

FOCUS TECH-LONG

聚焦达意隆

Series No. **25** December 2019

2019年12月 总第25期

达意隆·外部刊物 Tech-Long Magazine

www.tech-long.com





出版说明 Publication Details

主办: 达意隆市场部
Sponsor: Marketing Department of Tech-Long

编委: 张颂明、陈钢、张崇明
Editorial Advisory Board: Zhang Songming, Chen Gang, Zhang Chongming

主编: 杨柳
Chief Editor: Yang Liu

文案: 刘露莹
Copywriter: Liu Luying

设计: 徐奎
Designer: Xu Kui

摄影: 陈宇美
Photographer: Rainmy Chen

中文校稿: 李秋怡
Proof Reader (Chinese): Rachel Li

英文校稿: 王雅丽
Proof Reader (English): Cecilia Wang

电话 Tel : (86 20) 62956888
电邮 E-mail: market@tech-long.com

总第25期
出版时间: 2019年12月
Series No.25
Publication Date: December, 2019

本刊图片和文字未经允许, 不得以任何形式或方式转载或使用。
Pictures and characters in this publication are not allowed to be reprinted or used in any form or way without permission.

《聚焦达意隆》可通过电话或邮件方式免费索取
"Focus Tech-Long" magazine reservation can be applied freely through phone call or E-mail



卷首语 INTRODUCTION

- 5 求索
Search for the Way

特殊报导 SPECIAL REPORT

- 8 20周年 时间和达意隆都在这里
20th Anniversary of Tech-Long
- 14 可口可乐东南亚BIG代表访问达意隆
——从细节做起, 面对客户, 深化改革
A Delegation of Coca Cola Southeastern Asia BIG Visits Tech-Long
——Starting from details and deepening reform for clients
- 16 达意隆中标2019年智能制造系统解决方案供应商
Tech-Long Wins the Bid to Become a Supplier of Intelligent Manufacture System Solutions in 2019
- 18 深耕市场 行以致远
Developing Market to Reach Far



26 用爱心, 带你看世界的辽阔

—记2019达意隆重庆巫山爱心行

Take You to a Vast World with Love

—A loving trip of Tech-Long to Wushan
of Chongqing in 2019

32 每一次行动让爱更有意义

—记2018达意隆湖南永州助学活动

Every Action Makes Love More Meaningful

—An education supporting program launched
by Tech-Long in Yongzhou of Hunan in 2018

36 Chinaplas 2019专题|行胜于言 做更好的产品

Feature of Chinaplas 2019: Action Speaks

Louder than Words, Producing Better Products

40 启幕 | 达意隆邀您共享“饮料工业”盛宴

Kick-off: Tech-Long Invites You to a Feast of
“Beverage Industry”

44 达意隆CBB专题——最强官宣!

CBB Feature of Tech-Long--Most Powerful
Official Publicity

48 团队共建设 你我同进步

Progressing Together in Team Building

50 达意隆维权显成效, 商标维权胜诉

Tech-Long's Success in Safeguarding
Trademark Rights

52 达意隆顺利通过两化融合贯标体系认证

Tech-Long Smoothly Passes the Certification
of Integration of Information
and Industrialization

54 达意隆荣获AEO高级认证企业证书

Tech-Long Wins an AEO Certificate

56 热烈欢迎Sino-Pack海外参观团莅临达意隆

Welcome Overseas Visiting Group
of Sino-Pack to Tech-Long

58 两项国家标准研讨会顺利召开,

达意隆引领液态包装设备新规范

A Seminar on Two National Standards Held,
Tech-Long Leads New Standards of Liquid
Packaging Equipment



- 62** 达意隆获评成为“国家知识产权示范企业”
Tech-Long Honored as “Demonstration Enterprise of National Intellectual Property Rights”

- 64** 工信部产业政策司于晓东副司长一行
莅临达意隆考察调研
A Delegation Led by Yu Xiaodong,
Deputy Director of Industrial Policy
Department of Ministry of Industry
and Information, Inspects Tech-Long

- 66** 国家发改委政研室孙涛副主任一行
莅临达意隆考察调研
A Delegation Led by Sun Tao,
Deputy Director of NDRC, Inspects Tech-Long

实例 PROJECT CASES

- 70** 挺进大别山
Marching into Dabie Mountain

- 84** 达意隆在俄罗斯的第一个油项目正式生产
Tech-Long’s First Oil Project in Russia
Officially Put into Operation

- 88** 达意隆在马来西亚的第一条
吹灌旋整线顺利投产
The First BFC Monobloc Line of Tech-Long
in Malaysia Put into Operation Smoothly

技术与加工 TECHNOLOGY & PROCESSING

- 92** 苏打水饮料霉菌污染的控制
Mold Contamination Control of Soda Drinks

市场动态 MARKET NEWS

- 108** 大瓶水潜在的亿万市场？
A potential huge market of big-bottle water?

求索

前路漫漫 求索不止
不因表象而迷眼
不因误解而乱心
一路披荆斩棘 坚定不移
只为更好的明天

千岩竞秀 万壑争流
世界的广博
让我们看到永不过时的魅力
给我们蜕变的勇气

行动让你遇见更多可能
向前一步
世界总能超乎想象

Search for the Way

The road ahead is long, the search for the way will never stop
Never be bewildered by superficial phenomena
Never be confused by misunderstanding
Overcome all obstacles and move on firmly all the way
To embrace a brighter future

In the world's fierce competitiveness
We've realized that the world's charm remains in pace with the
times
And we have been encouraged to transform

Action makes you encounter more possibilities
Take one step forward
The world is always beyond your imagination



SPECIAL 特殊报导 **REPORT**





20周年 时间和达意隆都在这里 20th Anniversary of Tech-Long



今夜无眠，让我们燃爆全场

2019年12月20日，达意隆20周年晚会在达意隆厂区隆重举行。此次活动选择在达意隆总部与一起奋斗、并肩作战的伙伴们共同分享20周年的喜悦、荣光。

回忆

20周年盛典在震撼的鼓声中拉开序幕，它象征着达意隆不断奋进的脚步。随后，公司创始人张颂明先生和陈钢先生上台致辞，对达意隆20年的发展历程做了铿锵有力的总结，鼓励达意隆人再接再厉，不断攀高。

舞蹈《芳华》将人们引入回忆的漩涡，勾起人们对青春岁月的回顾。特别是陪伴公司一路走来老员



工和老朋友，对于飞逝的时光感慨万千。他们每一位都是达意隆历史的参与者，是达意隆成长的见证人。

传承

劲爆的金属者乐队演唱和全场一同参与的唱跳表演，激发了所有人的热情，收获了满场的欢声笑语；传统古典的舞蹈表演引发了人们对美好的想象。

古今中外文化在舞台上碰撞，天南海北宾客在台下举杯共饮，共同庆祝独一无二的好时光。

此次活动加入了许多特别的环节，新老员工共聚，一起分享达意隆 20 年发展的成就。让大家看到达意

隆老员工的兢兢业业，热忱匠心，在探索中不断前行的执着与勇气；也让人们感受到达意隆对于新员工的欢迎，为公司的发展注入新的生机活力。

进发

2019 年，正逢新中国成立 70 周年，达意隆成立 20 周年，达意隆人用流行的快闪《我和我的祖国》表达赤诚的中国心，深沉的爱国情。

相信每一位到场者都能感受到达意隆成长的喜悦及走向未来的决心。达意隆将不负初心，保持实干本色，在新的挑战面前，踏实奋斗，带着祝福和期待，向下一个 20 年进发。



从 1999 到 2019，从过去到现在，再到未来，达意隆一步步前行，不断发展壮大，一直都走在探索发现的路上。2020，因为有你参与，达意隆拥有了更多动力和可能！

We celebrated the anniversary on a sleepless night

On December 20, 2019, the 20th anniversary party of Tech-Long was held grandly at the factory of Tech-Long. This time the celebration was held at the headquarter of Tech-Long to share the joys and glories of the past 20 years with all partners who have worked and fought

together with us.

Memory

The 20th anniversary celebration was kicked off in ear-deafening drumbeats, which symbolized the never-ceasing steps of Tech-Long to move on. Mr. Zhang Songming, the founder of the company and Mr. Chen Gang went onto the platform to deliver a speech, making a powerful summary of the 20-year development history of Tech-Long and encouraging all people to work hard and reach a new height.



The dance “Youth” led the audience into a vortex of memory, arousing their memory of their youthful years. Particularly, the old employees and friends, who have accompanied the company all the way, sighed over the fast passage of time. Every one of them is a participant of the history of Tech-Long as well as a witness to its growth.

Inheritance

The hot Metallist Band sang and danced together with all the audience, arousing the enthusiasm of all people and won cheers and applause from them. The traditional and

classical dances triggered their imagination.

The ancient and present, Chinese and foreign cultures were colliding with each other on the stage. The guests from all over the country and the world raised their glass to drink together, celebrating the unique and wonderful time together.

In the celebration, many special links were added. The old and new employees got together to share the 20 years of development achievements of Tech-Long together. Everyone felt the loyalty, enthusiasm and craftsmanship



spirit of the old employees of Tech-Long and their persistence and courage in exploration and advancing. Everyone also felt the warm welcome of Tech-Long to the new employees who infused new vigor and energy into the development of the company.

Advance

In 2019, the 70th anniversary of the founding of the PRC, Tech-Long ushered in its 20th anniversary. All people of Tech-Long expressed their loyalty to China and patriotism with a popular flash "My Motherland and Me".

Everyone at the site must have perceived our joy of growth and determination in the future. We will remain true to our original aspiration, be steadfast and hardworking to embrace new challenges and advance into the next twenty years with blessings and expectations.

From 1999 to 2019, from the past to the present and to the future, we keep growing and developing along the path of exploration and discovery step by step. In 2020, with your involvement, we will embrace more power and possibilities.

可口可乐东南亚BIG代表访问达意隆

——从细节做起，面对客户，深化改革



2019年8月5日，可口可乐BIG (Bottling Investments Group) 全球工程技术总监、东南亚区工程技术总监及采购总监、印度国家采购负责人等一行五人，莅临达意隆广州总部。阔别四年，可口可乐集团代表再次不远万里前来，和达意隆团队深入讨论BIG集团最新的要求和方向。

达意隆董事长张颂明先生携相关部门总监程文杰先生、张航天先生、何令先生、戴卫文先生、吴海婴先生、钟少非先生以及相关销售、技术骨干与来访人员举行会议，并陪同参观了达意隆工厂。一行人认真参观了工厂中正在安装、调试的设备，并就设备设计、安装、操作方面的细节问题向负责现场答疑的技术人员进行了解，一起探讨。

随后的总结会议中，来访代表介绍了BIG未来3-5年的计划，并根据现场参观情况，对达意隆的设备进行了中肯的评价。与之前相比，达意隆四年来的探索和创新、完善和优化得到了充分肯定。同时，他

们对达意隆公司内部如何继续深入细化完善设备的设计、组装和安装，提升生产管理水平，提高售后服务水准等方面，给予了中肯的意见。达意隆工作人员认真听取了来访人员的意见和建议，表示将努力抓住这次契机，争取和可口可乐更多更好的合作机会。

On August 5, 2019, the headquarters of Tech-Long in Guangzhou received a delegation of five members including the global engineering technology director, the engineering technology director and purchase director of Southeastern Asia region and the purchasing manager of India of Coca Cola BIG (Bottling Investments Group). This was the second visit four years after the BIG sent a delegation to Tech-Long. The delegation traveled a long distance to have an in-depth discussion on the latest requirements and directions of BIG with Tech-Long's team.

A Delegation of Coca Cola Southeastern Asia BIG Visits Tech-Long

-Starting from details and deepening reform for clients



Mr. Zhang Songming, chairman of the board of Tech-Long, directors and supervisors of related departments including Mr. Jacky Cheng, Mr. Allen Zhang, Mr. Dai Weiwen, Mr. Wu Haiying, Mr. Alex Zhong and related sales and technical backbones had a conference with the visitors and showed them around the factory of Tech-Long. The delegation carefully visited the equipment under installation and debugging and consulted and discussed with the technicians who were responsible for answering questions at the site on details concerning the design, installation and operation of the equipment.

In the summary meeting held later, the representative of the delegation introduced the plan of BIG for the coming three to five

years and made pertinent comments on the equipment of Tech-Long based on their observation in the visit. Compared with the past, the exploration and innovation, improvement and optimization of Tech-Long over the past four years have been fully affirmed. Meanwhile, they also expressed unbiased opinions on how Tech-Long should continue to deepen and refine the design, assembly and installation of equipment, enhance the production management and improve after-sale service level. The staff of Tech-Long carefully listened to the opinions and suggestions of the visitors, saying that they would try to seize the opportunity to seek for more and better cooperation opportunities with Coca Cola.

Text by: Sky Yuan

达意隆中标2019年智能制造系统解决方案供应商



2019年工信部智能制造系统解决方案供应商项目招标评标公示，经企业申报、专家评审，全国58家企业入选2019年智能制造系统解决方案供应商，广州达意隆包装机械股份有限公司成为分包23“智能工厂集成-食品”中标候选人之一，目前已过公示期。

多年来，达意隆积极响应国家战略，秉承“为你而转”的企业精神，通过深度挖掘客户需求，面向食品、饮料、乳品、调味品、日化等行业，为全球客户提供水处理、饮料前处理系统、PET瓶吹瓶系列、灌装系列、桶装水系列、吹灌旋系列、吹贴灌旋系列、贴标系列、输送系列、二次包装设备系列等液态产品包装单机设备及整线智能装备、智能车间、智能工厂的顶层规划设计。重点围绕装备智能化、生产过程智能化、管理智能化和服务智能化持续创新，整合厂房设计、设备供应、人才培养、生产运营、远程运维等资源，提供产品+服务智能制造全面解决方案，满足客户产品研发、采购、制造、包装、仓储、物流、分销、消费的全价值链环节服务需求，由单纯装备制造向

服务型制造模式转型，努力打造服务型制造业新业态。

达意隆作为液态包装行业的领先制造商，为众多饮料、水、乳制品等客户提供液态包装的全面解决方案，持续为客户提供更长的设备服务时间保障。

今后，达意隆将坚持“液态包装自动化整线解决方案”和“基于机器人的工业自动化解决方案”的双轮驱动战略，以智能、高速、绿色、柔性为研究方向，深化核心技术研究，保持行业技术领先能力，在智能制造领域为我国食品饮料工业的高质量发展贡献一己之力。

Recently, the tendering and bidding results for the project of intelligent manufacture system solutions launched by the Ministry of Industry and Information in 2019 have been made public. After the enterprises submitted an application and experts organized a review of their applications, 58 enterprises nationwide have been selected.

Tech-Long Wins the Bid to Become a Supplier of Intelligent Manufacture System Solutions in 2019

Guangzhou Tech-Long Packaging Machinery Co., Ltd. became one of the candidates winning the sub-contract 23 “smart factory integration--foods”, which has passed the publicity period.

Over the years, Tech-Long has actively responded to national strategy and adhered to the corporate spirit of “Runs for you”. By deeply mining the demands of clients, it has provided global clients of different industries such as foods, beverage, dairy products, condiments, daily use chemicals with top-level planning and design for smart workshops and factories, smart equipment of whole production line and liquid products packaging machinery equipment such as water treatment, beverage pre-treatment system, PET bottle blowing, filling, bottled water, blowing-filling-capping, blowing-labeling-filling-capping, labeling, conveying, secondary packaging equipment. It focuses its continuous innovation around intelligent equipment, intelligent production process, intelligent management and services, integrating such resources as workshop design, equipment supply, talent training, production and operation, remote operation and maintenance and providing comprehensive solutions of intelligent manufacture combining products and services to satisfy the demands of clients for whole-value-chain services such as product R&D, procurement, manufacture, packaging, warehousing, logistics, distribution and consumption. It transforms from equipment manufacture only to service-based manufacture and tries to create new business of



service-based manufacture.

As a leading manufacturer of liquid packaging industry, Tech-Long provides many clients of industries such as beverage, water and dairy products with comprehensive solutions of liquid packaging and continuously provide the clients with a longer service life guarantee of equipment.

In the future, Tech-Long will insist on the strategy driven by two wheels, namely “whole line solutions of automatic liquid packaging” and “robot-based industrial automation solutions”. Taking intelligence, speed, greenness and flexibility as its research orientation, it tries to deepen the research of core technologies and remain technologically leading in the industry, contributing its strength to the high-quality development of China’s food and beverage industry in the field of intelligent manufacture.

Text by: Wang Yannan

深耕市场 行以致远

Developing Market to Reach Far





春去秋来，几多时。回眸暖阳煦风下的精彩时光；凝望岁月长河里拼搏的灿烂日子。

今天，我们笃定从容、蓄势待发。我们坚信，没有什么力量能够阻挡我们奋然前进的脚步。

携手共赢 共创未来

2019年4月，达意隆董事长张颂明先生，技术中心总监邹大群先生访问印度。在销售团队的陪同下，张颂明先生等一行人参加了印度 Podaran 公司的 27000BPH 含汽整线的开厂仪式，随后，参观了印度 Daily Fresh 公司。客户对达意隆表示了热烈的欢迎，大家欢聚一堂，开诚布公，共同探讨未来发展。

4月底，印度捷报频传，Podaran 公司的 27000BPH 含汽整线顺利验收，Daily Fresh 公司的 36000BPH 含汽吹灌旋整线顺利验收。

在访问印度期间，董事长张颂明在销售团队的陪同下，拜访了一家拥有 100 多年历史的私人有限公司——

Parle Agro，双方就未来的发展进行了深入交流，合力描绘企业发展的宏图。此次的交流，让双方对未来的合作发展之路更为期待。希望双方以此为契机，不断突破，将合作推向更深层次，更宽领域，更高水平，共同续写辉煌。

团结奋进 落地成花

2019年5月21日，第三十三届中国国际塑料橡胶工业展览会在广州隆重举行。达意隆展台现场人头攒动，往来参观者络绎不绝，达意隆领军者的品牌光芒闪耀绽放。作为中国高端液态包装机械领导者，为了更好地利用橡塑展这个契机，向世界展示达意隆的卓越技术和人性化服务。达意隆国际三部销售团队积极为国际客户联系各大客户工厂，商谈参观事宜，国内领导及同事给予了极大支持，协助国际三部同事，一起为客户提供了一个完美的参观平台。

展会期间，各区域销售分别陪同客户以及代理参观各大工厂整线，国内各大区域给予了极大的帮助。东中国区销售总监洪总及同事积极联系河源农夫山泉



5 加仑新线，上海雀巢工厂和安徽野岭 48000BPH 水线整线；南中国区销售总监郑总及同事联系清溪华新达怡宝生产线（客户主要咨询 36000BPH 饮用水线）和三水健力宝；智能工厂解决方案总监郑总及同事联系了深圳今天国际全自动立库制造商。参观时，客户对达意隆设备表示了高度的赞扬与肯定。达意隆的销售团队用专业的技术知识为客户解疑答惑，获得了客户的肯定。参观结束后，各区域的代理及新老客户欢聚一堂，共同探讨研究发展规划。

正是国内销售部领导和同事们开发了优质客户及优质工厂，提供了优质服务并与客户保持了良好关系，国际三部才能顺利安排国际客户参观客户工厂，为后续的国际市场开拓提供了良好的展示平台。

MAIDUBAI 公司，拥有迪拜政府背景的工厂，因其五加仑技术要求高，我们严格按照客户 RFQ 提供技术方案，并带客户参观公司总部以及上海雀巢工厂，最终获得 2200 桶五加仑卸码垛机器人项目。

得益于达意隆设备的高效稳定，以及良好口碑，沙特 ATHAB 客户在代理的陪同下，与销售人员进行探讨技术方案以及整线情况后，顺利签订一条 36000BPH 整线。另外，沙特 UCS 客户，在了解了达意隆设备，并与代理及销售进行了深入的交流和探讨后，预计会在 7 月份与公司签订一条 36000BPH 水线整线。此外，巴基斯坦 SIXB 客户想上一条 12000 果汁吹灌旋，销售人员正积极沟通，争取早日取得订单。

印度 Podaran 客户是公司的老客户，去年签订的含气整线在 4 月底顺利验收后，客户对达意隆的设备更加地肯定与赞赏。所以在橡塑展结束之后，我们与客户及时沟通，并再次前往印度现场，了解客户目前的需求及市场分析。在积极的探讨和交流后，与客户签订了一条 27000BPH 果汁线和一条 36000BPH 含汽整线。

Parle Agro Pvt.Ltd. 公司（简称 Parle Agro 公司）是一家专业生产，销售果汁饮料，含汽饮料及其他



食品的私人有限公司。2019年5月6日，在达意隆中东分公司CEO Jinesh及印度分公司销售总监 Vithal 的陪同下，印度 Parle Agro 公司董事长 Prakash Chauhan 携其家属及资深项目技术顾问到访达意隆，进行了为期三天的项目洽谈。

达意隆董事长张颂明先生以及销售团队全程陪同客户参观达意隆，销售向客户展示达意隆设备的特点，用专业知识为客户解疑答惑，获得肯定与赞赏。基于达意隆设备的稳定高效及在印度市场上的良好口碑，双方很快就达成了合作意向，签订了一条48000BPH 含汽整线和两条26400BPH 中温果汁线。

二十年，达意隆一以贯之，聚焦优势，在充分发挥优势的基础上不断进行技术创新；聚焦支持，在开拓市场的道路上，国内外领导及同事们齐心协力，共同争取；聚焦服务，在高速发展中坚持优势服务。正是因为各领导的理解与支持，各部门同事的努力开拓市场与良好的客户关系，为以后的国际市场打下了

坚实的基础。作为达意隆人，我们相信，每一步都是未来。我们将不断挑战技术和服务的极限，不断提升满足客户需求的能力，让企业迈向更高的层次。

Spring goes and autumn comes. Looking back to the wonderful time of warm sunshine, we have struggled hard for long years.

Today, we are calm and ready to start anew. We are convinced that no force can stop our steps of forging ahead.

Joining hands to usher in a win-win future

In April 2019, Mr. Zhang Songming, chairman of the board of Tech-Long and Mr. Zou Daqun, the director of technical center, visited India. Accompanied by the sales team, the delegation headed by Mr. Zhang Songming visited the opening ceremony of the 27000BPH CSD production line of India Podaran Company. Later, they visited India Daily Fresh Company. The clients expressed warm welcome to the arrival of the delegation of Tech-Long. They got together to discuss and explore the





future development frankly and sincerely.

At the end of April, news of victory was sent from India frequently. The 27000BPH CSD production line of Podaran was accepted smoothly. The 36000BPH CSD blowing-filling-capping production line of Daily Fresh was accepted smoothly.

During the visit to India, accompanied by the sales team, Chairman Zhang Songming visited Parle Agro, a private limited company with a history of over 100 years. Both sides had an in-depth exchange on their future development and depicted a blueprint for business development together. The exchange enhanced the expectation of both sides in the path of their cooperation and development. Hopefully taking this opportunity, both sides could keep making breakthroughs to deepen, widen and enhance their cooperation and open a brilliant chapter together.

Forging ahead in unity

On May 21, 2019, the 33rd Chinaplas was held grandly in Guangzhou. The booth of Tech-Long was crowded by visitors. The brand of Tech-Long

as an industrial leader was shining brilliantly. As a leader of high-level liquid packaging machinery industry of China, in order to make a better use of the opportunity from Chinaplas and convey the outstanding technology and humanized services of Tech-Long to the world, the sales team of the third International Department of Tech-Long actively contacted each client's factory for international clients, negotiated on the issues concerning visits. Domestic leaders and co-workers offered great support to assist the coworkers of the third International Department, creating a perfect visiting platform for the clients.

During the exhibition, the salespersons of each region respectively accompanied the clients and agents to visit the production lines of each factory, receiving great assistance from each major region at home. Manager Hong, the sales director of East China region and co-workers came in active contact with the 5-gallon new line of Heyuan Nongfu Spring, Shanghai Nestle factory and the 48000BPH water line of Anhui Yeling. Manager Zheng, the sales director of South China region and co-workers contacted the C'estbon production line of Qingxi Huaxinda (the clients mainly



consulted on 36000BPH drinking water line) and Sanshui Jianlibao. Manager Zheng, the director of intelligent plant solutions and co-workers contacted Shenzhen Kingya International fully automatic stereoscopic warehouse manufacturer. During the visit, the clients highly recognized and praised the equipment of Tech-Long. The sales team of Tech-Long answered questions and solved puzzles of the clients with their technical expertise and thus won recognition from the clients. After the visit, the agents of each region and both old and new clients got together to explore and study the development planning.

Leaders and coworkers of our domestic sales department have developed quality clients and factories and provided quality services and maintained a good relationship with our clients. Therefore, our International Third Department could smoothly arrange international clients to visit the plants of clients, which offered a good exhibition platform for our exploration of international market.

MAIDUBAI Company, a factory with a background of Dubai government, had a high requirement on 5-gallon technology. So we provided a technical scheme strictly in accordance with the client's RFQ and showed the client around our headquarters and Nestle factory in Shanghai. Finally we won the project of depalletizing and palletizing robots for 2,200 5-gallon bottles.

Benefiting from the efficiency and stability of Tech-Long equipment and its good reputation, the Saudi client of ATHAB, accompanied by the agent, discussed the technical scheme and whole production line with the salesperson and smoothly signed a complete 36000BPH production line. Additionally, the Saudi client of UCS learned about the equipment of Tech-Long and had a deep exchange and discussion with the agent and salesperson. It was expected to sign another 36000BPH water line with Tech-Long in July. Besides, the Pakistan client of SIXB wanted a 12000BPH fruit juice BFC line. The sales staff were actively communicating with an aim to win the order sooner.

The Indian client of Podaran is an old client of the company. After the carbonated production line signed last year was accepted smoothly at the end of April, the client recognized and praised the equipment of Tech-Long more than before. Therefore, after the Chinaplas, we communicated with the client in time and went to the site in India again to learn about the client's current demands



and analyze the market. After an active discussion and exchange, we signed a 27000BPH fruit juice line and a 36000BPH CSD line with the client.

cooperation very soon and signed a 48000BPH CSD production line and a 26400BPH medium-temperature fruit juice line.

Parle Agro Pvt.Ltd. (Parle Agro for short) is a private limited company specialized in the production and sales of fruit juice beverage, carbonated beverage and other foods. On May 5, 2019, accompanied by Jinesh, the CEO of Tech-Long Middle East branch and Vithal, the sales director of our Indian branch, Prakash Chauhan, chairman of the board of India Parle Agro and his families and senior project technology consultant paid a visit to Tech-Long for a three-day negotiation on the project.

For twenty years, Tech-Long has always focused on its advantages and made technical innovation constantly on the basis of fully unleashing its advantages. Focusing on support, on the path of exploring the market, leaders and coworkers at home and abroad have made concerted efforts to work towards the same goal. Focusing on services, it has carried on its advantaged services in its rapid development. Thanks to the understanding and support of each leader, the effort of each department and coworker in exploring the market and the good customer relations, it has laid a solid foundation for its international market in the future. As staff of Tech-Long, we are convinced that we are embracing the future in taking each step. We will keep challenging the limits of technology and services, improving our capabilities to meet the demands of customers to push the enterprise to a new height.

Mr. Zhang Songming, chairman of the board and the sales team of Tech-Long accompanied the visit of the clients to Tech-Long. The sales specialists demonstrated the characteristics of our equipment to the clients and answered questions with their expertise, for which they won praises from the clients. Based on the stability and efficiency of our equipment and our good reputation in Indian market, both sides reached an intention of

Text by: Andy Chen



用爱心,带你看世界的辽阔
Take you to a vast world with love

—记2019达意隆重庆巫山爱心行
A loving trip of Tech-Long to Wushan of
Chongqing in 2019





2019年6月13日，达意隆爱心团队经过长途跋涉到达重庆市巫山县，为大山小学和大溪小学的学生们带去惊喜。

迄今为止，达意隆在慈善道路上默默行进了10多年。今年，达意隆爱心团队把爱的目光投向地域广大的重庆，走进素有“渝东北门户”之称的巫山县，为大山里的学子们改善学习条件，打造理想的学习和生活环境。

经过前期沟通，4月，达意隆派人专程到实地考察，最终选定位于大山之巅的大山小学与移民乡镇学校大溪小学，作为捐助学校。

出发之前，达意隆团队根据两所学校的需求，购买了大批课桌和玩具，为适合不同年龄段的学生，特地购进可升降高度的课桌，方便学生进行学习活动。此外，为了学校的教学方便，达意隆为两所学校捐

赠了平板电脑，满足教师们的教学需要。虽然是夏日，但是考虑到学校和寄宿学生的情况，爱心团队为两所小学购买了热水器，为大溪小学60名寄宿生每人捐赠一套被套和床单。希望这些天真的孩子们能够好好学习，不被风雨所扰；身体健康，茁壮成长。

6月13日上午，大山小学爱心企业捐赠仪式在学校操场举行，学生们为以张崇明先生为主导的达意隆爱心团队系上鲜艳的红领巾。相关领导致辞结束后，爱心物资捐赠活动开始，孩子们看到崭新的课桌和户外玩具，露出了灿烂的笑容。

下午，爱心团队不停歇地赶到大溪小学，进行爱心捐赠。大溪小学的学生们收到来自爱心团队的礼物，不停地表示感谢，让爱心团队感受到孩子的淳朴与真挚。

巫山县教委代表丁敏对达意隆此次的捐赠活动致以



深深的感谢。献出爱心和被爱的人在美丽的大山深处聚集，每个人都收获了快乐与感动。

疲惫被感动消解，爱心在这里闪光。每个孩子都是这个世界的光彩，每一个孩子的童年都值得用爱呵护。只要你需要，达意隆慈善活动一直在路上。

On June 13, 2019, the loving team of Tech-Long, after a long trek, arrived at Wushan County of Chongqing, bring a surprise to the students of Dashan Primary School and Daxi Primary School.

So far, Tech-Long has moved on along the path of charity for over ten years. This year, the loving team of Tech-Long cast their eyes of love to the vast Chongqing and walks into Wushan County which has always been honored as the

“northeastern portal of Chongqing” to improve the learning conditions and create an ideal learning and living environment for the students of the mountainous region..

After an earlier communication, in April, Tech-Long sent staff to carry out a field inspection. Finally it selected two schools to receive its donations, which were Dashan Primary School at the peak of Dashan and Daxi Primary School in a town of immigrants.

Before the loving team departed, the team purchased a lot of desks and toys according to the needs of the two schools. They had particularly bought desks with an adjustable height for the students of different age groups so as to make it convenient for the learning



activities of the students. Besides, in order to make it convenient for the teaching of the schools, Tech-Long donated tablet PCs to the two schools to satisfy the teaching requirements of the teachers. It was summer, yet considering the conditions of the schools and boarding students, the loving team purchased water heaters for the two primary schools and donated a set of quilt cover and bed sheet to each of the sixty boarding students of Daxi Primary School. They hoped that these innocent kids could study hard without the disturbance of rains and winds and grow up robustly.

On the morning of June 13, the donation ceremony of an loving enterprise for Dashan

Primary School was held at the playground of the school. The students helped the loving team headed by Mr. Zhang Chongming put on a bright red scarf. After related leaders made a speech, the loving donation ceremony kicked off. The kids showed a brilliant smile looking at the brand new desks and outdoor toys.

In the afternoon, the loving team, without a break, hurried to Daxi Primary School to hold another loving donation. The students of Daxi Primary School kept expressing their gratitude upon receiving the gifts from the team. The team felt the simpleness and sincerity of the kids.

Ding Min, the representative of the Education



Committee of Wushan County, expressed deep gratitude for the donations of Tech-Long. The loving team and the kids gathered at the depth of the beautiful mountain. Everyone was happy and touched.

Fatigue was eliminated and relived by the shining love. Every kid is a splendor of the world. The childhood of every kid deserves care and love. Tech-Long keeps moving on along the path of charity.



每一次行动让爱更有意义

—记2018达意隆湖南永州助学活动

天气晴朗，树木葱茏，当得起一句“绿树阴浓夏日长”。在这悠悠夏日里，达意隆爱心团成员在张崇明先生的带领下历经近八个小时的车程，最终到达湖南永州，为道县横岭瑶族乡文明小学和双牌县泂泊镇永江小学的孩子们送上夏日礼物。

进行爱心助学活动之前，达意隆人认真筛选捐助对象，并对其进行了实地考察。摇摇晃晃的桌椅，漆皮脱落的斑驳墙面，和孩子们的朗朗读书声形成鲜明对比，让人更直观地感受到学子们所处教学环境的严峻。达意隆人迫切希望改善学子的学习条件，为求知若渴的孩子创造更好的学习天地。



Every Action Makes Love More Meaningful

—An education supporting program launched by Tech-Long in Yongzhou of Hunan in 2018

了解了相关事宜，达意隆人立刻将爱心化为实际行动。经过修缮，校园焕然一新。此外，爱心成员为学子和教师们赠送了崭新的桌椅、书包、文具、教学用具、体育器材等，让他们感受到来自社会企业的关注和温暖。

达意隆在努力创造价值的同时，从不忘自身的社会责任，持续关注、支持更多偏远地区学校和学子的发展，每年捐助 2~4 所学校，帮助改善学校教学条件，完善基础设施。





达意隆一直坚持用心回馈社会，为祖国的未来推波助行。同时也希望通过自身的嘉言善行，影响更多的企业与社会爱心人士加入到我们的队伍中来，为祖国的教育事业做出更大的努力和贡献。

In the fine weather of summer, trees were lush and shady. Headed by Mr. Zhang Chongming, the loving team of Tech-Long traveled by bus for nearly eight hours and finally arrived at Yongzhou of Hunan, bringing summer gifts to the kids of two primary schools, namely the Civilization Primary School of Hengling Yao Minority Town of Daoxian County and Yongjiang Primary School of Longbo Town, Shuangpai County.

Before the loving donation activity, Tech-Long carefully screened the objects of donation and conducted a field inspection. The rickety desks and chairs and the mottled and paint-shedding walls formed a sharp contrast to the pleasant reading voice of the kids, highlighting the poor teaching environment of the students. Tech-Long urgently hoped to improve the learning conditions of the students and create a better place for the kids to absorb knowledge.

After learning about relevant issues, Tech-Long immediately turned love into an action.



After repairing, the campus took on a new look. Besides, the loving team presented the students and teachers with new desks and chairs, schoolbags, stationery, teaching aids and sports apparatus. They had felt attention and warmth from the society and enterprises.

While trying to create values, Tech-Long has never forgot its social responsibility. So we have continuously paid attention to and supported the development of schools and students in the remote regions. Each year we donate two

to four schools to help improve their teaching conditions and improve their facilities.

Tech-Long has always insisted on repaying the society with heart and contributing to the future of the motherland. Meanwhile, we also hope that through the influence of our kind words and deeds, more enterprises and loving people of the society can join our team and make bigger efforts and contributions to the education of China.

//// Chinaplas® 2019
国际橡塑展

Chinaplas 2019专题 行胜于言 做更好的产品

**Feature of Chinaplas 2019:
Action Speaks Louder than Words,
Producing Better Products ·**





2019年5月21日，第三十三届中国国际塑料橡胶工业展览会在广州·琶洲·中国进出口商品交易会展馆盛大举行。逾3500家领先展商，包括1800多家包装行业的优秀展商汇集于此，聚焦“智能制造·高新材料·环保及可循环解决方案”，积极响应客户的需求，为业界带来了一场高水准的工业盛宴。此次达意隆携第五代吹瓶机和旋转式双面不干胶贴标机如约而至，新老客户在11.1馆E41相聚。

达意隆作为行业内优秀的产品供应商，不管是品牌形象还是产品都与国际接轨。整个现场全面围绕顾客和产品展开。“TECH-LONG”标识和达意隆代表性产品图环绕四周，让参观者能够一眼锁定我们。

除此之外，舒适的商务会谈区为双方的合作洽谈提供便利，前台的餐饮服务，充分体现了达意隆一切服务于客户的人文关怀。

展会期间，达意隆销售人员与客户诚意沟通，成熟的产品，专业的产品介绍以及客观理性的分析吸引了一批批顾客驻足。展台座无缺席，顾客来自世界各地——东南亚、非洲、中东、欧洲、北美、南美等。不同国家的朋友齐聚达意隆展位，共谋发展，充分体现了达意隆向世界舞台迈进的从容和魄力。

2019年，是传统行业发展的关键期。达意隆紧盯企业核心竞争力，用行动为自身增值。面对越来越激



烈的市场竞争，达意隆通过自身的创造，应对市场变化，为客户提供更大的价值，从而增强双方的影响力。

2019年5月24日，第三十三届中国国际塑料橡胶工业展览会完美落幕，达意隆的创新之路还会更远，敬请期待下一次的相遇！

On May 21, 2019, the 33rd Chinaplas was held grandly at the Pazhou Complex of China Import and Export Fair in Guangzhou. More than 3,500 leading exhibitors, including over 1,800 excellent exhibitors of packaging industry gathered here to focus on "smart manufacture, high-tech materials, environment protection and recyclable solutions". Actively responding

to the demands of customers, it brought a high-level industrial feast to the industry. This time, Tech-Long attended the exhibition as scheduled with its fifth generation of bottle blowing machine and rotary double-side adhesive sticker labeling machine. Old and new clients got together at E41 of Pavilion 11.1.

As an excellent supplier in the industry, Tech-Long has geared to international standards in terms of brand image and products. The site was designed completely around customers and products. Our exhibition booth was surrounded by the logo of "TECH-LONG" and pictures of our typical products, which enabled visitors to identify the company at a first glance. Additionally, the



comfortable business meeting area has created convenience for the negotiations for cooperation. The food and beverage service offered at the front desk fully reflected our humanistic care of doing everything to serve our valued customers.

During the exhibition, the sales specialists of Tech-Long communicated sincerely with customers. Batch after batch of customers were attracted to our booth by our mature products, professional introduction to the products and objective and rational analysis. The booth was crowded by customers and visitors from different regions of the world such as Southeastern Asia, Africa, Middle East, Europe, North America and South America. They gathered at our booth to seek common development, which reflected our calmness and

courage to stride forward into the world's stage.

2019 is a critical period for the development of conventional industries. Tech-Long has focused on its core competitiveness and taken action to increase its own value. In the face of the increasingly fierce market competition, we try to cope with market changes with our creative efforts and maximize the values of our customers, thereby enhancing the influence of each other.

On May 24, 2019, the 33rd Chinaplas was concluded successfully. There is a long way to go for our innovation. We look forward to seeing you again next time.

启幕 | 达意隆邀您共享“饮料工业”盛宴

Kick-off: Tech-Long Invites You to a Feast of “Beverage Industry”

2019 年 11 月 18 日，备受饮料行业关注的第九届中国国际饮料工业科技展在上海正式拉开了帷幕。



中外展商齐聚一堂，聚焦行业发展动向，锁定行业发展热点，展示饮料行业的最新技术成果。

达意隆作为 CBST 展会的参展商之一（展位号：N2 馆 2F01），携大瓶水吹灌旋以及贴标机亮相，为液态包装行业提供可持续的实际应用以及全面解决方案，推动行业的产品创新和技术进步。

展会期间，达意隆展台胜友如云，高朋满座。专业销售团队为我们的客户提供一对一现场讲解，无论是整线解决方案亦或是单机设备，您都可以在展会现场收获满意的解答。

此外，达意隆工作人员现场展示了设备的运行过程，让观众近距离见证产品的“高效、节能、卫生”，这吸引了众多参观者的关注和深度咨询，令达意隆成为了展会上的闪亮焦点之一。

“创新推动社会进步，技术是创新最持久的驱动力。”不管时代如何变化，达意隆将始终紧贴时代的脉搏，积极应对各种挑战，抓住机遇，与时代共同进步！



On November 18, 2019, the 9th China Beverage Science and Technology Exhibition (CBST) officially kicked off in Shanghai to the expectation of the beverage industry.

Chinese and foreign exhibitors gathered to focus on the industry's development trend and hot issues and show the latest technological achievements of the beverage industry.

As an exhibitor attending the CBST (Booth No.: 2F01 of Hall N2), Tech-Long appeared with its

blowing-filling-capping and labeling machine of bottled water, providing the liquid packaging industry with sustainable applications and comprehensive solutions and promoting the product innovation and technological progress of the industry.

During the exhibition, the booth of Tech-Long was crowded by visitors and audiences. Its professional sales team explained for the clients one to one. Whether whole line solutions or single equipment, you will get a satisfactory answer at the site.



Besides, the staff of Tech-Long showed the operation process of equipment, enabling the audience to witness the “efficiency, energy-saving and hygiene” of its products. As a result, many visitors were attracted to make deep inquiries. Tech-Long became one of the focuses at the exhibition.

“Innovation promotes social progress and technology is the most lasting driving force of innovation.” However the times has changed,

Tech-Long will always keep in pace with the tempo of the times, actively cope with various challenges and seize the opportunities to advance with the times.



达意隆CBB专题——最强官宣！

CBB Feature of Tech-Long--Most Powerful Official Publicity

对企业来说，创新是一件持续而重要的大事。那么达意隆是如何坚持二十年旺盛生命力和创造力的？请跟随达意隆人的镜头，一起走进这绚烂多彩的创新世界。

在 2018（第十三届）中国酒·饮料制造技术及设备制造展览会上，达意隆郑重推出 48000BPH 吹贴灌装一体机，此项新产品的研发与投产是国内液态包装行业的重大技术突破！



广州达意隆包装机械股份有限公司作为行业的龙头企业，一家全面自主研发并成功掌握吹瓶，贴标，灌装，旋盖四项关键核心技术的企业，一直努力推动行业核心技术的突破和发展。吹贴灌旋一体机成功研发落地，达意隆立刻着手布局，将此系列产品批量化推向市场。

达意隆一直为“中国制造”代言，为推动中国制造走向全球不遗余力！

此次展会整体风格极具国际风范，不仅在国内独树

一帜，独领风骚，与欧美国际大品牌相比也不遑多让，具有强烈国际竞争力，国内外同行纷纷为之侧目！国际化的展台搭配达意隆最新产品形成飓风般的影响力，成为全场最强话题王。

2018（第十三届）中国酒·饮料制造技术及设备制造展览会上，达意隆的C位是属于你的！

达意隆+你=我们！最强官宣属于我们！我们才是全场最佳组合！





For an enterprise, innovation is a continuous and important issue. Then how does Tech-Long insist on exuberant vitality and creativity for twenty years? Follow the lens of the staff of Tech-Long to enter the gorgeous and colorful world of innovation.

At the 2018 (13th) China Brew & Beverage Processing Technology and Equipment Exhibition, Tech-Long released 48000BPH blowing-labeling-filling-capping monobloc. The R&D and production of the new product was a major technological breakthrough of the domestic liquid packaging industry.

As a leading enterprise of the industry, Guangzhou Tech-Long Packaging Machinery Co., Ltd. is an enterprise that has independently developed and mastered four key and core technologies of blowing, labeling, filling and capping, always trying to promote the breakthroughs and development of core technologies of the industry. With the blowing-labeling-filling-capping monobloc successfully developed and released, Tech-Long has at once focused on an effort to realize volume production and roll out the series products into the market.



Tech-Long has always spoken for “Made in China” products, sparing no effort in promoting Made in China products to go global.

In the exhibition, our booth took on an international style as a whole, which took the lead at home and could rival international brands of Europe and America. With a strong international competitiveness, it surprised the peers at home and abroad. Our international booth and latest products contributed to our influence like a hurricane, making Tech-Long a hottest topic of the event.

At the 2018 (13th) China Brew & Beverage Processing Technology and Equipment Exhibition, the central position of Tech-Long belongs to you!

Tech-Long plus you is equal to us! The best official publicity belongs to us! We are the best combination at the site!

团队共建设 你我同进步

Progressing Together in Team Building



国庆后，各项工作进入繁忙的收官阶段，营销中心有望今年提前完成任务，在公司常务副总经理张崇明先生的指示下，两个事业部的技术总监组织了一场业务员新技术新产品的知识培训。此次培训旨在加强公司业务人员对新产品、新技术的认识，提升业务员的专业技巧，以企将技术成果和优势转换为公司经营利润，抢占市场先机。

近年来，公司不断加强精细化管理，营销中心率先于 2018 年推行业务承包机制，以激发业务员的销售热情、销售潜能。

为准备课件，两事业部总监牺牲国庆节节假日时间，精心制作了内容丰富、技术详解且配有产品视频的新产品、新技术 PPT，以便业务员更直观地了解产品内容。课堂上，吹灌事业部张航天总监讲述了吹灌事业部 2019 年的技术研发成果，以及明后年的技术研发方向。随后，樊缔、宋俊杰、宋奎伟副总监就吹瓶、灌装、无菌做了更为详细的讲解，分别讲解了各个产品系列的研发成果及未来研发方向。

下午，智能包装事业部何令总监率 4 位技术负责人与大家共同探讨了输送、包装、贴标、库存新技术及新产品的学术知识。

课上同事们认真聆听，并进行了热烈的讨论，以寻求完美的产品解决方案，提高客户满意度。

市场风云变幻，挑战迭出。唯有积极应对，努力务实开拓，才是最稳健从容的应对方式。相信在常务副总经理张崇明先生的部署下，各项工作事业将会更加美好。

After the National Day Holiday, each work enters a busy conclusion stage. The marketing center is expected to finish its task ahead of time this year. Directed by Mr. Zhang Chongming, the executive deputy general manager of the company, the technical directors of two business divisions organized a knowledge training of new technologies and products among the business



specialists. The training aimed to strengthen the knowledge of business specialists of the company in new products and technologies, enhance their professional skills, turn technical fruits and advantages into the company's profits and scramble for market opportunities.

In recent years, the company keeps strengthening its fine management. The marketing center took the initiative to promote a mechanism of business subcontracting in 2018 to arouse the sales enthusiasm and potential of business specialists.

The directors of the two business departments sacrificed their resting time of National Holiday and carefully produced PPT files with rich contents, a detailed explanation of technologies and videos of new products and technologies so that business specialists could have a more visualized knowledge of the products. On the class, Zhang Hangtian, director of the blowing-filling business division, introduced the department's technological achievements in 2019 and the direction of its technology research and development in 2020 and 2021. Later, deputy

directors Fan Di, Song Junjie and Song Kuiwei gave a more detailed explanation on bottle blowing, filling and sterilization, who respectively introduced the research and development achievements and future directions of each product series.

In the afternoon, He Ling, director of smart packaging division, led four technical principals to explore with everyone the academic knowledge concerning new technologies and new products of conveying, packaging, labeling and inventory.

At the class, the attendees listened carefully and made heated discussions to search for perfect product solutions and enhance the customers' satisfaction degree.

The market is changeful and challenging. Only by taking active actions and forging ahead steadily can we take and overcome the challenges calmly and firmly. We are convinced that under the deployment of Mr. Zhang Chongming, the executive deputy general manager, we will do better in each work.

达意隆维权显成效，商标维权胜诉

Tech-Long's Success in Safeguarding Trademark Rights



在近几年的大型专业展会中，离达意隆展位不远处经常能发现一家名为“黄岩达意隆”的参展商，并且故意突出使用“达意隆”商标。这种故意造成客户混淆误认的行为，引起了广大达意隆人的愤慨和行业的关注。

2014年初，达意隆企划部着手规划对其侵权行为的打击布局。经过多次展会现场行政投诉及查封、现场侵权行为有效公证以及证据收集，企划部以依法维护公司权益为目的，在维权证据充分和立案条件有利的情况下，拿起了法律的武器，于2017年5月向广州市海珠区人民法院正式提起诉讼，案件进入漫长的审理阶段。

2018年10月，广州市海珠区人民法院做出一审判决，认定台州市黄岩达意隆模具有限公司侵犯了我司的商标权，同时以“攀附”的意图构成了不正当竞

争，依法判决黄岩达意隆立即停止使用含有“达意隆”字号的企业名称，在行业杂志上刊登声明消除影响，及赔偿经济损失和维权支出合理费用共20万元整。

公司一直以来高度重视知识产权、品牌商标的建设与维护工作，此次商标诉讼胜诉，意味着公司的维权工作取得了阶段性成果。整个诉讼过程中，除了企划部的努力，也离不开市场部、财务部、法务部给予的大力支持与协助，同时，更离不开高层领导在此过程中给予的大力支持与协调。正是因为公司高层的重视，兄弟部门的通力协作，才有了一审胜诉的结果。

目前国家对知识产权保护越来越重视，对侵权违法者的惩治力度也越来越大。我们始终相信——正义一定会战胜邪恶！企业只有在拥有自主知识产权的情况下，才能在市场上立于不败之地！

In large-scale professional exhibitions these years, there is often an exhibitor called "Huangyan Dayilong" not far away from the booth of Tech-Long, which deliberately highlights the trademark of "Dayilong" (the same Chinese characters as the Chinese name of Tech-Long). This deliberate act caused a confusion to the customers and visitors, which had aroused indignation among the staff of Tech-Long and attention from the industry.

In early 2014, the business planning department of Tech-Long started to plan a combat against the company's infringement act. After filing an administrative complaint and sealing up, performing effective notarization of infringement act and collecting evidences at the site of exhibitions for times, with an aim to safeguard the company's legal rights and interests with sufficient evidences and favorable conditions for filing a case, the business planning department took up the weapon of laws and officially filed a lawsuit with the people's court of Haizhu District, Guangzhou in May 2017. Thenceforth, the case entered a long period of hearing and trial.

In October 2018, the people's court of Haizhu District reached a first instance judgment that Taizhou Huangyan Dayilong Mould Co., Ltd. had infringed our trademark right and constituted an illicit competition with an attempt of "forming a connection". The court ordered Huangyan Dayilong to stop the use of its name containing the characters of

"Dayilong" at once and publish a statement on industrial journals to eliminate the impacts and pay RMB 200,000 to compensate our economic loss and reasonable expenses for safeguarding our legal rights and interests.

The company has always attached high importance to the construction and maintenance of intellectual property rights and brand trademarks. The winning of the trademark lawsuit means that we have made a phased achievement in safeguarding our rights and interests. In addition to the effort of the business planning department, the entire litigation process could not do without the great support and assistance of market department, financial department and legal affairs department. Meanwhile, it could not do without the great support and coordination from the high-level leadership. Thanks to the attention from the executives of the company and the collaboration of other departments, we have won the lawsuit in the first instant judgement.

Currently the state has paid more and more attention to the protection of intellectual property rights and stepped up the punishment for infringements and violations. We are always convinced that justice will surely defeat the evil. Only by owning independent intellectual property rights can an enterprise remain undefeated in the market.

Text by: Fu Xiaobin

达意隆顺利通过两化融合贯标体系认证

Tech-Long Smoothly Passes the Certification of Integration of Information and Industrialization



2018年5月12日，达意隆收到工业和信息化部电子第五研究所、广州赛宝认证中心服务有限公司的两化融合管理系统评定证书（证书编号CSAIII-00318IIIMS00442701），标志着我司按照《信息化和工业化融合管理体系要求》（GB/T-23001-2017）建立的两化融合管理体系取得了阶段性成果。

两化融合是国家长期坚持的重要举措，是指以信息化带动工业化、以工业化促进信息化，走可持续发展的道路。广州达意隆包装机械股份有限公司作为国内液态产品包装的龙头企业，一贯秉承的经营理念和发展理念和两化融合理念的核心基本相通。

2015年，中国发布了《中国制造2025》，指出制造业是国民经济的核心主体，也是中国技术创新与国际竞争力的基础。包装装备产业作为关系民生的核心产业，达意隆一直走在行业的前端，积极探索

新一代信息技术与包装产业的融合。如：针对包装的核心装备吹瓶机和灌装机，利用互联网及传感技术，开发了基于SCADA的数据采集与管理系统，使得设备管理更加透明化、可视化；建设了远程运维系统，充分利用大数据、人工智能等先进的技术，实现了远程监控、故障预警、维修保养、零配件管理等个性化的服务，大大提升了下游客户的设备管理水平；研发生产管理方面，我们优化升级了SAP ERP系统，并计划实施MES、CRM、SRM、PLM等，打通产品自订单、研发、生产、售后、报废全生命周期的数据流。运用大数据分析产品在各个阶段的特点，并持续改善企业的管理水平，降低管理成本，提升运营效率。

达意隆两化融合体系通过国家认证，不是一个终点，而是一个承上启下的新起点。未来几年，达意隆将继续加大研发投入，实现两化深度融合，为做大做强具有自主核心竞争力包装装备产业贡献自己力量。

On May 12, 2018, Tech-Long received an appraisal certificate for the management system of integration of informationization and industrialization (certificate number CSAIII-00318IIIMS00442701) from the Fifth Research Institute of Electronics of the Ministry of Industry and Information and Guangzhou CEPREI Certification Body Co., Ltd., which signified that Tech-Long had made a phased achievement in its management system for integration of informationization and industrialization established in accordance with the Requirements on the Management System for Integration of Informationization and Industrialization (GB/T-23001-2017).

The integration of informationization and industrialization is an important move which the state has insisted on for a long term, which refers to a path of long-term sustainable development in which informationization drives industrialization and the latter boosts the former. Guangzhou Tech-Long Packaging Machinery Co., Ltd. is a leading enterprise in the domestic liquid product packaging industry. Its business development philosophy is basically consistent with the core of the concept of integration of informationization and industrialization.

In 2015, China released "Made in China 2025", which states that manufacture industry is the core part of national economy as well as the foundation of technical innovation and international competitiveness of China. The packaging equipment industry is a core industry concerning the people's livelihood. Tech-Long has always taken the lead in the industry and actively explored the integration of a new generation of information technologies and packaging industry. For bottle blowing machine

and filling machine, the core equipment of packaging, a data collection and management system based on SCADA has been developed with the use of Internet and sensory technology so that the equipment management becomes more transparent and visualized. A remote operation and maintenance system has been built to make a full use of advanced technologies such as big data and artificial intelligence and realize individualized services such as remote monitoring, early fault alert, repair and maintenance and management of parts and components, which has greatly enhanced the equipment management level of downstream customers. In terms of R&D and production management, we have optimized and upgraded the SAP ERP system and plan to implement MES, CRM, SRM, PLM, etc. to connect the data flows throughout the full life cycle ranging from orders, research and development, production, after-sales to scrap. Big data is applied to analyze the characteristics of each stage. The business management has been improved continuously to reduce the management costs and enhance the operating efficiency.

The integration system of informationization and industrialization of Tech-Long has passed the national certification, which is not a finishing line, but a new starting line connecting the past and the future. In the coming years, Tech-Long will continue to increase R&D investments to realize a deep integration of informationization and industrialization and contribute its own strength to the growth and development of the domestic packaging equipment industry in scale and strength with independent core competitiveness.

Text by: Liang Diansheng

达意隆荣获AEO高级认证企业证书 Tech-Long Wins an AEO Certificate



2018年9月11日,广州海关向广州达意隆包装机械股份有限公司(002209)颁发AEO高级认证企业证书,这是我国海关对企业实施新的信用等级管理体系下的最高认证级别,标志着达意隆被正式纳入海关高级认证管理体系。

“AEO”是“Authorized Economic Operator”的英文缩写,即“经认证的经营者”。

AEO制度是世界海关组织(WCO)《全球贸易安全与便利标准框架》中的一项重要制度,旨在提升国际贸易供应链的安全与便利。按照现有规定,高级认证企业适用的管理措施优于一般认证企业,海关高级认证企业适用海关给予的最大通关便利。包括最低的查验率、最快的通关速度、不实行银行保证金台账制度、专享海关设立的企业协调员等多重通关便利。

目前,海关高级认证企业不仅能享受国内便利待遇,

还可以享受AEO互认国家或地区给予的优惠措施。

走出国门后,高级认证企业可在包括新加坡、韩国、欧盟、新西兰、瑞士、以色列等在内的34个AEO互认国家或地区享受到国外海关提供的通关便利。经测算,高级认证企业的货物出口到上述国家(地区)时,查验率可降低60%-80%,通关时间和通关成本可降低50%。

此外,根据国家发展改革委、人民银行、海关总署等40个中央部门联合签署的《关于对海关高级认证企业实施守信联合激励的合作备忘录》,各部门和单位将在各自管理职责范围内给予高级认证企业相应的优惠便利待遇,进一步提高了海关高级认证企业的含金量。

达意隆荣获AEO高级认证企业证书,充分证明是海关“信得过”企业,对公司的未来发展有重大意义。这将更有利于公司开拓国内外市场,提升公司在全

球范围内的竞争力和影响力。

On September 11, 2018, Guangzhou Customs awarded an AEO certificate to Guangzhou Tech-Long Packaging Machinery Co., Ltd. (002209), which is the highest level of certification by China Customs under the new credit level management system for the enterprises and signified that Tech-Long has been officially included into the advanced authorization system of the Customs.

“AEO” is the English abbreviation of “Authorized Economic Operator”.

The AEO system is an important system in the Global Standard Framework of Trade Safety and Facilitation of the WCO (World Customs Organization), with an aim to enhance the safety and facilitation of international trade supply chain. According to the existing requirements, the management measures applicable to advanced authorized enterprises are superior to those of generally certified enterprises. The advanced authorized enterprises are applicable to the greatest clearance convenience from the Customs, including the lowest inspection rate, the fastest customs clearance, exemption from pledged deposit system and exclusive business coordinators appointed by the Customs.

At present, advanced authorized enterprises not only can enjoy domestic facilitation, but also can enjoy the preferential measures from countries or regions that mutually recognize the AEO with China.

After going abroad, senior authorized enterprises may enjoy the customs clearance facilitation from foreign customs of 34 AEO mutually recognized countries or regions such as Singapore, South Korea, New Zealand and Israel. As estimated, when the goods of an advanced authorized enterprise is shipped to the aforesaid countries or regions, the inspection rate can be cut by 60-80% and the time and costs of customs clearance can be saved by 50%.

In addition, according to the “Memorandum of Understanding on the Implementation of Joint Incentives for Credit of Advanced Authorized Enterprises” signed by 40 central departments such as the National Development and Reform Commission, the People’s Bank and General Administration of Customs, each department and organization will provide advanced authorized enterprises with corresponding preferences and facilitation within their respective scope of management responsibilities, which has further enhanced the value of advanced authorized enterprises.

Tech-Long has won an AEO certificate fully proves that it is a trustworthy enterprise of the Customs and is of great significance to the future development of the company. This will facilitate the company to explore domestic and foreign markets and enhance its global influence and competitiveness.

Text by: Liang Kun

热烈欢迎Sino-Pack海外参观团莅临达意隆

Welcome Overseas Visiting Group of Sino-Pack to Tech-Long



2018年3月10日,以“智能包装,开启未来”为主题的第二十五届中国国际包装工业展览会(Sino-Pack 2018)在广州·中国进出口商品交易会展馆(A区)盛大举行。

3月11日下午,Sino-Pack海外参观团——马来西亚、印度尼西亚等包装联合重点商会一行抵达达意隆进行参观,我司相关领导和工作人员热情接待了参观团成员。

在国际销售人员的陪同下,参观团一行参观了达意隆检测中心、机加中心、吹瓶、灌装车间及包装、

贴标、工业自动化车间,详细了解了我司在液态产品包装领域和工业自动化方面所取得的成绩和经验。

此外,我司为参观团成员举办了一场以“智能包装”为主题的演示会,为大家展示了达意隆的发展概况、设备创新历程、生意模式创新——提供整个供应链服务以及智能工厂建设,使成员对达意隆的未来发展无比期待。

经过此次的交流,双方收获颇丰。希望未来双方能进一步展开合作,实现互利共赢,为企业发展创造更大价值。



On March 10, 2018, the 25th China International Packaging Industry Exhibition (Sino-Pack 2018) was held grandly at the exhibition hall of China Import and Export Fair in Guangzhou with a theme of "Intelligent Packaging Ushers in the Future".

On the afternoon of March 11, an overseas visiting group of Sino-Pack--a delegation of packaging enterprises and key chambers of commerce of countries such as Malaysia and Indonesia arrived at Tech-Long for a visit. The members of the delegation were warmly received by related leaders and staff of Tech-Long.

Accompanied by the international sales specialists, the delegation visited our testing center, machining center, blowing and filling workshops, packaging, labeling and industrial automation workshops and learned in detail

about our achievements and experience in the areas of liquid product packaging and industrial automation.

Additionally, we held a presentation with a theme of "Intelligent Packaging" for the delegation, showing our development status, innovation history of equipment and business models and introducing the complete supply chain services and construction of intelligent plants. The members of the delegation were full of expectation in the future of Tech-Long.

Both sides have benefited a lot from the communication. Hopefully in the future, both sides can further cooperation, realize mutual benefits and win-win results and create greater values for the enterprise.

两项国家标准研讨会顺利召开， 达意隆引领液态包装设备新规范



2018年6月13-14日，由全国食品包装机械标准化技术委员会组织、广州达意隆包装机械股份有限公司牵头的国家标准《包装饮用水（桶装）全自动冲洗灌装封盖机通用技术规范》、《果蔬汁（浆）饮料热灌装封盖机通用技术规范》研讨会在广州汇华希尔顿逸林酒店举行。国家食品包装机械标准化技术委员会秘书长陈润洁、广东省质量技术监督局标准化处刘穗鲁调研员、广州市质量技术监督局标准化监督管理处张鸿副处长、广州市黄埔区市场和质量技术监督局黄烜煜副局长和郑凯文处长、广州黄埔区知识产权局刘海燕处长等领导，浙江大学刘东红教授、华南理工大学唐伟强教授、南京食品和包装机械研究所居荣华所长、苏州安高智能安全科技有限公司陈卓贤等行业专家，可口可乐、达利食品、鼎湖山泉、华润怡宝、农夫山泉、乐百氏、鹤山华泉食品饮料有限公司、

广州市芙蓉山泉饮品有限公司、广州隆宝科技技术有限公司、广州市信联智通实业有限公司、东莞宝隆包装技术开发有限公司等客户代表，克朗斯、西得乐、江苏新美星包装机械股份有限公司、杭州中亚机械股份有限公司、合肥中辰轻工机械有限公司、杭州永创智能设备股份有限公司、广州珐玛珈智能设备股份有限公司、长春北方化工灌装设备股份有限公司、东莞泛海水处理系统有限公司、深圳步先包装机械有限公司等国内外同行代表，近50人莅临参加了会议。

在13日研讨会开幕式上，广州达意隆包装机械股份有限公司董事长张颂明致开幕词，对莅临会议的领导、专家、客户、同行表示热烈欢迎。张董回顾了达意隆近几年在技术创新、产品研发方面取得的进展和阶段性成果，尤其是在《中国制造2025》提出

A Seminar on Two National Standards Held, Tech-Long Leads New Standards of Liquid Packaging Equipment

后，公司加快由装备制造向全面解决方案服务商转型，提出了基于工业机器人的非标自动化解决方案，在家电、民爆、玩具、日化、食品、家具等行业实现了应用，并积极探索传统包装行业与互联网、人工智能、大数据、AR/VR 等新技术的融合，搭建了基于工业互联网的远程智能运维平台。张董表示，公司将一如既往坚持创新，大力实施技术标准战略，以行业、国家标准带动行业技术水平的进步，为国产包装装备行业贡献自己的绵薄之力。

国家食品包装机械标准化技术委员会秘书长陈润洁对达意隆及广东地方政府及主管部门对标准工作的重视给予了充分肯定和赞扬，指出包装装备作为关系国计民生的行业，在消费转型升级、提高人民生活水平方面起到了重要作用。此次两个国家标准的研讨，将会对包装装备及下游产业起到积极的促进作用。

随后，华南理工大学唐伟强教授、南京食品和包装机械研究所居荣华宣读了标委会对成立两项国家标准工作组的批复，陈润洁秘书长代表标委会对两个国家标准工作组进行了授牌。

On June 13 to 14, 2018, a seminar was held at Double Tree by Hilton Hotel Guangzhou (Science City Branch) on the national standards "General Technical Specifications on Fully Automatic Washing-Filling-Capping Machines for Packaged Drinking Water (Barreled)" and "General Technical Specifications on Hot Filling and Capping Machines for Fruit and Vegetable Juice

(Pulp) Drinks", which was organized by National Food Packaging Machinery Standardization Technology Committee NFPMSTC) and led by Guangzhou Tech-Long Packaging Machinery Co., Ltd. The seminar was attended by nearly 50 persons, including leaders such as Chen Runjie, secretary general of NFPMSTC, Liu Suilu, a researcher with the Standardization Office of Guangdong Provincial Quality and Technology Supervision Bureau QTSB, Zhang Hong, deputy director of the Standardization Supervision and Administration Office of Guangzhou Municipal QTSB, Huang Xuanyu, deputy director and Zheng Kaiwen, section chief of the Market and Quality Supervision and Administration Bureau of Huangpu District, Guangzhou, Liu Haiyan, section chief of the Intellectual Property Office of Huangpu District, Guangzhou, industrial experts such as Professor Liu Donghong of Zhejiang University, Professor Tang Weiqiang of South China University of Technology, Ju Ronghua, head of Nanjing Food and Packaging Machinery Institute, Chen Zhuoxian from Suzhou Angao Intelligent and Safe Technology Co., Ltd., representatives of clients such as Coca Cola, Dali Food, Dinghu Spring, C'estbon, Nongfu Spring, Robust, Heshan Huaquan, Guangzhou Furong Spring Beverage, Guangzhou Longbao, Guangzhou SLZT, Dongguan Baolong, and representatives of domestic and oversea peers such as Krones, Sidel, Jiangsu Newamstar,



Hangzhou Zhongya, Hefei Zhongcheng Light Industry Machinery, Hangzhou Youngsun , Guangzhou Pharma, Changchun North Chemical Filling Equipment, Dongguan 4R Packaging Sea Water Treatment, and Shenzhen Pacelead Mechanical and Electrical Equipment.

At the opening ceremony of the seminar on June 13, Zhang Songming, chairman of the board of Tech-Long delivered an opening speech to express warm welcome to the leaders, experts, clients and peers attended the seminar. Chairman Zhang reviewed the progress and phased achievements made by Tech-Long in terms of technical innovation and product research and development in the past years. Particularly after the “Made in China 2025” was unveiled, the company accelerated its transformation from an equipment manufacturer to a service provider of comprehensive solutions,

proposed a non-standard automation solution based on industrial robots, which has been applied in industries such as household appliance, civilian explosives, toys, daily use chemicals and furniture. It has also actively explored the integration of conventional packaging industry with new technologies such as Internet, artificial intelligence, big data, AR/VR and established a remote intelligent operation and maintenance platform based on industrial Internet. Chairman Zhang said, the company will stick to innovation as usual, strive to carry out the technical standard strategy, drive the progress of technology of the industry with industrial and national standards and contribute its weak strength to the domestic packaging equipment industry.

Chen Runjie fully recognized and praised Tech-Long and the local governments and competent

departments of Guangdong for attaching importance to the standardization work, and pointed out that as an industry concerning national economy and people's livelihood, packaging equipment plays an important part in the consumption transformation upgrade and improvement of people's life. The discussion on the two national standards will play an active boosting part for the packaging equipment and downstream industries.

Later, Professor Tang Weiqiang and Ju Ronghua announced the official and written replies to the establishment of a working team for the two national standards. Secretary General Chen Rungjie awarded the license to the working team on behalf of the Standards Committee.

After the awarding of the license, Liu Suitu, Zhang Hong, Huang Xuanyu respectively delivered a speech to summarize the supporting policies for standards released by provincial, municipal and district governments and encourage the enterprises to perfect the standardization system, actively participate in the formulation of international standards and promote the products to gear to international standards.

The opening ceremony was concluded in heated applauds. After the attendees posed for a photo, the experts and guests attending the event walked to the conference hall of the hotel and began to discuss related details and rules on the drafting of the two standards. Food safety concerns people's livelihood. With the improvement of consumption level and upgrade of consumption concept, today customers have paid more attention to the safety, healthiness,

greenness and individuality of foods, which has raised higher requirements on production and packaging equipment. The purpose of the seminar was to discuss the national standard of packaging equipment, widely listen to the opinions of manufacturers, clients and related experts, involve them actively in the development of standards so that production and packaging equipment for barreled water and fruit and vegetable juice beverage can be more standardized, thus guaranteeing the guiding role of standards to the development of the industry and promoting the healthy competition and sustainable development of Chinese industries of fully automatic filling-capping machine for drinking water (barreled) and hot machine for vegetable juice (pulp).

As a national high-tech enterprise, Tech-Long has always attached importance to technical innovation and standardization. At present, it owns 531 valid patents (170 inventions), has won six awards of excellence for Chinese patents, led the development of 15 national standards and 13 industrial standards. This time Tech-Long takes the lead in the drafting of the two standards, which has not only regulated and promoted the improvement of technology of fully automatic filling-capping machine and hot filling-capping machine, but also indirectly played an active role in facilitating the development of drinking water, fruit and vegetable juice (pulp) beverage industries.

Text by: Cao Xiaohong

达意隆获评成为“国家知识产权示范企业”



2018年7月，国家知识产权局对“2018年度国家知识产权示范企业和优势企业名单”进行公示，达意隆凭借在知识产权领域的优异表现成功入选，获评成为“国家知识产权示范企业”。这也是达意隆继2015年被评为“国家知识产权优势企业”后，在知识产权管理工作方面取得的又一重大荣誉。

据悉，国家知识产权示范企业是国家对知识产权工作突出的企业授予的最高荣誉。经企业自愿申请、各省知识产权局择优推荐，由国家知识产权局按照《国家知识产权示范企业培育工作方案》要求，组织企业前往北京参加评审答辩，本次评审公布入选企业全国共234家，广东省入选企业27家，其中广州市入选企业仅3家。

达意隆作为广东省首批专利试点企业和国家知识产权优势企业，始终专注于液体产品包装装备领域与工业机器人设备的研发，坚持自主创新，围绕技术创新和市场开拓，优化企业国内外专利、商标布局，全面提升知识产权战略管理能力、创造能力、运营能力和维权保护能力。迄今为止，公司共申请专利859项，其中发明346件；拥有境内商标19件，境

外商标25件；参与和制定相关产品标准33项，其中国家标准制定16项。无论是国家标准制定数量还是发明专利授权量，达意隆在国内同行中均处于领先地位。

本次入选“国家知识产权示范企业”，是国家对达意隆在知识产权工作方面的高度认可。达意隆将持续坚持自主创新，不断加大研发投入，完善创新激励机制，继续建设实施包括专利、商标、著作权等在内的全方位知识产权战略，继续推进知识产权全流程管理，实现知识产权业务深度渗入公司研发、采购、市场、销售等各个经营环节。打造具有自主知识产权的优势产品，充分发挥知识产权在企业壮大、市场竞争、行业进步的积极推动作用。

In July 2018, the State Intellectual Property Office has released the “list of demonstration enterprises and advantaged enterprises of national intellectual property rights in 2018”. Tech-Long has been included for an excellent performance in the field of intellectual property rights and been honored as a “demonstration

Tech-Long Honored as “Demonstration Enterprise of National Intellectual Property Rights”

enterprise of national intellectual property rights”. This is another great honor won by Tech-Long in terms of intellectual property management after it was honored as an “advantaged enterprise of national intellectual property rights” in 2015.

It's reported that the honor of a demonstration enterprise of national intellectual property rights is the highest honor awarded by the state to the enterprises with a prominent performance in intellectual property rights. After applied for by each enterprise on a voluntary basis and selected and recommended by the intellectual property office of each province, the State Intellectual Property Office, in accordance with the “Work Scheme for the Fostering of Demonstration Enterprises of National Intellectual Property Rights”, organized the enterprises to Beijing to participate in a review and reply. In the review, a total of 234 enterprises have been selected and announced nationwide, including 27 enterprises of Guangdong Province and only three enterprises of Guangzhou.

As one of the first batch of piloting enterprises of patents and advantaged enterprises of national intellectual property rights of Guangdong Province, Tech-Long has always focused on the research and development of liquid product packaging equipment and industrial robots, insisted on independent innovation and tried to optimize its layout of patents and trademarks at home and abroad and fully improve its capabilities in terms of strategic management of intellectual property rights, creativity,

operation and maintenance and protection of its own rights and interests around technical innovation and market development. So far, the company has applied for 859 patents, including 346 inventions; owned 19 domestic trademarks and 25 foreign trademarks; involved in the development of 33 related product standards, including 16 national standards. Whether in the number of national standards developed or the number of authorized invention patents, Tech-Long has taken the lead among domestic peers.

This time winning the honor of “a demonstration enterprise of national intellectual property rights” is a high recognition from the state on the performance of Tech-Long in intellectual property rights. Tech-Long will continue to adhere to independent innovation, step up its research and development investments, perfect its innovation incentive mechanisms, continue to build and implement a comprehensive intellectual property strategy covering patents, trademarks and copyrights. It will continue to promote the whole-process management of intellectual property rights and make the business of intellectual property rights deeply permeate into each operation link such as research and development, purchasing, market and sales. It will create advantaged products with independent intellectual property rights and give a full play to the active role of intellectual property rights in boosting growth of the enterprise, market competition and progress of the industry.

Text by: Cao Xiaohong

工信部产业政策司于晓东副司长一行 莅临达意隆考察调研



2018年8月30日下午，工信部产业政策司于晓东副司长、服务型制造示范城市评审专家等一行，在广东省经信委生产服务业处全在勤副处长、广州市工信委叶小强副巡视员、广州市工信委生产服务业处黄东航处长、广州开发区管委会张超平副主任等领导的陪同下到达意隆调研考察，我司张颂明董事长接待了调研组一行。

于晓东副司长及调研组一行听取了张颂明董事长对于企业由制造业向服务型制造企业转型的思路以及在总集成总承包、个性化定制、EPCO及远程运维服务等方面所取得的成效，参观了检测中心、加工中心及装配车间。在装配车间，调研组一行兴致勃勃地观看了我司全自动吹灌旋一体机现场运转情况，了解了我司在总集成总承包方面的一些案例。随后参观了达意隆远程智能运维中心和工业机器人装配及集成车间。

调研结束后，于晓东副司长及调研组专家对达意隆坚持实干兴企、扎根先进制造业、积极转型升级的理念给予了高度评价，希望公司继续坚持先进制造、服务

型制造，结合新一代信息技术在全产业链打造新业态服务模式，进一步将企业做大做强。

On the afternoon of August 30, 2018, a delegation of evaluation experts for demonstration cities of service-based manufacture led by Yu Xiaodong, deputy director of the industrial policy department of the Ministry of Industry and Information, made an inspection trip to Tech-Long, accompanied by leaders such as Quan Zaiqin, deputy section chief of the production service office of Guangdong Provincial Commission of Economy and Information Technology, Ye Xiaoqiang, a deputy inspector of Guangzhou Municipal Committee of Industry and Information, Huang Donghang, director of the production service office of Guangzhou Municipal Committee of Industry and Information, Zhang Chaoping, deputy director of the Administrative Committee of Guangzhou Development Zone. The delegation was received by Zhang Songming,

A Delegation Led by Yu Xiaodong, Deputy Director of Industrial Policy Department of Ministry of Industry and Information, Inspects Tech-Long



chairman of the board of Tech-Long.

The delegation listened to the introduction made by Chairman Zhang Songming to the mentality of the enterprise on its transformation from a manufacturer to a service-based manufacturer and the company's achievements in terms of total integration and general contracting, personalized customization, EPCO and remote operation and maintenance services, and visited the company's testing center, processing center and assembly workshop. At the assembly workshop, the delegation watched the operation of our fully-automatic blowing-filling-capping machine with keen interest and learned about some cases of our total integration and general contracting.

Later, they visited our smart remote operation and maintenance center and industrial robot assembly and integration workshop.

After the inspection, Yu Xiaodong and the experts of the delegation spoke highly of Tech-Long in terms of its solid work and performance, rooting in advanced manufacture industry and active transformation and upgrade. They hoped that the company can continue to stick to advanced manufacture and service-based manufacture, create new business and service models based on a new generation of information technology and grow bigger and stronger in the future.

Text by: Wang Yannan

国家发改委政研室孙涛副主任一行 莅临达意隆考察调研

A Delegation Led by Sun Tao, Deputy Director of NDRC, Inspects Tech-Long



2018年12月5日下午，国家发改委政研室副主任孙涛一行莅临广州达意隆包装机械股份有限公司就机器人换人、绿色制造、制造业提质升级等方面进行考察调研，广东省发改委张展宏副巡视员、广州市及开发区领导陪同考察。广州达意隆董事长张颂明接待了孙主任一行。

首先，张董对各领导莅临达意隆表示了热烈欢迎，并介绍了公司的概况。在张董的陪同下，领导一行参观了公司的精密模具加工车间、机械加工车间。在吹瓶及灌装车间，领导一行兴致勃勃地观看了吹灌旋一体机试运行，了解了我司核心产品在高效节能、智能化方面所做的工作。

随后，领导一行来到达意隆六期参观了达意隆远程智能运维中心、自动售卖机以及后端包装、工业机

器人装配及集成车间。

在调研过程中，张董详细介绍了达意隆从一个几十人的团队发展到液态包装装备龙头企业的历程。尤其是在消费升级的大环境下，达意隆作为传统装备制造企业，将人工智能、工业互联网等新一代信息技术与包装装备深度融合，由传统装备制造转型为服务型制造；同时兼顾社会责任，坚持绿色制造等方面的探索。孙主任对达意隆由传统装备制造向服务型制造、互联网综合解决方案供应商转型的做法及取得的成绩表示肯定，希望公司继续坚持先进制造，发挥包装自动化及工业机器人相结合的特色优势，将企业做大做强，打造成为行业的标杆。

On the afternoon of December 5, 2018, a delegation led by Sun Tao, deputy director of the Policy Research Office of the National Development and Reform Commission, paid an inspection visit to Guangzhou Tech-Long to inspect such areas as replacement of human labor with robots, green manufacture, improvement and upgrade of manufacture industry, accompanied by Zhang Zhanhong, a deputy inspector of Guangdong Provincial Development and Reform Commission and leaders of Guangzhou City and Guangzhou



Development Zone. The delegation was received by Zhang Songming, chairman of the board of Guangzhou Tech-Long.

First, Chairman Zhang expressed warm welcome for the arrival of the leaders and gave a brief introduction to the company. Accompanied by Chairman Zhang, the delegation visited the company's precision mould processing workshop and machining workshop. At the workshop of blowing and filling, the delegation watched the trial operation of the blowing-filling-capping machine with keen curiosity and learned about the company's work in terms of energy-efficiency and intelligence for core products.

Later, the delegation arrived at VI factory building of Tech-Long to visit its smart remote operation and maintenance center, automatic vending machine and back-end packaging, industrial robot assembly and integration workshops.

During the inspection, Chairman Zhang introduced in detail the history of Tech-Long to develop from a team of dozens of members to a leading enterprise of liquid packaging equipment.

Particularly under the context of consumption upgrade, Tech-Long, as a conventional equipment manufacturer, deeply integrates packaging equipment manufacturing with a new generation of information technologies such as artificial intelligence and industrial Internet and has transformed from a conventional equipment manufacturer to a service-based manufacturer. Meanwhile, it assumes its social responsibility and insists on exploring such areas as green manufacture. Director Sun recognized the practice and achievements of Tech-Long of transforming from a conventional equipment manufacturer to a service-based manufacturer and a provider of comprehensive solutions based on Internet. He hoped that the company could stick to advanced manufacture, unleash its special advantages in the combination of packaging automation and industrial robots, grow bigger and stronger into an industrial benchmark.

Text by: Wang Yannan

PRODUCT RUNNING STATUS

实例



挺进大别山



Marching into Dabie Mountain





两年多前，我就想静下心来，好好写一写我与大别山野岭饮料股份有限公司（2017年由安徽野岭饮料食品有限公司变更为现名，2018年元月野岭扩建为佛子岭和产业园2个厂区）的故事，可我却不知该以什么样的形式抒发我对野岭的深厚感情，时常想利用闲暇之余来完成，可每次都只是在脑海中一闪而过，随后又被抛到九霄云外了。今天和同事们讨论起野岭的未来发展，这才再次想起来要写点什么，哪怕是提纲抑或大意？于是，还没有聊完，我已经打开电脑迫不及待地行动起来。

说起野岭，那就一定要先介绍一下她的母公司安徽迎驾集团。安徽迎驾集团位于安徽省霍山县佛子岭水库风景区内，坐落在大别山深处。公司始建于1955年，在原佛子岭酒厂的基础上，2003年经改制组建了多元化的安徽迎驾集团。在中国酿酒大师、安徽迎驾集团倪总裁的精心培育下，集团核心企

业——安徽迎驾贡酒股份有限公司，昂首挺进全国白酒行业前20强。

2008年2月，公司分派我负责河南市场的销售；2010年5月，我又接管安徽市场，分管两省，与野岭的缘分由此开始。

虽身为安徽人，但我对安徽的饮料市场知之甚少。安徽属于经济欠发达地区，是农业和能源大省，南北文化差异大，风土人情、饮食习惯各不同。经过对安徽市场的一番调研，发现野岭不仅是安徽本土饮料最大的企业，还在安徽省及周边地区拥有极高的市场占有率，在行业里也拥有较高的知名度，2003年就曾与我司合作过。而彼时，我尚在他处游弋学习。于是，我决定亲自去一睹庐山真面目。

虽然我之前也在饮料企业工作过，但工作范畴仅限



生产方面，对生产工艺、品质控制略知一二，而对饮料设备销售我却是门外汉。

2010年8月份，我怀着一颗无比谦卑的心，以一个销售小学生的身份，前往安徽，期待与野岭进行第一次约会。一路上，安徽迎驾集团的广告牌随处可见，电视、网络、高速公路、车身、灯箱、店面等产品广告无处不在。

一进入佛子岭镇，扑面而来的是群山环抱、云雾缭绕、连绵竹海，一条不太宽的小河，自上而下像玉带一样穿城而过。满眼青山绿水好风光！街道旁的墙壁上

张贴着各种标语，院落门口摆放着各式农具，属于典型的山里乡村风貌。真是一半山水一半城！

走上“迎驾大桥”远眺，河正对面“迎驾贡酒”四个朱红大字赫然在目，各式建筑物鳞次栉比。走近厂区，门楼画梁雕栋、气势恢宏，这就是雄伟的安徽迎驾集团总部了。

野岭佛子岭厂区于2009年由霍山县城迁至佛子岭镇，与安徽迎驾集团总部相伴，和“迎驾酒文化博物馆”毗邻。



我拎着公司最新的宣传资料，小心翼翼地敲开二楼设备处的办公室大门，汪处热情地接待了我，我说明来意后，他带我前往车间参观。那时佛子岭厂区规模不大，整个工厂只有两条水线和一条茶线，而且都是半自动生产线。产品也仅有茶、果汁和水等几个当红系列。当我看到这一切时，心里五味杂陈，天然的生态环境、精选的原料和中华老字号企业，却没有一条全自动的生产整线。走出佛子岭厂区大门，我边走边想，背后有如此强大的集团作为支撑，加上得天独厚的生态资源，酒尚且卖得那么红火，饮料也绝不会差到哪儿去。野岭必定会由慢跑进入快跑的发展阶段。想到此处，心中一阵窃喜，这一切，不正是我所希望的吗？

多次拜访后，得知汪处刚从金冠公司调到野岭公司不久。汪处为了掌握更多的饮料设备工艺，他不仅潜心学习设备原理，还想方设法弄懂工艺流程。经过不懈的努力，他很快就成了一个多面能手，小毛病基本都能指导维修工自己解决问题。

野岭整个团队都非常勤奋好学，上至总经理，下到

普通员工，遇到任何模棱两可的问题，都会在第一时间提出质疑并寻求解决方案。

我充分发挥之前积累的生产经验与知识，帮客户释疑解难。经过多年的发展，达意隆已经成为中国饮料包装机械行业第一家上市公司，拥有行业内唯一的国家级企业技术中心，技术水平先进。于是，时隔8年我们再度携手合作，野岭于2010年10月向我司又增购了两台吹瓶机，令我倍感欣慰。

我竭尽全力服务客户，保生产、促市场。2011年，野岭再次跟我们签下1200BPH (4.5L) 生产线，实现了我与野岭的第一个小目标。

项目推进过程中，公司各级领导也高度重视，并多次亲临现场指导工作，努力提高服务水平，确保野岭饮料市场不因设备问题而受到任何影响。

我们的点滴努力，野岭都看在眼里，最终取得了野岭的完全信任。随后，我们又一举拿下了：2012年，36000BPH吹灌旋一体机生产线；2013年，24000BPH吹灌旋一体机生产线；2016





年, 4000BPH (4.5L) 吹灌旋一体机生产线和 17000BPH 含气生产线等全部设备采购订单, 没有给其他设备厂商一点儿机会。期间, 虽然有其他厂商, 派员驻厂和不正当低价竞争, 但都未能撼动野岭购买我司生产线的强烈意愿, 为我司在安徽打赢了一场市场保卫战。

2016 年金秋十月, 是个乍寒又暖, 乍暖又寒的时节。广州早晚已带着凉意, 但我与野岭的故事却急速升温。

这一天, 中国酿酒大师、安徽迎驾集团倪总裁和野岭常务陈总经理莅临广州考察。倪总裁干练朴素, 谦和低调, 不说狂语, 不打官腔。话虽不多, 但句句铿锵有力, 掷地有声。作为迎驾的当家人, 他工作繁忙, 与我们闲谈常常不超过五分钟。我们合作 14 年里, 总金额近一亿元人民币, 倪总裁却是第一次来我司考察, 充分反映出倪总裁博大的胸怀, 以及对野岭和我司充分的信任。

倪总裁和陈总经理于傍晚时分抵达我司, 在我司张董事长和营销中心程总的陪同下, 参观了整线设备制造工厂。参观中, 倪总裁不时驻足查看, 触摸加工面, 询问制作工艺, 张董事长一一给予了详尽的解答, 两位扛着振兴民族品牌大旗的 BOSS 交谈甚欢。这次实地考察, 我司的技术、规模、团队、服务等给倪总裁留下不可磨灭的印象, 使其对我司有了更深层次的了解。

经过年前的考察与充分的交流, 2017 年春节刚过, 野岭就通知我们去洽谈 48000BPH 吹灌旋一体机生产线细节, 双方很快就签定了设备购销合同。

更为惊喜的是, 同年 8 月, 陈总经理亲自邀请我司无菌团队, 前往集团总部交流 24000BPH 无菌冷灌装吹灌旋一体机生产线技术。同时, 野岭也邀请了国内外其他厂商参与了该项目, 并对各厂商进行了全方位的考察。最终通过招标, 结合国内外先进的无菌技术和成功的案例, 经过全面考量与对比, 野岭最后还是决定采购我司的 24000BPH 无菌冷灌装吹灌旋一体机生产线。

24000BPH 无菌冷灌装吹灌旋一体机生产线按期交货, 并于 2019 年 5 月 13 日—16 日, 在我司、艺康及野岭三方验证人员的共同参与下, 对无菌冷灌装吹灌旋一体机进行了中性培养基测试, 在无菌灌装机无菌保持总时间为 72 小时的情况下, 顺利进行了染色验证、钢片染菌挑战、瓶内染菌挑战、瓶外染菌挑战、瓶口染菌挑战、瓶盖染菌挑战、无菌水和无菌气达标测试、灌装机内部环境测试等各项验证, 结果均达到了相关工艺要求。灌装产品总数量为 54155 瓶, 在 36°C 保温 14 天后, 经全检浑浊样品为 0, 微生物污染小于万分之一, 符合中性产品的检验标准, 标志着验证通过。



这次的验证各项数据表明，我司新一代无菌灌装系统的杀菌性能以及无菌保持能力已经达到国际先进水平。目前野岭该生产线已经正式投入生产。

野岭不经意间把我司推向了历史的高度，为我司在无菌市场开了先河，我司无菌线将在广袤的无菌市场上大放异彩。

相信大格局者，必成大器！相信强者联手，定能描绘出更加绚烂的发展蓝图！

More than two years ago, I intended to settle to write an article about my story with Dabieshan Yeling Beverage Co., Ltd. (in 2017, it was renamed from Anhui Yeling Beverage and Food Co., Ltd. In January of 2018, Yeling was expanded into two plants at Foziling and Industrial Park). Yet I did not know how to express my deep affection with Yeling. I often wanted to finish the article with my spare time, but every time it simply flashed in my mind and was forgotten later. Today when I discussed the future development of Yeling



with my co-workers, I realized that I wanted to write something again, even if it was an outline or general ideas. So before finishing the chat, I could not help turning on my computer and beginning to write.

At the mention of Yeling, I must first introduce its parent company--Anhui Yingjia Group. Anhui Yingjia Group is located in the scenic area of Foziling Reservoir, Huoshan County, Anhui Province and lies in the depth of Dabie Mountain. Founded in 1955, the company was restructured into a diversified Anhui Yingjia Group on the basis of the former Foziling Distillery. Under the meticulous fostering of

President Ni of Anhui Yingjia Group, a great brewing master, the Group's core enterprise--Anhui Yingjia Tribute Liquor Co., Ltd. was listed among the top 20 of national liquor industry.

In February 2008, the company dispatched me to take charge of the sales in Henan market. In May 2010, I took over the market of Anhui. So I was in charge of two provinces and embarked on a destined tie with Yeling.

As a native of Anhui, I had little knowledge of the beverage market of Anhui. Anhui is





an economically underdeveloped region and a major province of agriculture and energy, with great differences in culture, local customs and eating habits between its south and north. After making some surveying on the market of Anhui, I found that Yeling is not only the largest local beverage enterprise of Anhui Province, but also occupies an extremely high market share in the province and surrounding regions and enjoys a high popularity in the industry. In 2003, it ever cooperated with Tech-Long. At that time, I was studying elsewhere. So I decided to go and have a look.

Though I ever worked with a beverage enterprise, my work scope was only limited to production. I had a limited knowledge of production process and quality control, but I was a layman in the sales of beverage

equipment.

In August 2010, I traveled to Anhui with a modest attitude towards sales, expecting to have my first date with Yeling. On the way, the advertising boards of Anhui Yingjia Group could be seen everywhere such as TV, network, expressways, the body of vehicles, light boxes and storefronts.

Upon entering Foziling Town, I was greeted by the views of mountains enveloped in clouds and fogs, a continuous sea of bamboos and a small river not so wide that flows through the town like a jade belt. The landscapes were really picturesque and wonderful. Various slogans were posted on the walls on both sides of the streets. Various farming tools were placed at the gates of courtyards. All were landscapes typical to a mountainous



countryside.

Walking onto the “Yingjia Bridge”, I looked into the distance and saw four prominent red characters “Yingjia Tribute Liquor” right across the river and the streets lined by various architectures. When I approached the factory, I saw it was solemn and magnificent with carved beams and painted rafters. This was the majestic headquarters of Anhui Yingjia Group.

In 2009, Yeling’s Foziling plant was relocated from the county seat of Huoshan to Foziling Town, which accompanies the headquarters of Anhui Yingjia Group and adjacent to the “Museum of Yingjia Liquor Culture”.

Carrying the latest publicity materials of the company, I cautiously knocked at the door of

the office of equipment department on the second floor. Director Wang received me warmly. After I told him the purpose of my visit, he led me to the workshop for a visit. At that time, the Foziling plant was not large. The entire plant only had two production lines of water and one production line of tea, all of which were semi-automatic production lines. And its products were only several poplar series of tea, fruit juice and water. When I saw everything, I had a complex feeling and was wondering why the plant had no fully automatic production line blessed with a natural ecological environment, selected raw materials and a time-honored brand of China. Going out of the gate of the plant, I was thinking while walking. Supported by such a strong group at the back, plus the advantaged ecological resources, the liquor sold so well, its beverage would definitely not be bad.



Yeling was set to enter a fast development stage of running from a stage of jogging. Thinking of this, I was pleased in my heart. Wasn't this what I expected?

After several visits, I learned that Director Wang had just been transferred from Jinguan Company to Yeling Company. In order to master more drinking equipment technologies, he had been devoted to the studying of the mechanisms of equipment and tried to understand the processes. After ceaseless efforts, he soon became a generalist. He could guided the repair workers to solve basically all small problems.

The entire team of Yeling was very diligent in study, ranging from general manager to common employees. Whenever they encountered any ambiguous problem, they would raise the question and seek for a solution at the first time.

I fully unleashed my production experience and knowledge accumulated before to help the clients solve puzzles and difficulties. After years of development, Tech-Long has grown into the first listed company in the beverage packaging machinery industry of China, owning the industry's only national-level business technology center with advanced technologies. So eight years later, we cooperated again. Yeling ordered another two blowing machines from Tech-Long in October 2010, which was gratifying to me.

I tried to serve the clients to guarantee production and promote market. In 2011, Yeling signed another production line of 1200BPH (4.5L) with us, which fulfilled my first small goal with Yeling.

In promoting the project, our leaders at each level also attached high importance to the project and arrived at the site personally for times to guide the work, and tried to improve the service, to guarantee that the beverage market of Yeling would not be affected due to the issue of equipment.

All our efforts had been noticed by Yeling. Finally we had won its complete trust. Later, in 2012, we signed a production line of 36000BPH blowing-filling-capping monobloc; in 2013, we signed a production line of 24000BPH blowing-filling-capping monobloc; in 2016, we signed a production line of 4000BPH (4.5L) blowing-filling-



capping monobloc and a CSD production line of 17000BPH. We won all the equipment orders from Yeling, leaving no chance to other equipment manufacturers. During the period, other manufacturers had dispatched staff to settle in the plant and resorted to the unfair price competition, yet they failed to change the strong intention of Yeling to buy production lines from us, so we had won battles guarding our market one after another in Anhui Province.

In October of the golden autumn of 2016, it was a warm and cold season. It was already a bit cold in Guangzhou in the morning and evening, yet my story with Yeling warmed up instantly.

One day, President Ni of Anhui Yingjia Group and Executive General Manager Chen of Yeling arrived in Guangzhou on an inspection trip. President Ni was neatly dressed, modest and low-profile, who never bragged or assumed any bureaucratic air. Though he

spoke little, every sentence he spoke was full of power. As the head of Yingjia Group, he was busy in work, and often chatted with us for not more than five minutes. In the past 14 years, our cooperation amount totaled nearly RMB 100 million. However, it was the first time for President Ni to pay an inspection visit to Tech-Long, which fully reflected his broad mind and the trust of Yeling in Tech-Long.

President Ni and General Manager Chen arrived at Tech-Long in the evening. Accompanied by Chairman Zhang and Manager Cheng of Marketing Center of Tech-Long, they visited the plant of equipment manufacture for a complete line. During the visit, President Ni stopped from time to time to check and touch the processed surface, asked about the production processes. Chairman Zhang answered his questions in detail. The two bosses shouldering the banner of revitalizing national brands had a pleasant talk. In the field inspection trip,



President Ni had been deeply impressed by our technologies, scale, team and services and had a deeper understanding of Tech-Long.

After the inspection and full communication before the Spring Festival, Yeling notified us to negotiate on the details of production line of 48000BPH blowing-filling-capping monobloc as the Spring Festival of 2017 had just passed. Both parties soon signed a purchase and sales contract of equipment.

What was more surprising, in August the same year, General Manager Chen personally invited our sterility team to the headquarters of Yingjia Group to communicate on the technologies of 24000BPH aseptic cold BFC Monobloc Filling Line. Meanwhile, Yeling also invited other manufacturers from home and abroad to visit the project and conducted an all-round inspection on each manufacturer. Finally through an invitation

of bids and referring to the advanced sterile technology and successful cases at home and abroad, after a comprehensive evaluation and comparison, Yeling finally decided to purchase a production line of 24000BPH aseptic cold BFC Monobloc Filling Line from Tech-Long.

The 24000BPH aseptic cold BFC Monobloc Filling Line was delivered as scheduled. From May 13 to 16, 2019, the verification staff of Tech-Long, Ecolab and Yeling worked together to perform a neutral culture medium test to the aseptic cold blowing -filling-capping monobloc. Under the condition of keeping the sterile filling machine for a total of 72 hours, various verification tests were performed smoothly such as dyeing verification, steel contamination challenge, bottle inside contamination challenge, bottle outside contamination challenge, bottle



opening contamination challenge, bottle cap contamination challenge, sterile water and sterile air standard test, internal environment test of filling machine. All results of the tests had met relevant technological requirements. A total of 54,155 bottles were filled. After being kept in a temperature of 36°C for 14 days, zero samples had become turbid and the microbe contamination was less than one in ten-thousand, which met the test standard of neutral products and signified that the samples passed the test.

According to the data of the verification test, the sterilizing performance and sterility maintenance performance of our new generation of aseptic filling system has

reached the international advanced level. At present, the production line of Yeling has been officially put into operation.

Unconsciously Yeling has pushed Tech-Long to a historical height and set a precedent for us in the sterility market. Our sterile production line will shine brilliantly in the vast sterility market.

We're convinced that with a great outlook we will make a success. Working with strong partners, we will surely embrace a more wonderful blueprint.

Text by: Wang Xiujun, Zheng Lishen



Tech-Long's First Oil in Russia Officially Put into Operation

RUSAGRO——俄罗斯最大的垂直一体化农业综合集团，集团主营四大业务：肉制品、糖、农产品、油脂，是俄罗斯领先的猪肉、糖、人造奶油、蛋黄酱等产品的供应商，方糖和人造奶油供销量全国第一，食用油销量全国第七。旗下公司主要分布在俄罗斯五大区域：坦波夫、沃罗涅什、别尔哥罗德、萨马拉河、斯维尔德洛夫斯克。CJSC SAPP 位于萨马拉河区域，是RUSAGRO 集团旗下两大食用油生产基地之一。

CJSC SAPP 采油厂在萨马拉地区是主导的植物油生产商，在俄罗斯葵花籽油生产商和出口商中排名前十。

2016 年，达意隆团队与 RUSAGRO 在展会中相识，由此开始合作之路 --

达意隆在俄罗斯的第一个油项目正式生产

Project

两条葵花籽油整线：

一条 18000BPH (500ml/900ml/1L)；

一条 2000BPH(2L/5L)。

双方首次合作，客户对达意隆的实力和设备持怀疑态度，达意隆团队带着满满的诚意奔赴客户现场 7 次，为客户完善方案，解决不同阶段的疑问，同时两次邀请客户团队来达意隆参观。此外，对于客户的顾虑，达意隆团队通过实地考察，技术答疑，文件公证等方式一一快速解决。最终，达意隆团队用积极的合作态度赢得了客户的信任。

建立合作关系之后，因为欧美对俄罗斯的制裁，原有的付款方式阻碍重重，具有相对风险。国际非饮团队联合国际贸易部研究了不同付款方式下的利弊，亲自

到客户工厂为客户分析，最终以更好的付款方式，实现了双赢。

2018 年 7 月中旬，两条葵花籽油整线项目完成 72 小时验收，具备生产状态。

2018 年 8 月 27 日，达意隆在俄罗斯的第一个油项目开始正式生产，萨马拉州州长 Azarov Dmitry 及 RUSAGRO 集团董事长 Vadim Moshkovich 到场启动了生产线，并逐一参观了两条达意隆生产线，对达意隆设备的性能及外观赞不绝口，参加生产线开幕式的嘉宾也对“中国制造”刮目相看。

相信此项目的顺利投产必将为达意隆品牌在俄罗斯市场的开拓起到积极推动作用，相信中国制造在中国企业的努力下影响力将越来越大！



RUSAGRO, the largest vertically integrated agricultural group of Russia, is mainly engaged in four categories of business, namely meat products, sugar, agricultural products and oil and fat products. As a leading supplier of products such as pork, sugar, margarine and mayonnaise in Russia, it is ranked first nationally in the supply and sales volume of cube sugar and margarine and ranked seventh nationally in the sales volume of edible oil. The companies under the Group are mainly distributed in five regions of Russia, namely Tambov, Voronezh, Belgorod, Samara River and

Sverdlovsk. Located in the region of Samara River, CJSC SAPP is one of the two major edible oil production bases under RUSAGRO Group.

CJSC SAPP oil extraction plant is a leading vegetable oil producer in the region of Samara River, ranked top ten among the Russian producers and exporters of sunflower seed oil.

In 2016, Tech-Long team came in contact with RUSAGRO in an exhibition and embarked on a path of cooperation.

Two complete production lines of sunflower seed oil:

One is 18000BPH (500ml/900ml/1L);
The other is 2000BPH(2L/5L).

In the first cooperation between both sides, the client was skeptical about the strength and



equipment of Tech-Long. The Tech-Long team made seven sincere visits to the client to perfect the scheme for the client and solved its puzzles under different stages. Meanwhile, we invited the client's team for two times to visit Tech-Long. Additionally, the concerns of the client were solved one by one by the team of Tech-Long through means such as field inspection, answering technology questions and notarization of documents. Finally, the team of Tech-Long had won the trust of the client with an active cooperation attitude.

In the mid of July 2018, the two production lines of sunflower seed oil were accepted within 72 hours and ready for being put into operation.

On August 27, 2018, the first oil project of Tech-Long in Russia was officially put into operation. Azarov Dmitry, the governor of Samara Oblast and Vadim Moshkovich, chairman of the board

of RUSAGRO Group, arrived at the site to launch the production lines and visited the two lines one by one. They kept praising the performance and appearance of equipment of Tech-Long and the guests attending the opening ceremony of the production lines also admired the "Made in China".

We are convinced that the smooth operation of the project will play an active boosting role for the brand of Tech-Long to expand in the Russian market. The Made in China products will become increasingly influence with the efforts of Chinese enterprises.

Text by: Carol Yu



达意隆在马来西亚的第一条吹灌旋整线顺利投产

LA BOOST HEALTH BEVERAGES MFG SDN. BHD (以下简称: LA BOOST) 成立于 1985 年, 其工厂位于莎阿南, 1994 年开始投资蒸馏和反渗透饮用水制造业。LA BOOST 是马来西亚饮用水市场的主力之一, 产品销往马来西亚各地及越来越多的海外国家, 为 Berjaya Group, Tesco, Giant, Isetan 等众多知名公司提供 OEM 品牌饮用水。

2016 年 4 月上海橡塑展, 达意隆销售人员热情接待了 LA BOOST 来访人员, 双方的合作之路由此开启。

市场变幻莫测, 为了更好地开拓市场, 领跑行业, LA BOOST 不断自我更新, 购买先进自动化设备, 用以满足客户的需求。LA BOOST 的设备需求为双方的深入了解和合作提供了一个契机。为了让客户更详细了解达意隆, 销售人员带领客户参观了达意隆工厂和多条客户生产线, 客户对我们的加工条件和设备质量充满信心。

2016 年 9 月, LA BOOST 与达意隆签订 27000BPH 的 1.5L 水线。从前期的厂房布局、瓶型设计及后期服务, 达意隆认真聆听客户需求, 并结合实际情况

对项目进行规划, 客户对达意隆人员充分信任, 给了达意隆极大的发挥空间。最终, 不仅满足了客户要求, 还在原有的基础上帮助客户降低了投资成本。

此条吹灌旋整线顺利通过验收, 效率高达 94%, 超越了客户的期待, 获得了高度评价! 此条整线不仅是马来西亚单条速度最快的生产线, 也是达意隆在马来西亚的第一条吹灌旋整线。

2017 年 12 月, 吹灌旋整线开始投入生产, 卓越的生产能力将为 LA BOOST 创造源源不断的价值。

LA BOOST HEALTH BEVERAGES MFG SDN. BHD (hereinafter referred to as La Boost), was established in 1985, its factory is located at Shah Alam. In 1994, it began to invest in the manufacturing of distilled and anti-osmosis drinking water. La Boost is one of the main forces of drinking water market of Malaysia, whose products are sold to different regions of Malaysia and more and more foreign countries. It supplies OEM drinking water to many renowned companies

The First BFC Monobloc Line of Tech-Long in Malaysia Put into Operation Smoothly

such as Berjaya Group, Tesco, Giant and Isetan.

In Chinaplas held in Shanghai in April 2016, the salespersons of Tech-Long warmly received visitors of La Boost. Thenceforth, the cooperation between both sides kicked off.

In order to better develop the changeful market and lead the industry, La Boost insists on self-renewal and purchasing advanced automation equipment to meet the demands of customers. The demand of La Boost for equipment had provided an opportunity for both sides to deeply understand and cooperate with each other. In order to let the client have a more detailed understanding of Tech-Long, the salespersons showed the client around its factory and several production lines of its clients. The client was full of confidence in our processing conditions and equipment quality.

In September 2016, La Boost and Tech-Long signed a 27000BPH 1.5L water line. From the

layout of the plant in the early stage to bottle design and later services, Tech-Long carefully listened to the demands of the client and planned the project based on the actual conditions. The client fully trusted the staff of Tech-Long and offered us a great space to develop. Ultimately, it not only satisfied the client's requirements, but also helped the client reduce the investment cost on the original basis.

The line passed the acceptance inspection smoothly, with an efficiency of 94%, which surpassed the client's expectation and was spoken highly of. The line was not only the fastest single production line in Malaysia, but also the first BFC line of Tech-Long in Malaysia.

In December 2017, the BFC line was put into operation. With an outstanding capacity, it will create values for La Boost constantly.

Text by: Ken Lin



技术与加工 TECHNOLOGY &



PROCESSING

苏打水饮料霉菌污染的控制

Mold Contamination Control of Soda Drinks



广州达意隆包装机械股份有限公司无
菌技术部，广东广州，510530

Aseptic technology department of
Guangzhou Tech-Long Packaging
Machinery Co., Ltd., Guangzhou,
Guangdong, 510530



摘要:

介绍了霉菌的生物特性，苏打水饮料加工中霉菌污染的来源及控制措施，介绍了苏打水饮料无菌灌装设备。

关键词:

苏打水饮料；霉菌污染；无菌灌装

夏天各种饮用水都进入了消费高峰，其中的苏打水以能改变弱酸体质的健康时尚理念日受消费者青睐，据称未来几年苏打水市场容量将超 200 亿，苏打水正成为饮料行业的新宠。

苏打水分为天然苏打水与苏打水饮料两种。天然苏打水是含有多种矿物质、微量元素和碳酸氢钠的弱碱性水，天然苏打水是稀缺资源，因此价格较高，市场较少见。正因如此，目前市场上盛行的是苏打水饮料，即人工合成的苏打水，一般会加入碳酸氢钠、二氧化碳，为中和碳酸氢钠的涩味，又会在饮料中加入安赛蜜、食用香精等添加剂，而制成的一种风味水饮料。按是否充入二氧化碳苏打水饮料又分为含气型和无气型两种。

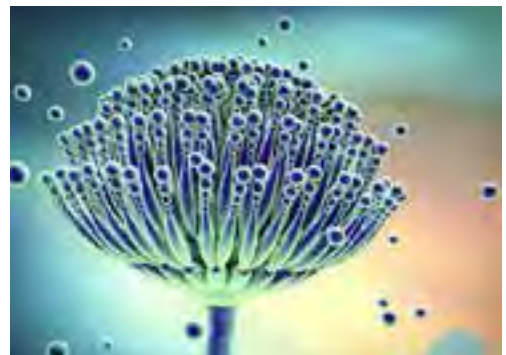
苏打水饮料市场虽火爆，但苏打水饮料经常会出现一些白色或黑色絮状沉淀，且大多都是因霉菌或酵母污染引起的。因为苏打水饮料的弱碱性，一些不含二氧化碳和防腐剂的苏打水饮料极易受到霉菌、酵母污染，从而出现絮状物沉淀。尤其在夏天高温潮湿的环境中，苏打水饮料霉菌污染往往呈现出爆发状态，严重影响产品销售，甚至引起消费者投诉，是很多苏打水饮料生产企业面临的难题。

那么苏打水饮料生产中该如何控制霉菌污染呢？

1. 霉菌的生物特性

霉菌是丝状真菌的俗称，其菌丝粗长，多呈绒毛状、网状或絮状，颜色多样。霉菌有着极强的繁殖能力，且繁殖方式多样，主要通过产生无性或有性孢子进行繁殖，孢子特别小，数量也特别多。霉菌的传播主要通过孢子，孢子肉眼不可见，体积小，重量轻，可随气流、动物、水流等四处传播，一旦环境适宜即生长繁殖。

霉菌生长最适相对湿度是 75%-90%，最适温度是 25℃ -30℃，最适 pH 为 3-6，且在 pH1-9 均可生长，大部分霉菌需要水分活性 A_w 0.80，部分 0.91，当水分活性降至 0.7 以下，一般霉菌均不能生长。



绝大多数霉菌均好氧，对 CO_2 敏感，只要有低浓度的 CO_2 就可以抑制生长。多数霉菌在 70°C 下 5-10min 即可杀灭，故饮料生产中霉菌污染多为二次污染。

霉菌种类繁多，在自然界分布广泛，不需要较高的营养条件，在各种环境中极易繁殖。

2. 霉菌污染的主要来源

工厂外部环境中的树木、草坪、土壤等都有霉菌生长。霉菌形成的孢子会随风四处飘散或附着于昆虫、鸟、老鼠、人体等而散布。在空气中浮游的霉菌孢子也会随气流进入车间。

水果、蔬菜、谷物、豆类、茶叶等植物性原料的表面有大量霉菌、酵母。它们随原料进入而污染车间的



空气、用具。因此做苏打水饮料的生产线不宜进行果蔬汁、蛋白饮料、茶饮料等产品的灌装。

饮料生产中会产生大量水汽，易造成墙壁、天花、机器表面、管道表面等潮湿及形成冷凝水。而在潮湿的环境霉菌一旦附着，极易造成蔓延。在相对湿度 75%-90%，温度 25°C - 30°C 的环境，霉菌往往会爆发生长。

2.2 通过水而污染

饮料加工过程中，要用水洗涤生产用具、设备和容器，



清洗房间、地面，洗手，用水冷却，用水调配。而水中也存在霉菌，因此水质好坏对饮料卫生影响也较大。

故生产用水宜采用 RO 水，经臭氧消毒，必要时再加紫外消毒，制成无菌水。

2.3 通过空气而污染

霉菌通过空气流动传播，应保持通风霉菌才不易沉降。当通风不良时，一旦有霉菌生长，孢子就会四散飞扬，污染环境、生产设备、人员等。所以灌装车间

应加强通风换气，通风管道、空气滤网也应经常清洗消毒，并定期更换。

2.4 通过人和动物而污染

人的手、指甲、口腔、鼻腔、头屑、毛发中均带有微生物。衣服、鞋子也是微生物传播的媒介，主要为来自环境中微生物，其中包括霉菌。

食品从业人员感染霉菌、患皮肤癣、有头屑等，或手不清洗消毒，不修剪指甲，不清洗或更换工服，都很容易将霉菌带到饮料中。

老鼠、苍蝇、蟑螂等的毛皮、粪便与外表均带有大量微生物，可通过活动传播至车间。

2.5 通过原料和包材而污染

物料是霉菌重要的污染源。食品原料在生产、包装、运输中有可能污染霉菌。包装箱、瓶子、瓶盖在生产过程中防护不当或消毒不彻底，也容易造成霉菌的交叉污染。

3. 霉菌污染的控制措施

3.1 车间设计

生产车间应根据工艺特性及对清洁程度的要求合理规划作业区，各区之间应视清洁程度给予有效隔离，防止交叉污染。

天花和墙壁应使用不吸水、防霉、不易脱落、易于清洁的材料。结构上应不利于冷凝汇集、滴下。墙面应光滑、不易积污垢且易于清洁。地面应易于清洗消毒，易于排水。

洁净厂房人口处应分别设有人员和物料的净化设施。

应严格控制生产环境的温度和相对湿度，温度过高或者湿度过高都会促使霉菌的生长。

车间内空气流向应从清洁区域流向非清洁区域，换气次数应达到相应洁净度要求，通风换气直接影响到霉菌的侵入和扩散。

3.2 卫生管理

3.2.1 车间卫生

保持车间内部的清洁和卫生，注意对一些卫生死角进行严格的卫生清理和保持。

应建立有效的清洗消毒方法和制度，保证清洁消毒

效果。厂区及周围应定期进行除虫灭害工作，防止虫害发生。

生产结束后所有用过的设备、管道及用具均应马上进行清洗消毒。已清洗消毒的机器设备及用具应妥善保管，避免再次污染。

车间内的地面、墙壁、天花等必须定期清洗，防止积尘、凝水，以利霉菌生长。

加强车间内的空气消毒，特别是灌装间空气的消毒。

3.2.2 人员卫生

霉菌污染的防治除了使用物理化学方法外，更需要管理者与操作人员对操作卫生的认知和重视。所有人员要具有卫生观念，注意操作的卫生以减少污染的可能性。

生产人员必须保持良好的个人卫生，不留长指甲，勤





理发、勤洗澡、勤更衣。工作时不涂指甲油，不佩戴饰物，不将与生产无关的个人用品带入车间。

进入车间前必须穿戴消毒清洁的工服、帽、鞋，工作服应遮住外衣，头发不外露，并洗手消毒。工服、帽、鞋使用完后应清洗消毒。

若处理被污染的物品或从事与生产无关的活动，应重新洗手消毒，必要时更换工作服。不得穿工服、鞋进入厕所或离开车间后再返回。

严禁在车间内吸烟、饮食、化妆、玩手机及从事其他有碍食品卫生的活动。

3.3 工艺管理

生产工艺要合理，尽量优化以缩短工艺流程，尽可能实现生产连续化、自动化和封闭化。

严格执行原料杀菌工艺，杀菌程序应按有效的杀菌温度和时间正确执行，否则温度不够或时间不足将影响杀菌效果，并防止杀菌后的物料再污染。

无菌灌装中应用无菌水。无菌灌装中使用的压缩空气应经有效杀菌或过滤除菌。

饮料灌装应在满足要求的洁净区进行。

3.4 品质管理

应找出加工过程中的关键控制点，并制定检验项目、检验标准、抽样及检验方法，并严格实施。

加强饮料卫生检测，检验室要对每批原料、产品、生产环境、人员等要进行微生物学检验。对检验不合格的应查明不合格原因，找出解决对策，使原料、产品、环境、人员符合要求。同时采用先进的微生物检验技术，提高检验员技能，缩短检验时间，做到快速、准确。

3.5 生产设备

苏打水饮料应该使用无菌灌装设备，以保证产品在灌装过程中不受外部污染。

达意隆的超洁净常温灌装机利用无菌灌装的微生物控制技术，以严格的消毒工艺，在常温百级环境下对产品进行灌装，通过对环境、设备、物料、空瓶、瓶盖的无菌处理，可保证产品在无菌条件下完成灌装。

3.5.1 环境的无菌

压缩空气经PALL专用超高效除菌过滤器三级过滤后成为无菌空气，可供瓶盖杀菌机吹盖及灌装区熏蒸消毒使用。





生产前采用消毒液对百级区熏蒸杀菌以达到无菌要求，在生产中始终维持空间的正压无菌状态，并定时对灌装空间进行消毒液喷雾熏蒸。

3.5.2 设备的无菌

COP和SOP系统可保证灌装过程中不会有外部细菌带入产品中。同时采用艺康外部泡沫清洗主机，可对灌装设备内表面随时进行手动泡沫清洗。CIP和SIP系统可对物料管路以及灌装阀等物料通道进行酸洗、碱洗、无菌水清洗、消毒液冲洗、无菌水清洗、蒸汽杀菌，保证物料通道内的无菌。

3.5.3 物料的无菌

物料经无菌型自动管式UHT杀菌后成为无菌物料，无菌物料冷却到常温后送入灌装机的物料罐进行灌装。无菌物料制备UHT系统内部采用过热水法SIP，通过控制过热水温度与循环时间以达到无菌。

3.5.4 瓶盖、空瓶的无菌

瓶盖采用消毒液浸泡法进行彻底灭菌，盖消毒机及理盖机放在百级洁净间外，不采用压缩空气，可防止压缩空气将污染带入百级间。经浸泡灭菌后的瓶盖用臭氧水冲洗后再用无菌空气吹干，经全封闭的

输送滑道送到旋盖机。

对空瓶采用双氧水与无菌气混合喷雾杀菌，并保持足够的作用时间，保证杀菌效果。经消毒处理后的空瓶再用臭氧水喷冲充分清洗干净。

其他辅助系统如无菌水管道、无菌空气管道也设计了相应的灭菌，可防止将可能的污染带入产品中，保证了灌装过程始终处在可靠的无菌环境。

4. 讨论

霉菌污染原因多样，牵涉甚广，防治也没有一劳永逸。生产企业应该在各方面从严要求、认真对待，积极查找污染源，科学防治，同时加强卫生培训，采用先进的工艺与设备，保证食品安全。

参考文献

1. 何国庆 贾英民 丁立孝. 食品微生物学 (第3版). 中国农业大学出版社. 2016, 9
2. 潘友文 邓海根. 灭菌工艺的基本原理与参数放行. 中国质检出版社 中国标准出版社. 2013, 10
3. 卫生部. 消毒技术规范 (2002). 中国标准出版社. 2002, 11
4. 崔波. 饮料工艺学. 北京科学出版社. 2014, 1
5. GB50591-2010. 洁净室施工及验收规范. 中国建筑工业出版社. 2010, 10

Abstract:

Introduction of the biological nature of mold, source and control of mold contamination in soda water drink, aseptic filling equipment for soda water drink.

Key Words:

soda drinks; mold contamination; aseptic

In the summer, various drinking water has ushered in a peak of consumption, of which soda drinks have been favored by customers for the concept of health and fashion that they can change the weak acid constitution. It's estimated that the market capacity of soda drinks in the coming years will exceed RMB 20 billion. Soda drinks are becoming a new favorite of the beverage industry.

Soda water can be classified into natural soda water and soda drinks. The former is a kind of weak alkalinity water containing multiple minerals,

trace elements and sodium bicarbonate, which is a rare resource and is thus expensive and rare in the market. For this very reason, soda drinks are prevailing in the market currently, which is synthetic soda water, generally added with sodium bicarbonate and carbon dioxide. In order to relieve the astringency of sodium bicarbonate, the soda drinks are also added with additives such as Acesulfame or edible essence. By whether infused with carbon dioxide, soda drinks can be classified into two types, carbonated and non-carbonated.

The market of soda drinks is prosperous, yet some white or black flocculent precipitates are often found in soda drinks, most of which are caused by molds or yeasts. Due to the weak alkalinity of soda drinks, some soda drinks free of CO_2 and aseptic are easy to be contaminated by molds and yeasts and form some flocculent precipitates. Particularly in the hot and humid environment of the summer, there will usually be an outbreak of mold contamination in soda drinks, which has seriously affected the sales of products and even resulted in complaints from customers and is thus a tough issue faced by many soda drink producers.





How to control mold contamination in the production of soda drinks?

1. Biological nature of molds

Filamentous fungi are commonly known as molds, whose hypha is thick and long, mostly villiform, mesh-like or flocculent, with various colors. Molds boast an extremely strong fertility and varied modes of reproduction, which are mainly reproduced through generating asexual spores or sexual spores. Spores are particularly small, but there are numerous spores. Molds are mainly spread via spores. Spores cannot be seen with naked eyes, with a small size and a light weight, which can be spread about along with air flows, animals and water flows. Spores can grow and multiply in any suitable environment.

The most suitable relative humidity for the growth of molds is 75-90%, the most suitable temperature

is 25-30°C, the most suitable pH is 3-6 and molds can grow when pH is 1-9. Most molds can only grow in an environment with A_w 0.80, some grow in A_w 0.91. When the A_w declines below 0.7, generally molds cannot survive.

Most molds are aerobiotic and sensitive to CO_2 . A low concentration of CO_2 can inhibit the growth of molds. Most molds can be killed in a temperature of 70 °C for 5-10 minutes, so mold contamination in the production of beverage is mostly secondary contamination.

There are many kinds of molds widely distributed in the nature, which can multiply easily in different environments without too much nutrition.

2. Main sources of mold contamination

2.1 Contaminated by the environment

Molds grow in the external environment of the factory such as trees, lawns and soil. The mold spores can be blown about with the winds or spread attached to insects, birds, mice or human bodies. The mold spores floating in the air can also enter the workshop with the airflow.

The surfaces of plant materials such as fruits, vegetable, cereals, beans and tea leaves carry a lot of molds and yeasts. They can enter the workshop with raw materials to contaminate the air and tools in the workshop. Therefore, the production lines of soda drinks are not suitable for the filling of products such as fruit and vegetable juice, protein



beverage and tea drinks.

In the production of beverage, a great amount of water vapor will be generated, which is easy to wet and form condensate water at the surfaces of walls, ceilings, machines, pipes, etc. Once molds attach to the humid environment, they are very likely to spread. In an environment with a relative humidity of 75-90% and a temperature of 25-30°C, usually there will be an outbreak of molds.

2.2 Contaminated by water

In the processing of beverage, water is used to clean and wash production tools, equipment and containers, rooms, floors and hand. Water is also used for cooling and blending. Since molds also exist in water, the water quality also has a great impact on the hygiene of beverage.

Therefore, RO water should be used for production and be sterilized with ozone. When necessary, sterile water should be produced through UV sterilization.

2.3 Contaminated by air

The mold spores floating in the air may directly or indirectly contaminate the products. In production, the longer beverage is exposed to the air, the more serious the contamination will be. Therefore, the filling of beverage must be operated under a sealed and clean condition, which can reduce the chance of contamination. The compressed air that enters the processing area should be sterilized or filtered to remove bacteria.

Molds are spread in air flows. A good ventilation can avoid molds from falling. When the ventilation is poor, once there are molds, spores will fly about to contaminate the environment, production equipment and employees. Therefore, the filling workshop should strengthen ventilation. The ventilation pipes and air filters should be often cleaned and sterilized and replaced regularly.

2.4 Contaminated by human and animals

Microbes exist in our hands, fingernails, oral cavity, nasal cavity, dandruff and hairs. Our clothes and shoes are also the media for the spreading of microbes. Microbes are mainly from the environment, including molds.

If employees in food industry are infected by molds, suffer dermatophytes and dandruff, or their hands are not washed and sterilized, or their fingernails are not trimmed frequently, or their uniforms are not washed or changed, it's very easy to carry molds into the beverage.

A lot of of microbes exist in the furs, excrement and surfaces of animals such as mice, flies and cockroaches, which can be spread into the workshops through their activities.

2.5 Contaminated by raw materials and package materials

Raw materials are a major source of mold contamination. Food materials may have been contaminated by molds in the processes of production, packaging or transport. During the production, if packaging boxes, bottles or caps are not well protected or not fully sterilized, it's also very easy to cause cross contamination of molds.

3.Control measures against mold contamination

3.1 Workshop design

The materials of ceilings and walls should be water-repellent, mold-proof, not easy to peel off, and be easy to clean. Structurally they should be against condensation, collection and dropping of water. The wall surfaces should be smooth, not easy to gather dirt and be easy to clean. The floors should be easy to clean and sterilize and discharge water.

Purification facilities for people and materials should be set separately at the entrance to a clean workshop.

The temperature and relative humidity of production environment should be controlled strictly, as the growth of molds will be boosted if the temperature or humidity is too high.

The air in a workshop should flow from a clean area to a non-clean area. The ventilation rate should meet the requirement of corresponding cleanness. The ventilation has a direct impact on the invasion and diffusion of molds.

3.2 Sanitary control

3.2.1 Hygiene of workshops

The workshops should be kept clean and tidy. Attention, some sanitary dead angles and corners should be cleaned and tidied strictly.

We should adopt effective cleaning and sterilization methods and systems to guarantee the effect of cleaning and sterilization. Pests should be eliminated regularly in the plant and its surrounding areas to avoid insect pest.





should be kept properly to avoid secondary contamination.

The floors, walls, ceilings, etc. within a workshop shall be cleaned regularly to avoid dusts collection and water condensation, as such an environment can facilitate the growth of molds.

A disinfection tank should be set at the entrance to a workshop. An automatic dispenser of detergent and disinfectant and a hand drier should be installed with the hand washing facility.

We should strengthen the air sterilization in the workshop, particularly in the filling room.

3.2.2 Hygiene of staff and employees

For the prevention and control of mold contamination, in addition to physical and chemical practices, more importantly managers and operators should understand

and pay attention to their operating hygiene. All employees should be aware of hygiene and pay attention to the issue to reduce the chance of contamination.

The production staff should maintain good personal hygiene, trim nails, have haircuts, take showers and change clothes frequently. During working hours, it's forbidden to apply any nail polish or wear any ornament, or carry any personal belonging irrelevant with production into the workshop.

Before entering the workshop, it's required to put on a uniform, a cap and shoes that have been cleaned and sterilized. The uniform should cover over-clothes. Hairs should not be exposed. Hands shall be washed and sterilized. Uniforms, cap and shoes should be washed and sterilized after their use.

After handling contaminated objects or being engaged in any activities irrelevant with production, they should wash and sterilize hands all over again and when necessary change the uniform. While wearing a uniform and shoes, it's forbidden to enter a toilet or leave and return to the workshop again.

The workshop strictly prohibits smoking, eating and drinking, wearing make-up, playing with the smart phone or engaging in other activities that affect the food hygiene.

3.3 Process management

The production process should be rational and be optimized to shorten the technological process, trying to fulfill continuous, automatic and closed production.

Raw materials shall be sterilized strictly following the effective temperature and time. Otherwise the sterilization effect will be affected if the temperature or time is insufficient. The sterilized raw materials shall be protected from being contaminated again.

Sterile water should be used in the aseptic filling. The compressed air used in the aseptic filling should be effectively sterilized or filtered to remove bacteria.

The filling of beverage should be in the clean area that meets requirements.

3.4 Quality control

Find out the critical control points during the processing, develop inspection items, standards, sampling and test methods and perform them strictly.

Check and verify regularly whether the temperature, time and concentration of disinfection and sterilization meet the requirements and keep the records.

Strengthen the hygiene test of beverage. The laboratory shall perform a microbe test on each



batch of raw materials, products, production environment and employees. For any failure to pass the test, find out the cause and come up with a solution to ensure that raw materials, products, environment and employees meet the requirements. Meanwhile, adopt advanced microbe testing technologies and enhance the skills of inspectors to shorten the test time and enhance its speed and accuracy.

3.5 Production equipment

Soda drinks should be filled with sterile equipment to protect the products from any external contamination in the process of filling.

Applying the microbe control technology of aseptic filling, the super-clean normal-temperature filling machine of Tech-Long adopts a strict sterilization process in filling the products in a normal-temperature Class 100 environment. Through sterilizing the environment, equipment, materials, empty bottles and bottle caps, it can guarantee that products are filled under a sterile condition.

3.5.1 Sterilization of environment

After being filtered with the PALL dedicated and effective sterilizing filter at three levels, compressed air becomes sterile air, which can be used for the bottle cap sterilizing machine to blow the caps and suffumigation in the filling area.

Before production, disinfectant is used to suffumigate the Class 100 area till it's sterile. Throughout the production process, the space should remain in a sterile state of positive pressure. The filling space should be sprayed and fumigated with disinfectant regularly.

3.5.2 Sterilization of equipment

COP and SOP systems can guarantee that no external bacteria enter the products during the process of filling. Meanwhile, Ecolab foam is used to clean the host, and the inner surface

of filling equipment can be cleaned with foam manually at any time. CIP and SIP systems can perform acid cleaning, alkaline wash, sterile water cleaning, disinfectant flush, steam sterilization on the channels of materials such as pipes of materials and filling valve so as to keep the channels sterile.

3.5.3 Sterilization of materials

After being sterilized with the UHT of sterile and automatic pipes, materials become sterile. After the sterile materials cool to a normal temperature, they are delivered into the material tank of filling machine for filling. Superheated water SIP is adopted inside the system of UHT, which reaches a sterile state by controlling the temperature and circulation time of superheated water.

3.5.4 Sterilization of bottle caps and empty bottles

Bottle caps are soaked in disinfectant to be complete sterilized. The cap sterilizing machine and cap sorter are placed outside the Class 100 clean room. No compressed air is adopted, as it can avoid compressed air from carrying contamination into the Class 100 clean room. The sterilized caps are flushed with ozone water and blown dry with sterile air, which are then delivered via a fully closed conveyor to the capping machine.





Empty bottles are sprayed and sterilized with a mixture of hydrogen peroxide and sterile air for a sufficient action time to guarantee the sterilizing effect. The sterilized empty bottles are then flushed with ozone water again to be fully cleaned.

Corresponding sterilization is also designed for other auxiliary systems such as sterile water pipe and sterile air pipe, which can prevent possible contamination from entering the products and guarantee that filling remains in a reliable sterile environment all the time

4. Discussions

There are diversified causes of mold contamination. So its prevention and control is not an effort made once for all. A manufacturing enterprise should be strict with and carefully treat each aspect, actively identify the sources of



contamination, adopt scientific prevention and control. Meanwhile, it should strengthen hygiene training and adopt advanced processes and equipment to guarantee food safety.

Text by: Li Youwei

References

1. He Guoqing, Jia Yingmin, Ding Lixiao. Food Microbiology (3rd edition). China Agricultural University Press. 2016, 9
2. Pan Youwen, Deng Haigen. Basic Mechanisms and Parametric Release of Sterilizing Process. China Quality Inspection Press (China Standard Press). 2013, 10
3. Ministry of Health. Technical Standard for Disinfection (2002). China Standard Press. 2002, 11
4. Cui Bo. Beverage Technology. Beijing Science Press. 2014, 1
5. GB50591-2010. Construction and Acceptance Standards of Clean Room. China Building Industry Press. 2010, 10



MARKET M



NEWS 市场动态



大瓶水潜在的亿万市场？ A potential huge market of big-bottle water?

随着 18 年康师傅、农夫山泉相继发出家庭用水的新品，其实家庭水这个市场概念的提出是从 2016 年开始，农夫山泉首次提出家庭用水的市场布局，由于这个布局细分的出现，水产品不再仅仅是“高端水”、“母婴水”、“儿童水”、“女性水”等。瓶装水巨头皆看中了亿万家庭用水需求的空间无限大，于是纷纷下海。

家庭水市场布局细分



农夫山泉

在 2017 年初，农夫山泉携 15L 水回归，推出的产品主打一次性使用，没有二次回收，其容量更是满足一个家庭一周的饮用量且便捷可直接配合饮水机使用。一年后继 4L、5L、15L 装后再出 12L 大瓶水，其主打家庭以及后厨用水领域。农夫山泉推出多种容量的水产品，只为满足多样化的消费场景需求。



怡宝

继农夫山泉之后，第二家插足家庭用水的则是怡宝，其推出了明确的消费场景，分别定位于生活就寝饮用、朋友聚会泡茶饮用、外出旅游饮用三个场景，给予消费者更明确的选择。



娃哈哈

除怡宝外，娃哈哈也在同期推出了4.5L 纯净水，入局“家庭用水市场”，娃哈哈的水产品从瓶盖设计出发，既能直接饮用也能配合饮水机使用。而娃哈哈更是借此打出烧饭、炖汤、泡茶、冲奶四大消费场景。



纯悦

而在 18 年，可口可乐旗下的饮用水品牌更是推出了 4.5L 的家庭装饮用水，该目标消费场景包括家庭用水、办公室用水、宿舍及休闲餐饮用水等。

瓶装水潜在市场 2019仍在发力

据数据显示，中国瓶装水在过去的 10 年里飞速增长，从 2013 年的 1200 亿到 2016 年突破 1500 亿大关，甚至在 2018 年达到 1900 亿，复合年增长率高达 11.1%。现阶段，我国瓶装水行业发展态势较好，横向对比来看，我国瓶装水人均消费水平依旧远远落后于世界其他国家（尤其是发达国家和地区）。销售额方面，我国瓶装水人均销售额为 20 美元 / 人，而全国平均为 29.6 美元 / 人，更远落后于美国（140 美元 / 人）、中国香港（99.9 美元 / 人）、日本（66.5 美元 / 人）等先进国家及地区；销售量方面，我国瓶装

水人均销售量在 32.1 升 / 人，仅高于中国台湾（19.7 升），低于全球平均（43.9 升），也低于美国（129.6 升）、日本（66.5 升）、韩国（58.0 升）和中国香港（55.2 升）。对标可比国家和地区，我国瓶装水消费存在巨大的增长潜力。

—— 数据来源：中国饮料工业协会

In 2018 Master Kong and Nongfu Spring successively rolled out new products of water for family. In fact, the concept of the market of water for family was initiated in 2016. Nongfu Spring was the first to propose a deployment in the market of water for family. Due to the emerging of the segment market, water products were no longer limited to “high-end water”, “water for mothers and infants”, “water for kids” and “water for female”. Bottle water giants have been attracted to the infinite space of water demand of numerous households.

Layout of the Market of Water for Family



Nongfu Spring



C'estbon

In early 2017, Nongfu Spring released 15L bottled water products. The products were mainly for one-time use rather than for recycling, with a volume satisfying the one-week drinking of a household and can be conveniently and directly consumed with a drinking machine. One year later, it successively released 4L, 5L, 15L and 12L bottled water, mainly for households and kitchens. Nongfu Spring released different options of volume to meet the demands in different scenes of consumption.

After Nongfu Spring, C'estbon was the second brand to release water for family. It offered the customers more clear options for three scenes of consumption, namely drinking in daily life and before sleep, tea making in gatherings with friends, drinking for traveling outside.



Wahaha



Chunyue

Other than C'estbon, Wahaha released 4.5L pure water at the same time to join the "market of water for family". The water products of Wahaha started from the design of bottle cap, which can be directly consumed with a drinking machine. Wahaha has released water products for four scenes of consumption, namely cooking rice, stewing soup, making tea and dissolving milk powder.

In 2018, Chunyue, a drinking water brand under Coca Cola, released 4.5L bottled water for family. Its target scenes of consumption include water for families, water for offices, water for dorms and leisure catering.



Potential market of bottled water Continues to grow in 2019

According to data, bottled water has witnessed a rapid growth in China from RMB 120 billion in 2013 to over RMB 150 billion in 2016, and even reached RMB 190 billion in 2018, with an annual composite growth rate as high as 11.1%. In the current stage, the bottled water industry is developing with a good momentum in China. Viewed horizontally, the per capita consumption of bottled water of China is still far behind other countries of the world (particularly developed countries and regions). In terms of sales amount, the per capita sales amount of bottled water of China is 20 USD/person, and the world's average level is 29.6 USD/person, which is far behind advanced countries and

regions such as America (140 USD/person), Hong Kong China (99.9 USD/person, Japan (66.5 USD/person). In terms of sales volume, the per capita sales volume of bottled water of China is 32.1 L/person, which is only higher than Taiwan China (19.7L), and lower than the global average (43.9L), America (129.6L), Japan (66.5L), South Korea (58.0L) and Hong Kong China (55.2L). Compared with comparable countries and regions, the consumption of bottled water of China boasts a huge growth potential.

Source of data: China Beverage Industry Association





步步登高 (摄影者: 洪峰 达意隆营销中心)
Rise step by step in the world (Photographer: Hong Feng Marketing Center)


TECH-LONG 广州达意隆包装机械股份有限公司
TECH-LONG PACKAGING MACHINERY CO., LTD.

广州总部—生产基地

广州市黄埔区云埔一路23号
国内销售热线: +86 20 62956808
国际销售热线: +86 20 62956800
邮箱: market@tech-long.com

Headquarters & Manufacturing Base - Guangzhou

No. 23 Yunpu 1 Road, Huangpu District, Guangzhou, 510530, China
Sales Hotline (Domestic): +86 20 62956808
Sales Hotline (Overseas): +86 20 62956800
E-mail: market@tech-long.com



股票代码 (Stock Code) : **002209**

© 达意隆版权所有 未经许可不得翻印 © 2019 All rights reserved. Reproduction in whole or in part is forbidden without the express permission of the publisher.