling Hooks/Blocks
- Hydraulic Power Units

Oil Country Tubular Goods
- Drill Pipes
- Tubing
- Casing

Drilling Rig Packages
- Onshore Rigs
- Offshore Rigs
- Engineering & Services

PROJECT **MANAGEMENT**

As the complexity of projects increases, owners and operators have intensified their focus on managing risks, time and cost. Companies are looking for partners who can match these expectations by offering full-scale projects management services based on certificated quality systems and industry experience.

Project Management for projects

By adopting a holistic and tailored approach to project management, our goals are to that every project is completed on time and on budget, and to the agreed quality.
Our Projects are managed and executed by experienced senior staff well-versed in handling large-scale projects. Our success is demonstrated by a strong project track record and relies on the methodology of our project management model.

Our Project Management Model

We employ a project management model that is based on international best practice and our own industry experience. Our 'Project Excellence' comprises a stage-gate model designed to maximise performance and client benefits, while providing a clear roadmap throughout the project lifecycle.

The Project Excellence model is generic and scalable, which ensures desired quality levels and timely delivery regardless of project complexity, scope, size or duration. Our model serves to facilitate a full understating of client and project needs, and to ensure all strategic goals are met.

Full HSEQ integration on projects

Our HSEQ management system supports the Project Excellence model, addressing the full project lifecycle from proposal to planning, execution and completion. It is our trademark to integrate HSEQ into every aspect of our projects, and our consultancy services are based on hand-on experiences designing, implementing and maintaining HSEQ management systems.

Our Services within project management cover:

- Risk & Opportunity Management, and Management of Change
- Planning & Scheduling; Progress Reporting & Status Meeting
- Resource Management, Cost Control and Budget Updates
- Design and Quality Management
- Document Control
- Construction Management
- Stakeholder Management including Permitting Support

ENGINEERING **AND DESIGN**

We are a flexible partner in the EPC market as we team up with contractors, sub-contractors, or enter joint-venture partnerships with engineering and construction companies. We cover the full cycle from the conceptual studies to detailed engineering till commissioning and hook-up while keeping a strong focus on constructability.

1. Conceptual Studies

The high-risk investment profile necessitates that owners and operations must choose the right strategy to ensure return on investments. Conceptual studies examine legal, technical, financial and sometimes even environmental and societal implications of different solutions.

• Qualified expertise to assess project feasibility

Our conceptual studies are based on estimated production rates and reservoir composition. They account for process simulation, flow assurance, and loss prevention strategies, including material selection. We also include life cycle cost estimation, weight and cost estimation and business case calculations.

• Conceptual studies focusing on operability

Our specialists focus on designing solutions that are easy to construct, operate and maintain. We provide consultancy on best and solutions that will optimise operations, reduce cost and risk whilst keeping down-time to a minimum

• HSE and regulatory compliance

Our conceptual studies also consider health, safety and environmental (HSE) aspects, and we offer risk evaluations and environmental screenings to safeguard people and the environment. Moreover, we identify legislative and environmental requirements and devise environmental programmes comprising all necessary steps for obtaining approvals and permits. We have intimate knowledge of national standards, regulatory framework and authority requirements enabling us to support clients locally.

Our service within conceptual studies cover:

1. Process technology
2. Health, Safety and Environment
3. Technical Feasibility Studies
4. Cost and Weight Estimation
5. Concept Definition
6. Third-party Evaluations.

2. Front End Engineering Design (FEED)

The FEED study matures the selected concept to viable solution that is east to construct and operate. The primary purpose of the FEED study is to provide a viable solution and a cost estimate, which enable the final investment decision. Moreover, it provides the basis for the EPC or detailed engineering tender and contract.

• Our Feed study enhances the full project lifecycle

In the Feed study, our specialists consider the entire lifecycle, enabling us to present robust solutions that create value from commissioning to decommissioning of the asset. We aim for design solutions that are easy to fabricate, install, operate and maintain. Our FEED studies are therefore geared towards making the right operational and material choices, reducing cost and risks, whilst maximising availability.

• Deliverables in the FEED phase

Our technical definition and cost estimates for FEED will be accompanied by a number of deliverables that substantiate the estimates and serve as a basis for the EPC contract and procurement of long lead times.

• HSE and regulatory compliance

Our FEED studies also consider health, safety and environmental (HSE) aspects, and we offer risk evaluations and environmental screenings to safeguard people and the environment. Moreover, we identify legislative and environmental requirements and devise environmental programmes comprising all necessary steps for obtaining approvals and permits. We have intimate knowledge of national standards, regulatory framework and authority requirements enabling us to support clients locally.

Our Services within FEED cover:

1. Safety, Operational, Control System, Installation Philosophies
2. 3D Modelling
3. Equipment sizing and specifications for process and utilities
4. Material Take-Off Lists (MTO's)
5. Cost and Weight Estimation
6. Preparation of EC Tender Material

3. Detailed Engineering

The detailed engineering phase is the final stage of a project and typical deliverables include procurement specification, construction drawings, and evidence of design verification. This package can form the basics for EPC contract, authority approvals and/or certification by a third party.

• Advanced 3D modelling of layout – a decade(s) of engineering experiences

We draw on a multidisciplinary skill base, a decade(s) proven track record working with various projects, and some of the most accomplished experts in the industry. We are therefore weel equipped to provide qualified recommendations in the deatiled engineering phase. This is demonstrated by our successful execution of numerous project through via contractors, sub-contractors, joint-venture partnerships.

• Robust Project Management Practices

To ensure that project delivery is on schedule, within budget and of the highet quality, we emply a project execution model that is designed to maximise client benefits.

• HSE and regulatory compliance

Our Detailed Engineering also consider health, safety and environmental (HSE) aspects, and we offer risk evaluations and environmental screenings to safeguard people and the environment. Moreover, we identify legislative and environmental requirements and devise environmental programmes comprising all necessary steps for obtaining approvals and permits. We have intimate knowledge of national standards, regulatory framework and authority requirements enabling us to support clients locally.

Our Detailed Engineering Services cover:

1. Project Management
2. Process Engineering
3. Technical Safety and HSE
4. Piping and Layout
5. Mechanical Engineering
6. EI&T
7. Maintenance, Modification and Operation
8. 3D Laser Scanning and Survey
9. Structural and Civil Engineering
10. Technical requisitions and construction drawings
11. Installation procedures and start-up and commissioning

4. Engineering Procurement Construction Projects

The EPC set-up provides developers and owners with single point of contact throughout the project execution phase and reduces financial risks. EPC projects are multidisciplinary in nature and efficient construction management coupled with a continual focus on HSEQ are key success factors.

• EPC(M) services

We offer EPC(M) (Engineering, Procurement and Construction (Management) services for offshore and onshore projects.

• Constructability

We act as a flexible partner in the EPC market as we team up with contractors, sub-contractors, or enter joint-venture partnerships with construction companies. Throughout the detailed engineering phase, we keep a strong focus on constructability. As a part of our EPC service, we handle construction management, construction supervision and provide a backup team, just as we carry out pre-commissioning, commissioning and hook-up.

• HSE in EPC Methodology

Careful consideration of health, safety and environmental aspects forms an integrated part of all our project solutions. Our EPC methodology is based on the building blocks of our HSEQ and project management system and focuses on all the elements of managing an EPC project. With a fully defined project management approach and EPC methodology together with our contractors, sub-contractors, or joint-venture partnerships, we have the required processes and systems to handle highly complex projects.

Our services for EPC(M) projects cover:

1. Project management including management of subcontractors, cost control, reporting & project follow-up
2. Detailed engineering
3. Procurement
4. Construction management, construction supervision and backup team
5. Pre-commissioning, commissioning and hook-up

PROCUREMENT

Procurement is apart of all EPC projects, but it also practical and economical to integrate into most projects. Close interaction between engineering team and procurement specialists keeps projects within budget and on schedule by securing the right materials and equipment at the most favourable price and in due time.

Procurement experts

We handle all aspects of the supply chain on EPC projects, or as a stand-alone service. Our procurement experts manage contracts from request for quotation to contact closeout. This includes tender support, bid, evaluation, supplier selection, and audits.

As part of our strategic sourcing solution, we can supplement our client's procurement function with experienced manpower during periods of project peak work load.

Our procurement services for various industries cover:

- Inquiry /tender
- Bid clarification and evaluation
- Supplier and Subcontractor's prequalification, approval and monitoring
- Follow-up/expediting /quay check
- Transport, logistics, warehousing and handling of backload
- Receipt of good, invoice handling and reporting
- Framework agreements, procurement strategy, budget and planning

Technical Integrity and timely delivery

One of the key benefits of outsourcing project related procurement activities to us is that our engineering and procurement specialists work closely and proactively together. This ensures swift resolution of any technical queries and proper management of the logistics for items with long lead times. Our scalable and flexible procurement set-up enables us to cate for diverse client needs.

Maximising value

As an independent procurement provider, we always act in our client's best interests. We are committed to ethical procurement practices and maximising value by considering cost, delivery, safety, quality, reliability and applicable law and regulations.

International supplier network and bulk-buying benefits

Equipment and services are always purchased at competitive rates. With an international office network in strategic locations, we stay in touch with key manufacturers, supplier, distributors and remain up-to-date on pricing and industry trends. Theis enables us to offer high-quality, low-cost procurement services.

Asset Management- Maintenance - Modifications and Operations (MMO)

The company offers unique asset management consultancy based on a combination of expert knowledge of MMO theory and hands-on technical experience from a wide range of industries facilities. From a life cycle point of view, our services range from early stage operability and maintainability assurance within the concept and design phase, to late life cost optimization from an MMO perspective.

The benefits

- Eliminate unnecessary maintenance – inspection activities/cost
- Optimize your maintenance and inspection schedules
- Avoid unplanned downtimes and increase availability
- Increase the frequent between turnarounds
- Ensure regulatory compliance
- Reduce life cycle OPEX and CAPEX

One-stop consultant

We deliver independent consultancy and focuses solely on the client's actual needs and values. We offer a wide palette of services related to Asset management, ranging from strategic to practical orientate topics:

Maintenance, Modification and Operation Consulting:

- Operability, inspect ability and Maintainability Assurance within design phases
- OPEX optimizations
- Maintenance, Modification and Operations philosophies, strategies and manuals
- Performance standards
- Safety, Environmental Critical Elements (SECE)
- Maintenance, Modification and Operations Optimization
- Spare parts Strategies and Spare Part Evaluation
- Reliability, Availability and Maintainability Analysis (RAM)
- Reliability Centered Maintenance (RCM) and Risk Based Maintenance (RBM)
- Failure Mode, Effect and Criticality Analysis (FMECA /FMEA)
- Data Quality, Work Load, Reliability (Corrective and Preventive maintenance) and Root Cause (RC) Analysis
- Life Time Extension and Late Life MMO cost optimization
- Breakdown Services, Survey and Inspection
- Spare part and Vendor Coordination
- Condition Based Maintenance

Management:

- Asset integrity management
- Organization (design, policy, roles, responsibilities, goals and KPI's)
- Work Management and Business Process Design
- Document Management
- PVI management Assistant
- Quality Management
- Life Cycle Information Management

CMIMS/Enterprise Asset Management Asset Information:

- Specialists within SAP PM
- Maintenance Program Development (Strategies, plans, items, task lists, procedures, materials, work centres, hours)
- Implementation and updates and trainings.
- Asset Hierarchies (functional location, tag equipment and Materials)
- Reliability data collection (failure mode, -cause, - mechanism)
- Corrective Maintenance Management (White Books)
- Maintenance Work Management workflow design

Material Masters and Spare parts:

- Spare pare strategy, Evaluation and Management
- Material Master Creation
- Material Codification /Classification
- Spare part and took kit Service
- White Book – Spare Part / Tool Selection
- Spare Part Preservation