



Nihon KOSO: Continuing success through the generations

Fig. 1. The brand new foundry that Nihon KOSO have built in Wuxi, China. It is the largest class of foundry owned by a control valve manufacturer. It has a site and a sand casting capability of maximum 300 t/month. These three figures are all double those of their previous foundry. Other statistics include: precision casting: MT, UT, RT (maximum thickness 250mm). Number of employees, approximately 100. It produces severe service valves (over class 2500) and general service valves.

area of 28,000 m² and a floor area of 16,000m², maximum of 50 t/month; testing capabilities: PT,

Nihon KOSO this year celebrates fifty years of doing business as a family concern. During this time the company has grown almost continually on a step-by-step basis. Valve World recently visited the company and spoke to Chairman, Takashi Ikegaya and his son and CEO, Yuichi Ikegaya, to discuss their unique and creative approach to doing business where their concentration on quality, enthusiastic drive, and shrewd business sense have made the company into a worldwide automation systems and devices force seriously to be reckoned with.

By John Butterfield and Gillian Gane

Sitting down to talk to Takashi 'Ike' (a nickname he was given by friends in the US) Ikegaya and his son Yuichi, you cannot help but be caught up by their enthusiasm for their company and the creative drive with which they approach their work. "Since Nihon KOSO's foundation in 1965 we have always prided

ourselves with our creative spirit," says Mr. Takashi Ikegaya. "It fuels and invigorates us, giving us the energy to face new challenges in a number of daunting but promising fields of technology. Moreover, along with our commitment to excel, it has led us to produce innumerable technological

innovations and some exciting product developments over the years." The youthful drive and creative spirit of the two Ikegayas is not only to be seen in their own work but 'flows' throughout the company's workforce as a whole giving everyone a strong drive to tackle challenges and meet ever changing customer needs.

Nineteen years after the company was founded, Mr. Ikegaya saw a dream come true with the building of their modern, family-owned factory in Fukushima, though, in truth, they had had a smaller factory in Kawaguchi, near Tokyo before this. In those days they were very specialized with every order being dealt with on an individual basis with specialized designs, resulting in relatively high manufacturing costs. Later Mr. Ikegaya began to look into the possibilities of turning out mass produced items for some area of their business and decided that positioners would be a good place to start. The idea turned out to be a success with countries abroad recognising the high quality of Japanese products so their business continued to develop further with them making some specialised items, but also mass produced products as well. Concentrating on positioners also enabled Mr. Ikegaya to establish a hold within the chemical and oil & gas industries, which at the time was dominated by American companies such as Fisher, Masonilan, and Valtek. First, Mr. Ikegaya approached Valtek to offer his positioners. Valtek instantly realized the excellence of the product. Throughout the 1980s, a large quantity of KOSO positioners, mounted on Valtek actuators, were used in a number of US plants as a result. Technology transfer of not only positioners but also control valves started in 1985 to companies in UK and China. By 1989, Nihon Koso had three successful joint ventures in place, in Korea and China. So things continued to progress rapidly but step-by-step.

Commitment to excellence and creativity

A driving force in Nihon KOSO's success story has been their high-quality products' guarantee. "When it comes to quality, I am a perfectionist" says Mr. Takashi Ikegaya "so it's natural to expect the same of my employees. This means that quality comes first every day and all of the time." As such Nihon KOSO uses nothing but the best hardware and software to create advanced, comprehensive production systems with CAD/CAM automated lines, unmanned transport systems, production control systems, and other sophisticated processes. In addition to the high-performance and high-quality standards of KOSO brand products, company clients around the world value KOSO's skill in meeting their demands for superior technology. Company staff looks for ways in which they can refine their technological prowess, strengthen production processes, and generally strive to meet challenges for the future.

Wide range of products

The extensive range of products coming out of Nihon KOSO is based on the company's desire to meet ever changing customer demands. As a result, they produce automation systems and devices supported by a wide range of control valves, which cover the extremes of both small and large, low-and high-pressure, and low- and high-temperature valves. In addition to valves, Nihon KOSO produces a whole series of actuators,

Brief history of how it all started

After graduating from university as an engineer, Takashi Ikegaya began work at one of Japan's largest chemical companies which made ammonia and urea. At the time the company had difficulty in getting supplies as the equipment they needed was often very specialized so Mr. Ikegaya began making control valves for them designed for high-pressure usage, which were further made from special anti-corrosive materials. After twelve years building up experience working for the company he left to start up a business with four colleagues. Together they possessed a pool of knowledge with regard to control valves and sensors. The time was ripe in that the Japanese petrochemical industry was growing very rapidly and they were able to put their acquired understanding to good use.



Fig. 2. Nihon KOSO's factory in China showing the 1st and 2nd buildings.



Fig. 3. The mixer and semi-automatic molding line in new foundry.



Fig. 4. The KOSO Kent Introl UK factory.

and accessories – many of which are unique company developments. “We take great care to ensure that our clients get what they need, when they need it, with our plants operating on a ‘just-in-time’ policy. An example of this can be shown by the fact that when Japanese EPC companies started to delve into the world of subsea services, Mr. Ikegaya saw this as a not-to-be-missed opportunity to further extend his company’s commerciality. As Nihon KOSO did not possess subsea technology themselves they went out and acquired the UK company Kent Introl, which made subsea choke valves, and in this way entered this niche market. “A much touted catch phrase within the company is ‘providing the customer with the most cost-effective solution’, and one of the ways to do this is to ensure that we have a large range of control valves to fulfil customer needs. For example, we were one of the pioneering companies that developed both concentric and eccentric segmental ball valves and high performance butterfly valves all for moduration.” says Mr. Ikegaya beaming. When talking about products that they are particularly proud of Mr. Yuichi

Ikegaya cites two that stand out: their subsea choke valves and a new compact pneumatic actuator which has been developed by his father and which is due to be released this year. Based on the diaphragm actuator it is a very compact, and powerful, low-cost product, which has a position controller box inside it. “It is a smart solution with simplified position control, involves no piping, and includes functions for control valve diagnostics.

Pursuing advanced technology for success

Nihon KOSO does not limit itself outside Japan to simply selling KOSO brand products. It also works on technology exports, tie-ups, and exchanges. “Part of our global success story is due to our continuous commitment to pursuing advanced technology through innovative developments,” says Mr. Yuichi Ikegaya. Our staff keep a constant watch on interesting and promising technologies, which in turn ensures that we keep the company’s technological skills sharp so that our R&D results in superior products.”

International factories and sales offices of the KOSO Group

“Another unique factor about us is that we have established two brand new foundries near to Shanghai in China and near to Bangalore in India. The advantage of having these plants is that we are not only able to produce our own castings for our own products but we are able to do so at Indian/ Chinese prices whilst guaranteeing the very highest quality ‘Japanese’ standards. We can do this because we have complete control over the whole production process. We had been working in India since 2001 so had built up a lot of experience working there before setting up our latest venture. Already we employ 450 (foundry: 100, factories: 350) people in India and have had a turnover of 50 million US dollars last year. With regard to the Chinese facility we installed Japanese equipment there so we have throughput manufacturing according to our norms at home. Additionally, we completely trained staff at both locations to the norms and standards that we adhere to in Japan so we have two ‘Japanese’ factories in India and China. We can even

produce the most severe service high-pressure valves at these locations. There are very few companies that can claim similar capabilities and give such quality assurances.” Further, because Nihon KOSO have complete control of “start-to-finish” production - from raw material to casting and finally to complete valve unit, they can always guarantee timely deliveries to customers. Mr. Takashi Ikegaya is particularly proud of the Chinese operation in that the design and build of the plant took place under the leadership of his son. Both factories are characterised by very modern designs and are fully automated. Another example where Nihon KOSO has achieved good results from long-term investments is Rexa Inc, near Boston, USA. “When we acquired the company it was just a small factory employing a little over twenty people,” says Mr. Ikegaya. “It took about four years before we made a profit but we didn’t change the management

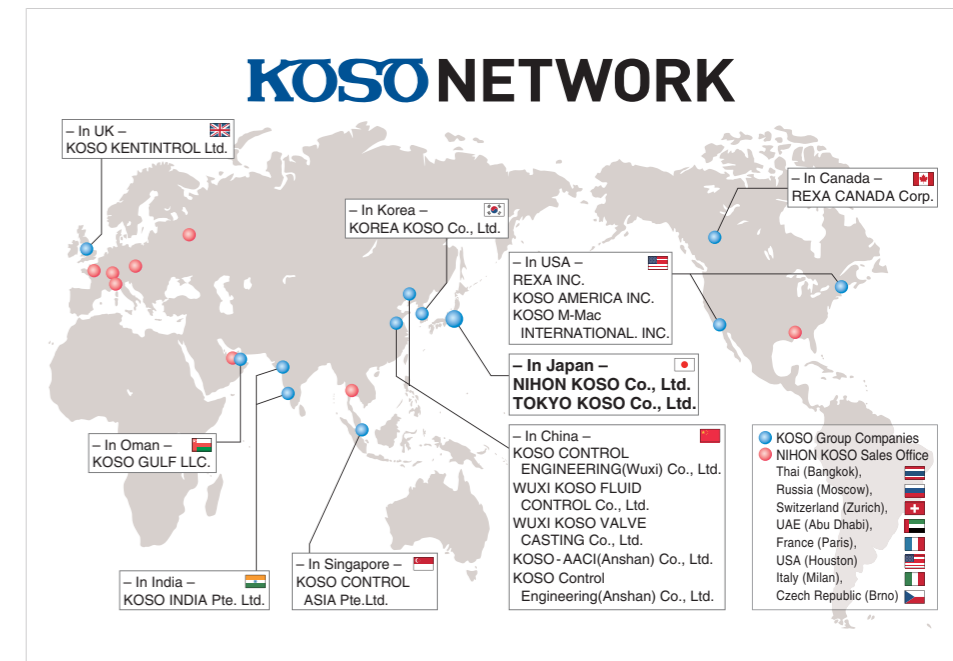


Fig. 9. The KOSO network.

and stuck to our guns and long-term vision with our American management team. Now that company handles \$50 million annual sales and is very profitable. “When acquiring companies like KOSO America in the US and Kent Introl in England, we have always respected their histories, company character, and people. We never tried to change them overnight. Our company policies have only been installed very gradually so in effect the companies we acquired changed themselves into becoming KOSO. This system seems to work well since we find that our staff is very loyal – hardly no one leaves, which means we have a vast experience to build on. Moreover, our acquisitions have done well, KOSO America making a profit last year of over twenty times its purchase price.”

quality and delivery-time capabilities. It goes without saying that our prices are going to be very competitive.” At present between 70–80% of Nihon KOSO’s profits come from overseas with their equipment being shipped especially to Europe, the USA, and the Middle East, but says Mr. Ikegaya “our products are to be found anywhere in the world where high quality is appreciated. We are also particularly looking to the Middle East to expand their business through our company in Oman and our sales offices there. Besides, with the Chinese domestic market currently shrinking under the present economic recession – it is a good time to turn the attention of our Chinese production site to export at a very competitive price. Add to this Nihon KOSO’s expanding tie-ups in the global marketplace, it is easy to see how the demand for their products is growing continually.

What will the future bring?

“We are currently busy getting end-user approvals for the severest application castings from our new plants,” says Mr. Takashi Ikegaya “which will naturally further expand our business. We will also make efforts to increase our market share for orders for large-scale projects, especially in the fields of oil & gas, and power plants. Until now, we have largely fulfilled orders for medium-sized projects but last year we carried out some large-scale project work for Yamal LNG, which has whetted our appetite for more. Moreover, with the completion of our new production locations in India and China we are ready to take on such work both in terms of

Conclusion

“Nihon KOSO as a company are ready to meet all control valve needs in any environment or field,” says Mr. Ikegaya. “Within Japan we are one of the top manufacturers and outside our home area the KOSO brand is rapidly expanding through locally established KOSO companies.” Likewise, through a whole array of accomplishments including their vision, enthusiasm, flexibility, innovative product development and use of technology, diversity of exports, emphasis on quality, and shrewd business acumen they indeed seem assured of a very bright future.



Fig. 5. India: 1st factory.



Fig. 6. India 2nd factory.

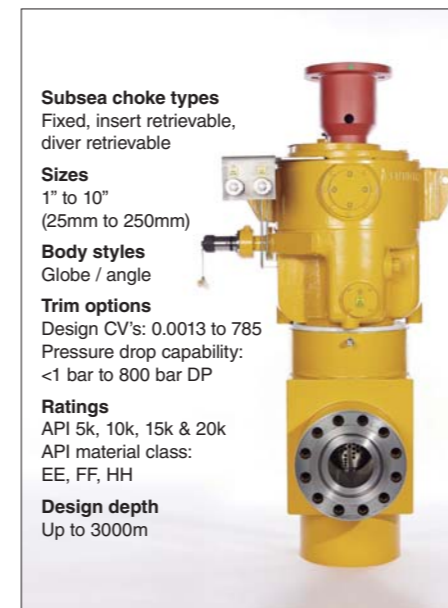


Fig. 7. Their very successful subsea choke valve (produced by KOSO Kent Introl). It is KOSO Kent Introl’s flagship valve.



Fig. 8. The KOSO Group’s broad range of products.