

arches
engineering ltd.

We are uniquely positioned
to provide customized market
intelligence in energy sector



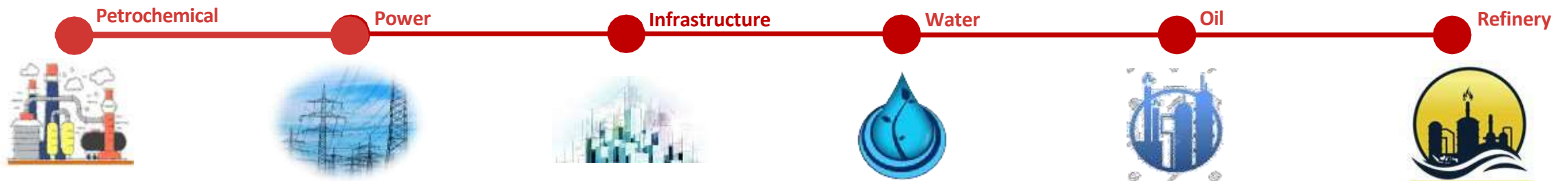
ABOUT US

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

Since our establishment in 2008, Arches Engineering has been the advisor of choice Investment, Engineering and Construction companies operating within the energy industry.

Having an operation in the energy projects market with excellent track record working for international oil and gas operators and fields developers We are customer driven, committed to delivering the best and most appropriate solutions effectively to our clients’.

We are local to our clients via our regional hubs and network of offices whilst ensuring global technical standards are set, maintained and best practices are shared internationally via our global technical authorities.



VISION, VALUES AND MISSION

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

VISION

To be a Consultant of choice for companies operating in oil and gas industry by providing measurable benefits through our 360 Degree Project execution strategic advisory services.

VALUES

Develop Relationships and trust with clients, which is largely attributed to our business ethics. We value knowledge, partnership, pragmatism and delivery of measurable benefits.

MISSION

To empower our clients to succeed in the Oil and Gas Industrial market and beyond.

VALUE PROPOSITION

Arches Engineering provides end-to-end Business Solutions, Business Development and Investment through:

UNIQUE MODEL

Our clients benefit from 360 Degree advisory solutions involving project teams made up of analysts, consultants, development managers and advisors.

UNIQUE DATA

Extensive data on the Engineering projects market, enabling our research team to deliver superior actual market analysis and insights.

ANALYSIS

We focus on bringing fact-based insights combined with market intelligence, gathered and developed, to support our clients in making better and more informed decisions.

KNOWLEDGE

Our ability to access key decision makers such as project owners, contractors, ministers, and other business leaders enables us to test and validate our findings and assumptions of the market.

OUR SERVICES

Arches Engineering provides end-to-end Business Solutions, Business Development and Investment through:



BUSINESS DEVELOPMENT

Arches Engineering has been gathering and delivering energy sector market intelligence to assist the corporate strategies and business development exercises of companies operating within the regional energy market. Our database, known as “Our Bank”, presently holds information for over 5,00 energy and energy related projects spanning the entire GCC, Iraq and Iran

The combined value of projects in our bank exceeds USD 1 trillion. Our Bank is the start and the end point to the company’s business advisory and business development service lines and is supported and maintained by a team of dedicated researchers, analysts and business development professionals that use smart algorithms, data filters and special coding to transform information and data into actionable knowledge and insights. Distinct from other publicly available databases, Our Bank is used to store and analyze information that is only available to Arches Engineering and therefore the company has access to a more comprehensive set of data and project information that can be used in order to present a far more accurate picture of current and future projects than is otherwise available in the market.

- **Developing growth strategies to address market requirements**
- **Supporting new companies to enter new regions and helping existing ones to achieve their full potential**
- **Increasing the probability of successful project acquisition**
- **Accelerating value creation to facilitate synergies through formation of new joint ventures.**



OUR SERVICES

Arches Engineering provides end-to-end Business Solutions, Business Development and Investment through:

CONSULTANCY

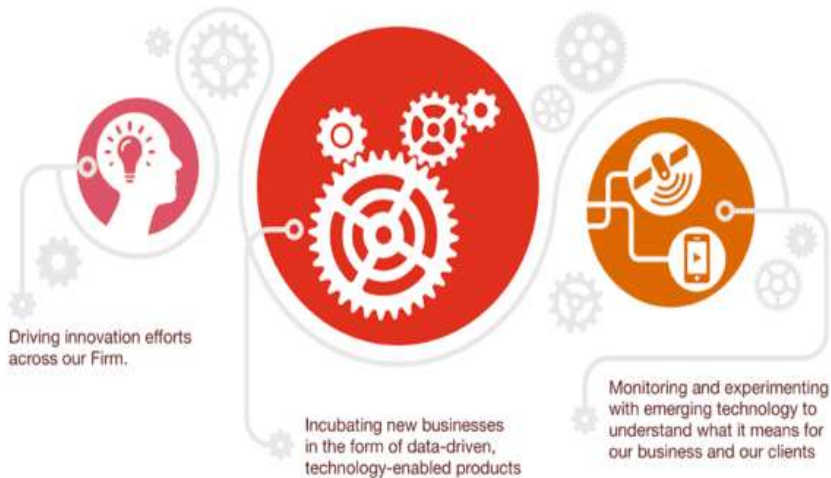
- Market Analysis – Trends, dynamics and drivers of the market and its implications to project owners
- Project Feasibility Study – Factors that affect the overall viability of the project
- Project Contracting Strategy – Most appropriate contracting strategies in order to develop win-win scenario
- Prequalification Support – Identify and develop key evaluation criteria in order to short list contractors
- Prequalification Support – Identify and develop key evaluation criteria in order to short list contractors
- Project Benchmarking – Analyse best practice project execution features in order to support world class project development
- Project Risk Assessment – Assess market related risks associated with projects
- Demand/Supply Analysis – Current market situation in relation to key construction commodities and services (e.g. steel, cement, Highly Consumable Goods (HCGs), Long Lead Items (LLIs), heavy equipment, labor etc.)
- Contractor Benchmarking – “Competency Fit for Purpose” and “Ability to Execute” benchmarking methodologies to identify the best suited EPC contractors to execute the project
- Contractor/Subcontractor Due Diligence.
- Labor Rates and Productivity
- Construction Asset Evaluation

OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

NEW VENTURES

Innovation | *Incubation* | *Emerging technology*



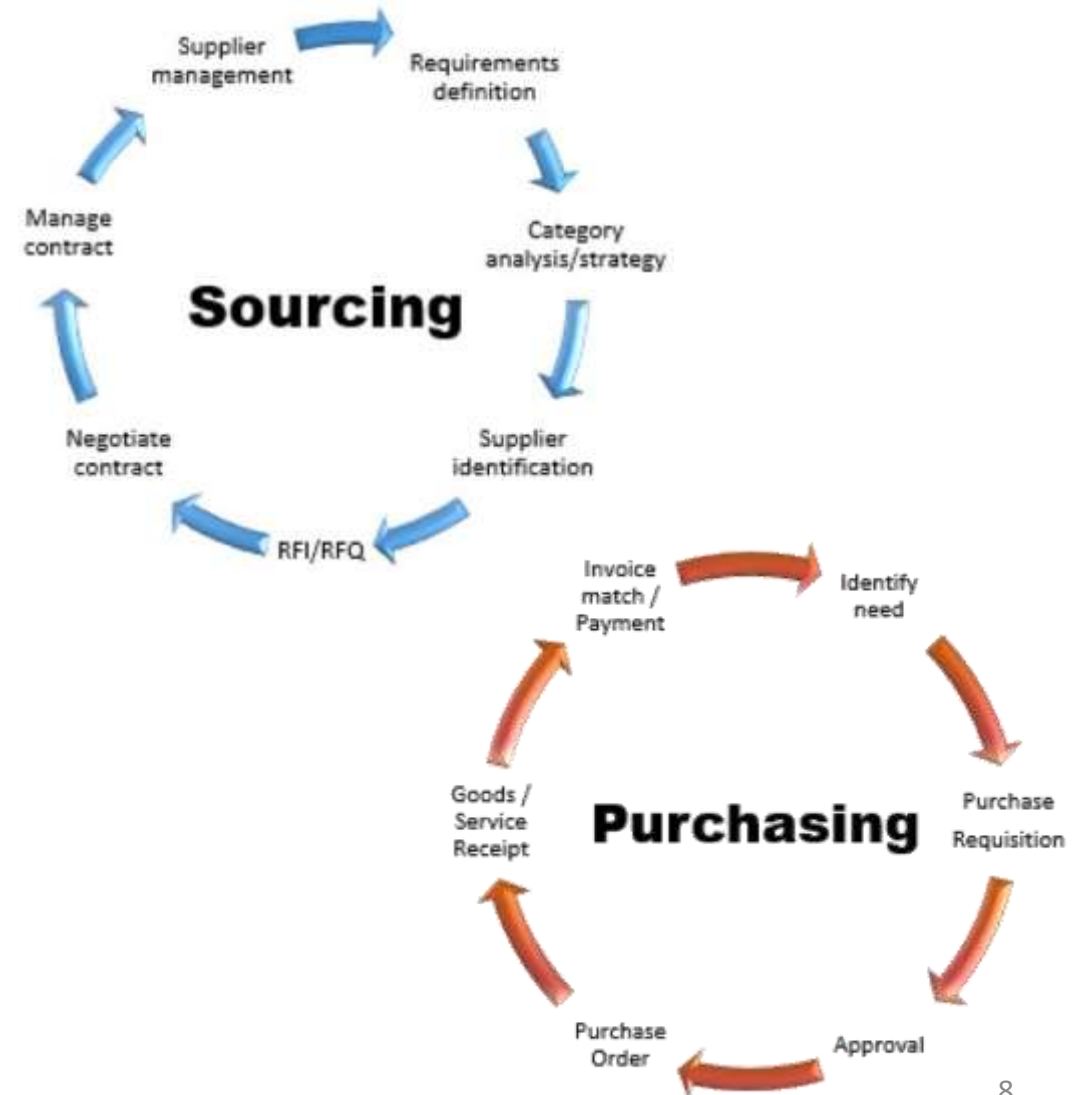
In recent decades, entrepreneurship has provided a rushing current of innovative products and services feeding into the local economy and accelerating its growth. This service is designed to prepare the Companies to enter new challenge, exciting stream, whether as an entrepreneur, key executive or investor. Arches Engineering will provide the recommendation to: identify new business opportunities; value new ventures; develop a sound operating model; understand venture capital financing; assemble and motivate a management team; explore legal issues; hone management disciplines appropriate for small companies; and evaluate potential harvesting options. New Venture is providing a complete development of small and medium enterprises whose main goal is to generate income from various line businesses, adding to that some time the new venture helps to complement existed business and make it more attractive to end users.

OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

PROCUREMENT

In recent decades, entrepreneurship has provided a rushing current of innovative products and services feeding into the local economy and accelerating its growth. This service is designed to prepare the Companies to enter new challenge, exciting stream, whether as an entrepreneur, key executive or investor. Arches Engineering will provide the recommendation to: identify new business opportunities; value new ventures; develop a sound operating model; understand venture capital financing; assemble and motivate a management team; explore legal issues; hone management disciplines appropriate for small companies; and evaluate potential harvesting options. New Venture is providing a complete development of small and medium enterprises whose main goal is to generate income from various line businesses, adding to that some time the new venture helps to complement existed business and make it more attractive to end users.



OUR SERVICES

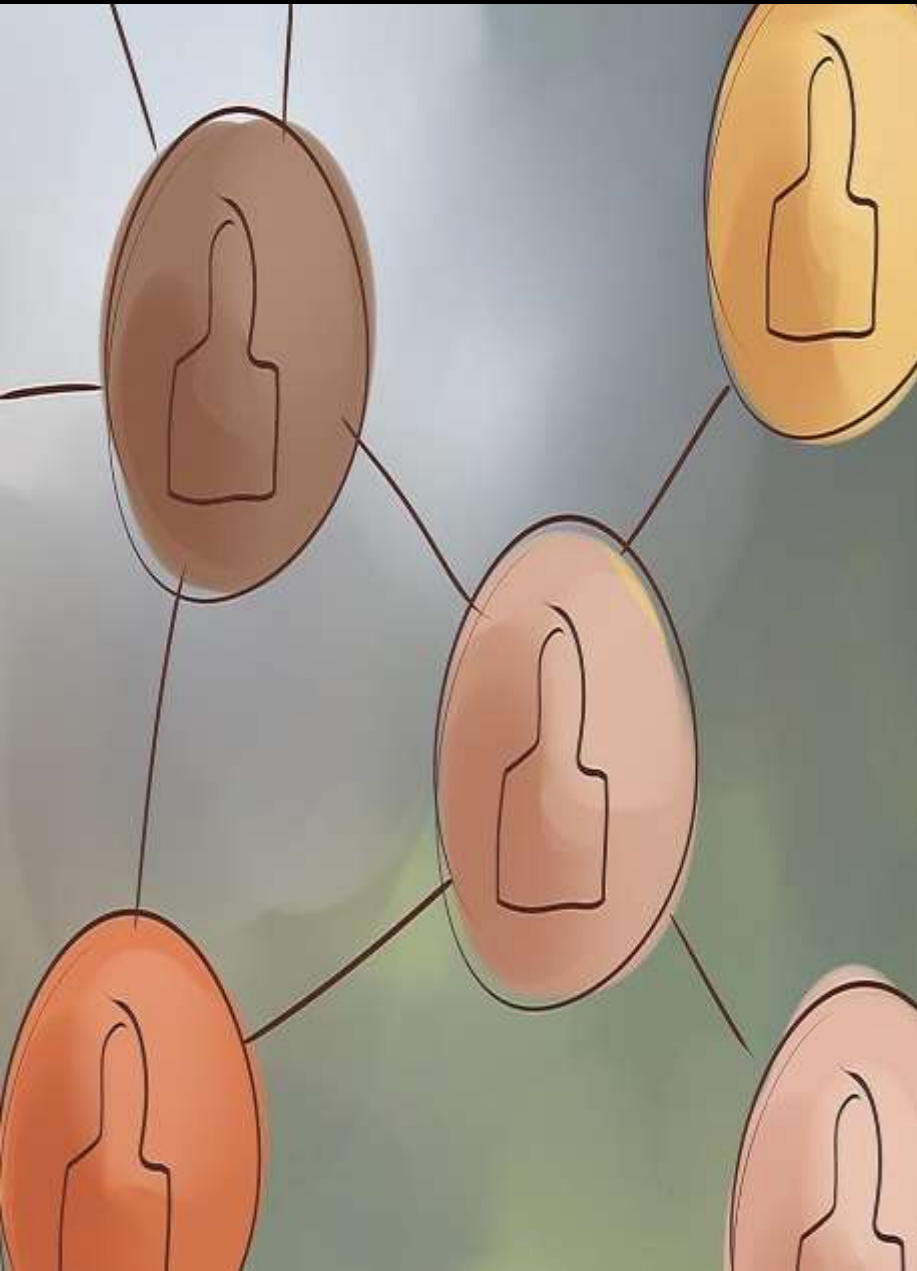
Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

PROJECT EXECUTION

Arches Engineering has a unique business model that incorporates a holistic approach, keeping in mind the overall client requirements. Our service providing an “360 Project Execution” business solution ensures that we stay with the client until their desired objective is achieved. While the 360 Project service offering is applicable to most companies operating within the energy industry, it is especially beneficial to companies such as equipment suppliers and contractors looking for additional support following our research and business advisory services. Through our company’s dedicated research, advisory and business development experts, the client is able to access varied pools of knowledge and service expertise to maximize their company’s potential and opportunities available within the market.

- **Engineering Design Support**
- **Process and operations support**
- **Project Management**
- **Procurement & Purchasing**
- **Gap Analysis**
- **Safety and reliability**
- **Risk Management**





OUR SERVICES

Arches Engineering provides end-to-end Business Solutions, Business Development and Investment through:

PROJECT ADMINISTRATION AND MANAGEMENT

Most of the physical "work" happens during the Project and Construction Administration phase. To ensure that the project moves forward as planned, we provide direction, project controls, and leadership in all areas—from coordinating on-site vendor activity and representing the client at weekly job meetings to monitoring construction progress and negotiating change orders. Construction administration process services including:

PROJECT LEADERSHIP	TRAM BUILDING	CONTRACT NEGOTIATION	CONSTRUCTION OBSERVATION AND SITE VISITS	CHANGE ORDER REVIEW
BUDGET TRACKING	PAYMENT AUDITS		WEEELLY JOB MEETING DOCUMENTATION	PROGRESS REPORT

PROJECT MANAGEMENT CONSULTANCY (PMC)

Our organization offers Project Management Consultation (PMC) in an effective, accurate and precision manner. These consultations render major services in the field of Oil & Gas and Infrastructure Industry. For the complete satisfaction of our clients, we take full accountability of these services from their commencement to completion. These PMC services find wide scope.

A close-up photograph showing several hands of different skin tones working on a large sheet of blueprints. One hand is holding a yellow pencil, another is pointing at a specific area on the drawing, and a third is using a pair of compasses. The blueprints are spread out on a light-colored surface, and the scene is brightly lit.

OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

CONSTRUCTION MANAGEMENT CONSULTANCY

We are a leading organization engaged in providing services of Construction Management Consultants to our clients, who are based all across the globe. With the help of our experienced professionals and modern in-house facilities, we have been able to execute these services in an efficient and precision manner. Keeping the budgetary constraints of our clients in mind, we provide these services on affordable prices within the set time limit

DESIGNES

Supported by the sophisticated infrastructure & design software's, we are engaged in providing services of Designs, which are required for process oilfield & LNG plant. With the help of our qualified and efficient professionals, we are able to deliver services having any kind of magnitude at cost-effective prices within the promised time frame. We are also engaged in providing customized services for comprehensible engineering problems. The basic survey data, over which an execution of designing work is done is carefully understood by us. The proper and successful commissioning of the projects undertaken depends upon the understanding of these data themselves. In order to accomplish the assigned work in an accurate and proficient manner, we strive hard to work from whole to part and from part to whole. we prepare our final drawings digitally, which are also provided as hard copy on white paper.

Project Management



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

PROJECT TRACKING AND MONITORING

Arches Engineering has been gathering and delivering Middle East market intelligence for over 9 years to support company corporate strategies and business development. Today, through our extensive database of projects and a team of dedicated researchers and analysts, we are transforming information and data into actionable knowledge and insights that drive decision making.

Gain a unique advantage over your competitors through superior market insights

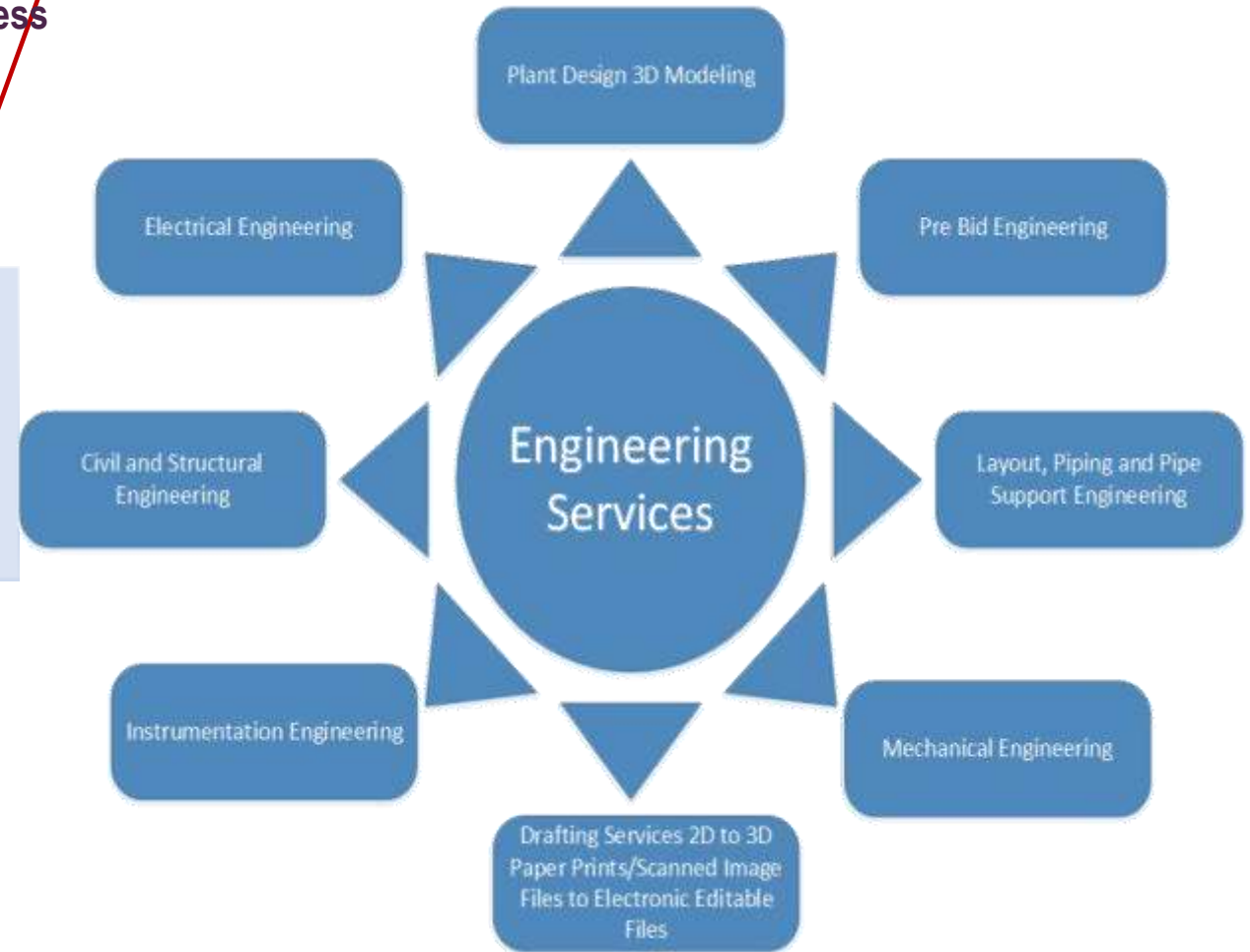
- Our consultants have real time access to the most comprehensive breadth of information, data for over 5,000 energy and energy related projects across the MENA region which value in excess of US\$1.5 billion.
- Analytic tools which enable our consulting team to perform the following:
 - Market Capex and Workload - Overall market Capex report and analysis of workload including peaks and troughs
 - Tiering Analysis - Segregation of projects based on likelihood of proceeding
 - Market Forecast - Future project activity by country and sector

OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

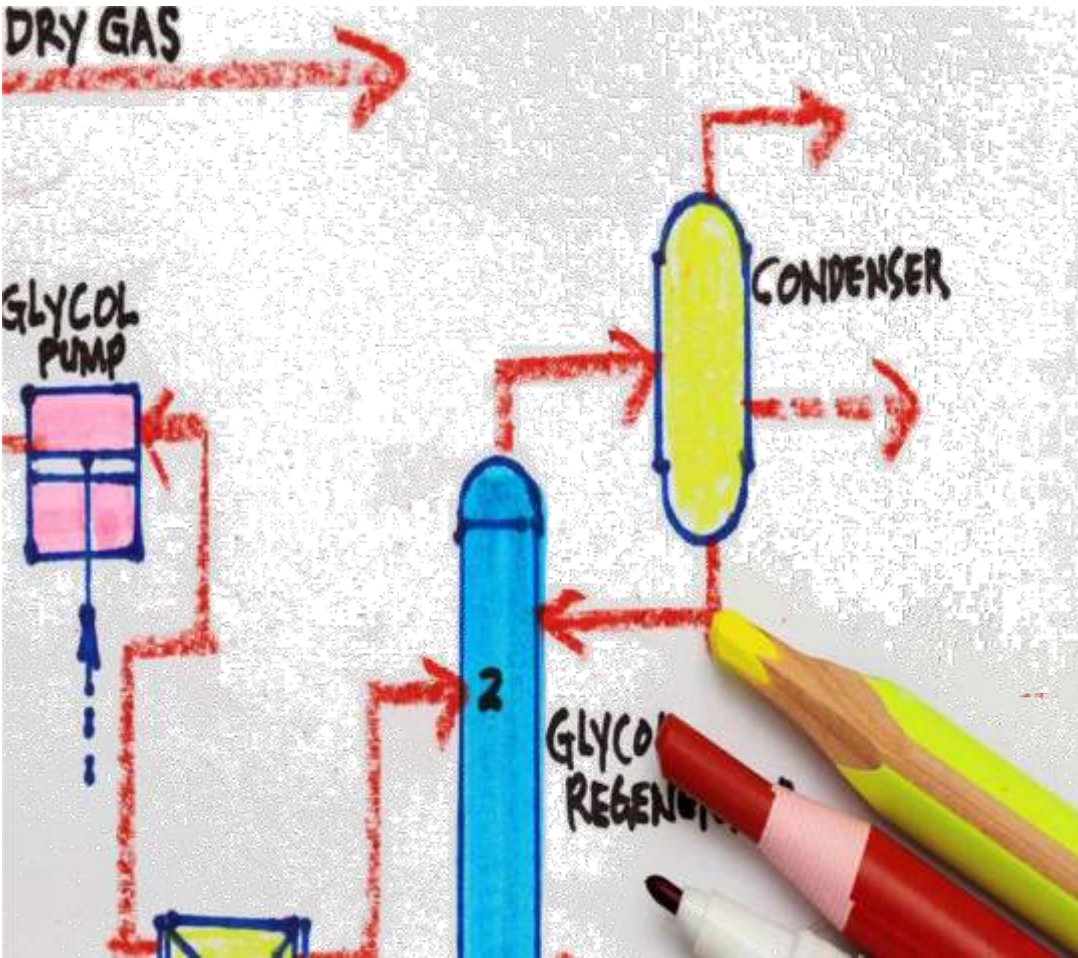
ENGINEERING

- Facility Integrity Management System Supply & Implementation
- Conceptual Study & FEED
- Basic Design & Detailed Engineering
- Construction & Commissioning Engineering Assistance
- HVAC Engineering Services



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:



PROCESS ENGINEERING

- Process philosophies, procedures and chart
- Process Evaluation
- Revamps
- Heat and Mass Transfer Calculations
- Steady State Hydraulic Analysis of multiphase piping/pipelines using PIPESIM
- Flare network simulation using FLARENET
- Vent and Drain Study, HIPPS Configuration Study, etc.
- Develop Safeguarding Philosophies for Process Shutdown / Emergency Shutdown
- Blow down / Depressurization Simulations through rigorous modeling in HYSYS (Dynamics)
- Sizing Calculations, PFD/UFD/P&IDs
- Network Analysis (PIPENET) & Process Data Sheets

OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

MECHANICAL ENGINEERING



- Specification and Data Sheets
- Material Handling study and Reports
- Static Equipment Design and Drawings

PACKAGE ENGINEERING

- Development of concept design
- Multidisciplinary Detailed Engineering
- Procurement support

- Specification and Standards
- Piping Material Specifications
- Valve Tagging Works
- Valves Material Specifications
- Stress Analysis (Metallic and Non Metallic)
- Spool Fabrication Layout drawings
- Standard & Special Piping Support Design & Piping Isometrics
- Equipment Layouts & Isometrics with BOMs
- Field Engineering

OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

STRUCTURAL ENGINEERING

Design heavy, light and special Structural

- Pipe-rack
- Table Structure
- Offshore Topside and Jacket
- Foundation for Static and Rotating Equipments
- Load out, Lifting, Rigging, Sea-fastening & Tie-down analysis, Tow Analysis, Transporting, Upping, Launching etc.
- Steel Detailing using TEKLA
- Structure Analysis / Design / 3D Modeling
- Arrangements & Detailing of Pipe & Equipment Supports
- Offshore Structural Design Brief-Wellhead towers
- Offshore Fixed & Floating Structure: Jacket/Deck/Module Design
- Detailed engineering for total offshore structures.



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

PIPELINE ENGINEERING

ONSHORE & OFFSHORE PIPELINE

- Pipeline sizing and Hydraulic Analysis
- Pipeline & SURF route survey studies
- Route optimization & Crossing design
- Pipeline Crossing Drawings for Rigid Lines
- Plot plan and alignment sheets
- Wall thickness design & verification
- On-bottom stability calculations
- Static and dynamic pipe laying analysis
- Pipeline global buckling analysis
- Allowable span analysis
- Steady State Hydraulic Analysis of multiphase piping/pipelines
- INSITU stress expansion analysis
- Riser/Clamp design & Drawing
- Riser stress analysis / Riser span & flexibility analysis
- PLEM pile ballast calculations etc
- Detailed Engineering for large diameter trunk line, infield lines, spur lines, risers including associated Structural analysis.



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

INSTRUMENTATION ENGINEERING

- Specifications, Philosophies & Standards
- Detailed Execution Drawings
- Interlock Logic Diagrams
- Instrument Hook up Drawings
- Interface Drawings for DCS, PLC & MCC
- Functional Specifications and Data sheets
- Instrument I/O List
- Scope of Work for Construction Activities
- FAT and SAT procedures
- Bill of Materials
- Participating in SAFOP / HAZOP meetings



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

ELECTRICAL ENGINEERING

- Specifications, Philosophies, Standards & Data Sheets
- Electrical Equipment / System Specifications
- Detailed Execution Drawings
- Area classification drawings
- Single Line Diagram/ Block Diagram
- Control and Distribution Schematics
- Inter connection Diagrams/Schedules
- Ample provisions for future expansion and modification
- Hook-up provisions with existing facilities wherever required
- Sizing Calculations
- Power System Study



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

Plant Erection

With an extensive and successful experience in mechanical erection, we provide technologically driven and economical turnkey solutions to our clients from design to commissioning of the Project. We vanguard and construct your plant to the most stringent standards; onshore and offshore.



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

Pressure Piping

- Design Services
- Construction Services
- Piping Installations
- Commercial / Industrial Service & Maintenance

We offer a complete set of preconstruction activities for your piping project like Constructability Reviews, Construction Team Coordination, Cost Studies & Life Cycle Analysis, Document Review & Analysis, Mechanical Design, Preliminary Budget Estimates, Procurement, Schedule Development, Scope of Work Definition and Refinement, Value Analysis and Value Engineering. Providing you with the confidence that your project is being completed in an efficient and professional manner from start to finish.

1. *Placement of Spool with supports.*
2. *Beveling machine applied on pipe end by Fabricator.*
3. *Fit-up of joint.*
4. *Welding of Joint.*
5. *Inspection carried out by Piping Supervisor, Quality Control Engineer and Client Representative.*
6. *Phased Array Ultrasonic Testing being performed on the Welded Joint.*
7. *Welded pipe spools placed on temporary supports.*
8. *Holladay Testing being carried out on wrapped pipe.*



OUR SERVICES

Arches Engineering provides end-to-end Business Solutions, Business Development and Investment through:

Plant Operation & Maintenance

Utilizing our cost-effective practices we are positioned to provide complete plant operation and maintenance services for the following:

Our services promote reliable and economic plant operation that mitigate risks and help contain expenses. These services are available for ***unplanned maintenance requirements*** and ***predictive/planned maintenance programs***. Ravi Green maintains a mobile and highly skilled workforce of technically trained service personnel to deliver world-class plant O&M services to our customers. In addition to the above we provide services such as maintenance of Valves; PSV, NRV, Globe, Gate, Ball, Butterfly etc.



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:



Pressure Vessels

we have the capabilities to design and manufacture custom pressure vessels. All of our pressure vessels are built to meet the specifications dedicated by the client and designed for durability and top performance.

Moreover, our pressure vessels are rigorously inspected throughout the process using pressure, ultrasonic, ultrasonic phased array and x-ray testing techniques. Our Engineering team can design a pressure vessel for all applications. We specialize in both small and large-diameter vessels, columns and towers that are compliant with Section VIII, Div 1 of the ASME code. We are considered an industry leader for providing expert engineering services and the production of custom ASME fabricated process tanks, towers and pressure vessels.

At Ravi Green we follow the ASME organization's requirements outlined in the Boiler and Pressure Vessel Code in order to follow safety design rules along with rules related to the construction, operation, testing and maintenance of pressure vessels, boilers, transport tanks and other pressure systems.

We also offer services to manufacture components for pressure vessels such as; rolled and welded cylinders for shells and jackets, heads, cones and transitions. These components can be provided assembled with partial data reports. Components can then be shipped to your facility for final assembly.

OUR SERVICES

Arches Engineering provides end-to-end Business Solutions, Business Development and Investment through:

Heat Exchangers & Boilers

we design and fabricate shell and tube heat exchangers in conformance with the latest ASME Section VIII Div 1 and TEMA Standards to ensure secure mechanical integrity and to meet your needs.



With minimal footprints and flexible configurations, we manufacture vertical and horizontal boilers that offer the most complete solutions for virtually every type of application.



OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

Control Automation and Electrical Systems

Oil & Gas



- Integrated Control and Safety Systems
- Early Production Facilities
- Central Processing Facilities
- Production & Pipeline SCADA
- ESD, FGS, HIPPS & MS

Water & Waste Water



- Water & Waste Water:
- Sewage Treatment Plant
- Reverse Osmosis Plant
- Hypo chlorination plant
- Desalination Plant

Infrastructure & Utilities



- District Cooling Plants (DCP)
- Energy Transfer Stations (ETS)
- Turbine Control Systems
- Compressor Handling System
- Energy Management System
- Bagging System

Energy Management



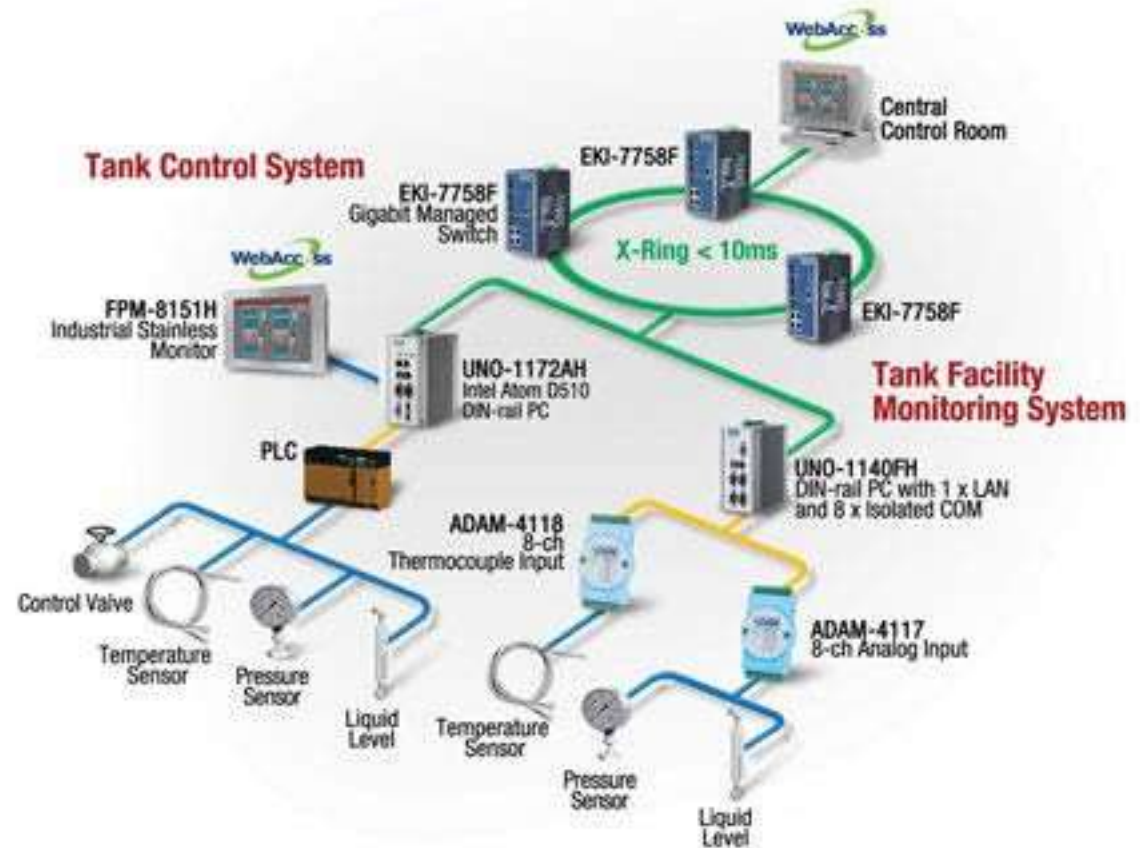
- Demand Response
- Balance of Plant Automation
- PMCS, LV Controls
- Solar Powered Control & Compressor skids

OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

DESIGN ENGINEERING:

- Functional Design Specification
- Short Circuit System Study
- Hardware System Configuration
- Software Programming
- Documentation
- Testing & FAT
- Installation, Commissioning and SAT
- After Sales & Service Support Annual Maintenance Contract

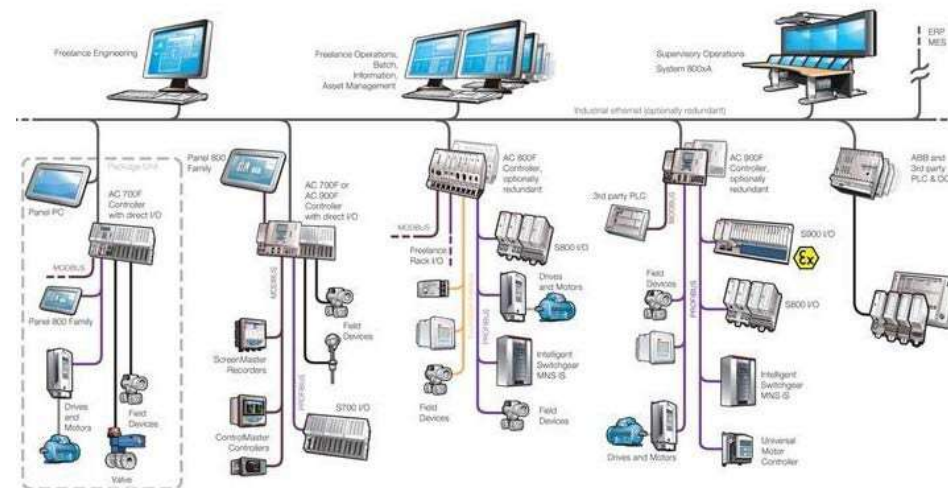


OUR SERVICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

Consultancy for Control Systems

- Control & Electrical System Design & Engineering
- PLC / SCADA / DCS / RTU System Configuration & Development
- VFD/MCC Form-2/4 Type



Panel Build

- Control Panels
- VFD
- MCC Panels
- LV Switch Boards
- Capacitor Bank with detuned Harmonic filter



OUR SERVICES

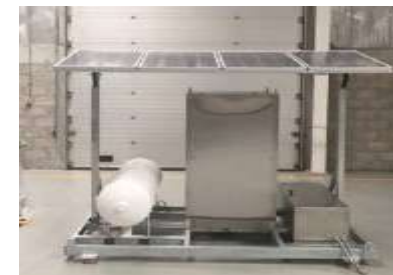
Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

EPC for control System

- Turnkey Control & Automation, Electrical Instrumentation Solution
- Installation, Testing and Commissioning, SAT
- On-site training of PLC, SCADA, VFD, Intelligent MCC

After Sales Service Support

- Annual Maintenance Contract



System Expansion

- Process Automation System (PAS)
- Distributed Control System (DCS)
- Supervisory Control and Data Acquisition (SCADA) System,
- Remote Terminal Units (RTU) for various telemetry applications.
- Integrated Control and Safety Systems (ICSS):
 - Process Control System (PCS)
 - Emergency Shut Down System (ESD)
 - Fire & Gas Safety System (FGS)
 - Leak Detection System (LDS)
 - Asset Management System (AMS) Panel Builds for DCS consoles, Marshaling cabinets
- Variable Frequency Drives Panel (VFDs)
- MCC, LV Switch Boards, Capacitor Banks,
- E-house (Modular & Containerized Buildings for Controls and Sub-station systems)
- Safety enclosures (Exd, Exe, Exp, Purge) solution.
- Solar Powered Control Panel
- Field Instrumentation

TRACK RECORD

Arches Engineering provides end-to-end Business Solutions, Business Development and Investment through:

ENGINEERING PROCURMENT AND CONSTRUCTION (EPC)

- ❖ SHAYBAH PROJECT GOSP AND GAS PLANT (SAUDI ARAMCO-KSA)
- ❖ YAMAL LNG PROJECT (YAMAL PENINSULA, RUSSIA)
- ❖ RAS TANURA REFINARY INTEGRATED PROJECT (SAUDI ARAMCO/DOW CHEMICAL COMPANY- KSA)
- ❖ PLUTO WOODSIDE LNG PROJECT (WOODSIDE-KARRATHA – AUSTRALIA)
- ❖ SAMREF REFINARY PROJECT (KSA)
- ❖ GORGON LNG PROJECT (CHEVRON -BARROW ISLAND, WESTERN AUSTRALIA)
- ❖ DEVELOPMENT OF NC-186, GOSP “A” WESTERN SAHARA,(EL- SHARARA FIELD, LIBYA)
- ❖ CONSTRUCTION OF ALZUBAIR BASE FACILITIES (ENI-IRAQ)
- ❖ AL-HARTHA POWER STATION (BASRA-IRAQ)
- ❖ JAZAN REFINARY PROJECT (SAUDI ARAMCO- KSA)
- ❖ AL-MANSURYA GAS PROJECT (TPOC/ IRAQ)
- ❖ FADHILI GAS PROGRAM (SAUDI ARAMCO-KSA)
- ❖ SHAH DENIZ GAS EXPORT PROJECT (SD2) (BP- CASPIAN SEA/AZERBAIJAN)
- ❖ MIDDLE EAST PACKAGING FACTORY (BAGHDAD-IRAQ)
- ❖ MIDDLE EAST BEVERAGE FACTORY (BAGHDAD-IRAQ)
- ❖ MIDDLE EAST PAPER MILL (BAGHDAD-IRAQ)
- ❖ ROO RUMAILA FIELD DEVELOPMENT (BP/IRAQ)
- ❖ MAJNON FIELD DEVELOPMENT (SHELL-BASRA/IRAQ)
- ❖ EPC OILY WATER TREATMENT CMIT- MISSAN OIL FIELD (CNOOC-IRAQ)

TRACK RECORD

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

CONCEPTUAL STUDY

- ❖ CONCEPTUAL STUDY AND DETAILED ENGINEERING FOR OILY WATER TREATMENT AT MUBARRAZ ISLAND, U.A.E.
- ❖ CONCEPTUAL STUDY OF STRUCTURAL STRENGTH ANALYSIS FOR CICPA C&C ROOM AT TRIDENT-VII
- ❖ CONCEPTUAL STUDY FOR STRUCTURAL STABILITY INVESTIGATION AND RECOMMENDATION FOR METHOD OF REPAIR WORKS ON CORRODED LEG WELL SUPPORTS OF TRIDENT VII-A AT "CFP"- (STAGE-1 & 2)
- ❖ CONCEPTUAL DESIGN & FEASIBILITY STUDY OF 8-LEGGED CENTRAL FACILITIES PLATFORM ("CFP") FOR ACCOMMODATING ADDITIONAL EQUIPMENT AND DECK EXTENSION IN MUBARRAZ OFFSHORE FIELD, U.A.E.
- ❖ ENGINEERING ASSESSMENT OF SUBSEA 4" GRE PIPELINE BETWEEN WHPA AND CCP AT ARABIAN GULF ABU-DHABI, U.A.E.
- ❖ ENGINEERING STUDY FOR ASSESSMENT OF MATERIALS FOR ACID GAS COMPRESSOR UNIT FOR BUNDUQ CCP AT ARABIAN GULF, ABU-DHABI, U.A.E.

FEED & DETAILED ENGINEERING

- ❖ FEED & DETAILED ENGINEERING INSTALLATION OF 2 NOS NEW R.O UNITS AT MUBARRAZ ISLAND, U.A.E.
- ❖ FEED & DETAILED ENGINEERING FOR THE DECK EXTENSION AT THREE LEGGED PLATFORM "CD-7" FOR INSTALLING CONDUCTOR SLOT, U.A.E.
- ❖ FEED & DETAILED ENGINEERING FOR THE REPLACEMENT OF WASTE WATER INJECTION LINE AT MUBARRAZ ISLAND, U.A.E.
- ❖ DETAILED ENGINEERING FOR FUEL GAS PIPING FOR GAS ENGINE GIP, U.A.E.
- ❖ DETAILED ENGINEERING FOR LAYING THE FUEL GAS PIPING FROM THE OUTLET OF PECO FILTER AT WIP TO THE INLET OF PECO FILTER AT GIP, U.A.E.
- ❖ DETAILED ENGINEERING SERVICES FOR ELECTRIC HOIST FOR LIFTING PELLETIZED FFS REELS IN PE3 & PP1, 2 BAGGING AREA AT BOROUGE , U.A.E.
- ❖ DETAILED ENGINEERING DESIGN OF THE TIE-INS FOR LOADING OF BASE OILS FROM CABOTAGE IN JETTY AT RUWAIS REFINERY, U.A.E.

TRACK RECORD

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

- ❖ RESIDUAL ENGINEERING FOR CONSTRUCTION OF PLANT MODIFICATION PROJECT PMP 736,768 & 790 AT RUWAIS FOR BOROUGE , U.A.E.
- ❖ INSTALLATION ENGINEERING FOR KENCANA DANA LWS OFFSHORE JACKET & DECK INSTALLATION , U.A.E.
- ❖ SEA FASTENING DESIGN OF HYDRAULIC CRANE ON OFFSHORE INSTALLATION VESSEL SMIT NICOBAR , U.A.E.
- ❖ MOORING ANALYSIS DESIGN FOR M/S DOLPHIN OFFSHORE ON BEHALF OF M/S L&T AND ONGCL FOR MHN PIPELINE REMOVAL PROJECT, INDIA
- ❖ DESIGN OF OUTFALL SUBSEA PIPELINE SYSTEM FOR SINO IRON ORE PROJECT AT CAPE PRESTON PORT, PERTH, AUSTRALIA.

STRESS ANALYSIS

- ❖ STRESS ANALYSIS FOR 4 NO'S OF CAUSEWAY PIPELINES
- ❖ STRESS ANALYSIS OF GRE PIPING BETWEEN GSP AND CCP
- ❖ STRESS ANALYSIS FOR MULTI PHASE FLOW METER (MPFM)
- ❖ STRESS ANALYSIS FOR 16" SCH 20 OFFSHORE DIESEL LINE PIPELINE.

SPECIAL STUDIES & DESIGN

- ❖ STRUCTURAL FEASIBILITY STUDY OF 4 - LEGGED PLATFORM ("CD-P") FOR DECK EXTENSION & ACCOMMODATING NEW EQUIPMENTS.
- ❖ STRUCTURAL FEASIBILITY STUDY OF 3-LEGGED PLATFORM("CD-7")FOR EXTENSION OF WORK SPACE.
- ❖ STRUCTURAL FEASIBILITY STUDY OF 8-LEGGED CENTRAL FACILITIES PLATFORM ("CFP") IN MUBARRAZ OFFSHORE FIELD
- ❖ PROJECT CASE STUDY FOR EB-01, EB-04 AND EB-08 PIPELINES
- ❖ ENGINEERING ASSESSMENT OF SUBSEA 4" GRE PIPELINE BETWEEN WHPA AND CCP AT ARABIAN GULF ABU-DHABI, U.A.E.
- ❖ LIFTING ANALYSIS OF 36M X 16" DIAMETER PIPE USING SPREDER BAR FOR DUGAS, U.A.E.
- ❖ LIFTING ANALYSIS OF 27M X 18" DIAMETER PIPE USING SPREDER BAR FOR RAK GAS, UAE

TRACK RECORD

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

INTEGRITY ASSESSMENTS OF OIL & GAS FACILITIES

- ❖ STRUCTURAL INTEGRITY ASSESSMENT AND STRENGTHENING STUDY OF 4-LEGGED WELLHEAD PLATFORMS WHP-D TO EXTEND OPERATING LIFE BY 20 YEARS
- ❖ STRUCTURAL INTEGRITY ASSESSMENT AND STRENGTHENING STUDY OF 4-LEGGED WELLHEAD PLATFORMS WHP-A TO EXTEND OPERATING LIFE BY 20 YEARS
- ❖ SUBSEA PIPELINE INTEGRITY ASSESSMENT AND LIFE EXTENSION FOR 2 NOS. EXPORT PIPELINES
- ❖ SUBSEA PIPELINE INTEGRITY ASSESSMENT AND LIFE EXTENSION FOR 3 NOS. EXPORT PIPELINES
- ❖ SUBSEA PIPELINE INTEGRITY ASSESSMENT AND LIFE EXTENSION FOR 3 NOS. EXPORT PIPELINES
- ❖ SUBSEA PIPELINE INTEGRITY ASSESSMENT AND LIFE EXTENSION FOR 2 NOS. EXPORT PIPELINES

- ❖ SUBSEA PIPELINE INTEGRITY ASSESSMENT AND LIFE EXTENSION FOR 3 NOS. EXPORT PIPELINES
- ❖ SUBSEA PIPELINE INTEGRITY ASSESSMENT AND LIFE EXTENSION FOR 2 NOS. EXPORT PIPELINES

PROJECT MANAGEMENT CONSULTANCY SERVICE (PMC)

- ❖ PROVISION OF PROJECT ENGINEER AT NPCC OFFICE FOR BUNDUQ OSII PROJECT
- ❖ PROVISION OF FACILITY INTEGRITY ENGINEER FOR BUNDUQ COMPANY
- ❖ CONSULTANCY SERVICES FOR 42" EMOL & 24" SOTL REHABILITATION PROJECT FOR ZADCO.
- ❖ PROVISION OF CONSULTANCY SERVICES AT TECHNIP FOR DUGAS OFFSHORE PROJECT
- ❖ PROVISION OF SUBSEA PIPELINE INSPECTION CONSULTANCY SERVICES FOR TECHNIP

TRACK RECORD

Arches Engineering provides end-to-end Business Solutions, Business Development and Investment through:

SPM, SBM & SUBSEA PIPELINE PROJECTS

- ❖ MUTHURAJAWELA SPM AND SECOND OFFSHORE 18" SUBSEA PIPELINE PROJECT, COLOMBO, SRILANKA.
- ❖ BINA SPM AND OFFSHORE 48" SUBSEA PIPELINE PROJECT AT VADINAR, GUJARATH, INDIA
- ❖ MIDIA SPM AND OFFSHORE 40" SUBSEA EXPORT PIPELINE (ROMPETROL BLACK SEA OFF MIDIA MARINE TERMINAL SRL) IN BLACK SEA, ROMANIA.
- ❖ RAVVA OFFSHORE PROJECT - FOUR SEGMENTS OF ADDITIONAL SUBSEA PIPELINE PROJECT, CAIRN ENERGY, INDIA
- ❖ RELIANCE JAMNAGAR PROJECT FOUR NOS OF SPM'S, SIX NOS OF SUBSEA PIPELINES AND ONE RISER AT JAMNAGAR, GUJARAT, INDIA
- ❖ KOCHI SPM /SBM AND 48" OFFSHORE SUBSEA PIPELINE PROJECT, KOCHI,INDIA.

ENGINEERING DRAFTING & AS BUILT DRAWINGS

- ❖ DIGITIZATION OF BUNDUQ FACILITIES DRAWINGS PHASE: I, II, III & IV OIL & GAS FACILITIES TECHNICAL MAINTENANCE REPLACEMENT OF SACRIFICIAL ANODE FOR 8" MEASURING LINE (TP) & 4" ACID GAS LINE (CP) IN MUBARRAZ ISLAND.
- ❖ DETAILED ENGINEERING & INSTALLATION OF EPOXY SLEEVE REPAIR SYSTEM FOR 4" SUBSEA GRE PIPELINE BETWEEN WHP-A AND CCP. AT ARABIAN GULF ABU-DHABI, U.A.E.
- ❖ SUPPLY & INSTALLATION SUPERVISION OF HELIDECK PERIPHERAL SAFETY NET AS PER CAP-437 FOR NEWLY BUILT PLATFORM FOR ONGC INDIA AT G.P.C YARD ABU-DHABI, UAE
- ❖ HELIDECK SAFETY NET INSTALLATION AND COMMISSIONING INCLUDING MATERIALS & MANPOWER SUPPLY FOR LQP OFFSHORE PLATFORM HELIDECK PERIMETER REPLACEMENT AS PER CAP-437

STRATEGIC PARTNERS

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:



ARCHES OFFICES

Arches Engineering provides end-to end Business Solutions, Business Development and Investment through:

U.K

**48 Kipling Street,
London,
SE1 3RT**

Tel : +44 (0) 7833 298901

UAE

**Office no. 1822
Burlington Tower
Business Bay
Dubai**

Tel : +971 (0) 4 559 0244

Iraq

**Villa 25, Street 20,
Cairo District,
Baghdad
Tel : +964 771 364 9725
+964 (0) 771 111 1525**

archesengineering.uk@gmail.com | <https://sitelift.site/archesengineering/>
archesengineering@yahoo.com