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在路上

月沉日升 斗转星移 无数次的拼搏换来令人艳羡的荣誉 我们为此无比骄傲 却不会沉迷 我们不断挥别过去的自己 一路向前 坚定不移

理想的高度由雄心撑起 我们有十年磨一剑的魄力 也有只争朝夕的积极 我们向往远方 奔跑的欲望从不停息 无数次打破、重塑 只为扩大边界 重新定义自己

我们脚踏实地低头思索我们挺起脊梁无所畏惧我们相信努力会有收获相信生命的意义我们相信每一个人都值得更好的未来达意隆因为有你步履不停

On the Way

How time flies!

Years of struggle win us great honors

We are so proud of it, but won't be obsessed with.

We wave the past

We embrace the future

Dream gives us power to build our wonderland

We have strength accumulated for years

We have execution for current matters

We yearn for a bright future

We are full of enthusiasm

Numerous breaks and rebuilding

Are only for creating new miracles

Are only for rising from the ashes

We are down to earth, indulging in contemplation

We are confident, being afraid of nothing

We believe efforts will be fruitful

We trust people born with mission

We think everyone deserves a better future

Tech-Long—Keep moving forward with you







SPECIAL特殊报导 REPORT





一朝出群雄四海仰昌期 达意隆世界舞台闪耀盛放 Be outstanding from Competitors, Win Respect with Prosperity

World arena, Tech-Long shines in full bloom



四年一届的慕尼黑国际饮料及液体食品技术博览会 (Drinktec)于2017年9月11日在德国慕尼黑新国际 展览中心盛大开幕,9月15日完美落幕。

为期5天的国际盛会以66年来最大的规模呈现,参展商达到1749家,刷新了历史纪录。吸引了来自170多个国家的76000多名国际友人,来自中国的参展人数超过2000人,与上届相比增长了65%,一跃升至排名第二的位置。Drinktec见证了中国液态包装产业的发展,见证了达意隆不断升级的国际竞争力和开拓国际市场的能力。

创新智造 稳执牛耳

Drinktec 2017,是世界各大品牌的欢聚盛典,行业内的各大著名参展商携最新产品汇聚于此。达意隆作为中国液态包装机械领域内的领军企业携新产品再次登上这一国际舞台,向全球业界同仁展示中国创造的雄姿和中国制造的魅力。

达意隆自2013年起率先进行了旋转式PET大瓶水洗 灌旋三合一机、吹灌旋设备的研发。经过几年的市 场历练和技术创新,如今在Drinktec这一公认的世 界最重要的创新平台降重推出新一代的超洁净称



重式大瓶水吹灌旋设备。产品一出,就吸引了无数 目光,围观者甚众。相比上一代的机械式或流量计 定量式大瓶水灌装机,新一代设备将更多的客户需 求变为现实,性能更佳。此外,设备的设计更具个性 化,采用吹灌旋组合机的形式(根据客户要求的不 同,也可以采取洗灌旋组合的形式),吹瓶机部分采 用达意隆最新的五代机,灌装部分应用称重式灌装 原理,更节能,更卫生,更智能。

生机勃勃 风景独好

达意隆作为亚洲地区最大的参展商,不仅产品魅力 无限,展台设计也别具匠心、极具品位和格调,成为 整个展会的亮点。 达意隆位于B5馆322,整个展厅的色调主打灰黄,与企业的色彩格调相一致。展厅中亮眼的黄色给人带来无限生机活力,表现出企业的蓬勃向上,不断发展壮大;灰色展现出企业稳重大气的一面,亮丽和谐的色彩搭配十分吸睛。展厅设计时尚的同时也极具国际化,展位上方展示的各国国旗由瓶子喷薄而出的液体作为载体,寓意着达意隆是为全球客户提供液态产品包装全面解决方案的综合提供商,充分体现了达意隆的包容性和国际化。

展品的摆放和休息区的设计以顾客需求为导向,全面传达出达意隆"为你而转"的企业理念。展台设计简洁大方,方便顾客观看;英文标识散发着浓烈



的国际化气息,展现出达意隆打开国际市场的决心 和魄力。

展会期间,参观达意隆展位的顾客络绎不绝,座无缺席。工作人员不辞辛苦,始终以专业、负责的态度接待来自世界各地的客户,积极敬业的精神面貌大获赞赏,给客户留下深刻印象。

为了让顾客更直观地感受达意隆的最新技术,达意隆准备了精彩纷呈的宣传演示活动——产品宣传片循环播放,客户工厂设备运行实景切换,无一不向客户传达着达意隆身担大任、传承品质、放眼未来的雄豪气概。

除此之外,工作人员还现场试机向客户展示了其优良的设计性能。新产品的智能性、个性化、实用性获得国际客户的高度赞誉。达意隆用实力征服了顾客,卓越的创新技术吸引了众多客户咨询,了解后现场签订合作协议。

达意隆另一大亮点是来自全球各地的代理商。全球 各地代理商积极参与到此次展会中,他们的存在是 达意隆服务全球客户的最佳证明。

振华夏声威 扬民族志气

达意隆凭借强大的品牌号召力和最新的技术成果惊 艳世界,成为慕尼黑液态食品技术博览会一道靓丽





的风景,成功地向世人展示了达意隆品牌的魅力。

达意隆是中国的,也是世界的。极具市场前瞻性的 达意隆珍惜在国际舞台上展示自己的每一次机会, 稳扎稳打的同时坚持锐意创新,引领中国品牌走向 国际,成为推动社会进步的强大推动力。

Drinktec 2017, 达意隆参与其中, 凭借创新技术和 高品质服务在展会中独领风骚, 用实际行动向世界 宣告中国制造的力量,让我们看到了中国制造业崛起的雄心和魄力。相信未来,达意隆会不断开疆扩土,走向新辉煌,中国制造业的明天也会更灿烂!

The quadrennial Drinktec of Munich is the leading exhibition of technology for global beverage, liquid and food industries. It was opened on September 11, 2017 in Munich International Exhibition Center (Messe



Munchen) and closed on September 15.

The 5-day gala of 2017 is the biggest in 66 years, with record exhibitors of 1749. It attracted over 76,000 people from more than 170 countries, in which over 2,000 were from China. The number of Chinese exhibitors of 2017 has increased by 65% comparing to that of the last one, which ranked the second. Drinktec witnessed the development of China's liquid packaging industry, and upgrading of Tech-Long's international competitiveness and its capability to explore international market.

The World's Leading Intelligent Manufacturing Ability

Global major manufacturers with their latest products gathered in Drinktec 2017. As the leader in China's liquid packaging machinery industry, Tech-Long has demonstrated the strength and charm of Made-in-China to counterparts with its new products in this international exhibition.

Tech-Long has taken the lead in developing rotary PET Rinsing -Filling-Capping Combiblock and Blowing-Filling-Capping equipment since 2013. After years of market experience and technological innovation, Tech-Long launched its new generation combi with ultrahygienic load cell technology for one gallon bottle on Drinktec, the accepted world's most



important international innovation arena. A large number of customers stopped to visit Tech-Long's booth after seeing running equipment. Comparing to the last generation of mechanical or quantitative 5 Gallon filling monobloc, the new one responds to customers'demands with better performance. In addition, design of the new equipment is more personalized. It integrates blowing, filling and capping (or rinsing, filling and capping based on demands), in which blowing uses Tech-Long's newest 5th-generation product, filling adopts the principle of weighing-filling. Therefore, the new equipment is more energy-saving, hygienic and intelligent.

Unique Booth Design

Apart from attractive products, the largest Asian exhibitor Tech-Long had a speciallydesigned booth.

Located at B5-322, the appealing booth was gray and yellow, which echoed the company's theme color. The bright and energetic yellow revealed Tech-Long's vigorous development; while the elegant gray exhibited the company's robust growth. The design combined fashion and internationalization. For example, national flags in booth carried by liquid spurring out from bottles corresponded to Tech-Long's role of integrated supplier providing



comprehensive solutions for liquid packaging, which demonstrated its inclusiveness and internationalization.

Exhibits arrangement and rest area design were customer-oriented, showing the company's belief of "Runs for You". Exhibition stand was simple, easy for visit; English signs were convenient for understanding, creating a great chance for entering international arena.

Streams of visitors stopped at Tech-Long's booth during the exhibition. The staffs'professional and responsible reception manner impressed customers.

Tech-Long prepared spectacular promotions to respond to the demand of experiencing the newest technology, including play of product videos and display of running equipment in customer's factory, by which Tech-Long has delivered its reliable, quality and promising image to the world.

Apart from the mentioned, staffs on-site run the model machine to explain its sound performance, whichintelligence, personalization and practicability won highly recognition. Tech-









Long attracts customers with strength. Its outstanding innovative technologies appeal to market, leading to on-site cooperation agreement signings.

Global dealers are another highlight of Tech-Long. They are the best proof of the company's idea as serving the world, who actively participated in the exhibition.

Spread the Charm of Made-in-China

Powerful brand appeal and the latest technology turned Tech-Long into a world-known company and drew public's attention in Drinktec of 2017.

Born in China, Tech-Long also belongs to the world. Highly market-oriented, Tech-Long treasures every opportunity in international arena to demonstrate itself, playing steadily and at the same time insisting on innovation, leading Chinese brand to be international, so as to power social development.

Tech-Long shone with its innovative technologies and high-quality service in Drinktec 2017. Its achievements delivered the power of Made-in-China to the world, promoting China's manufacturing industry to the direction of worldclass level. Tech-Long will create new glories, so will China's manufacturing industry!

2017

不忘初心 蓄势而上

NEVER FORGET OUR ORIGINAL ASPIRATION, BE READY TO GO UP!

达意隆营销总部年会 TECH-LONG ANNUAL SALES CONFERENCE 2017年12月6-8日 Dec.6-8, 2017

特殊报导 Special Report TECH-LONG



不忘初心 蓄势而上

2017年12月6~8日达意隆营销总部年会在惠州南昆山盛大举行。公司高层、营销总部骨干和海内外分公司高层及各个国家的代理商、供应商一起出席了本次年会。

此次年会是一场国际化的盛会。它团结了海内外的力量,为公司的发展提供了强劲劲能,引导达意隆朝着更加多样化、现代化和国际化的方向发展。

12月7日上午,在酒店会议厅召开了"不忘初心,蓄势而上"的主题会议。达意隆高层领导和海内外分公司人员汇聚一堂,共襄盛事,共谋发展新途。这是达意隆营销总部有史以来最大的一次聚会,领导们就公司的未来发展进行了沟通与交流,合力描摹企业发展蓝图,将会议主题推向深入。

会议期间,全程同声传译,保证了会议的高品质和 高水准,充分彰显了达意隆走向国际的决心和面向 世界的发展格局。



人生得意须尽欢

12月7日晚18:30峭壁泳池Party热闹开场。晚宴有灯光,有音乐,有美酒,还有海内外友人,大家在国际化盛会的氛围中把酒畅谈,共享美妙时光。

中西文化交汇的节目表演吸引了人们的目光,带动了大家的热情。

年会除了精彩的节目表演,抽奖环节也必不可少。

丰厚的奖品逐步将年会气氛推向高潮,一项项大奖的揭开,预示着达意隆事业发展的节节攀升。

欢乐有时,未来无限。此时,我们在这里相聚,记录 2017年的精彩;明天,我们将带着欢乐和希望,再 次起航。

让我们一起从"心"期待,达意隆走向世界的新征程!



Stay Gold Keep Going

On December 6-8, 2017, annual meeting of Tech-Long Marketing Headquarter was held in Nankun Mountain, Huizhou City. Senior management of the company and global branches, important figures of Marketing Headquarter, dealers and suppliers attended the meeting.

It was an international gala gathering powers at home and abroad, which assisted in company's development toward diversification, modernization and internationalization.

On the morning of December 7, conference with the theme of "Stay Gold, Keep Going" was held at the hotel. Senior management of Tech-Long, along with personnel from global branches, reviewed the past glories and discussed the future development path. It has been the largest meeting since the founding of Tech-Long Marketing Headquarter, during which leaders exchanged ideas on future growth and drew blueprints.

The meeting adopted simultaneous interpretation, which guaranteed quality and level



and exhibited Tech-Long's resolution toenter international arena.

Fun Night

Pool Party began at 18:30 on December 7. Everyone enjoyed their time during the gala dinner with great atmosphere, sound music, tasty wine and friends.

Performance integrating eastern and western culture left great impression.

Luck draw, another essential part, drove the gala dinner to climax. Prizes awarded signed further development of Tech-Long.

Happy time ended, while future is waiting for us. Today, we gather to review glories in 2017; tomorrow, we set sail with joy and hope.

Let's wish the good luck for the new journey of Tech-Long!

以爱之名 情暖助花开

记 2017 年达意隆广西慈善行



Provide Support in the Name of Love

About Tech-Long's 2017 Charity Trip to Guangxi











扶一株幼苗, 蕴一份春光; 助一名学童, 赢一片希望。

2017年达意隆广西慈善行在爱心成员的共同期待下顺利展开。

爱心成员满怀热情从广州出发,一路颠簸,耗时6个小时,来到广西省玉林市博白县双凤镇凤宁村小学和镇北村小学,进行助学活动。

资助之前,达意隆人员对学校进行了一番实地考察。 奔波都已值得。

在了解了当地学校和学生的情况后,认真准备所需物资,希望真正帮到莘莘学子。从前期的学校考察到物资准备、校园修缮,再到捐赠仪式结束共历时18天。达意隆此行捐助了2所小学,帮助共计533名贫困小学生。达意隆爱心团一行人亲力亲为将孩子所需的课桌椅和学习物资发放到孩子们手里,希望他们能更好地学习。看到孩子们充满希冀的眼神,觉得一路的奔波都已值得。



达意隆在张崇明先生的带领下,每年都会携手爱心企业资助2~4所贫困山区小学。达意隆多年来资助了十几所小学,在慈善助学方面累计投入数百万元,用于完善学校的基础设施,为学校建立图书室,努力改善学校的教学条件,给学生提供一个良好的学习环境,促进学生德智体美全面发展,让每一个孩子都能在一个良好的环境下学习成长。

再高的山也挡不住孩子们走出去的心,再远的路也停不住达意隆慈善的脚步。希望每一份爱心都能化作一股动力,推动孩子更好地成长。达意隆会一如既往承担起自己的社会责任,把公益助学坚持下去,同时希望带动更多的社会力量,伸出援助之手,点燃孩子们的希望,成就每一个孩子的梦想。



Plant a seedling, you will get a room of spring; while help a child, you will create a promising future.

Tech-Long's 2017 Charity Trip to Guangxi smoothly developed under expectation.

Team members made a 6-hour arduous trip from Guangzhou to Fengning Village Primary School and Zhenbei Village Primary School at Shuangfeng Town, Bobai County, YulinCity, Guangxi Province for educational support.

Before financial aid, Tech-Long made a field

investigation on the schools. Then team members prepared materials needed, hoping to help students. It lasts 18 days from field investigation, materials preparation, and school renovation to donation ceremony. 2 primary schools, with 533 impoverished students in total, got donation from Tech-Long.

The team offered desks, chairs and studying materials to these kids, encouraging them to study



hard. Looking into their eyes that were filled with hope, the team members felt all the difficulties and efforts were paid off.

Led by Mr. Zhang Chongming, Tech-Long along with other charitable enterprises supports 2-4 impoverished primary schools every year. The company has provided millions in supporting dozens of schools over years. The fund is for infrastructure improvement, including reading room building, and teaching environment

improvement, so as to help students realize comprehensive development under sound condition.

Nothing can stop these children's pursuit for a better future, neither Tech-Long's charity trip. Each piece of love carries Tech-Long's hope to help children develop. The company will shoulder on its social responsibility for educational support, and call on more social forces to join in the dream building project.

爱心行第一站——博白县双凤镇凤宁村小学

The first stop—Fengning Village Primary School located in Shuangfeng Town, Bobai County



前期的学校考察,教学环境堪忧 Preliminary field investigation indicated poor teaching environment



新修缮的教学楼 The newly renovated teaching building

爱心行第二站——博白县双凤镇镇北村小学

The team went for the second stop without rest—Zhenbei Village Primary School located in Shuangfeng Town, Bobai County







修缮前, 墙面斑驳, 桌椅破旧 Before renovation, the building, desks and chairs were in poor condition







修缮后,校园焕然一新 After renovation, the school was bright new



看到孩子们天真的笑容,一切都值得 Everything were paid off when we saw children's smile

古巴工业部综合考察团一行 莅临达意隆参观考察



2017年6月16日上午,在工业和信息化部及广州市工业和信息化委员会相关领导的陪同下,古巴工业部综合考察团一行莅临达意隆参观调研,达意隆负责人张崇明先生及有关高层热情接待了来访领导。

李竞明总监首先对来访的客人表示了热烈的欢迎,并详细介绍了达意隆智能装备产品和现有美洲区客户以及美洲区域未来的发展规划。古巴工业部工业发展司艾迪斯玛尔•萨维德拉•耶罗书司长一行参观了达意隆检测中心、机加中心、吹瓶及灌装车间、后段包装车间、工业机器人集成,详细了解了达意隆在液态产品包装领域和工业机器人方面所取得的成绩及经验。

古巴工业部工业发展司艾迪斯玛尔•萨维德拉•耶罗书司长与张崇明先生共进午餐,进行亲切交流,并向张总介绍了古巴的相关行业的发展及投资环境等,希

望达意隆有机会到古巴指导、交流。

作为液态产品包装装备的龙头企业,达意隆一直紧跟国家"一带一路"和"走出去"战略,稳步推进海外市场的开拓。古巴作为新兴的发展中国家,蔗糖是其重要的产业,达意隆愿意将先进的设备及经验带到古巴,为古巴的发展及中古两国的友谊做出应有的贡献。

On the morning of June 16, 2017, survey group of Cuba Ministry of Industry visited Tech-Long, accompanied by leaders of Ministry of Industry and Information Technology of the People's Republic of China and Industry and Information Technology Commission of Guangzhou Municipality. Mr. Zhang Chongming, the person in charge of the company, and other senior management made the reception.

Survey Group of Cuban Ministry of Industry Visits Tech-Long



Director Li Jingming welcomed the guests and explained Tech-Long's intelligent equipment, current America's customers and development plan in this area. Edithmar Saavedra Jeruso, the Director of Industrial Development Division of Cuba Ministry of Industry and others visited Tech-Long's Inspection Center, Mechanical Processing Center, Blowing and Filling Workshop, Secondary Packaging Workshop and Industrial Robot Assembly. At the same time, they learned Tech-Long's achievements and experience in liquid packaging industry and industrial robot.

Then Edithmar Saavedra Jeruso had lunch with Mr. Zhang Chongming, during which he introduced development and investment environment of related industries in Cuba and invited Tech-Long to pay a visit.

As the leader in liquid packaging equipment industry, Tech-Long follows China's "Belt and Road" Initiative and the "Going out" Strategysteadily and develops international market. Cuba is an emerging developing country with cane sugar as its important industry. Tech-Long would like to bring advanced equipment and experience to Cuba to contribute to development of the country and Sino-Cuba friendship.

Text by: Cao Xiaohong

达意隆两项发明专利荣获中国专利奖



创新改变生活,知识开启未来。2017年12月,国家知识产权局网站发布了《第十九届中国专利奖评审结果公示》,达意隆两项发明专利——《用于吹瓶机的模架开合和底模升降的联动机构》和《一种斜盖理盖机》,同时荣获中国专利优秀奖。

中国专利奖由国家知识产权局与国际知识产权组织 联合举办,是我国知识产权领域的最高荣誉,代表了中国知识产权和创新的最高水平。评奖标准不仅强 调专利技术水平和创新高度,而且注重其在市场转 化过程中的运用情况,同时还对其保护状况和管理

情况提出了较高要求。

此次申报的两项发明专利得到大会评委和相关部门的肯定,这充分体现了达意隆雄厚的研发基础和创新实力。目前,达意隆累计获得中国专利优秀奖6项、广东省专利金奖1项、广州市专利优秀奖2项。今后达意隆将继续加大科技创新投入,完善知识产权管理工作,促进专利数量和质量的协调发展,全面提升企业核心竞争力,为中国包装装备行业的发展贡献力量。

Tech-Long's Two Invention Patents Won "China Patent Award"

Innovation changes life, knowledge creates the future. In December 2017, the Announcement of Appraisal Results of 19th China Patent Award was published on the website of State Intellectual Property Office. Two invention patents of Tech-Long-Linkage for Switching-On-Off of Die Set and Lifting of Bottom Die of Blow Blowing Machine and A Cap Sorter for Slanted Cover, simultaneously won the China Patent Award of Excellence.

China Patent Award is jointly held by the State Intellectual Property Office and the World Intellectual Property Organization and deemed as the top honor in the field of the intellectual property in our country, and also represents the highest level of the intellectual property and innovation in China. The appraisal standards not only emphasize the technical level of patent and the class of innovation, but also focus on the application during the market transformation, and meanwhile set high requirements for the protection and management of patents.

Such two invention patents applied have been well recognized by the judges of the committee and the relevant divisions this time, which fully shows the solid research and development base and innovation power of Tech-Long. At present, Tech-Long has accumulatively received 6 China Patent Awards of Excellence, 1 Guangdong Gold Patent Award and 2 Guangzhou Patent Awards of Excellence. In the future, Tech-Long will continue to increase the investments on scientific and technological innovation, complete intellectual property management, promote harmonious development of patent quantity and quality, and comprehensively improve the core competence of enterprise to contribute to the development of package equipment industry in China.

Text by: Cao Xiaohong

达意隆荣获广东省战略性新兴产业骨干企业(智能制造领域)称号



为贯彻落实《中国制造 2025》《广东省智能制造发展规划 (2015-2025 年)》《广东省工业转型升级攻坚战三年行动计划 (2015-2017 年)》,深入实施战略性新兴产业骨干企业培育工程,充分发挥骨干企业在广东省战略性新兴产业发展中的引领带动和典型示范作用,广东省经济和信息化委员会组织开展了 2017年广东省战略性新兴产业骨干(培育)企业(智能制造领域)申报工作。经过初步审查、专家评审和公示,广州达意隆包装机械股份有限公司等 10 家企业成为2017年广东省战略性新兴产业骨干企业(智能制造领域)。

近年来达意隆在智能制造领域不断加大创新力度,在 液态产品包装装备的智能化、信息化方面实现了重大 突破。搭建了液态产品包装产线智能运维平台,为用 户提供故障预警和诊断、维修维护决策、参数优化等 一系列自助式、智能型、个性化的远程运维服务。在 工业机器人领域抢占了技术及市场先机,成为广东省 机器人骨干企业。

达意隆将在智能制造领域再接再厉,不断加强创新能力建设,抢占产业发展制高点,切实发挥标杆示范和引领带动作用,为推动广东省战略性新兴产业的发展贡献力量。

To implement Made in China 2025, Guangdong's Development Plan of Intellectual Manufacturing (2015-2025) and Three-Year Action Plan of Guangdong Province for Industrial Transformation and Upgrading (2015-2017), deeply carry out cultivation project of backbone enterprises in strategic

Tech-Long won the title of the "Backbone Enterprise of Strategic Emerging Industries of Guangdong Province" (Intelligent Manufacturing Field)



and emerging industries, and give full play to backbone enterprises in leadership and demonstration of strategic and emerging industries in Guangdong Province, the Economic and Information Commission of Guangdong Province organizes and carries out declaration of backbone (cultivation) enterprises (intellectual manufacturing field) in strategic and emerging industries of Guangdong Province in 2017. After primary examination, expert review and publicity, 10 enterprises, including Guangzhou Tech-Long Packing Machinery Co., Ltd., are selected as backbone enterprises (field of intellectual manufacturing) in strategic and emerging industries of Guangdong Province in 2017

In recent year, Tech-Long Packing Machinery

Co., Ltd. has made even more investment in innovation of intellectual manufacturing and has made significant breakthrough in the fields of intellectualization and informatization of packing equipment of liquid products. Establishing an intellectual operation and maintenance platform of packing production line of liquid products, the company provides its users with fault pre-warning and diagnosis, repair and maintenance decision-making, parameter optimization and other automatic, intellectual, personalized remote operation and maintenance service. In addition, the company turns itself to be a robot backbone enterprise in Guangdong Province by initiatively taking the advantages and opportunities of technology and market in industrial robot field.

Tech-Long is bound to make persistent efforts in intellectual manufacturing field, continue to enhance innovation ability, utilize the best resources for industrial development, and faithfully play its role as an example and pioneer, devoting itself in contributing to the development of strategic and emerging industries in Guangdong Province.

Text by: Wang Yannan

智时代 耀出彩

达意隆机器人邀您向智时代出发



作为国内饮料包装行业的领导者, 达意隆在饮料行业 的自动化封装堪称典范。目前, 达意隆除了在自己的 饮料包装线上使用了大量的机器人, 还将其推广, 自 主开发的并联机器人在食品等行业得到了广泛应用。

饮料包装产线上机器人应用成熟

1999年创立的达意隆, 秉承"为你而转"的理念, 为全球客户提供饮料工厂的包装全面解决方案, 现拥有亚洲最大饮料包装设备制造基地。

达意隆是全球范围内少数几家能够提供食品、饮料等整厂自动化解决方案的综合供应商, 机器人相关应用在十年前已经导入。

达意隆工业自动化事业部负责人对新战略机器人全媒体记者表示:"达意隆的饮料包装线上,机器人最大的舞台在于装箱码垛和搬运,其他工位以自动化设备为主。大型六轴机器人在装箱、码垛这两个工序上不仅能够充分发挥高效率、高可靠性的优势,同时也可以根据实际产线布局需求,发挥高柔性功能,能够配合多条生产线的运转。另外,目前较热的 AGV 物流机器人在国内饮料行业的应用并不常见。一方面,以往饮料行业的 SKU 种类较少,土地成本较低,对仓储管理的要求不高;另一方面,国内饮料企业的仓库以往大多是平库,配合 AGV 等物流机器人需要一定的时间。但是这是未来发展趋势,达意隆也不排除会在这一工序上大量引用物流机器人。"

SHOW THE BEST PERFORMANCES IN THE AGE OF INTELLIGENCE

Tech-Long Robot invites you to enter the Age of Intelligence

自主开发的并联机器人业内领先

达意隆本身的包装线以饮料为主,而在食品等其他行业,达意隆则自主开发了并联机器人,并将产品性能做到业内领先。

与饮料行业对机器人的要求不同的是,食品行业分为一次包装和二次包装,不同工段位的包装对机器人的要求不尽相同。一次包装主要是指直接与产品接触,这类机器人的卫生标准、洁净度、可冲洗的便捷性以及速度要求较高;而二次包装指的是食品装箱,比如将瓶、罐、袋、盒等不同材质的食品入箱封装,这就对机器人的柔性度和速度提出了要求。

达意隆的并联机器人在二次包装过程中优势显著。首先,达意隆的并联机器人性能优越,无论是速度还是精度都能完全满足生产所需。负责人介绍:"目前,达意隆的并联机器人在实际应用中最高的速度记录能够达到单台140次/分钟;对于不同物品速度不同,空跑状态下可达到180次/分钟,居于国内领先水平。精度上,传输线跟踪精度也达到国际先进水平;尤其在旋转精度上,达意隆将旋转轴伺服电机直接驱动第四轴,避免了十字联轴器带来的旋转角度误差,从而使并联机器人能够应用于装配等高精度要求的作业环境。"

其次, 达意隆的并联机器人产品系列全面。负重从 1 公斤到 10 公斤,臂展半径有 800mm 紧凑机型和 1200mm 通用机型供选择; 同时有普通碳钢版本和 不锈钢可冲洗版本适用于不同作业环境要求。再次, 应用的广泛性。目前, 达意隆的并联机器人除了在食



品行业应用较广, 在乳业、日化行业、玩具、电子以及 塑料行业等都有较多成熟应用案例。

无论是食品还是饮料, 达意隆的竞争优势都十分突出。一方面在于对客户生产工艺的深入理解、以及对国际新产品和新技术的导入, 能为客户提供高性能整体解决方案; 另一方面在于对机器人产品及机器人应用技术的深刻理解和大量成功项目经验, 从而在业内积累和构建了较强话语权。未来, 达意隆将更加聚焦在为快消品行业(如分拣、包装等) 和塑料制品行业(如上下料、装配、工厂物流等) 的客户提供整体智能解决方案。



As the leader in the domestic beverage packaging industry, Tech-Long is also recognized as an example of automation in the beverage industry. Currently, Tech-Long not only uses lots of robots on its beverage packaging line, but also promotes this way. The independently-developed parallel robot has been widely used in food and other industries.

Mature Application of Robot on the Beverage Packaging Production Line

Tech-Long, founded in 1999, with the belief of "Runs for You", provides customers worldwide with comprehensive solutions to the beverage factory packaging. It owns the largest base for beverage packaging equipment manufacturing in Asia.

Tech-Long is one of the few comprehensive suppliers providing whole-factory automation solutions for food and beverage industries in the world. Its robot-related applications were put into use 10 years ago.

Head of the Industry Automation Business Department of Tech-Long, said to all media reporters of the new strategic robot, "on the beverage packaging line of Tech-Long, robots play the largest role in packaging, palletizing and carrying, while other sections are dominated by automation equipment. The large-scale six-axis robots not only give full play to the advantage of high efficiency and reliability during the production processes of packaging and palletizing, but exert the function of flexibility to support the operation of multiple production lines according to the actual production line layout requirements. In addition, today's popular AGV logistics robots are not common in domestic beverage industry. On the one hand, there were less SKU varieties, lower land costs and less high requirements for warehousing management in the previous beverage industry. On the other hand, because most warehouses of domestic beverage enterprises were single-layer, it took time to support logistics robots like AGV. However, this is the development trend in the future, so Tech-Long will also consider using a large number of logistics robots during this production process."

The Independently-Developed Parallel Robot Leads the Industry

Tech-Long focuses on the beverage on its packaging line, while in the food and other industries, it has independently developed the parallel robot, making the performance of products lead in the industry.

Unlike requirements for robots in the beverage industry, the food industry consists of the primary packaging and secondary packaging, with different requirements for robots in different sections. As the primary packaging mainly refers to the direct contact with products, there are higher requirements on the sanitary standards, cleanness, washable convenience, and speed for robots. However, the secondary packaging refers to food packaging, including the packaging of such foods with different materials as bottles, cans, bags, and boxes, so the flexibility and speed of robots should be higher.

Tech-Long's parallel robot has notable advantages during the process of the secondary packaging. First, with superior performance in both speed and precision, it can completely satisfy the production demands. Head of the Industry Automation introduced, "now the highest speed record of Tech-Long's parallel robot can reach 140 times per minute in practical use. The robot has different speeds in different situations, with a speed of 180 times per minute when working without any objects, taking the leading position in China. In terms of precision, the tracking precision of the transmission line has also reached the international advanced level, especially the rotation precision. Tech-Long drives the rotation-axis servo motor into the fourth axis, avoiding the errors of the rotation angle brought by the crossed coupling, so as to make the parallel robot be used in a working environment with high-precision requirements, such as assembling."

In addition, Tech-Long's parallel robot has a complete serie for choice, including those with the loading weight from 1 kilogram to 10 kilograms, compact types with an arm-span radius of 800 millimeters, and general types with an arm-span radius of 1,200 millimeters, as well as the common carbon steel version and stainless steel cleanable version suitable for different working environments. Besides, it is the universality of the application. At present, Tech-Long's parallel robot not only is widely used in the food industry, but also has lots of mature application cases in the industries of dairy, chemical, toys, electronics, and plastics.

Tech-Long has remarkable competitive advantages in both food and beverage fields. It has an in-depth understanding of customer's production process and the introduction of new international products and technologies, providing customers with entire highperformance solutions. In addition, it has a profound understanding of robot products and application technologies and the experience from numerous successful projects, making strong influences in the industry. In the future, Tech-Long will pay more attention to providing overall intelligent solutions for the customers in the industry of fast moving consumer goods (such as sorting and packaging) and the plastics industry (such as loading & unloading, assembling, and factory logistics).

Text by: Full Media of the New Strategic Robot

时事要闻

CURRENT EVENTS AND IMPORTANT NEWS



CCTV《匠心》栏目组走进达意隆



品牌是一个企业乃至国家竞争实力和发展潜力的重要体现。而品牌建设需要政府、企业、媒体三方共同努力。

2017年10月30日上午,中央电视台《匠心》栏目组走进达意隆进行纪录片的拍摄,展现企业品牌建设工作成效,为实现"品牌强国梦"贡献力量。

达意隆从 1999 年成立, 到成为中国饮料包装机械行业第一家上市公司, 再到液态包装行业领先的设备供应商,始终秉承"为你而转"的理念, 专注于高速自动化饮料生产线的设备研发与生产, 为全球客户提供液态产品包装的全面解决方案。

达意隆坚持以实际行动推动中国制造向中国创造转

变、中国速度向中国质量转变、中国产品向中国品牌转变。希望通过本纪录片展现出企业坚持创新驱动、智能转型的发展方向,展示出一个更加现代化、立体化的品牌形象。传达企业近二十年始终如一的工匠精神,让更多的人看到中国制造业精益求精的产品追求,中国智造的华光溢彩,让世界重新感受中国制造的独特魅力。

人类拥有 250 万年的制造历史。无论是国家或民族,谁拥有先进的装备制造,谁就能引领世界。中国正在从一个工业大国向真正的工业强国转变,成熟而先进的装备制造是中国核心竞争力的重要体现,也是国民经济发展的强大根基。让我们期待在不远的将来,达意隆引领先进制造业编织出的更加美好的中国梦。

The column group of the Originality of CCTV visits Tech-Long











Brand is a significant embodiment of the competitiveness and development potential of an enterprise or a country. To help a brand go above and beyond in a long run requires joint efforts of government, enterprise and media.

On the morning of October 30, 2017, CCTV's Originality Program visited Tech-Long to shoot a documentary, in a bid to demonstrate the achievements made in brand building of enterprises and concrete China's aspiration to the "Nation of Hefty Brands".

Established in 1999, Tech-Long has now become

the first listed manufacturer of beverage packaging machinery in China, as well as the leading equipment supplier of liquid packaging sector. While upholding the imperative - "Runs for You", Tech-Long is committed to the R&D and production of the high-speed automatic beverage production lines, providing comprehensive solution to liquid packaging for clients worldwide.

Tech-Long strives to facilitate China's ambitious industrial transformation: from Made in China to Created in China, from China Speed to China Quality, and from Chinese Products to



Chinese Brands. It is hoped the documentary will fully demonstrate Tech-Long's insistence on innovative-driven development and transformation to intelligent manufacturing as a more modernized brand. In the meantime, by illustrating Tech-Long's aspiration to craftsmanship over the past two decades, the documentary aims toshed a new light on the pursuit of excellence and among domestic manufacturers, and open a window for the world to the unique charm of Made in China.

Mankind has a time-honoredhistory of 2.5 million years of manufacture. Those in

possession of advanced equipment and manufacturing technique have always been pace setters worldwide. China is now on course to the transformation from a major source of industrial laborers to a significant industrial power. On China's historic journey, sophisticated equipment and manufacturing technique, necessary to help pave the way, underpin the development of the national economy. Techlong, with its cutting-edge product mix and technologies, is poised to lead its peers to contribute to China Dream along the way.

■相关链接





《匠心》栏目:

一档大型电视纪实类节目。通过外景拍摄的形式 刻画大国工匠、匠心传世。讲述创新传统技艺、 传承工匠精神的匠心故事。

匠心精神,必是击退速财诱惑,战胜投机取巧,对抗唯利是图。《匠心》栏目肩负一份厚重的媒体责任,树立正能量的舆论导向。一个尊重劳动、鼓励创造的国家,一个懂得尊敬匠心匠人、呵护匠心精神的社会,应让成大器者得到充分激励——让匠心有名,名至实归;让匠心得利,利予工匠,利在国家。

Originality:

Originalityis a full-length TV documentary program. By means of outdoor photography, it depicts the artisans of China and their artisanship passed down from generation to generation. With a focus on the innovation of traditional techniques, it eulogizes the artisans' legacies and aspiration to originality.

The aspiration to originality entails resistance to the temptation of overnight wealth, and curb on opportunism and profit-driven urges. The Originality Program, as a conscientious mirror of the society, strives to gear public opinions to the right track. It show cases how artisans with great potential are respected in China, a country that values labor and encourages innovation, and a society where originality and artisanship are both treasured. After all, a country is as strong as its people.

2017 年达意隆欧美市场大丰收 Tech-Long Makes Remarkable Achievements in the American & European Market in 2017



2017年是达意隆欧美市场大丰收的一年,订单金额预计超过人民币约1.65亿(美金2500万),相比2016年,涨幅高达230%。

2017年有影响力的订单:

Naya Waters是加拿大魁北克蒙特利尔的知名品牌,达意隆与其签订的60000BPH水线是目前销售速度最快的吹灌旋水线。60000BPH以上的速度是北美市场的主导速度,此订单标志着达意隆成功进入北美的"高速市场"。

达意隆给位于秘鲁缅因州的Moon Tide Springs 和美国加州的Unix Packaging提供了整线。Unix Packaging是达意隆美国分公司最早期的客户之一,签订的是16腔36000BPH吹灌旋整线。此次与Sacmi 竞争并取得订单,得益于达意降优质的售后服务和长

期的客户关系维护,同时因为Unix和可口可乐瓶装水合作包装的关系,也给达意隆和可口可乐之间的合作带来了更大的可能性。

2017年,达意隆美国分公司也销售了很多独立吹瓶机给Graham Containers, Adirondack Beverages, Minute Maid Canada, Universal Beverage等客户,这些之前都是Sidel, Krones,KHS的座上宾。这些贵客的到来是达意隆的荣幸,也让我们得以窥见市场的发展趋势:客户逐步更换掉一些旧设备,逐渐从购买瓶子转换为将吹瓶机整合进现有的灌装生产线进行生产。相比之下,购买吹瓶机比购买瓶子且进行跨国运输更有优势。

In 2017, Tech-Long has made remarkable achievements in American & European markets









with orders of nearly RMB 165 million (USD 25 million), gained an increase of 230% compared with that of 2016.

Influential orders in 2017:

Tech-Long signed the contract of 60,000BPH water lines, the blowing-filling-capping combi line sold fastest currently, with Naya Waters, a famous brand in Montreal, Canada. Over 60,000BPH is a dominant speed in American & European markets. This order marked the successful entry of Tech-Long into the "high-speed market" of North America.

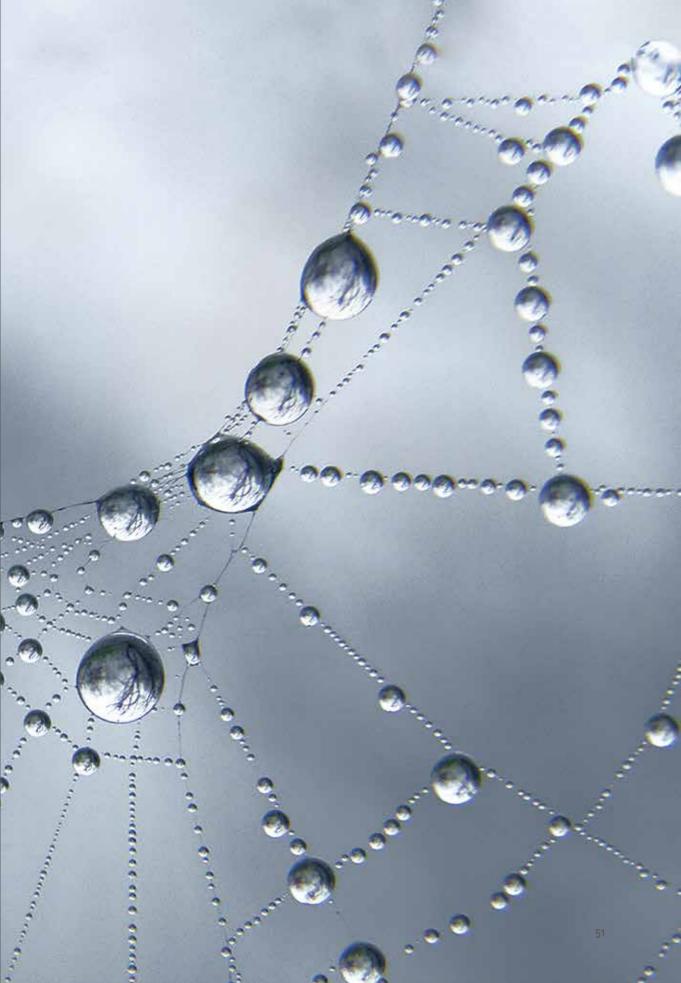
Tech-Long provided the whole line for Moon Tide Springs in Peru City, Maine, and Unix Packaging in California, America. Unix Packaging is one of the earliest customers of the America office of Tech-Long, with whom it signed the 16-cavity 36000BPH blowing-filling-capping combi line. We successfully signed this contract after winning the competition over

Sacmi thanks to our high-quality after-sale service and long-term customer relationship maintenance. Meanwhile, because Unix worked with Coca-Cola Bottled Water on packaging, it is more likely that Tech-Long will cooperate with Coca-Cola.

In 2017, Tech-Long (America) has sold many independent blow molding machines to such customers as Graham Containers, Adirondack Beverages, Minute Maid Canada, and Universal Beverage, who were honored guests of Sidel, Krones, and KHS. The favors of these guests are Tech-Long's pleasure since they enable us to know the market development trend-customers would gradually replace some old equipments, and their way of production has changed from purchasing bottles to integrating independent blow molding machines in existing filling lines. By contrast, buying blow molding machines has an advantage over buying bottles and transporting them internationally.

服务专栏 SERVICE COLUMN





与您同心 携手共进

这是关注高品质产品的时代,更是关注优质服务的时代。企业的生存和发展,不仅依赖"硬实力",专业化、个性化的"软服务"也是企业竞争力必不可少的组成部分,二者的结合构成了企业的核心竞争力。

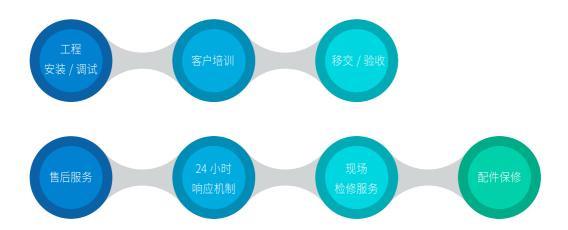


March Forward Hand in Hand with You

This is an age focusing on products of high quality as well the age focusing on excellent service. Existence and development of enterprises not only depends on the "hard power", but also on the professional and personalized "soft service", which is the essential part of enterprise competitiveness. Combination of the two constitutes core competitiveness of enterprise.



工程服务流程



达意隆项目服务部自成立至今,一直秉承着"为你而转"的服务宗旨,始终坚持在第一线为客户提供最及时的服务。近年来,为了更好地提升服务品质,为客户提供更周到细致的工程服务,项目服务部不断进行改革创新,按销售市场分区对工程服务团队进行区域划分,以便提供更具专业化和个性化的服务。

国内市场分两大区域,国际市场细分为国际服务一区、二区、三区以及非洲区,各区安排区域经理专人专项跟进。尽管现在客户要求越来越高,但达意隆工程服务团队还是用专业的服务赢得了国内外客户的肯定。



项目分享:

一、严谨高效赢肯定

——沙特Tania

- 1 2013 年 36000BPH 轻量瓶顺利验收
- 2 2015 年 43200BPH 小瓶生产线顺利验收
- 3 2016 年 16000BPH 5L 大瓶线顺利验收
- 4 2017 年 2 条 52800BPH 高速小瓶线顺利验收

沙特 TaniaPET5 和 PET6 两条 52800BPH 高速线 是达意隆在国外首次成功上线运行的两条高速线。 从启动安装到生产, PET5 线仅用两个月的时间, PET6 线用时三个月。

安装过程中,工程安装人员严格控制机械的水平调整,加温机与主机的高度,吹灌旋的对接精度,输送段均使用水平仪进行调整,给后续的高速运行打下了良好的基础。调试过程中,安装人员不断检查机械润滑,零部件的加固工作,再用百分表检查各项精密运动部件的技术指标,恢复机器出厂前的精度,预防在高速运行中发生意外情况。设备试运行过程



中,发现异常,及时处理,排除各种影响机器效率的因素。

两条高速线的顺利运行离不开公司技术、生产以及 其他各部门的鼎力支持,也有赖于 Tania 工程团队 细致严谨的服务精神。

沙特 Tania PET5 和 PET6 两条 52800BPH 高速线 一直保持全速运行,客户对达意隆的服务团队非常 满意,为此还颁发了表扬信。

二、协调合作, 实现双赢

——2017年11月1日非洲几内亚ALI项目 (10000BPH吹灌旋水线、一级RO20吨 水处理、6T混比机)顺利验收

项目启动安装前,非洲区服务团队提前与客户协调,将安装工具、现场施工条件准备到位。整个项目启动程序完全按照项目服务的要求实施,业务工程和

客户要求步调一致,整个安装周期完全控制在计划 之内。与非洲区其他完整生产线项目相比,安装时间缩短近两倍。

安装期间,服务团队与客户紧密沟通,根据现场实际情况并结合客户要求,对整线布局进行合理完善,实现双赢。

三、利用差异化优势,抢占先机 —— 农夫山泉15L一次性桶装水

与普通桶装水相比,15L桶装水主打一次性使用,不重复使用包装桶,无二次污染,更安全。此外,产品无需桶押金,无需退桶,更便捷。

与农夫山泉4L、5L小容量水相比,15L水容量更大,能够满足一个家庭一星期的饮水需求;其次,设计贴心,可将其直接用于饮水机。

2017年9月,农夫山泉项目安装正式启动。由于该项目是新产品开发,所以关于该项目,目前市场一片空白,没有任何生产线可以借鉴,此次可以说是边摸索边改进项目经过了几个阶段:第一个阶段——瓶 坯从 242 克增加到 255 克;第二个阶段——瓶子底模改造(瓶子灌注后加入氮气,瓶子膨胀底部凸出,



输送及运输变形严重);第三个阶段——对瓶型进行改造(瓶装水上饮水机加热,长时间产生负压,造成空瓶中间被吸憋的情况)。

9月底,农夫山泉项目顺利安装完成;10月初,进入紧张调试阶段。目前,产品已完成标准认证。



四、精益求精, 急客户所急

—— 益海改造项目顺利收官

2015年以前出厂的称重式油灌装机,设备在使用几年之后,出现灌装重量不稳定,油飞溅到瓶口瓶身等问题;同时由于客户产品产量逐年提升,设备的运行速度已经不能满足生产需求,急需提速。达意隆的主要客户——益海嘉里粮油迫切需要解决以上问题。

针对以上情况,达意隆推出设备改进升级服务,该服务包括:机械部分——改造灌装;电气部分——升级程序。

机械部分改造内容有:

- 1 压力灌装改成自重灌装,解决换油后气泡问题。
- ② 使用最新的灌装阀,解决重量不稳定、油飞溅、 灌装速度慢等问题。

电气部分升级程序到最新版:

- 1 解决回吸滴油问题。
- 2 开放出更多称控制功能,解决误灌装问题。
- 3 切换配方操作简易化。
- 4 更多的指令信号监控功能,方便判断不灌装问题。

达意隆最新式灌装阀有以下改进:

- ① 彻底解决阀体渗漏、阀杆渗漏,灌装部分和气缸部分分开,不会造成交叉污染。
- 2 调节阀门开度流量简单化、标准化。
- 3 快慢灌装切换、关阀动作柔和稳定不飞溅,灌装 重量稳定,偏差±2克之内。

以5L、10L 瓶型为例,改造之后,单机灌装速度提升30%以上:20头10L 瓶型,速度由原来的1800BPH提升到2400BPH;24头10L 瓶型,灌装速度可达3000BPH;32头5L 瓶型,速度由原来的5500BPH提升到7200BPH,并且在灌装速度提升的同时,还能保证灌装重量偏差稳定在±2克之内,不飞溅。

为了顺利完成益海 9 个工厂的改造工作,保证客户的正常生产,达意隆项目服务部成立了专门的益海改造团队。从整机改造安装到正式再投入生产一个星期内完成,设备运行一个月就顺利通过验收,至此,益海改造项目圆满完成。

市场竞争激烈,不仅是产品的竞争,更是服务的竞争。提升服务,用优质服务赢得更多客户的信赖,是我们一直努力的方向和目标!

Engineering Service Process



Project service department of Tech-Long adheres to the service principle of "Runs for You" from the date of its establishment and insists on providing timely frontline service for customers. In recent years, to better improve service quality and provide more thoughtful engineering service for customers, the project service department continuously carries out innovation and reform and divides the engineering service teams according to sales market divisions, in order to provide more professional and personalized service.

The domestic market is divided into two areas while the international market is divided into area I, area II, area III and Africa area for international service, each region is provided with specific area manager to follow. Although requirements of customers are becoming higher and higher, engineering service team of Tech-Long obtains acknowledgment of both domestic and foreign customers with its professional service.

Project Overview:

I.Obtain Acknowledgment with Rigor and Efficiency

- Tania in Saudi Arabia
- 1 Successful acceptance of 36000BPH lightweight bottle in 2013
- 2 Successful acceptance of 43200BPH small bottle production line in 2015
- 3 Successful acceptance of 16000BPH5Lbig bottle production line in 2016
- 4 Successful acceptance of two 52800BPH high-speed small bottle production lines in 2017

The two 52800BPH high-speed production lines in Saudi Arabia, Tania PET5 and PET6, are the first two high-speed production lines successfully launched and operated overseas by Tech-Long. From startup installation to production, the PET5 line only tooktwo months and the PET6 line took three months.



During the installation, the engineering installation personnel strictly controls horizontal adjustment of machinery, height of heating machine and main machine and connection precision of blowing-fillingcapping and adjust the conveying section with level meter, which lies solid foundation for subsequent high-speed operation. During the commissioning, the installation personnel continuously checks lubrication of machinery and reinforcement of parts, and then check technical indexes of precise moving parts with dial indicator and restore precision of the machine before leaving the factory to prevent accidents in high-speed operation. During trial operation of the equipment, abnormality shall be discovered and treated in time to eliminate various factors that affect efficiency of the

machines.

Successful operation of the two high-speed production lines is owing to support of technical, production and other departments of the company as well as careful and rigorous service spirit of Tania engineering team.

The two 52800BPH high-speed production lines in Saudi Arabia, Tania PET5 and PET6, maintain the full speed operation, therefore the customer is satisfied with service team of Tech-Long and issuedcertificates of appreciation:

II.Cooperate to Achieve Win-win Successful Acceptance of ALI Project
(10000BPH Blowing-Filling-Capping
Combi-block Water Lines, Level 1 RO
20T Water Treatment and 6T Mixer) in
Guinea, Africa on November 01, 2017

Before startup installation of the project, the service team in Africa area coordinates with customer in advance and prepares the installation tools and onsite construction condition. The startup procedure of the whole project is implemented in full accordance with requirements of project service. The business engineering is required to keep pace with customer requirement and the whole installation period is completely controlled in the plan. Compared with other complete production line projects in Africa area, the installation time is reduced by half.



During the installation, the service team keeps close communication with the customer and conduct reasonable improvement on layout of the whole line according to onsite actual condition and combining customer requirements, thus achieving win-win.

III.Grasp the Opportunity with Differential Advantages

- NongFu Spring 15L Disposable Barreled Water

Compared with conventional barreled water, the 15L barreled water has absolute predominance in that it is disposable (the barrels will not be reused) so that no secondary pollution will be caused, which makes it safer for human health. Furthermore, it is more convenient than others because there is no need to pay deposit for the barrel or return the barrel any more.

The capacity of 15L barrel can meet the needs of one family for one week's drinking water compared with the 4L and 5L barrels of Nongfu Spring, and the barrels are thoughtfully designed to be directly used in drinking fountains.

NongFu Spring project was officially launched in September 2017. Since this is a project developing new product, there is currently no reference to the project on the market or any production line available. It had passed through several stages through experiments and continuous improvement: In the first stage — the weight of one preform was increased from 242 grams to 255 grams; in the second stage — the bottom mold of the bottle was transformed (nitrogen was added after the bottle had been filled; the bottle then became inflated and the bottom protruded, and the bottle deformed seriously during handling and transportation);



in the third stage — the form of bottle was transformed (the bottled water was provided onto the drinking fountain, and negative pressure was generated over time, resulting in a shrunken middle part of the bottle).

By the end of September, the NongFu Spring project was successfully installed and entered into an intense commissioning phase in early October. At present, the standard authentication for the product has completed.

IV.No Best Only Better

Desire what customer desires. The Yihai modification project was successfully accomplished.

Before 2015, weighing oil filling machine manufactured by our factory has problems of instable filling weight and spilled oil to the bottle

mouth and body after several years of use. At the same time, due to the increasing production of customer's products year by year, the running speed of the equipment can no longer meet the demand for production and needs to be raised urgently. Yihai Kerry, the main customer of Tech-Long, is eager to have the above problems solved.

In response to the above situation, Tech-Long introduced equipment upgrade service, which includes the mechanical part — the modification of filling, and electrical part — the upgrade of program.

The modification of mechanical part includes:

1 The pressure filling is modified into selfweight filling to solve the bubble problem after oil change.

2 The latest filling valve is used to solve problems such as unstable weight, oil splashing and slow filling speed.

The program of electrical part is upgraded to the latest version:

- 1 The suck-back of oil drip is prevented.
- More weighing control functions are developed to solve the problem of wrong filling.
- 3 The operation of switching recipes is simplified.
- 4 More command signal monitoring functions are developed such that it is easy to identify the filling problem.

The latest filling valve of Tech-Long has the following improvements:

- 1 It completely solved the valve leakage and stem leakage and other issues. The filling section and the cylinder section are separated so as not to cause cross-contamination.
- **2**The opening flow of regulating the valve is simplified and standardized.
- 3 It provides fast and slow filling modes that can be switched; the action of shutting off the valve can be smooth and stable without any oil splashing; the filling weight is stable and the deviation of which is within ± 2 grams.

Taking the 5L and 10L bottles as an example, after the modification, the filling speed of the single machine is increased by 30 % or

more: the speed of 20 heads for 10L bottles is increased from the original 1800BPH to 2400BPH; the filling speed of 24 heads for 10L bottles can be increased to 3000BPH; the speed of 32heads for 5L bottles is increased from the original 5500BPH to 7200BPH, and while the filling speed is increased, the weight deviation within ± 2 grams can also be ensured without any oil splashing.

In order to successfully complete the modification of 9 factories of Yihai and ensure the normal production for customers, the Project Service Department of Tech-Long set up a special team for the Yihai reconstruction. From the modification and installation of the machine to formally put into production, the project was completed in one week. The equipment was run for a month before successfully passed the acceptance, thus, Yihai reconstruction project was successfully accomplished.

The competition is fierce, not just a competition of product, but also a competition of service, which is even more important. It is our direction of effort and target to improve the service and acquire trust of more customers with excellent service.

Text by: Tang Siping

企业风采 CORPORATE NEWS





无兄弟 不篮球

记 2017 年达意隆篮球赛



10月24日,由达意隆工会组织安排的2017年篮球赛 顺利拉开序幕,共有9支队伍加入到此次篮球赛中。 在初赛的小组循环竞技中,经过激烈的角逐,A组的 营销队、包装队,B组的机加一队、灌装队脱颖而出, 成功晋级决赛。

11月8日, 达意隆篮球赛进入巅峰对决。进入决赛的 队伍势均力敌, 高手过招吸引了公司各个部门的同事 前来观战、加油助威。首场季军争夺战中,灌装队对 决包装队,两队队员英勇奋进,比分胶着。最终包装 队以多个三分球得分将比分拉开,获得本届篮球赛季 军。在冠亚军争夺战中,营销队和机加一队都是达意 隆篮球赛的王牌队伍,因而竞争激烈。整场比赛,双 方比分你争我赶, 使得全场人声鼎沸、激动不已。最 终,营销队杀出重围,卫冕冠军,机加一队荣获亚军。 On October 24, the Basketball Match 2017 考虑到东莞宝隆队的队员们不顾路途遥远,积极投

身到达意隆的篮球运动中,在比赛中充分展示了团队 的默契与热情, 达意隆工会在此次比赛中, 增设"最 佳风采奖",对他们的团队精神予以表彰。

在这场大型团队竞技中,赛场上的运动健将奋勇拼 搏,赛场旁的啦啦队为了团队的胜利,激情助威,让 我们看到了各部门良好的团队协作。无兄弟,不篮球。 比赛不仅发扬了运动精神, 更增进了团队的交流与友 谊,打造了齐心协力、心意相通的战斗团队。

为所有投身到运动中的健将们点赞,为在团队助威中 激情呐喊的啦啦队们点赞,为所有幕后组织策划的工 作人员、裁判员点赞!

organized by the labor union of Tech-Long

Brotherhood-featured Basketball Match

Tech-Long Basketball Match 2017





kicked off, with 9 teams participating in. During the group circular competition of preliminary contest, the marketing team and packaging team of Group A, and the mechanical processing team No.1 and the filling team of Group B have stood out and been qualified for the final.

On November 8, the Tech-Long Basketball Match entered the showdown. The wellmatched teams for the final have attracted colleagues of all departments of the company as spectators and cheering squad. During the first contest for the third place, the filling team dueled the packaging team in a tight game. Finally, the packaging team outpaced its competitor with multiple three-point shots and emerged as the second runner-up of the basketball match. During the contest for the champion and the runner-up, the competition was fierce between the marketing team and the mechanical processing team No.1, both are trumps in the Tech-Long Basketball Match. The whole contest featured a close race and excited the whole audience. Finally, the marketing team fought its way out and emerged as the reigning champion, with the mechanical processing team No.1 being the runner-up. Considering that the members of Dongguan Baolong Team have come a long way for the competition with strong participation, great enthusiasm, and team spirit, the labor union of Tech-Long has offered "the Best Manner Award" for the team in recognition of their team spirit.

In the large team contest, the players fought bravely in the arena amid the exciting cheers of cheerleaders, which highlighted the sound teamwork of departments. It's truly a brotherhood-featured basketball match. During the competition, good sportsmanship has been carried forward, communication and friendship among teams have been strengthened, and fighting teams with solidarity have been forged. Let's cheer for the engaging players, for the passionate cheering squad, and for all staff and referees behind the arena.

Text by: Barry Chen









强强联手 共襄盛举

达意隆牵手美国嘉吉创造价值

Win-win Cooperation in a Great Event

Tech-Long joins hands with Cargill for greater value



嘉吉公司 (Cargill) ——享誉世界的四大粮商之一,成立于1865年,是世界上最大的私人控股公司、最大的动物营养品和农产品制造商,集食品、农业、金融和工业产品及服务为一体的多元化跨国企业集团。公司业务横跨五大洲遍及68个国家,堪称世界之最。东莞嘉吉粮油有限公司是嘉吉在东莞市设立的外商独资企业。

2013年10月, 达意隆和东莞嘉吉开始了第一次友好接洽, 就粮油灌装生产线开启了长达一年半的技术交流。从整线布局到每个独立设备, 达意隆工程师和嘉吉技术团队进行了一次又一次的深入讨论和研究, 为每一个技术细节寻求最佳解决方案。最终双方达成共识, 在2015年1月, 东莞嘉吉和达意隆签订了产量为1000BPH的20L瓶子的灌装整线。

洽谈中,负责人对项目设备提出了近乎苛刻的要求, 让达意隆人深刻体会到嘉吉对于设备质量与安全的 重视。对于设备生产的产品,东莞嘉吉要求所有瓶子 经过设备,不论是灌装机还是压提环机或其他设备,都不允许瓶身出现任何细微的损伤。达意隆严格遵循设备质量检验流程,出货前所有设备都会进行 FAT 测试,各项技术指标符合合同约定才能出厂。

由于 20L 的瓶子本身非常轻薄,稍有碰撞就会出现 损伤。所以在进行灌装机测试时,所有瓶子经过灌 装机后,技术人员都会用手电筒仔细照射瓶身,检查 是否有损伤,合格后重新放回灌装机,反复运行与检验, 确认产品毫无瑕疵。达意隆精湛的技艺和强烈的责 任感得到嘉吉团队的高度赞扬。

安全,是嘉吉灵魂,同样也融于每一个达意隆人血液之中。嘉吉要求所有设备达到 safety level 4 的安全级别,部分设备,甚至要求达到 safety level 6 的级别。

面对嘉吉的各项至高标准要求, 达意隆发挥公司的技术创新优势, 从设备外观、安全防护、快换设计到程序控制等方面, 都力求做到完美。值得一提的是, 此



项目是国内食用油行业内第一条高速的大容量生产线,兼容5L、10L的同时,实现了从5L到20L的大跨度。

项目实现了多个第一:

- •世界第一台全自动 20L 双提环压提环机
- 第一条安全等级达到 safety level 4 的生产线
- 第一条从 5L 到 20L 的大跨度兼容的生产线
- •国内第一条 20L 产量为 1000BPH 的生产线

经过达意隆工作人员的不懈努力,所有设备都通过了东莞嘉吉极为严苛的 FAT 测试,顺利通过工厂安装调试,目前整线设备已经在源源不断地为嘉吉创造价值。

Founded in 1865, Cargill is billed as one of the four largest food providers, the largest personal holding company, and the largest animal nutrition and farm products producer worldwide. The integrated international conglomerate has a business portfolio spanning food, agriculture, finance, industrial products, and services. Cargill has expanded its business network to include 68 countries in five continents as one of the leading companies globally. Dongguan Cargill Grains and Oils Co., Ltd. is a wholly foreign-owned enterprise established by Cargill in Dongguan.

In October 2013, Tech-Long and Dongguan Cargill engaged with each other for the first time, ushering in a one year and a half technical exchange over the filling line of grains and oils. From the whole layout to each piece of independent equipment, the engineers of Tech-Long and the technical team of Cargill engaged in discussion and research over and over to find







the best possible solutions for each technical detail. Finally, in January 2015, Dongguan Cargill and Tech-Long reached an agreement and signed the contract for a combined filling line with the production capacity of 1,000 BPH for bottles of 20L.

During their discussion, the responsible person of Dongguan Cargill made exacting requirements for the equipment of the project, and the great emphasis Cargill has attached to the quality and safety of equipment has impressed Tech-Long deeply. For products produced by the equipment, Dongguan Cargill demanded that all bottles that pass through equipment, be it the filling machine, the pressure lifting ring machine or other devices, should bear no slight damage. Tech-Long strictly followed the equipment quality inspection process, did FAT test for all

equipment before shipment, and ensured that all technical indicators meet the contractual stipulation.

Bottles of 20L are very light and thin and are prone to be damaged by even slightest collisions. So during the test for filling machines, all bottles, as they pass through the filling machines, will be checked by technical staff with flashlights to see whether there is damage. Qualified bottles will be put back in the machines for repeated operation and inspection to ensure flawless products. Tech-Long was highly regarded by the Cargill team for its exquisite craftsmanship and a strong sense of responsibility.

Safety is the soul of Cargill and also the DNA of each staff in Tech-Long. Cargill demanded that all equipment must meet safety level 4, and



some equipment must meet safety level 6.

In order to meet the high standards of Cargill, Tech-Long has harnessed its advantages in technological innovation and worked to deliver perfect products in terms of equipment appearance, safety protection, quick change design, and process control. It's worth mentioning that the project is the first high-speed, high-capacity production line in the domestic edible oil industry, which can process bottles of 5L and 10L, and realized the upgrade from 5L to 20L.

The project has been the "first" in the following aspects:

 It's the first full-automatic pressure lifting ring machine with double lifting rings for 20L bottles worldwide.

- It's the first production line meeting safety level 4.
- It's the first inclusive production line delivering bottles from 5L to 20L.
- It's the first production line with the production capacity of 1,000 BPH for bottles of 20L.

Thanks to the unremitting efforts of the workers of Tech-Long, all the equipment has passed the rigorous FAT test of Dongguan Cargill, as well as the installation and commissioning of the factory. At present, all the equipment of the production line is creating value for Cargill.

Text by: Korson Guo

顺势而为 预见成功

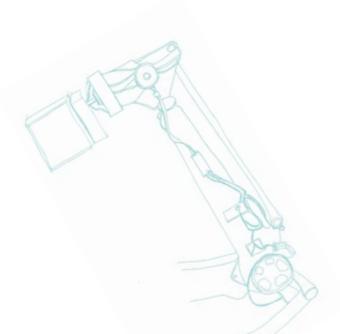
Seizing the Momentum and Embracing Success

达意隆助力顺联动漫公司建设玩具自动包装线

Tech-Long helps First Union Animation Technology Co., Ltd. in building toy automatic packaging line



实例 Project Cases





广东顺联动漫科技有限公司(文内简称:顺联动漫公司)是一家生产各类 OEM 系列塑胶电子智能玩具的企业,地处中国广东省东莞市万江区共联工业区,厂区环境优雅。公司为适应生产发展需求,不断加大科技经费投入力度,对生产设备进行更新。

"机器换人"正当时

中国是玩具生产大国,据统计,全球约80%的玩具在中国生产。随着居民收入提高、生活质量改善,人们对于休闲娱乐的需求不断增加,玩具的市场需求量也与日俱增。现代社会,玩具已经不再是儿童的专属品,越来越多的年轻人加入到购买玩具的大军中,玩具市场的前景空前广阔。

然而,近些年我国的制造业用工成本不断攀升, "招工难"几乎成为每个制造企业都在面对的问题。 2014年8月,东莞市政府发布"机器换人"行动计划,鼓励企业引入工业机器人设备,引导和推动企 业技术改造、转型升级。"机器换人"已经成为制造行业不可逆转的发展趋势。

面对巨大的成本挑战,2016年5月,顺联动漫公司正式启动玩具自动包装线的建设。广州达意隆包装机械股份有限公司作为亚洲最大的包装设备生产基地,拥有强大的设备整合能力,诸多优秀的成功案例也印证了公司的实力。达意隆的专业引起了顺联动漫公司的关注,最终不负众望,从项目构思、考察、验证到评估,凭借完美的方案成功得标,遥遥领先竞争对手,合作之路由此展开。

量身定制 面面俱到

好的准备能够达到事半功倍的效果。合作前期,达意隆多次组织工程师到玩具车间认真了解生产工艺,分析公仔、包材等参数;顺联副总亲自挂帅,组建项目团队,和达意隆工程师多次探讨、研究、确定项目玩具包装自动吸塑成型、泡罩冲孔、自动识别、机器人自动转移、自动冲"J"钩、自动镭射



贴标、翻转编组、并联机器人自动装箱的整线自动 生产工艺。

由于项目设备每个环节都是非标设计,在实施过程中,遇到各种问题。玩具包装和包材种类繁多,没有统一的基准;塑料材质的泡罩软,易变形等。但是这些难题没有让双方退缩,反而激起双方的探索欲,对各类型包材反复测试、改进,力求完美。

2017年8月,玩具自动包装线顺利投产,在降低成本、提升质量、改善效率等方面均取得不错的成绩,给客户带来巨大收益。

挑战与机遇并存

从宏观环境来看,目前正值中国玩具行业大变革、 大发展的时代。挑战与机遇并存,我们不能原地 踏步,要立足现实,看清时代的发展脉络,清楚自 身的定位,在保持自身优势的同时不断增强自身 实力,一路向前。 顾客满意是我们的追求,达意隆一定承担起自身的社会责任,在时代的浪潮中勇敢前行,努力书写新的华丽篇章!

First Union Animation Technology Co., Ltd. (hereinafter referred to as the First Union) is an enterprise producing various OEM plastic electronic toys. The company enjoys nice environment in Gonglian Industrial Park, Wanjiang District, Dongguan City, Guangdong Province, China. To meet the production and development demands, the company keeps investing more in science and technology and keeps upgrading production equipment.

The Best Time to "Replace Man with Machine"

As a large toy producer, China is estimated to manufacture around 80% toys worldwide. As





people's income and livelihood improving, they expect more leisure and entertainment, and the market demand for toys also increases. In modern society, toys are no longer the exclusive items of children, since a growing number of young people are also becoming buyers of toys, which promises huge market potential for toys.

However, the rising labor cost in the manufacturing industry of China means that all manufacturing enterprises are struggling to recruit desirable workers. In August of 2014, the People's Government of Dongguan Municipality launched the "Replace Man with Machine" initiative, which encouraged enterprises to bring in industrial robots, and guided and prompted them to upgrade technologies and undergo transformation and upgrading. It has become an irreversible trend for the manufacturing industry to "Replace Man with Machine".

Confronted with the huge challenge posed by steep cost increases, First Union began the construction of toy automatic packaging line in May 2016. As the largest production base of packaging equipment in Asia, Guangzhou Tech-Long Packaging Machinery Co., Ltd. boasts powerful capability of equipment integration, as evidenced by many success stories. The expertise capability of Tech-Long has drawn the attention of First Union. Finally, Tech-Long has beaten its competitors to win the bid with the perfect scheme from the concept design, investigation, verification to assessment, and thereby embarking on the road of cooperation with the First Union.

Customized, Well-rounded Offerings

Well begun is half done. At the preliminary stage of cooperation, Tech-Long has organized its engineers to go to toy workshops to learn manufacturing technique and to analyze the technical specifications of toys and packing materials. The Deputy General Manager of First Union took the lead to build the project team and worked together with the engineers of Tech-Long in discussion and research. We defined the whole manufacturing technique covering

automatic suction molding, blister punching, automatic identification, automatic transfer of robots, automatic punching J hook, automatic laser labeling, flip grouping, and automatic packing of parallel robots.

Since each link of the project equipment is of non-standard design, many problems cropped up in implementation. Problems included: toy packaging and packing materials are of wide varieties, with no uniform standards; plastic bubble caps are soft and deform easily, and other problems. Yet the two partners have never been daunted by these challenges. Instead, they showed greater interest in exploration and made tests and improvements over and over on various kinds of packing materials and strove for perfection.

In August 2017, the toy automatic packaging line was put into operation and has come a long way in reducing cost, enhancing quality, and improving efficiency, and thus delivering huge benefits to customers.

The Coexistence of Challenges and Opportunities

If we look at the bigger picture, the toy industry of China is in an era of great reform and great development. With the coexistence of challenges and opportunities, we cannot stand still. Instead, we should base our efforts on the reality, look clearly the development trajectory of the times, and find our bearings. We should maintain our competitive edges, work to make

ourselves stronger, and forge ahead.

Tech-Long seeks to ensure customer satisfaction and will shoulder its due social responsibility, and surge ahead amid the tides of the time, and work to write a new splendid chapter.

Text by: Yuan Wei





安利纽崔蓝



机器人新技术

Amway Nutrilite "Tastes" New Robotics Technology







安利纽崔莱,全球营养素补充食品优质品牌,年产量数以千万计,包装若是靠人力可不是一项轻松活,而对机器人而言,却是"小菜一碟"。

1934年于美国创立的纽崔莱,80年来致力于为顾客提供优质营养,全系列产品提供蛋白质、维生素、矿物质等营养补充,如今纽崔莱产品行销全球50多个国家与地区。

Amway Nutrilite, a quality brand offering nutrients and food supplement, delivers output in tens of millions. While manual packaging is toilsome, robots can do the work easily.

Founded in 1934 in the United States, Amway Nutrilite is committed to offering premium nutrients over the past 80 years and works to provide protein, vitamins, minerals, and others through a full range of products. Its offerings have reached out to over 50 countries and regions worldwide.



更精准 更高效

位于广州的安利纽崔莱工厂产品年产几千万瓶,为了确保产品及时出货,安利工厂搭建了三条生产线,这就需要搭配3台机器人分拣线来协同工作。该厂生产部杨经理介绍说:每一条生产线生产两种容量不同的纽崔莱产品,产能分别为3600BPH和4800BPH。工人把成批量的空瓶放到平台,由输送带送入拾取工作站,这个时候机器人上场,干燥剂通过振动盘理料一包一包输送到皮带上,视觉系统抓拍输送带上每一包干燥剂的图像和坐标,并把信息反馈到拾料机器人,机器人迅速抓取干燥剂包精确地投到空瓶中,瓶子继续往前输送,进入在线检重秤,识别重量;如果有"拾漏"的瓶子则会被踢出来,只有装了干燥剂的

瓶子才可以进入灌装机进行蛋白粉的灌装。一瓶瓶灌装好的纽崔莱产品被送出来,通过贴标、装箱、码垛就可以出货。

在人工成本不断上涨的今天,整厂生产线需要不断优化改进,以适应企业发展需求。实现自动化、智能化是安利提出的要求。

更严谨 更安全

以前,轮班作业,一条生产线一天3个班,每一班工人要站8小时,不停地拾取干燥剂投进瓶子中,这种重复简单工作即单调又乏味,时间长员工很容易患上颈、背劳损之类的职业病。有了机器人自动拾取干燥剂,



不仅避免了人工接触干燥剂带来的污染,在线检重秤 检测还能百分百确保每一瓶都有干燥剂包。高效完 成生产任务的同时也降低了生产成本。

安利对自动化改造项目的前期计划十分谨慎。该项目 要求必须严格执行食品药品生产要求,从无尘车间到 食品等级材质都要达到百分百的合格率。达意隆从接 触该项目就开始层层构思,反复修改,每一个技术难 点都邀请安利负责人到现场做测试验证。通过双方 的努力,项目进展非常顺利。

在拾取待料工作站,达意隆巧妙设计了拾取缓冲平台,避免了多包或者多瓶造成的回流问题,这一设计得到

了客户高度赞赏。达意隆机器人自动拾取方案不仅提高了效率和质量,也给生产带来了便利,工人们可以通过切换程序快速地更换瓶型,一天的生产结束,所有的输送带和机器人工作站都需要清洗消毒,拾料工装可方便地拆下来清洗,机器人投料中心轴也采用密封防护,不会对产品产生污染。

安利公司高层领导对出自达意隆之手的自动化包装生产线非常满意,2017年3月,顺利通过验收。目前该生产线已经成为消费者参观安利工厂必选的一道风景线,这也给了不断扩大生产线的安利极大信心。他们相信达意隆会不断提供机器人自动化新技术,为企业发展助力。达意隆定不负期待,竭尽所能为客户提供最优的服务,实现双方的最大价值。



Ensuring More Precise and More Efficient Production

The Amway Nutrilite factory in Guangzhou produces tens of millions of bottles of products annually. To ensure timely shipment, the factory has built three production lines, which entails three robot sorting lines for cooperative work. Manager Yang of the Production Department of the factory said: each production line can produce Nutrilite products in two capacities, with the production capacities of 3,600BPH and 4,800BPH. Workers put empty bottles on the platform in batches, and the bottles will be transferred to the picking station by the conveyor. Then robots will appear, and packs of desiccant are transported to the belt via vibrating disk. The visual system would shoot the picture and coordinate of each pack of desiccant, and offer feedback to picking robots. Robots would quickly grab the packs of desiccant and put them into empty bottles precisely. Bottles will be conveyed along its way, and enter the checkweigher to be weighed. Bottles with no desiccant will be rejected, and only bottles with desiccant could enter the filling

machine and be filled with protein powder. Finished products of Amway Nutrilite will be sent out, labeled, case packed, palletized and shipped.

As labor cost keeps rising increasingly, all the production lines have to be upgraded now and then to cater to the development needs of enterprises. Automatic and intelligent production is a demand of Amway.

Safer and More Precise

Previously, workers worked in shifts, and one production line was operated by three shifts. It means that each shift of workers had to stand for 8 hours and keep picking up packs of desiccant and throwing them into bottles. Workers, doing such simple, repetitive yet dull and monotonous work, were prone to suffer from occupational diseases, such as strain on the neck and back. Now robots are used to automatically pick up desiccant, avoiding pollution when workers touch desiccant. What's more, the detection of checkweigher can ensure that each bottle is filled with a pack of desiccant.



As such, the production task has been fulfilled efficiently with reduced cost.

Amway was quite cautious of the preliminary plan of the automation renovation project. The project should abide by requirements for food and medicine production, and 100% qualification rate must be ensured from dust-free workshop to food grade materials. Since undertaking the project, Tech-Long has started to design each detail and modify repeatedly. Whenever we encountered a technical problem, we would invite the responsible person of Amway to the scene for test and verification. Thanks to the joint efforts of the two partners, the project has proceeded smoothly.

At the material lacking picking station, Tech-Long has designed a smart picking buffer platform, which makes backflow caused by multiple packs or bottles no longer a problem. The design has been highly commended by the customer. The robot automatic picking scheme of Tech-Long has improved the efficiency and quality and made production more convenient. Workers can quickly change the bottle types via switch program. As the daily production ends, all conveyors and robot working stations have to be cleaned and sterilized. Material picking tooling can be dismantled easily and cleaned, and the robot feeding central axis is of seal protection and poses no pollution to products.

The executives of Amway were very satisfied with the automatic packaging production line designed by Tech-Long. In March 2017, the project was checked and accepted. At present, the production line has become a must-see for consumers visiting the Amway factory, which has fed the confidence of Amway as the company seeks to expand its production lines. They believe that Tech-Long will sustain its efforts in providing new technologies of robotics automation to power the company. Tech-Long will honor its commitments and work to provide the best services for customers and to maximize value for itself and customers.

Text by: He Panshi



同心发展 共筑新章

达意隆牵手湖南永通进军饮用水市场

在全国闻名的"柑橘之乡"湖南石门县,完成安装的达意隆 24000BPH 的瓶装水生产线,正在高效稳定生产。仅一周的试生产运行,整线就已达到合同要求,并顺利通过客户验收,这是达意隆数以千计的项目经验累积成果,也是达意隆人给客户最好的回报。

转型升级 抓机遇

这些年来,湖南饮用水市场主要由怡宝、娃哈哈、农夫山泉等国内一线品牌占据,本土水企发展相对比较落后,几乎没有上规模的知名水企。近两年,随着行业规范。全品安全整治力度的加大。湖南水

土饮用水行业正经历洗牌重组、转型升级,湖南永 通集团下属的太浮水业应运而生。

湖南永通集团——湖南本土最大的主营汽车销售与服务的公司,在湖南有30多家4S店,经营奥迪、大众、丰田等诸多品牌,引领行业发展。4S店每天都要消费瓶装水,瓶装水又可作为宣传媒介,两者资源互补,因此萌生进入饮用水行业的想法。永通集团高层立刻将想法付诸行动,组织人员调研相关市场,发现了湖南水行业的巨大发展潜力,而眼下正是进入水行业的好时机,决定投资新建一条24000BPH的瓶装水线和一条2000BPH的5L水线。



Seeking for Development in Concert, Opening up a New Chapter Together

Tech-Long Works with Hunan Yongtong to Enter the Drinking Water Market

适时而动 谋合作

在得知客户的生产需求后,达意隆相关人员多次前往现场进行交流,为其提供免费的技术支持,并结合客户实际情况以及湖南本土水行业状况,量身定制设备方案。客户也成立水厂项目小组,按招投标项目来进行,并前往各地设备厂家进行实地考察。经过数月的准备,项目小组对水行业有了深入了解,项目招投标程序启动。

2017年5月,项目安装完成,6月份投入试产,继 而有了安装完成一周即达到验收标准的生产线,为 客户的未来发展打下了坚实的基础。

实以致信,信以致远。达意隆将不断提高自身实力, 为客户带来更大的价值。





In the nationally renowned Shimen County in Hunan Province, the so-called "home of citrus", Tech-Long's 24,000BPH bottled water production line has been put into efficient and stable production. In one week of pilot production, the whole line has reached contract requirements and successfully passed the acceptance of the client. The result should be owed to Tech-Long's rich experience accumulated from thousands of projects, and it is also the best reward Tech-Longers offers to the client.

Seizing opportunities via transformation and upgrading

Over the years, Hunan's drinking water market has been mainly dominated by domestic first-tier brands such as C'estbon, Wahaha, andNongfu Spring. The development of local water enterprises is relatively backward with few well-known large-scale water companies. In recent two years, with intensified efforts put in industry standardization and food safety regulation, the local drinking water industry in Hunan is experiencing a process of restructuring, transformation, and upgrading. Taifu Water Co., Ltd., under Hunan Yongtong Group, emerged under such circumstances.

Hunan Yongtong Group, the largest local company engaged in car sales and services in Hunan, owns more than 30 4S shops in this province and operates Audi, Volkswagen, Toyota and many other brands, leading the development of the industry. Bottled water is consumed in 4S shops every day, and it can also be used as a kind of promotional medium. So the two factors can be complemented with each other. Hence the idea of entering drinking water industry occurred. The executives of Yongtong Group immediately put the idea into action and organized researchers to investigate and survey the relevant market, finding that the water industry in Hunan has great potential for development, and now it is a good time to enter the water industry. Therefore, they decided to invest in and establish a new 24,000BPH bottled water production line and a 2.000BPH 5L water line.

Acting in due time, and seeking cooperation

After learning of the client's demand for

production, the relevant personnel of Tech-Long repeatedly went to the site for exchanges and discussions, provided them with free technical support, and tailored an equipment scheme based on the actual situation of the client and the local water industry circumstances in Hunan. The client also set up a project team of water plant, launched tendering and bidding for the project, and visited and investigated equipment manufacturers in different places. After months of preparation, the project team had a deep understanding of the water industry, and the procedure for project tendering and bidding was started.

After the comprehensive evaluation in tendering and bidding, Tech-Long finally won with overwhelming superiority and was unanimously approved by the project team. They are quite relieved to entrust the project to Tech-Long.

The project was completed in May 2017 and was put into trial production in June. The production line met acceptance criteria within one week after being installed, laying a solid foundation for the future development of the client.

Strength brings about trust, and trust leads to longevity. Tech-Long will continue to improve its strength to bring greater value to clients.

Text by: Qi Honghui

聚势谋远 逐新程

Accumulating Strength, Thinking in Depth and Planning Carefully, to Start a Whole New Journey





达意隆携手大连金石粮油发力粮油市场

Tech-Long Cooperates with Dalian Jinshi Grains & Oils, Occupying the Grain and Oil Market





大连金石粮油食品有限公司(以下简称:大连金石粮油)位于辽宁省大连市金州区,以生产、售卖大豆食用油散油、豆粕为主。其自主经营的食用油品牌主要辐射大连市场及东北地区,也为知名品牌做OEM生产。公司从2015年开始正式进入小包装油市场,投资新建包装油生产线,置办食用油包装生产设备,为生产发力。

随着市场销量的不断扩大,大连金石粮油持续加大对小包装油生产线设备的投入以扩大生产量。2017年3月与达意隆签订TFC2807T.77型灌装、压盖二合一称重式油品灌装机合同,为适应未来发展,客户将原有的老生产线搬迁,并规划、扩建新生产线车间。此次新车间的投入新建属于客户未来五年规划当中的一项——"建设五条综合型并国际接轨的多功能型全自动灌装生产线",以满足包装成品油年产量超40万吨的需求。

2017年10月,客户再次与达意隆签订新车间兼容5L/10L转基因生产线第五代吹瓶机项目合同以及"5L/1.8L非转基因生产线"三合一称重式灌装机项目合同,这对于一家地方型且规模有限的粮油企业来说非常可观,整个包装生产线的投资总额超6000万。如此大的资金投入压力之下,大连金石粮油还是秉承"好设备才出好产品、好效益"的理念,继续采购达意隆的高质量设备,足

见其想要在粮油行业内有所作为的决心。综合考虑客户未来五年的发展规划,希望未来双方有持续友好的合作,达到深耕东北地区粮油包装设备市场的目的。

大连金石粮油把达意隆的设备品牌作为标杆示范 性基地,我们也定不负信任,在目前已有的合作基础上更好地配合客户,安全、高效地实现顾客价值的完美传递。

The Dalian Jinshi Grains & Oils Foods Co., Ltd. (hereinafter referred to as Dalian Jinshi Grains & Oils) is located in Jinzhou District, Dalian City, Liaoning Province, and mainly produces and sells edible soybean oil in bulk and soybean meal. Its brand of edible oil is popular in Dalian's market and Northeast China, and it also carries out OEM production for well-known brands. Since 2015, the company has formally entered the market of small-package oil, invested in and established new production lines of packaged oil, and purchased equipment used for producing packaging of edible oil, so as to facilitate its production.

With the continuous expansion of market



sales, Dalian Jinshi Grains & Oils continues to increase its investment in equipment applied in small-package oil production lines to expand production. In March 2017, the client signed a contract on TFC2807T.77 oil filling and capping weighing-type machine with Tech-Long. To adapt to future development, the client relocated its old production line and planned and extended a new workshop of production line. The investment in and establishment of the new workshop belong to the client's plans for the next five years, one of which is "establishing five integrated multifunctional full-automatic filling lines in line with international standards" in a bid to meet the requirement that the annual output of packaged product oil should exceed 400 000 tons

In October 2017, the client signed contracts on the projects of a new workshop with 5th-generation blow molding machines on 5L/10L GMO production lines and "5L/1.8L non-GMO production line" three-in-one weighing-type filling machines, again with Tech-Long. It is very considerable for a local grain & oil enterprise with limited scale, and the total investment in

the whole packaging production line is over 60 million RMB. Under such huge pressure of capital investment, Dalian Jinshi Grains & Oils still adheres to the concept of "quality products and high benefit come out of good equipment", and continues to purchase high-quality equipment from Tech-Long, which shows its determination to make a difference in the grain and oil industry. Considering the client's development plans for the next five years, we hope that both parties will carry out continuous and friendly cooperation in the future to achieve the purpose of laying the roots deeply in the market of grain and oil packaging equipment in Northeast China.

The Dalian Jinshi Grains & Oils takes Tech-Long's equipment brand as a demonstration base for benchmarking. We will also live up to its trust, and collaborate with the client in a better manner on the basis of existing cooperation, to safely and efficiently deliver the value of the client.

Text by: Zhu Yong

速度·改变·未来

食用油行业第一条高速 PET 瓶食用油生产线顺利启航

PT. Bina Karya Prima 公司 (以下简称 BKP) 成立于 1981 年,是印尼最大的食用油零售商之一,其产品覆盖整个印尼市场的大小商场和门店,该公司旗下的自主棕榈油品牌 "Tropical"、"Frais Well"、"ForVITA"在当地家喻户晓。随着市场的发展壮大,为了更好地满足顾客需求,BKP 公司不断引进和更新现代化生产设备,实现产业升级。



Speed, Change and Future

First High-Speed PET Bottle Edible Oil Production Line in Edible Oil Industry was Successfully Put into Operation

Founded in 1981, the company, PT. Bina Karya Prima (hereinafter referred to as BKP), is one of the largest retailers of edible oil in Indonesia, whose products can be found in shopping malls and stores of all sizes throughout the Indonesian market. The company's self-owned palm oil brands, like Tropical, Frais Well, and ForVITA, are known to all households in the country. With the development and growth of the market, in order to meet customers' demands better, BKP constantly introduces and updates modern production equipment to achieve industrial upgrading.





主动出击 抢占市场先机

2016年3月,达意隆获悉BKP公司有上线需求后,立刻联系相关工作人员,BKP一听是达意隆,惊喜地回答道"太好了!我们正打算联系贵司!"一个多小时的电话沟通后,该项目负责人当即表示,希望尽快参观达意隆总部及类似食用油生产线。

为了让客户进一步了解达意隆,销售人员带领 BKP 考察团历时半个月,先后参观了达意隆总部、代加工工厂以及分布在广州、长沙、上海和杭州等地的客户工厂。耳听为虚,眼见为实,此次参观给了 BKP 巨大的信心。

4月中旬开始, 达意隆与 BKP 举行了多次技术会议, 明确项目细节。 BKP 公司敞开心扉, 与达意隆团队 一次次分享他们多年来积累的技术生产和管理经验, 助力方案更加完美!

真诚合作 并肩前行

2016年5月20日,BKP公司与达意隆签订合作协议。为了更好地完成合作项目,达意隆技术团队前往BKP工厂进行了实地勘察,认真落实每一个细节。项目进行过程中,BKP因为市场需求变动,对瓶型、标签等外部细节多次调整,达意隆予以了全面理解



和全力支持! 达意隆聚焦客户需求,努力克服合作中遇到的种种难题,认真、负责、专业的态度获得了BKP公司的高度认可。

双方通力合作促成了首条 36000BPH 食用油整线的顺利启航! 这是达意隆历史上第一条, 也是目前食用油行业内第一条高速 PET 瓶食用油生产线。

历时三个月的安装调试后,2017年5月,36000BPH的食用油整线在BKP工厂顺利投产,整线效率高达90%,黄灿灿的产品照亮了车间里每一位达

意隆工程师的笑脸! 也给 BKP 吃了一颗大大的定心丸,2017年8月,BKP 向达意隆追加了第二条36000BPH 的整线。

达意隆用实力撑起了自身的高度,赢得了客户的信赖;未来,达意隆将始终和客户站在一处,为新征程而努力。



Taking the initiative and seizing market opportunities as a first mover

In March 2016, Tech-Long got in contact with relevant staff immediately after learning about BKP's demand for production line. As soon as BKP knew it's Tech-Long, they replied in surprise, "Great! We are about to contact you!" After more than one hour's communication by telephone, the project leader immediately said that he hoped to visit the headquarters of Tech-Long and similar edible oil production lines as soon as possible.

In order to allow the client to further understand Tech-Long, the marketing personnel led BKP delegation to visit Tech-Long's headquarters, OEM plants and clients' factories located in places such as Guangzhou, Changsha, Shanghai and Hangzhou in half a month. Seeing is believing. The visit gave BKP great confidence.

Since mid-April, Tech-Long has held several technical meetings with BKP to clarify project details. BKP opened itself up to repeatedly share years of experience in technical production and management with Tech-Long's team, helping to perfect the program.

Cooperating sincerely and walking forward together

On May 20, 2016, BKP signed a cooperation agreement with Tech-Long. In order to complete the cooperation project better, Tech-Long's technical team went to BKP's factory for field



investigation and earnestly sorted out every detail. During the process of the project, BKP repeatedly adjusted its external details such as bottle shape and label due to the change of market demands, which was fully understood and supported by Tech-Long. Tech-Long focuses on clients' demands and strives to overcome the difficulties encountered in cooperation. Its serious, responsible and professional attitude has been highly recognized by BKP.

The concerted efforts of both parties contribute to the successful launching of the first 36,000BPH edible oil whole line. This is the first high-speed PET-bottle edible oil production line both in the history of Tech-Long and in the current industry of edible oil.

After three months of installation and commissioning, in May 2017, the 36,000BPH edible oil whole line was put into operation successfully in BKP's factory. The efficiency of the whole line was as high as 90%. Golden products illuminate the smiling face of every engineer of Tech-Long in the workshop, also set BKP's mind at rest. In August 2017, BKP again entrusted its second 36,000BPH whole line to Tech-Long.

Tech-Long props itself up with its strength and wins the trust of clients. In the future, Techlong will always stand by the side of its clients, striving for a new journey.

Text by: Cherry Lu

携手共进 共谋双赢

Making Progress Together, Seeking a Win-Win Situation

达意隆助力 Daily Fresh Fruits India Private Limited 升级 Tech-Long Helps to Upgrade Daily Fresh FruitsIndia Private Limited



Daily Fresh Fruits India Private Limited 公司(以下 简称 Daily Fresh 公司)成立于 2008 年,是一家专业生产、销售果汁饮料、含气饮料及其他食品的私人有限公司。其旗下的品牌——"Dailee"经过多年发展,已经成为印度南部果汁和含气饮料市场一个举足轻重的知名品牌。

随着印度饮料市场的不断扩大升级,老旧的低速线及沉重的人工负担已经无法满足日益增长的市场需求,市场的变化让 Daily Fresh 公司高层意识到寻找优质供应商设备刻不容缓。

2016年6月,印度 Daily Fresh公司 MD Mr. Issac



Bright 和 Mr. Bala 到访达意隆,进行了为期四天的双整线项目洽谈。在 Daily Fresh 公司高层到访之前,Daily Fresh 团队已参观过达意隆在印度北部的24000BPH 的含气整线项目和印度南部的吹瓶机项目,其整线设备稳定高效,维护简便给他们留下了深刻印象。

此次,参与项目竞争的还有来自欧洲的供应商。但最终客户被达意隆高性价比的整线配套,成熟的本地工程服务所打动,签订了一条 24000BPH 的含气整线和一条 18000BPH 的中温果汁灌装线。

2017年1月,项目安装正式启动。达意降印度分公





Founded in 2008, the Daily FreshFruitsIndia Private Limited (hereinafter referred to as Daily Fresh), is a private limited company specializing in producing and selling fruit juice beverages, carbonated beverages, and others. One of its brands, "Dailee fresh", has become an important famous brand in the juice and aerated beverage market in southern India after years of development.

As the Indian beverage market continues to be expanded and upgraded, those outmoded low-speed production lines and strong intensity of labor are no longer able to meet the growing market demand. Changes in the market make executives in Daily Fresh aware of the urgency to find quality equipment suppliers.

In June 2016, MD Mr. Issac Bright and Mr. Bala from Daily Fresh of India visited Tech-Long for four-day negotiations on the double-whole line project. Before the visit of executives from

Daily Fresh, the Daily Fresh team has visited Tech-Long's project of 24,000BPH carbonated beverage whole line in northern India and blow molding machine project in southern India. The stability and efficiency of equipment, as well as the simplicity and convenience in maintenance on the production lines impressed them a lot.

This time there were also European suppliers competing for the project. However, the client was satisfied with Tech-Long's cost-effective supporting equipment of the whole line and mature local engineering services and signed a contract on a 24,000BPH carbonated beverage whole line and an 18,000BPH medium-temperature juice filling line.

In January 2017, the project was officially started. Vithal, the director of Bombay office of Tech-Long India Branch, organized a team to quickly carry out installation and complete the installation of two lines before the Chinese New



Year holiday. The project has smoothly entered the commissioning phase. In addition, the project service department set up a special acceptance group. In March 2017, the two lines passed the acceptance with the production efficiency of 92% and 93% respectively, winning praise from the client. Due to the excellent performance of both whole lines, Daily Fresh once again introduced an 18,000BPH carbonated aerated beverage

Through this cooperation, both parties are even more eager to obtain development via cooperation in the future. We hope that both parties will take it as an opportunity to continuously make breakthroughs and promote deeper cooperation in wider areas and with higher level, writing a new splendid chapter.

production line from Tech-Long in July 2017.

Text by: Wayne Liu



Mr.T.Issac Bright

2008 年成立 Daily Fresh Fruits India Private Limited 公司,创立了知名的饮料品牌——"Dailee fresh",主要负责产品销售及供销商管理。

He founded the Daily Fresh Fruits India Private Limited in 2008, and established a well-known beverage brand "Dailee fresh", responsible for product sales and supplier & distributor management.

牵手孟加拉军队直属企业 共创孟加拉粮油市场



Sena Kalyan Sangstha (简称 SKS) 是由孟加拉国军队自筹经费并经过孟加拉国政府特批成立的企业组织,直接由孟加拉军队管理,公司内部职员都是从军队直接任命。该组织包括 18 家公司,业务涉及工矿、家用品、房地产等。

多年来,孟加拉食用油市场主要被散装的大桶油占据。随着孟加拉人民生活水平的提高,人们对散装大桶油的需求逐渐下降,对瓶装油的需求不断上升。SKS依靠自身对市场的敏锐嗅觉以及雄厚实力,立即采取行动,为抢占瓶装油市场发力。正是基于这样的市场契机,达意隆与SKS展开了合作。

从 2017年10月份为客户提供第一版方案开始, 达意隆就紧密跟进 SKS 步伐, 为客户提供全面的谈判前服务。合作期间, 达意隆根据客户的意见多次修改方案, 食用油包装线从一开始的 7000BPH 更改为 18000BPH。客户的每一次建议, 达意隆都迅速反应, 及时提供完善的最新方案。除此之外, 达意

隆还根据孟加拉市场及当地消费者的习惯,专门设计了5套瓶型供其选择,在瓶盖、标签、包装等各环节为客户提供了诸多有效建议,客户十分满意,最终选择了带有其公司LOGO的方形瓶。

经过半年多的沟通交流,最终达意隆的实力和努力赢得了客户的一致认可。在确定项目会议上,达意隆成功击败了欧美及国内强劲的竞争对手,取得了主要设备的全部订单。相信通过双方的真诚合作,达意隆将携手 SKS 在孟加拉粮油市场开辟出一片新天地!

The Sena Kalyan Sangstha (hereinafter referred to as SKS) is a business organization self-financed by the Bangladeshi army and specially approved by the government of Bangladesh. It is under the direct management of the Bangladeshi army, and the staff of the company is directly selected and appointed from the army. The organization consists of 18 companies

Working with an Enterprise Directly under the Bangladeshi Army to Forge Ahead in Bangladesh's Grain & Oil Market





with the business involved in industry and mining, housewares, real estate and so on.

Over the years, the edible oil market in Bangladesh has been dominated by bigdrum oil in bulk. As the living standards of Bangladeshi people have been improved, the demand for bulk drummed oil has gradually declined, and that for bottled oil has been on the rise. Relying on its keen sense of the market and solid strength, SKS takes immediate action to seize opportunities in the bottled oil market. Based on such market opportunities, Tech-Long started its cooperation with SKS.

Since submitting the first version of solutionscheme to the client in October 2017, Tech-Long has always closely kept pace with SKS, providing the client with comprehensive pre-negotiation services. During the cooperation, Tech-Long modified the solutionscheme several times according to the client's opinions. The edible oil packaging line was changed from 7,000BPH to 18,000BPH.

Tech-Long always promptly responds to every suggestion made by the client and offers a perfect new plan without delay. Additionally, Tech-Long designed five sets of bottles for the client's choice based on Bangladeshi market and the habits of local consumers and provided the client with many effective suggestions in the aspects of bottle caps, labels, packaging, etc. The client was very satisfied and finally chose a square bottle with the logo of his company.

After more than six months of communication, the strength and efforts of Tech-Long received unanimous approval of the client at last. In the project identification meeting, Tech-Long successfully defeated the strong competitors from Europe, the US, and China, and obtained all orders for major equipment. We believe that through sincere cooperation between both parties, Tech-Long will work together with SKS to break new ground in Bangladesh's grain and oil market

Text by: Matt Chen

第一条中国制造的吹灌旋生产线 挺**进老挝**

达意隆和 AMAZING WATER LAO 签订 20000BPH 吹灌旋水线



The First Blowing-Filling-Capping Production Line Made in China Entering Laos

Tech-Long and AMAZING WATER LAO Sign a Contract on a 20,000BPH Blowing-Filling-Capping Water Line

老挝,与中国云南接壤,被泰、柬、越、缅包围,似乎总被淹没在邻国的光彩之下——没有泰国的悠然海岛,吴哥窟的气势磅礴,缅甸的神秘面纱,也不如越南浑身透着股文艺片色彩。但老挝拥有自己的发展步调,随着经济全球化的发展,老挝将搭上泛亚铁路的快车,成为东南亚走廊的核心节点。这一发展态势,促使老挝包括饮用水市场在内的多方面的发展。

老挝的饮用水市场长期被老牌 BEER LAO 占据,而 AMAZING WATER LAO 是在老挝大小商店所能看 到的,除 BEER LAO 之外为数不多的饮用水品牌之一。为了更好地打开当地的饮用水市场,AMAZING WATER LAO 决定主动出击。达意隆得知其需求后,立刻与客户取得联系。





AMAZING WATER LAO 创始人 是一位留美工程师,从事机械行业 20 多年,对机械非常精通,这也意味着其要求也会非常苛刻,所以达意隆和 AMAZING WATER LAO 的合作也经历了一系列挑战。合作期间,双方进行了多次技术细节沟通,客户对达意隆工厂和现有客户设备使用情况也进行了考察。最终达意隆凭借专业的技术,过硬的生产加工实力,业内良好的口碑,赢得了客户的信任,双方签订了一条20000BPH 吹灌旋生产整线。

达 意 隆 和 AMAZING WATER LAO 合 作 的 20000BPH 吹灌旋生产整线意义重大,不仅是老挝市场的样板工程,也是第一台来自中国的吹灌旋设备进入老挝市场。相信中国制造凭借自身优势,将在老挝赢得更大的市场; 达意隆和老挝的合作之路,也将乘着泛亚铁路的快车越走越远。

Laos, a country bordered on Yunnan, China and surrounded by Thailand, Cambodia, Vietnam, and Myanmar, seems to have fallen into the shade under the luster of its neighboring countries. In Laos, there is no carefree island of Thailand, grandness and magnificence of Angkor Wat, mystery of Myanmar, or the literary and artistic quality of Vietnam. However, Laos is moving forward at its own pace. With the development



of economic globalization, supported by Trans-Asian Railway, Laos will become a core node in the Southeast Asia Corridor. The development trend has promoted the development of Laos in various aspects, including the drinking water market.

The drinking water market in Laos has long been dominated by the old brand BEER LAO, and AMAZING WATER LAO is one of the few drinking water brands which can be found in various stores in Laos, with the exception of BEER LAO. In order to further open local drinking water market, AMAZING WATER LAO decided to take the initiative. Tech-Long immediately got in touch with the client once hearing about their demand.

The founder of AMAZING WATER LAO is an engineer once studied in the US, who has worked in machinery industry for over 20 years and is proficient in machinery, which signifies that his requirements will be quite strict. Therefore, the cooperation between Tech-Long and AMAZING WATER LAO has gone through a series of challenges. During the cooperation, the two parties repeatedly

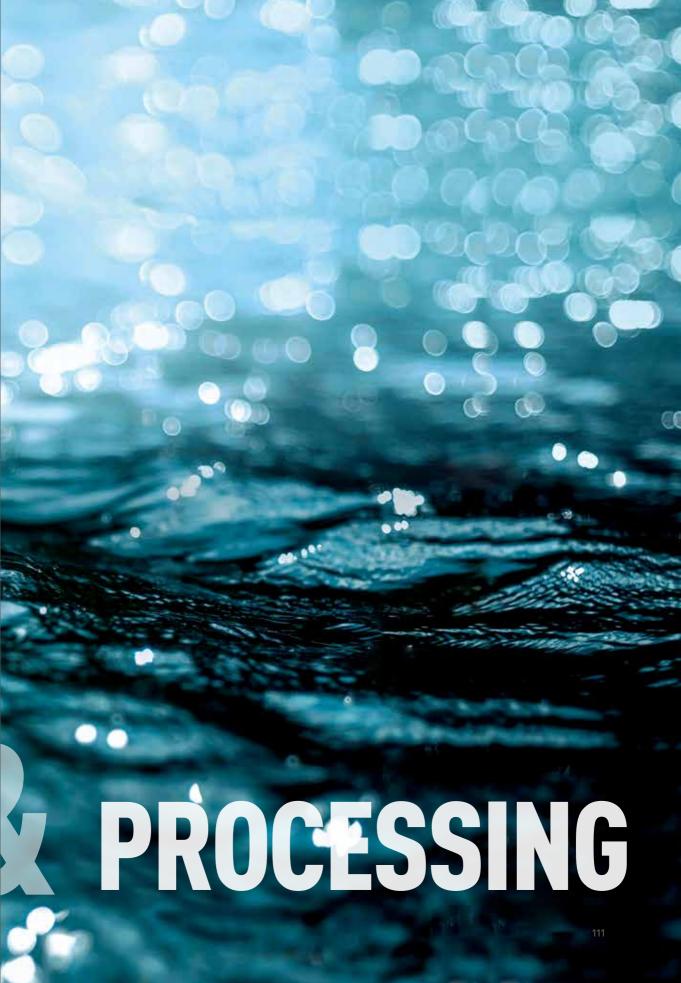
communicated on technical details, and the client also investigated Tech-Long's factory and the service condition of existing equipment of other clients. At last, Tech-Long earned the trust of the client with its professional technology, excellent production, and processing strength as well as a good reputation in the industry. In September 2017, both parties signed a contract on a 20,000BPH Blowing-Filling-Capping whole production line.

The 20,000BPH Blowing-Filling-Capping whole production line, a cooperative project between Tech-Long and AMAZING WATER LAO, is of great significance. It is not only a model project in Laos' market, but also signifies the first Blowing-Filling-Capping equipment entering Laos' market from China. We believe that the "Made in China", by virtue of its own advantages, will gain larger market share in Laos; the cooperation between Tech-Long and Laos will go further and further with the support of Trans-Asian Railway.

Text by: Daniel Liu







达意隆推出 新一代超洁净称重式大瓶水吹灌旋设备

更节能, 更卫生, 更智能

灌装产品: 饮用水等

适用瓶型: PET 方瓶或圆瓶 适用盖型: 螺纹塑料普通盖

最大瓶径 (或方瓶对角线): ≤ 200mm

瓶高: 220 ~ 410mm



Tech-Long Introduces a New Generation of UltraClean BFC (Blow-Fill-Cap) Monobloc for Water Filling with Load Cell in Large Bottle from 3.5L to 10L

More energy-efficient, hygienic and intelligent

Applicable filling product: all kinds of drinking water

Bottles to be used: cylindrical or rectangular bottles in PET

Cap to be used: standard plastic screw caps
Max bottle diameter (or diagonal): ≤200mm

Bottle height: 220 - 410mm





近些年,消费者对饮用水的需求不断提高,对饮用水的质量认识也越来越清晰。在桶装水领域,3.5L至10L的一次性PET大瓶瓶装水因卫生程度高,携带与饮用方便,越来越受到消费者的青睐。

相对于传统的五加仑桶装水,这种包装形式具有诸多优点:

更加卫生:使用 PET 瓶, 无需回收瓶子、反复清洗; 无需经过饮水机就能饮用, 防止因饮水机长期不清洁 造成的水污染;

使用更加灵活: 现代家庭中,消费者在家的时间越来越少,一桶18.9L的桶装水,可能需要十多天才能消耗完,这期间也带来了细菌滋生的隐患;而使用这种包装形式,消费者可以根据自身情况选择合适的包装容量,保证饮用水及时饮用完毕,避免细菌滋生。

在这样的大趋势下, 达意隆自 2013 年起率先进行了旋转式 PET 大瓶水洗灌旋三合一机、吹灌旋设备的研发。 虽说都是 PET 的水灌装设备,但是相较于传统

的 2.5L 以下的小瓶水灌装,大瓶水灌装拥有其自身的一些特点。经过几年市场的历练,如今达意隆推出了新一代的超洁净称重式大瓶水吹灌旋设备。

与上一代的机械式或流量计定量式大瓶水灌装机相比,新一代设备采用吹灌旋组合机的形式(根据客户要求的不同,也可以采取洗灌旋组合的形式),吹瓶机部分采用达意隆最新的五代机,灌装部分应用称重式灌装原理,更节能,更卫生,更智能。

节能环保

"节能环保"一直是达意隆坚持的理念,新一代吹灌旋设备在能耗方面大大降低。

吹瓶部分:配备达意隆全新设计的第五代 CPXD 系列大模腔机型,5L 瓶单模产量由1000BPH 提高到1400BPH,工作噪音83dB以下;使用二次回收新式吹瓶工艺,减少死区气体,使得设备的高压气体消耗量节省40%-55%,并省去低压用气;加温机部分优化了加温炉和风循环系统,提高了加热效率,采用陶瓷反射,提高了加热效率,结合先进的智能全闭环加



温控制算法,使得瓶胚的加温能耗降低 25%-30%

灌装部分: 采用非接触式定量灌装的方式, 灌装过程中没有回流, 更节水。

卫生

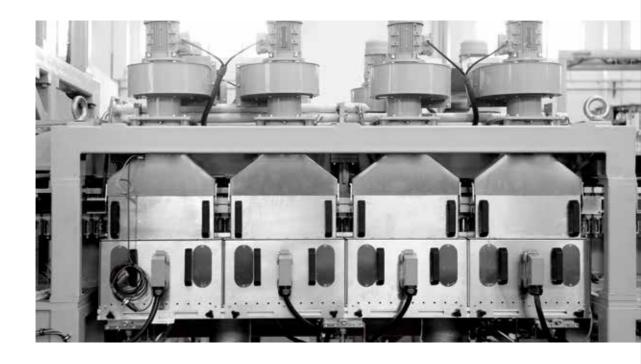
随着越来越多的厂家对更多地降低臭氧使用的呼吁, 以及消费者对饮用水越来越高的卫生需求,达意隆 针对这台设备采用了超洁净灌装的方式。

第一方面,设备采用吹灌旋一体机的结构,能减少瓶子在输送过程中的卫生风险,将清洁的瓶子经最短路径传输至灌装机进行灌装和封盖。除此之外,能降低设备、瓶子储存等管理方面的成本,还能使大容量包材更有效轻量化。

第二方面,为提高瓶胚的卫生性,吹瓶机的理胚部分 采用全封闭输送,瓶胚下滑过程中对瓶口紫外线杀菌;瓶胚进入加温炉前采用离子静电除尘系统,有效清除胚管内壁因静电吸附的灰尘。 第三方面,灌装机部分采用超洁净密封围框设计,各连接位置采用连续焊接光滑过渡,无卫生死角,方便清洗。采用可冲洗结构的旋盖机,机器内部所有的表面,均可采用泡沫枪冲洗。设备的防护门采用密封型设计,在冲洗时,水不会泄漏到地板上。并且,设备的防护门采用夹层钢化玻璃,透光性好,永不雾化。

灌装机设备配置有高效过滤器,提供更高净化等级的气体,使得灌装过程处于洁净的空间(客户甚至可以选择增加中效过滤装置,让设备完全不需要额外的净化间就能达到超洁净环境)。而灌装区域与控制元件采用隔离设计,缩小灌装区域的净化空间,不但能节省过滤器能耗,而且更容易保证机内灌装环境。

第四方面,灌装机与产品接触部分材质全部使用 316L 材质,灌装机内产品流道采用洁净密封设计。灌 装阀采用达意隆独立研发的大通径隔膜灌装阀,使 用隔膜密封物料,高达 100 万次以上的使用寿命,无 泄漏和掉渣风险;灌装阀使用快慢灌控制、通径大灌 装速度更快;灌装机的产品分配器,采用达意隆研发 的洁净型分配器,最简化且稳定的设计,在更加卫生



的同时,最大程度降低维护成本。

最后,设备采用称重式定量灌装,瓶口与灌装阀无接触,没有密封件磨损掉渣进入产品的风险,灌装过程更卫生。

那么,为何选择称重式灌装呢?

为了保证饮用水卫生,减少机械密封等带来的卫生风险,灌装设备采用定量灌装方案成为优选。而且刚生产的瓶子由于没有经过风道送瓶、储存等过程,瓶子不受温度、挤压等影响,容积稳定,也比较适合采用定量灌装方式。

但由于饮用水的导电率问题,电磁流量计(要求水的电导率必须大于 20μS/cm)方案会造成设备通用性不高,从而增加设计、管理成本,束缚客户的选择。而质量流量计有较好的通用性,但带来非常高的设备成本和维护成本。此外,流量计本身的精度在灌装容量越大时,偏差越大,也成为不适用于大瓶水灌装的重要因素之一。

所以在卫生灌装定量方式的需求下, 达意隆采用称重灌装方式, 能够同时满足各种饮用水的定量需求, 能较好地保证灌装设备卫生。

智能

这台设备配备了远程协助功能,客户可以方便地联系 到达意隆,实现远程系统升级、远程调试、诊断排查 故障等功能,以缩短客户的停机时间,还可以通过临 时性措施,减少或避免客户的物料损失。

此外,吹瓶机部分,配备了西门子 S7-1500CPU,应用Profinet 工业以太网通讯,运算、传输更高速。吹瓶机的拉伸部分采用伺服控制技术,使用伺服拉伸系统精确控制拉伸速度、加速度、距离,更换瓶型时,一键自动测量拉伸距离。

灌装部分,使用达意隆定制和优化的称重控制系统,成本比电磁流量计更低,更智能。灌装机采用IPC (工控机)取代传统的HMI作为设备的人机操作接口,IPC 直接和PLC 通讯,实时采集重量数据,灌装精度偏差可以实现在线自动优化;灌装数据可以自动记录



与存储、统计分析,实时计算平均重量,标准偏差,以及实时重量曲线图;数据可以实时导出,也可以通过转换存储到 Excel 表,并进行数据分析。

除此之外,此设备配备了瓶型件快速更换系统,客户可以极其高效地进行瓶型转产。吹瓶机采用机械式封口,由导轨控制封口上下行程,增大了工艺角度,同时又降低了排气噪音;灌装机采用了巧妙的灌装阀设计,能广泛适用于各种大小的瓶型的同时,采用不升降的结构,震动小,运行稳定。

因为这些出众的设计,使得设备在节能、卫生、智能化的同时,好用、好维护、稳定且极具性价比。

Recent years have witnessed a growing popularity of bottled water all over the world as well as attention of its quality. And the non-returnable PET bottle with a capacity of 3.5L to 10L (hereinafter referred to as "large bottle") has won a high favour among consumers.

Compared to traditional 5-gallon bottled water, this large bottle has significant benefits such as easy-to-carry and convenient-to-drink, i.e., water can be drunk directly without attaching to a dispenser, thus eliminating the risk of product contamination due to lack of cleaning the dispenser at a long interval; it also allows consumers the new opportunity to choose the most suitable packaging capacity as they need based on practical situations so that they can drink up the water in a shorter period of time than the 5-gallon bottled water which may need more than 10 days to finish, thus the water can be kept and tasted more fresh.

So, to meet this trend, Tech-Long has embarked on the research and development of new machines for the large bottle since 2013. Unlike bottling machine for the 5-gallon or the bottle below 2.5L, the large bottle filling equipment has its very own characteristics. After years of



trial and test over the market, we now have the honor to introduce you with this new generation of UltraClean BFC Water Filling Bloc!

In addition to the bloc arrangement with blow moulder/filler/capper, other forms like therinser-filler-capper bloc can also be provided as needed. What's the most, the latest Generation 5 TECH-LONG Blow Moulder will be used, and weight filling is achieved by load cells, enabling both a lower energy consumption and exact fill quantity.

Environment-friendly and energysaving

As we always insist: Friendly to environment with less energy consuming.

The newly-designed Gen 5 CPXD series with large cavities allows for a considerable reduction in the energy consumption, such as

station output increased from 1,000 bph(bottles per hour) to 1,400 bph with noise level less than 83dB, savings in blowing air at high pressure up to 40%-55% by reduced space and new blowing technology, savings in energy for perform heating up to 25% to 30% through enhanced heating efficiency by optimizing heating oven and air recirculation as well as adopting ceramic reflection and full closed-loop temperature control method.

Not a drop is too much with non-contact weight filling to save more water.

High microbiological-safety

Bloc arrangement of blow moulder, filler and capper:

This way, bottle is conveyed right after being finish-blown to be filled and capped in the shortest route, thus reducing the risk of bottle



contamination to a minimum.

Hygienic preform: enclosed perform sorting chute, ultraviolet sterilizing of perform neck, blowing-off dust in the interior walls of perform via ionized-air.

Ultra-clean housing, smooth transition at each connection point and with no dead corners for optimum cleaning; fully washable capper; foamgun is available for all interior surfacesof the filler-capper; safety guard doors/windows are hermetically sealed so as not to have any water leaked onto the floor; also the guard doors are made of multi-layer armoured glasses which enables a full and crystal-clear insight of the machine inside.

Top cover with HEPA filtersforthe supply of air in a higher level of purification to the filling area; by simply adding onseveral mid-effect filters, customer can easily achieve ultra-clean results without the need of clean room; electrical control elements are placed outside the filling zone to lower the purified area required and therefore consume less energyand get the filling environment much easier to be controlled.

316L stainless steel for product contact parts or surfaces; hygienic product flow channel inside the filler; Tech-Long independently-developed diaphragm valve with large diameter, in conjunction with fast/slow two speeds control, to fill faster; diaphragm seal is used instead of dynamic seal for materials to be filled, longer service life of more than 1 million usage times, leak-tight and free of seal scraps; Tech-Long patented Ultra-Clean distributor, with simplest construction and most reliable performance, minimizes the maintenance cost while simultaneously enhancing the hygiene to a higher level.



Non-contact volumetric filling with weighing cell, i.e. there is no contact between the bottle and filling valve during entire fill process, thus protecting the filled product against scraps dripping from worn seals.

Then, why is weighing cell rather than magnetic or mass flow meter?

Firstly of all, the magnetic flow meter can be used only when the water conductivity is above $20\mu\text{S/cm}$; if we use this method, compatibility of the machine will be limited;

Secondly, mass flow meter though sounds like more suitable for this case but the investment and maintenance costs are extremely high for its usage;

Last but not the least, accuracy of flow meter is affected by the bottle volume – the larger the

volume is, the greater deviation it will be; so, neither the magnetic nor the mass flow meter is a good choice for the large bottle filling.

Whereas, weighing cell is not only applicable for all kinds of water but also practicable with this bloc as the bottle is transferred directly after being blown from the blow moulder via star-wheels to the filler, no intermediate steps such as air conveyor, bottle buffer to negatively impact the bottle quality with extra temperature or extrusion factors, it is therefore the best choice.

Intelligent control

Remote service function is available with this machine to enable our technicians to remotely and directly help you with any of your problems at any time as if you were with them at the site, such as for the system upgrade, remote



debugging, problem diagnosis, fault-finding, trouble-shooting, and etc;

Siemens S7-1500 CPU and Profinet Ethernet allowing for a higher calculation and communication speed; servo control of the stretching process; stretching distance can be calculated automatically with one-key pressed forquick size change-over.

Tailor-made loadcells; IPC (Industrial Personal Computer) instead of HMI to be a new interface between the operator and the machine; readily accessible of the IPC to the PLC to collect weighing data; fill accuracy can beoptimized on line; automatic statistics compiling, results analysis, and data storage; real-time calculation of average filled weight and standard derivation, possible to have an overview of the production processvia live graphic display on the screen; data are available to be exported to

Excel filesfor further analysis;

Moreover, short change-over times can be guaranteed through quick-change blow moulds and handling parts; filling valve is specially designed for a wide range of bottle sizes, so that chance for its replacement is minimized.

Thanks to all these excellent design features, this machine realizes a higher level of hygiene, energy-saving and intelligent and at the same time proves to be user-friendly, convenient to maintain and service and very reliable. Most of all, it is of high performance-cost ratio!

Text by: Allen Zhang

新技术 大能量

新一代食用油称重灌装机



更高速

•同等头数的机型产量提升至少20%;

更高精度, 更稳定

- •小瓶(一般指 2.5L 及以下)灌装平均偏差小于 1.5 克;
- •大瓶(一般指5L及以上)灌装平均偏差小干2.5克;
- 灌装缸及管道优化设计,采用国际一流检测及控制 元件,压力波动范围小于 0.5%。

更卫生

- 采用全新技术设计、制作灌装阀,彻底告别滴漏与 飞溅;
- 双速气控灌装阀(控制气与物料隔离),快速慢速

流量以及转换速度可调;

- •物料隔膜密封,100万次以上使用寿命;
- •独立回吸防滴漏;
- •料缸自动清洗,自动循环完成油品切换;
- •防护门采用夹层钢化玻璃门,透光性好,永不雾化;
- 除灌装阀阀头以外的所有灌装控制元件,均封闭在 围框内,防止污染;
- •可采用全封闭式框架(可选项)。

更易维护

- 灌装护瓶组件不再随瓶型整体更换,很多时候只需调整高度,节省瓶型件更换时间;
- 进瓶定位止瓶,可屏蔽任意故障灌装头而不影响连续生产;

New technology and great energy

A new generation of edible oil weighing and filling machine





- 标配剔除系统,在灌装封盖过程中检测灌装精度以及封盖质量,在设备出口处剔除不合格产品;
- 同时可定位剔除取样;
- 采用包装设备控制 / 操作国际标准 PackML 架构的程序,更利于工厂应用。

更智能

- 采用 PC (工控机) 取代传统的 HMI 作为设备的人机 操作接口;
- PC 直接和 PLC 通讯,实时采集重量数据;
- 灌装数据自动记录、统计分析, 并可实时导出;
- 数据直接存入 SQL 数据库(至少3个月),实时计算平均重量,标准偏差等,以及绘制分析图表;
- •数据同时可以通过转换存储到 Excel 表,并进行数据分析;
- 可以把设备的操作说明、维护手册等相关信息直接 存储在 PC 内,随时查看;
- •可借助网络,实现远程监测运行。



Faster

 At the same head, this machine type can raise the output by at least 20%;

More Accurate and More Stable

- The average deviation of small bottles (the volume is 2.5L and below) is less than 1.5g;
- the average deviation of big bottles (the volume is 5L and above) is less than 2.5q;
- The machine enjoys optimized filling cylinder and tubes design with world-class detecting and control elements, and the fluctuation range of the pressure is less than 0.5%.

More Hygienic

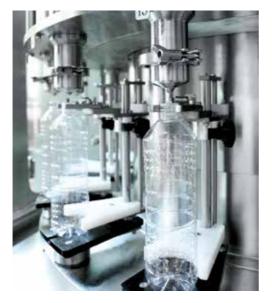
- The filling valve with brand-new technique can enable us to say goodbye to drip leak and splash;
- Dual-speed pneumatic-control valve (the operated air is separated from the materials),

the flow rate, fast or slow, and the switching speed are adjustable;

- The materials are diaphragm sealed, so the machine has over 1 million times of working life;
- Independent suction and drip-proof design;
- The material tank enjoys a self-cleaning and automatic cycle function to shift oil types;
- The protective doors apply temperedlaminated glass, so they have good lightadmitting quality and never fog up excessively;
- All filling control elements except the head of the filling valve are sealed in the enclosure frame to avoid being contaminated;
- Totally enclosed frames are available (options).

Easier to Maintain

 When doing bottle type changeover, no need to change bottle protecting assembly,, and you can save time only by adjusting the heights on





many conditions;

- The bottle in-feed positioning and bottle stopping can block all faulted filling heads on the condition that the continuous production will not be affected;
- The standard rejecting system will check the filling accuracy and cap sealing quality in the process of sealing, and reject the products below standard. Besides, it can also locate and reject the selected ones;
- Adopting the PackML frame application, a packaging plant control/operation system of international standard, will be beneficial to industries.

Smarter

- Replace traditional HMI with IPC (Industrial Personal Computer) as the man-machine interface of the machine:
- The IPC can directly communicate with the PLC to collect data of weights;

- The data about filling can be recorded and statistically analyzed automatically and be exported in time;
- The data can directly be input in the SQL database (for at least 3 months). The average weights and standard deviation can be calculated, and the analysis charts can be drawn in time;
- Meanwhile, the data can be transformed and stored in the Excel table and be analyzed;
- The operating instructions, maintenance manual, and related information can be stored in PC for the users to refer all the time;
- The remote monitoring is available through the internet.

Text by: Allen Zhang

掌控核心 转动未来

首台外部检测定量灌装机



自达意隆首台外部液位检测定量灌装机推出,广受 青睐。此类型号灌装机所采用的的定量灌装方式是 专门针对玻璃瓶定制设计,其主要原理是:利用安 装在玻璃瓶外部两侧的液位传感器对瓶内灌装液位 进行检测。当灌装液位到达目标液位就会触发信号, 进而关阀、停止灌装。该定量灌装方式相较于传统 微负压灌装方式在性能方面有五大优势:

一、精度更高:

传统灌装机械阀通常只能达到 ±3mm, 且多有超差 现象, 而外部检测定量灌装方式可以达到 ±2mm, 为整台设备正常运转打下牢固的基础。

二、液位稳定:

传统机械阀需要瓶口密封进行灌装及回吸,存在瓶口密封不严导致不灌装或液位不准等诸多现象。而新型灌装方式不需要瓶口密封,同时避免了诸多因素造成的灌装或者液位问题,让设备做到液位稳定更容易。

三、液位调节可控性高:

根据客户需求,经常需要对灌装液位做相应调整。 传统液位通过切除回气管或加减橡胶垫等人工方式 调整液位,由此带来的诸多诱发因素很大程度上影响了液位调节的可控性;新型灌装方式可通过快速 定位传感器位置的方式来调整液位,极大程度上满 足了客户随市场变化而变动的需求。

Mastering the Core Technology Running the Future for You

The First External Detecting Quantitatve Filling Machine



四、清洁度高:

与传统的微负压机械阀灌装相比,这种灌装方式没有回气管或回流管,因而不需要抽真空,CIP时也不用安装假杯,在提高自动化程度的情况下,能节省更多能耗。

五、范围更广:

与传统的微负压机械阀灌装相比,微负压机械阀灌装只能运用于流动性较好的液体灌装,而新型灌装方式对玻璃瓶包装的液体,其适用范围更广。

除了机械性能方面的优势,新型灌装方式后期所带给客户及消费者的影响也更明显:

与其它的电子式定量灌装(流量计或称重)相比,灌装方式生产出来的产品视觉效果好。因玻璃瓶尺寸公差大,导致瓶内容积相差较大,同样体积或重量的产品灌装到玻璃瓶后,表现出来的液位是高低不平的,不仅让消费者觉得产品档次低,更有甚者会认为生产厂家短斤缺两,从而影响产品销量,这也是电子式定量灌装对玻璃瓶灌装无法解决的问题,目前大多采取标签掩盖的方式弥补。而采用外部液位检测定量灌装生产出来的产品,从外观上看,液位基本一致,以此为基础,产品在消费者中的口碑更好,这也是我们公司"为你而转"宗旨的意义所在。



Since Tech-Long developed the first external liquid level detecting quantitative filling machine, it's widely favored. The quantitative filling function of the machine is specially customized for glass bottles, and the working principle is:: Monitoring the liquid levels of the glass bottles through the liquid-level sensor installed at the two external sides of the bottles, and when the level reaches the set criteria, it will trigger the signal and turn off the valve to stop filling. The performances have the following five advantages:

First, higher accuracy, the accuracy of the valve of the traditional filling machine is only ± 3 mm and always has off-gage phenomenon, while that of the external liquid level measuring function can reach ± 2 mm, laying a solid foundation to make the whole machine work properly.

Second, stable liquid level, the traditional

valve needs to seal the bottleneck for filling and suction, so that there are problems that the filling doesn't work or the liquid level is not accurate since the bottleneck fails to be sealed completely. While the new method doesn't need bottleneck sealing and thus manages to avoid problems about filling or liquid level caused by many reasons, and then it would be easier for the machine to realize stable liquid level.

Third, high controllability of the liquid level adjustment, customers often need to adjust the filling liquid level. In the traditional way, the liquid level is adjusted by cutting off the muffler or adding or removing the rubber blanket, so many kinds of inducing factors may emerge and affect the controllability to a great extent. By contrast, the new machine can quickly adjust the liquid level by locating the position of the sensor, which greatly satisfies customers' changing demands.





Four, high cleanliness, compared with the traditional filling method of negative micropressure valve, it doesn't have muffler or return pipe, thus vacuumization is not required. Besides, when the CIP system is working, it doesn't need to install any cup device, saving more energy and enhancing the automation.

Five, the traditional filling method of negative micro-pressure valve can only be applied to liquid with good flow ability, while the new one can be used to fill liquid into glass bottles and even has broader ranges of application.

In addition to the advantages of the mechanical capacity, the new filling method can bring customers and guests better experience later:

Compared with other electronic-type quantitative filling methods (flow meter or weighing), the new one will give products

better appearance. As glass bottles have big dimensional tolerance and large volume differences. After filling liquid of the same volume or weight in glass bottles, the liquid levels would be different, and it would not only make customers feel cheap, they may even think that the manufacturers give short weight, thus affecting the sales. The problem remains unsolved for electronic-type quantitative filling function, and most manufacturers would paste labels to cover up the problem. By contrast, products processed by the quantitative filling machine with external liquid level measuring function have similar liquid levels, thus it may win better public praises, embodying the belief of our company, "Runs for You".

Text by: Barry Chen

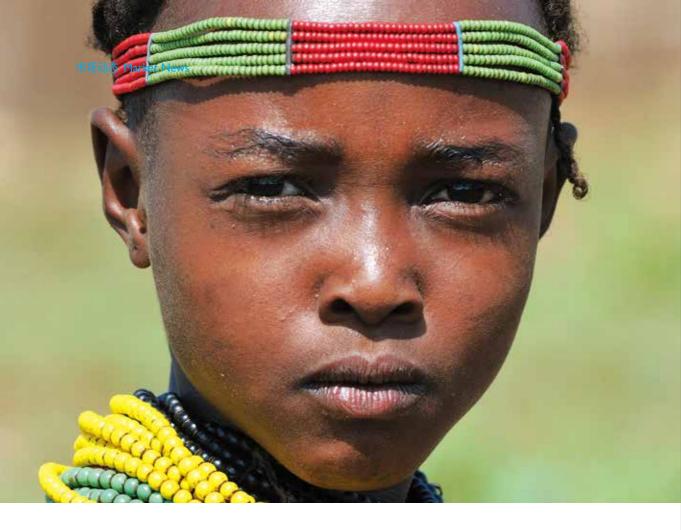


TEMS 市场 动态



简述达意隆埃塞俄比亚市场 Brief Introduction of Tech-Long's Market in Ethiopia





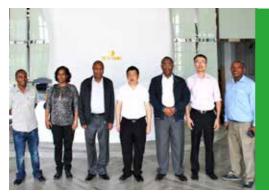
埃塞俄比亚——古老又年轻的国家,位于非洲东部,人口非洲第二(仅次于尼日利亚),达到 1.05亿,位列世界第 12位。埃塞首都亚的斯亚贝巴海拔超 2400米,是非洲海拔最高的城市,水源充足,素有东非水塔之城,是世界第一大河流——尼罗河的发源地。埃塞常年气候干燥,除首都之外,大部分地区气温偏高。鉴于以上因素,埃塞的瓶装水市场潜力巨大。

因市场前景广阔,国内外同行都在埃塞"布重兵"进行开发投入,设备供应商之间的竞争十分激烈。 当达意隆进入埃塞市场时他们已经积攒了不少客户,尽管如此,达意隆进入该市场后,立即成立办事处,配备常驻销售和工程师,火力全开,深耕细作,凭借领先的技术力量,高品质的机器和后期的良好服务,迅速赢得众多客户的信赖。

从 2010 年达意隆成功打入埃塞市场,签出在非洲的 第一条吹灌旋水线整线开始,一直保持良好的市场 增长态势。目前达意隆在埃塞市场的吹灌旋(包含单独吹瓶机)整线数量已经超过其他供应商,呈现 出后来者居上的态势。

中国政府积极推动的"一带一路"在非洲已具备牢固基础,以达意隆为代表的中国高端制造企业将乘风而上,积极响应国家号召,推动与埃塞等国家的务实合作,以优质设备产品为当地居民打造高品质的水、饮料及日化、食用油产品,提高人们生活质量,促进人类社会共同繁荣!

Ethiopia is a young country in the east of Africa, a land with time-honored history. As the second-most populous nation on the African continent (the first one is Nigeria) and the twelfth across the world, it has 105 million people. Addis Ababa is the capital of Ethiopia and the city at the highest altitude (2,400 m) in the country. Abundant in water, it is valued as the city of water



2015 年埃塞驻广州总领事 Melaku Legesse Gebrehiwot 协同埃塞中央政治局五常委之一兼总 理高级顾问 Bereket Simon 参观考察达意隆

2015 Melaku Legesse, Consul General of Ethiopia in Guangzhou Gebrehiwot Synergy
Bereket Simon, one of the five Standing
Committee of the Ethiopian Politburo and senior advisor to the Prime Minister, visited the mission

tower in East Africa. It also embraces the source of the Nile, the first largest river in the world. Ethiopia has dry weather all the year round, and the temperature is relatively high in most regions except the capital. For all these reasons, the nation enjoys huge potentials in the market of bottle water and broad market prospect, so our counterparts, home and abroad, are actively tapping into the market. The competitions among suppliers are very fierce and before Tech-Long, they have accumulated many customers. However, soon after entering this market, we have established offices and sent salespersons and engineers. With thorough preparation, great efforts, leading technology, high-quality machine, and sound after-service, we have gained trusts from numerous guests in a fast way.

Since we have entered in markets of Ethiopia in 2010 and reached the contract to introduce the first blowing-filling-capping combi line in Africa, Tech-Long has maintained a good market development momentum. Currently, our blowing-filling-capping combi lines (including independent blow molding machines) are far more than that of other suppliers, indicating the

later comers surpass the formers.

The Belt and Road initiative promoted by China's government already has solid foundation in Africa, and high-end manufacturing enterprises represented by Tech-Long are now pressing forward to respond to the call of our country and push forward the practical cooperation with countries like Ethiopia. We will use the high-quality products and equipment to provide the locals good water, beverage, daily use chemical, edible oil and other products, and improve people's living quality and thus promoting the common prosperity of human society.

Text by: Hansen Shi





达意隆非洲办事处 African Office of the Tech-Long

























我们在埃塞的主要客户

These are our major customers in Ethiopia



达意隆埃塞客户工厂 The factory of Tech-Long's factory in Ethiopia



达意隆员工正在快速安装 24000BPH 轻量瓶整线 Tech-Long's staffs are quickly installing 24000BPH light-bottle line



亚的斯亚贝巴(埃塞首都)市中心一角 One part of the Addis Ababa downtown (the capital of Ethiopia)



亚的斯亚贝巴最大的集市 MARKATO
The largest bazaar in Addis Ababa-MARKATO



亚的斯亚贝巴轻轨(中国援建) The light rail in Addis Ababa (aid provided by China)



埃塞俄比亚古老的建筑 Ancient buildings in Ethiopia



Market News 市场动态

"中国制造"VS"德国制造"

"MADE IN CHINA"
VS
"MADE IN GERMANY"

德国开始害怕中国,

八成德国人认为"中国制造"是"德国制造"的对手。

Germany fears China, and 80% of Germans regard "Made in China" as the opponent of "Made in Germany"





"德国制造"一直被视作质量过硬的代名词,"中国制造"却一度因山寨货被扣上低劣的帽子。然而,德国权威质量管理机构德国质量协会(DGQ)和德国市场研究机构"Innofact"9日公布的一项调查研究结果显示,情况已今非昔比。

德国《质量管理杂志》网站 10 日报道称,这项调查显示,**八成德国人认为"中国制造"是"德国制造"的对手。**54% 的受访者认为,来自中国的竞争者正加大步伐,将超越德国品牌和德国企业的创新能力。

德国知名杂志《明镜周刊》(Der Spiegel)的最新一期杂志封面是 Xing Lai (醒来)!下方文字是:为什么中国总是赢,或者已经赢了?

可见,德国对于中国的快速发展已经有了危机感。

那么,"中国制造"哪些领域做得比较好? 受访者认为,最**突出的是"数字化和信息技术领域"**。64%的人认为,中国在这一领域已超越德国。**其次是电动车领域**。至于"德国制造"哪些领域比"中国制造"更出色,受访者选出三个方面: 一是德企在研发方面投入更多,成果更好; 二是机械和设备制造仍是"德国制造"的招牌行业; 三是基础设施方面。不过他们认为,在这些领域,**中国正在缩小与德国的差距。**

该调查报告称,"中国制造"和"德国制造"未来都具有更大发展潜力,尤其是中国。约 3/4 的受访者认为,"中国制造"的质量 20 年后会更好,只有22%的人认为不会变。对于全球质量典范"德国制造",51%的受访者认为 20 年后质量仍会不断优化,41%的人则认为会"原地不动"。此外,超过一半的受访者认为随着"中国制造"的进步,"德国制造"



《时代》

《Time》

也可在压力下迸发出更大潜能。

《质量管理杂志》网站评论称,"中国制造"和"德国制造"的形象未来将越来越接近,其背景是"中国制造 2025"战略,这为"中国制造"指明了方向。德国质量协会负责人皮恩克斯说,毫无疑问,到2025年,中国经济发展将给德国带来挑战。

从深海到太空!

数字告诉你,中国制造有多强!

水下1266米

"蓝鲸 1号"完成了我国第一次海底可燃冰的开采。 这个我国研制的世界上最大的海上钻井平台,钻井 深度超过 15000 米。



《明镜周刊》

《Der Spiegel》

这五年,世界首座全自动"智能渔场"、第六代钻井平台"海洋石油 982"、第一艘完全自主建造的航母,让中国从海洋大国变为海洋强国。

海拔10米

地面上,高铁正以每小时 350 公里的速度高速运行。 五年来,中国高铁的运营里程超过 2.2 万公里,全球 65 个国家和地区的高铁轨道上、城际铁路、地铁和 轻轨上,奔驰着中国造的各种机车。

海拔100米

这是正在建设之中的空中能源走廊,它能把电力资源传输到3000公里以外。这五年,中国投运的特高压工程线路长度超过1.94万公里,让全球能源互



蓝鲸 1 号 CIMC Blue Whale No.1



智能渔场 Intelligent fishing ground

联互通成为可能。

五年来,中国制造, 创下了多个世界纪录: 高速公路里程 13.1万公里,世界第一城市轨道交通 4153公里,世界第一 光缆线路 3041万公里,世界第一

2016年,中国装备制造业产值更是突破24万亿元,占全球的比重超过1/3,连续7年居世界首位。

海拔: 12100米

而在更高的空中,中国制造正在开启未来。这是国产大飞机 C919 的最大飞行高度。如今,中国制造的世界最大的水陆两用飞机 AG600、大型运输机运20、新一代隐形战斗机歼20,在蓝天上组成了中国制造的航空编队。

高度: 200-36000公里

再向上看,在这看上去深不可测的太空中,170多颗中国制造的航天器闪耀其中,将中国带入航天大国的行列。

从万米海底,到深邃太空,五年中,中国制造正在实现向中国创造的跨越,展现出的实力世界瞩目。为中国制造点赞!

"Made in Germany" has been regarded as the symbol of quality, while "Made in China" has been labeled as inferior and copycat goods. However, A survey issued on 9 by DGQ, an authoritative quality control organization in Germany, and Innofact, a market research organization of this country, indicates that the situation has changed.

The German Quality Management Magazine website reported on 10 that according to the survey, 80% of Germans think that "Made in China" is the opponent of "Made in Germany" and 54% of respondents believe that competitors from China are accelerating and will surpass German brands and enterprises alike in innovation.



中国高铁 Chinese high-speed railway



完全自主建造的航母 A fully self-built aircraft carrier

The words below: Why China can always win or it has won the game?

It shows that Germany already had a sense of crisis for China's fast growing.

Then, in what fields could "Made in China" do better? The respondents believe that the most prominent one is the "digital and information technology": 64% of them think that China has surpassed Germany in this field. The second one is electric vehicles. As for in which field could Germany behave better than China, respondents have selected the following three aspects: First, German enterprises invest more in R&D, bringing better achievements; Second, the manufacturing of machine and equipment is the flagship industry in Germany; Third, fields about infrastructure. But they still hold that even in these three fields, China has been narrowing the gap between it and Germany.

From the survey, both "Made in China" and "Made in Germany" will enjoy greater developing potentials, especially China. About 3/4 of the respondents think that "Made in China" will be better after over two decades, while only 22% of them believe that no change will happen. As for "Made in Germany", the good example of quality in the world, 51% of respondents hold that its quality will have continuous optimization, but 41% of people think that it will not change. Besides, more than half of the respondents consider that with the development of "Made in China", "Made in Germany" may burst out greater potential under pressure.

The website of the Quality Management Magazine comments that thanks to the strategy of "Made in China 2025", which defines the direction for "Made in China", the images of "Made in China" and "Made in Germany" will be closer and closer.



空中能源走廊 Air energy corridor



高速公路里程 13.1 万公里,世界第一 The highway mileage of 131 thousand kilometers, ranking No.1 in the world

Pean Kors, the Director of German Quality Association, said that there is no doubt that China's economic development will pose a challenge to Germany in 2025.

From Deep Sea to Space
Let Numbers Tell You How Strong Could
"Made in China" be!

1,266 meters underwater

"Blue Whale I" has explored the flammable ice from the seafloor for the first time in China. Developed by China, it is the largest offshore drilling platform in the world, and the drilling depth has surpassed 15,000 meters.

In the past five years, thanks to the full-automatic "Smart Fishing Ground", "Offshore oil 982", the sixth generation of drilling platform, and the first indigenously-developed aircraft carrier, China has grown from a maritime nation to a major maritime power.

At an altitude of 10 meters

On the ground, the high-speed train is moving fast at the speed of 350 km/h. In the past five years, China's high-speed trains have accumulated over 22 thousands kilometers of traveling distances. On the high-speed rails, interurban railways, subways, and light rails in 65 countries and regions, vehicles made in China are roaring.

At an altitude of 100 meters

This is the Air-Energy Corridor under construction, which can transmit electric power to places at 3,000 kilometers away. During the past five years, there were 19.4 thousands kilometers of UHV lines putting into operation in China, realizing energy connectivity throughout the world.

In the five years, "Made in China" has set numerous world records:



国产大飞机 C919 Chinese made large aircraft C919



中国制造的航天器 Chinese made spacecraft

The mileage of expressway is 131 kilometers, ranking No.1 in the world

The mileage of urban rail transit is 4,153 kilometers, ranking No.1 in the world

The optical cable line is 30.41 million kilometers, ranking No.1 in the world

In 2016, the production value of China's equipment manufacturing industry surpassed 24 trillion RMB, accounting for over 1/3 of the world level. It has ranked the first in the world for seven consecutive years.

At an altitude of 12,100 meters

Higher in the air, "Made in China" is opening the new chapter for the future. "12,100 meters" is the highest flight altitude Chinese COMAC C919 airplane could reach. Until now, AG600, the largest China-made amphibious aircraft currently flying in the world, Xian Y-20, China's large transport aircraft, Chengdu J-20, the stealth fighter aircraft of

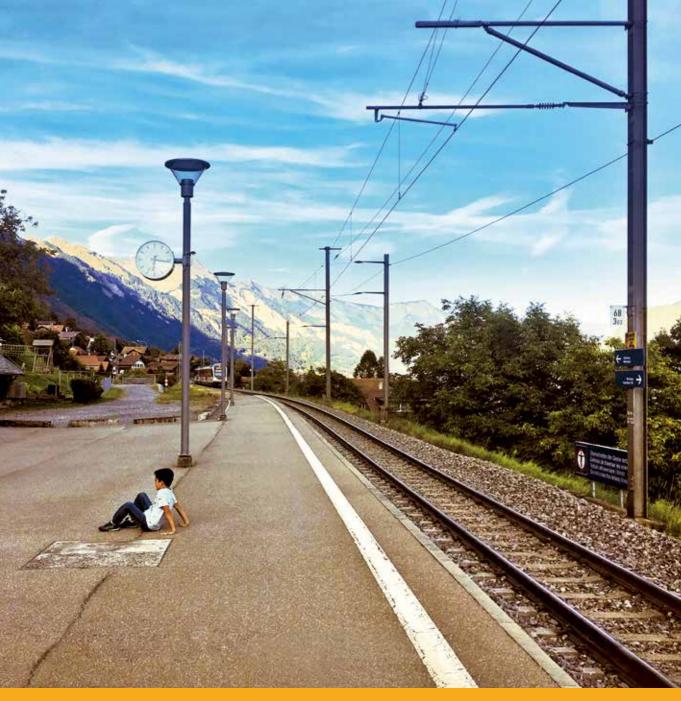
the new generation in the world, have formed an aviation team of "Made in China".

At the height of 200 kilometers to 36,000 kilometers

Looking far above to the unfathomable space, there are over 170 Chinese-made spacecrafts working properly, bringing China into the ranks of the space powers.

From the seabed of thousands of meters below sea level to the remote space, during the past five years, "Made in China" is stepping into "Created in China", showing the power attracting world attention. Let's give a thumbs-up to "Made in China"!

Text by: Industry Stock



七岁与六点一刻(摄影者:丁书超 达意隆营销总部)

Seven and Six Fifteen(Photographer: Parker Ding Sales And Marketing Headquarters)



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