

Petrotec

MAGAZINE

THE NEWS THAT MATTERS

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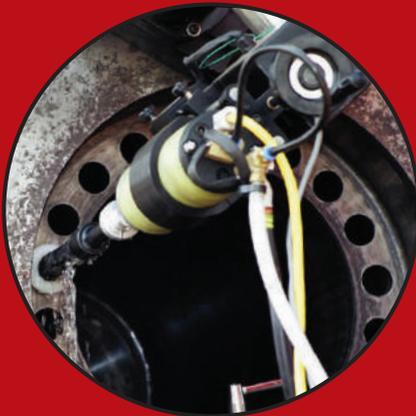
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FROM OUR MANAGING DIRECTOR

2020 has witnessed an unprecedented global challenge caused by the emergence of Covid-19. In addition to the immediate health risks, we are also witnessing a huge impact on local, regional and global economies. For the first time in history, crude oil prices have dropped to below zero, global markets have been put on hold and a huge cloud of uncertainty floats above us all.

Throughout the 30 years of our existence, Petrotec has overcome numerous challenges and 2020 will be no exception. As a well-grounded and resilient company, our teams have continued to provide clients with high quality services throughout the on-going crisis, as we continue to adjust to what has become our new norm. From equipment and parts supplies to maintenance, repair and overhauling services, we have gone the extra mile to make sure that our clients' critical processes and projects remain in-line with their goals. This, despite the human, legal, economic and health factors involved. During these difficult times, the safety of our clients and our employees lies at the top of our priorities. Our health and safety department have worked hard to ensure that our offices and workshops are safe and to ensure business continuity. In addition to complying with regulatory safety requirements imposed by the Qatari government, Petrotec was one of the first companies to allow its employees to continue working from home. We have taken numerous additional steps to ensure the safety of our workforce such as installing hand disinfectants, recording employee and visitor temperatures, ensuring social distancing in offices and conference rooms, as well as the free issue of masks to all employees.

On the business side, Petrotec has had numerous successful contracts this year. Q-Fab continues to cater to the construction market from their recently inaugurated facilities. Our subsidiaries and joint ventures have been working relentlessly to deliver outstanding service as per usual both locally and regionally. Solarca Qatar has recently completed a chemical cleaning project in Oman. Al-Mahhar, has been providing the Kuwaiti construction market with heavy machinery on schedule and despite the on-going partial curfew within the country. The Petrotec group has proved it is capable of quickly adapting to the new worldwide norms by altering its strategy to the new market conditions without compromising service quality and client demands.

We, at Petrotec, are optimistic for the oil and gas business for the 2nd half of 2020 and 2021. However, we prefer to focus on the things that we can control and we are closely working with our suppliers on how we can serve our clients better when the current crisis is over.

I would like to thank all our employees for making this transition as smooth as possible and for their compliance to the obligatory measures to ensure the safety of their colleagues and our clients.



Clifford W. Lasrado

Managing Director

How Petrotec combats the Corona virus pandemic

Petrotec was one of the first companies to implement a work from home strategy to combat the ongoing outbreak of COVID-19. Petrotec's health, safety and environment (QHSE) department is constantly monitoring the evolving situation around the outbreak and is taking all necessary precautions, in line with local government and WHO guidelines to protect all employees in our different locations. These measures include restricting access to Petrotec premises, promoting "social distancing" in offices and workshops, in addition to promoting good and strict personal hygiene practices. Wherever possible, the company has also made the appropriate arrangements for employees to continue to carry on their work from home with enhanced IT support.



In our workshops, we are sparing no effort to ensure that our staff are safe and protected from the risk of infection. The personal commitment from everyone at Petrotec is an example of team spirit in these extraordinary times.

As long as the COVID-19 pandemic continues, Petrotec will remain focused on the below key priorities:

- Continue with our COVID-19 awareness training.
- Work from home for all office staff, if possible.
- Temperature monitoring, checking status of health condition on Ehteraz app and maintaining social distancing practices.
- Disinfecting workshops, accommodations, offices and company vehicles on a regular schedule.
- Ensuring MOPH guidelines are fully adhered by employees.
- Restricting business trips.
- Installing hand washing facilities with soap or sanitizers are provided at entrances and as well as at appropriate locations in all our offices, work shops and accommodations.
- Continuing with central point of contact and cross-functional emergency management team (EMT) to address all the issues arising from the corona virus outbreak in the workplace, including employee health and safety; internal and external messaging; medical and sick leave.
- Actively encouraging our employees to stay at home if they are sick or have been exposed to someone who is sick, and to remain at home.



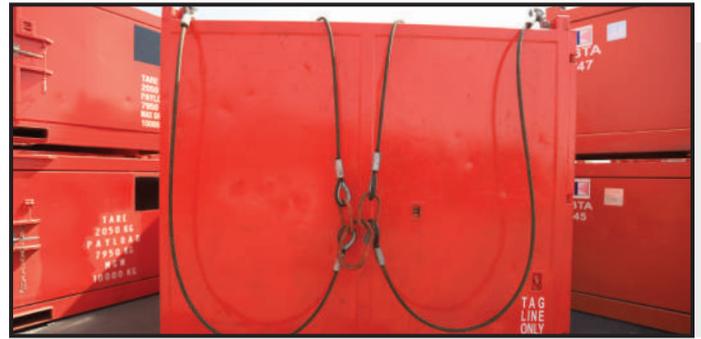
Static Division

Static division had a jump-start beginning 2020. Valve department had two interesting projects to work on. CCU rental department signed a new contract for hiring DNV certified fleet. Additionally, two major shut-down jobs and two projects for onsite services department.

RGPS (Ras Girtas Power Station): Our valves team performed a major service scope involving in-situ repair of valves, gas metering station, a filter separator unit, complete cleaning including filter replacement and 50m flare gas piping replacement for a ground flare system. This challenging and labor-intensive scope was completed well ahead of the narrow 60 hours maintenance window provided by the client. RGPC management appreciated the professional approach of Petrotec's valve services team. All credit for the successful execution of the shutdown goes to every single member of the team for their meticulous dedication, and hard work, working under extreme pressure, whilst continuing to maintain a strong safety culture at our clients' site.



ORYX GTL: The complete refurbishment, including sandblasting painting and certification of 470+ control valves by a 20 strong crew from Petrotec's valve department. Every day the job progress was methodically monitored to ensure the program schedule was on target allowing the client to plan effectively for the re-installation of the valves at site. Our result driven approach and use of operational best practice, ensures our valve service team successfully completed the shutdown on time. We are delighted to advise that this was our 5th consecutive major shutdown for ORYX GTL.



PTSC (PetroVietnam Technical Services Corporation): in Q2 2020, our CCU (Cargo Carrying Unit) rental department signed a contract with PTSC to support them on the Al-Shaheen Phase 2 commissioning project. A fleet of CCU's including bespoke mobile workshops have been prepared and mobilization is on progress, as the project starts to ramp up.

Due to an increased demand the local demand, Petrotec have mobilized an additional 250 units to Qatar to add to the existing fleet. To accommodate these extra units, an additional 6000m² laydown yard was prepared at our base in Ras Laffan west side support area.

RLOC and ORYX GTL: By the end of 2019, Petrotec's management had decided to extend the spark erosion services to our expanding portfolio through investing in a new spark erosion machine. The new unit arrived right on time to service in two major shutdowns. The spark erosion machines were designed to significantly reduce the time and cost involved in removing broken/sheared studs and bolts, minimizing the risk of a delayed plant startup. During the 1st half of 2020, our onsite services team has successfully completed the refurbishment of two pig launchers including pre-machining, cladding and final machining of all the nozzles. The offshore client was delighted with the finish, and has subsequently placed a repeat order for additional pig launchers to be refurbished at our facility.



Petrotec submersible pumps facility

Submersible motor pumps are an indispensable piece of equipment for the offshore industry, mainly due to the robust performance and reliability. The pump is driven by a submersible motor which is flanged directly below the pump. The pump is typically suspended below the platform or vessel either in the sea or in a caisson, so in terms of space allocation, all the installation needs is a simple head plate. The power supply and monitoring is via electric cables and water delivery through a simple vertical discharge column. Submersible motors are specialized in the sense that they operate under water. In addition, the internals are also filled with potable water or in some cases oil. The internal water or oil takes care of bearing lubrication.

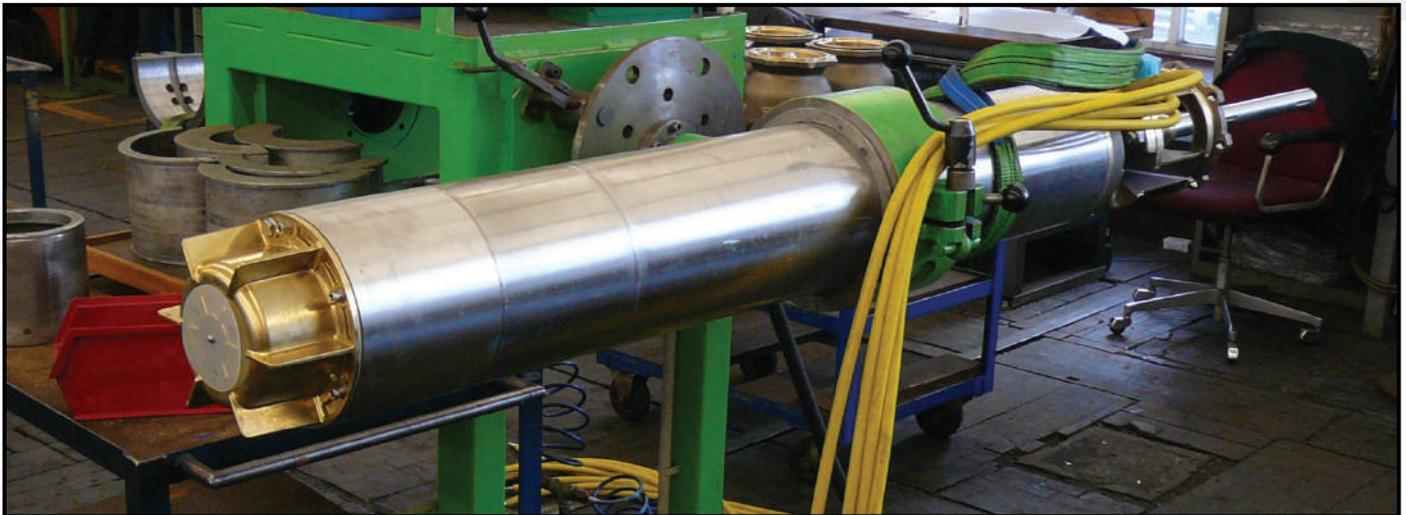
The majority of the offshore platforms and drilling rigs in Qatar use submersible pumps for the critical applications such as ballasting, de ballasting, emergency draining, sea water lift, firefighting and cooling water.

Inspection, repair/overhaul and testing

Repair and testing of submersible pumps and motors was not available in Qatar and all these units were repaired and tested either in OEM facilities in Europe or neighboring countries. As part of the services localization initiative and In Country Value (ICV), Petrotec has set up a state of the art submersible pump repair and testing facility in Qatar.

The service team consists of highly skilled, experienced and OEM trained service engineers and technicians. The facility is located in Ras Laffan and is operational since 2018 and caters to all major offshore and onshore operators.

Petrotec has recently helped several offshore operators and service companies to service and test their submersible pumps in our facility in Ras Laffan.



The range of duty parameters include:

- Flows up to 4500 m³/h (19 800 gpm)
- Heads up to 800 m (2600 ft)
- Motor sizes up to 1500 kW (2000 hp)

Types of Motors include:

- Oil filled
- Water filled with internal cooling

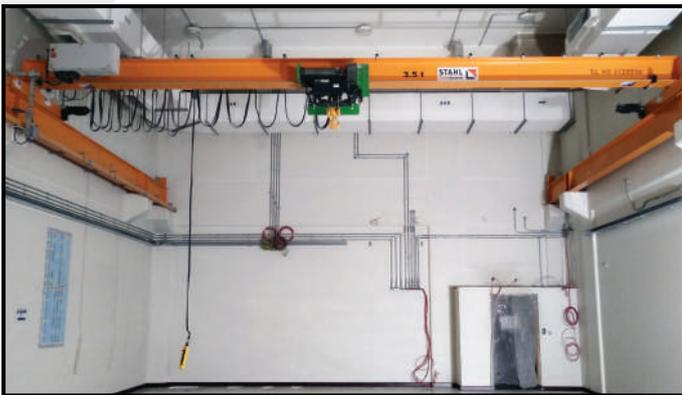
About Pumps and Seals Division

Petrotec's Pumps and Seals Division launched its activities in 2006 by opening a Flowserve authorized distribution and Service Centre for Mechanical Seals. This facility offers refurbishment, repair and static pressure testing of mechanical seals amongst other services to our clients in Qatar. The division strengthened its offering by opening a fully- fledged pump service centre in 2017. This facility is able to repair pumps from the oil and gas, power, water and downstream industries. 2019 will see the capability increased to include dry gas seals.

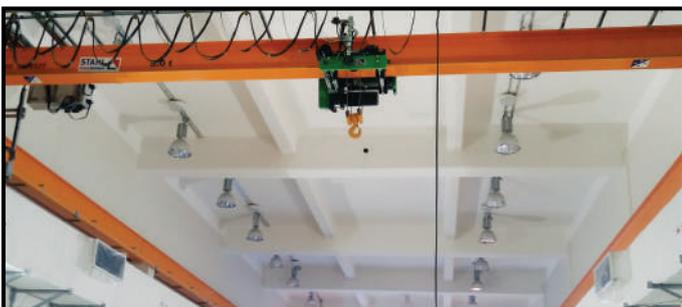
Petrotec supplies cranes to a major EPC contractor

Petrotec is very proud that a major EPC contractor has chosen Petrotec's STAHL crane solutions for one of their large projects in Qatar. This was a highly challenging project in which many of STAHL's crane solutions have been installed within a very tight deadline. Despite the many difficulties faced, Petrotec had achieved an outstanding time record to complete the milestones of the project as per the agreed time schedule for each activity. By March 2020, Petrotec's specialist services team have successfully completed supplying thirteen substations with STAHL cranes, in addition to load testing, installation and commissioning.

STAHL Crane Systems is a worldwide manufacturer of hoists and crane components as well as a supplier of engineering solutions for lifting with more than 140 years of experience, the company is a global leader in explosion-proof crane technology and offers one of the largest product portfolios available in the market.



As partner of STAHL Germany, Petrotec provides complete maintenance service solutions, including the planning and implementation of preventative and corrective maintenance activities at clients' sites. With a large team of OEM trained and certified CompEx engineers and technicians available on a 24 hour call out basis, we work in order to meet the demands of our oil and gas clients through offering annual maintenance service contract programs.



Wellhead control panels overhauling and recertification

Our Hydraulic workshop has been busy with overhauling and recertification of a wide range of wellhead control and intervention panels for a major well services company in Qatar. The scope covers different types of panels and pressure control equipment such as pressure test pump units, grease injection units, chemical injection pumps, well intervention control units, BOP control panels etc.

Our scope also included the procurement of the spare parts in addition to fabrication in our workshop, of all the replacement hydraulic hoses as part of the five-year major refurbishment requirements. We can also use our state-of-the-art CNC machine from Seal Maker to promptly fabricate and replace any soft seals which could be missing or damaged during the shipment.

As part of our agreement with TIS Manufacturing, Petrotec is the authorised service agent in Qatar for overhaul and recertification of TIS Wellhead control and intervention panels. TIS Manufacturing (UK) is a specialist in the design, manufacture, refurbishment and rental of well service and subsea control equipment for the oil and gas industry.



Petrotec's Hydraulic workshop specializes in the repair and overhaul of all Hydraulic Equipment and systems including pumps, motors, cylinders, valves, coolers, accumulators, Hydraulic Power Units and Wellhead Control Panels. We are also a one-stop-shop for all types of hose assembly requirements including Parker hydraulic and UHP Hoses, Amnitech Stainless Steel Hoses and Alfagomma industrial hoses.



Ocean Team Qatar wins contract for provision of lube oil filtration services

Condition monitoring and maintenance management is a holistic multi disciplinary based approach that gives significant improvements in efficiency and directly enhance the life-cycle of the assets. Ocean Team Qatar, being one of the experts in lubrication analysis and oil care services, was selected by one of the major gas companies in Qatar in February 2020 to sign a long term contract for provision of lube oil filtration services.

Over the next 4 years, Ocean Team Qatar will perform below services under this contract which will result in reduced oil wastage, early detection of failure modes and increased oil quality:

- Solid particles removal
- Varnish removal
- Water removal
- Particle, varnish and water cleanliness level



The different services are performed using specialized filtration equipment for particles, water and soluble and insoluble varnish. To provide the best solutions for varnish issues, Ocean Team Qatar is the authorised distributor of Fluitec NV and stockist for various products in the Qatar market such as Electrophysical Separation Process (ESP) units, where the media blend element can be customized as per oil type and condition. It is also recommended to introduce Boost VR in the system for a complete varnish removal.

Along with Fluitec, Ocean Team Qatar provides different “fill for life” solutions for oil enhancement such as Boost AO (to replace depleted antioxidants in the oil), Infinity Turbine Oil (TO) 32/46 and DECON (both decontaminate systems and provide deposit control to prevent any further deposits).



In addition to these services, Ocean Team Qatar offers a wide range of general consulting services related to machinery lubrication, oil analysis (tests to be performed depending on the equipment and oil type), tribology, trend studies and contamination control, with Fluitec’s support.

Based on the oil sample reports and respective equipment issues that each customer shares with Petrotec, an oil root cause analysis is performed to find the origin of the problem affecting the equipment and to recommend the best actions to eliminate them.

About Ocean Team Qatar

Ocean Team Qatar (OTQ) is a leading provider of oil / hot oil flushing / high velocity flushing for turbo machinery, both as a pre-commissioning cleaning activity or as part of reliability improvement requirements. OTQ has a large fleet of specialist flushing equipment and a highly trained flushing team. OTQ is also a leading provider of specialist chemical cleaning services for the offshore oil and gas industry, heat exchanger cleaning, acid injection in water producer wells etc. Over the years, OTQ has become the leading company for confined space entry for vessel cleaning.



Q-Fab supplies unique Falcon Spiderlifts to 2022 FIFA World Cup Stadium

Q-Fab has successfully supplied different types of equipment through the construction phase of unique stadiums that will host the 2022 Qatar FIFA World Cup.

The latest in a long list of supplied construction equipment is a 52 meter Falcon Spiderlift, which is the first of its kind in Qatar and is the world's tallest platform.

The Falcon Spider Atrium Crawler Lift FS520C is an original Falcon Spider Lift with market leading features. With a 52 m working height, it is capable of passing through a door opening as narrow as 1.20 meter wide and 2.10 meter high. This platform features a double jib arm, automatic outrigger positioning, with steering of outrigger and chassis from the basket. It is recognised by its impressive driving properties, ease of use, power and low ground pressure.

The Falcon Spider Atrium Crawler Lift FS520C is very useful when unique lifting is required to reach different heights and areas of the stadium both indoor and outdoor, for maintenance purposes. Q-Fab is the authorised distributor for the Falcon platforms in Qatar.

Al-Mahhar Al-Kuwaitiyya successfully completes delivery of 8 CompAir Compressors

Due to the special requirements and the critical nature of the project, the customer trusted Q-Fab's subsidiary in Kuwait, Al-Mahhar, for quick delivery of CompAir compressors. Three of the requested compressors were built with extra pressure and options to suit the client's needs.

As with all the challenges faced by all manufactures and suppliers since the beginning of the corona virus pandemic, Al-Mahhar had also, faced delays. Logistics such as shipping the compressors from the manufacturer to the region was the main challenge. However, and in spite of the extra delays faced, the compressors delivered to the end users was successfully fulfilled on time. The great cooperation of Al-Mahhar's partner CompAir in managing the compressor availability for shipment weeks before the promised delivery time, assisting Al-Mahhar in meeting delivery deadlines.

Al-Mahhar was established in 2019 and caters to the Kuwaiti construction sector. Like its main branch Q-Fab, Al-Mahhar is the local agent for many global light and heavy construction equipment manufacturers such as Wirtgen Group, CompAir, and Kobelco.





Equipped for a new era

As the Coronavirus pandemic continues to overwhelm the globe, with the virus spreading and the surging numbers of confirmed cases, many local and global companies have introduced protective measures to combat this unprecedented challenge and Petrotec is no exception. Covid-19 has reshaped the way everyone does business, whether it is the tech industry, energy or retail and its impact is undeniable.

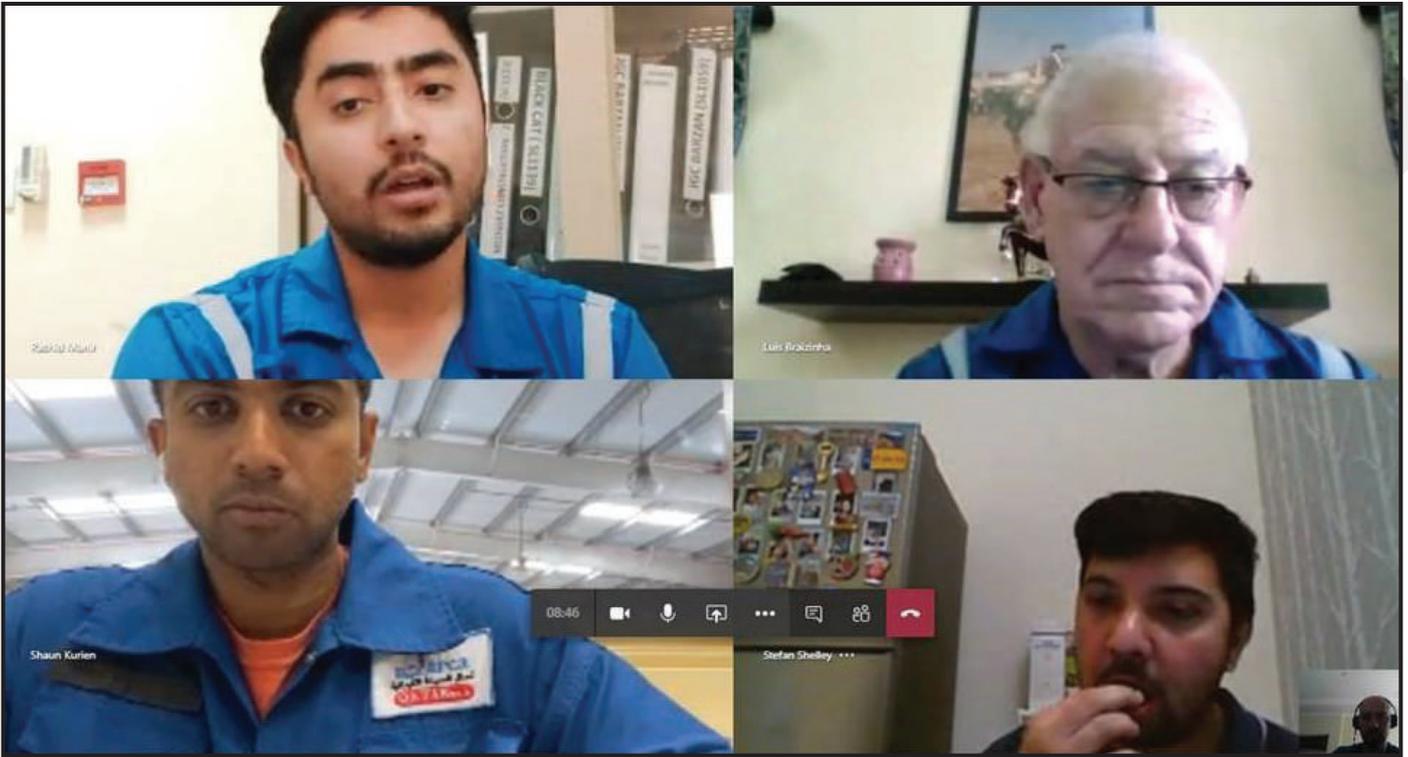
Covid-19 resulted in a sharp drop in crude oil prices in May, thus impacting the region tremendously. This could have resulted in catastrophic changes in the energy market, however, unlike other companies, Petrotec has managed to adapt to this change rapidly and has continued to support the Qatari energy sector. One of the first measures executed to ensure the continuity of clients' critical applications, Petrotec offered discounts or scope change to our long-term customers. Furthermore, Petrotec has adapted to client decisions to postpone their annual maintenance and scheduled shutdown contracts in order to curb the spread of the coronavirus and in accordance with the compulsory regulations of social distancing implemented by the Qatari government.



In order to ensure the safety of both our clients and employees, only scheduled visitors to our workshop in Ras Laffan are permitted in and strict entrance measures to our premises are in place. Visitors and employees alike must get their body temperature checked every day and hand disinfectants have been installed throughout the facility. High risk areas such as entrances, door knobs and finger print check-ins are temporarily eliminated, in addition to providing all employees of disposable masks. International travel restrictions did not stop us from bringing global expertise to Qatar, and have managed to fully utilise technology to the benefit of our clients and global partners. Regular virtual meetings take place for both internal and external meetings between our employees and partners. We have been working closely with our international principals to conduct webinars for our customers in different energy and power generation sectors.

In terms of internal infection control, Petrotec was one of the first companies to implement flexible working hours since the first early March 2020.





Vulnerable employees and parents of young children were allowed to work from home, as 80% of our staff work from home. Our health, safety and quality department (QHSE) has been working relentlessly and tirelessly to ensure the safety of our employees as well as our clients both in our workshops and in other locations. Visitors are not allowed inside Petrotec's employee accommodation and our technicians were provided with masks and hand disinfectants, in addition to constantly checking their health status.

Charlie Sheen once famously said: *"Uncertainty is a sign of humility and humility is just the ability or willingness to learn"*.

As an organization we used this opportunity to learn. learn we did about the frailty of human life.

Learn we did about how putting the safety and wellbeing of our employees, families and our society at large is paramount.

Learn we did about the challenges being faced by our customers be it the cost pressures, ability to mobilize manpower, change SOPs etc.

Learn we did about how the current situation has impacted supply chains and manufacturing world-wide.

Learn we did about our ability to adapt to working from home.

Learn we did more about our principals/suppliers.

Learn we did more about each other be it our employees, customers or vendors.

Learn we did on how to manage the crisis and think out of the box to keep us all together.

Learn we did about how the human spirit can rise to the occasion and keep that sense of hope alive."



P.K. Viswanath
General Manager - Sales



10 year Celebration - Flow Measurement / Orifice Plate Calibration

Q-Cal is celebrating in 2020 the tenth anniversary of accreditation of its orifice plate calibration laboratory. The laboratory has successfully demonstrated its capability to calibrate a wide range of Orifice Plates for a number of oil and gas customers across Qatar, over the years. This laboratory is the only one of its kind in the Middle East.

Orifice Meters measure flow rates using differential pressure created when a fluid passes through an orifice plate. The flow calculations use a form of the Bernoulli equation with an empirical discharge coefficient. Orifice flow meter calibration helps reduce uncertainty in the discharge coefficient from 0.5% to 0.25%.



Q-Cal's laboratory is accredited (ISO/IEC 17025; 2005) for measurement of surface roughness, flatness, plate thickness, edge sharpness, bevel angle and edge thickness of orifice plates up to 48 inches.

Key Customers:

All the major oil and gas companies in Qatar are our customers. Occasionally, plate manufacturers utilize our services, prior to supplying new orifice plates to their customers.

Challenges:

Measurement of edge sharpness can become tricky at times. The method uses a lead foil impression tool, a microscope and a still video camera. The picture on the video monitor is enlarged approximately 95 times and a best fit template needs to be selected as a comparison.



ISO 5167 specifies the geometry of orifice plates when they are inserted in a conduit running full, to determine the flow-rate of the fluid flowing in the conduit. Periodic calibration of orifice plates is highly recommended, as the flow rate is proportional to the dimensions and condition of the plate.

About Q-Cal

Q-Cal was established in Qatar in 1998 to provide process equipment calibration, repair, rental and management services. Q-Cal is a joint venture company of Petrotec. The company has grown and developed and now offers a full Inventory management service and also equipment rental.

Q-Cal holds ISO 17025 accreditation through the International Accreditation Service (IAS) and ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 from LRQA. Q-Cal can ensure your products meet quality, health, environmental, safety, and social accountability standards.



Solarca Qatar successfully wins and executes maintenance project in Oman

Solarca Qatar, has recently executed a successful maintenance project for one of the major power companies in the Sultanate of Oman. The job involved chemical cleaning of a double pressure (low and high pressure) of a heat recovery steam generator (HRSG). This project marks a new milestone in the technical capabilities of Solarca Qatar.

Due to the continuous operation of the HRSG, which could last for years, copper deposits were present in the internal surfaces of the HRSG. Solarca Qatar has demonstrated to our client, through a competitive bidding process, that we were the best qualified service provider for this job. Through its years of experience in chemical cleaning, alongside its highly qualified chemists, Solarca Qatar was able to develop a solution that could remove the copper deposits of the HRSG. This project strategically places Solarca Qatar as one of the leading companies in the Middle East for performing maintenance cleaning and for cleaning any types of deposits in the oil and gas industry, as well as the power generation industry within Qatar and the region.



About Solarca Qatar

Solarca Qatar was formed in 2009, a joint venture between Petrotec and Grupo Solarca. Solarca has its roots deeply embedded in the field of chemical cleaning and air and steam blowing, and possesses the expertise of Grupo Solarca in terms of chemical cleaning and air and steam blowing and has managed to establish itself in Qatar as one of the leading companies that offers in-depth and thorough solution for chemical cleaning and decontamination.



KOOP ME successfully completes dewatering of 10 buildings and 76 manholes

KOOP ME has successfully delivered dry working areas in challenging ground conditions for a client, overcoming various design changes by adapting to the project needs.

Reclaimed land is always a challenge for dewatering activities. This project was an extension of an existing project, which added pressure due to the close proximity to the sea. By keeping both of KOOP ME's design and operations team on their toes, they successfully completed 4 million man-hours and our engineers were recognized by the project team for their diligent effort and support towards the implementation and promotion of HSE rules and regulations by promoting a positive safety culture.



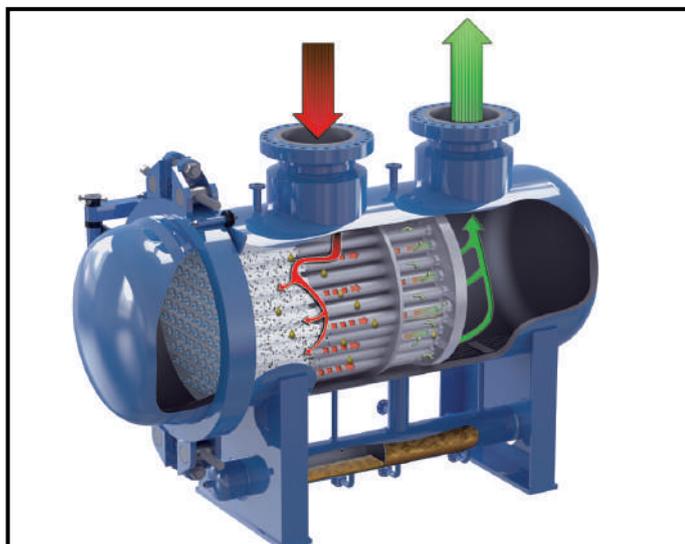
During peak operations, KOOP ME had 25 manholes and 4 buildings, which were a design combination of various pumping methods running in parallel. KOOP ME's skilled site team had to be vigilant throughout the project duration. A total volume of 4500m³ of water was discharged out to enable working areas at the sites where another 2000m³ was discharged via gravity through an 800m long HDPE pipe constructed at a slope to facilitate the flow.



Parker Filtration: PEACH Gemini PuraSep

The PEACH Gemini PuraSep is an innovative product in gas coalescing technology which combines the solid loading capabilities of a filter-separator with the liquid removal efficiency of a vertical coalescer. This patented design provides ultra-clean gas with high efficiency removal of solid and liquid contaminants down to 0.3 microns. This can effectively handle higher inlet solid and liquid loads versus conventional vertical coalescing equipment and is designed to remove a wide range of liquid contaminants such as lubricating oils, low surface tension liquids and aerosol mists.

Two stages of coalescing and separation are contained in a single, easily replaceable PEACH Gemini cartridge. Eliminating the need for a conventional 2nd stage mist extraction device, such as a vane or Cyclotube®, means no risk of plugging or corrosion. The cartridge site inside the vessel via a riser tube with the use of a chevron seal.



The seal provides a separation of the cartridge so that gas entering the vessel will flow from outside-to-inside through the front of the cartridge (1st stage) where solids are removed and coalescing begins. Once past the chevron seal, the gas will flow inside-to-outside through the back of the cartridge (2nd stage) providing a smooth transition of coalesced liquids from the 1st stage into the 2nd stage. Bearing in mind the importance today's customers place on minimizing operation and maintenance costs, simple, quick and trouble-free operation has been incorporated into the PEACH Gemini PuraSep design.

Features and Benefits:

- **Provides Ultra-Clean Gas**
 - 7 times greater solid loading capacity than a vertical coalescer
 - 28 times greater liquid handling capacity than a vertical coalescer
 - High efficiency coalescing down to 0.3 microns
- **Two Stage Design**
 - 1st stage removes bulk liquids and solid particulates
 - 2nd stage removes coalesced liquids
- **Full End Closure**
 - Minimizes confined space entry
- **Gas Entry on Pipe Risers**
 - Reduces bulk liquids
 - Decreases turbulent gas entry
 - Protects cartridges from damage
- **User Friendly Design**
 - No tools required to change-out cartridges
 - Lightweight mounting plate with handles that fits easily over the bayonet end caps of the cartridge
 - Liquid Impingement Baffles in 2nd stage are easy to remove and replace
- **Advanced Cartridge Technology**
 - PEACH® depth, helical style design
- **Dual Downcomers to 1st Stage Sump**
 - Eliminates vapor locking during upset conditions



Petrotec's spark erosion services

Seized bolts and studs represent a challenge during the dismantling of the equipment during plant shut-downs. Mechanical means are often used to free the bolts but these are not effective because of the long duration and the damage that can be caused to the equipment. In oil and gas plants, the shutdown window is defined well in advance. Any delays in the equipment overhauling due to seized bolts and studs would lead to increasing the overall cost of the shut-down and production delay.

Petrotec's state of the art spark erosion technology is the fastest and safest method to remove seized stud bolts, nuts, keyways etc. without damaging the equipment. Our solutions cover sizes ranging from M12 up to 5" and different material specifications.



Process

The primary equipment used is a portable Metal Disintegration Machine (MDM). It employs a low voltage and high ampere electric spark between the seized item and electrode which is held in a vibrating head. The electrical charge melts the designated piece of metal. Simultaneous flooding with coolant creates a thermal shock, pulverizing the heated material of the broken item into a micro size powder which is flushed away. The machine will erode the core diameter of the bolt to close precision. This leaves a square hole in the bolt which can be removed by using a special machined chisel that does not cause damage to the bolt-hole thread.



Benefits

- Technology can be employed for wide range of sizes and exotic, hardened and unique metals.
- Minimize downtime for asset owners by offering fast removal of seized and broken studs on stand by option during shutdowns/turnarounds.
- Direct cost savings associated with disassembly, removal and logistics using traditional methods.
- Indirect cost savings associated with damage to expensive parts. Because there is no direct contact between the electrodes and the machine casting, spark erosion allows you to work with even the most intricate sections and weak materials without risking distortion.

Quality of work due to the precision and accuracy of metal disintegration technology i.e. seized studs removed without damage to the threaded hole.



New Partnerships

Petrotec signs new partnership agreement with Blutek

Blutek is one of the latest additions to Petrotec's list of global partners represented in Qatar. The partnership was established in 2019, with the aim to increase the portfolio of equipment and solutions provided by Petrotec to its customers. This Italian company was established in 2002, bringing together the long experience of the founders in the design and production of complete packages and critical components for compressors.

Blutek specialises in the design and production of engineered turnkey skids to service air, instrument air and nitrogen generation, both offshore and onshore. Blutek products are used globally in the manufacturing, oil and gas and marine sectors. The company is also ISO9001:2008 certified with the highest commitments in terms of safety and preservation of the environment.



Blutek is well-known for its innovative approach by designing totally tailor-made packages engineered specifically for the scope, in compliance with the customers' requests. Blutek skids are designed using the most innovative 3D CAD solid modeling software and all the latest software for stress calculation. Every product is designed and manufactured in accordance with the highest standards in terms of safety and technology.

Blutek creates and assembles tailor-made skid units for adverse environments such as offshore, explosion-proof and desert areas. These include instrument air, black start and plant air compressors.



Petrotec signs partnership agreement with industry leader Michell Bearings

Petrotec is very proud to represent Michell Bearings in Qatar. The U.K based company has more than 100 years of experience, and has one of the greatest legacies in the invention of hydrodynamic bearing technology, which has changed the Industry.

Hydrodynamic bearings are commonly used in large turbines, generators, compressors, gearboxes and pumps in the power generation, oil and gas and chemical processing industries. Michell Bearings has spent the last century developing its products to meet the changing needs of the industry and to attend the most critical applications. A high degree of precision is required from components to ensure a successful lifetime operation.

Through this partnership with Michell Bearings, Petrotec offers clients a wide range of services, such as white metal bearings failure diagnosis, repairs retrofit and supply of new white metal bearings. Servicing and repair work can be completed on not only the various types of Michell Bearings products, but those of other bearing manufacturers.



Petrotec is now the local partner for Eta Process Plants

Eta Process Plant is a division of Koch Chemical Technology Group (KCTG) located in the UK. Eta designs, project manages and constructs complete customized water injection packages, crude oil and condensate stabilizer packages, sour water stripping packages, and skim tank packages with process guarantees (where applicable) for onshore and offshore applications. Eta also installs and commissions these systems offshore or onshore.

With over 40 years of experience globally, Eta maintains project management and quality assurance standards that are in compliance with the requirements of the leading oil and gas, engineering, procurement, construction companies.

Eta's optimized process design tailors height, weight, and power consumption to the specific application and location while minimizing capital, operating, and overall lifetime costs. From design to project management, Eta can provide a cost-effective, fully skid-mounted turnkey plant package for easy integration into multiple locations (onshore, offshore fixed platform, or FPSO), and Eta's process expertise is backed by the full range of Koch-Glitsch high-efficiency tower internals and media.

Petrotec is the authorised partner for Koch Chemical Technology Group in Qatar.



Petrotec signs partnership agreement with D'hondt Thermal Solutions

D'hondt Thermal Solutions has developed significant innovative technologies in the design and manufacturing of high pressure equipment and in the production of components made with special materials such as Titanium, Hastelloy, Incoloy, Duplex, Super Duplex, Monel and Nickel Alloys. Thanks to its consolidated design and manufacturing experience combined with the adoption of improved design and fabrication concepts, D'hondt Thermal Solutions is able to make a highly technological contribution to the completion of industrial plants and for implementation of energy programs worldwide.

D'hondt Thermal Solutions offers its clients and partners the most reliable after sales services throughout the full life cycle of the project and brings its full expertise and support to ensure that its customers achieve maximum efficiency from their air cooled heat exchangers equipment. Their product range includes air cooled heat exchangers, aluminium finned tubes, spare bundles and maintenance services.



The oil and gas industry is permanently looking to increase its environmental awareness and is subject to local and national regulations. Fuel increasingly needs to have a low or very low-Sulphur content to avoid air pollution. Licensees are also constantly developing new and more efficient technologies to create processes allowing refineries to save energy and reduce their carbon footprint.



Petrotec takes part in National Sports Day 2020

In line with Qatar's celebrations on National Sports Day 2020, Petrotec hosted a day filled with sport activities at Al-Arabi Club. A large number of employees and their immediate families took part in the activities.

Different sports and contests took place, including games and fun activities for children and adults. Participation on the occasion of the National Sports Day has become a tradition at Petrotec. We've been actively taking part in this event since its first edition in 2012.



Through its participation, Petrotec aims at spreading sports culture and awareness among its employees, encouraging them to practice sport on a regular basis, which will be positively reflected in their physical well beings and fitness, raising their work performance and productivity, as well as promoting team work. *"Our participation in the country's national sports day inspires and promotes the idea of leading a healthy lifestyle through encouraging our employees and their families to exercises on a regular basis"*, said Clifford Lasrado – Managing Director of Petrotec Group.





Sajid Rehman

Head of Sales

Instrumentation Systems & Corporate Sales

My Journey with Petrotec started in 2002. I was raised in Qatar and was looking for an opportunity in the oil and gas industry upon completing my instrumentation engineering degree. That's when my CV landed on the Managing Director's desk! I was one of the first two graduate trainee service engineers in Petrotec Group. I got hands-on training on how to unbolt equipment, connect wiring and dismantle parts under the guidance of the first service engineer, K.R. Manoj (current manager of Specialist Services department). I saw how Petrotec and our subsidiary Q-Fab gradually started expanding workshop capacities, adding niche skills and capabilities as well as specialized resources during the mid-2000s. I was part of that transformational phase along with Shameem and Vish, my early mentors.

The company ensured there was career progression for me within the organization, as long as I was willing to learn and grow. I transitioned into sales in 2005, handling about 6 principal agencies in the instrumentation systems department. I am proud to say that the department has grown over the last decade into a vital partner for both our principals and customers.

Petrotec helped me secure an executive MBA degree while continuing to work, which took me to the path of heading sales for my own department. This organization has a vision for its dedicated and enthusiastic employees; one that helps nurture talent and brings out the best in you. I am grateful to be part of its legacy.

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About Petrotec

Established in 1989, Petrotec is one of the largest providers of products and services to the energy industry in Qatar. With approximately 600 employees representing 31 nationalities, the company maximises every opportunity to promote its activities in the fastest-growing energy sector in the Middle East.

Petrotec represents a key selection of world leading manufacturers and service companies. Our clients in Qatar are provided with comprehensive specialised engineering support from our local team to supplement and enhance the links with our suppliers. This close support keeps both our partners and Petrotec ahead of the competition.

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