

Since its establishment in 2003, Luohe Letone Hydraulics Technology Co. Ltd. has been committed to its corporate mission: "Boost Global Smart Manufacture with Letone Hydraulics Products." As it has evolved over the past 16 years, Letone has continued to uphold that mission and uses it as a guide to make decisions towards further developing itself. Letone persistently seeks quality and process improvement while simultaneously continuing to pay the upmost attention to quality, creativity and long-term sustainability of the company. To ensure that these endeavours come to fruition, Letone is actively planning and building up the Letone Fluid Intelligent Industrial Park. It is also continuously upgrading and iterating the facility, staff team, management and workshop with the latest information technology and automation.

Hose + Coupling World had the opportunity to speak with Mr. Zhao Honliang, Founder and Chairman of Luohe Letone Hydraulics Technology Co. Ltd., who explained the new Letone principle: "Leadership powered by innovation; talents cultivation prioritized; lean operation based; aiming high", and revealed the development plan of the company regarding the international market.

By Laura Wang

Original Aspiration Serves as Corporate Mission

According to Mr. Zhao, the original intention of establishing Letone was simple, to survive. After working as a salesman in the hose and coupling industry for 10 years, Mr. Zhao decide to found his own company. "We have come a long way since the early stages of the company," Mr. Zhao explained. "In the beginning, we had a 1,000m² workshop, a team of less than 30 employees, four braiding machines and some second-hand machines. Despite our limited resources and conditions, we determined our product positioning would be quality products only. We wanted to provide customers with best materials and iterative techniques. Since the first hose product that we produced and delivered, we have maintained that high quality position."

Rather than rushing for mass production in 2004, Letone focused its preparations on the front-end of the industry. This focus included market investigation, personnel training and facility commissioning. In 2005, the company began mass production and carried out the 'embossed layline' hose exterior design, which was an original creation in the domestic market.

"In order for our products to best satisfy our customers' needs, we always seek improvement and variation," said Mr. Zhao.

LETONE: Innovation & Good Faith Powers



Mr. Zhao Hongliang, Chairman, Letone Hydraulics.

Product Innovation

'Imitation' was the business model most Chinese hose manufacturers followed in the early age. While it may have worked temporarily, there was never any long-term success. Mr. Zhao realized very early in his career that this type of business model would lead to a dead end. "To combat this dated business model we have made it our goal to be original in our production of hoses. We have experience with the 'import, digest, absorb, and stabilizing processes and continue to improve and seek innovation on a regular basis. Since 2013, Letone has developed the 'Artery' series, the 'Super Artery' series, and the the large size industrial hose (up to 14 inches), and the ultra-high pressure PTFE/UPE rubber-plastic composite multipurpose hose (W.P up to 140MPa). We believe that, in the near future, Letone products will take a firm share in the domestic market and become popular in the overseas markets. By then, Letone will be a pilot in the global fluid technology industry."

Although surpassing the competition is never an easy feat, Letone is continually striving to take the lead in the industry. "To compete with world class rivals, we have to be strategic with each aspect of our business operation. We need to develop innovative products in order to grasp the right to speak in the global market," explained Mr. Zhao. "That is why we are diligent in ensuring our product quality, perfor-

Powers Development Greater Success



mance, price, supply ability, R&D capability and potential of technical progress," he continued.

Rather than getting trapped in price war when the market began to fluctuate, Letone developed proprietary products under the principle of 'development powered by innovation'. "From 2012 to 2015 we developed a new product series based on the requirements of ISO 18752, the 'Artery'. This series was highly recognized by both domestic and international markets. Between 2015 and 2018 we further launched the 'Super Artery' series, which satisfied our users' special requirements, such as strong acid/alkali resistance, better thermal insulation for saving energy, a low bending radius and longer service life. Immediately after the 'Artery' and 'Super Artery' series, we started working on the new 'Ultra-Thin Hose' series, which features lighter weight, higher pressure resistance and longer service life hoses," explained Mr. Zhao.

Letone is further expanding its product spectrum and gaining sound feedback from the market. This year, 40 high-speed wire braiding machines, 2-inch to 10-inch four-disk wire spiraling machines, and 7 industrial hose production lines have been set up in the newly built park. Thirty high-speed braiding machines and four wire spiraling machines will be added annually in the future with expected capacity increase of 20 million meters annually; the production

capacity and sales of steel wire spiraled hose will also increase following the capacity increase of wire braiding hose.

Dynamic Growth

After years of development, Letone has become a national high-tech enterprise with integrated production-learning-research capabilities, and has achieved the independent right of import. Today, Letone has 500 employees, holds 14 patents of invention, 17 patents of utility model and nine provincial-level scientific research achievements. The company has also accomplished one key provincial-level project, and has been awarded the title of 'Top 10 Rubber Hose Enterprises in China' for seven consecutive years, by the China Rubber Industry Association Rubber & Belt Branch. Currently, the key types of Letone product includes: steel wire reinforced hydraulic hose, fiber reinforced rubber hose, UPE concrete hose, PTFE (Teflon)/UPE multipurpose hose, oil drilling production and delivery hose (API 7K, 16C, 16D), industrial hose, chemical hose, food and pharmaceutical hose, rubber compound, sealing element, hose assembly and fittings.

Under the guidance of the 'leadership powered by innovation, development driven by value' principle, Letone continuously works on the development of technology and strategic planning regarding each aspect of the up and downstream rubber hose industry. These developments include: new high polymer material, hydraulic hoses, industrial hoses, rubber structural parts, and the application of elastomer and fitting for fluid application.

To satisfy the need for long-term development, the company commenced the construction of the Letone Fluid Intelligence Industrial Park in 2017, which covers an area of 200,000m² and has a construction area of 150,000m². The new industrial park will distinguish itself by its information technology-based management and automated manufacturing. The goal is to achieve elevated average production efficiency and stability of product quality. The company is striving to join the first class group in the global hose manufacture industry and become compatible with world-class rivals. "On October 16th this year, we are going to



Letone's wrapped hose product with embossed layline for the European market. Image courtesy of Bauma, Germany.





Letone Fluid Intelligence Industrial Park Blue Print.

celebrate “Letone’s 16th anniversary and the initial production of Letone Fluid Intelligence Industrial Park Phase I will begin,” said Mr. Zhao.

By 2020, the park will boost Letone’s total output to RMB¥800 million, which will include hydraulic hose, industrial hose, petrochemical hose and fittings for fluid application. The project will be completed and fully put into production in 2023. The output is expected to be as high as RMB¥2 billion, and will consist of 80 million meter steel wire braided hoses, 20 million meter steel wire spiraled hoses and 20 million meter industrial hoses.

The ‘Super Artery’ series features a low bending radius, high working pressure, and long service life. With high tensile steel wire reinforcement, the double-layer braided hose endures 600,000 impulse, while a four-layer spiraled hose endures one million impulse. The ‘Super Artery’ series adopts a ‘skiving-free’ rubber cover, which simplifies the crimping process. This series has the capability to endure more than five years of exposure in natural weather, with a two-year guaranteed period (with the Letone specific hose joints).

Product Development

In addition to focusing on the advantages in traditional hydraulic hoses, Letone is also working on several product development projects. The focus of these projects is to achieve products which feature resistance to abrasion, resistance to high temperature, and resistance to high pressure and corrosion. One of the new aforementioned products is an oil drilling & production hose. In strict compliance with API standard, Letone’s rubber-plastic full flow oil drilling & production hose is lighter. It also provides a higher flow rate, better pressure resistance (15,000psi operation pressure for 3-inch API 7K hose and API 16C hose), improved durability to hydrogen sulfide (H₂S), a high resistance to abrasion, high temperature and a longer service life. The chemical delivery hose, industrial hose, and food and pharmaceutical hose is another developmental product that the company is currently working on. To accommodate for diversified and unique conditions such as: temperature, abrasion, corrosion and pressure resistance, Letone offers the hose in custom-made

raw material and specific solutions. A third ongoing project is the rubber-plastic sealing elements. Letone has put significant effort into rubber sealing research and development in order to achieve the high level integrity of its hoses.

Advanced Service Centers

Letone has a provincial-level engineering & technology R&D center at headquarters. The lab is CNAS-proven and going to be upgraded to a national key laboratory. Besides the in-house technical team, Letone leverages the advantage of high-polymer materials from Qingdao University of Science and Technology, and has set up the ‘Qingdao Lab’ for joint research and development. This makes use of 5G technology and the remote technology R&D center, all aiming to facilitate the ‘leadership powered by innovation’ strategy.

Letone also operates the Henan Province High Pressure Hose Engineering and Technology Research Center, which is a part of the Letone organization. It is the first provincial-level rubber hose R&D and testing center in China. In this center, Letone set up many high-level test rooms including a material analysis room, semi-final product test room, final product test room, chemical analysis room, salt spray test room, impulse test room, explosion test room, fire resistance test room, atomic absorb test room, and image measurement room. Letone’s test center enjoys a complete set of inspection and testing equipment and is capable of testing raw material, semi-final product and final products. The facility serves as a concrete support to the production and the transformation of products from scientific achievements to business achievements.

Good Faith-Based, Customer First

When asked about the core value of Letone, Mr. Zhao answered frankly, with just three words: “good faith-based. I believe the best practice is to ensure the everlasting good faith whenever and wherever we serve our customers. Good faith is fundamental to maintaining our position in the market. There is no way that we can ignore a value that pilots the healthy and rapid development of Letone Group. Not only does this mantra ensure we are continually striving to provide the best possible customer service, it also adds value to each arm of our business flow; this includes corporate culture, daily operation, R&D, purchase, inspection, manufacture, sales and marketing, service, and so on.”



Letone CNAS-Approved R&D Center.

To be a pilot in the global fluid technology industry is the corporate vision of Letone. In Mr. Zhao's opinion, the so called 'pilot' should be reflected not only in the product positioning in the market, but it should also manifest in the personnel quality, capability and personal terms. The corporate creed of Letone used to be 'seeking increasing perfection, increase at a steady pace, keep innovating, aiming high'. In 2018, it was changed to 'leadership powered by innovation; talents cultivation prioritized; lean operation based; aiming high'.

According to Mr. Zhao, a company should do different things at different stages in order to accomplish all of its goals and remain current. In the background of full information technology and automated operation, Mr. Zhao believes that talent cultivation is becoming essential to maintaining an innovative company. "An individual can become an expert on just one ordinary job post, and ultimately make that post extraordinary, if he endeavors to improve his performance by caring about what he does every day." In order to stay ahead of this increasing relevant stage, Mr. Zhao imparts this message on each Letoner. "Employees are the most precious resource of the company, and instilling a uniformed value into each Letoner enables the joint development of both the people and the company," Mr. Zhao said sincerely.

Domestically Rooted, Targeted Worldwide

When it comes to market development, Letone has three strategies for market development. "The first is to participate in exhibitions all over the world and use media promotion. The second is build up a global e-commerce promotion team to carry out brand promotion globally and to reinforce network construction and website design. The final strategy is to put huge emphasis on developing domestic after-sale end-market service network and developing key account in the host machine assembly business," explained Mr. Zhao. "We have 16 liaison offices in China to serve the domestic after-sale market. In Germany, we also



Production Equipment of Industrial Hoses.

have the Letone Europe Sales and Marketing Center, to support our brand in the international market."

Letone is planning to transform the function of domestic service offices with the aim of changing the business model from direct sales to area exclusive agency. With the application of after-sale market franchising mechanism, the Letone branding in the domestic market is expected to be further promoted.

In 2008, Letone penetrated the overseas markets by quality products and service. Its products are becoming more and more popular in Europe, South and North America, Africa and South East Asia. In the future, Letone is going to set up sales offices in major international markets, actively search for local business partners to facilitate the dual-brand strategy, gradually change the OEM business pattern and build up a sound reputation of Letone's brand in the international market. In short, Letone has determined to achieve the ambitious goal: 'to be a pilot in the global fluid technology industry'.

		Letone Fluid Intelligence Industrial Park Five-Year Production Plan				
		2019	2020	2021	2022	2023
Hose production equipment	Number of high speed steel wire braider	36	70	100	130	160
	Number of steel wire spiral machine	8	12	16	20	25
	Number of industrial hose production equipment	6	8	12	16	20
Hose production capacity	Hose production capacity	30 million meter	50 million meter	70 million meter	90 million meter	110 million meter
Rubber compound production line	Rubber compound production line	2	3	4	5	6
Rubber compound production capacity	Rubber compound production capacity	15,000 tone	25,000 tone	35,000 tone	60,000 tone	85,000 tone

