

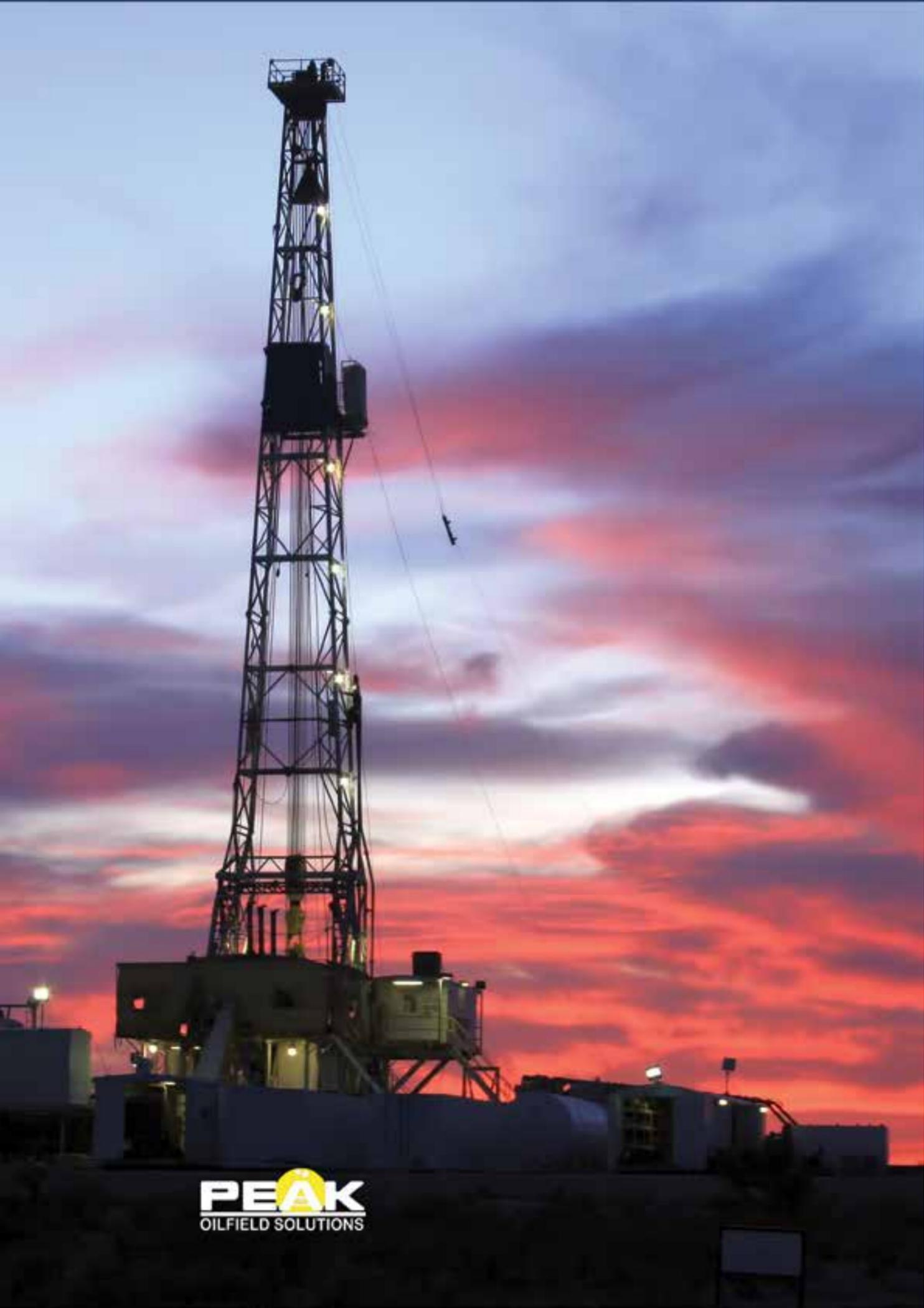
PEAK

OILFIELD SOLUTIONS



Paya Energy Aban Kish

www.PayaServices.com



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Our Mission

- To provide high quality oil field products and services with the most qualified people and equipment.
- Continuous quality improvement while protecting people, assets and the environment.
- To create a working environment for our employees to achieve job satisfaction and career development.
- To manage the company to achieve reasonable return on investment.

Our Vision

To be the world class provider of Integrated Services and Solutions.

Who We Are

PEAK (Paya Energy Aban Kish) is an oilfield Services Company established in Q1 2014 providing solutions for upstream related activities. **PEAK** is established by a group of experienced oilfield experts who worked in national and international service and oil companies.

What We Do

We have experience in Structural study and structure Installation on offshore rigs and platforms, Well Completions sales and services, Slickline Services, Project management, Well testing services and material supplies.



Value

- Health, safety and care for the environment are foundational principles of our businesses.
- Employees are the most important asset of our company. Trust, respect, and dignity shall be the way we treat each other in our company.
- We are committed to absorb and develop new technologies to provide solutions which are cost and time effective.

Organization

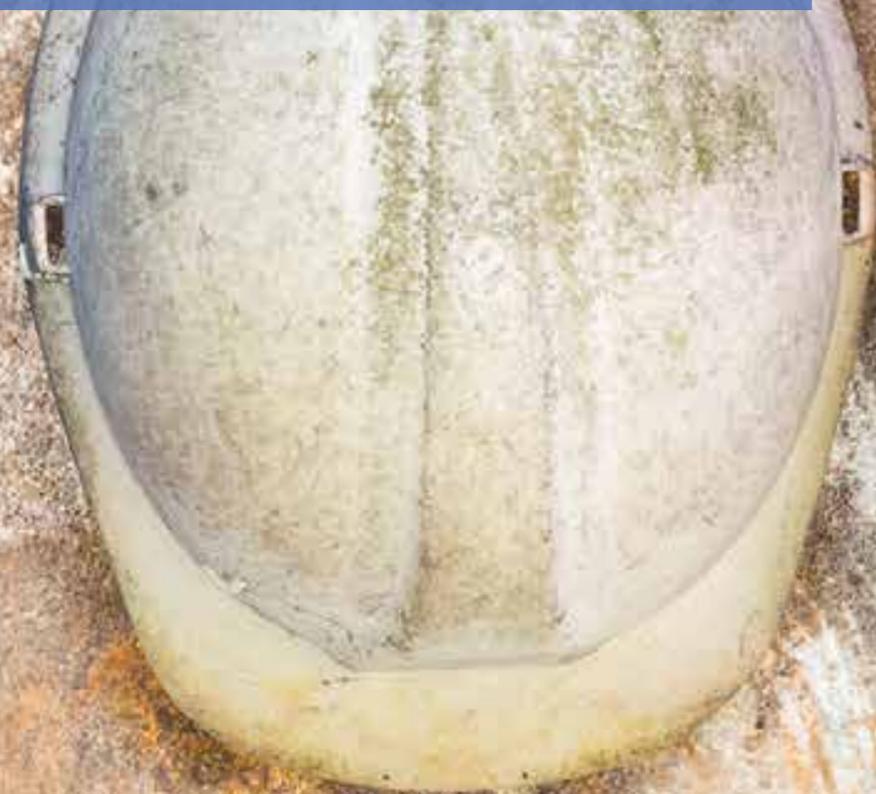
- Management, Sales and support team based in Tehran.
- Operations Manager, workshop supervisor, field engineer, Technicians and team of fabricators and welders based in Kish Island.
- Based on project requirements a team of consultant will be joined.

Facilities

- Head office in Tehran
- 2,500 Sqm workshop and office in Kish Island (sanat 5) with manufacturing facility and service support team
- 1,200 Sqm workshop and office in Kish Island (phase3 industrial area)
- Dedicated Storage Area in Kish island which include air conditioned containers for sensitive material

HSE Policy Statement

- To provide adequate control of the health and safety risks arising from our work activities.
- To consult with our employees on matters affecting their health and safety.
- To provide and maintain safe plant and equipment.
- To provide information, instruction and supervision for employees to ensure all employees are competent to do their tasks, and to give them adequate training.
- To prevent accidents and cases of work-related ill health.
- To maintain safe and healthy working conditions, review and revise this policy as necessary at regular intervals.

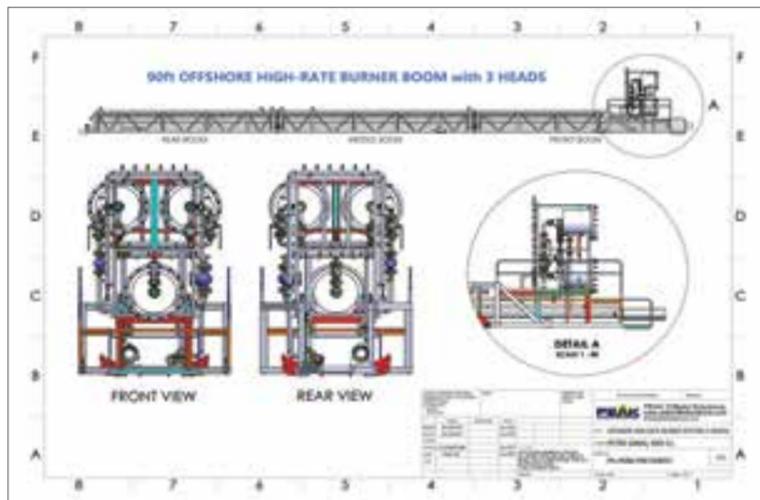
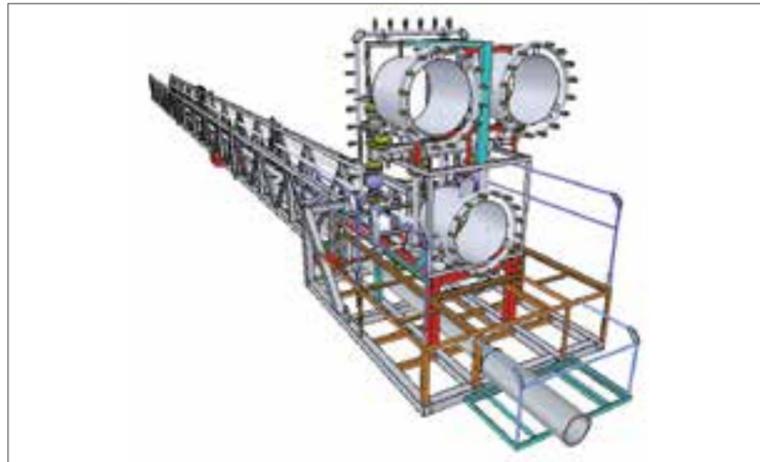




Products & Services

● 90ft. HIGH RATE BURNER BOOM & KING POST

We are the first manufacturer of the "90ft. High Rate Burner Boom & King Post with 3 Tie-Backs" in Iran, which been successfully installed and utilized in an offshore field in Persian Gulf, Iran.

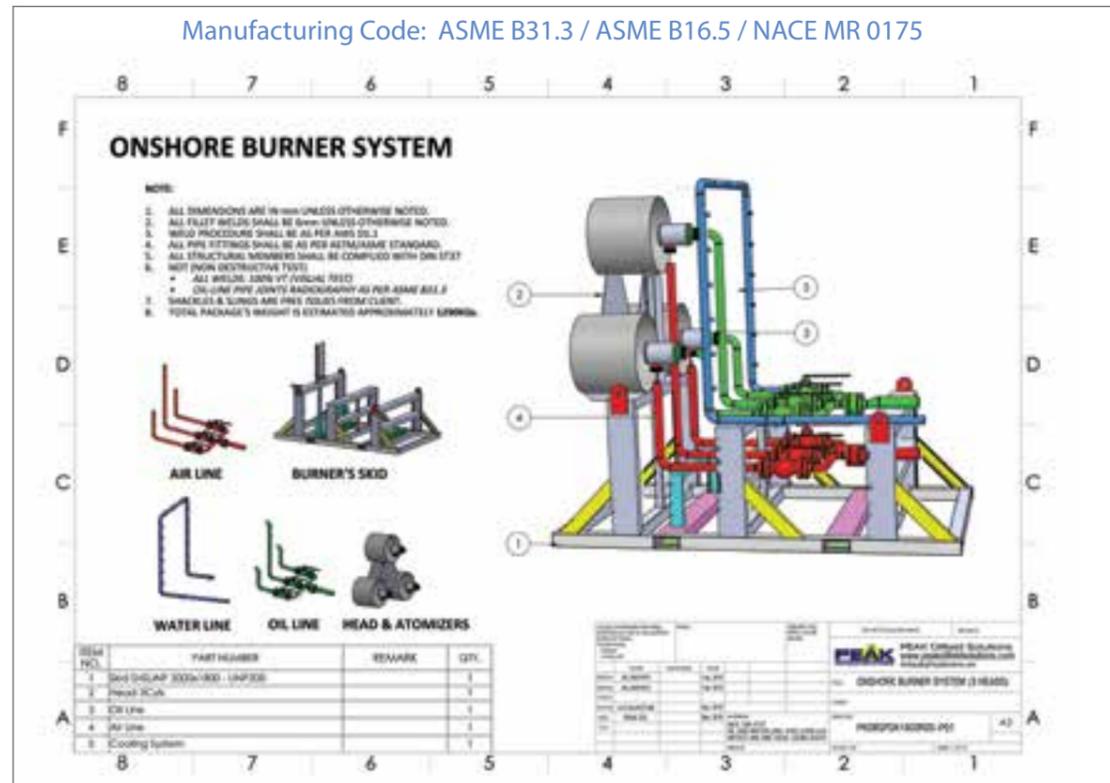


ONSHORE BURNER SYSTEM

We are the first manufacturer of the "3 Heads Onshore Burner System" in Iran.

Environmental Protection, awareness and minimizing pollution becoming a major concern in O&G industry in the world. PEAK burner provide high-efficiency and clean disposal of the oil produced during well testing operation. The burner consists of 3 heads with special design atomizers. It minimize environmental pollution which was a major issue with conventional methods like burning pits. Our target is to minimize environmental damage, while efficiently burning oil & gas.

Manufacturing Code: ASME B31.3 / ASME B16.5 / NACE MR 0175



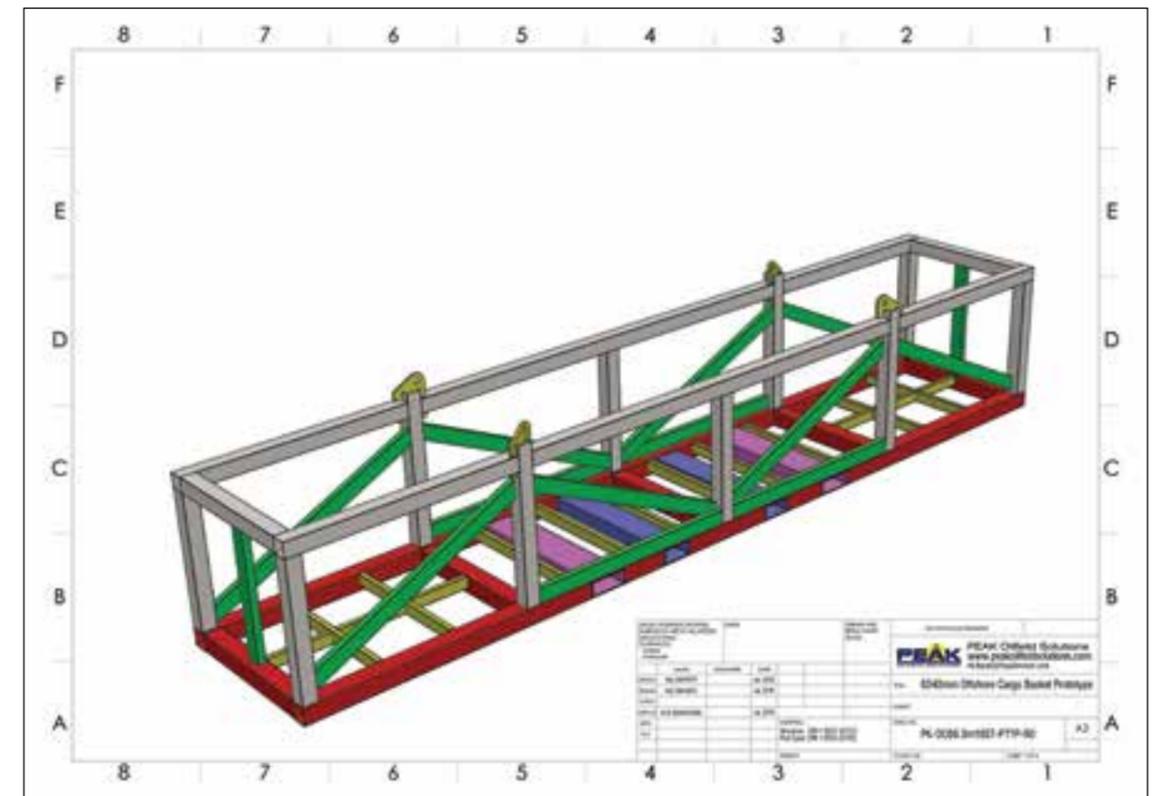
| Fluid | Design PR. (PSIG) | TEST PR. (PSIG) | MAWP OF ASSEMBLY IN (PSIG) |
|-------------------|-------------------|-----------------|----------------------------|
| OIL | 1440 | 2160 | 1440 |
| WATER | 1440 | 2160 | 1440 |
| FLARE | 720 | 1080 | 720 |
| AIR | 1440 | 2160 | 1440 |
| WATER WALL SCREEN | 565 | 848 | 565 |

OFFSHORE CARGO CONTAINERS

We manufacture different types of offshore/onshore containers, as per DNV 2.7-1/ EN12079 and DNV 2.7-3

Portable offshore Units:

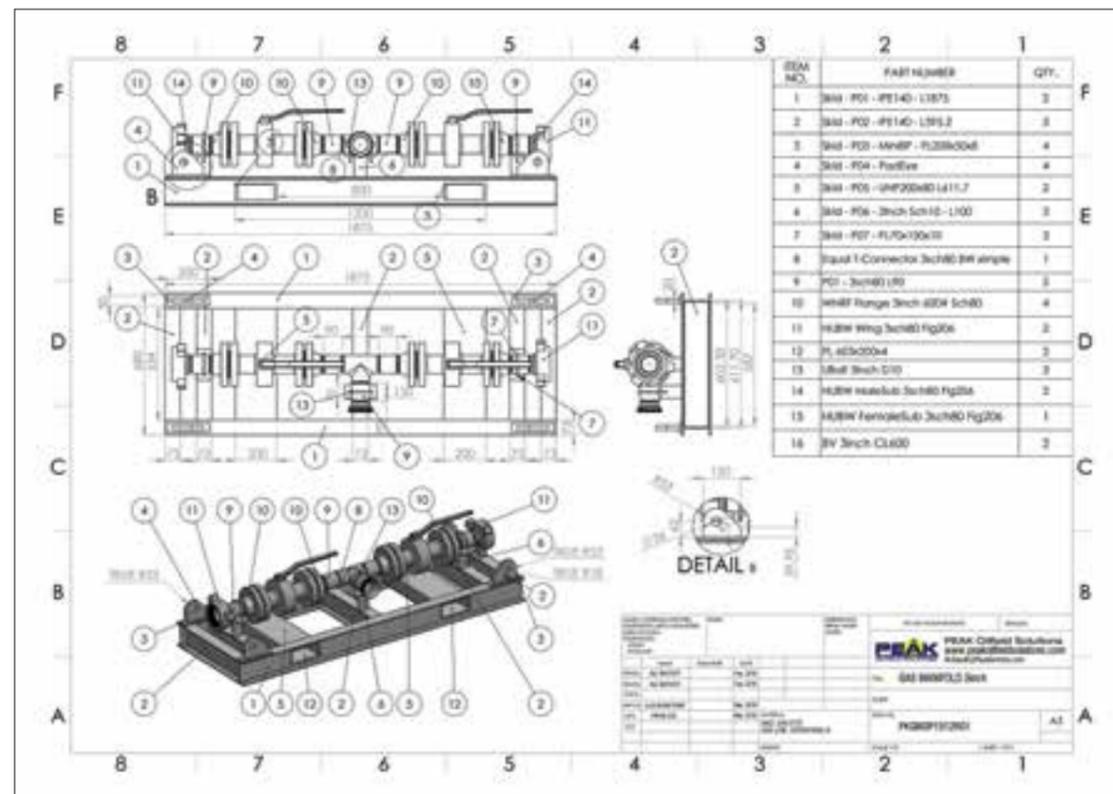
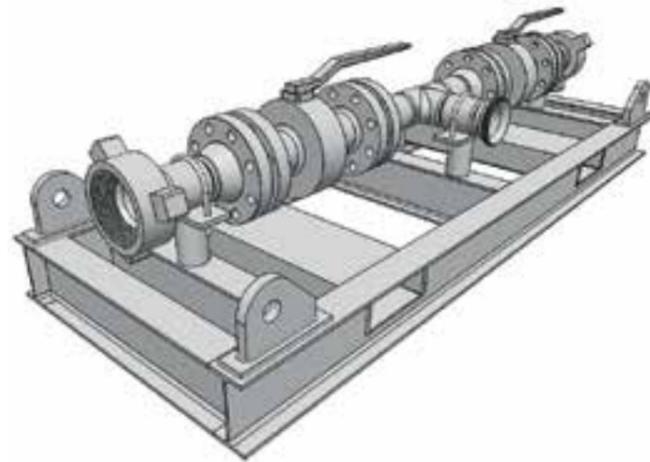
- Pressurized Office Containers.
- Workshop Containers.
- Offshore Cargo/Tools Baskets.
- Drum Baskets.
- Bottle Racks.



● **MANIFOLDS**

We manufacture different types of O&G manifolds.

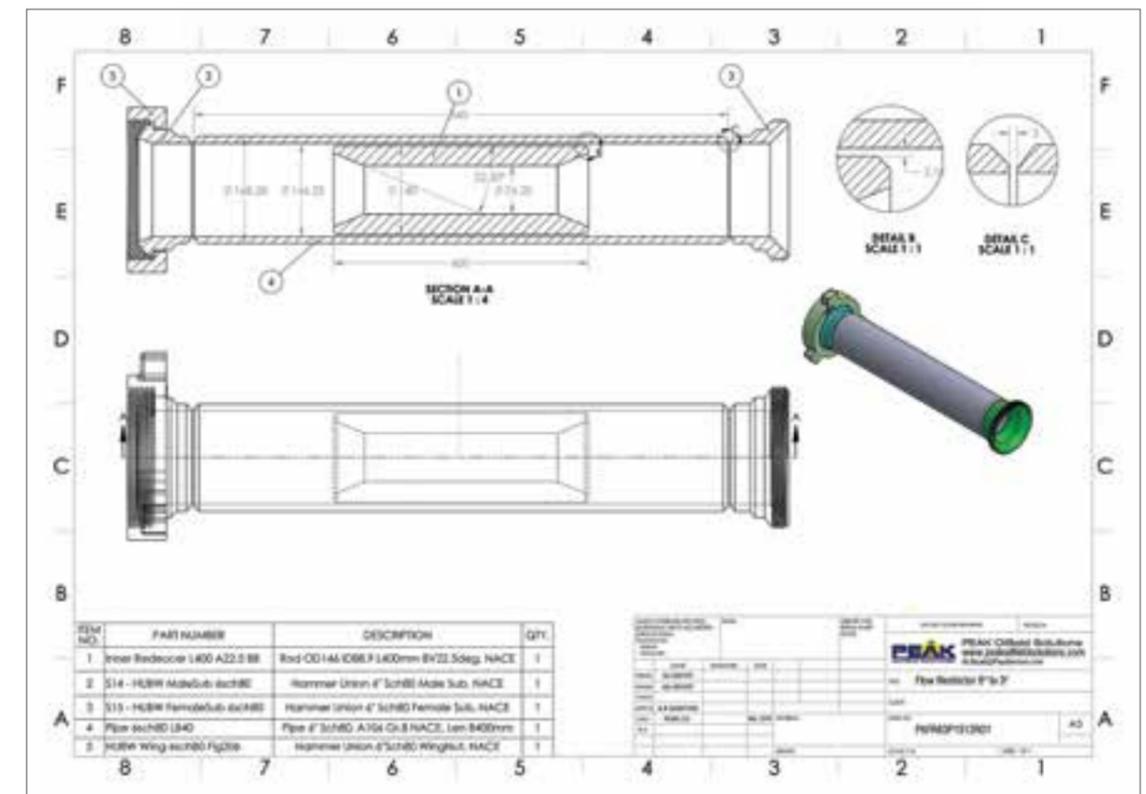
- 2 Way Gas Manifolds in different sizes.
- Choke Manifolds.
- Diverter Manifolds.



● **Well Testing Pipes & Fittings**

We manufacture well testing pipes & fitting in different sizes.

- Up to 6m pipes from 2" to 6", hammer unions at both ends.
- 45 & 90 degrees elbow from 2" to 6", with hammer unions at both ends.
- Flow restrictor, from 2" to 6", with welded hammer unions at both ends.



● **X-Over**

Available in a variety of connection types, sizes, and ODs

- Weco Union to Flange.
- Thread to Box.
- Thread to Thread.
- Box to Box.
- Flange to Flange.
- Etc.



● **Installing**

Installing services available in many cases.

- Installing offshore burner boom and king post.
- Installing rig cooling system.

● **Engineering Repair & Modifications**

This Services are available to be carried out on client base/field, as well as in our base in kish.

- Repairing the Offshore Containers (Cargo, Office, Workshop)
- Performing Modification on Offshore Containers.
- Repair and Modification on Offshore Vessels.
- Repair and Modification on Pressure Vessels.
- Reinforcement, for offshore/onshore infra-structure.
- On-Site Welding Services.
- Sand Blasting & Painting.





◆ RIG/PLATFORM COOLING SYSTEM

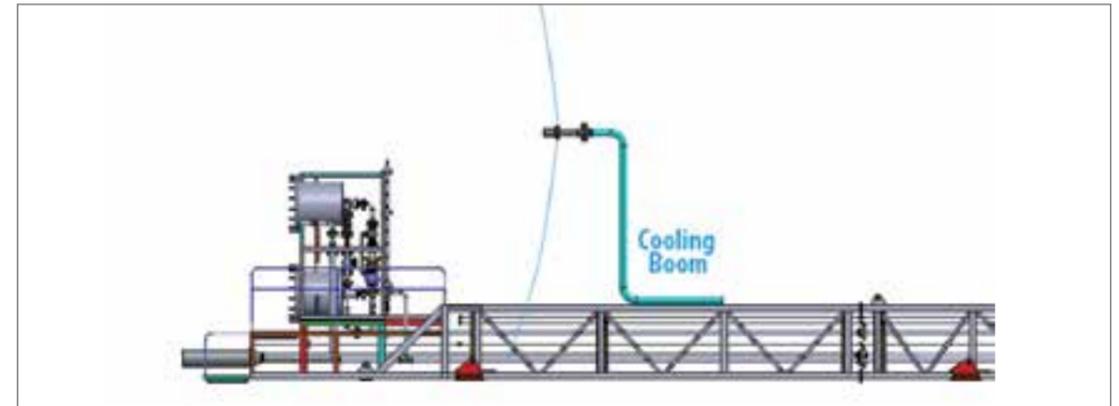
Flare Heat and Thermal Radiation can become significant during high rate and extended well specially in high rate wells like South Pars in Persian Gulf. Rig / Platform cooling system is designed to protect facilities and personnel during Burner flow. PEAK provides engineered pumping solutions and water nozzles to achieve the best result for facilities protection. Our system has a wide range of heat suppression systems to protect personnel and assets from the heat radiation associated with flaring during well testing. From fully independent equipment packages to the smaller boom cooling, rig side packages or the fast mobilizing rig assist packages, we cover all your cooling needs.

- Full rig cooling systems
- Booster pumps
- Electrical and Hydraulic submersible pumps
- Water Reserve tank
- Diesel Generator

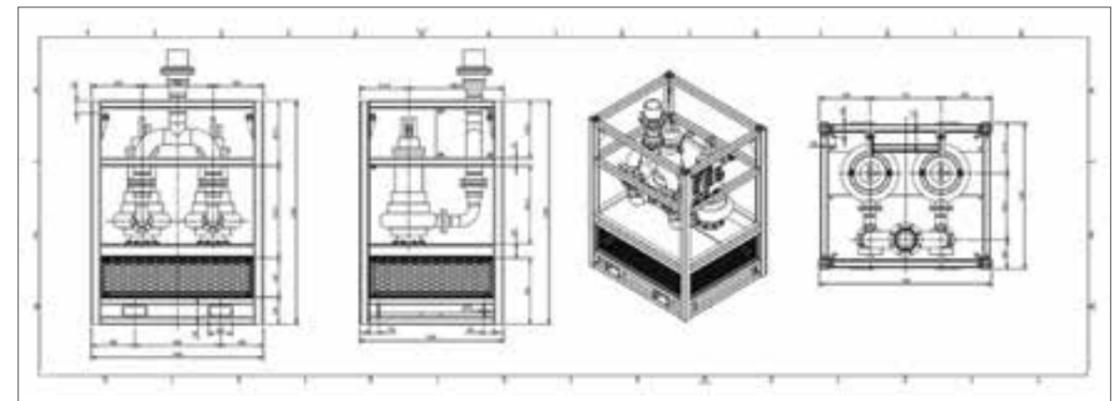
When there is no water supply available from the facility. Submersible and deck based booster pumps supply the required water and pressure to power the system at the most effective flow rates for coverage.

We also can provide multiple smaller nozzles provide the secondary heat radiation barrier. These smaller diameter nozzles create an overlapping parabolic water screen to further refract radiated heat to protect equipment and personnel on the rig.

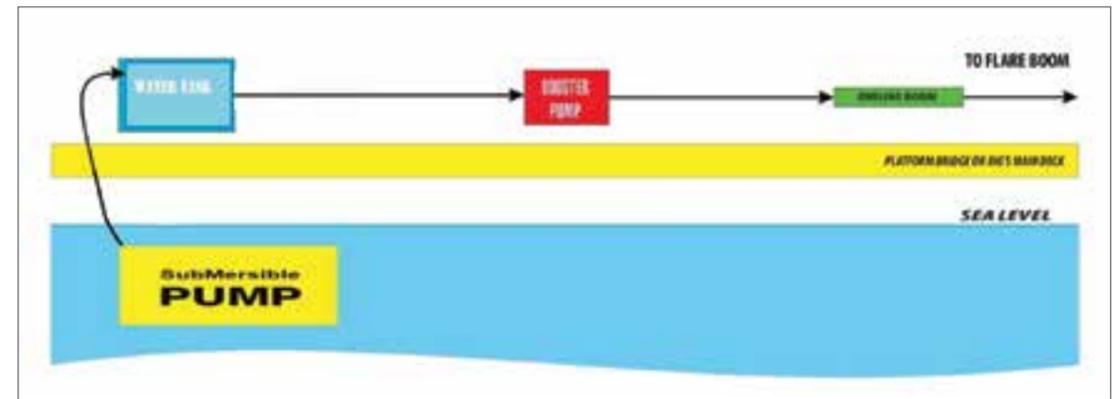
▼ Cooling Boom with Opti Flow Nozzle



▼ Submersible Pump Package



▼ Cooling System Diagram



● Surface Preparation and painting

The scope of industrial site preparation, painting and coating ranges from parts and components like offshore baskets and pipes to bridges to oilfield rigs and platforms and may include aggressive surface preparation techniques and specialized coatings with environmental considerations and restrictions. Clients may have a difficult time in obtaining qualified industrial painting and sandblasting services since the site may present complex challenges and HSE concerns.

PEAK provided a team of skilled technicians in blasting and surface preparation capable to blast any surface in any shape in proper time and high quality in any location needed.

At PEAK, we provide various types of blasting and painting services to the Oil and Gas Industry, including UHP (ultra high pressure), wet blasting and more traditional grit and steel ball blasting. At PEAK we know that surface preparation is essential for satisfactory performance of any paint system. The most expensive and advanced painting systems will fail if surface preparation is inadequate either in cleanliness or surface profile.

Our highly skilled blasters and painters are committed to provide the best solutions, best methods, best quality and best value in areas such as: Shipyards, Plants, and Fabrication Facilities, Onshore and Offshore Projects and more. This enables us to work in difficult to reach locations, for repair work or where there are time restraints in completing a project. Rope Access is a means to complete your projects safely, on-time and within budget.

All our coating systems are applied in accordance with the respective paint manufactures specifications. This process is closely monitored throughout the coating application.

Blasting and Painting Services:

- Air (Less) paint techniques
- Special coating applications
- Manual dry grit blasting
- Spot blast surface preparations
- Automated dust free blasting
- Manual wet blasting (UHP blasting)
- Mechanical preparation
- Manual paint and brush application

To focus on saving our customers time and money we provide high quality paints which can withstand harsh weather conditions offshore. We have 4 months guarantee for all paintings we perform and any possible remedial during guarantee time is free of charge.



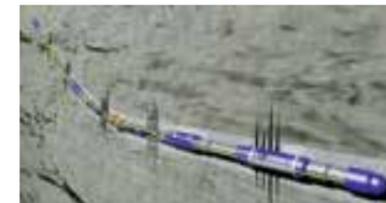
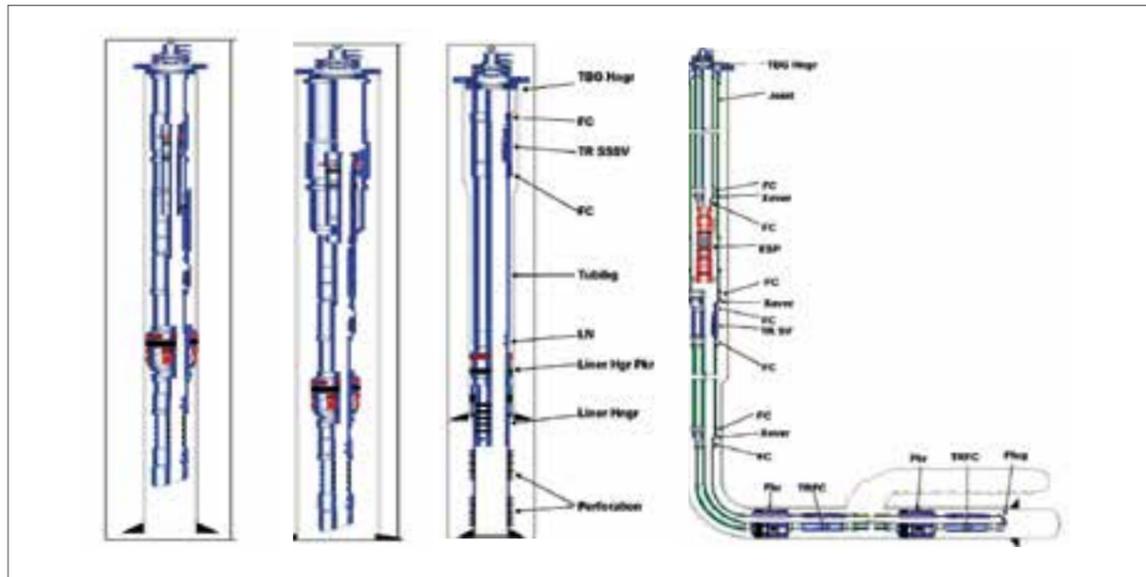
Well Completions Design & Installation

Completions string components as conduit between hydrocarbon reservoirs and surface facilities are an important part of any upstream projects. They are a fundamental part of any hydrocarbon field development project. They have to be designed for safely maximizing the hydrocarbon recovery from the well and may have to last for many years under ever changing conditions.

Issues include: connection with the reservoir rock, avoiding sand production, selecting the correct interval, pumps and other forms of artificial lift, Safety and integrity, equipment selection and installation and future well interventions.

Total experience of PEAK Completions team is more than 2 decades. We have a team of international consultant who are available based on client requirements. We are able to provide consultancy and products including core Completions, Liner Hanger, Sand Control and RMC products and services. Our workshops are based in Kish Island and Ahwaz to support operations in sea and land. We have pressure test bay and our torque machine is arriving in Kish base.

We have number of well-known manufacturers of Completions who are supporting us for any operation from conventional Completions to HP/HT wells.



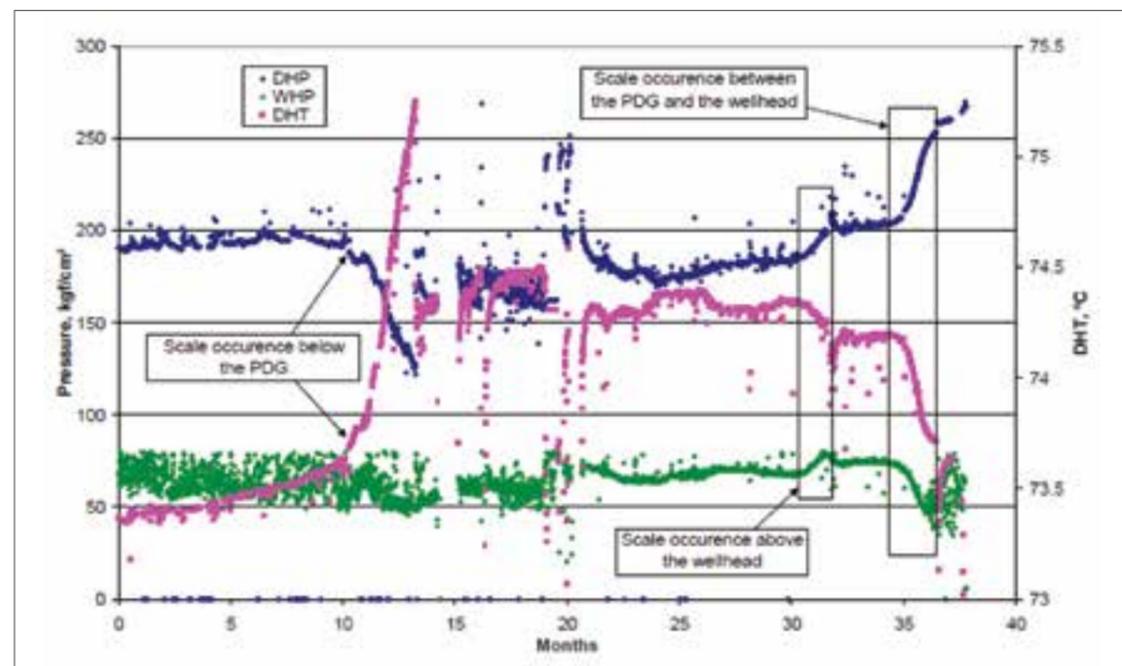
Permanent Downhole Monitoring System

Permanent Downhole Monitoring Systems provide eyes to the well and reservoir which diagnose reservoir characteristics, production performance and downhole tools failure. Sensors record downhole pressure and temperature permanently and send it to surface logger. The raw data are processed using a software. The processed data can be used for following applications:

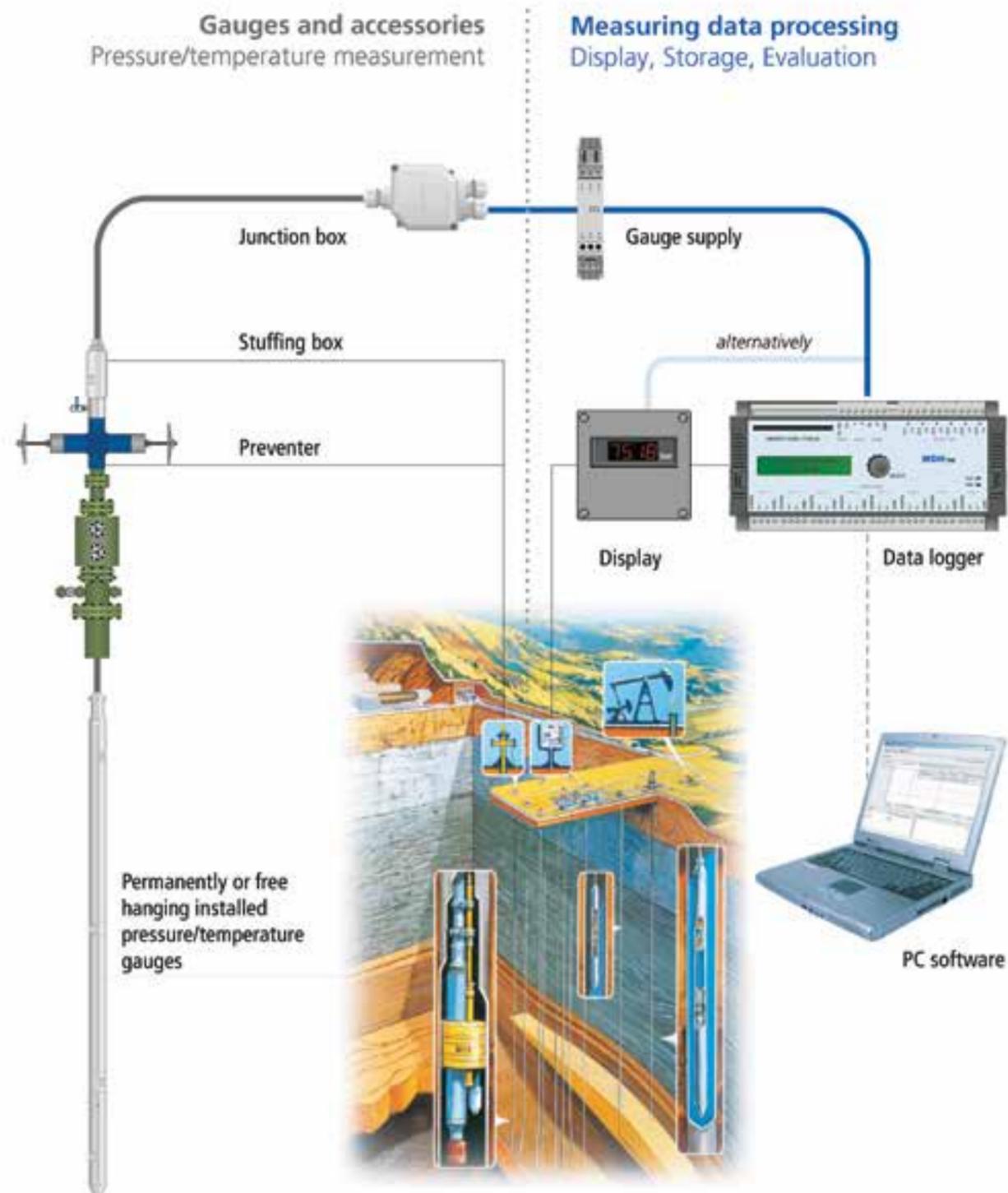
- To optimize reservoir characteristic and production
- Well testing
- Reservoir pressure maintenance control
- To control IOR processes
- To history match numerical model more accurately
- Production flow rate construction
- Well killing calculation
- Sand management
- Hydraulic fracturing
- Gas lifting
- ESP and Sucker rod pump: performance and problem recognition
- Downhole tools failure diagnosis, SSSV, etc
- Gas-oil ratio estimation
- Skin determination
- Reservoir connectivity



We supply, install, and give consultancy to clients for selection and design, operation, interpretation and application of PDG data in reservoir characteristics, management and downhole equipment failure diagnosis.



Schematic function diagram PK system



Rental services

PEAK team has the oil field experience to help you plan for projects from the simple to the complex. Depend on our 24/7 equipment solutions to maximize productivity, reduce costs, and get the job done safely. We have several items available anytime you need to be shipped to offshore or land.

Pressurized and non-pressurized office containers

We have TDA cabins for offshore and onshore operations on rental bases with very good quality and reasonable price.

We also have different sizes of non-pressurized workshop containers available in Kish and Ahwaz.

Well Test Equipment

We have variety of well test equipment such as different size and length of pipes, Manifolds, Burner Boom, land burners, surge tank, etc.

Generators and Compressors

Both our trailer-mounted, diesel-powered generators and our high-quality industrial air compressors come in a range of capacities and are delivered straight to your site.

Pumps

Our pumps are available in 2-inch, 3-inch and 4-inch options, while our skid and trailer-mounted diesel pumps range from 2-inch to 6-inch suction capabilities.

Trash Containers

PEAK offers environmentally friendly waste containment and removal, with trash containers and transports available.

Wireline Hydraulic Mast

We have wireline Hydraulic mast available for rental which can handle 4 tons of weight and 14 meter of height.





● Service Supply

Below mentioned services and any other based on client's requirement.

- Well Completions & Liner Hanger Installation.
- Reservoir Monitoring Services (Permanent Down Hole Gauge, PDG)
- Marine Services (Barge, Crane Barge, Supply Boats, Accommodation Facilities, etc.)
- Rig Cooling System (Customized Design, Base on characteristics of the Flow and Generated Heat of the burning effluent)
- Rental Services (Pressurized Office Container, Air Compressor, Diesel Generator, Offshore Cargo Baskets, Acid Containers, etc.)
- Water Desalination/Purification as per usage requirement.

● Material Supply

Various types of Material can be supplied, based on client's requirement.

- Raw Material (Different grades of steel, Cement, Acid, etc.)
- Components (Valves & Fittings, Connections, Flow Control Components, etc.)
- Consumables (Packing Assemblies, O-Rings, Grease, Dope, etc.)
- Equipment (Full Set of well test equipment, Coiled Tubing related Parts, Batch Mixers, Acid Tank/Cargo, Bridge Plugs, Well Completion Tools, etc.)



Consulting

● Structural Study

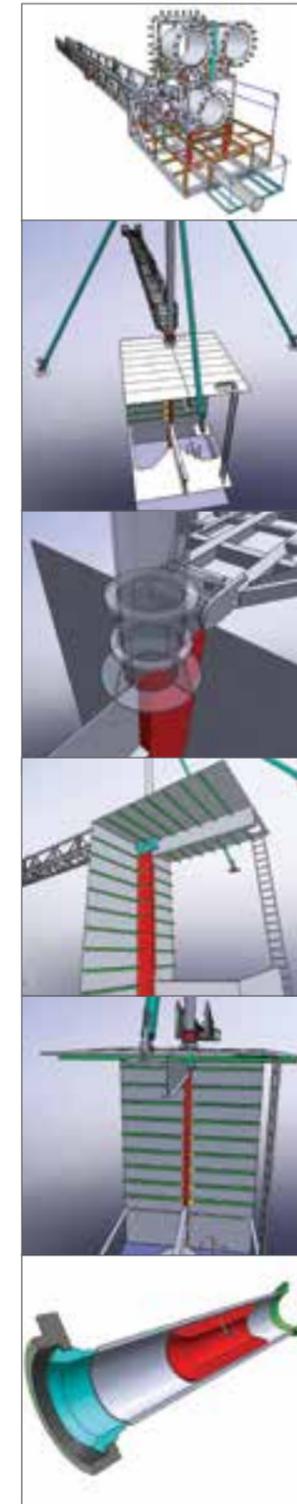
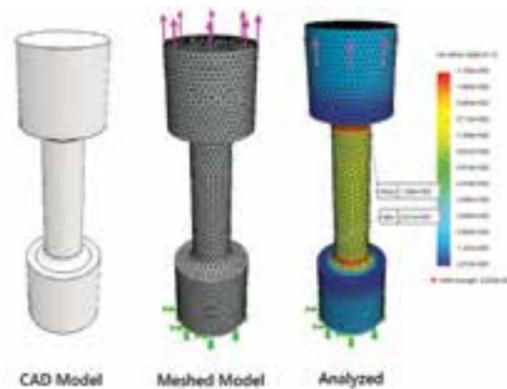
In order to design/modify a structure, regarding the loads and real life situation while utilizing, we carry out a structural study & analysis process to obtain the reaction forces, structural behavior while bearing loads and strength of the structure.

Structural analysis is the determination of the effects of loads on physical structures and their components. Structural analysis employs the fields of applied mechanics, materials science and applied mathematics to compute a structure's deformations, internal forces, stresses, support reactions, accelerations, and stability. The results of the analysis are used to verify a structure's fitness for use, often precluding physical tests. Structural analysis is thus a key part of the engineering design of structures

One of the modern techniques used to simulate the structure's behavior is FEM (Finite Element Method). The finite element method (FEM) is a numerical technique for finding approximate solutions to boundary value problems for partial differential equations. It is also referred to as finite element analysis (FEA). FEM subdivides a large problem into smaller, simpler parts, called finite elements. The simple equations that model these finite elements are then assembled into a larger system of equations that models the entire problem. FEM then uses variational methods from the calculus of variations to approximate a solution by minimizing an associated error function.

Nowadays, this method is vastly implemented in order to simulate many cases as follow:

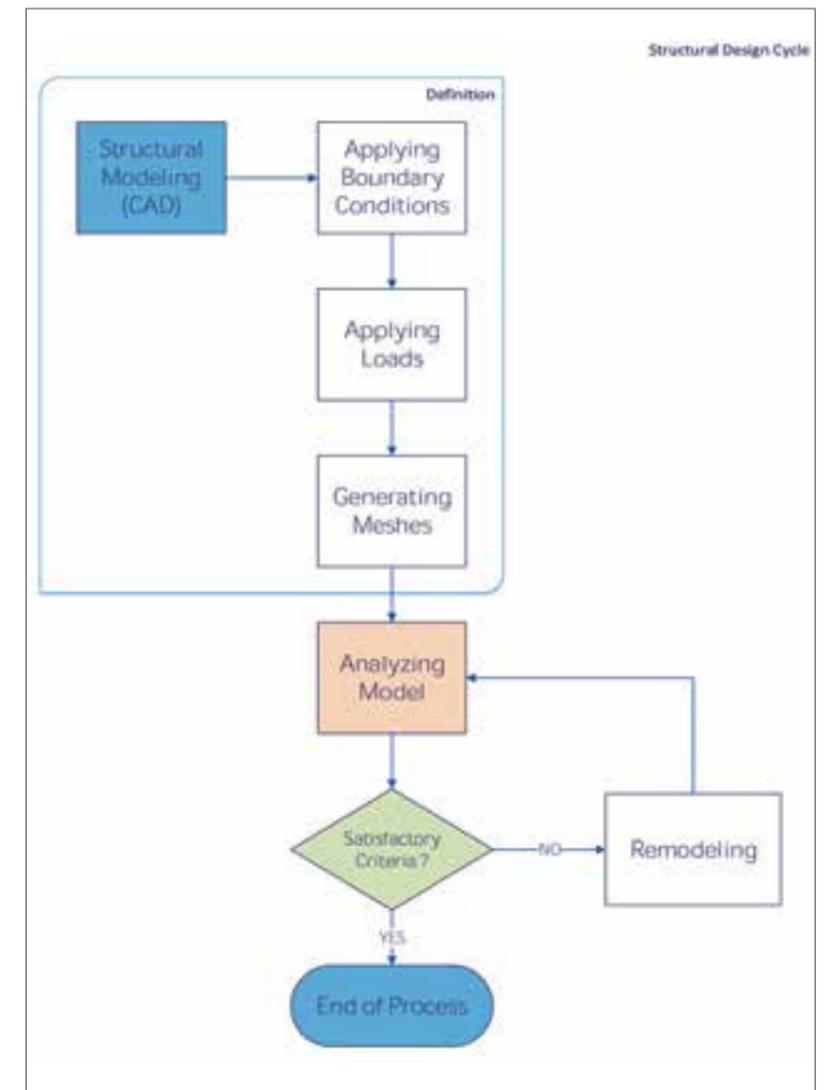
- Static Analysis
- Thermal Analysis
- Frequency Analysis
- Buckling Analysis
- Linear Dynamic
- Drop/impact Test
- Fatigue Analysis
- Pressure Vessel Design
- Nonlinear Analysis



● Structural Study

We implement SolidWorks Premium 2016 & also SAP 2000 for Modeling, Analyzing and Optimizing the structures. To Prepare Shop-Drawings, SolidWorks or Tekla Structures (XSteel) will be used.

▼ Structural Design Cycle



Main Projects and Track Records

SPD15 - Production Platform Rigless Project

SPD16 - Production Platform Rigless Project



DanaEnergy

Client: Dana Energy, PDK

Client: Dana Energy / PDK

Date: March 2015

Date: April 2015

Description:

Description:

1. Manufacturing a Custom designed King Posts.
2. Reinforcing the Platform Bridges as per technical drawing.
3. Installing the King Posts on the reinforced structure.
4. Rig up the 85ft. High rate burner booms, in collaboration with PDK Co.
5. Providing cooling services during well test operations

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Reinforcement & King Post ▲



Reinforcing the Platform ▲



Welding the King Post Base Plate to the Reinforcement ▲



90ft. High Rate Burner Boom ▲



New King-Post & Burner Boom After Installation

SPD21 - Rig Pasargad 100



Client: OIEC

Date: October, 2015

Description:

1. Preparing As-Built drawing of the existing King-Post and Rig's Main-Deck beneath it, after carrying out a rig visit.
2. Performing Structural Study, in order to determine if the existing 4-legs king-post could withstand the weight of the 85ft high rate burner boom (The structural Study showed that the existing king-post will fail, while subjected to the new forces.)
3. Manufacturing 2 sets of King Posts Shaft, 3 Tie-Backs & Base Plates.
4. Rig down/Cutting the old burner boom and existing king post.
5. Reinforcing under Rig's Main Deck water reservoir beneath the king post shaft in both PORT & STBD side, in order to withstand the reaction forces applied to the deck's Plate, by King Post Base-Plate.
6. Reinforcing under Rig's Main Deck water reservoir beneath the middle tie-back in both PORT & STBD side, in order to withstand the up-lift force, generated by the middle tie-backs.
7. Installing the King-Post Shafts and tie-backs, on Rig's Main Deck at both PORT & STBD side.
8. Installing 85ft high rate burner booms for both PORT & STBD side, in collaboration with PDK Co.
9. Designing and manufacturing rig cooling booms and nozzles to protect the rig deck from burner heat.



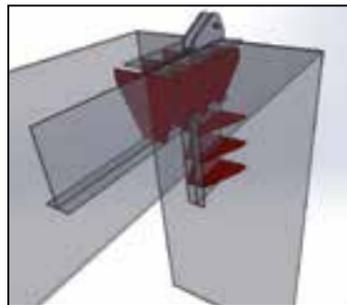
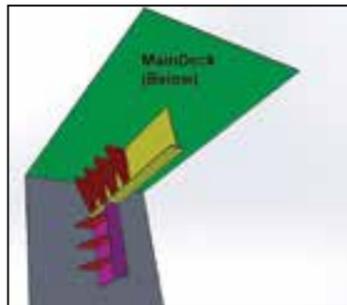
● SPD13 - Rig CPOE 15

Client: PGFK
Date: September 2015



Description:

1. Rig visit & Structural Study, in order to determine the reaction forces applied to Main-Deck's plate from middle tie-back.
2. Design & Manufacturing of 2 sets of middle Tie-Backs & custom designed Base Plates.
3. Design & Manufacturing of custom design Base Plate for middle Tie-Backs.
4. Reinforcing under Rig's Main Deck water reservoir beneath the king post shaft in both PORT & STBD side, in order to withstand the reaction forces applied to the deck's Plate, by King Post Base-Plate.
5. Reinforcing under Rig's Main Deck water reservoir beneath the middle tie-back in both PORT & STBD side, in order to withstand the up-lift force, generated by the middle tie-backs.
6. Installing the King-Post Shafts and tie-backs, on Rig's Main Deck at both PORT & STBD side.
7. Installing 85ft high rate burner booms for both PORT & STBD side, in collaboration with PDK Co.



▶ **Several other rental services, manufacturing and designs for below clients:**
IOEC, OIEC, WSI, Mapna, Petro Kariz, NDDK, etc.



