



# Qingdao Qingflex: Consistently Providing Companies with Dependable Service and High-Quality Products

*Located on the coastal city of Qingdao, North China—an important international harbor—Qingdao Qingflex Hose Factory (青岛青橡橡胶有限公司) was established in 2008. The hose manufacturer specializes in production, R&D and products like the steel wire braided and spiral hydraulic hose, fiber reinforced rubber hose and hose assembly. Based on stable quality, innovative performance & remarkable cost performance, Qingflex is one of the few domestic brands in China that is capable of serving the international market. With good international standing, Qingflex is a highly recognized brand trusted by a diverse range of customers from all over Europe, America and Japan. Hose + Coupling World had the excellent opportunity to visit the company's plant in Qingdao to interview Chairman Mr. Zhang Chen at the Qingflex headquarters.*

*By Laura Wang*

## **Pursuance of high-quality drives Qingflex's development**

Qingflex has been in business for 11 years. When asked about the inspiration of their establishment, Mr. Zhang explained, "We were formerly in the foreign trade business. During that time, we noticed that many customers wanted improvements on product quality, so we decided to follow up closely with that. Our study showed that with some improvements to our domestic production process and technology we would be able to produce more reliable quality products. Determined to change the status of the domestic hose manufactur-

ing sector, we decided to offer the best technology and equipment, and to fulfill that, we established Qingflex to produce our own hose products."

During the first three years of its founding, Qingflex used domestic process and technology to maintain the consistent quality of its products, which was fundamental to its development. In 2011, the plant area was increased to 30,000 square meters, meanwhile, the product range extended from single braided hose to large-size hard core spiral hose—which would withstand high pressure—and later, large caliber indus-



try hose. Between 2011 and 2017, in order to accommodate the expansion of production scale, Mr. Zhang set up Qingdao VIH Hose Co., Ltd. The establishment of Qingdao VIH further improved the production engineering and widened the product spectrum to high-end hydraulic hose products. With the aim to satisfy the needs of high-end international markets such as Europe, America and Japan, the company started to upgrade its equipment and processes in 2017. Many state-of-art equipments were adopted, including high-speed braiding machines, high-speed winding machines, constant tension winding machines, liquid nitrogen PLC controlled freezing systems, Japanese extruding machines, German-style large plastic coating machines, and the German Uniflex crimper. The company also embraced many outstanding talents from overseas. In combination with the original Qingflex team, these new recruits successfully optimized and improved the process with innovative ideas, with the focus on high-end products featuring stable quality and outstanding cost performance, e.g. high-end hydraulic hose products. In 2019, Qingflex introduced

China's first pulse machine. Mr. Zhang revealed, "Equipment and process upgrading will be our focus for the next few years. Upon the completion of upgrading, the production capacity will increase from 50,000m/day to 100,000m/day, along with product upgrading."

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*– Mr. Zhang*

### Product is the foundation for brand communication

Although the competition in the international market is intense, Mr. Zhang sounded optimistic. He said, "It's true that there are many famous brands with established markets and decades of experience which bring significant brand attraction force. These veterans in the field are our role models and we are determined to pursue our long-term objective. We believe that a quality product has the ultimate power. So, we aim for the high-end market. It has been over a decade that the company has been focused on hose products. Our principle goal is to secure the quality on one hand and control the cost on the other. Ultimately, we're going to forge a valuable Qingflex brand based on specialized products, substantial business strength and better cost performance."

Qingflex is now making progress in the R&D and manufacturing of three types of products: high-pressure washer hose (braided, spiral), smooth and wrapped wire hydraulic hose; large bore industrial hose, mostly used in hydraulic application related to large scale agricultural equipment, oil field, mining; and general industrial equipment.

### Consistency in quality

No matter how far the manufacturing technology and innovation goes, stable quality always has the casting vote in a competitive market. Quality is the foundation. However, it is also the core competitiveness. The solution to improve product quality and keep it consistent is always the hardest issue, yet an urgent and important one.



*Germany-style 3 over 3 braiding; liquid nitrogen precision frozen, Germany-style plastic coated. Using Bekaert or Xingda steel wire, high strength, super flexibility, impulse more than 800,000 times(2SN), used in the field of large construction machinery.*





When asked about the unique advantage of Qingflex, Mr. Zhang said, without missing a beat, “It is consistency.” In fact, hose products are supposed to sustain high-pressure and are required to deliver high performance. In Mr. Zhang’s opinion, product quality consistency is achieved by both the management and the facility. For Qingflex, the advantage is that they can independently complete the full production cycle, from raw material to finished product—which enables and offers them full scale quality control all around the production cycle. Mr. Zhang explained the specific procedure, “When an order is received, it gets inputted into the ERP system. The system will then automatically indicate all the raw materials needed. Our technicians will then perform chemical and physical analysis. Only the qualified material enters the next step, which is rubber mixing. We have our own formula for this. After that, mixed rubber material gets tested after which it goes through inner layer extruding, braiding, outer layer extruding, vulcanizing and pressure testing. It is worth emphasizing that, upon the completion of each process step, the outcome goes through tests before entering the next step. This rule is also applicable for each finished hose product. The final test is performed at double the pressure of the regular applicable standards. This means our test pressure is twice of operation pressure. That’s why each of our products is qualified and trustworthy.”

As mentioned above, Qingflex commenced a full scale upgrading on its production and testing equipment in 2017. In fact, just before our interview, Mr. Zhang had purchased a German dynamic impulse testing machine at Hannover Messe. In real world applications, hoses are subject to dynamic conditions.

For this reason, a dynamic impulse testing machine can simulate the operation condition more realistically. Mr. Zhang said, “Qingflex invested in vast resources on testing facility with the aim to improve our product performance.”

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*– Mr. Zhang*

### Innovation

Besides the secured consistency of the product quality and performance, Qingflex is also keen on innovation. According to Mr. Zhang, product innovation is favorable for both the customer and the company, as it brings customers new value and supports the company to realize its full potential and self-evolve. It’s also favorable for the progress and development of the industry. It is the best choice for an enterprise to power the development by product innovation. Mr. Zhang said, “Regarding product innovation, our primary principle is to follow up with the rising demands and specific needs of the market. The second principle is to ‘go beyond the criterion’. Our target is to achieve twice or thrice as high as the applicable standards. This requires us to improve both the rubber material and product mix. So, our R&D team always develops specific rubber formula, process and equipment for specific purpose. By now, we have two key series of innovative products—IMPULMAX® and KINGPULSE®. IMPULMAX® features better flexibility while KINGPULSE® features better temperature resistance. Both products have come into use.”



*IMPULMAX: more flexible, impulse, 600,000 cycles (2SN and 4SH), 3 years warranty, suitable for agriculture machinery, industry equipments.*

*KINGPULSE: -50°C ~ + 120°C, impulse 800,000 cycles (2SN & 4SH), 5-year warranty, suitable for heavy construction machinery.*



*Braiding Machine.*

### Great solutions

Qingflex pays a lot of attention to the overseas market and has been serving it for a long time with great solutions. The company is keen on observing user experience and collecting customer feedback. The collected information is used as a guide to upgrade and innovate products in the future. For instance, the R&D team noticed that many high-pressure products suffer fading during service which causes contamination to the involved object, such as the carpet. Although this is a small detail the team managed to solve it by changing the design of high-pressure cleaning machine. This improvement garnered much appraisal from overseas customers because it relieved their concern. Qingflex's high-quality offerings and proactive solutions are witnessed through numerous cases like this. The maximum length of the Qingflex large-size and spiral hose product is 200 feet at present— an outstanding figure within the entire industry. These products are mainly supplied to U.S. market.

Due to the influence of traditional impressions, it is usually a difficult task to develop an overseas market for a Chinese company. However, with adverse conditions Qingflex has only become more determined to cultivate products for an overseas market. Mr. Zhang said, "Our idea is to let our products speak for us. We trust that our quality products will address the queries against other local products. As a matter of fact, users gradually built their trust after validating our products by testing and gaining a favorable impression from trial use. This is both a challenge and an opportunity. Our overseas customer base is expanding after years of cultivation."

### Talent determines corporate advantage

Apart from the consistency of quality, innovation and integral solutions, people are always of great value, according to Mr. Zhang. We spoke with many staff members during our visit at Qingflex and noticed that many of them joined Qingflex right after graduation and have not switched their jobs ever since. This is really an impressive phenomenon in a macro background of high mobility of human resources. It

reflects the cohesive force of the company and the centripetal force generated by Mr. Zhang as the Chairman of the board. He said, "When the Qingflex staff has the loyalty to his or her job, it means that he or she can uphold common values with the company. Each Qingflex employee is keen on changing the world's negative impression of 'made in China' within the framework of the common values. We expect to develop the market by providing consistent product quality and outstanding cost performance rather than marketing tools. Good quality, effective sales channel and sound performance constitutes solid basis for our staff to strengthen their belief and go forward firmly with the company."

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When asked about the future of the industry, Mr. Zhang said, "The hose industry is booming now and this trend will continue— user level and market demand are both increasing rapidly. As clients attach more and more importance to the quality, there is a tremendous space for us to develop. Moreover, the installation base of hydraulic equipment is expanding. It's an inevitable trend that manpower will be replaced by hydraulic driven systems on a massive scale. The future is bright!"



*Raw Materials Chemistry Laboratory.*

