

# PONHAN Machinery – Tailor-made solutions for special material valves



310S butterfly valve.

Founded in 2008, PONHAN Machinery (Suzhou) Co. Ltd. is a new but professional company, specializing in manufacturing and sales of special material valves such as titanium, nickel alloys, nickel-aluminum-bronze, duplex etc. for severe application conditions. Since its establishment PONHAN has enjoyed steady growth and the company's reputation has spread from one OEM client to another.

This is PONHAN's first cover story in Valve World, so we interviewed General Manager, Mr. Dick Shen, to learn about the history of the company, the reasons why they stand out in the valve industry and what the future holds for them.

By Zhu Yixing and Gillian Gane

## History and development

Mr. Shen shares with us where the inspiration to select the company name comes from: "In Chinese ancient language, PONHAN represents sustainable flow and the width of the whole universe which is similar to our vision of global strategy. In spite of the size of our business, our objective is to seek both domestic and

overseas markets. Quality valve solutions with a global presence is our vision." Prior to 2003, PONHAN was merely a valve agency trading in a few domestic brands. On receiving an inquiry from Shanghai petrochemical Co, Ltd, they immediately realized that the brands they were supplying at that time could not meet the specific requirements. Mr. Shen contacted a

few European valve manufacturers and exchanged views about the niche market of special material valves as a result. In 2005, PONHAN took their experience of the valve industry and expanded into the special material valves to help customers cope with different types of severe application conditions. In 2008, Mr. Shen further grew PONHAN to become a valve manufacturer.

our clients are introduced from one to another. All our offices and factories are in one location here in Suzhou, which makes for better internal communication and synergy. Our commitment to increased efficiency is reflected by the well-trained, knowledgeable and reliable staff we have recruited."

Nowadays they go to great pains to enhance long-term partnerships with their clients. PONHAN Machinery's primary goal is to set very high standards in everything they do and continue their goal of becoming a prominent valve supplier for OEM clients and EPC and end users around the world.

## Quality is first priority

Says Mr. Shen: "Quality is everything to us. Our objective is to always offer quality and service one step beyond the customer's expectation. We believe the customers who use valves in critical applications expect zero defects. To achieve this objective, we implement standardized working instructions and procedures. In addition, third party verification and end user approvals present an opportunity for improving quality on a daily basis. So far, we have received ISO 9001-2008, CE-PED, API 6D and API607 certifications. We also have the ERP system which allows us to handle both mass production and tailor made small orders as it can track every detail of the valve components by granting each its own unique serial number (ID). Not only are the raw materials and outsourced spare parts tracked, but also all the procedures on the production



Ball valve 900lb Hastelloy C276.

line, assembly and testing have their own records. We carry out testing and maintain records for every single valve, tests such as PMI (positive material identification) and characteristics review for in-coming materials. NDE inspections are also conducted including UT (ultrasonic test), PT (dye penetration test) and MT (magnetic test). Special material valves are key components in the critical processes of our clients, so require strict control over raw material, processing and inspection." Maintaining a good quality system relies on quality awareness in the mind of every employee. PONHAN adopts different measures to build quality awareness to all staff.

Mr. Shen emphasizes: "The importance of staffing and training should never be underestimated. With efforts from the staff, the company operates with extreme efficiency in both the offices and factory

In Mr. Shen's opinion, business will never be sustainable when one competes by price. Technical leadership is a better guarantee for profit and market share. To supply to the market cutting-edge-technology products, Mr. Shen recruited a professional technical team to design and develop their own valves with parts from local foundries and locally sourced materials.

With a solid client base and a comprehensive but efficient quality control system, PONHAN Machinery supplies, step by step, various types of valve to market both in and outside of China in accordance with their business plan. "Severe applications as per customer requirements challenge our design and manufacturing abilities and drive us to achieve more and more success," Mr. Shen comments proudly. "Many of



Nickel-aluminium-bronze butterfly valve.

areas. Our staff mainly comes from reputable companies with professional backgrounds and we also give them the necessary direction so that they all display a thorough understanding of standards. In addition, to ensure reliable quality and on-time delivery, all valve components with direct interface with the medium are manufactured by our own team and equipment. "

**Products and advantages**

PONHAN Machinery primarily focuses on OEMs, especially in the chemical industry and off-shore industry. Export accounts for 60% of their total business, and almost 40% is OEM business. Consistent quality, rational price and reasonable lead time has enabled PONHAN to develop reliable business partnerships with many OEM clients, EPC clients and end users. Severe application conditions of high temperature, high pressure, high corrosion or cryogenic applications ranging from petrochemical, offshore, chemical, oil & gas, power plant and, shipyard to long distance pipeline and other industries are where the main business emanates from. Successful high alloy valve manufacturing stems from qualified base materials together with precise machining and forging and CNC machines ensure this high quality standard. Product types available today range from ball, globe, check, gate, butterfly and plug valves to tank bottom valves, sampling valves, double block & bleed valves, strainers and sight glasses. Valve materials used include titanium, nickel alloys, zirconium, nickel-aluminum-bronze and (super)duplex, and alloy 20#, 904L, 310S,



F316 1.5 inch 2500lb Double block & bleed valve.

321 amongst other anti-corrosive alloys in sizes varying from 1/2" to 24" with pressure ratings from 125lb to 4500lb (PN6-PN800). Tailor-made valves are also available.

**Focus on special material**

PONHAN Machinery attributes their success in business to two key elements: product quality and special material valves. Mr. Shen states: "The company management places great emphasis on quality. What does quality mean for valve users? Perhaps the easiest way to demonstrate this is to consider the cost of non-quality. By that I mean the direct and indirect costs of a valve failure. If a cheap

valve fails in a critical application, then the cost of solving the problem is many times greater than the initial cost savings. We maintain close communication with our clients, many of whom are OEMs. Our customers have faith in us, trusting in our technical capabilities and our equipment. Also we value the importance of investing in people."

"In recent years we have focused exclusively on producing different types of valves in different materials," continues Mr. Shen, "If a customer comes up with special requests we will certainly be pleased to oblige. On top of regular orders, our talented team is capable of designing and manufacturing valves in accordance with any special requirements from the customer, no matter what kind of specification, function and construction. To be more effective, our engineers will liaise with the customer direct to analyze the application, agree on the design and establish a tailor-made solution."

These would include products such as sampling valves, tank bottom valves, 3-way or 4-way ball valves, jacketed valves and bellow sealed valves amongst others. The company can also offer a huge range of special tests such as cryogenic testing, fugitive emission testing, vacuum, hydrostatic, high temperature testing and so on.

**Distribution and the market**

In order to support their global business, PONHAN uses three separate distribution channels – direct to end-



F316 ball check valve with titanium trim.



Carrying out low emission testing.

user, via distributors & OEMs and via EPC contractors and engineering companies contracted by the end users. The main channel for overseas business is through independent OEM clients. Mr. Shen believes that they are at the center of the distribution hub and channel to agents throughout the world. Special valves being a niche market, PONHAN management prefers to do business with OEMs as

the latter have the expertise to handle certification and audits required by large clients such as Shell or BP. PONHAN's products are widely utilized in a great variety of applications and projects in oil & gas, chemical and petrochemical companies. PONHAN also regularly supply products to the hydropower, thermal power, nuclear, water treatment and desalination industries.



CF8 bellow sealed globe valve.

"We have been heavily involved in all kinds of projects in the past and have assisted our clients to cope with many challenges. We serve the spare parts demand of clients and offer solutions for them to make their life easier in the case of severe applications. There are still a lot of projects under construction and planned for the coming years."

In the eyes of Mr. Shen, North America is definitely a promising region for PONHAN and they participate in trade shows there to reach potential customers. "North America is rich in oil and gas, so that is a natural customer base for us. We will follow the developments of shale gas and seek to build relationship with more good agents and OEM clients there."

**Long term prospects**

In terms of industry prospects, Mr. Shen comments, "The oil and gas industry and the connected petrochemical industry are driving the growth of the valve market. In addition to the midstream market we also manufacture valves to meet upstream and downstream market demands. I would say we combine the ideal mix of both the flexibility and passion of a small company with the professionalism, management expertise, structure and industrial strengths of a larger company."

Looking to the future, Mr. Shen concludes: "In the future we will pay close attention to the traditional markets, targeting the high-level market. Our products will be special material valves of different sizes and other critical requirements. PONHAN Machinery would like to secure a larger presence in our chosen market, having more cooperation with OEM clients and sit at the top of the pyramid in the special material valve industry."

www.ponhanvalve.com



Ball valve 12 inch 300lb titanium Gr. 3.

Valve materials available as listed below. Other grades also available on request.	
TITANIUM ALLOY	B381 F2, F3, F5, F7, F12
NICKEL ALLOY	Inconel 600, 625, 718, 825, Alloy 20
	Hastelloy B, B2, B3, C, C276, G30
	Incoloy 800HT, 825
	Monel 400, K500
ZIRCONIUM ALLOY	Nickel 200, 201
	Zirconium 702, 703, 705
BRONZE/BRASS	C95800, C95200, C95500, C92200, C83600, C63200
DUPLEX STAINLESS STEEL	A182 F51, F53, F55 A890 2A, 3A, 4A, 5A, 6A