

In the past several years KCON has continued to show the world its engineering expertise by introducing an offering of pressure-balanced plug valves to its extensive portfolio.

The company continues to show its strengths and adaptability to customers' needs by winning approvals from oil and gas majors worldwide, supplying valves to complex cross border projects and growing its partnerships and customer base. After last discussing KCON in a 2016 Cover Story, Valve World decided to check in on KCON and explore all the recent successes with KCON's President Mr. Gu Li Dong.

By David Sear



KCON has supplied numerous pressure-balanced plug valves in sizes up to 24" and pressure classes up to #900 to the prestigious

KCON VALVE: Powered by engineering applications

Picture the scene. I am enjoying a plant tour of KCON's HQ and manufacturing facility in Guanghan (nearby Chengdu), China, hosted by Ms. Sue Gao (KCON's Manager of Overseas Marketing Department). The factory is very clean, streamlined, and packed with modern equipment. Passing a workstation I put a question to the CNC operator, with Ms. Gao kindly translating. I see nods of approval from KCON's President Mr. Gu and my colleague Ms. Quki Li.

Such visits will be familiar to project managers, purchasers, inspectors, and others who audit companies like KCON. Yet my tour of KCON was markedly different from all others in my editorial career. For I was seated 8,000 km away in Valve World's premises in The Netherlands,

Ms. Li was on a floor above me, whilst Mr. Gu had signed in from his office. The only person actually in the factory was Ms. Gao, equipped with a video camera, a gyroscopic stabilizer and a very fast internet connection. The camera can pause on request at every processing point, as if people like me were on the scene.

Mr. Gu: "KCON foresaw the advantages of remote inspections and plant tours long ago. That's why we have installed high-resolution cameras at strategic spots. These can zoom in to highlight aspects of our production facilities as per inspector's requests. Thanks to this technology our business has continued practically as normal during the Covid-19 crisis. Many clients who, unable to travel, have tried our



China-Russia East-route Natural Gas Pipeline.

mistake, KCON is a company that focuses on pipeline valves. This is our strength and we will therefore continue to target oil and gas applications, making valve solutions for pipelines and process valves. In addition, our management team and operations team are both very stable, which is the basis for business continuity.”

KCON was the first-ever Chinese manufacturer to successfully pass CNPC’s strict industrial test for pressure balance plug valves.

The focus on oil and gas has paid off even during a down cycle with KCON doubling its sales since 2016. Mr. Gu: “in line with the government’s Belt and Road Initiative we will develop further in emerging markets. And we certainly have some strong selling points, such as engineering reaction, engineering solution and complete engineering operation, to win over new customers.”

Innovation

During a previous interview with Mr. Gu in 2016, he proudly reported how KCON had become the first-ever Chinese manufacturer to be added to CNPC’s approved vendor list for plug valves. The defining moment came when two of KCON’s valves passed a series of extremely rigorous in-situ tests with flying colours. Soon after, SINOPEC chose KCON’s plug valves for many of its pipelines, further establishing KCON as a reputable manufacturer of quality valves. “Today in China KCON is

recognized as the leading supplier of plug valves. We may not be the largest company, but we have the determination to innovate and the strength to excel in our chosen fields. This is reflected in our extensive project references, the certificates and qualifications we hold, as well as the ever-growing number of EPCs and end users around the globe who have us on their approved vendor lists,” notes Mr. Gu.

A very noteworthy reference is the prestigious China-Russia East-route Natural Gas Pipeline. Stretching over 3,000 kilometres in Russia and over 5,100 kilometres in China, this project is of national importance in both countries. Following successful bids for Phase I (North Section) and Phase II (Middle Section), KCON has already supplied numerous pressure-balanced plug valves in sizes up to 24” and pressure classes up to #900. Additional deliveries will be made for Phase III (South Section). KCON additionally installed and tested gas-over-oil and electric actuators. “Many clients entrust us to deliver fully automated valves,” states Ms. Gao. “We therefore regularly work with all the leading actuator manufacturers, providing a convenient integration service to our customers.”

The key to producing top-quality plug valves and indeed all other engineered valves is effective communication, stresses Mr. Gu. “People who work for KCON are experienced professionals with an extensive technical background. With a deep understanding of valve designs plus flow-control applications, they can resolve any issues the customer may have using language which is clear and precise. This, I believe, sets us apart from other valve-makers.”

video technology for the first time really value its clarity and efficiency.” KCON’s forward looking management are keen to trying out and embrace new technology that can help to deliver superior products and service for customers. KCON’s focus however remains unchanged. As Mr. Gu emphasizes: “let there be no

Valves for high sulfur conditions

Unocal East China Sea Ltd (a wholly-owned company of Chevron China) is developing and producing natural gas and by-products (including sulfur) in the Northeast block of the Sichuan Basin. However, high levels of hydrogen sulfide (up to 18%) and carbon dioxide (up to 8%) place extra demands on oil and gas processing equipment. Following a stringent audit, KCON was qualified as a valve supplier in 2017. With its valves performing well, KCON has gone on to receive 63 orders to date, delivering a total of 1321 valves (correct as of August 2020). Deliveries have included high sulfur resistance ball valves, check valves and gate valves, etc., in sizes up to 24” and pressure classes up to #600.



Partnerships

Since 2016, KCON has increasingly become a supplier of engineered products, partnering with end users and engineering companies. Mr. Gu: "Let me state this quite clearly: KCON has transformed away from being a commodity valve producer. Our strength is that we are an application solution provider, delivering engineering services for clients who for example require special designs, prototypes, total procedure instructions and production under non-disclosure agreements. KCON's designers and engineers relish the challenge in creating personalized, tailor-made designs. Our flexible manufacturing layout means we can deliver small quantities or batch production of valves with equal ease."

KCON has the ideal skillset and aptitude to work with even the most unusual of requests, notes Mr. Gu. "One particular partner asked if we could perform radiography tests during the manufacture of fully-welded ball valves. As industry insiders will tell you that is very rare - given their design, radiography is not normally feasible with welded ball valves. However, KCON's technical experts stepped up to the challenge and were able to submit a tailor-made solution that was approved by the client. This opened doors for orders for additional valve types as well."

KCON has also developed successful partnerships with other players in the valve industry, such as local sales agents and representatives. Mr. Gu: "take a look at the case histories and projects mentioned in this cover story. Quite a number originated from our global network of sales agents. We take care to select agents who are highly experienced with valves and valve applications, and can therefore properly advise clients how KCON can resolve their flow control needs."

Almost in passing, Mr. Gu notes that he would be delighted to meet new sales agents in certain areas. "We are always looking to extend our global coverage. If there is a reputable sales agent looking to invest in a win-win partnership, then I would be delighted to hear from them."

Upcoming investments

Coming to the end of our very pleasant interview, Mr. Gu comments that, given KCON's strong growth in valves for special applications, the management team are planning investments in additional CNC machines and enlarging the workshop areas. Other targets include vertical storage

Nominated supplier to Missan Oil field

KCON has been participating in projects of the Missan Oil Field since 2013, supplying valves to its degassing station, tank farm, oil & gas processing station, water treatment plant, etc. As of July 2020, more than 7,500 valves have been delivered, including more than 1,600 ball valves with Inconel 625 weld overlays for high sulfur resistance. With an outstanding track record of zero complaints, KCON has been awarded 'nominated supplier' status.



Thanks to high-resolution cameras, KCON's customers can benefit from remote inspections and plant tours. To set up your virtual plant visit, please contact KCON at: overseas@kconvalve.com

South Asia: a case of history of customer service

The CFB Gas transmission Parallel Pipeline Project was another of KCON's large-scale projects in this area, with the company delivering a large quantity of high-pressure fully welded ball valves plus other valves. At 30" and above such valves are commonplace for KCON but not, it turned out, for the end user. KCON therefore provided extra professional advice as regards protection, transportation, on-site installation, maintenance procedures, etc to assist the end user.

Since entering the market a few years KCON has gone on to fulfil big jobs in the region from coastal areas to inland areas, from gas transmission pipelines to compressor stations. Behind these remarkable achievements is a strong and professional team that takes customer service very seriously. For example, staff once jumped on motorcycles to beat the crowded traffic to place a timely bid in a tropical city in South Asia, they flew out the same day in response to an urgent customer request and along the way have picked up some basic local language skills for smoother communication.



Proper coordination prevents delays in Burgan Oilfield project

The service for Train 3 of the WARA project (Burgan Oilfield) is effluent water. That may sound benign but in fact the water is so corrosive that super duplex stainless steel (A995 6A) is required as a material of construction. Fortunately KCON was able to demonstrate a long track-record of valves made of exotic alloys and was subsequently awarded an order for around a thousand manual valves, including ball valves and conduit gate valves as well as gate, globe and check valves, in sizes up to 30" and pressure classes up to #1500.

An additional complexity with this project was the exceptionally large number of external visitors, with inspectors assigned by both the end user and the contractor witnessing the entire process from raw materials until the final factory acceptance test release. Before starting work, KCON therefore carefully planned the best way to facilitate and coordinate numerous inspectors from multiple companies. Such forward planning ensured that production was kept on track and lead to on-time fulfilment of the entire order.



systems for smaller items. "The benefits of carousel storage are many," says Mr. Gu. "Obviously, products can be stored and retrieved that much faster. Additionally, we can free up floor space to increase production. Moreover, the carousel system will protect seemingly mundane components as if they were precious jewels. Diversified O-rings and lip seals may not look important, but they fulfill a critical role in valves. This state-of-the-art storage system will help us to set the highest possible benchmark for valve manufacturing. Whether they visit us in person or opt for 'digital dialogue', we want end users to see for themselves that they can have absolute confidence in the integrity of KCON and in the quality of our valves."

Facts & Figures – KCON Valve Mfg. Co., Ltd.

Established:	2001
Headquarters:	Guanghan, Sichuan Province, China
Products:	Ball, Plug, Gate, Globe, Check, Butterfly and Control Valves,
Main activity:	valve design and manufacture
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