

## A Leader in the Field of Industrial Automation and Technical Education in China

# 中国工业自动化和技术培训领域翘楚

—— An Interview with Ms. Lu Yanyan, VP Sales Greater China, Festo (China) Ltd. and Mr. Chen Hong, General Manager Vice President, Head of Operations, Festo Pneumatics Co. Ltd.

—— 访费斯托（中国）有限公司大中华区销售副总裁卢艳艳女士、费斯托气动有限公司大中华区运营副总裁陈宏先生

□本刊记者 李莉 刘新洁

2019年是新中国成立70周年。70年来，中国的经济建设以迅猛的速度向前发展，特别是工业制造领域成绩斐然。“中国制造2025”国策的制定，更是为中国工业制造领域提供了一个难得的发展机遇。来自德国的费斯托集团是自动化技术和技术培训领域的世界领先供应商。成立于1925年的费斯托集团，是一家独立的家族企业，总部位于德国的埃斯林根。在百年长河的发展历史中，费斯托集团积累了丰富的经验，成为全球自动化技术和技术培训领域杰出领袖。

说起和中国市场的结缘，时光还要追溯到上世纪80年代。费斯托在中国的业务始于1985年，1993年正式进入中国，成立费斯托（中国）有限公司，落户上海浦东金桥工业园区。2009年，费斯托中国成为德国以外最大的子公司，并且保持至今。2018年起成为地区营运总部，享受浦东新区营运总部财政扶持。

为进一步了解费斯托在中国的发展，在新中国成立70周年之际，



费斯托（中国）有限公司大中华区销售副总裁卢艳艳女士  
Ms. Lu Yanyan, VP Sales Greater China, Festo (China) Ltd.

本刊记者采访了费斯托（中国）有限公司大中华区销售副总裁卢艳艳女士和费斯托气动有限公司大中华区运营副总裁陈宏先生。

卢艳艳女士和陈宏先生有着丰富的行业管理经验，在一个多小时里向记者详细介绍了费斯托在华发展概况以及所取得的成就。

在华成立的26年来，费斯托在中国逐步发展壮大，已经成为费斯托集团在海外发展最快的公司。卢艳艳女士在谈到费斯托在华发展时，首先介绍说：“费斯托集团自成立以来到现在已有近百年的历史，目前业务发展遍及250个国家，员工2万人，2018年销售额达到32亿欧元。费斯托的业务领域分为两部分，一部分为工业自动化领域，为全球客户提供气动和电驱动全面解决方案。另一部分是技术培训，在70多年的培训历史中，已经为5万多家企业提供了技术培训和技术咨询。”

在采访中，卢艳艳女士表示，新中国成立70年暨改革开放四十年来，费斯托有效把握了中国发展的契机，和中国工业自动化领域和技术培训领域同步发展壮大。

据了解，费斯托目前在华实现了研发、生产、物流、销售四

大领域全方位布局。其中，亚太技术中心(TEC)，拥有超过100名工程师，获得50多项研发专利，与浙江大学、上海交大、同济大学以及华中科技大学保持长期紧密合作。2017年，费斯托向济南政府购置43万平方土地，规划建立面向工业4.0的新工厂。2019年1月，费斯托在济南孙村的新全球生产中心一期厂房正式启用，已经建立华东、华南、华北三个区域配送中心。亚太物流中心项目一期建筑面积约为30,000平方米，计划建设周期2年，将于2021年投入运营。费斯托中国在2018年营业收入达27.8亿元。费斯托在中国主要服务于汽车、电子和轻型装配行业，食品饮料包装、水和污水处理以及生物技术、制药等重点发展行业，协助企业共同开发用于各行业提高智能制造生产水平的解决方案。费斯托在中国有200多个销售公司和授权经销网点，人数超过2300名，本地客户超过5万。

任何企业的核心竞争力都体现在技术领先上，而不断创新则是企业赖以持续发展的原动力。在华26年来，费斯托一直坚定不移地走创新和技术研发的路线，不仅将德国最先进的技术带到中国，同时也根据中国本土市场的需求，不断创新、研发出领先于市场的产品。

在谈到费斯托创新时，卢艳艳女士分析说：“我们把销售收入的8%用来研发，这个数字是很高的，应该说在行业中首屈一指。近年来，我们在仿生技术领域，不断探索新技术，通过模拟研发动物再结合元器件研发和工业自动化领域的实际应用，开发出更尖端的产品。我们把德国技术领先的基因带到中国，同时也根据中国市场



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Mr. Chen Hong, General Manager Vice President, Head of Operations, Festo Pneumatics Co. Ltd.

自身需求来量身定做产品，开发出符合中国市场的产品，贴近中国客户。”

费斯托气动有限公司大中华区运营副总裁陈宏先生强调说：“我们的研发创新在很多领域都有运用，特别是智能制造领域。比如我们可以通过软件的改写就让生产线和设备产生新的功能，这样客户就不用担心设备淘汰的问题了。我们把尖端技术、质量培训、分析体系都带到中国来，目前中国的产品都执行的是全球统一标准。”

“中国制造2025”是我国由制造大国向制造强国转型的基本国策，是以加快新一代信息技术与制造业深度融合为主线，以智能制造为主攻方向的。费斯托在华26年来，其发展方向和国家政策高度吻合，在智能制造领域不断引领行业发展。费斯托的产品和解决方案在汽车、食品与末端包装、电子装配、半导体、电池制造、生命科技、生物制药、化工等政府

十分关注的实体行业都有广泛应用。作为德国工业4.0指导委员会成员，费斯托把与全球客户合作经验带到中国，积极推动中国智能制造重点工业领域实现突破，并积极参与国内相关话题讨论，与政府、业界同仁合作，推动中国智能制造落地。谈到费斯托在智能制造方面的探索时，陈宏先生介绍道：“中国对智能制造的需求是中国从制造大国向制造强国转型的需求，费斯托集团对中国市场高度重视，可以用三个字来概况，那就是‘本土化’，实现本土研发、本土供应。济南工厂是除德国本土以外的海外最大工厂，这也是制造能力本土化的战略之一。我们希望在2025年，93%的产品在中国生产，97%的物料采购同样也在中国市场实现。”







教学培训部联合诸多本地职业院校建立技能实训基地，培养世界一流的专业技能人才。在建的费斯托济南全球生产中心内也将打造占地 5200 平方米的双元制教育旗舰店，为企业和院校提供包含智能控制培训模块、智能机器人培训模块以及高端数控设备培训模块在内的智能制造培训课程，助力本地人才技术升级和产业升级。先进的技术和“本土化”发展战略是费斯托得以持续发展并取得成功的根本。中国是费斯托集团最看重的市场之一，在中国扩大投资，对费斯托的持续增长具有十分重要的战略意义。

在谈到未来发展时，卢艳艳女士和陈宏先生向记者展望了费斯托的宏伟蓝图：“现在中国市场的业绩是 30 亿元人民币。我们希望 2025 年能达到 80 亿人民币。我们会继续加大对中国市场投资力度，

一流的效益来自一流的管理。在谈到费斯托企业文化时，陈宏先生详细介绍了费斯托另一大业务——技术培训以及人才管理，他说：“费斯托是家族企业，非常注重家庭氛围。我们的业务很特殊，除了生产工业用品外，还有一个领域就是教育，关注人员的教育、培训和发展。我们把德国‘双元制’教育体系引入中国，2011 年和济南职业学院建立合作关系，实现了教育资质认证，通过对在校学生半学校半企业的管理方式，将企业文化融入到教育中，既实现了技术积累，又建立了忠诚度。”

作为费斯托另一主营业务——技术培训教育，在 70 年的教育培训历史中积累了丰富的经验。据了解，作为全球企业与教育机构的领先合作伙伴，费斯托教学培训 (Festo Didactic) 体系中设计并组建学习实验室、教学设备以及培训课程，从而为高度动态与复杂的工业环境培养人才。费斯托教学培训 (Festo Didactic) 体系是全球领先的工业教育机构与解决方案供应商。这一体系的产品与服务项目为全部自动化技术领域提供快速学习和快速记忆的解决方案。此外，积极推行带有德国基因的“双元制”教育也广泛受到市场好评。费斯托



建立更为快速的服务本土客户体系，为中国市场提供技术升级。我们认为竞争越激烈费斯托的机会会越来越多。”

我们衷心祝愿费斯托在中国市场继续扬帆远航，与中国工业自动化共同成长！



The year of 2019 marks the 70th anniversary of the founding of the People's Republic of China. Over the past 70 years, China's economy has been growing rapidly, especially in the field of industrial manufacturing. The roll-out of the national policy "Made in China 2025" further provides precious opportunities for the development of China's industrial manufacturing sector. Festo Group from Germany is a leading worldwide supplier of automation technology and technical education. Founded in 1925, Festo is an independent family company headquartered in Esslingen, Germany. With over a hundred years of development history, Festo has accumulated extensive experiences and become an outstanding leader in the field of automation technology and technical education worldwide.

Its connection with the Chinese market dates back to the 1980s. Festo started its business in China in 1985, and officially entered China in 1993 when it established Festo (China) Ltd. in Shanghai Pudong Jinqiao Industrial Park. In 2009, Festo China became the largest national subsidiary outside Germany, and remains so today. It has been the regional operation headquarters since 2018 and enjoys financial support from the operation headquarters in Pudong New Area.

In order to learn more about Festo's development in China, our correspondents interviewed Ms. Lu Yanyan, VP Sales Greater China, Festo (China) Ltd. and Mr. Chen Hong, General Manager Vice President, Head of Operations, Festo Pneumatics Co. Ltd., on the occasion of the 70th anniversary of the founding of the People's Republic of China. With rich industry management experience, Ms. Lu Yanyan and Mr. Chen Hong gave a detailed introduction to Festo's development and achievements in China in the over-one-hour interview.

Over the past 26 years since its establishment in China, Festo China has gained steady growth, becoming the Festo's fastest growing national subsidiary overseas. When speaking of



Festo's development in China, Ms. Lu Yanyan first introduced that "Boasting a history of nearly one hundred years since its establishment, Festo Group now has established presence in 250 countries, with 20,000 employees and a sales revenue of 3.2 billion euros in 2018. Festo's business is composed of two parts: One is industrial automation, providing comprehensive pneumatic and electric drive solutions to customers around the world; the other is technical education, providing technical education and consultation for more than 50,000 enterprises already in more than 70 years."

In the interview, Ms. Lu Yanyan mentioned that over the past 70 years since the founding of the People's Republic of China and 40 years since China's reform and opening up, Festo has effectively grasped the opportunities of China's development, and grown together with the advancement of China's industrial automation and technical education.

Information shows that Festo has achieved a comprehensive







layout in four major fields in China, i.e. R&D, production, logistics, and sales. Among them, the Asia-Pacific Technology Center (TEC) has been granted over 50 R&D patents with efforts contributed by more than 100 engineers and worked closely with Zhejiang University, Shanghai Jiaotong University, Tongji University, and Huazhong University of Science and Technology. In 2017, Festo purchased 430,000 square meters of land from the Jinan government and planned to build a new factory for Industry 4.0. In January 2019, the phase I workshop of Festo's new global production center in Suncun, Jinan, was officially put into use, and three regional distribution centers in East China, South China, and North China were already established. Covering a construction area of about 30,000 square meters, the phase I of the Asia-Pacific logistics center project is planned to be completed in two years and will be put into operation in 2021. Festo China realized a revenue of 2.78 billion yuan in 2018. In China, Festo serves customers mainly from the automobile industry, electronics and light assembly industry, food and beverage packaging industry, water and sewage treatment industry, biotechnology, pharmaceuticals and other key development industries, and assists customers to jointly develop solutions for improving the level of intelligent manufacturing in various industries. Festo has more than 200 sales companies and authorized distribution outlets in China, with more than 2,300 employees and over 50,000 local customers.

The core competitiveness of any enterprises is embodied in its core technology, and continuous innovation is the driving force for the sustainable development of all businesses. Over the past 26 years in China, Festo has been unswervingly pursuing innovation and technology R&D, not only introducing the cutting-edge technologies from Germany to China, but also continuously innovating and developing products that are ahead of the market according to the demands of China's local market.



Speaking of Festo's innovation, Ms. Lu explained, "We spend 8% of our revenue on R&D, which is very high, and I'd say, second to none in the industry. In recent years, we have been exploring new technologies in the field of bionic technology, and developing more sophisticated products by simulating natural principals combined with the R&D of components and practical applications in the field of industrial automation. We not only bring German leading technological genes to China, but also tailor and develop products that meet the demands of the Chinese market and close to Chinese customers."

Mr. Chen Hong, General Manager Vice President, Head of Operations, Festo Pneumatics Co. Ltd., emphasized, "Our R&D innovations have been applied in many fields, especially in intelligent manufacturing. For example, we can

rewrite software to create new functions for production lines and equipment, so that customers do not have to worry about equipment obsolescence. We have introduced cutting-edge technologies, quality training, and analytical systems into China, where products are now subject to global standards."

"Made in China 2025", a basic national policy for China's shift from a great manufacturing nation to a powerful manufacturing nation, concentrates on accelerating the in-depth integration of the new generation information technology and the manufacturing industry, with intelligent manufacturing as its focus. Over the past 26 years, the development direction of Festo in China is highly consistent with China's national policies, constantly leading the industry development in intelligent manufacturing. Festo's products and solutions are widely applied in automobile, food and end packaging, electronic assembly, semiconductors, battery manufacturing, life science and technology, biopharmaceuticals, chemicals and



other physical industries of great interest to the government. As a member of the German Industry 4.0 steering committee, Festo brings its cooperation experience with global customers to China, actively promotes breakthroughs in key industrial areas of China's intelligent manufacturing, actively participates in domestic discussions on relevant topics, and collaborates with the government and industry colleagues to promote the projects landing in China's intelligent manufacturing industry. When it comes to the exploration of Festo in intelligent manufacturing, Mr. Chen Hong commented, "China's demand for intelligent manufacturing is the shift from a great manufacturing nation to a powerful manufacturing nation. Festo Group attaches great importance to China's market, which can be summed up in one word - "localization", i.e. local R&D and local supply. The Jinan GPC is Festo's largest overseas factory outside Germany, which is also one of the strategies for the localization of manufacturing capacity. By 2025, we expect 93% of our products to be manufactured in China and 97% of our materials to be purchased in the Chinese market."

The first-class efficiency comes from the first-class management. Talking about Festo's corporate culture, Mr. Chen Hong elaborated on the other major business of Festo - technical education and talent management, "Festo is a family-owned company and is thus very family-oriented. Our businesses are very special, because in addition to producing industrial supplies, we have also another major business-education, focusing on the education, training and development of people. By introducing the German Dual Education System to China, we established a partnership with Jinan Vocational College in 2011 to achieve education qualification certification. Through a campus-enterprise management of students, we integrated the corporate culture into education, which not only achieved technology accumulation, but also built loyalty."

In another major business of Festo -- technical training and education, we have accumulated rich experience in the 70 years of history in this respect. As a leading partner for companies and educational institutions around the world, Festo Didactic

system is designed and constructed with learning labs, teaching equipment and training courses to develop talents for the highly dynamic and complex industrial environment. Festo Didactic system is a world-leading industrial educational institution and solution provider. The products and services of this system provide fast learning and fast memory solutions for all areas of automation technology. In addition, the active implementation of the Dual Education System with German genes is also well received by the market. Festo Didactic BU has established skills training bases with many local vocational colleges to develop world-class professional talents. In Festo's global production center under construction in Jinan, a dual education flagship workshop that covers an area of 5,200 square meters will also be built to provide enterprises and educational institutions with intelligent manufacturing training courses including the intelligent control training module, intelligent robot training module and high-end CNC equipment training module, thus

facilitating the technical upgrading and industrial upgrading of local talents. Advanced technology and the development strategy of "localization" form the foundation for Festo's



sustainable development and success. As China is one of the most important markets for Festo, expanding investment in China is of great strategic significance to the sustainable growth of Festo.

When referring to future development, Ms. Lu Yanyan and Mr. Chen Hong outlined Festo's grand footprint to the correspondents, "The current turnover in the Chinese market is 3 billion CNY, and we expect this figure to reach 8 billion CNY by 2025. We will continue to increase investment in the Chinese market, establish a more efficient service system for local customers, and provide technological upgrading for the Chinese market. We believe that the more competition there is, the more opportunities there will be for Festo."

We sincerely hope that Festo can continue to sail ahead in the Chinese market and grow together with China's industrial automation.