

OGN

OIL & GAS NEWS



Adipec Special

2021: The In-person Exhibition

أدنوك
ADNOC



Fire and water services on display

The CCG is one of the largest regional groups offering diverse products and services including wastewater treatment, fire protection, etc – Page 12



Hydraulic tools play key role

Hi-Force On-site Bolting Services provides bespoke solutions to assist firms implement bolted joint integrity management – Page 15



Tomorrow's tech base for energy

Honeywell's portfolio of technologies is designed to help integrate operational centres and extend autonomous control capabilities for plants – Page 20

New market dynamics, energy transition, technical innovation and hydrogen's potential will be high on the agenda of the four-day event, which comes hard on the heels of the COP26 summit

HIGH HOPES FROM ADIPEC FOR 'CLEANER' STRATEGY

By ABDULAZIZ KHATTAK

THE time for this year's Adipec is just right: the entire world is preoccupied with energy transition, decarbonisation and clean energy, and the world's largest event for oil and gas could help shape a clear agenda for the future of the energy landscape.

For the first time in the event's history, a roundtable focusing on hydrogen is being held showing that the UAE's energy leaders realise the needs of a cleaner future for the world.

The in-person Adipec 2021, from November 15-18, will welcome over 100,000 energy professionals and more than 2,000 companies from around the world along with the participation of 51 NOCs and IOCs and 26 country pavilions at the Abu Dhabi National Exhibition Centre. Additionally more than 8,000 delegates will partake in over 160 conference sessions.

The event is being held under the patronage of the President of the United Arab Emirates, His Highness Sheikh Khalifa Bin Zayed Al Nahyan, hosted by the Abu Dhabi National Oil Company (Adnoc), and organised by the Global Energy Division of dmg events.

Adipec has established itself as the world's most influential meeting place where energy companies and professionals convene to engage and identify the opportunities that will unlock new value in an evolving energy landscape.

At a strategic conference, ministers, policy-makers and business leaders from across the world will share their perspectives on how hydrogen can potentially deliver a holistic, clean,



Adipec will unlock new value in an evolving energy landscape

integrated approach to the Middle East and North Africa (MENA) region's energy sector.

Adipec has dedicated seven sessions to hydrogen to emphasise the importance of hydrogen in a diversified energy sector and address the challenges and opportunities of producing green and blue hydrogen on a mega industrial-scale.

According to a recent Goldman Sachs report, green hydrogen could meet up to 25 per cent of the world's energy requirements in less than 30 years, with a market value in excess of \$10 trillion.

The Adipec sessions will focus on critical industry topics such as building a sustainable

hydrogen economy, establishing a policy framework to promote hydrogen deployment, repurposing value chains, managing supply and demand dynamics, and up-scaling.

Expert speakers participating in the hydrogen sessions include Dr Samir Serhan, COO, Air Products; Martin Houston, Vice Chairman, Tellurian; Dr Christoph Noeres, Head of Green Hydrogen, Thyssenkrupp; John Kent, Chief Energy Transition Officer, Kent; Alicia Eastman, Co-Founder and President InterContinental Energy; Paul Bogers, Vice-President, Hydrogen Shell; Andy Hemingway, President, Energy Optimisation and Innovation, Wood; Brandon Spencer, President - Energy Industries, ABB; Daniel Teichmann, CEO, Hydrogenious; and Rod Christie, Executive Vice-President of Turbomachinery and Process Solutions, Baker Hughes.

The UAE has a home ground advantage to showcase its commitment to net-zero carbon emissions and its roadmap for a sustainable energy future, with green hydrogen production integral to its ambitions. This comes as the UAE is positioning itself as a low-cost producer and exporter of blue and green hydrogen, as well as green ammonia.

The UAE is already working on a 2-GW green ammonia project by Taqa and Abu Dhabi Ports. The project will produce green hydrogen and process it into liquid ammonia, used in ships as bunker fuel and for export.

Meanwhile, the Khalifa Industrial Zone Abu Dhabi (Kizad) has announced plans for a \$1-billion

Continued on Page 8

Adipec Awards to honour top projects, people and ideas

THE 11th edition of The Adipec Awards will be held on the first day of the event to honour projects, innovators and ideas at the forefront of the energy industry's transformation as it responds to the accelerating demand for sustainable energy.

The Technical and Selection Committees have judged over 700 entries from more than 50 countries to painstakingly come up with winners in nine categories.

Now in our 11th year, The ADIPEC Awards has evolved to embrace and recognize feats in Digitalisation, Sustainability, Research, Innovation, Partnerships, Young Talent and more.

The Adipec Awards 2021 finalists include Adnoc and Micro-Silicon for real-time asphaltene detection sensor using quantum RF; Aramco (Saudi exo-storm technology to enhance oil production); and Shell Catalyst and Technologies (shell blue hydrogen process) in the Breakthrough Research of The Year Category.

Finalists in the Breakthrough Technological Project of The Year Category include Adnoc (non-metallics: disruptive materi-

als for longer assets life cycle); L&T Hydrocarbon Engineering Limited and Yokogawa (implementation of full automation in Haliba development project – the first ever in GCC); and Shell (robust well location optimisation technology).

Shortlisted in the Digital Transformation Project of The Year Category are Adnoc (Thamama Center – The Digital Transformation Hub of Adnoc Upstream); Adnoc and Datagratiion (10x-portfolio optimization & opportunities - maximize asset value from existing resources); and Aramco (futuristic technology powering world's largest intelligent oil field).

For the Social Contribution and Local Content Project of The Year award, those in the fray are OMV Petrom (Romania plants for tomorrow); OMV Petrom (Oilmen's School); and Aramco (In-Kingdom Total Value Add Program - iktva).

Those shortlisted in the Oil and Gas Inclusion and Diversity Company of The Year Category are Adnoc for onshore diversity and inclusion; Borouge for its thrive culture programme; and Emerson Automation Solutions for its diversity and inclusion programmes and initiatives.

Finalists in the Young Technical Professional of The Year Category include Fatima Yousif Al Suwaidi from Adnoc; Mohammad Aljubran from Aramco; and Bashayer Aldakkan, also from Aramco.

Three companies have been shortlisted in the Innovation in Decarbonisation Company of The Year Category and include Baker Hughes (Taking Energy Forward: Our Decarbonisation Story); Aramco (Innovation in Decarbonisation); and Siemens Energy (Innovating the Energy Transition).

For the Oil and Gas Start-Up Company of The Year award, the judges have selected Damorphe; Data Gumbo; and ResFrac Corporation.

And finally, the finalists in the Operational Excellence Company of The Year (Excellence In Remote Operations) Category are Adnoc for Thinking differently to a post-pandemic future to exceed operational excellence during Covid-19; OMV New Zealand (The rise of the digital twins and augmented reality); and Aramco (Resilience in the Face of Adversity at Khurais Producing).

Cutting edge refinery revamps. Guaranteed results.



To remain competitive in crude oil refining, you have to keep pace with new innovations, changing markets and regulations. Revamping existing units can be very challenging, but also very profitable. Sulzer Chemtech specializes in refinery revamps focusing on separations.

Whether your existing column is trayed or packed, we can show you innovative ways to increase capacity, efficiency, product yield, and reliability. A successful revamp must consider not only the column and its internals, but also ancillary equipment such as fired heaters, heat exchangers, pumps, compressors, piping, and valves. In many cases, you cannot weld on the column itself, so new designs must be creative and innovative, often taking advantage of high performance internals and using special design techniques.

From a simple column revamp to an entire distillation train revamp, Sulzer Chemtech has the experience and expertise to guarantee your successful refinery revamp.

Find out how our industry-leading fluid engineering can make a difference for your process at [sulzer.com](https://www.sulzer.com).

Sulzer Chemtech Middle East W.L.L.
3rd Floor, Jawhara Plaza, P.O. Box: 21558; Al Seef, Kingdom of Bahrain
Main Tel + 973 17 568 400, www.sulzer.com

SULZER

UAE set to prove renewables and fossil fuel can be done together

The country has set on a daunting task of achieving net zero by 2050 while ensuring economic growth at the same time. With a growing diversity of energy sources and higher investments, the target seems very achievable

THE UAE has stressed that investment in its energy sector will continue in order to meet growing demand and ensure stability in global markets. However, there will be investments simultaneously in unconventional energy as well.

The country became the first in the region to set a net-zero target by 2050 weeks ahead of the crucial UN climate change summit, COP26, in Glasgow, pledging to play its role in combating climate change. The UAE has even offered to host COP28 in Abu Dhabi in 2023.

Official pledges to support its advocacy for climate change have started pouring in. Mohammed bin Rashid Al Maktoum, the Prime Minister of UAE and Ruler of Dubai, announced investments of \$165 billion in clean energy by 2050.

On the national level, the UAE's 'Energy Strategy 2050' provides a roadmap as to how this will be done. The contribution of clean energy in the total energy mix will be doubled by 2050, and the carbon footprint of power generation will be significantly reduced.

Considered the first unified energy strategy in the country that is based on supply and demand, it encompasses the state, corporates and individuals to meet national goals.

The strategy targets an energy mix — renewable, nuclear and clean energy sources — of which 44 per cent power will be generated from clean energy, 38 per cent from gas, 12 per cent clean coal, and 6 per cent from nuclear.

With government investments of Dh600 billion (\$163 billion) by 2050, the return on investment is expected to be Dh700 billion in savings during that period.

These steps will strengthen the UAE's position as one of the largest energy providers in the world and drive a low carbon strategy.



KSA Minister of Energy Prince Abdul Aziz bin Salman with Al Jaber at SGI

BOOSTING OIL, GAS OUTPUT

The hydrocarbon industry holds a lot of significance for the UAE's future growth and it doesn't seem the country will reduce its output of oil and gas. In fact, state oil firm Adnoc is expected to increase production to 5 million bpd from the current 4 million bpd.

At the Saudi Green Initiative (SGI) Forum in Riyadh last month, Sultan Al Jaber, CEO of Adnoc, called on people to be "a bit mature and sober" in discussing the energy transition, insisting it will take time and must include oil and gas.

"We can't just come out of nowhere and all of a sudden speak about energy transition and

completely ignore or underestimate the impact of oil and gas in helping meet global energy requirements," Al Jaber said, noting that 80 per cent of total energy requirements currently come from fossil fuels, with 60 per cent of that oil and gas.

He pointed out that the current energy crisis is a wakeup call for the need to invest more in the sector to avoid another energy supply crunch.

The country recently announced new oil and gas discoveries, such as a natural gas field in the area between Seih Al Sedirah and Jebel Ali, and non-conventional and recoverable crude oil in Abu Dhabi.

These developments will help attract foreign

direct investments to the UAE and contribute to the In-Country Value (ICV) programme.

However, the country aims at reducing its carbon footprint with clean energy initiatives alongside.

These include developing its solar, hydrogen and carbon capture, utilization and storage (CCUS) capacity over the years.

Adnoc already produces 300,000 tons of hydrogen a year, and with its existing infrastructure, commercial-scale CCUS capabilities and customer base, the UAE can become a major player in the developing blue hydrogen market, says Tayba Al Hashemi, CEO of Adnoc Sour Gas.

"The recent announcement of a million-ton blue ammonia production facility at the Taziz industrial hub in Ruwais, as well as the sale of cargoes of blue ammonia to Japan — demonstrates early action and underlines the market opportunity," she says.

Separately, Adnoc and Emirates Water and Electricity Company (Ewec) launched a landmark clean energy partnership, the largest of its kind in the oil and gas industry, which will see up to 100 per cent of Adnoc's grid power supplied by Ewec's Nuclear and solar clean energy sources.

This partnership will make Adnoc the first major oil and gas company to decarbonise its power at scale. It also supports the company's goal to remain one of the lowest carbon intensity operators in the industry, and underscores how hydrocarbons, clean energy and advanced energy sources can complement each other in the energy transition.

In regard to solar energy, the UAE today operates three of the largest and lowest cost solar plants in the world and has invested in renewable energy projects spanning 70 countries across five continents.

High hopes from Adipec for 'cleaner' strategy

Continued from Page 6

lion green ammonia plant, which will produce 200,000 tonnes of green ammonia from 40,000 tonnes of green hydrogen.

STRATEGIC CONFERENCE

Adipec's Strategic Conference will bring immersive and interactive sessions on diverse topics including ministerial panels, leadership debates, industry disruptor interviews, and strategic panel sessions.

Speakers at these conferences include key government energy officials, including Dr Sultan Ahmed Al Jaber, Minister of Industry & Advanced Technology, UAE, and MD and Group CEO, Adnoc; UAE Minister of Energy and Infrastructure Suhail Mohamed Al Mazrouei; Bahrain Minister of Oil Shaikh Mohamed bin Khalifa Al Khalifa; Secretary General of Opec Mohammad Barkindo, and many others.

The sessions will offer unique insights into how the energy industry has responded to the challenges of Covid-19, and how it is adapting more broadly in the face of accelerated energy transitions, growing global ambitions for sustainable integrated energy value chains, and net-zero emissions.

CO-LOCATED EVENTS

A new Smart Manufacturing Zone at Adipec will bridge the gap between energy, manufacturing and high tech sectors to accelerate economic development and diversification.

The zone will offer the ultimate platform for the manufacturing sector to engage with energy decision-makers, as well as leading



Leading firms will exhibit at the Smart Manufacturing Zone

manufacturers, intent on developing smart ecosystems, as they focus on building resilient, sustainable businesses and leveraging future growth opportunities.

Another co-located event is the Offshore and Marine exhibition and conference, a key global meeting place focusing on marine services, logistics, transportation of freight in a cleaner, greener more sustainable and environmentally safer way.

Separately, the Digitalisation zone at Adipec will provide both the technology and energy sectors with a business-critical platform to showcase the latest solutions, advancements and break-

through's that will enable the industry to accelerate the agenda of energy transition and decarbonisation.

Apart from these, other conferences and forums will include the SPE Technical Conference; The Forum for Diversity, Equity and Inclusion; and the Downstream Technical Conference, where over 800 technical experts from around the world will deliver 127 sessions across 4 days of business critical knowledge.

For the elite, Adipec has a VIP club, which connects the energy industry's leaders, innovators and influencers.

The Middle East Energy Club is where members can meet and exchange knowledge and ideas with fellow industry leaders, government officials and policymakers, in a relaxed atmosphere, outside the formal structure of Adipec's busy programme.

And Adipec is not all work; there is fun too. Right before the opening day, The Adipec Golf day offers an exclusive opportunity to engage with over 100 key industry players in a relaxed social atmosphere prior at the Abu Dhabi Golf Club.

Last but not the least, Adipec 2021 will host the 9th edition of the Young Adipec programme. Fully supported by the Abu Dhabi Department of Education and Knowledge (ADEK), the programme is aimed at high school students aged between 14 and 17 years old to highlight the wealth and diversity of career opportunities in the sector. Since its creation back in 2013, over 3,300 students from across the UAE have passed through the Young Adipec programme. Part of their agenda includes holding Field Trips, Experiential and Edutainment Programme, and Young Adipec Talks.



www.taqa.com.sa

THE ENABLER OF ENERGY



Baker Hughes' UAE investments to benefit the entire region

The company is investing locally in sustainable energy and digital technologies to accelerate the adoption and deployment of new fuel sources and emission solutions to decarbonise energy, Regional Vice-President Zaher Ibrahim tells **OGN**

IN its commitment to drive localisation in the UAE, Baker Hughes continues to establish manufacturing facilities and training of locals as part of its focus on the country's in-country value (ICV) programme.

The company has worked closely with customers and partners to provide the latest technologies and solutions to help meet the country's ambitious energy needs and support it on its path to a net-zero and a sustainable energy future.

In an interview with **OGN**, Zaher Ibrahim, Vice-President, Middle East, North Africa, Turkey and India, Baker Hughes, tells *Abdulaziz Khattak* how its investments in the UAE bode well for the entire region and not just one country alone.

He also looks into how energy transition and digital adoption are changing the energy landscape in the region, and Baker Hughes' three-pillar strategy to drive sustainable growth in the region.

Last year, Baker Hughes shifted its Surface Pressure Control (SPC) business to Abu Dhabi. This follows the establishment of several other facilities in the UAE. How significant have these moves been for your business and customers in the region?

Ibrahim: The Middle East is a key market for Baker Hughes with a lot of growth potential for our SPC business, and the relocation of our SPC headquarters to Abu Dhabi in 2020 reflects our continued commitment to the region and focus on supporting the in-country value (ICV) requirements of the markets we operate in.

This move helps deepen collaboration with regional leaders for technology and R&D in the oilfield equipment space, enhance local skills and bring more operational expertise to the UAE, contributing to the region's manufacturing, engineering, and sourcing capabilities.

Additionally, it brings the SPC headquarters closer to one of its largest pressure control manufacturing sites in Saudi Arabia.

Abu Dhabi is the oil and gas hub for the UAE, and this move enhances our ease of doing business because of its strategic location and connectivity to other major markets in the region. This move will help us serve our customers better as we expect to achieve reduction in shipping time, delivery schedules and supply chain logistics.

These business units show Baker Hughes' commitment to regional localisation. What are the company's achievements regarding localisation thus far?

Ibrahim: Baker Hughes is committed to supporting localisation initiatives across the region, including in countries like the UAE, Saudi Arabia, Qatar and Oman. These countries have strong programmes with clear goals that we help support through local manufacturing, supply chain and ecosystem development, knowledge transfer, capability building, and job creation.

If we take the UAE as an example, in addition to relocating our SPC headquarters to Abu Dhabi, we have eight facilities and three offices focused on manufacturing, assembly, maintenance, services, operations, and training. All these facilities serve our customers across the globe, while leveraging local vendors and contributing to exports.

Additionally, we formed a strategic partnership in 2018 with Adnoc Drilling, where Baker Hughes is a 5 per cent stakeholder, to support its transformation to a fully integrated drilling and well construction provider. This includes provid-



Baker Hughes aims to deliver greater drilling efficiencies and better well economics



Ibrahim ... focus on decarbonisation in region

ing more than 900 training days to Adnoc Drilling employees and drilling more than 200 wells to date.

In 2021, we also launched the Early Career Hire Program, which onboards young Emirati talent for a one-year intensive training programme to develop their leadership and technical skills. To date, we have onboarded 10 participants in the programme and are working on increasing those numbers.

What notable key projects and partnerships does Baker Hughes have underway currently in the region?

Ibrahim: We are constantly looking for opportunities to support our customers' needs in the region. Although we cannot share specific projects underway, today we are focused on exploring opportunities related to driving the energy transition across the region.

Our energy technology helps industry advance on the path to net-zero and a sustainable energy future; and that is a common goal we share with our customers.

We are in discussions around projects related to hydrogen, carbon capture, use and storage (CCUS), emissions management, artificial intelligence, non-metallics, clean integrated power, and geothermal.

Baker Hughes has a diverse business portfolio, including a chemical manufacturing facility in PlasChem Park, KSA; a drilling company in UAE with Adnoc; LNG deals in Qatar. Does Baker Hughes have appetite for more business ventures?

Ibrahim: We always have an appetite for new business ventures, and in fact our diversified portfolio enables us to enter those ventures. As an energy technology company, we can provide solu-

tions and innovative technologies for energy and industrial customers in the region. Additionally, our portfolio allows us to serve customers in the upstream, midstream, and downstream sectors, which give us an advantage to support customer needs across the value chain.

After Adnoc increased the IPO offer in Adnoc Drilling to 11 per cent from the original 7.5 per cent, will Baker Hughes seek to increase its stake from the current 5 per cent?

Ibrahim: There is no impact on our partnership or stake at Adnoc Drilling due to the IPO. We are very proud of this partnership and we continue working with Adnoc Drilling to deliver more competitive well completion times, greater drilling efficiencies and better well economics.

What is Baker Hughes's strategy to achieve profitable and sustainable growth in the region?

Ibrahim: Our strategy to drive sustainable growth in the region is based on three key pillars. The first is transforming our core capabilities to provide our customers with future-proof technology and delivering with executional and operational excellence, while ensuring cost competitiveness. Examples include our focus on driving localization initiatives across the Gulf, our leadership in executing LNG projects in Qatar and sub-sea gas developments in the Mediterranean, and deployments of our remote operations solutions to customers in the UAE and KSA.

The second pillar is investing in new areas, such as chemicals, non-metallics, industrial power and digital solutions, to drive our growth. Today, we are executing our non-metallics joint venture with Saudi Aramco and our chemical plant in Saudi Arabia. We are also exploring opportunities for clean industrial power in industries, such as paper, textile and fertilisers.

And the third pillar focuses on exploring new frontiers such as hydrogen, geothermal, CCUS, and energy storage that can help drive decarbonisation of energy and industry.

These include projects like our flare gas recovery project in Iraq and piloting our digital solutions flare.IQ technology for emissions management with Adnoc. Additionally, we have signed several MoUs to explore CCUS opportunities across the region.

What energy trends do you see emerging across the region, and how is Baker Hughes aligning itself to capitalise on those trends?

Ibrahim: Driving the energy transition and digital adoption are two key trends we are seeing across the region. These trends are in response to the changing market dynamics and environmental needs.

Our customers are looking for solutions that are more environment-friendly, optimise performance and production, and deliver higher efficiencies while reducing costs.

Most national oil companies (NOCs) and industry leaders in the Middle East and North Africa are putting decarbonisation and digitalisation at the forefront of their strategies. In fact, reaching net-zero has become a goal that we are seeing governments drive across the region. The good news is that we share the same goals and are on the same journey.

Baker Hughes was the first oil and gas company to make a commitment to reach net-zero emissions by 2050. Additionally, we are investing in sustainable energy technology for tomorrow to accelerate the adoption and deployment of new fuel sources and emission solutions, to decarbonise energy.

On the digital front, our BakerHughesC3.ai alliance provides artificial intelligence solutions to energy operations to improve reliability, reduce carbon emissions, enhance supply chain, and optimize production.

However, to drive the energy transition, we need to solve for the largest sources of Scope 1 and 2 emissions in energy operations today and invest in sustainable energy technology.

We also know that oil and gas will continue to play an important part of meeting global energy demand, especially in the Middle East. Therefore, we need to continue exploring opportunities to increase efficiency.

And finally, collaborations and partnerships are critical success factors to driving the energy transition. We believe energy producers, technology and service providers, energy buyers, policymakers, and the community at large need to work closely together to achieve our collective ambitions.

As an energy technology company, Baker Hughes is keen on taking energy forward along with its customers and partners in the region, making it safer, cleaner, and more efficient to people and the planet.

Are companies finding the transition to digitalisation difficult?

Ibrahim: Change is not easy; however, the challenges the industry faced over the last two years due to the pandemic and the drop in oil prices cemented the fact that necessity will drive digital adoption.

However, digital adoption will not only improve efficiency for economic reasons, it is also a key pillar driving decarbonisation and the path to net-zero.

Our customers and partners in the region have a strong appetite to drive digital adoption across their operations. A recent example is Baker Hughes' executing its largest ever remote operations deployment in Saudi Arabia across over 200 Saudi Aramco sites.

With these trends in mind, we believe there will be an increase in adoption of scalable, flexible digital solutions that enable leaders to meet both needs.



EXTREME DURABILITY. ANYTIME. ANYWHERE.



General Monitors
by MSA

Introducing the S5000 gas detector, featuring industry-leading temperature range, two sensor inputs, and Bluetooth® wireless technology. Welcome to the new extreme in gas detection.

msasafety.com/s5000

Fire and water services pioneer to showcase strength at event

The CCG is one of the largest regional groups offering diverse products and services including water purification, wastewater treatment, environmental services, fire protection, firefighting equipment, vehicles manufacturing, marine and specialty gases

CONCORDE-Corodex Group (CCG), a multi-disciplinary company and a regional pioneer in fire protection, water purification, wastewater treatment and environmental services, is showcasing its portfolio of companies at this year's Adipec in Abu Dhabi.

Established in 1974, the company has evolved to become one of the largest groups to offer a diverse portfolio of products and services including water purification, wastewater treatment, environmental services, fire protection, firefighting equipment, vehicles manufacturing, marine and industrial chemical cleaning and specialty gases.

"CCG's core values have been the cornerstone of what define us and what we stand for. All business units of CCG are registered companies with Quality, Environment, Occupational Health and Safety Management Systems (QHSEMS) in compliance with international standards such as ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018," says a company spokesman.

Some of the group's establishments that will be part of the CCG stand at Adipec 2021 include:

- **Bristol Fire Engineering:** This is a leading firefighting and fire protection manufacturer in the Middle East that has been offering innovative firefighting solutions for more than 40 years. The company has grown to become a pioneer in the industry for unmatched quality and dependability, longstanding commitment and unwavering dedication.

The Bristol product range includes fire pumps, fire alarm system, fire suppression system, portable and automatic fire extinguishers, hose reels, hydrant, valves and various types of fire rated doors.

- **The Bristol Vehicle Manufacturing Division** is specialised in the manufacturing of bodies and engineering for all types of commercial vehicles, such as rescue vehicles, firefighting vehicles, ambulances and specialised vehicles.

The company strives to continuously evolve its products and services to address market changes and ensure long-term customer satisfaction.

Its product range includes several solutions for petrochemical and oil and gas emergencies.

The division produces a range of emergency response products, including pumpers, tankers, rescue trucks, rapid intervention vehicles, Euro and US standard ambulances, in addition to bespoke designs, which include command, hazmat and media relations vehicles, mobile clinics, outside broadcasting trailers and bomb squad units.



A six-way manifold hydrant ... can flow over 10,000 GPM

A particular achievement by Bristol is the fusion of US-style heavy industrial pumpers onto a cab-over commercial chassis' putting it in a league all of its own.

Some of its key products include:

- **High flow industrial firefighting truck – Al Shallal (The Waterfall):** The Al Shallal heavy, industrial pumper is designed to combat major fires in the petrochemical, oil and gas sector and heavy industries.

The vehicle is designed and certified to NFPA standards, and built on a Mercedes Benz commercial chassis that carries up to six firefighters. Other commercial chassis and custom chassis are also available.

In terms of firefighting media, the vehicle has a 2,500 GPM (gallons per minute) waterous midship pump, 2,000-litre booster tank, a Williams Hot Shot II balanced-pressure foam proportioning system feeding all discharges, and a 5,000-l foam tank including a 226 kg Gorilla dry chemical skid, which contains PKW dry powder for specific use in all hydro-chem attacks.

- **Six-way manifold hydrant:** For petrochemical and oil and gas emergencies, which require large amounts of water (quickly and delivered to a specific spot), CCG has developed a high-flow hydrant manifold, featuring four 6-in and two 12-in discharges, allowing a single manifold capable to flow well more than 10,000 GPM.

The design is highly customisable to any of several equations, including 5-, 6- and 12-in discharges, supplying large-volume monitors in all configurations, industrial pumpers or large-diameter ground monitors, making full use of the firewater network's available capacity.

Accessories can include 2.5-in discharges, fixed monitors, drain valves, master valves on the barrel and pressure gauges, to name a few.

- **Containerised pump solutions:** Bristol fire pumps are designed and engineered using state-of-the-art technology and fabrication facilities.

These pumps are ideal for fixed system applications, private firewater networks, sprinkler and riser systems meeting with, amongst others, UL and FM standards.

CCG also provides skids either with diesel or electric driven split-case, end-suction or vertical turbine pumps in a range of materials.

All components are standardised and manufactured meticulously for excellent performance, increasing overall durability and reliable operation.

The Impellers are precisely engineered to provide mechanical stability, smooth operation with minimal maintenance.

The rotating parts and casings are made from corrosion-resistant materials with options including full pump skids with controllers, fuel tanks for diesel driven options, including suction and discharge manifolds.

- **Bristol Gases** is a division of CCG that manufactures industrial and specialty gases, and has the production capacity to can meet any demand and delivery deadlines.

Bristol Gases is one of a few specialty gas producers in UAE that can produce for specific applications, such as in food, glass and metal processing, semiconductor, medical, aerospace and research and development.

- **The CCG Fire Protection and Automation Division** provides solutions in fire protection and automation, fire rescue and safety, low current solutions.

It prides itself on quality and cost-effective engineering solutions in accordance with recognised international codes and standard systems.

As industry pioneers with more than 40 years' experience, the company has been leading with high-level expertise providing design, engineering, supply, installation and maintenance on products and projects.

- **The CCG Rescue, Safety and Industrial (RSI) Division**, in partnership with world-leading manufacturers, offers an array of safety and rescue equipment such as breathing apparatus, gas detection, water form mist system, ventilators, training simulators, hydraulic equipment, trailers, foam proportioning, rescue-response vehicles and portable firefighting systems.

The RSI Division mainly deals with government companies such as Adnoc, Adco, Civil Defense, Army, Police Department and various private companies.

It has partnered with many organisations, locally and internationally, providing our expert solutions, products, and services on many applications according to various requirements.

- **Corodex Industries** is a pioneer in engineering, manufacturing, assembly and fabrication of various water purification and wastewater treatment equipment.

It was one of the first companies in the Middle East to offer water treatment services along with extensive research and development focused on developing the necessary technologies in water purification systems and wastewater treatment system and odour control system.

- **Corodex Marine** is one of the leading companies in water treatment chemicals, marine and industrial cleaning products and services.

Its highly qualified professionals can execute various projects in cleaning different heat exchangers and performing pre-commissioning, pickling and passivation for large heat exchangers at large desalination units, piping cleaning like condensate return piping, and cleaning and preserving all types of boilers and water borne systems.

Corodex Marine offers a wide range of products and services, including chemicals for marine and offshore, IMO-approved tank cleaning chemicals, pickling and passivating products and services, oil and gas pipelines cleaning products and services, lube oil and fuel test kits, potable water on board testing kit, water treatment chemicals and testing equipment's, waste water treatment system and chemicals, RO system and chemicals, gases, welding and cutting equipment's, refrigerants and recovery system, safety package on site with our qualified expertise.

CCG will be exhibiting at Stand 11612, Hall 11, at Adipec 2021.



Al Shallal ... designed to combat major fires



Containerised pump solutions



Bristol Gases ... specialty gas producers for varied applications

Hi-Force®

HYDRAULIC TOOLS



Hi-Force is the UK's leading manufacturer and supplier of hydraulic tools and bolting equipment and offers a wide range of products suitable for use in various industries worldwide.

Hi-Force provides training courses in safe operation, proper application, use, service, maintenance and repair of hydraulic tools, as well as ECITB Mechanical Joint Integrity (MJl) courses. All training courses are carried out at the ECITB-approved training schools worldwide.



15-18 November 2021
Stand 8330, Hall 8



HEAD OFFICE: Hi-Force Ltd, Daventry, UK
Tel: + 44 1327 301 000 | Email: daventry@hi-force.com

Hi-Force FZE, Dubai, U.A.E
Tel: + 971 4 8150 600 | Email: dubai@hi-force.com

www.hi-force.com



MSA Safety to highlight new range of solutions at Adipec

MSA Safety, a global leader in sophisticated safety solutions, will be showcasing a broad range of products and services, from portable gas detection and fixed gas and flame detection to head protection, fall protection and its safety io grid services, at this year's Adipec in Abu Dhabi.

Hosted by the Abu Dhabi National Oil Company (Adnoc), Adipec is an influential meeting place where oil, gas, and energy companies and professionals convene to engage and identify opportunities that will unlock new value in an evolving energy landscape. At the event, MSA will be sharing a broad range of safety solutions.

The highlights at MSA's Adipec stand include:

- **Altair io4:** This is a brand new wearable device designed from the ground-up as a fully connected and intuitive safety solution. It represents MSA's first direct-to-cloud gas detector.

The features of the Altair io4 include out-of-the box global cellular connectivity and GPS location to transmit real-time data, like critical gas detection readings and location information, directly to the MSA Grid software platform.

It also offers access to MSA's Grid software services that enable fleet management, as well as realtime remote monitoring and incident reporting. A new, electronic MSA id device tag



Firefighters in position wearing the M1-SCBA

replaces paper-based sign-out processes.

The Altair io4's has MSA's industry-leading XCell Sensors, and is compatible with a new Altair io Dock calibration test stand, enabling

automatic bump testing, calibration and data logging.

- **Lunar:** Part of the MSA Connected Firefighter Platform, Lunar is a wireless all-in-one device creating an independent search and rescue network. It provides edge detection enhanced personal thermal imaging while simplifying post-scene reporting and data retention, a unique solution offering first-to-market safety advancements for firefighters.

- **General Monitors S5000 Gas Monitor:** This gas detector is suitable for extreme environments, where there is a need to detect oxygen, toxic and combustible gases. It operates over a wide temperature range using a variety of gas sensitive technologies. Its breakthrough XCell H₂S/CO gas sensors with TruCal technology extends calibration cycles by up to 24 months and actively monitors the sensor inlet for blockages.

- **V-Gard range of safety helmets:** This innovative line of safety helmets has multiple applications across electrical, industrial, oil and gas, and utilities. It includes the V-Gard H1 which, from its user-focused design to first-in-class customisation capa-

bilities, provides the quality and style users have come to expect and trust from the revered and world-renowned V-Gard brand.

- **Safety io's Grid services:** Using world-class MSA Safety equipment, these services break down the obstacles standing between businesses and their broader safety goals.

The system includes Grid Live Monitor, which shares hazard and compliance concerns with safety managers and their team in real time so that action can be taken when seconds count.

The Grid Fleet Manager, a web-based service that streamlines gas detection fleet management, allows fleet managers to effectively act on safety and maintenance concerns.

And FireGrid, an easily accessible cloud-based software platform, improves firefighter safety by increasing a department's capability for managing products, people and processes.

- **V-Series fall protection harnesses:** MSA believes that the safest fall protection harness is the one you'll actually want to wear. This is why each V-Series harness includes unique features designed to deliver exceptional comfort so users can focus on work and not on their harnesses.

The features of the V-Series include an exclusive racing-style buckle for a close, comfortable-fitting harness and an athletic cut that contours the harness to the body for improved upper torso movement.

Established in 1914, MSA Safety is a leader in the development, manufacture and supply of safety products that protect people and facility infrastructures. Its products integrate a combination of electronics, mechanical systems and advanced materials to protect users against hazardous or life-threatening situations.

The company's comprehensive product line is used by workers around the world in a broad range of markets, including the oil, gas and petrochemical industry, the fire service, the construction industry, mining and the military.

MSA's core products include self-contained breathing apparatus, fixed gas and flame detection systems, portable gas detection instruments, industrial head protection products, firefighter helmets and protective apparel, and fall protection devices.

With 2020 revenues of \$1.35 billion, MSA employs approximately 5,000 people worldwide. The company is headquartered north of Pittsburgh in Cranberry Township, Pennsylvania, the US, and has manufacturing operations in the US, Europe, Asia and Latin America.

With more than 40 international locations, MSA realises approximately half of its revenue from outside North America.

MSA Safety will be exhibiting at Stand 7421, Hall 7, at Adipec, and can be reached at marketing.meairr@msasafety.com for appointments.



INSULATION JUST GOT BETTER

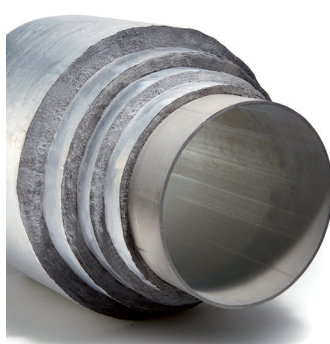
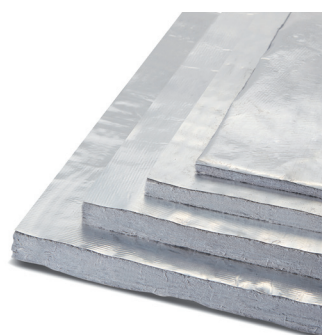
ArmaGel™

Explore new opportunities with our next generation flexible aerogel blanket range.

ArmaGel™ HT offers equal performance at a fraction of the thickness.

ArmaGel™ DT suitable for cryogenic and dual-temperature applications.

www.armacell.com/armagel



Unique thermal and acoustic properties exceed industry standards.

armacell®
ArmaGel™



Personnel wearing V-Gard safety helmets and an Altair 4XR multigas detector

Bolted joint integrity is considered one of the most significant issues in the industry today, and the Hi-Force On-site Bolting Services Division aims to provide bespoke solutions that will assist companies in the implementation of bolted joint integrity management

Hi-Force hydraulic tools play key role in bolted joint integrity

HI-FORCE, a leading manufacturer of high pressure hydraulic tools, offers an extensive range of hydraulic bolt tensioners for topside and subsea applications, operating at maximum pressures of 1500 bar (21,750 psi), as well as special design tensioners made to exacting customer specifications.

Hydraulic stud bolt tensioners are the most efficient method of accurately tightening bolts, to a predetermined and known bolt load, to ensure an even clamping force on all stud bolts within the joint.

This is particularly critical for bolted joints, on pipelines and pressure vessels, in the oil, gas and petrochemical industries, where correctly sealed joints are essential for the safe movement and processing of hydrocarbons, typically under high pressure.

The multiple use of hydraulic stud bolt tensioners, to tension 25, 33, 50 or in some cases 100 per cent of the bolts simultaneously, ensures an even pull down of the joint faces onto the gasket, ensuring the correct gasket compression to achieve a leak free joint, first time every time.

Available with imperial bolt sizes from ¾ inches to 4 inches and metric bolt sizes from M16 to M100, the SBT spring assisted and STS manual piston retraction topside tensioner ranges offer up to 26 imperial and 32 metric models.

Both ranges are designed primarily for topside operations in a wide variety of applications including pipeline flanges, heat exchangers and pressure vessels.

The SBT range offers the additional feature of the spring assisted return piston, which reduces bolt tensioning cycle times considerably.

Once the hydraulic pressure is released, the tensioner piston automatically starts to retract, thus removing the need to manually wind down the threaded puller.

The STU subsea tensioners are designed and manufactured to suit the demanding requirements of divers operating in harsh subsea environments.

With an easy to operate two-piece design comprising of a quick fit/release threaded puller and a hydraulic load cell with integral bridge, the STU series offer a reliable and cost effective method of tensioning sub-sea imperial bolted joints up to 3 ½ inches and metric bolted joints up to M90.

The modular design of Hi-Force hydraulic stud bolt tensioners enables the user to adapt each model, to cover more than one stud bolt size, by simply ordering additional accessories.

This greatly reduces investment costs, for users, that require tensioning multiple sizes of stud bolts, whilst optimising their investment costs.

Suitable pumps for the bolt tensioner ranges include the AHP275BTU and AHP2-237BTU air driven pumps as well as the HPX1500BTU manually operated pump.

Each pump operates at a maximum working pressure of 1,500 bar and is supplied complete with a pressure gauge and quick connect couplings for ease of use.

With the best available technology, world-class manufacturing principles and the accredited ISO 9001:2015 procedures, quality control is assured in the Hi-Force brand.

Headquartered in Daventry, England, Hi-Force operates from a state-of-the-art manufacturing facility that houses everything from product design, through to manufacture, assembly, testing and certification, of an extensive range of bolting tools, as well as many other types of high pressure hydraulic tooling.

“All the components of the hydraulic bolt tensioners are designed, produced and tested at our manufacturing facility on a fleet of twelve DMG Mori CNC machines and using only the highest quality materials. All our products are issued

with a unique serial number which gives us the ability to identify precisely the material certification, machining batch numbers, heat treatment process and finally the build and testing information,” says Chris Dickinson, Hi-Force Group Operations Director.

Hi-Force is also committed to offering technical support and hydraulic expertise to the market.

During construction and commissioning of new facilities, the issue of correct bolt up of critical and non-critical joints can often be overlooked, resulting in costly, and potentially catastrophic leaks.

Bolted joint integrity is considered one of the most significant issues in the industry today, and the Hi-Force On-site Bolting Services Division aims to provide bespoke solutions to plant owners and contractors, guaranteeing bolted joint integrity.

This service offering includes pre-start on-site surveys, comprehensive analysis of bolted joint needs and requirements, development of correct procedures, including all required

bolted joint load calculations, on-site supervision, ECITB approved bolted joint integrity training courses for the nominated contractors technicians, full flange management control and of course, high quality UK manufactured bolting tools.

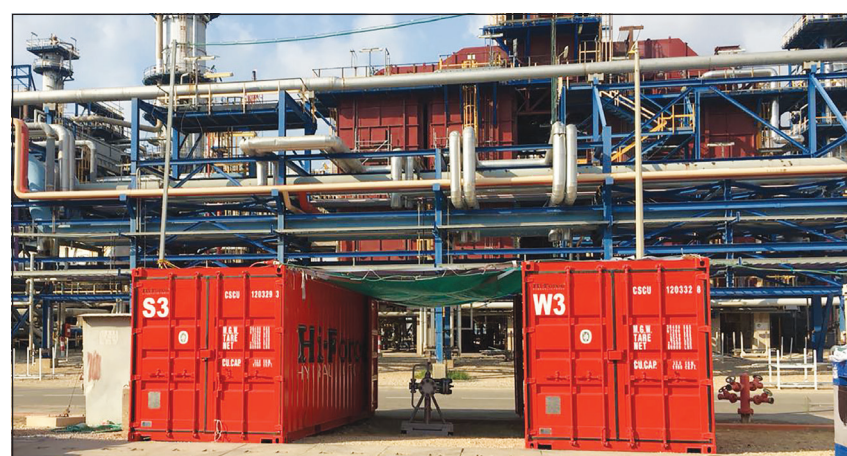
In addition, bespoke twenty-foot containers can be mobilised to site, fully equipped, as either a bolting tool store and tool repair facility or a mobile on-site training facility, incorporating all the necessary training equipment, to deliver bolting training courses, to the highest possible standard.

Hi-Force’s product range extends to hydraulic cylinders, manually operated and powered pumps, jacks, mechanical, pneumatic and hydraulic torque equipment, nut splitters, flange spreaders, hydrotest pumps and many other industry specific tools.

In addition, Hi-Force offers complete after sales and service support, through all of its strategically placed regional offices and authorised distributors, in almost 100 countries worldwide.



Hi-Force hydraulic bolt tensioners ... doing the job efficiently and accurately



Twenty-foot containers can be mobilised as a tool repair facility or a mobile on-site training facility

Your global partner for safety critical industries

www.relyonnutec.com

New partnership offers better drill string protection in KSA

After securing Aramco's approval of Duraband NC hardbanding in 2019, the company focused on making both the product and its technical support easily accessible in-country, Colin Duff, Global Director of Hardbanding Solutions by Postle Industries, tells **OGN**

AN agreement between US-based Postle Industries and Acceleration Company 'Accell' based in Khobar, Saudi Arabia, last summer is designed to provide the drilling industry in the Kingdom with cost-effective and reliable drill string protection, backed up with local technical support.

"After securing Saudi Aramco's approval of our Duraband NC hardbanding in 2019, we focused on making both the product and our technical support easily accessible in-country," says Colin Duff, Global Director of Hardbanding Solutions by Postle Industries.

"We had previously worked with some individuals at Accell, so we knew them well. With their familiarity of our technology coupled with local knowledge it was an obvious choice," he adds.

When utilised and managed properly, hardbanding can protect drill string tool joints from wear indefinitely.

Products like Duraband NC are also essential in reducing damage caused to casing when tool joints make contact with it during drilling operations.

It's a technology that can save significant sums on drill pipe costs by ensuring they are in service longer.

However, failures in the application of hardbanding are still too common. Using the wrong hardbanding material or neglecting to follow correct welding procedures can result in the need for costly repairs.

A local presence in Khobar means that the numerous service companies in Saudi Arabia that are licensed to apply Duraband have immediate access to technical support from the manufacturer, reducing the likelihood of failure.

Similarly, local drill pipe owners and oil and gas operators also have the opportunity to consult on drill pipe repairs and casing protection to get the most up to date and accurate advice for their particular needs.

Hardbanding Solutions offer a series of technical presentations offered in-person or through video conferencing, free of charge.

Another advantage of the new partnership is that Duraband is now stocked in Saudi Arabia at a competitive price. This means

the industry can rely on fast delivery and cost-effective protection.

The product can be reapplied directly over itself and many other brands when worn, a process approved to NS-1 standard. This further reduces costs with straight forward reapplication without the need for costly removal and repair.

As well as the hardbanding material, the companies have also worked together to introduce SkyeGo mobile hardbanding equipment to Saudi Arabia to ensure consistent and quality application.

There are currently two units owned by local service companies in operation.

These machines can be shipped wherever they are needed. They are fully contained and run from their own power supply, another development which is transforming drill pipe repair in the country.

This exciting new collaboration will have a long and positive effect on the drilling industry in Saudi Arabia.

Hardbanding Solutions will be exhibiting at Stand 7410, Hall 7, at Adipec 2021.



SkyeGo mobile hardbanding equipment



Training in-country is key to successful drill pipe protection



Duraband NC hardbanding applied to a Pin Tool Joint

Rockwell to display automation solutions for O&G

ROCKWELL Automation will return to this year's Abu Dhabi International Petroleum Exhibition and Conference (Adipec) to demonstrate how digitalisation and automation can address the challenges faced by the oil and gas industry.

This year, Rockwell Automation will be exhibiting with Sensia, the joint venture launched in 2019.

Sensia combines the deep oil and gas domain knowledge of Schlumberger with Rockwell Automation's rich automation and information expertise.

At the event, Sensia will present its portfolio of data-driven solutions, services and products that can help stakeholders across the oil and gas industry drive efficiency and increase safety, from the reservoir to the refinery.

Commenting on the event, Sebastian Grau, Regional Vice-President Sales at Rockwell Automation, said: "We are excited to be participating at this year's edition of Adipec in Abu Dhabi, joining the global oil and gas industry once again. Returning to the in-person format of the event after two years presents the perfect opportunity for our teams to reconnect with our customers and exchange ideas with industry colleagues."

"Now more than ever, reconnecting with customers is key, because at Rockwell Automation, we use an outside-in approach, using our customers KPIs and objectives to drive our own. With our integrated asset management



Sensia combines the deep oil and gas domain knowledge of Schlumberger with Rockwell Automation's rich automation and information expertise

solutions, we drive efficiency, optimised productivity, and safety, with a consistent focus on sustainability."

Event attendees visiting the Rockwell Automation and Sensia exhibition stand will have access to live product demos, customer success stories and be able to learn about the full portfolio of solutions offered by both companies.

While oil and gas organisations continue to grapple with the intricacies of recovery from the pandemic, global initiatives around digitalisation, sustainability and decarbonisation

continue to gain momentum.

At Adipec, the teams from Rockwell Automation and Sensia will explain how companies can reduce operational costs, improve the safety and security of operations, and drive action to reduce carbon emissions, all in alignment with the global transition towards a low-carbon economy.

"The needs of the oil and gas industry are evolving. Customers must manage costs, extract the most value possible from current assets, as well as ensuring safe, reliable op-

erations. Effective technology is required to accomplish these goals. It's crucial in developing a connected enterprise and operational excellence. From Edge to Enterprise, Sensia and Rockwell Automation bring a wealth of industry knowledge and expertise to help customers achieve the full potential of their oil and gas assets," said Allan Rentcome, CEO of Sensia.

With a client-centric approach, both organisations aim to utilise their collective capabilities to support companies in deploying and optimising the next generation of oil-field technologies, control systems and intelligent devices.

"In an industry so easily susceptible to macroeconomic shifts, policy developments, and changing consumer attitudes and requirements, we place our clients' unique objectives at the forefront, helping them thrive in a period of rapid transition," added Emmanuel Guilhamon, EMEA Sales Manager, Strategic Accounts, Heavy Industries at Rockwell Automation.

"Digital transformation presents an attractive, yet largely untapped opportunity to address many challenges across the entire oil and gas value chain, from drilling operations to refinery. A robust digital blueprint can help implement and control processes from the onsite infrastructure to remote technologies and facilitate greater process efficiency. Ultimately our goal is to make a positive step change in efficiency and safety while drastically reducing costs and downtime."

GCC 'needs to accelerate decarbonisation'

The GCC can leverage its tremendous renewables potential



THE Gulf Cooperation Council (GCC) countries have increased their focus on actions to address climate change concerns but there is an urgent need to further accelerate decarbonisation efforts.

With approximately 40 per cent of global carbon dioxide emissions from fuel combustion attributable to electricity and heat production, decarbonising the power sector must be prioritised to build a more sustainable future.

In the GCC, this goal can be achieved most effectively by leveraging the region's tremendous renewables potential together with its abundant natural gas reserves, while transitioning away from higher carbon intensity liquid fuels such as oil and diesel, highlights a newly published white paper by GE, called 'Pathways to Faster Decarbonization in the GCC's Power Sector'.

According to Joseph Anis, President and CEO of GE Gas Power Europe, Middle East, and Africa: "The challenge we face today is not quite as straightforward as simply providing lower carbon power. We need to solve for the energy trilemma of supplying more reliable, affordable, and sustainable power, in the context of increasing demand for electricity.

He added: "There is no one-size-fits-all answer, and we recognise that multiple solutions -- including solar, wind, hydro, gas, nuclear, battery storage, hybrids, and more - will contribute to the region's long-term energy mix. However, the accelerated and strategic deployment of renewables and gas power in the GCC can enable substantive reductions in emissions rapidly now, while advancing technologies for low or near-zero carbon power generation in the future."

The region realised up to a 69 per cent compound annual growth rate (CAGR) in installed renewables capacity between 2015 and 2020, starting from a very low value and reaching a total of 2.4 gigawatts (GW) at the end of this period.

This was driven by fundamentally sound factors such as falling costs especially of solar photovoltaic (PV) solutions; the suitability of renewable solutions for utility-scale projects; and technological advancements that enabled the deployment of renewables in the GCC's hot and harsh environment.

However, the rapid penetration of variable renewable energy can also present challenges such as grid instability.

Furthermore, gas power, which is becoming increasingly efficient, accessible, and affordable, can complement variable renewables with firm, on-demand electricity that can be ramped up or down quickly.

With up to a third of the GCC's power produced by liquid fuels such as crude oil, heavy fuel oil (HFO), diesel, and others, switching away from them to natural gas also offers significant reductions in emissions, without compromising the reliability of electricity supplies, as gas produces the lowest emissions among traditional fossil fuels.

Natural gas combined cycle power plants can reach a carbon emission intensity of 307-395 gm of carbon dioxide per kilowatt hour (gCO₂/kWh), compared to 547-935 gCO₂/kWh for liquid fuel power plants.

Additionally, gas is more power dense than wind or solar, requiring far less land per unit of installed generation capacity: a 1 GW natural gas combined cycle plant requires 13 acres of land, compared to 5,000 to 6,000 acres for a solar farm.

Another important means to decarbonise power in the short term is to enhance the performance of the region's existing gas power infrastructure by implementing gas turbine upgrades and converting simple cycle power plants to combined cycle, a measure that can help generate up to 50 per cent more power without additional fuel or emissions.

More importantly, gas power technology can enable substantial reductions in carbon emissions through the use of hydrogen for electricity production or carbon capture technologies at the exhaust.

Looking ahead, this means that a dollar spent on gas turbine technology today does not necessarily equal a dollar spent on a carbon footprint for the life of the asset.

Beyond power generation, the white paper advocates for investments in grid transmission and distribution systems, the adoption of digital solutions, as well as a continued focus on demand side energy efficiency and management to curtail energy consumption, wastage, and emissions.

For full report, visit www.ognnews.com

Register for **FREE**

MY CRANE

UNITING THE GLOBAL LIFTING COMMUNITY



A new, **B2B digital platform** for the global lifting community

Online rental of crawler, mobile and tower cranes

Other services include **a Marketplace**

Engineering and design services, **legal support**

Franchises available in Saudi Arabia, Qatar, Kuwait and Bahrain

www.my-crane.com
info@my-crane.com



MYCRANEAD

MY CRANE®

Corrosion under insulation: The trillion-dollar problem

CUI is a major challenge for oil and gas and petrochemical industries, and Armacell offers one of the best insulation solutions to mitigate corrosion under insulation

CORROSION is formed when water is trapped between the surface of the metal pipe and the insulation material. Termed corrosion under insulation (CUI), this insidious problem is often noticed only when extensive damage has already happened.

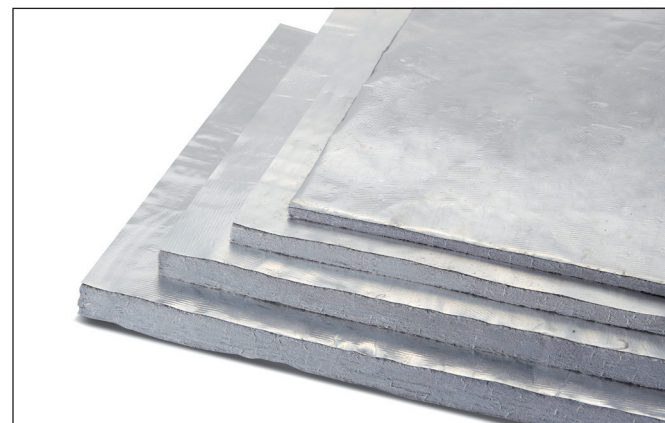
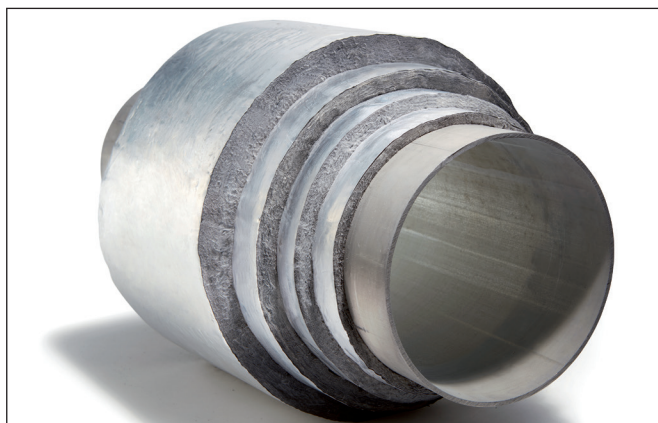
CUI usually occurs on pipes with a line temperature between 0 deg C and 175 deg C, and is particularly critical above 50 deg C.

The risk increases on equipment, which is operated discontinuously or at dual temperatures. If the temperature fluctuates, condensation can form in the insulation material and water can reach the surface of the pipes.

CUI continues to be a major issue for process industries in oil, gas, chemical and power generation sectors. It is estimated that up to 10 per cent of annual maintenance costs in these industries are caused by CUI. Severe cases of CUI may put the safety of personnel, operation processes, environment, and reputation at risk.

Thus the choice of insulation system is a critical factor for effective mitigation of CUI. Armacell Energy offers two different kinds of industrial insulation materials which are applied directly to the pipe or equipment surface in industrial projects:

- ArmaFlex® Industrial Grade is flexible elastomeric foam (FEF) based on synthetic rubber with foamed closed cell structure.



ArmaGel ... next generation flexible aerogel blanket range

- ArmaGel™ is an aerogel (AG) blanket, hydrophobic, with fibrous open structure, high maximum service temperature and low thermal conductivity.

ArmaFlex Industrial and ArmaGel have been tested in respect to their CUI mitigation properties in salt-water spray and high humidity tests by TNO/Endures and InnCoa institutes, respectively. Both ArmaGel and ArmaFlex offers effective resistance to water

ingress, minimising the onset and spread of CUI, proven by a rigorous six-month corrosion assessment.

REFERENCES:

- NACE impact study, 2016, Annex D, pg D-10.
- <https://local.armacell.com/en/energy/problems-we-solve/corrosion-under-insulation-cui/>



شركة البحرين لتصليح السفن والهندسة ش.م.ب.
THE BAHRAIN SHIP REPAIRING AND ENGINEERING COMPANY B.S.C.



Transcending Boundaries of Excellence!

Founded in 1962 at Mina Salman Port, Bahrain Ship Repairing & Engineering Company (BASREC) is a pioneer in its field.

In accordance with the vision of M/s Yusuf bin Ahmed Kanoo, the firm has grown to become one of the most prominent businesses of its kind in the Arabian Gulf, offering a comprehensive portfolio of services to ship owners.

Major infrastructure investments

In recent years, the company has spent over US\$16 million on improving its facilities, as well as modernising its equipment and boosting dry docking capacity to further support ship owners' requirements. A fully-equipped, specialised independent workshop has also been built for the repair and overhaul of all types of marine diesel engines.

Adding value

Over nearly six decades of service, BASREC has continued to add value to the Gulf's shipping sector, with a suite of services that today includes:

Ship Repairs, Metallock Cold Stitching, Welding, Bollard Pull Test, Small Boat Repairs, Electrical and Electromechanical Works, Steel And Aluminium Repairs, Pipework, Fitting, Laser and Optical Alignment, Fibreglass Works and Repair, Machine Shop, Propeller Repairs, Helifusion Welding/ Cladding, Painting/ Coating, Machining Works, Hydraulic Repairs, Pump Repairs, Container Repairs, Hull Thickness Gauging, Service Agency Appointments and the Provisions of a Mobile Repair Team.

Enduring excellence

As the region's most established and well respected repair yard, BASREC has been recognised for its excellence through a host of awards bestowed by prestigious bodies and industry groups from across the Arabian Gulf.

The company complies with ISO 9001:2015 (Quality Management), ISO14001:2015 (Environmental Management), ISO 45001:2018 (Health and Safety Management), and the ISPS (International Code for Security of Ships and Port Facilities).



Going forward, BASREC will continue to provide high-quality and customer-focused services, with an enduring emphasis on safe operations and environmental protection.



شركة البحرين لتصليح السفن والهندسة ش.م.ب.
THE BAHRAIN SHIP REPAIRING AND ENGINEERING COMPANY B.S.C.
P.O. BOX 568, KINGDOM OF BAHRAIN
TEL.: +973 17 725300, +973 17 727129 FAX: +973 17 729891
MAINOFFICE@BASREC.COM.BH WWW.BASREC.COM



TECHNICAL ENGINEERING
AND MARKETING SERVICES
TEL.: +973 17 723531, +973 17 723532
FAX: +973 17 725584
EMAIL: TEAMS@BATELCO.COM.BH



WHOLLY OWNED SUBSIDIARY OF BASREC
MARINE AND INDUSTRIAL PUMP REPAIR (GULF) SPC
P.O. BOX 568, MANAMA, KINGDOM OF BAHRAIN
TEL.: +973 17 825144 / 17 825231, FAX: +973 17 728071
E-MAIL: MARIND@BATELCO.COM.BH

Sulzer Chemtech converts VDU to maximise competitiveness

As refineries strive to meet changing market requirements with minimal capital expenditure (capex) by upgrading existing separation units, working together with a processing technology specialist can deliver advanced performance and the flexibility to support new applications while also reducing waste.

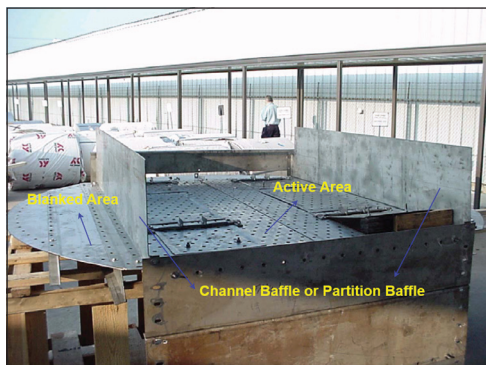
One UAE-based refinery turned to Sulzer Chemtech to convert one of its vacuum distillation units (VDUs) into an atmospheric naphtha-kerosene separation column. The result is a highly effective unit designed to help enhance the refinery's competitiveness.

To support its growth and changing requirements while optimising capex, the refinery wanted to modify an existing VDU, used to separate vacuum gas oil (VGO) and lube base oils, into an atmospheric distillation unit (ADU).

THE OBJECTIVE & CHALLENGES

In order to optimise the existing equipment's service life and the overall capex, the refinery was keen to maintain most of the structure, that is, the shell and support for column internals.

As no technical drawings or blueprints were available, Sulzer Chemtech's field service team visited the site to take measurements in the col-



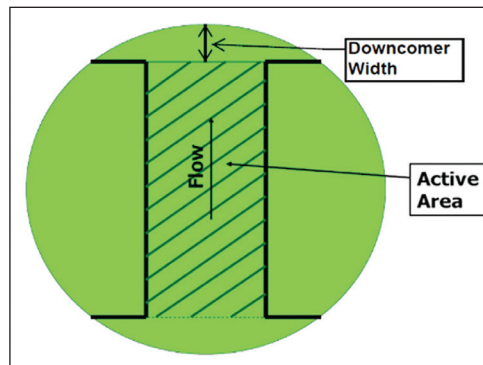
Channel baffle trays prevent vapour and liquid spreading across large towers

umn and prepare as-built drawings to use as a basis for the entire conversion project.

With a diameter of over 5 m, the unit consisted of 21 two-pass bubble cap trays, an over flash chimney tray located above the flash zone and four sieve trays in the stripping section, including another chimney tray. The existing column diameter was way too oversized to handle new requirement.

A TRAY TO SUIT THE PURPOSE

The solution provided by Sulzer Chemtech minimised the number of perforations, in the form of valves, to further reduce the open area



and prevent weeping while reducing pressure drop.

The flow path length supports optimum vapour-liquid contacting and the channeled active areas improve jet flood at lower vapour rates. Furthermore, the updated design accommodates the existing downcomer width, eliminating the need for further modifications.

In effect, channel baffle trays restrict the contact activity into a limited space while preventing vapor and liquid spreading across the entire cross-sectional area of large towers.

This setup also supports the proper loading of the weir. Specifically, the channel baffles de-

crease the available weir length to prevent liquid stagnation and decrease the active area to prevent weeping.

In this case, as the existing trays were of two-pass, Sulzer Chemtech's specialists designed the new channel baffle trays with a similar arrangement. This avoided modifications to the tray support rings and weld attachments.

FAST TURNAROUND & ADVANCED CAPABILITIES

Sulzer Chemtech's fabrication centre was able to complete the manufacture and delivery of the new trays in less than six months.

The fabrication of these key components was fast-tracked, so that Sulzer Chemtech's field service specialists could install the equipment during the refinery's next scheduled shutdown, eliminating the need for any downtime specific to the project.

The solution provided, consisting of 19 trays, could process revised feed rate and deliver end products that meet the stringent specifications of the American Society for Testing and Materials' (ASTM) D86 standards.

In particular, the un-stabilised naphtha and kerosene produced featured a sulphur content of 0.0005%M and 0.008%M, respectively.



ITALY @ ADIPEC 2021

15 - 18 November 2021

Monday to Thursday: 10:00AM - 6:00PM

Hall 1 - Stand 1150 - 1160

ADNEC, Abu Dhabi National Exhibition Centre
Abu Dhabi, UAE



Honeywell: Laying the tech base for tomorrow's energy sector

The company is participating in this year's Adipec to showcase a portfolio of technologies designed to help integrate operational centres and extend autonomous control capabilities for the plant, says Hesham Tashkandi, a VP at Honeywell

HONEYWELL continues to be at the forefront of delivering sustainable solutions as the path for energy transition accelerates around the world.

After a tumultuous year, global energy markets have made a strong recovery, and this is likely to translate to a renewed focus on new project development.

With this in mind, Honeywell is looking to working on sustainability-focused projects, where its energy-efficient products and digital offerings – especially its enterprise performance management solutions – can continue to take centre stage.

The company is participating at this year's Adipec to showcase a portfolio of technologies designed to help integrate operational centres and extend autonomous control capabilities for the plant.

"As one of the world's largest oil and gas events, Adipec is a great platform to discuss the trends, challenges and future of the energy sector, in particular the key highlights shaping our industry that I have discussed within this article," Hesham Tashkandi, Vice-President and General Manager, Honeywell Performance Materials and Technologies, Middle East, tells Abdulaziz Khattak of *OGN*.

At the last in-person Adipec, the company launched Honeywell Forge for Industrial, its enterprise performance management software for industrial operational technology.



Tashkandi ... leading the sector with technology

The innovative system provides operators with new insights, actionable recommendations and significant potential savings through optimisation recommendations, reduced energy consumption and process efficiencies.

"With energy demand recovering, the time is perfect for the industry to be reconvening at crucial shows like Adipec, to drive

forward new innovations for the performance, efficiency and security of tomorrow's energy plants. As we like to say at Honeywell, the future is what we make it," says Tashkandi.

FOCUS ON SUSTAINABILITY

For more than 100 years, Honeywell has been delivering cutting-edge technology in refining, process controls and chemicals.

And although demand for that technology continues, the world is looking for more sustainable solutions, especially with the energy transition picking up speed.

The global drive towards a low-carbon future is being supported by international accords and national policies, as well as the energy industry as a whole.

Honeywell is now more than ever focused on advancing sustainable solutions with an emphasis on decarbonisation.

Earlier this year the company announced its commitment to becoming carbon neutral in its operations and facilities by 2035.

"Half of our research and development is dedicated to improving environmental and social outcomes for our customers, making us uniquely positioned to help our partners meet their sustainability goals," says Tashkandi.

Seeing greater capital investment shifting toward decarbonisation projects underlines a fundamental shift towards sustainability.

 **böhler** welding
by voestalpine
Lasting Connections

TERRA & URANOS

The New Reference in
Welding Machines.



Your challenge is to JOIN materials made of metal. You know how to weld constructions for bridges, machines and power plants. In your job you do not need "a" solution, YOU DESERVE the best. Our offering includes a unique portfolio of welding application services, high end welding consumables, accessories and welding machines – we are your Full Welding Solution Provider.



Scan for
more
information

voestalpine Böhler Welding
www.voestalpine.com/welding

voestalpine
ONE STEP AHEAD.

As the industry undergoes the transition towards a low-carbon future, there are a range of technologies that help to achieve these goals.

Honeywell is already actively working on many of them, from digital transformation to renewable and alternative fuels, carbon capture, plastics recycling, and energy storage and management.

Its technologies are improving the efficiency and performance of operations for customers around the world.

MAKING OPERATIONS MORE PREDICTABLE, MORE PROFITABLE

Through various technologies Honeywell has been advancing the sustainability of energy projects by enhancing efficiency and optimisation, delivering additional benefits to customers in the process.

Its deep domain expertise and advanced Industry 4.0 technologies, coupled with its leading industrial cybersecurity experience, helps regional companies achieve higher levels of performance, reliability, safety and profitability.

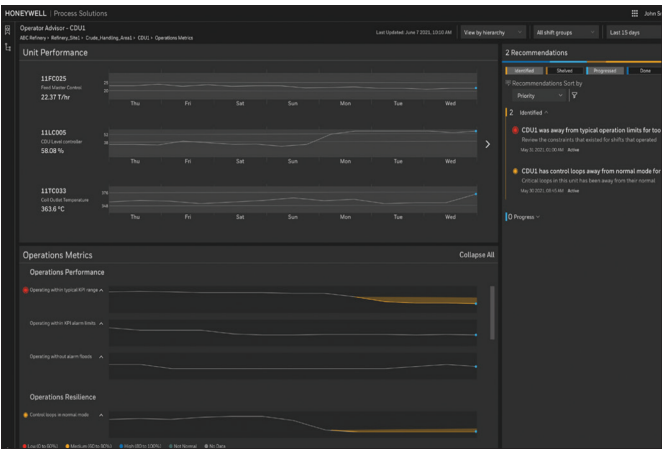
An example of this is Honeywell’s 10-year partnership with Abu Dhabi National Oil Company (Adnoc) to co-develop one of the largest predictive maintenance projects in the oil and gas industry.

As part of the agreement, Adnoc is utilising Honeywell’s state-of-the-art asset monitoring and predictive analytics platform to maximise asset efficiency and integrity across Adnoc’s upstream and downstream operations.

“Leveraging Artificial Intelligence (AI) technologies like machine learning and digital twins, the platform helps predict equipment stoppages, reduce unplanned equipment maintenance and downtime, increase reliability and safety, and enable substantial cost savings for Adnoc,” says Tashkandi.

Adnoc’s predictive maintenance project is part of the company’s flagship Centralised Predictive Analytics and Diagnostics (CPAD) programme, which underpins its 2030 smart growth strategy and Oil & Gas 4.0 initiatives.

Tashkandi adds: “We’re proud to be advancing digitalisation in the region and specifically in the UAE by working with Adnoc on the CPAD project, which will play a significant role in transforming the company’s operations to maximise value from every barrel of oil and make operations more predictable.”



Operator Advisor ... correlated operator actions with unit performance and, right, enterprise-wide view of overall operator performance

NEW PERFORMANCE LEVELS FROM EXISTING ASSETS
Finding new levels of performance from across an existing operation is, in light of current macro-economic uncertainty, arguably more valuable today than it ever has been.

For customers looking to do more with what they have, Honeywell recently launched Operator Advisor, part of the Experion Highly Augmented Lookahead Operations (Halo) suite.

This powerful software solution, which uses machine learning-powered analytics, a type of AI, enables plant owners to objectively measure gaps and drive operator effectiveness to the next level.

The solution presents users – including oil and gas, chemical, refining and petrochemical organisations – with a consolidated scorecard of enterprise automation utilisation and recommended steps to address performance-related gaps.

ECOFINING FOR GREENER TRANSPORT FUELS
Following the global shift towards sustainability, refineries around the world are increasingly seeking to repurpose existing assets to meet a growing demand for renewable transportation fuels.

And Honeywell is uniquely positioned to develop refining technologies.

The latest example is its innovative Ecofining technology that converts renewable feedstocks into transportation fuels and can be built from the ground up, or converted from an existing hydro-processing unit.

According to Tashkandi, the success for Ecofining is marked by increased customer interest, which has been stronger in the last year than any time in the 10-year history of the technology.

BEING CYBER-SECURE

As the digital transformation of the oil and gas sector accelerates, so too does the risk posed by cyber threats and the time is now for investment in end-to-end, highly robust cybersecurity initiatives to protect business continuity, secure IP and, crucially, help maintain safety.

To address this constant and growing challenge, Honeywell’s industrial cyber security solutions help plants and critical infrastructure sectors defend the availability, reliability and safety of their industrial control systems (ICS) and plant operations.

“From assessments and audits to response and recovery, our portfolio of end-to-end solutions exists to ensure customers can pursue their digital transformation agendas in a way that ensures maximum safety and security for their operations and assets,” Tashkandi says.



WWW.FACCINGROUP.COM

FACCIN

BOLDRINI

ROUND

WIDEST RANGE

Plate Rolls | Angle Rolls | Automated Dishing Lines | Tailored Machines

Over 30.000 machines successfully installed!

Featured: Faccin 3 roll variable geometry roller for heavy-duty cold rolling



+39 030 67 29 300

info@faccingroup.com



Italian steel industry selects Faccin's plate rolling system

PART of its strategy to invest in training, digitalisation, and the purchasing of new machinery, Italian steel manufacturing specialist Comeca Tecnologie has chosen the plate rolling system built by Faccin.

The plate roll, which offers extreme ease of use and high performance, will allow Comeca Tecnologie to roll products in-house with thicknesses up to 100 mm and as a result greatly improve the lead time offered to its customers.

Comeca Tecnologie has been active for more than 50 years in the steel industry, the non-ferrous metal industry and in the energy sector. It designs and manufactures systems, spare parts and equipment for steelworks, rolling mills, continuous casting and fume treatment plants, and is active both nationally and internationally, with foreign customers located mainly in Europe.

Comeca Tecnologie offers its customers customised solutions and services by analysing the different needs and consequently diversifying its products.

Thanks to this flexibility, achieved through highly-trained technical staff, the company has conquered a particular niche in the market and is, therefore, able to consistently respond with very high-quality standards, to the customers' requests.

Right from the start, Comeca Tecnologie's experienced staff found Faccin's plate rolling system very easy to use. In fact, it took only two days of training with the Faccin Group technicians to learn how to completely manage the system.

Finally, investing as well in industry 4.0 features, has made the purchase even more profitable.

Comeca Tecnologie will use the plate roll for the processing of



Faccin's three-roll plate roll HAV series

multiple manufactured goods, such as scrap baskets, ladles, slag pots, EAF electric furnaces, tanks, cyclones, ducts for dedusting systems, quench towers, etc.

This new machine will bring numerous benefits, including the reduction of fabrication time and the simplification of operations.

Even less experienced operators will be able to use the plate roll, given the simplicity for memorising the rolling steps.

In addition, the quality increase of the pre-bending process on the steel plates is a positive plus.

FACCIN HAV TECHNOLOGY

HAV is a series of three-roll variable geometry plate rolls with high rolling power combined with maximum bending precision, and an ideal combination of performance and versatility.

Designed, built and marketed by Faccin since the 1970s, the HAV models offer a very fast and safe pre-bending phase.

Thanks to their special configuration, the three rolls of the machine move independently; the upper roll with vertical movement and the lower rolls with horizontal movement, allowing the operator to adjust the distance between the lower rolls and the distance between the bending points as needed.

By reducing the distance to the bending point to a minimum, an excellent traction of the plate together with better-quality of the pre-bending are obtained thus minimising the length of the flat edge.

The maximum distance between the lower rolls, on the other hand, ensures an enormous rolling capacity.

Faccin Group is a leading global metal forming machine producer that manufactures and commercialises three great brands, Faccin, Boldrini and Roundo, offering the widest range of plate rolls, angle rolls, dished head lines and special machines. The group have successfully installed over 30,000 machines worldwide.

Faccin Group exhibited its technology at the Blechexpo Stuttgart 2021 Trade Show from October 26-29.

Produced & Organised by:



Co-Hosted by:

KINGDOM OF BAHRAIN
Ministry of Oil



مملكة البحرين
وزارة النفط

بابكو
Bapco

الشركة القابضة للغاز
nogaholding



THE 29TH ANNUAL MIDDLE EAST PETROLEUM & GAS CONFERENCE

Diverse Perspectives: Transitioning Towards a Carbon Constrained World

24-25 January 2022, Kingdom of Bahrain

Register now at the **Early Bird Rate.**
Save up to **US\$400!**

Official Opening & Ministerial Address:



His Excellency Shaikh Mohammed Bin Khalifa Al-Khalifa
Minister of Oil, Kingdom of Bahrain

MPGC 2022 Key Speakers:



Dr. Dawood Nassif
Chairman & Chief Executive,
The Bahrain Petroleum
Company (Bapco)



Mr. Philippe Khoury
Executive Vice President,
Sales & Trading,
ADNOC Group



Mr. Hafedh Al Qassab
BMP Project Director &
Acting Deputy Chief Executive,
The Bahrain Petroleum
Company (Bapco)



Mr. John Roper
CEO Middle East,
Uniper Global Commodities SE



Dr. Fereidun Fesharaki
Chairman, FGE



Mr. Mike Muller
President, Vitol Asia



Mr. Dave Ernsberger
Global Head of Content
& Market Insight,
S&P Global Platts



Dr. Jeff Brown
President, FGE Group



Mr. Thomas Waymel
President, Trading
& Shipping, TOTSA
TotalEnergies Trading SA



Mr. Mehdi Chennoufi
Head of LNG Origination &
Market Development, Shell
LNG Marketing & Trading



Mr. Khalid Buhazza
General Manager Marketing,
The Bahrain Petroleum
Company (Bapco)



Mr. Patrick Dugas
Vice President LNG Trading,
TotalEnergies Gas & Power Ltd



Mr. Alan Haywood
SVP, ESG Transformation,
BP p.l.c.



Mr. Sandeep Kumar Gupta
Director Finance,
Indian Oil Corporation



Dr. Edward L. Morse
Global Head of Commodities
Research, Citigroup



Dr. Andrew Walker
VP LNG Strategy &
Communication,
Cheniere Marketing Ltd

This is only a partial list of speakers. For the full list, please visit www.mpgc.cc

Find us on



#MPGC2022
#ConferenceConnection
#Bapco #OilandGasTrading
#EnergyTransition
#LNG

Become a Sponsor at MPGC 2022

More than 400 global brands have supported the annual Middle East Petroleum & Gas Conference (MPGC) over the years, as a high quality branding option. The iconic MPGC is a coming together of veritable oil and gas industry giants. It is a preferred platform for high visibility, brand recognition and profile. Now in its 29th year, let your brand be seen and associated with the best in the business.

Contact MPGC 2022 Secretariat at T: **+65 6338 0064** | E: info@mpgc.cc | W: www.mpgc.cc

STAY UPDATED



SAVE THE DATE: 7-9 DEC 2021



7 - 9 December 2021
Madinat Jumeirah, Dubai, UAE

REDEFINE. RESHAPE. REINVENT.

**THE CHEMICAL INDUSTRY IN
A POST-PANDEMIC REALITY**

The **15th Annual GPCA Forum** will take place from **7-9 December 2021** at **Madinat Jumeirah, Dubai, UAE**, and will address the theme, **“Redefine. Reshape. Reinvent. The chemical industry in a post-pandemic reality”**. This edition will propagate key messages to redefine the challenges, reinvent strategies to capitalize on market opportunities and reshape a renewed future for the chemical industry, one fuelled with a sense of purpose. Bringing together stalwarts and industry experts from across the globe, this edition will stir strategic conversations, build strong synergies to thrive in a new reality, thus, laying the foundation for a collaborative, sustainable, and successful recovery.

Confirmed speaker include:



Yousef Al-Benyan
Vice Chairman and CEO,
SABIC and Chairman
GPCA



Ilham Kadri
CEO and President of the
Executive Committee
Solvay



Thomas Gangl
CEO
Borealis



Seifi Ghasemi
Chairman,
President and CEO
Air Products



Mutlaq Al-Morished
CEO
Tasnee



Naser Aldousari
President and CEO
EQUATE



**Ahmed Saleh
Al Jahdhami**
CEO Downstream
OQ



Dr. Ahmed Ali Attiga
CEO
**Arab Petroleum
Investments
Corporation (APICORP)**



Chuka Umunna
Managing Director &
Head of EMEA ESG
J.P. Morgan



**Dr. Abdulwahab
Al-Sadoun**
Secretary General
GPCA

Sponsors



TRANSPORTATION AND VALET PARKING	DELEGATE BAGS	REFRESHMENT	REGISTRATION	BUSINESS CENTER	DIRECTIONAL SIGNAGE AND DELEGATE INFO POINT
SPEAKER LOUNGE	BROADCAST PARTNER (GPCA TV HOST)	STATIONERY	MOBILE CHARGING UNITS	MEDIA CENTER	GPCA TV ADVERTISER

For delegate registration

E: forumregistration@gpca.org.ae
T: +971 4 451 0666 ext. 153

For sponsorship, exhibition and meeting room opportunities

E: sales@gpca.org.ae
T: +971 4 451 0666 ext. 103 or 155

For speaking opportunities

E: anida@gpca.org.ae
T: +971 4 451 0666 ext. 127

For more information, visit www.gpcaforum.com

Expansion, new developments on the cards for Basrec

With the volume of containers having increased considerably over the decades, the company's future goal is to expand the Container Repair Division, which will add value to Bahrain's economy and create job opportunities for Bahrainis

BAHRAIN Ship Repairing and Engineering Company (Basrec), a leading ship repair yard and engineering company in the region, is looking to expand its services and facilities, amongst them its Container Repair Division (CRD).

The current CRD was established in 1990 and is a fully integrated third-party logistics provider.

During the decades, the volume of the containers has increased considerably and Basrec's future goal is to expand this division to provide more services. This will not only add value to Bahrain's economy but create job opportunities and employment for Bahrainis.

Basrec is also in an advanced stage of negotiations to award a contract for the construction of a new floating dock with more than double the capacity of the existing one.

The new floating dock will be Basrec's biggest investment in financial terms for a single project in its history.

The current floating dock is 120 m by 18.5 m and has a lifting capacity of up to 6,000 tonnes dead weight. It is equipped with two travelling cranes each with a 2.5-tonne capacity, and shipyard has two tower cranes with a maximum lift of 30 tonnes and jib length of 30 m. These provide cover for vessels alongside, on the slipways and in the floating dock.

Basrec operates two slipways each 80 m in length and having a capacity of 1,000 tonnes. In addition there are two repair quaysides with 7 m minimum water depth and can accommodate vessels up to 170 m in length.

Overall, the shipyard has in the recent past awarded contracts worth a total of BD5 mil-

lion (\$132 million), to improve its facilities and services, modernise its existing equipment and increase its capacity to further support the ship owners' requirements.

The shipyard continues to be in compliance with Integrated Management System (IMS). The recertification audit for ISO 9001:2015 (Quality Management System) was successfully completed in March 2021. Additionally, surveillance audits for verification of compliance towards ISO 14001:2015 (Environmental Management System) and ISO 45001:2018 (Occupational Health and Safety Management System) were also successfully completed in the same month. These audits were carried out by LRQA (Lloyd's Register Quality Assurance).

Basrec has satellite divisions for small boat repairs; Marine and Industrial Pump Repair, with its team of highly skilled professionals carve the way towards providing first grade services in pump repair and maintenance giving the highest quality results to its clients in the region; and TEAMS (Bahrain), the technical engineering and marketing services providing sales of high quality of electrical and mechanical products in Bahrain.

During the span of 59 years, Basrec has provided continued support for repair services for all types of marine crafts, and is recognized as one of the best ship repair yards within its capacity in the GCC.

Basrec also established a specialised modern fully equipped independent workshop for repair and overhaul of all types of marine diesel engines, and negotiations are underway with well-known diesel engine builders in the international market in this regards.



Basrec ... looking to expand its Container Repair Division

Beyond Limits to bring power of Cognitive AI to show

BEYOND Limits, a pioneer in industrial and enterprise-grade artificial intelligence (AI), will showcase an array of AI products and solutions powered by cognitive AI at its debut participation at this year's Adipec.

The company will demonstrate how its hybrid AI approach, which combines machine learning (ML) with human knowledge to augment and improve human decision making, can help organisations in the oil and gas industry confront some of the most daunting challenges, and empower them to improve performance, increase efficiencies, and optimise costs.

Beyond Limits' participation comes in line with Adipec's focus this year on digitalisation and smart manufacturing, as the global energy platform aims to highlight disruptive and transformational technologies that can help the energy sector unlock untapped value and opportunities, in order to set out the energy future roadmap that will ensure ongoing resilience and deliver sustainable value in the wake of Covid-19.

Beyond Limits' hybrid AI solutions are engineered to solve complex problems for the world's most demanding industries; and as a result, advance operational insights, improve operating conditions, enhance performance at every level, and subsequently increase profits.

The technology replicates human-like reasoning by combining numeric techniques like ML with embedded human knowledge to provide



Cognitive AI can empower the oil and gas industry to improve performance, increase efficiencies, and optimise costs

clear, explainable, and reliable recommendations that can match the in-depth understanding and experience of human thinking.

Commenting on the company's debut at Adipec, Kenneth Habson, General Manager EMEA at Beyond Limits, said: "Adipec 2021 provides a valuable platform for Beyond Limits to showcase our technology and raise awareness about the value AI technologies bring to oil and gas players in the region. We are very excited to get the opportunity to meet with key industry players in-person and have insightful discussions

about the industry's accelerated digital transformation, what this means for the future of the energy sector and the different ways to leverage the transformative benefits Cognitive AI technology offers to organisations in the sector.

"Countries in the GCC are hosting an exceptional culture of innovation and are setting AI strategies that empower the digital transformation of their economies. In such context, Beyond Limits is dedicated to using advanced AI to amplify human capabilities and optimise operational performance. There are lots of synergies

that enable various partnerships with key industry players in the region, which we look forward to explore. We are proud to have such a Global event hosted in the UAE and look forward to welcoming our clients and partners," he added.

Beyond Limits recently partnered with Group 42 (G42), the Abu Dhabi-based Artificial Intelligence and Cloud Computing company, where the latter led a milestone funding round to boost Beyond Limits' scale and reach in the Middle East and other markets, and to explore synergies between the two companies in applying advanced AI solutions.

'The new brand identity marks a significant milestone for TAQA as it symbolises everything that the company stands for and everything that we aspire to become as we move forward into an exciting future,' says Eng Khalid Nouh, TAQA's CEO

TAQA of Saudi Arabia: The enabler of energy

EMPOWERED by its ambitious and progressive strategy, the Industrialization and Energy Services Company (TAQA) headquartered in Dhahran, KSA, has recently launched its new brand identity, signifying the bold, energetic, and forward-looking culture of the company, with key elements that convey its orientation for growth, drawing from past experiences and expertise while remaining true to its longstanding reputation.

The new identity inspires TAQA as it continues to provide leading edge energy solutions to customers and symbolises the sustainable future the company is committed to achieve.

The new brand identity reveal took place late September during a launch event the company held in Riyadh, and was attended by its key customers, stakeholders and government officials.

"Our new logo and visual identity are inspired by our core values and our stakeholders, who are the driving force behind our success and accompanied through our growth journey. It's an exciting era for TAQA. The new brand identity marks a significant milestone for TAQA as it symbolises everything that the company stood for and everything that we aspire to become as we move forward into an exciting future," said TAQA's CEO, Khalid Nouh, in his speech during the event.

With a strategy that is focused on creating value for its stakeholders, who include shareholders, customers, and people, TAQA is committed to being a partner of choice to its stakeholders through the expansion of its service offerings, to cover a wide spectrum of energy services, thereby enabling its stakeholders to efficiently harness the full potential of their investments.

As part of TAQA's strategy to expand its portfolio, the company holds 51 per cent equity in the Arabian Geophysical and Surveying Company (ARGAS).

ARGAS was founded in 1966 to explore, evaluate, and develop the communities' natural resources and add economic value to where it operates in.

ARGAS is a leading international geophysical partner of choice, offering a wide range of solutions to international independent and national clients in different industries.

Having surveyed the region's most important natural field, including oil and gas fields and minerals, ARGAS deploys state-of-the-art technology in geophysical data acquisition, processing, reservoir analysis, and estimation services. During the past 50 years, ARGAS has contributed to over 700 projects acquiring over three million square kilometers of exploration in Saudi Arabia, the UAE, Kuwait and Oman.

ARGAS is at the forefront of developing unique solutions by deploying and integrating various advanced geophysical survey and acquisition methods such as data acquisition capabilities covering land, shallow marine, transition zone, and ocean bottom applications, in addition to collecting both seismic and non-seismic data and availing other services.

ARGAS provides the best subsurface imaging, modeling, and R&D services to help clients realise the most value of their resources.

With its vast experience within the Middle East and North Africa,



Cougar Drilling Solutions ... has offered drilling services in Turkey, Pakistan and Saudi Arabia

the company has performed operations in some of the most challenging environments, enabling it to build up an extensive portfolio of best practices and procedures to complete projects no matter the challenges presented.

ARGAS has a proven record in executing and delivering high-quality seismic data along with its processing and interpretation. The following are part of its seismic services:

- Seismic data acquisition land, marine and transition zone.
- Seismic data processing and imaging - both time and depth domains.
- Unconstrained blended land seismic data acquisition.
- Seismic interpretation, G & G Data Analysis, AVO, inversion, and reservoir characterization.
- QC of seismic data at various stages of the seismic value chain.
- Cutting-edge technology like DAS (Distributed acoustic sensing), Uphole and VSP.

ARGAS believes in energising the world through natural resources in oil and gas and beyond through geothermal, mining, hydrology, geotechnical, and geo-hazard surveys.

To further expand its service offerings, TAQA fully acquired Cougar Drilling Solutions in 2019.

Cougar Drilling Solutions is a global provider of downhole drilling tools and directional drilling services, established in 1969 in Edmonton, Alberta, Canada.

This milestone has been a catalyst for increased growth, expansion of products and services offerings and introducing a new partnership with Oliden Technology, resulting in expanding TAQA's capabilities in the wellbore positioning and evaluation space, enabling the company to enter new markets and enhance its offerings within its existing and new markets.

Upon inception, Cougar provided top tier downhole drilling products to the oil and gas industry in Western Canada including drilling jars, shock tools and stabilisation.

Over the years Cougar's downhole tools offerings have expanded into a holistic portfolio, including drilling motors, jar boosters to proprietary technology such as the Mechanical Thruster, a tailor-built compression-based tool engineered to reduce downhole dysfunction such as shock and vibration while creating consistency in downhole parameters from torque to weight-on-bit and differential pressure.

In the early 2000s, Cougar entered the directional drilling services market across the Middle East region, beginning with directional drilling and measurement while drilling in specific countries.

As of today, Cougar offers directional drilling services, measurement while drilling and logging while drilling services in Turkey, Pakistan and Saudi Arabia.

Cougar is dedicated and committed to being the most reliable, capable, and consistent provider of downhole drilling tools and directional drilling services globally.



ARGAS has contributed to over 700 projects acquiring over three million sq km of exploration in Saudi Arabia, the UAE, Kuwait and Oman

MYCRANE, PESCO of Switzerland to jointly implement projects

The MoU sets the framework for future cooperation and demonstrates confidence in MYCRANE as a trusted partner, and reinforces commitment to sharing knowledge and innovating together, says MYCRANE founder Andrei Geikalo

MYCRANE, the world's first digital platform for the search and selection of crane contractors, and PESCO Switzerland AG have agreed to cooperate to expand their client and partner base, develop common areas of activity, work together on matters of mutual commercial interest and undertake the joint implementation of projects and innovations.

According to the memorandum of understanding (MoU) signed in Moscow, Russia, both parties have agreed to share technical and other information for the purpose of inviting the other party's participation in such activity.

PESCO Switzerland, an engineering, procurement and construction management (EPCM) company, is a specialist in the energy industry. It is the project management contractor for the gas chemical complex within the world's largest ethane-rich gas processing complex (EGPC) currently being constructed by RusGasDobycha and Gazprom in Russia's Leningrad region.

EGPC products will include LNG (13 million tons per year), polyethylene (3 million tonnes



Geikalo and Dorus after signing the MoU

per year), liquefied hydrocarbon gases and pentane hexane fraction.

Furthermore, as part of the MoU, the Dubai-registered MYCRANE will make available its

in-house engineering support services, which are offered on a truly independent basis, with solutions for lifting and transportation not restricted to using specific equipment providers or pre-determined methods.

Commenting on the signing of the MoU, MYCRANE founder Andrei Geikalo says: "We are excited to deepen our cooperation with PESCO, which is a global player and a leading name when it comes to the management of projects for the energy industry."

"Our MoU sets the framework for our future cooperation and demonstrates PESCO's confidence in MYCRANE as a trusted partner. It enhances our relationship and reinforces our commitment to sharing knowledge and innovating together."

On his part, Dorus Everwijn, Managing Director of PESCO Switzerland, comments: "The MYCRANE service is long overdue. As a leading project management and EPCM services provider active in the oil and

gas downstream industry, we welcome the efficiency offered by MYCRANE and appreciate the innovative approach to what was previously a very time-consuming process for all parties."

He adds: "The most valuable commodity we have is time, and MYCRANE allows us to save time, while simultaneously accessing a multitude of vendors."

MYCRANE is a global business-to-business (B2B) platform developed by seasoned industry executive Andrei Geikalo, a former commercial director at heavy lift specialist Mammoet.

The platform simplifies the process of crane rental procurement, allowing users to submit details of their lifting requirements in order to receive personalised quotes from a range of registered crane providers.

Through a simple and quick process, customers can request a crawler, mobile or tower crane without having to rely on manual processes, such as calling suppliers or making multiple off-line requests.

The service, already operational in Russia, the UAE, Oman, Kazakhstan and Uzbekistan, by a network of local franchisees and supported by MYCRANE's head office in Dubai, offers cranes of capacities between 6 and 750 tonnes.

Drawing on the management team's experience in the industry, the innovative MYCRANE platform has been carefully designed to ensure ease of use, and that the quotes generated are directly comparable. Registration is free for both users and equipment rental companies.

Besides the lifting services search, MYCRANE offers a number of other tools for the crane industry, including a Marketplace to advertise used equipment, rigging equipment, spare parts and auxiliaries, plus career vacancies.

A news portal allows users to stay up to date with the latest industry developments, while in-house support services such as engineering and legal consultancy are also available.

Support services, such as engineering for heavy lift projects, are offered on a truly independent basis, meaning clients are presented with a full range of solutions, service providers from the whole of the market, and the most cost-effective solution.

CONFERENCE & EXHIBITION
BBTC MENA 2021
 MIDDLE EAST BOTTOM OF THE BARREL
 AND CATALYST TECHNOLOGY CONFERENCE
 14-15 December 2021 | Manama, Bahrain

ORGANISED BY

Euro Petroleum Consultants

UNDER THE PATRONAGE OF HIS EXCELLENCY
 SHAIKH MOHAMMED BIN KHALIFA AL KHALIFA
 MINISTER OF OIL, KINGDOM OF BAHRAIN

SUPPORTED BY

OFFICIAL NEWS PORTAL

BBTC MENA ADVISORY COMMITTEE INCLUDES *See the complete list on the BBTC MENA 2021 Website

<p>Hafedh Al Qassab BMP Project Director and Acting Deputy Chief Executive BAPCO</p>	<p>Massimo Pessina VP - Operation Performance ENI ABU DHABI REFINING & TRADING SERVICES</p>	<p>Ahmed Al-Majed Team Leader Process Engineering - Al Zour Refinery KUWAIT INTEGRATED PETROLEUM INDUSTRIES COMPANY (KIPIC)</p>	<p>Abdullah Salem Al Ajmi Manager Technical Services MAA KUWAIT NATIONAL PETROLEUM COMPANY (KNPC)</p>
<p>Mubarak Mesfer Al Mutairi Manager Technical Services MAB KUWAIT NATIONAL PETROLEUM COMPANY (KNPC)</p>	<p>Prasad Panicker Director and Head - Refinery NAYARA ENERGY LIMITED</p>	<p>Mariano Del Pozo Technical Manager SATORP</p>	<p>Abdulsalam Alsaif Ras Tanura Refinery Operation Manager SAUDI ARAMCO</p>

CONFIRMED PARTICIPANTS



REGISTER NOW! bbtcmna.europetro.com

Call: +971 (0)4 421 4642 or email: svetlana@europetro-me.com

African energy ministers head to Adipex from AEW

ENERGY ministers from the African continent will be heading straight to Adipex from the African Energy Week, which concludes three days before the start of the Abu Dhabi event.

The African Energy Week 2021, taking place in Cape Town from November 9-12, is the continent's premier energy event and the first pan-African event to take place in Africa in 2021, providing the most suitable platform for a collaborative discussion on Africa's energy future.

At Adipex, there is a dedicated 'Focus on Africa' session, which will be led by African energy ministers, offering key insight into Africa's post-pandemic energy outlook.

There they will discuss Africa's energy sector challenges, the realities of the energy transition, and unlocking new value opportunities on the continent.

African energy ministers travelling to Adipex include Gabriel Obiang Lima from Equatorial Guinea; Jaden Ali Obaid Hassan from Sudan; Alhaji Sesay of Sierra Leone; Chief Timipre Sylva from Nigeria; and Ruth Nankabirwa from Uganda.

"The UAE and Africa have a long history of successful relations across the entire energy sector value chain. Through the Organisation of Petroleum Exporting Countries (Opec), as well as collaborations regarding Africa's energy transition, addressing energy poverty and investments, the UAE has emerged as a valuable partner for the continent, working closely with African countries to develop both their economies and energy sectors," say Lima.