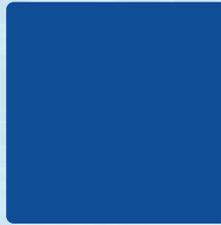


NARGAN



Abadan Oil Refinery

is located in the city of Abadan, on the coast of Arvandrud river (Persian Gulf). Built by the "Anglo-Persian Oil Company" (now BP), it was completed in 1912 and it is still considered as one of the World's largest oil refineries.



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WHO WE ARE

NARGAN Company, first established in 1973 under the name of BORNAA Consulting Engineers, is specialised in the engineering, procurement, construction and project management of industrial projects, particularly in the oil, gas and petrochemical fields.

We, as a privately owned company, with over 1,000 qualified technical and support personnel, have earned our reputation over more than four decades of high quality work, encompassing safe and on time delivery of more than 300 completed projects. We have made major contributions to the development of energy industry in Iran at various capacities of consultant and/or EPC contractor during this period.

We have been an active member of the *Iranian Society of Consulting Engineers (ISCE)*, which is the sole representative of *FIDIC (Fédération internationale des ingénieurs-conseils)* in Iran. Moreover, we have obtained Engineering, EPC, Design-Built, Construction and HSE certificates from the competent Iranian authorities, and we take all necessary measures to extend the validity of each certificate, when and if due for renewal.

WHAT WE DO

Our services extend to every aspect of industrial projects, from the initial conceptual and feasibility studies to the provision of license and know-how, basic design, front-end and detail engineering, followed by procurement and supply services, construction supervision, field engineering, and project management.

Today, NARGAN is well known in the region as a distinguished precursor in undertaking major EP/EPC projects, with the work capacity of 2,000,000 man-hours per year. By continuous improvement of its methods and expanding its capabilities, NARGAN aims to mark its fifth decade of powerful presence in the oil, gas and petrochemical market.



6th Olefin Complex (Mahshahr)
Petrochemical Special Economic Zone (PSEZ)

NARGAN

at a glance

OVER
300
COMPLETED
PROJECTS

THE
BIGGEST
OLEFIN,
ETHANE RECOVERY
and
GAS TREATMENT
PLANTS





MORE THAN

2,000,000

ENGINEERING
MAN-HOURS
CAPACITY PER YEAR

DOZENS OF

BILLION €

WORTH OF
CONTRACTS

FIELDS OF ACTIVITY

We have been active in the feasibility study, conceptual design, basic and detail engineering, procurement, construction, commissioning and start-up of a multitude of upstream onshore facilities, oil refineries, gas treatment facilities, petrochemical and chemical complexes.

NARGAN provides a full spectrum of services mainly in the following fields:

Oil Process Facilities

- Crude Oil Refineries
- Condensate Refineries
- Petro-Refineries

Gas Process Facilities

- Gas Refineries & Treatment Facilities
- Gathering Systems
- Injection Systems

Petrochemical & Chemical Complexes

- Olefins (Ethylene & Propylene) Plants
- Polyolefins (PE & PP) Plants
- Aromatics Plants
- Polymers & Artificial Rubbers Plants
- Chemical Fertilisers; and
- Other Various Plants

Oil & Gas Fields Development

(Surface Facilities)

Upstream Onshore Facilities

Transportation & Pipeline Systems

Infrastructures

- Utility Plants
- Electric Power Generation & Distribution
- Compressor & Pump Stations
- Terminals & Storages
- Water Treatment and Desalination Systems
- Waste Water Treatment
- General Industrial Developments



300,000TPA LDPE Plant (Kordestan Polyethylene Plant - Sanandaj)



SKILLS & SERVICES

Our vast experience has afforded us the capability to provide services in different phases of industrial projects. Drawing on our expertise - gained over decades - we develop optimal, flexible and environmentally-responsible solutions designed to add value to the projects we perform.

Project Development

- Master Plans
- Market Study
- Profitability Analysis
- Technical & Economical Assessment
- Financing Appraisals
- Conceptual and Feasibility Studies
- Functional & Technical Programming

Project Services

- Contract Services
- Financing Assistance
- Risk Management
- Programme Management
- Management Consultancy (MC)
- Project Management

- Provision of Know-How, Technology & Licence
- Preliminary Plans & Specifications
- Project Planning, Scheduling & Cost Control
- Conceptual & Basic Design
- Front-End Engineering Design (FEED)
- Detail Design & Engineering

- Supply of Equipment & Material
- Purchasing, Expediting & Inspection
- Construction (via Subcontractor)
- Construction Management & Site Supervision
- Field Engineering
- Commissioning & Start-up



10th Olefin Complex (Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)

VISION, MISSION & VALUES

Our Vision

Our vision is to lead the future of energy industry upon our strength in performance, people and partnership

Our Mission

Achieving the highest standards in safety, quality and ethics, and commitment to sustainable development

Our Values

Superior Performance

- Dedicated to professionalism and focused on quality
- Dedicated to delivering projects diligently
- Dedicated to the success of our clients, partners, employees and shareholders
- Adaptive, open-minded, adventurous and creative

Integrity

- Dedicated to safety, quality and sustainability
- Accountable
- Disciplined, principled and responsible
- Honest, transparent and open

People

- People-based business
- Committed to development and empowerment of our employees
- Socially responsible
- Good corporate citizenship



Marun C2+ Recovery Plant (Ahwaz)



QUALITY MANAGEMENT SYSTEM

The Integrated Management System (IMS) applies to the whole organisation of NARGAN including offices and projects' sites. These establishments demonstrate the company's ability to meet all requirements needed to mitigate or eliminate potential risk impacts in compliance with applicable laws, regulations and guidelines.

Our products and services are in compliance with ISO 9001:2015, ISO/TS 29001:2010, ISO 14001:2015 and ISO 45001:2018 (Previously OHSAS 18001:2007). We are committed to maintaining Quality Management System (QMS) in accordance with ISO 9001 certificate, conferred on us since 2004.

We continuously improve our quality system through periodic review and assessments. Hence, we have been granted the ISO/TS 29001 certificate since 2013, which is based on ISO 9001 quality management system and provides all requirements for the petroleum, petrochemical, and natural gas industries.

Our quality credentials also include ISO 14001 and ISO 45001 (OHSAS 18001) certificates which we have held since 2008.

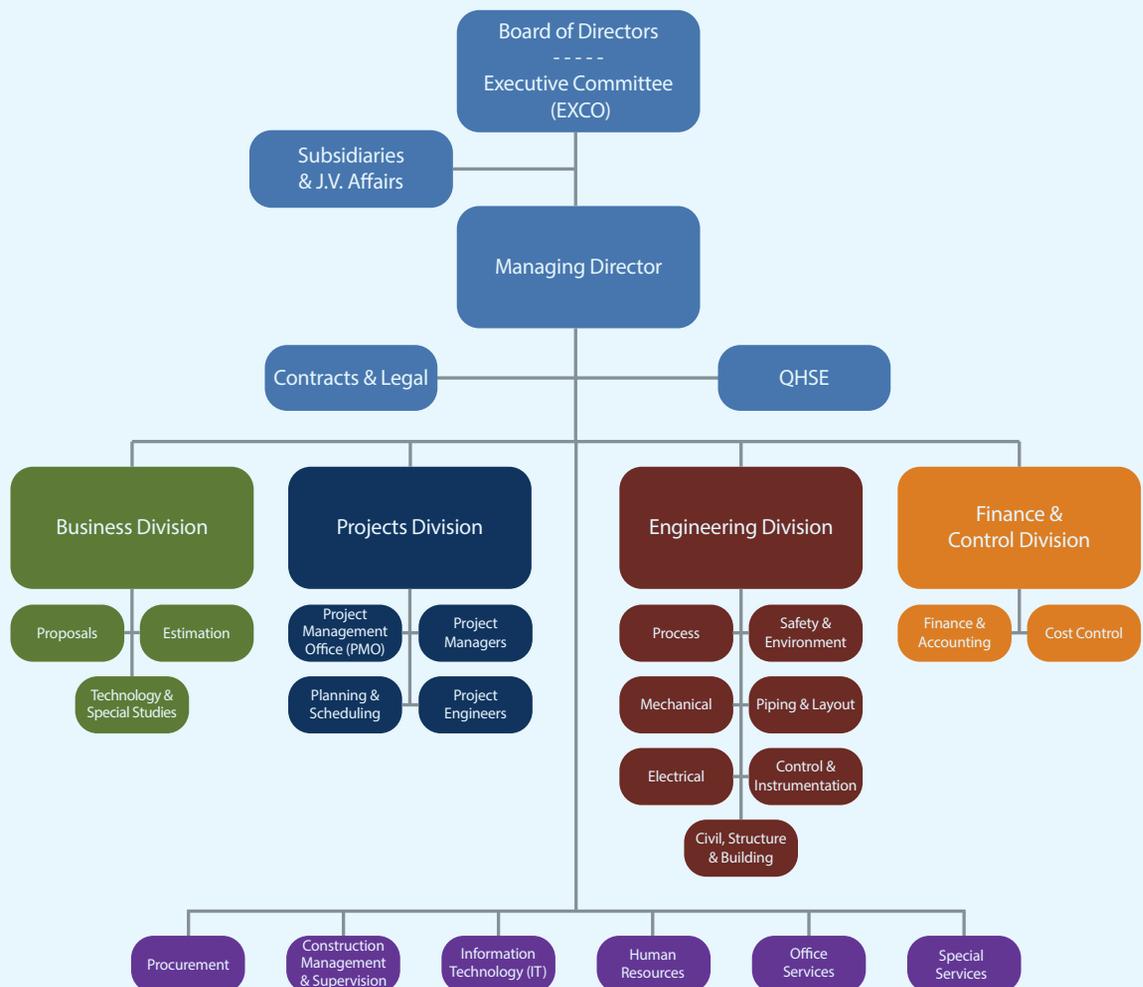


ORGANISATION

NARGAN is a “project oriented” company, meaning that all departments, including the engineering, planning, control, procurement, business development, legal and contracts, IT, finance and administration, define, develop and employ their strategies based on a matrix organisational structure that revolves around projects.

Depending on the size and schedule of the project, a task force group may be selected and assigned to the project. The quality and standard of the services preformed have always been the company's prime concern. To this effect, quality of the work is supervised and monitored by highly-qualified experts in respective departments. Regular internal and external audits are conducted at least twice a year in order to verify the quality management system and provide evidence-based input for the management review committee.

Continuous working relationships with various clients, the variety of services and number of projects performed in different fields over the past five decades attest to the experience and proficiency of NARGAN, all in conformity with the best and latest standards, procedures and good engineering practices.





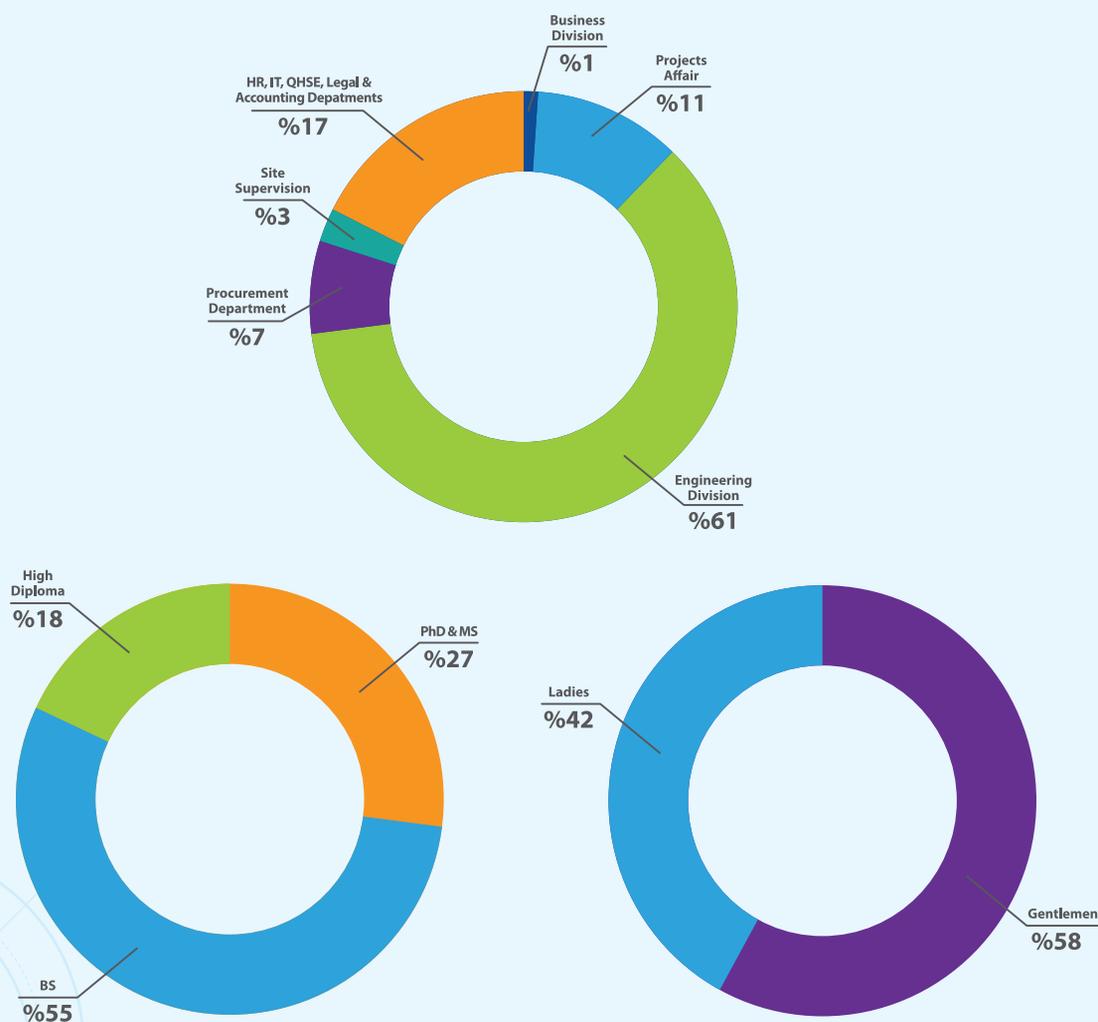
OUR PEOPLE

Our people are our most valuable asset. NARGAN currently employs over 1,000 highly skilled professionals in various disciplines. Most of our personnel hold postgraduate degrees in engineering and science. The average age of the personnel is 41.

We devote great care to our human capital. From the outset, we recruit our new colleagues from the most promising and talented engineers and other professionals. Thereafter, we develop and nurture their skills, capabilities, initiative, and organisational culture through various forms of training and continuous transfer of know-how from one to another. The empowerment of our employees through involvement, improvement, and team building has been the key to our success.

Cooperation in thinking, planning, designing, and solving problems has become a part of our organisational culture. Teamwork and collaborative capabilities are recognised and rewarded in our evaluation system.

Training of NARGAN's personnel has always been a priority for the company's human resource development. Over 160,000 hours of training courses have been held for our technical personnel in the past decade.

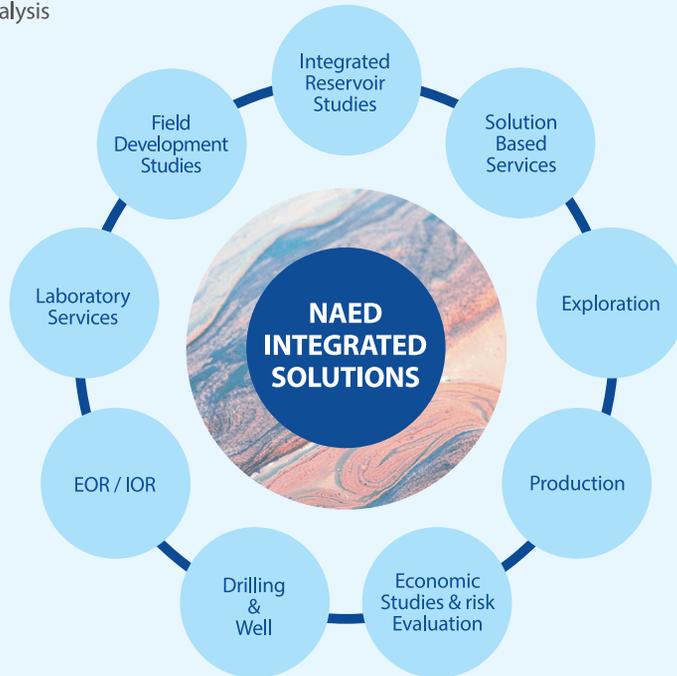


**NARGAN AMITIS ENERGY DEVELOPMENT COMPANY (NAED),
As an Affiliate**

NARGAN-AMITIS Energy Development (NAED) Company has been registered in 2016 as the upstream subsidiary of NARGAN. NAED benefits from NARGAN’s organisational and infrastructural resources, as well as technical expertise and knowledge, brought up all together to deliver upstream subsurface and surface engineering consultancy services.

NAED Integrated Solutions

- Geomechanics
- Geological Interpretation & Modelling
- Rock Physics & Seismic QI
- Velocity Modelling & Depth Conversion
- Petrophysical Interpretation
- Core & Well Log Analysis
- Structural & Stratigraphic Interpretation
- Prospect Inventory & Risk Analysis
- Basin Analysis & Regional Studies
- Geochemical Analysis & Interpretation

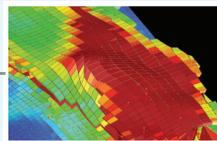


- Flow Assurance
- Material Selection
- Process & Facility Engineering
- Production System Debottlenecking
- Organic & Inorganic Solid Deposition & Removal
- Maximise the Productivity Index
- Removal of Near-Wellbore Damage
- Near-Wellbore Management
- Production Chemistry
- Artificial Lift Design
- Basic Reservoir Engineering
- Static & Dynamic Modelling
- Reservoir Monitoring & 4D Seismic
- Uncertainty Analysis, History
- Matching & Production Forecasting
- Tailor Made Lab. Design
- Experimental Results QA
- External Lab. Work (PVT, RCAL, SCAL)
- EOR Screening and Experiments
- Pilot Design & Monitoring Programme



Having its own visions and values, NAED works jointly with NARGAN to deliver integrated E&P Consulting Solution Services in the Iranian oil and gas exploration and production projects.

NAED collaborates with upstream oil and gas clients in various Iranian exploration and production projects that promote optimal growth. Through our integrated multi-domain approach, we support our clients over the field's entire lifespan.



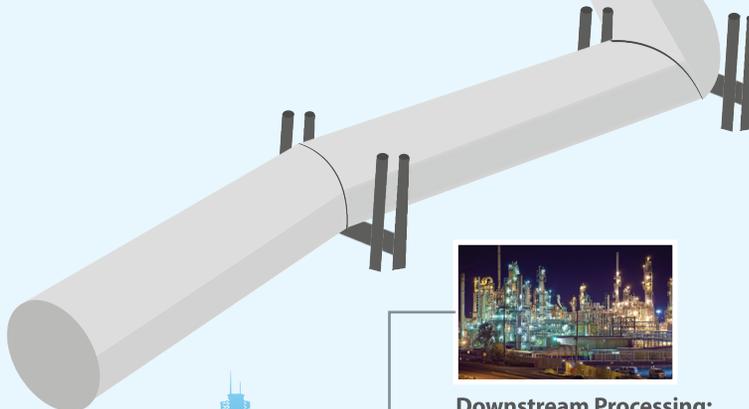
Pore to Process:

Integrated field solutions ranging from exploration to production, including field development plan, and IOR/ EOR studies.



Transportation:

Innovative solutions for Iran's oil and gas transportation as well as treatment from production plants to distribution points.



Downstream Processing:

We offer a wide range of services including the initial concept of feasibility studies to the provision of know-how and licence, basic design, front-end and detail engineering, followed by procurement, supply services, construction supervision and management.



HEALTH, SAFETY & ENVIRONMENT

NARGAN holds paramount the health and safety of its workforce and protection of its assets and the environment.

We have dedicated ourselves to make sure that any project contracted to us is engineered and constructed in full compliance with the latest safety and environmental standards.

The vast experience in large-scale projects has earned NARGAN the expertise to consider sustainable qualities in industrial developments.

Our target is a zero-accident safety record. Our preventive and protective approach results in a safety performance that surpasses the highest international standards.

We endeavor to ensure that:

- All our project procedures are designed to protect the well-being of our employees and all those who retain our services;
- Practical, efficient, and cost effective solutions, aimed to reduce environmental pollution and minimising the use of natural resources are well incorporated throughout the entire project operation;
- Required programmes are implemented with a view to optimising the energy efficiency and enhancing environmental performance in all types of infrastructures; and
- A positive and responsible attitude towards HSE management system is adopted by project personnel in order to minimise all environmental impacts.





HSE ACTIVITIES IN PROJECT DEVELOPMENT

Basic Engineering

- Definition of the Objectives
- Project Environmental & Safety Requirements
- Definition of the HSE Plan
- Preliminary Hazard Identification
- Preliminary Risk Assessment
- Preliminary HAZOP & Follow-up
- HSE Review
- Preparation of Documents for Authorisation
- Environmental Impact Assessments (EIA)

Detail Engineering & Procurement

- Detailed Project HSE Plan
- Risk Management
- Detailed HAZOP & Follow-up
- HSE Management of Suppliers & Subcontractors
- HSE Audit
- Waste Management Plan
- Pollution Control Plan
- Specialist Environmental Studies
- Environmental Monitoring Programme
- Preparation of Documents for Authorisation
- Identified Environmental Opportunities

Construction

- Planning to Achieve HSE Objectives
- Construction Site Risk Management
- HSE Plan for Construction Site Activities
- HSE Training
- HSE Operating Control
- Specific Safety & Operability Studies
- HSE Management of Suppliers & Subcontractors
- Incident Investigation
- Emergency Response Management
- Management of Change
- OH&S Harmful Agents Measurement
- Environmental Adverse Effect Assessment
- Planning to Monitor Environmental Aspects



Phase 12 Onshore Gas Processing Facilities (Kangan)
South Pars Gas Field Development (SPGFD)

INFORMATION TECHNOLOGY (IT)

NARGAN has been equipped with a standard multilayer CAN (Campus Area Network) that provides enterprise level services. Network resources can be accessed locally and worldwide through high speed dedicated Internet connections. Mutual data transfer with partners in projects will be feasible via radio links.

Data has been secured by a multilayer architecture. Network edge has been armed with high-end industry devices. Internal resources are protected by secure protocols that restrict external access. All standard methods and best practices have been implemented to protect NARGAN's information asset.

General IT services such as email and file transfer services, internet access, office apps, video conferencing software and programmes, computer-aided design (CAD), print & plot setting and 2D & 3D modelling are provided to internal users. Furthermore, advanced in-house applications have been developed and launched for ease of doing the job by our engineering and project teams.

NARGAN's PCIM (Project Central Information Management) - a well-known web application - has been developed to support easy collaboration between all project bodies, encompassing clients, management consulting (MC), subcontractors and vendors - via EDMS (Electronic Document Management System). It provides a secure way to store, share and transfer data and documents based on a pre-defined collaboration matrix with transmittals.





INTERNATIONAL COOPERATION

To keep up with the pace of technology and for an effective utilisation of specific know-how in implementation of projects, NARGAN collaborates with a number of reputable international companies, either through joint ventures or on subcontracting basis.

Some of the international companies NARGAN has cooperated with include the following:

 Axens IFP Group Technologies	 Basell Polyolefins	 BP	 Chiyoda Corporation	Didier Engineering
 Eurotecnica S.p.A.	 Foster Wheeler AG	 Haldor Topsoe A/S	John Brown Deutsche Engineering	 KBC Process Technology
 Kinetics Technology (formerly Technip KTI)	 Klöckner Stadler Hurter (KSH)	 Linde AG	 Lurgi GmbH (Currently Air Liquide)	 Lyondellbasell
 Prosernat IFP Group Technologies	 Rollechim Impianti S.p.A.	 Snamprogetti S.p.A.	 Stamicarbon	 Technip Benelux
 Technip FMC	 Tecnimont S.p.A.	The Shawinigan Engineering	 Uhde GmbH (Currently ThyssenKrupp Industrial Solution)	 Versalis S.p.A. (formerly Polimeri Europa)

CLIENTS

Over the course of its business, NARGAN has been involved in hundreds of small and large projects with an aggregate total investment value exceeding dozens of billion Euros.

Below is a non-exhaustive list of NARGAN's major national and international clients:

Iranian Clients

Petroleum & Gas Sectors:

- Abadan Oil Refining Co.
- Anahita Oil Refining Co.
- Arak Shazand Oil Refining Co.
- Bandar Abbas Oil Refining Co.
- Esfahan Oil Refining Co.
- Fajr-e Jam Gas Refining Co.
- Iranian Central Oil Fields Co. (ICOF)
- Iranian Offshore Engineering & Construction Co. (IOEC)
- Iranian Offshore Oil Co. (IOOC)
- Kermanshah Oil Refining Co.
- National Iranian Gas Company (NIGC)
- National Iranian Gas Engineering & Construction Co.
- National Iranian Oil Engineering & Construction Co.
- National Iranian Oil Co. (NIOC)
- National Iranian South Oilfields Co. (NISOC)
- Oil Service Company of Iran
- Petroleum Engineering & Development Co. (PEDEC)
- Pars Oil & Gas Co. (POGC)
- Persian Gulf Bid Boland Gas Refining Co.
- Petroiran Development Co. (PEDCO)
- Shahid Hasheminejad (Kangiran) Gas Processing Co.
- Siraf Refineries Infrastructure Co.
- Tabriz Oil Refining Co.
- Tehran Oil Refining Co.

Petrochemical Sector:

- Arak Shazand Petrochemical Co.
- Arya Sasol Polymer Co.
- Amir Kabir Petrochemical Co.
- Andimeshk Petrochemical Co.
- Badr-e Shargh Petrochemical Complex
- Bandar Imam Petrochemical Co. (BIPC)
- Bushehr Petrochemical Co.
- Esfahan Petrochemical Co.
- Dehdasht Petrochemical Industries Co.
- Dehloran Petrochemical Co.
- Firouzabad Petrochemical Co.
- Gachsaran Petrochemical Co.
- Ilam Petrochemical Co.
- Jam Petrochemical Co.
- Jam Polypropylene Co.
- Kangan Entekhab Petrochemical Co.
- Kavian Petrochemical Co.
- Kharg Petrochemical Co.
- Khorasan Petrochemical Co.
- Kian Petrochemical Co.
- Kordestan Petrochemical Co.
- Lavan Investment Development Co.
- Lorestan Petrochemical Co.
- Mahabad Petrochemical Co.
- Marun Petrochemical Co.
- Morvarid Petrochemical Co.
- National Petrochemical Co. (NPC)
- Navid Zar Chimie Industrial Co.
- Nouri (Borzuyeh) Petrochemical Co.
- OIEC Group
- Razi Petrochemical Co.
- Pars Petrochemical Co.
- Polynar Co.
- Persian Gulf Petrochemical Industries Co. (PGPIC)
- Petrochemical Industries Development Management Co.
- Petrochemical Industries Investment Co.
- Sadaf Assaluyeh Chemical Co.
- Tabriz Petrochemical Co.





Other Domestic Clients

- Aryanaft Shahab Co.
- Bank Saderat Iran
- Biosun Pharmed Co.
- Caspian Oil Co.
- Falat Energy Co.
- Fouman Chimie Group
- Hydro Zagros Oil & Gas Co.
- Iran Power Generation & Transmission Co. (Tavanir)
- Melli Agrochemical Co.
- Ministry of Energy
- Ministry of Petroleum
- Oil Design & Construction Co. (ODCC)
- Parsian Oil & Gas Development Co.
- PAXAN Co.
- Phosphate Mines Development Co.
- Petropars Co.
- Petropars Iran Co. (PPI)
- Petrosina Arya Co.
- Petrotadbir Pars Co.
- Sarcheshmeh Copper Co.
- Sepahan Oil Co.
- Shahid Modarres Pharmaceutical Industrial Co.
- Siraf Green Star Refining Co.
- Siraf Refineries infrastructure Co.

International Clients

- BP/ AMOCO (GB)
- Belarusneft (Belarus)
- Chiyoda Corporation (Japan)
- ITOCHU (Japan)
- KBC Process Technology
- Klockner Stadler Hurter (Canada)
- Pan American Oil Co. (USA)
- Snamprogetti ENI (Italy)
- Technip (France)
- Technip (Italy)
- Total S.A. (France)

Joint Ventures Companies (JVC)

- Iran Pan-American Oil Co. (IPAC) (Iran & USA)
- Société Irano-Italienne des Pétroles (SIRIP) (Iran & Italy)
- Société Française de Pétroles d'Iran (SOFIRAN) (Iran & France)
- Towlid Rowghan Refining Co. (Iran & USA)



Isfahan Oil Refinery

REFERENCES

List of Selected Projects

PETROCHEMICAL PROJECTS

Olefins

- 1,321,000 TPA Ethylene & 305,000 TPA Propylene Plant (10th Olefin Complex - Assaluyeh)
- 1,050,000 TPA Ethylene Plant (9th Olefin Complex - Assaluyeh)
- 2 x 1,000,000 TPA Ethylene Plant (11th Olefin Complex - Assaluyeh)
- 1,000,000 TPA Ethylene Plant (8th Olefin Complex – Gachsaran)
- 1,000,000 TPA Ethylene Plant (14th Olefin Complex - Assaluyeh)
- 1,000,000 TPA Ethylene Plant (16th Olefin Complex - Assaluyeh)
- 500,000 TPA Ethylene Plant (5th Olefin Complex - Assaluyeh)
- 458,000 TPA Ethylene & 124,000 TPA Propylene Plant (13th Olefin Complex - Ilam)
- 639,000 TPA Ethylene & 143,000 TPA Propylene Plant (Dehloran Olefin Complex)
- 306,000 TPA Ethylene Plant (Expansion Project - Arak Petrochemical Complex)
- 650,000 TPA Ethylene Plant (Expansion Project - 5th Olefin Complex - Assaluyeh)

Polyolefins (Polyethylene & Polypropylene)

- 300,000 TPA LDPE Plant (9th Olefin Complex - Assaluyeh)
- 300,000 TPA LDPE Plant (Kordestan Polyethylene Plant - Sanandaj)
- 300,000 TPA LDPE Plant (Andimeshk Polyethylene Plant - Khuzestan Province)
- 300,000 TPA Swing LLDPE/ HDPE Plant (10th Olefin Complex - Assaluyeh)
- 300,000 TPA Swing LLDPE/ HDPE Plant (Lorestan Petrochemical Plant - Khorramabad)
- 300,000 TPA Swing LLDPE/ HDPE Plant (Mahabad Petrochemical Plant)
- 300,000 TPA HDPE Plant (Dehdasht Polyethylene Plant)
- 500,000 TPA HDPE Plant (12th Olefin Complex - Assaluyeh)
- 75,000 TPA LLDPE Plant (Expansion Project - Arak Petrochemical Complex)
- 300,000 TPA PP Plant (7th Olefin Complex - Mahshahr)
- 300,000 TPA PP Plant (10th Olefin Complex - Assaluyeh)
- 160,000 TPA PP Plant (6th Olefin Complex - Mahshahr)
- 75,000 TPA PP Plant (Expansion Project - Arak Petrochemical Complex)
- 80,000 TPA PP Plant (Relocation Project - Polynar Plant - Tabriz Petrochemical Complex)



Polymers & Artificial Rubbers

- 200,000 TPA Acrylonitrile Butadiene Styrene (ABS) and 60,000 TPA Rubbers Plants (Styrene Park - Assaluyeh)
- 137,000 TPA emulsion Styrene Butadiene Rubber (eSBR) Plant (Styrene Park - Assaluyeh)

Varius Plants

- Integrated 300,000 TPA Ammonia and 1,000,000 TPA Methanol Plants (Assaluyeh)
 - 100,000 TPA Butene-1 Plant (10th Olefin Complex - Assaluyeh)
 - 30,000 TPA Butene-1 Plant (Lorestan Petrochemical Plant - Khorramabad)
 - 30,000 TPA Butene-1 Plant (Mahabad Petrochemical Plant)
 - 40,000 TPA Phthalic Anhydride (PA) Plant (Esfahan Petrochemical Complex)
 - 20,000 TPA Crystal Melamine (CM) Plant (Khorasan Petrochemical Complex - Bojnurd)
 - 240,000 TPA Diammonium Phosphate (DAP) Plant (Razi Petrochemical Complex - Mahshahr)
 - 180,000 TPA Para-Xylene (PX) Plant (Bandar Imam Petrochemical Complex - Mahshahr)
 - 30,000 TPA Ethanolamines Plant (Arak Petrochemical Complex)
 - 177,000 TPA Pyrolysis Gasoline Hydrogenation (PGH) Plant (Expansion Project - Arak Petrochemical Complex)
 - Utility Plants & Offsite Facilities (Badr-e Shargh Petrochemical Complex - Chabahar)
-
- Management Consultancy (MC) Services for 1,650,000 TPA Methanol Plant (Badr-e Shargh Petrochemical Complex - Chabahar)
 - Expansion of Tabriz, Khorasan and Badr-e Shargh Petrochemical Complexes



10th Olefin Complex (Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)

OIL INDUSTRIES

Crude Oil/ Condensate Refineries

- Abadan Refinery (Reconstruction, Revamping & Upgrading Project)
- Anahita Refinery (Kermanshah New Refinery; Visbreaker Unit)
- Arak Shazand Refinery (Expansion & Upgrading Project)
- Bandar Abbas Refinery (8th Refinery)
- Esfahan Refinery (Expansion & Upgrading Project)
- Kermanshah Refinery (Expansion Project)
- Lavan Refinery (Lavan Island - Persian Gulf)
- Shahryar Refinery (Tabriz New Refinery)
- Tabriz Refinery
- Tehran Refinery (Expansion & Upgrading Project)

- Caspian Refinery (Base Oil Plant - Bandar Abbas)
- Sepahan Oil Refinery (Dewaxing (MEK) and White/ Lube Oil Plants - Isfahan)
- Tehran Refinery (Lube Oil Plant)

- Siraf Condensate Refinery (Siraf Refineries Park)
- Anahita Petro-Refinery
- Management Consultancy (MC) Services for Farzanegan Condensate Refinery (CDU & NHT Units - Assaluyeh)

OIL & GAS STATIONS, TERMINALS AND TRANSPORTATION & PIPELINE SYSTEMS

Petroleum/ Condensate/ Products Pipelines

- 42"/ 48" Crude Oil Export Pipeline (Ahwaz to Genaveh)
- 36" Crude Oil Transfer Pipeline (Azadegan Oil Field Development; Ahwaz to Bahregansar)
- 26" Oil/ Products Transfer Pipeline (Bandar Abbas Refinery to Rafsanjan Terminal)
- 42" Crude Oil Transfer Pipeline (Moharam Project - South of Iran)
- 8" and 16" Condensate Transfer Pipelines (Assaluyeh to Shiraz Pars Refinery)

Gas Pipelines

- 36"/ 42"/ 48" Gas Trunkline (Pars/ Aghar/ Dalan - South of Iran)
- 42" Gas Transfer Pipeline (NGL 1000 to Bid Boland Gas Refinery)

Feed/ Products Petrochemical Pipelines

- West Ethylene Transfer Pipeline (Assaluyeh to Tabriz Petrochemical Complex)
- Liquefied Ethylene Transfer Pipeline (5th & 11th Olefin Complexes - Assaluyeh)
- C3+ Export Pipeline (9th Olefin Complex - Assaluyeh)
- Ethane (C2) Feed and Butane (C4) Pipelines (10th Olefin Complex - Assaluyeh)
- Aromatic Feed Pipeline (4th Aromatic Complex - Assaluyeh)



Field Development & Surface Facilities

- Jofeir Oil Field Development (Khuzestan Province)
- Sirri "C, D & E" Oil Fields Development (Persian Gulf)
- Zagros Oil Fields Development (South-West of Iran)
- Bahregansar Onshore Facilities (Reconstruction & Renovation Project; Coast of Persian Gulf)
- Several Production Plants (Well Heads, Flow & Transmission Lines, Centralised Units, Utilities & Offsite Facilities - South Oil Fields)
- Various Desalting Plants (South Oil Fields)

GAS INDUSTRIES

Gas Separation

- C2+ Recovery & Fractionation Plant (9th Olefin Complex - Assaluyeh)
- C2+ Recovery Plant (7th Olefin Complex - Ahwaz)
- Ethane (C2)/ Propane (C3) Recovery & Fractionation Plant (Bandar Imam Petrochemical Complex - Mahshahr)

NATURAL GAS REFINERIES, GATHERING & INJECTION FACILITIES

- Fajr-e jam (Kangan) Gas Refinery (125 MMNCMD; Nar & Kangan Gas Fields - South of Iran)
- Sarkhun II Gas Refinery (14.4 MMSCMD; South of Iran)
- Khangiran Gas Gathering Facilities (12.7 MMSCMD - Sarakhs)
- Ramshir Gas Injection Facilities (Khuzestan Province)
- Management Consultancy (MC) Services for South Gashoy Gas Refinery (Gashoy Gas Field - South of Iran)
- Masjed Soleiman Gas Treatment Plant (Utility Plants & Offsite Facilities)
- NGL 900, NGL 1800 & NGL 2400 Production Facilities (Natural Gas Liquids - Khuzestan Province)

SOUTH PARS GAS FIELD DEVELOPMENT (SPGFD)

Onshore Gas Processing Facilities (Assaluyeh & Kangan)

- Phase 12 (EPC 3)
- Phase 13
- Phases 15 & 16
- Phase 19
- Phases 22, 23 & 24

MINE & CHEMICAL INDUSTRIES

- ESFORDI Phosphate Project (Yazd)
- 3,600 TPA Pesticides Production Plant (Ghazvin)
- 15,000 TPA Carbon Black Plant (Pars Oil Complex)
- 100,000 TPA Sodium Carbonate Plant (South of Iran)



REFERENCES



BOJNOUR

- . Crystal Melamine Plant
- . Expansion of Petrochemical Complex

SARAKHS

- . Khangiran Gas Gathering System

BAFGH

- . ESFORDI Phosphate Plant

RAFSANJAN

- . Bandar Abbas / Rafsanjan Pipeline

BANDAR ABBAS

- . Bandar Abbas Refinery
- . Sarkhoun II Gas Treatment Plant
- . South Ghashoy Gas Treatment Plant

SIRRI ISLAND

- . Sirri Oil Field Development (Persain Gulf)

LAVAN ISLAND

- . Salman Oil Field Development (Persain Gulf)

Chabahar

- . Mokran Petrochemical Park
- . Badr-e Shargh Petrochemical Complex

OMAN SEA

+ 150

**PETROCHEMICAL
PROJECTS**

~ 12

**ETHYLENE PRODUCTION PLANTS
COMPRISING OF**

+ 70 %

(9,415,000 TPA)

OF THE IRANIAN ETHYLENE PRODUCTION CAPACITY

+ 55

**CRUDE OIL REFINERIES
AND
PETROLEUM INDUSTRIES
PROJECTS**

~ 1,300,000 BPSD

**OF REFINED OIL PRODUCTION FACILITIES
AND**

+ 5,000 KM

OF PIPELINES & ASSOCIATED STATIONS

+ 50

**GAS REFINERIES AND
ONSHORE PROCESSING
FACILITIES**

**INCLUDING SOUTH PARS GAS FIELD
DEVELOPMENT (SPGFD) PROJECTS**

+ 430 MMSCMD

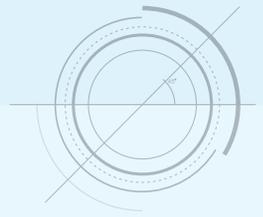
OF TREATED GAS PRODUCTION FACILITIES

AND

+ 5,600,000 TPA OF ETHANE;

~ 6,000,000 TPA OF LPG &

+ 440,000 BPSD OF CONDENSATE



**ONE OF THE LARGEST
OLEFIN PRODUCTION
PLANTS OF THE WORLD**

**1,321,000 TPA OF ETHYLENE
& 305,000 TPA OF PROPYLENE**

JAM PETROCHEMICAL COMPLEX

**THE LARGEST ETHANE
RECOVERY AND
FRACTIONATION PLANT
IN IRAN**

77 MMSCMD OF SWEET GAS

PARS PETROCHEMICAL COMPLEX

**THE BIGGEST GAS
REFINERY IN IRAN**

125 MMSCMD OF NATURAL GAS

FAJR-E JAM (KANGAN) GAS REFINERY

**THE LARGEST INDUSTRIAL
PROJECT IN IRAN**

**81 MMSCMD OF TREATED GAS
& 120,000 BPSD OF CONDENSATE**

PHASE 12 - SPGFD



DESCRIPTION OF MAJOR PROJECTS

OLEFINS

1,000,000 TPA Ethylene Plant (9th Olefin Complex - Assaluyeh)

OWNER / CLIENT:	Arya Sasol Polymer Company
SCOPE OF WORK:	<ul style="list-style-type: none"> • Technology & Know-How • Engineering Design & Procurement Engineering Services • Equipment & Material Supply • Construction Management & Construction Supervision
PRODUCTS:	1,000,000 TPA Ethylene & 90,000 TPA C3+ Cut
PARTNER:	Technip (France)
TECHNOLOGY PROVIDERS:	Technip Benelux (Netherlands) & Technip (France)
CONTRACT AWARD DATE / PROJECT STATUS:	September 2002 / Completed (in operation)



1,000,000 TPA Ethylene Plant
(9th Olefin Complex - Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)



This Plant is among the largest capacity steam-crackers using both gas and liquid as feedstock to produce Ethylene and Propylene.

NARGAN has utilised Technip's know-how and technical support in olefins projects.

1,321,000 TPA Ethylene & 305,000 TPA Propylene Plant (10th Olefin Complex - Assaluyeh)

One of the Largest Cracking Plants in the World

OWNER / CLIENT:	Jam Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Technology & Know-How• Engineering Design & Procurement Engineering Services• Equipment & Material Supply• Construction Management & Construction Supervision
PRODUCTS:	1,321,000 TPA Ethylene, 305,000 TPA Propylene, 220,000 TPA Raw Pyrolysis Gasoline, 245,000 TPA C4+ & 24,000 TPA Cracked Fuel Oil (CFO)
PARTNER:	Technip (France)
TECHNOLOGY PROVIDERS:	Technip Benelux (Netherlands) & Technip (France)
CONTRACT AWARD DATE / PROJECT STATUS:	June 2001 / Completed (in operation)



**1,321,000 TPA Ethylene & 305,000 TPA Propylene Plant
(10th Olefin Complex - Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)**

500,000 TPA Ethylene Plant (5th Olefin Complex - Assaluyeh)

OWNER / CLIENT:	Morvarid Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Technology & Know-How• Engineering Design & Procurement Engineering Services• Equipment & Material Supply• Construction Management & Construction Supervision
PRODUCTS:	500,000 TPA Ethylene & 47,000 TPA C3+ Cut
PARTNER:	Technip (France)
TECHNOLOGY PROVIDERS:	Technip Benelux (Netherlands) & Technip (France)
CONTRACT AWARD DATE / PROJECT STATUS:	September 2002 / Completed (in operation)

2 x 1,000,000 TPA Ethylene Plant (11th Olefin Complex - Assaluyeh)

OWNER / CLIENT:	Kavian Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Engineering Design & Procurement Engineering Services• Site Supervision
PRODUCTS:	Phase 1: 1,000,000 TPA Ethylene & 90,000 TPA C3+ Cut Phase 2: 1,000,000 TPA Ethylene & 90,000 TPA C3+ Cut
CONTRACT AWARD DATE / PROJECT STATUS:	June 2006 / Completed (in operation)



1,000,000 TPA Ethylene Plant
(16th Olefin Complex - Assaluyeh)

OWNER / CLIENT:

Bushehr Petrochemical Company

SCOPE OF WORK:

- Engineering Design & Procurement Engineering Services
- Construction Supervision
- Technical Assistance Services

PRODUCTS:

1,000,000 TPA Ethylene & 88,000 TPA C3+ Cut

CONTRACT AWARD DATE / PROJECT STATUS:

April 2012 / in progress

1,000,000 TPA Ethylene Plant
(8th Olefin Complex - Gachsaran)

OWNER / CLIENT:

Gachsaran Petrochemical Company

SCOPE OF WORK:

Engineering Design & Procurement Engineering Services

PRODUCTS:

1,000,000 TPA Ethylene & 90,000 TPA C3+ Cut

CONTRACT AWARD DATE / PROJECT STATUS:

June 2017 / in progress

POLYOLEFINS

More than 45% of the Iranian Polyolefins (PE & PP) production capacity (i. e. 3,590,000 TPA) is achieved through NARGAN implemented Plants.

300,000 TPA LDPE Plant
(9th Olefin Complex - Assaluyeh)

OWNER / CLIENT:	Arya Sasol Polymer Company
SCOPE OF WORK:	<ul style="list-style-type: none"> • Licence & Technology • Engineering Design & Procurement Engineering Services • Equipment & Material Supply • Construction, Erection & Pre-commissioning • Construction Management & Construction Supervision • Commissioning, Start-up & Performance Tests
PARTNER:	Technip (France)
TECHNOLOGY PROVIDER:	Sabtec (Formerly Stamicarbon-DSM; Netherlands)
CONTRACT AWARD DATE / PROJECT STATUS:	September 2000 / Completed (in operation)

300,000 TPA LDPE Plant
(Kordestan Polyethylene Plant - Sanandaj)

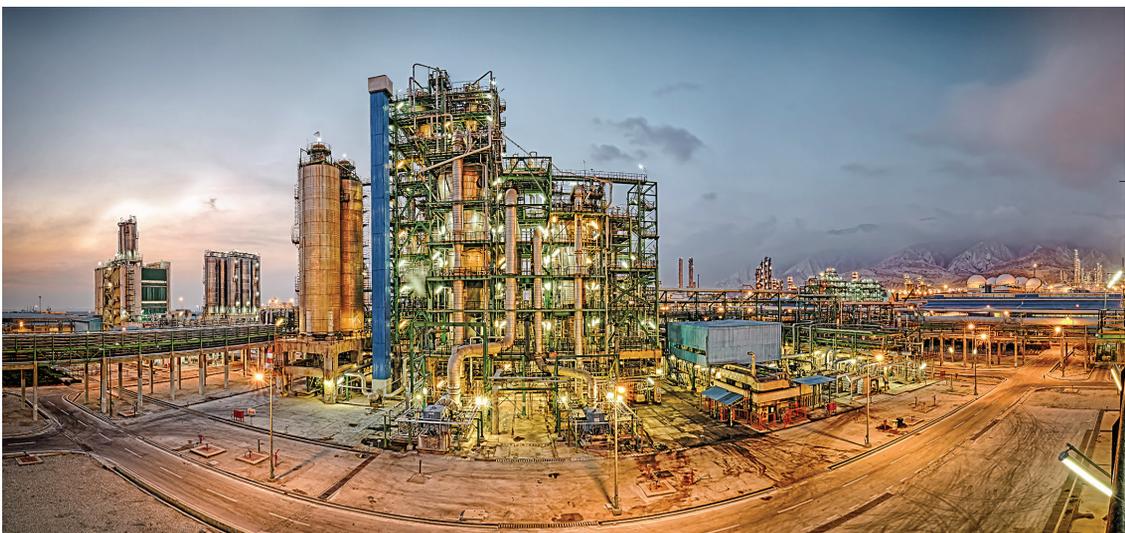
OWNER / CLIENT:	Kordestan Petrochemical Company <i>(an affiliate of Bakhtar Petrochemical Company)</i>
SCOPE OF WORK:	<ul style="list-style-type: none"> • Licence & Technology • Engineering Design & Procurement Engineering Services • Equipment & Material Supply • Commissioning, Start-up & Performance Tests
PARTNER: <i>(As a Subcontractor)</i>	Uhde (Germany)
TECHNOLOGY PROVIDER:	Lyondellbasell (Formerly Basell Polyolefins; Germany)
CONTRACT AWARD DATE / PROJECT STATUS:	September 2007 / Completed (in operation)





300,000 TPA Swing LLDPE/ HDPE Plant (10th Olefin Complex - Assaluyeh)

OWNER / CLIENT:	Jam Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Licence & Technology• Engineering Design & Procurement Engineering Services• Equipment & Material Supply• Construction Management & Construction Supervision
PARTNER:	Tecnimont (Italy)
TECHNOLOGY PROVIDER:	Lyondellbasell (Formerly Basell Polyolefins; Germany)
CONTRACT AWARD DATE / PROJECT STATUS:	February 2001 / Completed (in operation)



**300,000 TPA Swing LLDPE/ HDPE Plant
(10th Olefin Complex - Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)**

300,000 TPA Swing LLDPE/ HDPE Plant
(Lorestan Petrochemical Plant - Khorramabad)

OWNER / CLIENT: Lorestan Petrochemical Company
(an affiliate of Bakhtar Petrochemical Company)

SCOPE OF WORK:

- Licence & Technology
- Engineering Design & Procurement Engineering Services
- Equipment & Material Supply
- Commissioning & Start-up Services

PARTNER: Tecnimont (Italy)

TECHNOLOGY PROVIDER: Lyondellbasell
(Formerly Basell Polyolefins; Germany)

CONTRACT AWARD DATE / PROJECT STATUS: October 2008 / Completed (in operation)

300,000 TPA Swing LLDPE/ HDPE Plant
(Mahabad Petrochemical Plant - Mahabad)

OWNER / CLIENT: Mahabad Petrochemical Company
(an affiliate of Bakhtar Petrochemical Company)

SCOPE OF WORK:

- Licence & Technology
- Engineering Design & Procurement Engineering Services
- Equipment & Material Supply
- Commissioning & Start-up Services

PARTNER: Tecnimont (Italy)

TECHNOLOGY PROVIDER: Lyondellbasell
(Formerly Basell Polyolefins; Germany)

CONTRACT AWARD DATE / PROJECT STATUS: October 2008 / Completed (in operation)



300,000 TPA Polypropylene (PP) Plant (10th Olefin Complex - Assaluyeh)

OWNER / CLIENT:	Jam Polypropylene Company (an affiliate of Jam Petrochemical Company)
SCOPE OF WORK:	<ul style="list-style-type: none">• Licence & Technology• Engineering Design & Procurement Engineering Services• Equipment & Material Supply• Field Engineering & Home Office Technical Services• Construction Management & Construction Supervision
PARTNER:	Tecnimont (Italy)
TECHNOLOGY PROVIDER:	Lyondellbasell (Formerly Basell Polyolefins; Germany)
CONTRACT AWARD DATE / PROJECT STATUS:	December 2000 / Completed (in operation)

More than 70% of all Polypropylene production capacity in Iran has been established by NARGAN making us the absolute authority in this field.



300,000 TPA Polypropylene (PP) Plant
(10th Olefin Complex - Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)

300,000 TPA PP Plant
(7th Olefin Complex - Mahshahr)

OWNER / CLIENT:	Marun Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none"> • Licence & Technology • Engineering Design & Procurement Engineering Services • Equipment & Material Supply • Field Engineering • Construction Management & Construction Supervision
PARTNER:	Tecnimont (Italy)
TECHNOLOGY PROVIDER:	Lyondellbasell (Formerly Basell Polyolefins; Germany)
CONTRACT AWARD DATE / PROJECT STATUS:	October 2002 / Completed (in operation)

160,000 TPA PP Plant
(6th Olefin Complex - Mahshahr)

OWNER / CLIENT:	Navid Zar Chimie Industrial Company <i>(Initially: Amir-Kabir Petrochemical Company)</i>
SCOPE OF WORK:	<ul style="list-style-type: none"> • Licence & Technology • Engineering Design & Procurement Engineering Services • Equipment & Material Supply
PARTNER:	Tecnimont (Italy)
TECHNOLOGY PROVIDER:	Montell Technology (Italy)
CONTRACT AWARD DATE / PROJECT STATUS:	March 2000 / Completed (in operation)

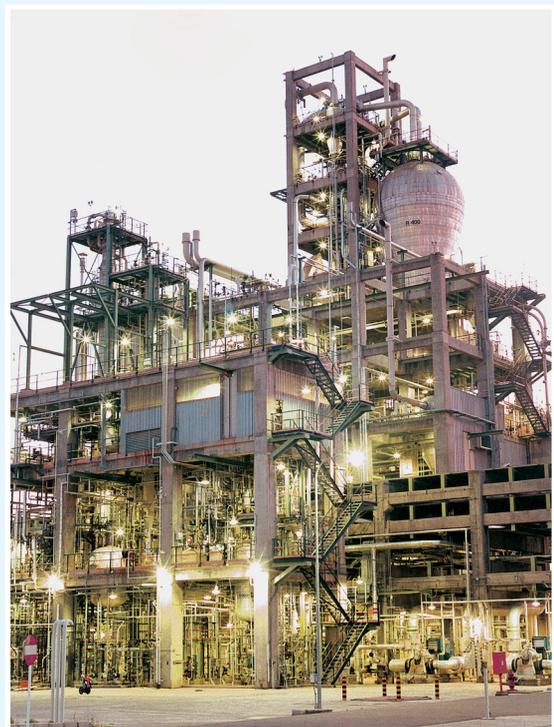


160,000 TPA Polypropylene (PP) Plant
(6th Olefin Complex - Mahshahr)
Petrochemical Special Economic Zone (PSEZ)

80,000 TPA PP Plant
 (Polynar Plant - Tabriz Petrochemical Complex)
Dismantling and Relocation Project

OWNER / CLIENT:	Client: Chimienaft Engineering Company Owner: Polynar Corporation
SCOPE OF WORK:	<ul style="list-style-type: none"> • Supervision of Dismantling of Process Unit in Germany • Engineering Design & Procurement Engineering Services • Field Engineering • Construction Management & Site Supervision
PARTNER:	Sazeh (Iran)
TECHNOLOGY PROVIDER:	Hoechst / Himont (Germany)
CONTRACT AWARD DATE / PROJECT STATUS:	July 1996 / Completed (in operation)

An Exclusive Experience; bringing a second-hand Polypropylene process unit from Germany (Hoechst Complex) and installing it in a new site (Polynar), next to Tabriz Petrochemical Complex.



80,000 TPA Polypropylene (PP) Plant
 (Polynar Plant - Tabriz Petrochemical Complex)



POLYMERS & ARTIFICIAL RUBBERS

200,000 TPA Acrylonitrile Butadiene Styrene (ABS) and 60,000 TPA Rubbers (SBS/SB/LCBR) Plants (Styrene Park - Assaluyeh)

OWNER / CLIENT:	Jam Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Licence & Technology• Engineering Design Services
PARTNER:	Tecnimont (Italy)
TECHNOLOGY PROVIDER:	Versalis ENI (Formerly Polimeri Europa; Italy)
CONTRACT AWARD DATE / PROJECT STATUS:	April 2009 / Completed

137,000 TPA emulsion Styrene Butadiene Rubber (eSBR) Plant (Styrene Park - Assaluyeh)

OWNER / CLIENT:	Sadaf Assaluyeh Chemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Engineering Design & Procurement Engineering Services• Technical Assistance & Supervision Services
PARTNER: (As a Subcontractor)	Tecnimont (Italy)
TECHNOLOGY PROVIDER:	Versalis ENI (Formerly Polimeri Europa; Italy)
CONTRACT AWARD DATE / PROJECT STATUS:	July 2013 / in progress

PETROCHEMICAL PLANTS

100,000 TPA Butene-1 Plant (10th Olefin Complex - Assaluyeh)

OWNER / CLIENT:

Jam Petrochemical Company

SCOPE OF WORK:

- Licence & Technology
- Engineering Design & Procurement Engineering Services
- Equipment & Material Supply
- Construction, Erection & Pre-commissioning
- Construction Management & Construction Supervision
- Commissioning, Start-up & Performance Tests

TECHNOLOGY PROVIDER:

Axens, IFP Group Technologies (France)

CONTRACT AWARD DATE / PROJECT STATUS:

April 2008 / Completed (in operation)



100,000 TPA Butene-1 Plant
(10th Olefin Complex - Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)



30,000 TPA Butene-1 Plant (Lorestan Petrochemical Plant - Khorramabad)

OWNER / CLIENT:	Lorestan Petrochemical Company <i>(an affiliate of Bakhtar Petrochemical Company)</i>
SCOPE OF WORK:	<ul style="list-style-type: none">• Licence & Technology• Engineering Design & Procurement Engineering Services• Equipment & Material Supply• Commissioning & Start-up Services
PARTNER:	Tecnimont (Italy)
TECHNOLOGY PROVIDER:	Axens, IFP Group Technologies (France)
CONTRACT AWARD DATE / PROJECT STATUS:	October 2008 / Completed (in operation)

30,000 TPA Butene-1 Plant (Mahabad Petrochemical Plant - Mahabad)

OWNER / CLIENT:	Mahabad Petrochemical Company <i>(an affiliate of Bakhtar Petrochemical Company)</i>
SCOPE OF WORK:	<ul style="list-style-type: none">• Licence & Technology• Engineering Design & Procurement Engineering Services• Equipment & Material Supply• Commissioning & Start-up Services
PARTNER:	Tecnimont (Italy)
TECHNOLOGY PROVIDER:	Axens, IFP Group Technologies (France)
CONTRACT AWARD DATE / PROJECT STATUS:	October 2008 / Completed (in operation)

Integrated 300,000 TPA Ammonia and 1,000,000 TPA Methanol Plants
(Assaluyeh)

OWNER / CLIENT: Lavan Investment Development Company (LIDCO)

SCOPE OF WORK: Engineering Design & Procurement Engineering Services

TECHNOLOGY PROVIDER: Haldor Topsøe (Denmark)

CONTRACT AWARD DATE / PROJECT STATUS: September 2014 (Reactive: 2018) / in progress

40,000 TPA Phthalic Anhydride Plant
(Esfahan Petrochemical Complex - Esfahan)

OWNER / CLIENT: Esfahan Petrochemical Company

SCOPE OF WORK:

- Licence & Technology
- Engineering Design & Procurement Engineering Services
- Equipment & Material Supply
- Construction, Erection & Pre-commissioning
- Commissioning, Start-up & Performance Tests

PARTNER: Eurotecnica (Italy)

TECHNOLOGY PROVIDER: Rollechim Impianti (Italy)

CONTRACT AWARD DATE / PROJECT STATUS: January 2005 / Completed (in operation)



20,000 TPA Crystal Melamine Plant (Khorasan Petrochemical Complex - Bojnurd)

OWNER / CLIENT:	Khorasan Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Licence & Technology• Engineering Design & Procurement Engineering Services• Equipment & Material Supply• Construction Management & Construction Supervision
PARTNER & TECHNOLOGY PROVIDER:	Eurotecnica (Italy)
CONTRACT AWARD DATE / PROJECT STATUS:	August 1999 / Completed (in operation)

30,000 TPA Ethanolamines Plant (Arak Petrochemical Complex - Arak)

OWNER / CLIENT:	Arak Shahzand Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Engineering Design & Procurement Engineering Services• Construction Supervision
PRODUCTS:	30,000 TPA Ethanolamines (10,000 TPA MEA, 12,000 TPA DEA & 8,000 TPA TEA)
PARTNER & TECHNOLOGY PROVIDER:	Oxiteno (Brazil)
CONTRACT AWARD DATE / PROJECT STATUS:	July 1995 / Completed (in operation)



180,000 TPA Para-Xylene Plant (Bandar Imam Petrochemical Complex - Mahshahr)

OWNER / CLIENT:

Client: ABAY Engineering Company (Belgium)
and Chimienaft Engineering Company (Iran)

Owner: Bandar Imam Petrochemical Company (BIPC)

SCOPE OF WORK:

- Detail Design Engineering Services
- Procurement Services
- Technical Assistance

TECHNOLOGY PROVIDER:

Axens, IFP Group Technologies (France)

CONTRACT AWARD DATE / PROJECT STATUS:

March 1997 / Completed (in operation)



180,000 TPA Para-Xylene Plant
(Bandar Imam Petrochemical Complex (BIPC) - Mahshahr)
Petrochemical Special Economic Zone (PSEZ)



250,000 TPA Di-Ammonium Phosphate (DAP) Plant (Razi Petrochemical Complex - Mahshahr)

OWNER / CLIENT:	Client: National Petrochemical Company (NPC) Owner: Razi Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Engineering Design & Procurement Engineering Services• Construction Management & Construction Supervision• Commissioning & Start-up
PARTNER:	Didier Engineering Company (Germany)
TECHNOLOGY PROVIDER:	Stamicarbon (Netherlands)
CONTRACT AWARD DATE / PROJECT STATUS:	June 1984 / Completed (in operation)

177,000 TPA Pyrolysis Gasoline Hydrogenation (PGH) Plant (Arak Petrochemical Complex - Arak)

Expansion Project (from 105,000 TPA to 177,000 TPA PGH)

OWNER / CLIENT:	Client: Technip Italy Owner: Arak Shazand Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none">• Detail Design Engineering Services• Procurement Services
TECHNOLOGY PROVIDERS:	IFP Group Technologies (France) & UOP
CONTRACT AWARD DATE / PROJECT STATUS:	July 1993 / Completed (in operation)



CRUDE OIL REFINERIES

Esfahan Oil Refinery

(Esfahan)

Expansion & Upgrading Project

OWNER / CLIENT:

Client: National Iranian Oil Engineering & Construction Company (NIOEC)
Owner: Esfahan Oil Refining Company

SCOPE OF WORK:

- Engineering Design & Procurement Engineering Services
- Equipment & Material Supply
- Field Engineering

PLANTS / UNITS:

Diesel Hydrotreating Unit (DHT)
Residue Hydrotreating Unit (RHU)
Residue Fluid Catalytic Cracking (RFCC) LPG Merox Unit
RFCC Naphtha Hydrotreating Unit (Prime G+)
Sulphur Recovery, Tail Gas Treating & Solidification Units (SRU, TGTU & SSU)
H2 Production Unit (HPU)

PARTNER:

(As a Subcontractor)

Uhde (Germany)

CONTRACT AWARD DATE / PROJECT STATUS:

April 2008 (Reactive: 2013) / in progress



Isfahan Oil Refinery



Tabriz Shahriyar Oil Refinery (150,000 BPSD; Tabriz)

OWNER / CLIENT:	National Iranian Oil Engineering & Construction Company (NIOEC)
SCOPE OF WORK:	<ul style="list-style-type: none">• Licence, Technology & Know-How• Basic Engineering Design Services
PLANTS / UNITS:	<p>Crude Distillation Units (CDU & VDU) Liquefied Petroleum Gas (LPG) Treating Unit LPG Recovery Unit Propylene Recovery Unit (PRU) Naphtha Hydrotreating Unit (NHT) Isomerisation Unit Continuous Catalytic Reforming Unit (CCR) Fluid Catalytic Cracking Unit (FCC) Diesel Hydrotreating Unit (DHT) Vacuum Diesel (Gas Oil) Hydrotreating Unit (VGO/VHDS) Sulphur Recovery, Tail Gas Treating & Solidification Units (SRU, TGTU & SSU) Amine Treating Unit (ATU) Sour Water Stripping Unit (SWS) H₂ Production Unit (HPU)</p> <p>Utility Plants Offsite Facilities</p>
PARTNER:	KBC Process Technology (Great Britain)
CONTRACT AWARD DATE / PROJECT STATUS:	October 2007 / Completed

About 1,300,000 BPSD of refined oil production facilities

NARGAN has been active in the design, engineering, procurement and construction of many Iranian oil refineries (process plants, utilities and offsite facilities).

Arak Shazand Oil Refinery

(Arak)

Expansion & Upgrading Project

OWNER / CLIENT:

Client: Oil Design & Construction Company
Owner: Arak Shazand Oil Refining Company

SCOPE OF WORK:

Engineering Design & Procurement Engineering Services

PLANTS / UNITS:

LPG (C3/C4) Merox Unit
Propylene Recovery Unit (PRU)
Sulphur Recovery & Tail Gas Treating Units (SRU & TGTU)
Amine Treating Unit (ATU)
Sour Water Stripping Unit (SWS)

CONTRACT AWARD DATE / PROJECT STATUS:

August 2006 / Completed (in operation)

Tehran Oil Refinery

(Ray)

Expansion & Upgrading Project

OWNER / CLIENT:

Client: Oil Design & Construction Company
Owner: Tehran Oil Refining Company

SCOPE OF WORK:

Engineering Design & Procurement Engineering Services

PLANTS / UNITS:

LPG (C3/C4) Recovery Unit
Sulphur Recovery & Tail Gas Treating Units (SRU & TGTU)
Amine Treating Unit (ATU)
Sour Water Stripping Unit (SWS)
H2 Production Unit (HPU)

Utility Plants
Offsite Facilities

CONTRACT AWARD DATE / PROJECT STATUS:

December 2007 / Completed (in operation)



Abadan Oil Refinery (Abadan)

Reconstruction, Revamping & Upgrading Project

OWNER / CLIENT:	National Iranian Oil Company (NIOC)
SCOPE OF WORK:	<ul style="list-style-type: none">• Engineering Design & Procurement Engineering Services• Preparation of Construction Tender Documents• Construction Management & Construction Supervision
PLANTS / UNITS:	Crude Distillation Unit (CDU; Revamp) Vacuum Distillation Unit (VDU; New) Visbreaker Unit (New)
PARTNER:	Sazeh (Iran)
CONTRACT AWARD DATE / PROJECT STATUS:	February 1991 / Completed (in operation)

Bandar Abbas Oil Refinery (8th Refinery; Bandar Abbas)

OWNER / CLIENT:	Client: Chiyoda Corporation (Japan) & Snamprogetti ENI (Italy) Owner: Bandar Abbas Oil Refining Company
SCOPE OF WORK:	Engineering Design & Procurement Engineering Services
PLANTS / UNITS:	LPG (C3/C4) Recovery Units Kerosene Hydrotreating Unit (KHT) Amine Treating Units (ATU) Sour Water Stripping Unit (SWS)
CONTRACT AWARD DATE / PROJECT STATUS:	September 1990 / Completed (in operation)

OIL INDUSTRIES

Sirri "C, D & E" Oil Fields Development (Persian Gulf)

OWNER / CLIENT:	SOFIRAN (Iran & France; C & D Oil Fields) and Iranian Offshore Oil Company (IOOC; E Oil Field)
SCOPE OF WORK:	Engineering Services
CAPACITY:	13,000 BPSD Crude Oil (C & D Oil Fields) and 90,000 BPSD Crude Oil (E Oil Field)
CONTRACT AWARD DATE / PROJECT STATUS:	July 1975 (C & D Oil Fields) and May 1987 (E Oil Field) / Completed

NARGAN's scope of work in oil industries covers a wide range, from field development and upstream onshore facilities to production units, desalting plants and crude oil / condensate refineries.



Sirri "C, D & E" Oil Fields
Persian Gulf



Bahregansar Onshore Facilities

(Persian Gulf)

Renovation & Reconstruction Project

OWNER / CLIENT:	Iranian Offshore Engineering & Construction Company (IOEC)
SCOPE OF WORK:	<ul style="list-style-type: none">• Engineering Design & Procurement Engineering Services• Technical Services
CAPACITY:	60,000 BPSD Stabilised Crude Oil
CONTRACT AWARD DATE / PROJECT STATUS:	February 1996 / Completed

Jofeir Oil Field Development

(South Oil Field)

OWNER / CLIENT:	Client: Belarusneft (Belarus) & Petroleum Development Company (PEDCO) Owner: Petroleum Engineering & Development Company (PEDEC)
SCOPE OF WORK:	<ul style="list-style-type: none">• Conceptual Study• Front End Engineering Design (FEED) Services• Preparation of EPC Contract
CAPACITY:	25,000 BPSD Crude Oil
CONTRACT AWARD DATE / PROJECT STATUS:	February 2008 / Completed

Zagros Oil Fields Development (Zagros Mountains; South West of Iran)

OWNER / CLIENT:	SIRIP (Iran & Italy) & Technip (France)
SCOPE OF WORK:	<ul style="list-style-type: none">• Engineering Design & Procurement Engineering Services• Preparation of Contract• Preparation of Construction Tender Documents
CAPACITY:	50,000 BPSD Stabilised Crude Oil
PARTNERS:	Technip & Technaa (Iranian subsidiary of Technip France)
CONTRACT AWARD DATE / PROJECT STATUS:	January 1976 / Completed



**77 MMSCMD Ethane Recovery & Fractionation Plant
(9th Olefin Complex - Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)**



GAS SEPARATION (FEED PREPARATION FOR PETROCHEMICAL PLANTS)

C2+ Recovery & Fractionation Plant (9th Olefin Complex - Assaluyeh)

The Largest C2+ Recovery & Fractionation Plant in Iran

OWNER / CLIENT:

Pars Petrochemical Company

SCOPE OF WORK:

- Technology & Know-How
- Engineering Design & Procurement Engineering Services
- Equipment & Material Supply
- Construction Management & Construction Supervision

PRODUCTS & CAPACITY:

77 MMSCMD (2,700 MMSCFD) of Gas Separation Facilities; including:

1,612,000 TPA Ethane (C2), 980,000 TPA Propane (C3),
566,000 TPA Butane (C4) & 95,000 TPA C5+ Cut

PARTNER & TECHNOLOGY PROVIDER:

Linde (Germany)

CONTRACT AWARD DATE / PROJECT STATUS:

September 2000 / Completed (in operation)

NARGAN has utilised Linde's know-how and technical support in Ethane recovery & fractionation projects.



**77 MMSCMD Ethane Recovery & Fractionation Plant
(9th Olefin Complex - Assaluyeh)
Pars Special Economic / Energy Zone (PSEEZ)**

C2+ Recovery Plant

(7th Olefin Complex - Ahwaz)

OWNER / CLIENT:	Marun Petrochemical Company
SCOPE OF WORK:	<ul style="list-style-type: none"> • Technology & Know-How • Engineering Design & Procurement Engineering Services • Equipment & Material Supply • Technical Assistance • Construction Management & Construction Supervision
CAPACITY:	1,909,000 TPA C2+ Cut (from rich gas)
PARTNER & TECHNOLOGY PROVIDER:	Linde (Germany)
CONTRACT AWARD DATE / PROJECT STATUS:	April 2000 / Completed (in operation)

Ethane & Propane (C2/C3) Recovery Plant

(Bandar Imam Petrochemical Complex – Mahshahr)

OWNER / CLIENT:	Bandar Imam Petrochemical Company (BIPC)
SCOPE OF WORK:	<ul style="list-style-type: none"> • Engineering Design & Procurement Engineering Services • Equipment & Material Supply • Construction Management & Construction Supervision
CAPACITY & PRODUCTS (from Fuel Gas):	173,000 TPA Ethane (C2), 50,000 TPA Propane (C3) & 44,000 TPA Fuel Gas
PARTNER (As a Subcontractor) & TECHNOLOGY PROVIDERS:	Linde (Germany)
CONTRACT AWARD DATE / PROJECT STATUS:	December 2001 / Completed (in operation)



NATURAL GAS REFINERIES, GATHERING & INJECTION FACILITIES

125 MMNCMD Fajr-e Jam (Kangan) Gas Refinery (Nar & Kangan Gas Fields Development - Jam)

The Largest Gas Treatment Facilities In Iran

OWNER / CLIENT:	Fajr-e Jam Gas Refining Company <i>(Initially: National Iranian Oil Company; NIOC)</i>
SCOPE OF WORK:	<ul style="list-style-type: none">• Engineering Design & Procurement Engineering Services• Field Engineering• Construction Management & Site Supervision
PRODUCTS:	125 MMNCMD Treated Gas (ultimate) & 5,000 CMD LPG
CONTRACT AWARD DATE / PROJECT STATUS:	Various Projects June 1980 (Nar Field) & December 1982 (Kangan Field) / Completed (in operation)



125 MMNCMD Fajr-e Jam (Kangan) Natural Gas Refinery

**+ 3,200,000
Engineering Man-Hours**

Sarkhun II Gas Refinery (Sarkhun - Hormuzgan Province)
 14.4 MMSCMD Treated Gas; 30,000 TPA LPG & 11,000 BPSD Condensate
Gas Treatment Plant & Gathering System

OWNER / CLIENT:	National Iranian Oil Company (NIOC)
SCOPE OF WORK:	<ul style="list-style-type: none"> • Engineering Design & Procurement Engineering Services • Construction Management & Construction Supervision
CONTRACT AWARD DATE / PROJECT STATUS:	June 1984 / Completed (in operation)

12.7 MMSCMD Khangiran Gas Gathering Facilities
 (Saraks - Khorasan Province)
Gas Gathering System & Pipelines (Phase I)

OWNER / CLIENT:	National Iranian Oil Company (NIOC) <i>(Exploration & Production Subsidiary)</i>
SCOPE OF WORK:	<ul style="list-style-type: none"> • Engineering Design & Procurement Engineering Services • Construction Management
CONTRACT AWARD DATE / PROJECT STATUS:	March 1998 / Completed (in operation)

Ramshir Gas Injection Facilities
 (Ramshir - Khuzestan Province)

OWNER / CLIENT:	National Iranian Oil Company (NIOC)
SCOPE OF WORK:	<ul style="list-style-type: none"> • Engineering Design & Procurement Engineering Services • Equipment & Material Supply
CAPACITY / PRODUCTS:	1.8 MMSCMD Treated Gas and 10 BPSD NGL (Project I); Injection of 2.2 MMSCMD of Gas into the Oil Reservoir
CONTRACT AWARD DATE / PROJECT STATUS:	1993 (Project I) & 1995 (Project II) / Completed (in operation)



KANGAN NATURAL GAS REFINERY
The Largest Gas Treatment Facilities In Iran



**ONSHORE GAS PROCESSING FACILITIES
SOUTH PARS GAS FIELD DEVELOPMENT (SPGFD)
(Assaluyeh / Kangan)**

Phase 12 (EPC 3) Gas Processing Facilities (Kangan)

81 MMSCMD Treated Gas; 120,000 BPSD Condensate & 750 TPD Granulated Sulphur

The Largest Industrial Project In Iran

OWNER / CLIENT:

Client: Petropars Company
Owner: Pars Oil & Gas Company (POGC)

SCOPE OF WORK:

- Engineering Design & Procurement Engineering Services
- Equipment & Material Supply
- Construction & Erection & Pre-commissioning
- Commissioning, Start-up & Performance Tests

PARTNERS:

Tecnimont (Italy);
Gamma and Dorriz (Iran, for construction works)

CONTRACT AWARD DATE / PROJECT STATUS:

January 2010 / Completed (in operation)



**Phase 12 Onshore Gas Processing Facilities (Kangan)
South Pars Gas Field Development (SPGFD)**



+ 1.0 Billion €
Worth of Contract (NARGAN's Share)

+ 1,300,000
Engineering Man-Hours



Phase 13 Gas Processing Facilities (Kangan)

50 MMSCMD Treated Gas; 1,000,000 TPA Ethane; 1,100,000 TPA LPG;
80,000 BPSD Condensate & 400 TPD Sulphur

OWNER / CLIENT:

Client: Petrotadbir Pars Company
Owner: Pars Oil & Gas Company (POGC)

SCOPE OF WORK:

Engineering Design & Procurement Engineering Services

CONTRACT AWARD DATE / PROJECT STATUS:

September 2010 / Completed



Phases 15 & 16 Gas Processing Facilities (Assaluyeh)

50 MMSCMD Treated Gas; 1,000,000 TPA Ethane; 1,050,000 TPA LPG;
80,000 BPSD Condensate & 400 TPD Sulphur

OWNER / CLIENT:

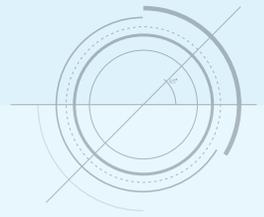
Client: Aryanaft Shahab Company
Owner: Pars Oil & Gas Company (POGC)

SCOPE OF WORK:

Engineering Design & Procurement Engineering Services

CONTRACT AWARD DATE / PROJECT STATUS:

February 2007/ Completed



Phase 19 Gas Processing Facilities (Kangan)

50 MMSCMD Treated Gas; 1,000,000 TPA Ethane; 1,100,000 TPA LPG;
77,000 BPSD Condensate & 400 TPD Sulphur

OWNER / CLIENT:

Client: Petropars Iran Company
Owner: Pars Oil & Gas Company (POGC)

SCOPE OF WORK:

Engineering Design & Procurement Engineering Services

SUBCONTRACTOR:

Kinetics Technology (KT, Italy) for Gas Sweetening Process

CONTRACT AWARD DATE / PROJECT STATUS:

November 2010 / Completed



Phases 22, 23 & 24 Gas Processing Facilities (Kangan)

50 MMSCMD Treated Gas; 1,000,000 TPA Ethane; 1,100,000 TPA LPG;
77,000 BPSD Condensate & 400 TPD Sulphur

OWNER / CLIENT:

Client: Petrosina Arya Company
Owner: Pars Oil & Gas Company (POGC)

SCOPE OF WORK:

Engineering Design & Procurement Engineering Services

CONTRACT AWARD DATE / PROJECT STATUS:

September 2010 / Completed





We Have the Solution...



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