



KumKang aims for global competitiveness

In August of 2004, a Korean company was featured on the cover of Valve World magazine. This was the very first Valve World publication focused on the Asian valve industries. Mr. David Sear, then Editor-in-Chief of the magazine visited Daegu, South Korea to learn more about the company KumKang, an Asian manufacturer of quality ball valves. Two and a half years later, we decided it was time to re-visit KumKang to find out what progress the company had made since our last trip. We met with KumKang's President, Mr. Choi, and Sales Manger Mr. Ge, who filled us in on new developments and explained how this manufacturer was continuing its success as a major player in the world market for ball valves.

By Esther Aiking-Martensen and Sjef H. Roymans

KumKang Valve Manufacturing Company Ltd, as its official name reads, was established in August 1980. From the very beginning, company policy has always been focused on the production of high-quality ball valves and supplying them to the petrochemical industry. This continues to be very much the case. The company made the decision to market its products under the name KuKa.

In 2000, KumKang realized that the global market's focus had shifted to the oil and gas industry. KumKang's President Mr. Choi explains why KumKang has opted for this strict focus on ball valves alone: "It stems directly from our philosophy that, if you concentrate on one product, you can keep business simple, which means you can achieve the highest possible quality standard for your

products. As a result of this focus, we can guarantee all our customers the impeccable quality and the required delivery times that they demand for their projects, at a competitive price."

Ball valve family

Although a focus solely on ball valves may at first glance seem somewhat limited, one has to realize that the ball valve



family, in itself, is very diverse. KumKang's capable range consists of various products and designs including split-body, uni-body floating and trunnion-type ball valves. These different designs lend themselves to the requirements of both the petrochemical and oil & gas industries.

Sizes range from 1/2 inch to 48 inch and the materials available include carbon steel, stainless steel, duplex, super duplex, Inconel, Hastelloy and Titanium. The valves can be produced in both cast and forged versions.

It goes without saying that KumKang's valves are manufactured in compliance with the international requirements set forth by recognized industrial standards such as ASME, API BS and DIN. The valve components of the valves are put through rigorous testing as are the valves themselves both during and after production. According to their internal operations, KUKA Production System (KPS) is implemented regardless of whether or not this has been requested by the client. KPS is their system of global standardization to control the integrated processes from quotation to delivery. Each process runs continuously like water

flowing in a river through a rigorous quality assurance program and a statistical process control procedure from the start of the production process right through to the finish. Mr. Choi explains, "We feel that this product quality and the materials options we offer are what differentiates KumKang from many other manufacturers".

Another advantage for customers is KumKang's approach to delivery times, Mr. Choi says: "Many of our clients work with time critical, demanding schedules and can even incur penalty clauses for late project completion. The timely supply of system components such as valves is therefore essential to our customers and we guarantee the short delivery times they desire."

One of the main reasons for these short delivery times is the fact that KumKang does its own casting and has its own foundry, with a total casting capacity of 350 tons per month, Mr. Ge proudly claims: "We can cast our own materials, which means that we have the ability to control our product deliveries whereas many other valve producers are reliant on outside sources. This is why we can often offer lead times of four months compared to the standard six to eight months many other manufacturers have to quote.

It goes without saying that we do this without compromising on quality. We keep Kuka's standard product in our branch operations in order to achieve short delivery requirements. This gives



Staff at KumKang's USA office in Houston, Texas.

the factory the flexibility to focus on special requirements with quick delivery needs. We design and manufacture our ball valves to meet or exceed the clients' exact specifications, based on individual orders, all to guarantee a top-quality product."

During a tour of the impressive KumKang facilities in Daegu, we had the opportunity to see for ourselves the foundry, machining and assembly areas. Equipped with the latest technologies available today, and fully integrated into the whole production process. In addition, the KumKang workforce is highly-skilled and dedicated to the company. They can benefit from spacious, modern workstations in the up-to-date facilities, including a meditation room and gym classes to start the day. Mr. Choi feels that this approach to business, endorsing the employees' physical and spiritual welfare, is yet another unique selling point for KumKang: "I believe in a healthy mind and body, only then can our staff fully contribute to the production process."



The final inspection area before the valves are crated and sent off to customers.



A selection of impressive valves in the factory.

Any place where there's oil or gas

The KumKang approach to valve manufacturing has indeed proven to be a very successful one. This fact is underlined by the large number of projects worldwide where Kuka valves have been installed in operations over the past decades.

These project locations range from work in the Gulf of Mexico and Sakhalin Island, to the Middle and Far East including Africa.

However, this is not a surprise, once you realize that KumKang is on the Approved Manufacturers Lists of companies such as ABB Power generation, BP, Chevron, ExxonMobil, Gasprom, Hyundai, KOC, Kuwait National Petroleum Company, QP, Shell, Technip, Texaco and Total. Mr. Ge says: "With our product offering you can say we are in any place where there's oil and gas to be found".

One major project that continues to stand out in KumKang's history is the on-going South Pars project in Iran. With an area of more than 1,300 square kilometers, South Pars is one of the world's largest natural gas fields. KumKang has already supplied thousands of ball valves both floating and trunnion type and we are still producing more material for this project. And as more trains get the go-ahead, Mr. Choi is confident that KumKang will once again be selected as a supplier. KumKang supplies these, and other projects directly or through one of its many sales offices and distributors, scattered across the globe, although the company always tries

to remain in direct contact with engineering companies as well.

The only exception to this is Kuka USA, located in the Houston area which works through distribution to receive daily and project orders. Kuka USA maintains a large inventory and assist the distributors and engineering firms with technical and communication support with the factory. Mr. Choi feels that it is necessary to have offices near the project locations, to be able to keep a finger on the pulse of the market, and to hear what it is that customers require. "This is why we are considering investing in even more countries by opening sales offices or even fabrications shops as needed.

We expect a lot, for example, from the

Russian and Central Asian markets in the near future." Last year KumKang obtained a GOST certificate, which allows it to supply its products to these countries as well. Mr. Ge: "Countries such as Russia, Kazakhstan and Uzbekistan will be our new target markets and we plan to open sales offices there soon."

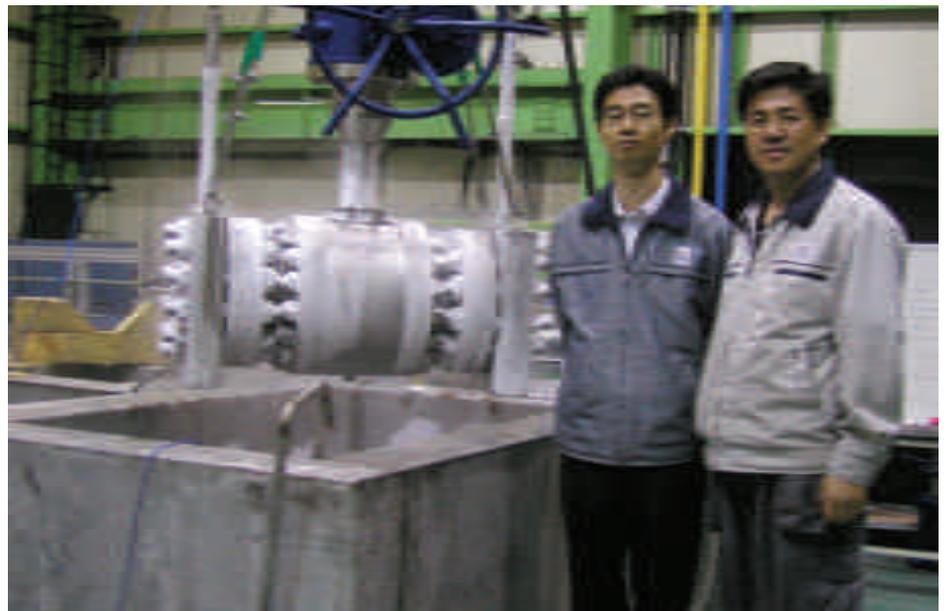
Global competitiveness

Although it is clear that KumKang's track record is impressive indeed, the valve manufacturing industry is a very competitive business and the company is certainly aware of the fact that it cannot sit back and rest on its laurels, Mr Ge says: "This is why we constantly work to improve our skills, and benchmark our performance, comparing it to other major manufacturers abroad, for example, the USA, Japan, China and Europe.

This way, we learn where and how we can improve ourselves even further." Mr. Choi explains that he would like to describe this constant focus on improvement as 'globalization with competitiveness': "And I will continue to maintain this focus until we have become one of the top three valve manufacturers in the world.

To gain, and maintain this position in the top three and be a globally competitive player, we have to continue our development constantly and add to the existing production capacity."

One manner in which the company hopes



Quality assurance testing is a very important part of the work carried out KumKang. Here workers carry cryogenic testing.

KumKang project references

Some recent KumKang projects include:

- u BungGa Raya C CPP (BR-A), Vietnam Sea - Petronas
- u East Sea 1 Gas Platform, Korea - Korea National Oil Corporation
- u Kizomba A,B FPSO, Angola - ExxonMobil
- u Thunder Horse Platform, Gulf of Mexico - BP
- u Bonney Terminal Integrated, Nigeria - Shell
- u South Pars, Iran - Petropars
- u ChevronTexaco EGP 3 Platform, Vietnam Sea - ChevronTexaco
- u Moho FPSO - Total

to reach this goal is the second production facility which was opened in October 2006, five minutes away from KumKang's Daegu headquarters.

This second facility adds another 6000 square meters to the production capacity of ball valves, which now stands at over 14,000 square meters for both facilities combined.

And in addition to expanding the production facilities, the company has also extended its product range. It can now supply ball valves with metal seat valves with even higher corrosion resistance that can be used for difficult applications, such as hydrogen and pressures class up to pressure rating of ASME 2500 Class.

New markets

Finally, in addition to this goal of becoming one of the top three ball valve manufacturers in the world. What does KumKang expect will be the company's main focus for the coming years?

If we come back in five years for another follow-up what can we expect? Mr. Choi: "I am confident that in five years, KumKang will have achieved its mission of being one of the top three ball valve manufacturers worldwide. Additionally, we will try to find ways of expanding our sales, possibly through joint ventures with other valve manufacturers whose quality and price are similar to ours.

Furthermore we will try to promote close relationships with well-known valve distributors, enabling worldwide consumers to have more opportunities to use Asian products. We will expand our interests in not only oil & gas but also in the new energy industries in the near future.

KumKang will continue its focus on the chemical and petrochemical industries in addition to the oil and gas market. It has already been working on projection plans and feels there will be a shift between the markets. Mr. Choi; "We have a a lot of experience and know how in the production of valves for the chemical industry so we can step up and support this market as well."

In order to achieve this, we will first strive to make KamKung into one of the

top three, stable valve manufacturers which is the goal that we're aiming for. Only then are we prepared to enter new fields of business."

Mr. Choi concludes: The next few years will mark a very significant milestone in my valve manufacturing career. 2010 will herald KumKang's 30th anniversary and I am already making plans to have an impressive celebration for all our customers and friends who have become fans of the KuKa valve and have contributed to our success story. Today, I am proud to be a KuKa man and I will prepare a special program for this anniversary event. In the meantime we will do our best to ensure the anniversary has even more meaning by accomplishing the targets we have set for ourselves up to 2010.

Facts & Figures

Name:	KumKang Valve Manufacturing Company Ltd
Headquarters:	Daegu, Korea
Distribution:	Houston, Texas, USA; Belgium, The Netherlands, United Kingdom, Canada, Australia and Singapore
Key products:	split-body and uni-body type floating ball also trunnion mounted ball valves, KuKa Diamond Series ball valves, cryogenic valves, and metal seated valves.
Materials:	carbon steel, stainless steel, alloys, duplex, Inconel, Hastelloy B and C
Casting capacity:	350 tons per month
Assembly capacity:	standards 4"- 150# ball valves: 7000(o) pieces per month
Brand names:	KuKa
Key markets:	oil & gas and the petrochemical industries
Employees:	100
More information:	www.kuka.co.kr

KumKang subsidiaries

KumKang has subsidiaries and distributors in Houston, Singapore, Dubai, Canada, Saudi Arabia, Kuwait, Qatar, United Arab Emirates, Nigeria, Libya, India, Japan, Malaysia, The Netherlands and Belgium.

All subsidiaries and distributors:

- u always maintain a stock of KuKa ball valves
- u are very much aware of the technical and mechanical specifications of KuKa ball valves
- u can quickly respond to emergency requests from customers
- u have well-equipped testing and repair shops on-site
- u represent KumKang in case of emergency repair or maintenance situations
- u can underline the quality of KuKa ball valves to major engineering companies through their own experience