

# Simplifying Design

Consultants, Designers & Engineers for | Process | Petrochemicals | Oil, Gas | Industrial

**IPES**

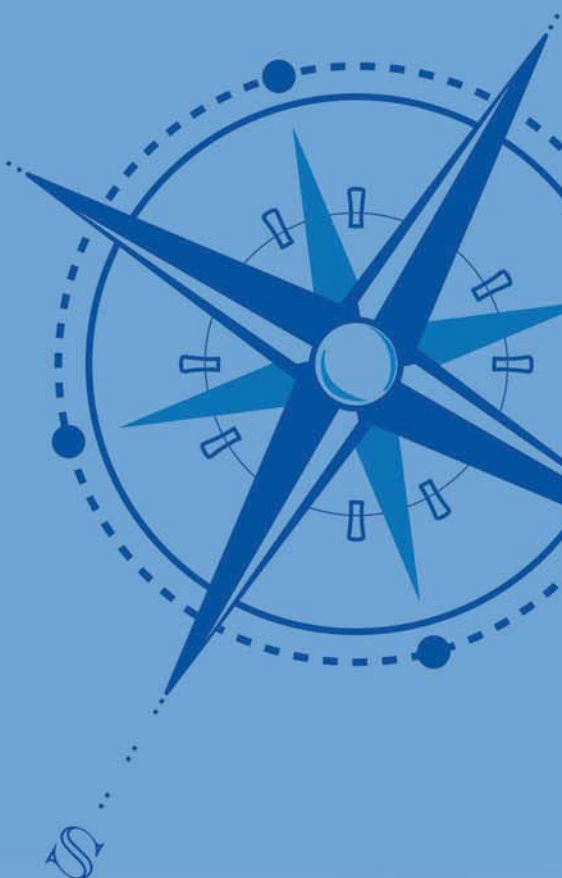
**PETROCHEM ENGINEERING SERVICES**

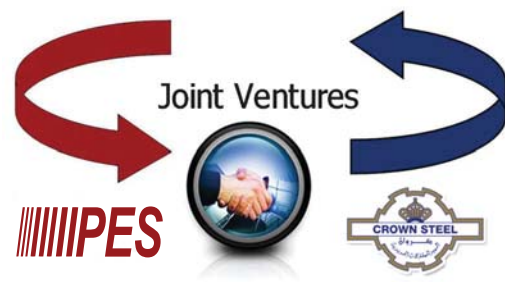
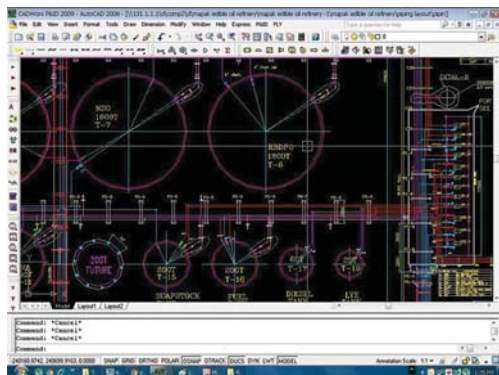




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## Introduction

**PETROCHEM ENGINEERING SERVICES (PES)** is a ISO 9001:2008 Certified Consulting Engineering firm. Establish in 1998 With full engineering capability in-house, we have an experienced and cohesive team of engineers, designers and draftsmen all committed to providing personalized and quality engineering services. Our project approach emphasizes on client communication that translates client needs into sound physical solutions - cost effective solutions that pay for themselves.

PES operating its JV office in Saudi Arabia, Exclusively with through **M/s Crown**. CROWN is specialized for Steel Contracting Company, certified with ISO 9001:2008 for Engineering Construction and Manufacturing, Operating in the Middle East and Africa, having 30 years of experience in Steel Construction. And working as a leading Steel Fabricator and Installers in Middle East. Crown Steel annually fabricate and installed more than 15,000 tons of steel, It offer reliable, professional and reputable expertise services with quality and competitive pricing.

Crown is registered in Saudi Arabia & Sudan. If you have any inquiry, please contact Mr. Shahab Siddiqui (Chief Technical Officer) at [shahab@crownsfs.com](mailto:shahab@crownsfs.com)

PES Team has a successful track record of Delivering in the Following Discipline

- ▶ **Conceptual Design Front End Engineering and design (Feed) Studies**
- ▶ **Process Engineering**
- ▶ **Structural Engineering**
- ▶ **Plant 3D Modelling**
- ▶ **Automated MTO**
- ▶ **Project Risk Management**
- ▶ **Mechanical Engineering**
- ▶ **Electrical & Instrumentation**
- ▶ **Construction Drawings**
- ▶ **Project Management Consultancy (pmc)**

## Our Mission



Our goal at PES is to be our clients "first choice", provider of engineering, project delivery services and to exceed the expectations of our clients.

### We will achieve this by:

- ▶ Focussing our efforts on the needs of our clients
- ▶ Delivering project outcomes that are safe to construct, operate and maintain
- ▶ Developing long-term, mutually beneficial relationships with our clients
- ▶ Building a capable, committed, enthusiastic and safety conscious workforce
- ▶ Using an "excellence in quality", "cost effective" and safe approach to project delivery
- ▶ Maintaining a competitive advantage through flexibility, service, expertise and complementary alliances
- ▶ Creating profitable business growth.



## Summary of Technical Capabilities

Our design and engineering capabilities are summarized as follows:

### Front End Engineering and Design (FEED):

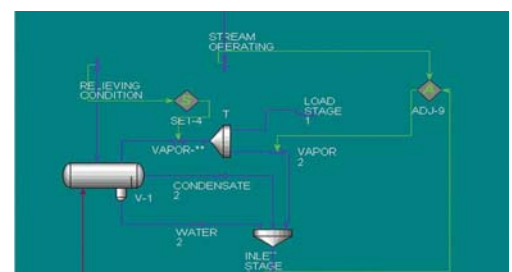
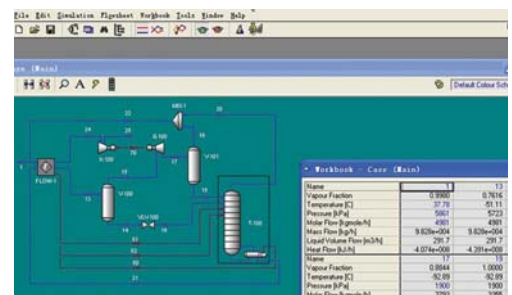
PES delivers cutting edge solution for Front End Engineering & Design (FEED) projects with multi-disciplinary engineering team led by technology experts. The global value chain offered by PES provides the foundation for a controllable and profitable project. PES provides high quality resources and rich experience to carry out the following activities:

- › Evaluate the options in line with the client's goals and objectives
- › Prepare General Design Bases and Specifications
- › Prepare Process Flow Sheets, Heat and Material Balances
- › Process Engineering, P&IDs and Piping Line Lists
- › Specifications For Major Equipment
- › Preliminary Equipment Layout and Plot Plans
- › Electrical and Instrument Specifications and Summaries
- › Project Execution Plan and Project Execution Schedule
- › Prepare Total Installed Cost (TIC) Estimate
- › Establish Operations and Maintenance Strategies
- › Preparation of Work Tenders



### Process Engineering:

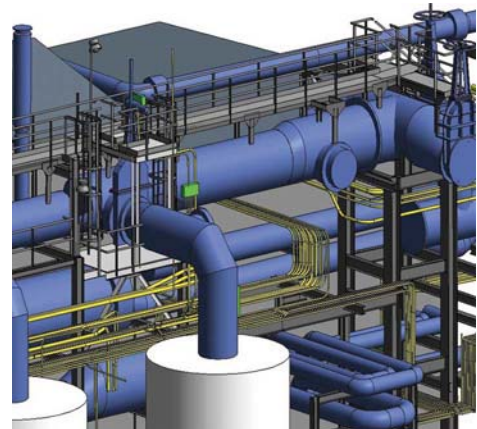
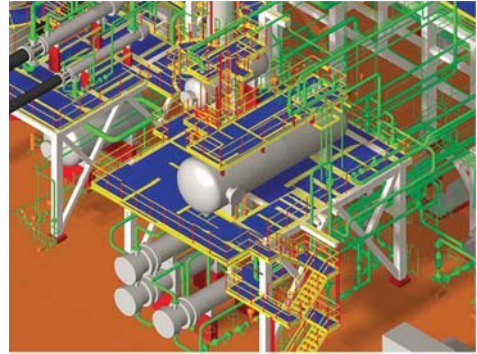
- › Process Simulation
- › PFD & P&ID Development
- › Design of Process equipment
- › Instrument Specifications
- › Operation & Maintenance Manual preparation
- › Commissioning & Troubleshooting
- › Heat and Mass Balance, generation of PFD and P & IDs
- › Specification for various equipment and package systems
- › Design of plant hydraulics and pumping system
- › Process Design of Distillation Columns, Separators, KO Drums etc.
- › Heat exchanger thermal sizing and flow induced vibration analysis
- › Design of Fired Heaters and Waste Heat Boilers
- › Slug Flow Analysis
- › Commissioning, Troubleshooting and Revamp assistance.
- › Basic engineering
- › HAZOP & Safety Studies
- › Plant hydraulics design
- › Loss prevention system design
- › Pipeline Surge Analysis
- › HAZOP & Loss Prevention Study.



Software: Aspen HYSYS, Aspen HTFS, HTRI, PHA-Pro, PipeNet, Pipe Flow Expert, Korf, PipeCalc

### ***Piping Engineering:***

- › Development of Plot Plans and Equipment layouts
- › Strength Calculations
- › Flexibility analysis
- › Plant 3-D Modeling and clash detection
- › Piping material Specification
- › Support specifications
- › Isometrics and Bill of Materials
- › Advanced dynamic analysis
- › Engineering of In-plant Piping system for Refinery and Petrochemical Units
- › Cross country pipelines and pigging systems
- › Revamp and modification engineering



Software: Caesar II, CADWorx, Auto PLANT, AutoCAD, Microstation

### ***Topographical Survey of Plant and Pipeline:***

Topo survey, with qualified and experienced personnel mostly from Pakistan, includes the following:

- › Pipeline route selection based on economics and rules and regulation of areas.
- › Pipeline Topographical survey with detailed survey of crossings.
- › Topographical survey of Plant area as per client requirements.
- › Technical Audit of any pilferage of products from pipeline, storage tanks, etc.





### **Cathodic Protection Engineering:**

Technical Audit of existing CP system includes survey of facilities for visual inspection, measurement of soil resistivities, integrity check of insulating joint/flange, assessment of power system, etc., and recommendations.

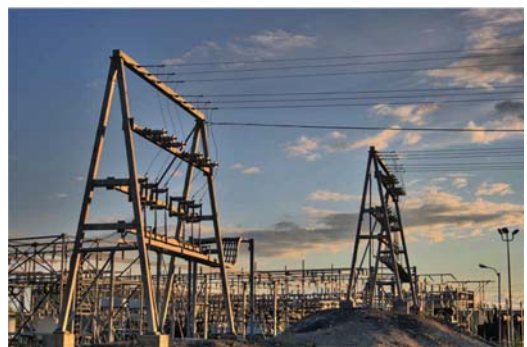
Preparation/Conduction of:

- › Soil Resistivity Survey
- › Current Drain Test (for existing system)
- › Design Calculations                      › CP Layout
- › Standard installation drawings › Specification and BOQ.



### **Electrical Engineering:**

- › Electrical System Study
- › System reliability and stability study
- › Substation Design
- › Hazardous Area Classification
- › Load Calculation and System design
- › Specifications for Electrical Equipment
- › Calculation of Electrical Bulk materials
- › General Arrangement & Interface inputs
- › Estimation of Power requirement and evolving Single Line Diagram for Power Distribution system and Illumination Engineering
- › Specifications and schedule of quantities for Electrical Equipment.
- › Cable schedules and Termination Schedules.
- › General Arrangement & Civil Input Data for Switchyards, Substations, Load Dispatch Centres and Control Rooms
- › Short Circuit Study & Relay Setting recommendations
- › Preparation of Layouts for Project Execution / Statutory approvals e.g. Equipment layouts, Cable Tray / Trench Layouts, Earthing & Lightning Protection Layouts and Lighting Layouts including Distribution Schedules



Software: ETAP, CalcuLuX, DOC-ABB, D-LUX, ECODIAL

## Static Equipment:

- › Mechanical Design of entire, range of process equipment e.g. Vessels, Heat Exchangers, Distillation Columns, Reactors Cone roof, Floating roof and Dome roof Tanks, Mounded Bullets, Silos, Power plant equipment.
- › Design & Engineering as per international codes e.g. ASME Sec. VIII, Div, 1 / 2, EEMUA, API 650/ 620, AD Merckblatter, British Standards etc.
- › Design by Finite Element analysis, Stress, Thermal analysis & Fatigue life evaluation
- › Fabrication Drawings



## Rotary Equipment:

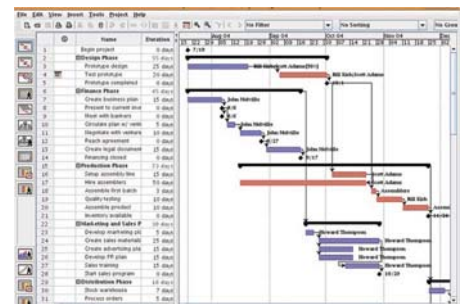
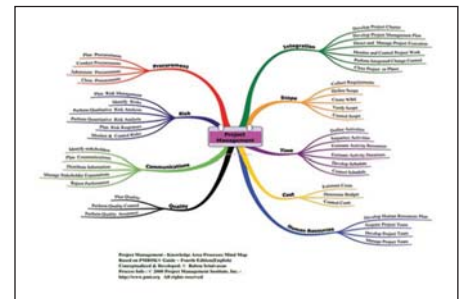
- › Specification of Pumps Compressors and Boiler
- › Specifications for Package bought outs
- › Technical and commercial bid analysis
- › Vendor Document Approvals
- › Factory acceptance test witness
- › Commissioning support



Software: - ANSYS, PVElite, E-Tank, COADE Tank

## Project Management:

- › Project planning and monitoring through PERT & CPM using latest Computer Software
- › Documentation of contracts and agreements
- › Specialized equipment sourcing
- › Floating of tenders
- › Material requisition
- › Prequalification of vendors
- › Evaluation/recommendation of bids
- › Inspection at manufacturer's work. location
- › Review and approval of vendor's drawings.



Software: Primavera, Microsoft Project



## Fire Fighting:

Technical Audit of Existing Fire fighting System includes survey of facilities, evaluation of the existing system based on NFPA / IP standards and recommendations. It also includes design and detailed engineering as per recommendation.

- › Design of Fire Fighting System of Oil Storage Terminal,
- › Gas Plant & Chemical Plant etc.
- › Heat Flux Modeling of the Plant
- › Fire Water, Foam and other Fire Separation against Requirement
- › Fire Network Alarm
- › Fire Equipment Data Sheet / Specification



Software: Shell Fred, Fire Calc



## Civil Engineering:

- › Development of facilities and related civil work
- › Structural analysis
- › Foundation Design for Equipments & Tank
- › Structural design
- › Design of Platform top sides
- › Engineering of Skids and Modular Structures
- › Structural 3-D Modelling
- › Automated fabrication drawing and MTO generation
- › Under Ground Storage Basin
- › Design of Technological Structures for Refinery and Petrochemical Units
- › Structural analysis & detail engineering of Fired
- › Heaters and Reformers
- › Design of Deepwater Structures



Software: - ETABS, SAFE, STAAD Pro





### Instrumentation Engineering:

- › Development of Control Logic
- › Safety studies
- › Instrument Data Sheets and Index
- › Logic Development and preparation of Cause & Effect diagrams
- › DCS/PLC engineering & I/O List
- › Preparation of Field Instrument and control panel specifications
- › Preparation of inter lock diagrams and loop drawings
- › Preparation of JB and cable schedule
- › Layout for Instrument / JB / Cable trays for Field & Control room
- › Installation, mounting and hook up drawings
- › F&G & PA System
- › Preparation of Air and Power distribution scheme
- › Sizing of Relief Valve / Control valve / orifice plate



Software: Instrucalc, Instru plus, Isize, MF Sizing, PRV2 size, Fisher Regulator Toolkit, Orifice flow calculator

### Construction Supervision:

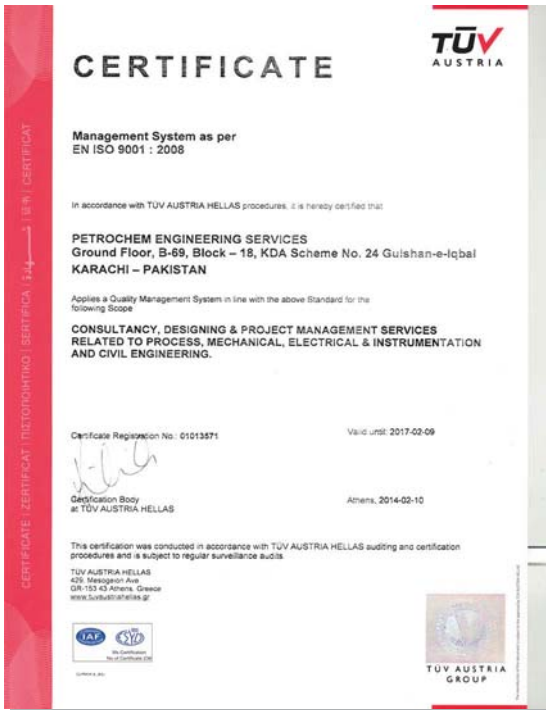
- › Quality control.    › Safety    › Schedule control.
- › Progress measurement/report.
- › Settlement of Contractor's claim.
- › Verification of Contractor's bills.



### Estimation:

- › Feasibility studies covering technical, economical & financial analysis of projects.
- › Preparation of Budget estimates for new facilities and revamping or re - locating existing facilities.
- › Preparation of Budget estimates for small maintenance and modification projects in existing units.
- › Analysis of existing out of service facilities to determine over haul and startup costs.
- › Estimation of future life of running plants.





### Quality Assurance:

- › PES is committed to delivering its services in accordance with best practice standards and:
- › Our Client's requirements and expectations
- › Our duty of care to the environment in which the project will exist
- › The legislative requirements and prevailing regulations pertaining to the delivered facility
- › The goals that the Client expects to achieve with regard to time to complete, investment cost and technical performance of the delivered facility
- › Technical design parameters
- › Performance characteristics, eg. environmental and usage conditions and reliability
- › Applicable Standards and Statutory Regulations
- › Quality Assurance requirements

### Environment Policy:

- › The concept of sustainable development that is compatible with accepted community and environmental standards
- › Managing its activities to minimise adverse environmental effects
- › The prevention of pollution and minimisation of wastes
- › Complying with all relevant environmental legislation and the environmental policies of our clients.
- › Communicating its environmental policies to its employees and contractors and the public who may be impacted by the Company's activities.
- › Seeking to improve its environmental management practices based on past performance and industry trends.

All PES employees are required to act in an environmentally responsible manner in carrying out their duties in compliance with this policy and to report any potential conflicts with this policy to their supervisor, who in turn shall ensure that a complying solution is proposed to the client or other responsible person.





### **Health & Safety Policy:**

Petrochem Engineering Services (PES) recognizes that every employee is entitled to be provided with the working environment that is safe and without risk to health. To this end, every reasonable effort will be made and positive action taken to secure the health, safety and welfare of all personnel inside company's design office and at project site area, whilst keeping the environment integrity intact.

In particular terms, our policy is:

- › To place the Health and Safety of employee and public ahead of the company's commercial interests while protecting the Environment.
- › To provide and maintain, safe system of work to minimize the risk to health, safety and environment.
- › To apply engineering standards and sound practices in the design of plant and equipment.
- › To ensure ease of construction, operability and maintainability are considered in the design.
- › To provide adequate and proper facilities, equipment and safety apparel and ensure correct Personnel Protective Equipment (PPE).
- › To provide adequate training, information and instruction on health, safety and hazards to everyone in order to prevent injuries and health hazards and to keep the environment safe.
- › To regard all industrial accidents as preventable.
- › To commit towards safe environmental management and low impact/pollution practices and procedures for the work.
- › To openly report all HSE performance, favorable or not.
- › All employees/members of the company employed throughout the project and operations should therefore acknowledge their responsibilities for protection of health, safety and environment by making it the top priority in all aspects of their work.



# TRY TRUE TRUST

FOR YOUR FUTURE WITH YOUR WORK IN GOD

## Major Local Clients:

ABS Engineering Corporation (Pvt.) Ltd.	Hamza Vegetable Oil Refinery & Ghee Mills (Pvt.) Ltd.	Pakistan Petroleum Ltd. (PPL)
Admore Gas (Pvt) Ltd.	ICC (Pvt) Limited	Pakistan Refinery Ltd.
Aisha Steel Mills Limited	ICI Pakistan Ltd.	Pakistan State Oil
Al-Tariq Constructors (Pvt.) Ltd.	Interglobe Commerce Pakistan (Pvt.) Ltd.	Schon Group
Attock Refinery Ltd.	Jamshoro Joint Venture Ltd.	Sefec Engineering (Pvt.) Ltd.
BASF Bangladesh Ltd.	Karachi International Container Terminal (KICT)	SGS Pakistan (Pvt) Ltd
BASF Pakistan (Private) Ltd.	Karachi Port Trust	Shell Aviation Pakistan
BHP Billiton Petroleum Pty. Ltd.	Lever Brothers Pakistan Ltd.	Shell Gas (LPG) Pakistan
British Petroleum Exploration & Production.	Linde Pakistan Limited	Shell Pakistan Ltd.
Byco Pakistan Ltd.	Mapak Qasim Bulkiers Pvt. Ltd.	SHV Energy Pakistan (Pvt) Ltd.
Chevron Pakistan Ltd.	Mari Gas Company Limited	Sindh Gas (Pvt) Ltd.
DDFC (Pvt.) Ltd.	MOL Pakistan Ltd.	Total Atlas Lubricants Pakistan (Pvt) Ltd.
Descon Engineering Limited	National Refinery Ltd.	Total Parco Ltd.
engineering kinetics (Pvt) Ltd.	Oil & Gas Development Co. Ltd. (OGDCL)	Trans Asia Refinery Ltd.
Engro Polymer & Chemicals Limited	OMV Pakistan	
Engro Vopak Terminal Ltd.	Orient Petroleum Incorporated.	
ENI Pakistan Ltd.	Pak Arab Pipeline Company Limited	
Fatima Fertilizers Co. Ltd.	Pak-Arab Refinery Ltd.	
Foundation Gas	Pakistan Oilfields Ltd.	
Gulf Chemicals Private Limited		



## Major Overseas Clients:

GCAD Ghana Ltd - Ghana	Alstom T & D Distribution	Shell Hong Kong Limited
TG Engineering Inc – Canada	Switchgear (UK)	Shell Ghana Ltd
McGuffey Energy Services – USA	African Oil and Gas Limited AGOL) Kenya	Shell Markets Middle East
Man Diesel – Germany	Gulf And Maritime Co. – Kuwait	Shell Thailand
Opus International Consultants - New Zealand	Shaukat & Raza-Nigeria	Shell Oman.
Special Technical Services Oman	Primer Product FZC Ajman.	Kenya Shell Ltd,
Al-Gaswa Steel Industries Saudi Arabia.	ADVOC Abu Dhabi.	Togo & Shell

## Major Projects Completed:

<b>Pakistan State Oil Ltd.</b>  Viability Analysis for Construction of New Vehari Bulk Oil Depot.  Design and Detailed Engineering of 5000, 1000, 500 Liters Calibration Vessels for ZOT Terminal.  Design/vetting of into plane & jet fuel storage facilities at Multan international airport.  Design/vetting of into plane & jet fuel storage facilities at Sialkot international airport.  Design and Detailed Engineering Up gradation of tank lorry loading facility PSO JIMCO Terminal.  Fire Safety and Consequence Study of Existing Fire Fighting System at following Terminals of PSO. Faeerabad Oil Terminal LPG Plant near NRL Machike Installation Habibabad Depot. Sargodha Depot. Vehari Depot. Shershah Depot. Kundian Depot. Kotlajam Depot. Juglot Depot. Shikarpur Depot.  Design and detailed engineering of	<b>Crude Oil Handling and Storage Facilities at Zulfiqarabad Oil Terminal.</b>  Design and detailed engineering of Bulk Oil Storage Installation at Faisalabad.  Design of LPG Re-fuelling Stations 100 Nos. Auto Gas Stations. Pakistan State Oil Ltd.  <b>SHV Energy Pakistan (Pvt.) Ltd</b>  Design and Detail Engineering of 1250 LPG Mounded Storage Handling Facility at Port Karachi.  Design and Detail Engineering of LPG Bottling Facility PPL Adhi Plant.  Technical Audit / Design of Fire Fighting System at LPG Plant-Lahore.  Design / Detail Engineering of Fire Fighting System for Adhi Plant.  <b>TG Engineering-Canada</b>  Design of Fire Fighting system with Heat Radiation Modeling of Tullow Bangladesh.  <b>Jamshoro Joint Venture Ltd.</b>  Design / Detail Engineering of Fire Fighting System for JJVL LPG Plant.	<b>AGOL Kenya</b>  DESIGN of LPG storage of 10,000 MT , each Bullet capacity 1650 MT (Dia. 8m x 72m LG H/H) for African Oil and Gas Limited (AGOL) at Mumbasa Kenya  <b>Karachi Intern. Container Terminal</b>  Design and Detailed Engineering of Karachi International Container Terminal.  Design of New Power House, Sub Station and Services Corridor for QC's.  <b>GECAD Ghana Ltd</b>  Detailed Engineering of Fuel Gas Supply Pipeline from West African Gas Pipeline to Takoradi Thermal Power Plant-Ghana.  Sizing, Pipeline route selection and survey and Detailed Engineering of Fuel Gas Supply Pipeline from West African Gas Pipeline to TEMA  <b>Interglobe Commerce (Pvt) Ltd.</b>  Design and detailed engineering of Floating Roof tank dia. 60' x Ht. 40' for POL  Designing of Package Sub-Stations (size: 40 m x 5 m, 23 m x 6 m & 8 m x 6 m) for Bhit Field Development Project-LASMO Oil Pakistan
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## Major Projects Completed:

<b>ENI Pakistan</b>  Design and Detailed Engineering of Wellhead Compression Projects at Wellhead K-14 & K-15 for Eni Pakistan.  Design and Detailed Engineering of West Valves Station including Compression facilities for Eni Pakistan.  Design & Detail Engineering of flow line (3-Phase, 24 km long) including Wellhead from K-18 (wellhead) to Kandanwari Central Facilities.  Design of Gas Gathering Pipeline-20Km long from wellhead K14/K15 to Kandanwari Central Facilities  Design of Gas Gathering Pipeline-9Km long from West Valves Station to Kandanwari Central Facilities.	<b>BASF Bangladesh</b>  Design and detailed engineering of Admixture Chemical Plant Bangladesh.  <b>Shell Oman Marketing Co. SAOG.</b>  Design and Detailed Engineering of Fuel Flow Rate up gradation system at Mina Al-Fahal Depot-Muscat.  Design and Detailed engineering of fire fighting system at Mina Al-Fahal Depot-Muscat	<b>Al-Tariq Constructors (Pvt) Ltd.</b>  Design and Detailed Engineering of External Floating Roof Crude Oil Storage Tank of Dia. 230 ft. x 50 ft. high for Byco Petroleum.  Design and detailed Engineering of storage tank Cone Roof various sizes (19 Nos.) for Byco Petroleum  Design and Detailed Engineering of Tanks & Structures for Security papers limited.
<b>Orient Petroleum International Inc.</b>  Design following sites: Kausar Wellhead Umar Wellhead Usman Wellhead Naimat Basal  Route Selection, Survey and Detailed Engineering of Siraj-South to Bilal-North.  Route Selection, Survey and Detailed Engineering of Kamal North to Niamat Basal	<b>MAN Disel. Germany</b>  Design and Detailed Engineering of tank Farm of 200 MW Power Plant of Atlas Power.  Design and Detailed Engineering of tank Farm of 225 MW Hubco Narowal Power Plant.	<b>ENGRO-VOPAK Terminal Ltd.</b>  Design and Detailed Engineering of MEG Storage and Handling System at EVTL Terminal-Port Qasim.  <b>Chevron Pakistan.</b>  Design and Detailed Engineering of Mounded LPG Vessels 100 MTCapacity.
<b>Shell Hong Kong</b>  Basic and Detailed Engineering of Conversion of Gasoil tanks (T-0344 & T-0346) into Lube oil service at Tsing Yi Island Installation.  Basic and Detailed Engineering of Gas Oil Additive Injection System at Tsing Yi Island Installation Hong Kong.	<b>Hamza Oil Refinery Mills (Pvt) Ltd.</b>  Design and Detailed Engineering of Edible Oil Refinery at Port Qasim Karachi.  <b>Mapak Edible Oils (Pvt.) Ltd</b>  Design and Detailed Engineering of MAPAK Edible Oil Refinery at Port Qasim Karachi.  <b>Pak-Arab Fertilizer</b>  Design and Detailed Engineering of 50 MW Power Plant.  <b>Tuwairqi Steel Mill</b>  Design and Detailed Engineering of 35 MW Combined Cycle Power Plant.  <b>ZY &amp; Company Pvt. Ltd</b>  Design and detailed engineering of Chemical Bulk oil Storage Terminal at Kemari Karachi.  <b>ICC (pvt) Limited</b>  Design and detailed engineering of Sea Water Cooling Towers Project.	<b>Pakistan Refinery Ltd</b>  Design for Re-Routing Of Jet Fuel Pipeline at Shahrah-e-Faisal.  154-C heat exchanger piping design.  <b>Shell Pakistan Ltd.</b>  Design and Detailed at following Installations. DP Installation Keamari Shikarpur Installation Machike Installation Shershah Depot Quetta Depot Vehari Depot Chaklala Installation  Fire Fighting System of (LOBP) at Keamari  Renovation / Modification of Lube Oil Blending Plant (LOBP) at Keamari  Aviation Fuel (JP-1) Transfer System from Chaklala Installation to Islamabad Airport



## Major Projects Completed:

<b>Petronas Carigali Pakistan</b>  Design and Detailed Engineering of Wellhead Compression System for 27MMSCFD Gas at Rehmat Gas Plant II	<b>Shon Group</b>  Development of design package of sulfuric acid plant for Cactus Fertilizer Ltd.	<b>Gasco.</b>  Design/ Project management of Sales Gas Metering station at Fauji Kabirwala Power Plant
<b>Tullow Pakistan Developments Ltd.</b>  Design and detailed engineering of Chachar Gas Pipeline (45 km long) Project.	<b>Byco Petroleum Pakistan.</b>  Design and detailed engineering of fire fighting system for Byco refinery.	<b>KSB Pumps Company Limited.</b>  Greater Karachi Bulk Water Supply Scheme Phase V, Stage II 2nd 100 MGD K-III Surge Analysis and Stress Analysis of Dhabeji / Nek Pipelines from Pump House to Reservoir.
<b>PARCO.</b>  Design and detailed engineering of Zamzama Gas Condensate Pipeline (30 km long) Project.	<b>Shell CNS Terminal-Thailand.</b>  Safety and Consequence Study (Fire Fighting Gap Analysis with Heat Radiation Modeling) of Existing Fire Fighting System at Shell CNS Terminal-Thailand.	<b>Pakistan Oil fields Ltd.</b>  Design and Detailed Engineering of Crude Oil Pipeline Dia. 6"-65 Km long from Turkwal to Attock Refinery  Design of 3-Phase Separator (Skid Mounted)
<b>Engineering Kinetics (pvt.) Ltd.</b>  Design and Detail Engineering of Dom Roof Tanks of 4000m <sup>3</sup> , 400m <sup>3</sup> & 100m <sup>3</sup> Capacity	<b>Gulf and Maritime Co.</b>  Design of LPG Handling Facility at Port Qasim	<b>ICI Pakistan.</b>  Design of HSD Storage Tank and Utility Piping of Steam Turbine (TYPHOON-ALSTOM)  Design and Detailed Engineering of Pressure Vessels.
<b>Admore Gas (Pvt.) Ltd</b>  Design and detailed engineering of Bulk Oil Storage Terminal at Machike.	<b>Engro Asahi Polymer &amp; Chemical Co.</b>  Storage Tank of 1.5 million gallon capacity	<b>Mienhard Pakistan</b>  Consultancy services for complete Mechanical design of Oil Pier II at KPT
<b>Fatima Fertilizers Co. Ltd.</b>  Design and Detailed Engineering of Pressure Vessels for 1200 TPD NP Prilling Plant.	<b>Shell Ghana Limited</b>  Fire Safety and Consequence Study of Existing Fire Fighting System at Aviation Facilities at Accra-Ghana Airport for Shell Ghana Limited.  Design and Detailed Engineering of new Jet Fuel Storage Tank with associated piping at Aviation Facilities at Accra-Ghana Airport.	<b>SEFEC</b>  Design and Detailed Engineering of Pressure Vessels for OMV.  Design and Detailed Engineering of Water Seal Pot Vessel for Clough
<b>Pakistan Petroleum Limited.</b>  Development of As-built Plant Layout & P&ID for PPL SUI Gas Purification Plant.  Preparation of EPCC bid package for Dismantling, shifting, installation and commissioning of 3 nos. LPG vessel of Adhi Gas field	<b>Linde Pakistan Ltd.</b>  Design of Electrical /HVAC/ Fire fighting Installation Works for ASU Plant Lahore.  Design and Detailed Engineering of Nitrous oxide (N <sub>2</sub> O) Plant at Lahore.	<b>Siemens</b>  Design and Detailed Engineering of compressed Air Drum.
<b>TG Engineering-Canada.</b>  Design of Fire Fighting system with Heat Radiation Modeling of Tullow Bangladesh.	<b>Shell Market Middle East Ltd.</b>  Design of Lube Oil Supply System to JAD Mellubco and Total terminals at Jebel Ali Depot	<b>Mcguffey USA.</b>  Design & Detailed Engineering Product Stabilizer Skid.
<b>Aisha Steel Mills Limited.</b>  Design and Detailed Engineering of offsite utility piping network.		



## **PETROCHEM ENGINEERING SERVICES**

Consultants, Designers & Engineers for Process, Petrochemicals, Industrial, Oil, Gas & Industries

### **Head Office:**

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