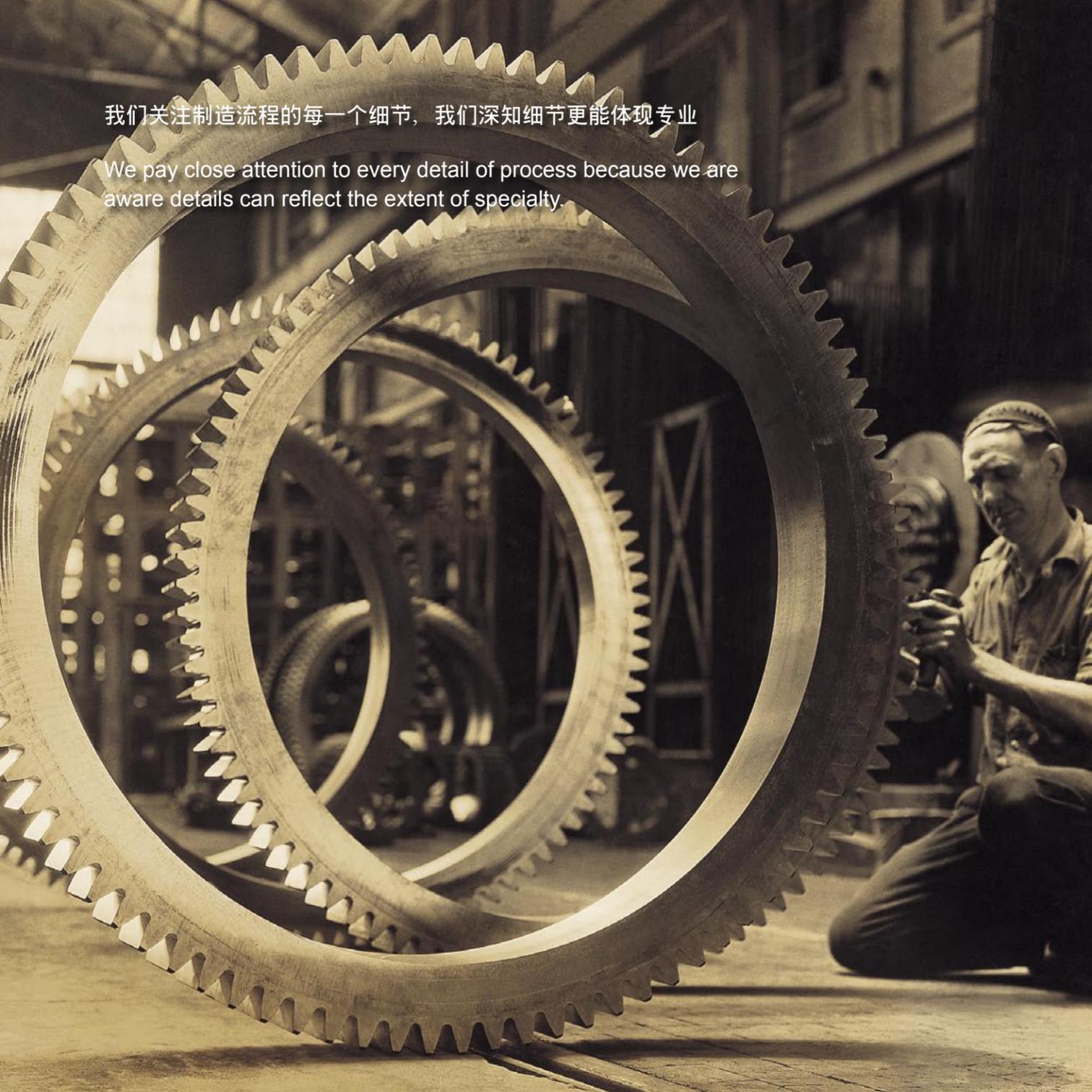


我们关注制造流程的每一个细节，我们深知细节更能体现专业

We pay close attention to every detail of process because we are aware details can reflect the extent of specialty.



FOCUS TECH-LONG 聚焦達意隆

Vol. 8 Nov. 2006

2006年第2期 2rd issue of 2006

达意隆·外部刊物 Quarterly publication of Tech-Long

www.tech-long.com



金秋行业盛会

Industry feast in Autumn

2006中国国际啤酒、饮料制造技术及设备展
达意隆倍受世界用户瞩目

Tech-Long attracted the attention of world users in the 7th
International Brew & Beverage Processing Technology and
Equipment Exhibition 2006

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出版说明

Publication details

主办：达意隆市场部
Sponsor: Market department of Tech-Long
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印刷：广州华光印务有限公司
Printed by: Guangzhou Huaguang
Printing Co. Ltd.

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2006年第2期 总第8期 季刊
出版时间：2006年11月
2rd issue of 2006, Serial No.8
Quarterly Publication time: Nov.2006

封面用图：中国饮料工业协会秘书长赵亚莉一行莅临达意隆展位
Cover: CBIA secretary-general Zhao Ya Li and her delegation presented at Tech-Long's booth.

Contents

目录

特别报导 Special Report

- 3 2006中国国际啤酒、饮料制造技术及设备展特别报导
达意隆整线设备现场连线生产，成为展会最大亮点
The highlight of the fair is Tech-Long production line on-line operation, according to the special report of 2006 China International Exhibition of beer, beverage production technology and equipment.
- 13 参展设备全记录
Whole records of equipments for the Exhibition
- 17 感受“中国制造”的设计魅力
《世界饮料与酿造技术》专访达意隆董事长张颂明先生
“World Beverage and Fermentation Technology” interview with Mr. Zhang Songming, chairman of the board of directors.

产品 Products

- 22 达意隆水处理设备，给用户最纯净的水
Tech-Long water treatment equipment, offers users the purest water
- 33 传承卓越，开拓新领域—达意隆高起点进入啤酒市场，着手研发36000瓶/小时高速啤酒灌装设备
Passing on prominence and exploiting new field: Tech-Long enters beer market from high starting-point and starts to research and develop high-speed beer filling equipment with an output of 36000 bottles/hour.

实例 Product Running Status

- 39 南中国区 之一
South China Region
打造高效团队合作，为客户创造价值
—达意隆南中国区再创骄人业绩，访南中国区总经理张崇明先生
Make high-efficient teamwork and create value for customers.
-Tech-long South China Region accomplishes proud achievement again; interview to Mr. Zhang ChongMing, general manager of the region
- 45 南中国区 之二
South China Region
达利集团，达意隆凭借丰富整厂解决方案经验
迎接全新挑战
Dali Group, Tech-Long always ready to meet new challenge with abundant experiences of factory problem solution.
- 53 苏丹之旅
Tour to Sudan
- 55 燕京集团—感动世界，超越梦想
Yanjing Group - inspiring the world and realizing the dream
- 57 上海正广和—改善饮水品质，提高健康水平
Aquarius Shanghai - improves quality of drinking water, improving the health

- 58 成都蓝光—达意隆是用户值得信赖的合作伙伴
Chengdu Languang Group – Tech-Long is the most trustworthy partner for users

简讯点击 News Brief

- 59 达意隆进军泰国市场
Tech-Long marches into Thai market
- 60 百届广交会—达意隆走向世界的平台
100th Guangzhou Export Commodities Fair - a platform for Tech-Long to go abroad

企业长廊 Enterprise Story

- 62 打造战略发展的核心供应商群
Attract a group of strategic and key suppliers
- 65 达意隆信息化建设之公司内部通讯OA平台
Informationization development of Tech-Long- OA platform for Company's internal communication

行业动态 Industry Dynamics

- 69 品味德国啤酒文化
Appreciate German beer culture

更正 Correction

尊敬的各位读者：《聚焦达意隆》第七期第十三页中的《与高速吹瓶设备配套的优势产品—达意隆PET注坯系统》一文中，“我国PET注坯设备的现状”的英文标题中的“infection”应该改为“injection”，由于我们的差错给各位带来的不便，我们在此深表歉意，特此更正！

Dear Readers: In the article of “Advantageous Product Matching High-Speed Bottle Blowing Equipment-Tech-Long PET Injection System” in page 13 of 7th issue of “FOCUS TECH-LONG”, among the English title of “Current Conditions of China's Infection Equipment”, “infection” should be changed into “injection”. We feel sorry for any inconvenience caused by this and hereby make a correction.

达意隆市场部
Market department of Tech-Long





CHINA BREW 2006 CHINA BEVERAGE 2006

The 7th International Brew & Beverage Processing
Technology and Equipment Exhibition for China

2006中国国际啤酒、饮料制造技术及设备展览会

达意隆整线设备现场连线生产
成为展会最大亮点

*The operation of Tech-Long complete equipment line
became the highlight of the Exhibition*



www.china-brew.com

中国国际啤酒、饮料制造技术及设备展览会自1995年首办以来，一直被誉国际啤酒、饮料及相关行业两年一度的超级盛会，规模傲视同侪。展览会汇集最新的行业资讯，历届云集世界最顶尖供应商，吸引中国各省、市以及世界各地的优质买家。在2004年，展览会云集了500家国际顶尖供应商，吸引了46000多名中外对口买家，再次成为国际的焦点所在。

Since the International Brew & Beverage Processing Technology and Equipment Exhibition for China was first held in 1995, it has always been considered as a grand biennial fair of international beer, beverage and related industries with the largest scale among the same type of fairs. The Exhibition gathers latest industry information and every session attracts the participation of top world suppliers and excellent purchasers from China and all other parts of the world. In 2004, the participators included 500 top international suppliers and over 46000 fitting purchasers from at home and abroad so that it became world focus again.

2006年，由中国轻工机械总公司和工商展览有限公司共同主办的展会踏入第七届，本届展会集合了全球更新颖的技术及设备，面向充满活力的亚洲解市场，充份发挥展览会作为世界啤酒、饮料行业一站式交流平台的独特位置。给了参展商在有潜力的买家面前示范专长、加强品牌形象及巩固市场地位、与客户面对面接触、建立紧密联系、达成交易的有效平台。

In 2006, the 7th International Brew & Beverage Processing Technology and Equipment Exhibition for China co-sponsored by China National Light Industrial Machinery Corporation and Business & Industrial Trade Fairs Ltd. Showing global update technologies and equipments, was oriented at vivid Asian market and gave full play to the exhibition as one-stop exchange platform of world beer and beverage industry. It offered exhibitors an effective platform to demonstrate their advantages before potential purchasers, strengthen their bra

达意隆展会现场获得多张订单
成为本届展会收获最大的参展商

Tech-Long attained a few orders on
the spot of the Exhibition, becoming the
biggest reaper of this Exhibition

参加国际性商业展览是企业展示产品的最直接途径，也是企业与客户商谈的绝佳机会。达意隆把本届展会作为2006年公司的重点工作之一，以啤酒、饮料整体解决方案的庞大阵容出席这一专业性、世界级的行业盛会，现场进行整线生产演示，并成功签下多张订单，成为整个行业的焦点。

Participating in international commercial exhibition is the most direct way to show products and also an excellent chance to negotiate with customers. Tech-Long regarded the participation in this exhibition as one of the work emphases in 2006, showed whole solution for beer and beverage in this professional and world-level Exhibition, demonstrated the whole production line and signed a few orders, which became focus of the whole industry.

本次参展是一项系统工程，从展前准备、展览期间的应对至展后的信息分析和跟进，都与参展的效果息息相关，需要考虑的问题很多，为确保参展工作的顺利进行，合理优化公司人力、财力、物力等资源，达意隆对展前、展中和展后的相关事宜都进行了周密布署，在各事业部及职能部门极力配合下，整个参展规划都如期进行，依序达到预期目标，为达意隆的历史又书写了绚烂的一页。

This participation is a systematic project. The preparations before the Exhibition, negotiations in course of it and the follow-up and analysis of information all had a close relationship with the result of this participation, so many issues should be taken into account. To ensure the smooth participation and rationally optimize company manpower, financial resources, material resources, etc., Tech-Long thoroughly disposed relevant matters before, amidst and after the exhibition. Cooperated by every operating divisions and functional departments, Tech-Long participated in the total exhibition as scheduled and reached the expected goal, which wrote a glorious page for our history.

展前

Before the exhibition

6个月前 6 months before

确定展位

Confirm the exhibition booth

根据展览的规模、时间、专业程度、目标市场等方面，决定参加这次行业中规模盛大的展会。选择合适的展位是参展计划中比较重要的一部分，达意隆考虑到参观人群的走向以及视线方向等方面因素，决定选择展馆中位置最为显著的5号馆511展位，参展面积为600平方米，成为这届展会中参展面积最大的参展商。

According to the scale, time, professional extent and target market, etc., Tech-Long had determined to participate in this grand Exhibition of the industry. Choosing a suitable exhibition location is an important part of participation plan in the exhibition. Considering the walking direction and sight direction of visitors and other factors, Tech-Long finally choose Booth No.511, Hall No.5, the most remarkable booth in this exhibition hall. The area of the booth was 600 square meters, the biggest area of all booths.

5个月前 5 months before

设计展台形象

Design the image of the booth

以达意隆的企业形象及文化理念为基础，对搭建展台的材料、结构、造型等进行创新设计，并确定展位设计方案，展台定位要求能充分突出达意隆专业的形象，并具有十足的现代感。

Based on corporate image and culture theory, Tech-Long had made a creative design of the materials, structure and model of the booth and decided on the design program of the booth. The booth stand had been positioned to fully give prominence to the professional image of Tech-Long and possess a sheer modern sense.

3个月前 3 months before

确定参展设备及展品，对展会进行推广

Decide on equipment and exhibits to be shown in the exhibition and publicize the exhibition

确定参展设备，购置展具以及选择经验丰富的展台搭建公司确定搭建方案；准备展示样品、用具及宣传资料；加大宣传力度，进行展会及参展设备推广活动；对所有参展人员进行技术知识、礼仪方面的培训。

Decided on the exhibition equipment, purchased exhibition tools and chosen experienced stand putting-up company to help confirm putting-up program; prepared samples to be shown, tools and propaganda materials; strengthened publicity on the exhibition and the equipment to be shown; trained all participators about technology and etiquette.

4天前 4 days before

参展物品运输，首批工程人员抵达展馆

Transported exhibition materials and sent first lot of engineers

对参展物品进行运输，第一批工程人员抵达北京，进行设备进馆、安装、调试的工作。

Had the materials to be shown transported and the first group of engineers had reached Beijing to move the equipment into the exhibition hall, install and debug the equipment.

设备进馆及安装调试

Have the equipment moved into the hall, installed and debugged

9月1日晚，各参展设备及物品抵达北京国际展览中心，达意隆一共有六台设备要进行现场演示，距离正式开展只有3天时间，参展设备要在这3天时间里全部安装调试完毕，时间是相当紧迫的，这对于工程技术人员来讲，是一个严峻的考验。为了整个参展计划的顺利进行，所有人员都发扬了团队合作精神，克服了时间紧、任务多等困难。

On the night of September 1, all equipment and materials had arrived at Beijing International Exhibition Center. 6 sets of Tech-Long equipment would be demonstrated on the spot in the exhibition and only 3 days were left before the exhibition, so all the exhibition equipment must be installed and debugged in 3 days. Time was rather pressing, which was a severe test to engineers and technicians. For the smooth implementation of exhibition plan, all personnel had developed the spirit of teamwork and overcome difficulties with urgent time and too many tasks.

9月2日下午2点左右，所有的参展设备全部吊装完毕，与吹瓶机配备的高压空压机、冷干机、过滤器也一一到位，展台搭建也在紧张的进行中。16:20分左右，所有的参展设备开始安装，负责电气的工程师开始进行电气的调试工作，确保设备的顺利运行。

compressors, cool drying machines and filter matching with blowing molding machines had been put in place and the stand had tensely been being put up. At about 16:20, all exhibition equipment began being installed and the engineers responsible for electricity had started to debug the power to ensure the smooth operation of the equipment.

9月3日上午10:30，全自动旋转式高速吹瓶机RJM14与灌装机连线的传送风道调整完毕，纸箱裹包机连线机器人码垛机后段包装的安装也已经完成，整个布展工作已略显成效。

At 10:30 a.m. of September 3, full-automatic high-speed revolving blowing molding machine RJM14 had been connected with filling machine for by air conveyor and packing machine had been connected with palletizer for the packing in the later stage. Thus all the disposition had basically finished. At 12:00, the equipment of Tech-Long had begun preliminary operation.

在展览筹备期间，张颂明董事长于9月3日晚上7点专程赶到北京国际展览中心，体现了公司领导对此次展览的高度重视，以及对员工的关心和支持。张董事长首先对公司的布展情况做了全面细致的了解，之后，他对达意隆员工上下一心，通力合作的团队精神，勇于吃苦、顽强拼搏的奉献精神，和耐心细致的工作作风表示肯定。张董表示，团结协作、通力配合是搞好展览的关键，大家既要分工明确，又要积极配合，要共同面对困难，共同解决困难；在展览各项工作非常紧张的情况下，不管份内份外，只要需要，就要毫不犹豫地提供支持 and 援助。最后，他强调这次展览意义深远，所以全体人

参展设备

- 新型高速吹瓶机CPXX22;
- 注塑机 U360
- 全自动旋转式高速吹瓶机 RJM14
- 含汽灌装机 DQS18-80*80*18与 RJM14高速吹瓶机进行连线并在现场生产演示
- 纸箱裹包机DBZ-CB45
- 机器人码垛机HRT01与纸箱裹包连线进行现场啤酒后段包装演示

Equipment to have been shown in the exhibition

- New high-speed blowing molding machine CPXX22;
- Injection machine U360
- Fully automatic highspeed blowing moulding machine RJM14
- CSD filling machine DQS18-80*80*18 and RJM14 high-speed blowing moulding machine
- Wrap around machine DBZ-CB45
- Palletizer robot HRT01 Had been connected with packing machine to demonstrate the packing of beer

设备进馆
Have the equipment moving into the hall



设备调试
Debugging the equipment



展台搭建
Setting up booth



员更要确保设备在展览会上以完美的姿态出现在观众面前。In course of preparations for the exhibition, Mr. Zhang, chairman of the board of, had paid a special visit to Beijing International Exhibition Center at 7 o'clock in evening of September 3, which showed the leader's emphasis on this exhibition and his care for and support to his staff. Chairman Zhang had first known of the exhibits arrangement carefully and then praised Tech-Long staff for the spirit of united and cooperative teamwork, the spirit of hard and tenacious devotion and patient and careful style of work. Chairman Zhang said, unity, teamwork and wholehearted cooperation were the crux to doing the exhibition well, so everybody should both divide the work clearly and cooperate actively to face and solve the difficulty together. Under the tense exhibition preparations, everyone should not hesitate to offer a hand and support if necessary whether it's your duty or not. Finally, he emphasized this exhibition was far-reaching, so all staff should guarantee the equipment would appear before visitors perfectly in the exhibition.

达意隆总裁及销售总监等领导也连续多天在现场指导工作，从展览的总体规划到实施细节逐一落实。President, sales director and other leaders of Tech-Long had guided the work from the overall plan and the detailed implementation for days.

9月4日，布展工作进入最后一天，达意隆的所有设备都已调试完成：新型CPXX22吹瓶机连续高速运转；RJM14不间断吹瓶，成瓶合格率达100%，生产效率极高，单模产量可以达到1500瓶/模小时；纸箱裹包机与机器人码垛机连线进行珠江啤酒后段包装演示。达意隆的展台搭建工作也已全部完成，展台主体结构全部采用铝合金型材，具有强烈的金属质感，新颖别致、富有时代气息，突出了达意隆专业、年轻而富有朝气的企业形象；达意隆的工程师们在设备安装调试阶段一直坚持高度的责任感，逐一检查参展设备的每一个细节，并做了多种突发状况的预警及解决方案，确保了展会期间设备运转的稳定性及展会的顺利进行，真正做到了未雨绸缪。On September 4, the last day to arrange exhibits, all Tech-Long equipments were finished with installing and debugging: new CPXX22 blowing molding machine ran with great speed, RJM14 blew continually and the bottling qualification rate reached 100% with extremely high production efficiency and a single mould output reaching 1500 bottles/mould hour; packing machine was connected with palletizer to demonstrate beer packaging during the later stage. The putting-up of Tech-Long stand was totally completed. The main body of the stand all made of aluminum alloy sections had strong metal feel and novel, unique and up-to-date flavor, giving prominence to the professional, young and vigorous corporate image of Tech-Long; the engineers of Tech-Long always kept high sense of duty to scrutinize every detail of exhibition equipment in course of installation and debugging and prepared precautions and solutions for various emergencies to guarantee the stable and smooth operation of equipment in the exhibition.

以全新、专业的姿态亮相展会
Appear in the exhibition with a brand-new professional manner

9月5日，在经过五天紧张筹备之后，亚洲最大规模的饮料包装行业的专业展会正式开幕，达意隆也以全新、专业、现代感十足的形象展现在观众眼前。On September 5, after 5 days' intense preparations, Tech-Long appeared before visitors with a brandnew and professional image full of modern sense when the



达意隆董事长张颂明与深圳景田实业有限公司周总现场签定一条整线订单，包括一台CPXX22全自动吹瓶机，一台DS15-72*60*15灌装设备，一台机器人，合同金额约人民币800万元。

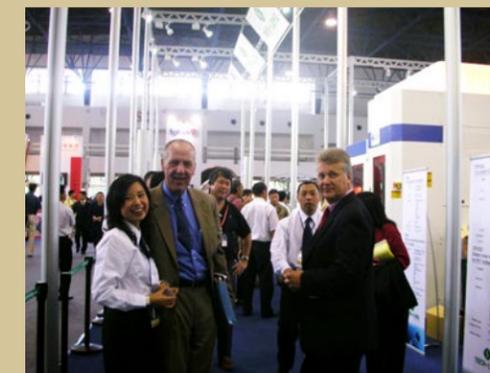
Zhang Songming, chairman of Tech-Long signed an order of a whole line with Mr. Zhou president of Shenzhen Dainti Industry Co., Ltd, including one set of CPXX22 fully automatic blowing molding machine, one set of DS15-72*60*15 filling equipment and a robot with the total contract value of about 8 million RMB.

来自美国百事可乐公司的全球采购及资本运营副总裁Mr. James J. Costa (左二) 一行，对达意隆参展设备表现出了浓厚的兴趣
Mr. James J. Costa (Vice President Global Procurement Capital, MRO PEPSICO) (2nd left) showed strong interest in Tech-Long exhibition equipment.

达意隆董事长张颂明(中)与印尼达能AUQA营运副总裁 Erwin van Grootel(右一)，项目经理 Adjiwibowo Suharjo (左一)。
Zhang Songming(middle), chairman of Tech-Long was with Erwin van Grootel(1st right), vice operation president of Indonesian AUQA and Adjiwibowo Suharjo(1st left), project manager of Indonesian AUQA.

燕京集团董事长李福成(左) 莅临达意隆展位，对达意隆设备表现出浓厚的兴趣，并与达意隆董事长张颂明在展位前了解设备情况。
The Chariman Li Fucheng (left) of YanJing Group visited Tech-Long booth and having discussion with Mr.Zhangsongming and was highly interested for our equipments.

达意隆总裁王忠(右)、供应总部部门经理赵小英(左一)与上海沛鑫董事长黄福全先生(中)
Wang Zhong (right), president of Tech-Long, Zhao Xiaoying(1st left), manager of Tech-Long supply headquarters and Mr. Huang Fuquan(middle), chairman of Shanghai Peixing Packaging Technology Co., Ltd.





9月6日，达意隆与韩国好利集团辽宁矿泉水有限公司在展会现场签订三条整线订单，合同金额高达500万美元。

On September 6, Tech-Long signed an order of 3 whole production lines with the contract value USD 5 million on the spot with Korean HOLI Mineral Water Co., Ltd. In Liaoning.



达意隆部分参加展会的市场推广、业务及工程人员

Tech-Long marketing personnel and salespersons and engineering participating in the exhibition

达意隆参展设备含汽灌装机、全自动吹瓶机前观众络绎不绝
A great number of visitors were attracted by Tech-Long exhibition equipment, including CSD filling machine, fully automatic blowing molding machine.



largest professional exhibition for beverage and packaging industry in Asia formally opened.

达意隆展出的整线设备涵盖了从注坯-吹瓶-灌装-二次包装-机器人码垛的全部工作流程，而设备良好、稳定的运行吸引了来自于全球各地专业观众的参观、洽谈业务及技术交流，并对达意隆的现场演示生产的全自动旋转式吹瓶机RJM14/CPXX22、灌装机、纸箱包装机以及机器人码垛机表现出了浓厚的兴趣，现场呈现出一派生气勃勃的景象。达意隆负责业务洽谈的人员在与客户洽谈中，详细记录了每一个到访客户的情况及要求，对客户的一些特殊参数需求，及时做出合理、准确的答复。每天展览结束后，都将潜在商机及客户资料进行整理、分析，以便及时处理及回应。

The shown whole line equipment of Tech-Long covered the whole workflow of injection-blowing molding-second packaging-palletizing and the excellent and stable operation of the equipment attracted professional visitors from all parts of the world to visit, business negotiation and technology exchange. They showed great interest in fully automatic blowing moulding machine RJM14/CPXX22, filling machine, packing machine and palletizer which were used to demonstrate production on the spot by Tech-Long. Thus the scene was vigorous. When negotiating with customers, Tech-Long's staff responsible for business negotiation kept a detailed record of every visitor's conditions and requirements and made a reasonable, timely and accurate response to customers' requirements for some special parameter. After the exhibition was over every day, they arranged and analyzed potential business opportunity and customer's materials so that they could make a timely disposal and response.

在5天的参展过程中，来到达意隆现场的观众都感叹于达意隆的快速发展，纷纷表示达意隆对整个行业的发展具有巨大的推动作用，是中国啤酒、饮料包装制造技术的实力象征。而达意隆在这次的展览会中也收益颇丰，一举拿下多个订单，成为中国啤酒、饮料业界的焦点，达意隆也在2006的金秋满载了收获的喜悦。

During the 5 days' exhibition, visitors to Tech-Long booth were amazed at the rapid development of Tech-Long and said Tech-Long promoted the development of the whole industry as symbolic strength of China beer and beverage packaging and manufacturing technology. Tech-Long earned a lot

of gains for signing a few orders, which became the focus of China beer and beverage industry. Tech-Long was full of joy for so many harvests in 2006

展后成效

Effect after the exhibition

9月9日，为期五天的2006年第七届中国国际啤酒饮料制造技术及设备展在北京中国国际展览中心圆满落幕！达意隆在此次展会的表现得到了多个国家和地区用户的肯定，现场签订了多张订单，成为本届展会的最大赢家，极大的提高了我公司品牌形象和企业知名度，达意隆的此次展览之旅也画上了完美的句号。

On September 9, the five-day 2006 7th International Brew & Beverage Processing Technology and Equipment Exhibition for China ended successfully in China International Exhibition Center in Beijing! The display of Tech-Long in this exhibition was thought highly of by users from various countries and regions. Tech-Long signed a few orders on the spot and thus became the biggest winner of this exhibition, which enhanced our company's brand image and popularity and gave a perfect end to our participation activities in this exhibition.

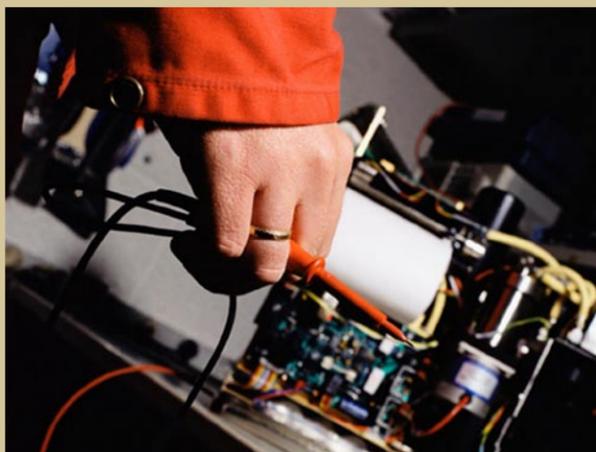
此次参展达意隆设备现场演示也取得了空前成功，进一步体现出达意隆设备先进的制造技术、精湛的加工工艺、稳定的工作性能等优势；也充分巩固了达意隆在国内市场的领先地位，树立了在国际市场上良好的品牌形象；达意隆将持续凭借丰富的行业制造应用经验，不断创新探索，帮助用户实现梦想！

Tech-Long made an unprecedented success in on-the-spot demonstration of the equipment and further embodied the advantages of the equipment such as advanced manufacturing technology, exquisite processing technology and stable operation performance; the demonstration also fully consolidated Tech-Long's leadership in Chinese market and established a good brand image in the international market; based on plentiful application experience in manufacturing, Tech-Long would make an innovation and exploration constantly to help users to realize their dreams!

Text by: Tech-Long Adong/Mukee
Pictures by: Tech-Long Adong/Mukee

达意隆参展的新型机器人码垛机和注塑机吸引了众多专业观众的目光，获得一致好评。
The shown new palletizer and injection machine caught many professional visitors' eyes and got high praise.





参展设备全记录

Whole Records of The Exhibited Equipment

灌装事业部—
进一步巩固饮料
灌装领域的领先地位

Filling Operating
Dept. – further
consolidated its
leadership in
beverage filling

灌装事业部参展设备为DQS18A（80*80*18）全自动清洗/灌装/旋盖三合一机，并在现场与吹瓶机进行连线演示。

The shown equipment of Filling Operating Dept. was DQS18A(80*80*18) fully automatic monobloc machine of rinsing, filling and capping and connected with blowing molding machine for demonstration on the spot.

该灌装设备适用的产品范围涵盖纯净水、矿泉水、含汽饮料、啤酒、果汁、茶饮料、功能性饮料等，适用于350-2000毫升的PET瓶，最高产能可达36,000瓶/小时，全程采用夹持瓶颈技术，因此对于不同容量及瓶型之间的切换显得特别的方便，尤其适合当今追求多元化包装的饮料市场。

The applicable scope of this filling equipment covers pure water, mineral water, carbonated drink, beer, fruit juice, tea beverage, energy drink, etc.. It's suitable for 350-2000 milliliters of PET bottles and the highest output can reach 36,000 BPH, with bottleneck grasping technology adopted, so it's extremely convenient for the switching of different volume and bottle type and especially suitable for current beverage market pursuing packaging pluralism.

8月23日，DQS18A（80*80*18）三合一机生产装配完毕，于8月24日顺利进入灌装线调试状态，调试5天后，设备运转正常，各项性能指标均达到规定要求，按照预定质量要求及生产目标，顺利完成任务，8月27日运往北京参展。

On August 23, DQS18A (80*80*18) monobloc machine was installed and started to be debugged on August 24. After 5 days' debugging, the equipment operated normally and all performance indexes reached the requirements stipulated and finished the task smoothly according to planned quality requirements and production goal. On August 27, it's transported to Beijing for the exhibition.

设备调试还包括风送系统的安装、与吹瓶机对接。本次装配展出设备，面临定位要求高、装配时间紧迫等困难，因此在装配部件的标示方面下了很大功夫，对于灌装线理盖器、玻璃门框、触摸屏、旋盖头、出瓶星轮等重要部件的制作及焊接工艺、加工方法、装配方法上都相当的讲究。所有工程技术人员在安装调试过程中，没有忽视任何一个细节，顶住长时间连续作业的疲劳，凭借坚强的毅力，顺利完安装调试工作，展期未出现任何的运行故障，真正体现了达意隆的专业制造、精良装配水平。

The debugging of equipment also included the installation of air charging system and the connection with blowing molding machine. This installation of exhibition equipment was faced with the difficulty of high positioning and urgent installation time, so much work was done in the labeling of installed parts and the making, welding technology, processing method and installation method of important parts such as lid arranging machine, glass frame, touch screen,

capping head and bottling star wheel were demanding. In course of installation and debugging, all engineers and technicians didn't neglect any detail, withstood tiredness from continuous work for a long time and relied on strong willpower to finish installing and debugging smoothly so that no trouble happened during the exhibition, which really showed Tech-Long's level of professional manufacturing and superior installation.

吹瓶事业部—
充分演绎
中国制造的实力

Blowing Molding
Operating Dept.
- fully demonstrated the
strength of "Made in
China"

吹瓶事业部参展设备为两台全自动旋转式PET吹瓶机，型号分别为“RJM14”及“CPXX22”，两台设备的吹瓶工作站数量分别为14模腔和22模腔，其中RJM14在展会现场进行吹瓶演示并通过风送道与灌装机进行连线生产，由于受到展馆现场高压气源的制约，CPXX22只作了空转运行。

The shown equipment of Blowing Moulding Operating Dept. was two sets of fully automatic blowing molding machines with the model of "RJM14" and "CPXX22". The work station quantity of these two sets of blowing molding machines were respectively 14 mould chambers and 22 moulds. RJM14 was demonstrated and connection with filling machine by air conveyor to produce on line and CPXX22 idled only due to the limit of high air compressor in the exhibition hall.

设备从到达展馆到展览开幕，只有短短的三天时间，期间必须完成设备的吊装、定位、安装、调试、生产的整个过程，通常这一过程在客户工厂需要2-4周的时间才能完成。为了保障参展吹瓶机在展会现场能够顺利的完成展示任务，工程师们跟踪了机器从制造到装配的全过程，在设备离开工厂前做了充分的准备，在展馆现场，机械、电气、工艺工程师们争分夺秒，认真检测每一道工序，不放过任何一处细小的瑕疵，特别是对加热参数、吹瓶压力、空气流量、反应时间、机械动作位置等数据严格检查、精准调节，同时相互之间完美配合，最终得以圆满完成任务，使得吹瓶设备在展览期间能顺畅、稳定的运转、吹瓶，充分展示了达意隆成熟的高速吹瓶技术及强大的工程服务能力。

Only 3 days were available for the whole process of hoist and mount, positioning, installation, debugging and production of equipment which usually took 2-4 weeks. To ensure during the exhibition blowing moulding machine could finish the demonstration task smoothly on the spot of the exhibition, engineers followed up the whole process from manufacturing to installation. They made full preparations before the equipment was sent out of the factory and saved no time in examining every trivial defect carefully, especially strictly checking and accurately adjusting the heating parameter, blowing moulding pressure, air flow quantity, response time and mechanical act position so that blowing molding machine could work and blow smoothly and steadily. This fully showed the maturity of Tech-Long's high-speed blowing moulding technology and the strong engineering service ability.

在展会期间，“RJM14”不间断的高速吹瓶、“CPXX22”稳定的高速运转，充分展现了“中国制造”的魅力，不仅仅是价格上的优势，更重要的是在性能上同样可以达到世界领先的水平。展台吸引了大批专业观众，并在现场签定多张设备定单，通过展出设备，业界对达意隆的吹瓶技术有一个更全面的认识和了解，达意隆也进一步巩固了吹瓶领域的行业领先地位。

During the exhibition, the incessant high-speed blowing of "RJM14" and the stable high-speed operation of "CPXX22" fully represented the glamor of "Made in China". Not only did they have the advantage of price, but also and more importantly, they reached the world-leading level on performance. A great number of visitors were attracted by the stand and a few orders were signed on the spot. By the show of equipment, people in this industry knew of Tech-Long's blowing moulding technology fully and Tech-long further consolidated the leadership in the field of blowing moulding.

包装事业部-
周密组织，确保裹包、码垛设备的稳定运行

Packaging Operating Dept.-conducted careful organization to guarantee the steady operation of packaging machine and palletizer.

包装事业部参展设备为DBZ-CB45纸箱裹包机、HRT01机器人码垛机，纸箱裹包机连线机器人码垛机进行现场啤酒的纸箱裹包及码垛演示。
The shown equipment of Packaging Operating Dept. was DBZ-CB45 packaging machine and HRT01 palletizer, both of which were connected to demonstrate the packaging and palletization on the spot.

DBZ-CB45纸箱裹包机适用的产品范围包括玻璃瓶、塑料瓶、罐头等，额定产能为45包/分钟。HRT01机器人码垛机适用的包装形式包括瓦楞纸箱、塑箱、玻璃瓶、PET瓶、金属罐、纸袋等，工作时的最高线速度可达2500毫米/秒，相对于传统的机械码垛更加的灵活多变。
DBZ-CB45 packaging machine applies to products such as glass bottles, plastic bottles and cans with rated output of 45 package/minute. HRT01 palletizer applies to products such as corrugated cartons, plastic boxes, glass bottles, PET bottles, metal cans and paper bags with the highest speed of 2500 millimeter/second and more flexibility compared with traditional mechanical palletizer.

由于纸箱裹包机位于展厅的进货门附近，因此只能安排在整个展厅的最后时间进馆，设备从卸车、定位、安装到调试，整个只有两天的时间，包装事业部工程师在现场时间、环境、设施有限的情况下，用丰富的装配经验，在最短的时间进行设备定位、水电气管路的连接，裹包机及机器人的连线调试；为使现场演示正常连续运行，工程师们要不断地把整箱啤酒从码垛区搬到解包区，高强度的负荷，既检验了工程师的技能也考验了他们的毅力，展览现场设备的优异稳定运行更加证明了达意隆二次包装技术的成熟。

Because the packaging machine was near the goods entrance, it could only be moved into the exhibition hall during the last stage of exhibition. It took only two days for the equipment to be unloaded, positioned, installed and debugged. Under the limited time, environment and facility, engineers of Packaging Operating Dept. used their plentiful experience in installation to position the equipment, connect it with water, power and gas supply and connect packaging machine with robot for debugging; to ensure the normal and continual operation of on-the-spot demonstration. Engineers should incessantly move a whole box of beer from palletizing region to unpacking region. Load of high strength tested both engineers' skills and their willpower and the excellent and steady operation of the exhibition equipment further proved the maturity of Tech-Long's second packaging technology.

一道注塑/注塑设备
国产PET瓶坯注塑
设备的技术突破

UNIQUE Injection/ Molding Systems/ Injection equipment- a technological breakthrough in domestic PET bottle base on injection equipment

一道注塑设备有限公司是达意隆与外商合资公司，本次参展设备为U360PET瓶坯注塑机。
UNIQUE Injection Moulding Systems Co., Ltd. is a joint venture established by Tech-Long and foreign company. The exhibition equipment of this company was U360PET bottle base injection machine.

U360PET瓶坯注塑机安装了一套48模腔的瓶坯模具，产能为14,400支/小时，该设备配备了一跟直径100毫米的螺杆，采用二级注射方式，注塑机锁模吨位可达360吨。

U360PET bottle base injection machine is installed with a set of 48 mould chambers of bottle base moulds with an output of 14,400 piece / hour and is equipped with a screw rod of 100 millimeters of diameter. By employing secondary injection means, its mould locking tonnage can reach 360 tons.

本次U360PET瓶坯注塑机的展出，为达意隆面向业界首次展出PET瓶坯注塑设备。该机的亮相受到专业人士的广泛好评，赢得众多海内外专业观众的目光，它突破了国产瓶坯注塑机市场定位，基本可以达到国际知名品牌设备的性能，是国内瓶坯注塑机新的质量标杆。U360主要有几个亮点：一个是完善的双阶注塑设计能够保证优秀的塑化效果、准确的注射量及其缩短生产周期，另外一个为自行设计的多工位机械手结构简单，运行快速、精确和平稳，维护和安装简便和快捷。

This exhibition of U360PET injection machine was the first time Tech-Long showed PET bottle base injection equipment to the industry. This shown machine was highly thought of by people in this industry and caught eyes of professional visitors from at home and abroad. It breaks through the market orientation of domestic bottle base injection machine and basically reaches the performance of equipment of international famous brands as a new surveying rod for domestic bottle base plastics moulding machine. U360 has two main highlights: one is that perfect two-step injection design can guarantee a fine plastics moulding effect, an accurate injection quantity and the shortening and production cycle and the other is .the self-designed multi-stage manipulator has a simple structure, runs quickly, accurately and steadily and easy to maintenance and installation.

*Text by:Tech-Long Deshe Hu/Hakim/Weidong He/Xiaobo Su/Mukee
Pictures by:Tech-Long Mukee*

**衷心感谢所有在展会中付出努力的
工程技术人员！**

***Sincerely thank all the engineers and
technicians deveted to the exhibition!***



感受“中国制造”的设计魅力

—《世界饮料与酿造技术》专访
达意隆集团董事长张颂明先生

Feeling the charming design of “make in China” -- “World beverage and brew technology” assessing Mr. Zhang SongMing, board chairman of Tech-Long Group

文章提供:
《世界饮料与酿造技术》
主编 王芬芬
Article offered by: “World beverage and brew technology” Wang FenFen, editor in chief

编者按:
近几年来,在中国PET吹瓶行业中最耀眼的不能不数发展迅猛的达意隆,然而谈到它的成功,不能不提它的产品设计。

我们说,只有那些能真正驾驭设计的企业才能登上巅峰,而那些失败者就会掉入万劫不复的深渊……设计,究竟有什么神秘而强大的魔力?我们将在本期开辟的“设计”栏目中,解读“设计”,深入诠释优秀企业的设计理念,倡导人们对设计的理解与尊重。否则,再优秀的设计也会变得毫无意义。

我们特别邀请了达意隆公司董事长张颂明先生,听听这位领军人物是如何为我们解读企业成功的秘诀,或许达意隆的成功经验能带给您一些启迪。

虽然,达意隆在2001年起步时市场上就已有许多竞争对手,但以高起点出发的达意隆一直以来把技术领先作为企业制胜法宝。6年来,凭借着吹瓶、灌装核心技术达意隆已经成为整线供应商的佼佼者。这家锐意创新的民营企业,多次代表“中国制造”的形象出现在全球各地的著名包装机械展览会上,使全球的液体食品企业感受到“中国制造”的魅力,也成为国际同行不敢小视的竞争对手。

WBT主编:在欧美,啤酒饮料及液态食品机械行业有较长的发展历史,相比之下,中国的啤酒饮料机械行业仍然很年轻,因此中国想要赶超上欧美,也不是一件短时间内能够完成的事。因此需要有志进行创新的企业每年进步、每月进步、每天进步。但是,我们会经常发现中国啤酒饮料机械制造行业中的很多企业“模仿”中迷失了自己。对此,我们想请张颂明董事长谈谈达意隆是如何创建自己的“风格”?

Topic of Conversation One:
World Beverage and Brewing Technology Magazine (Referred to as WBT): In Europe and America, the beer, beverage and liquid food machinery industry has a comparatively long history of development. In comparison, the Chinese beer and beverage machinery industry is still very young. Therefore, if China wants to catch up and overpass Europe and America, it is also impossibly a matter that can be accomplished

within a short period of time. Therefore, it is required that the enterprises that have high ideals to create the new will make progress every year, every month and every day, but we have often found that there were a lot of enterprises in the Chinese beer and beverage machinery manufacturing industry, which were lost in their “imitation”. Therefore, we would like to request Mr. Zhang Songming, Chairman of Board, to have a talk of how Tech-long was to create its own “style”?

张颂明:企业自主创新是企业竞争力的关键。随着科技与全球化经济程度的不断提高,企业必须注重自主创新,才不会在市场经济大潮中迷失方向。达意隆自成立之初就立志于在世界饮料包装行业创立中国的民族品牌,而这需要超前的创新战略。
Mr. Zhang SongMing: For the enterprise to create the new independently is a key of the enterprise kernel competitive force. With the continuous improvement of science and technology and globally economic progress, enterprises must lay stress on the independent creation of the new, so as not to lose its direction in the market economy. Since the initial stage for the establishment of Tech-long, it was determined to create the national brand of China in the world beverage packaging industry, which requires the leading strategy for creation of the new.

应该说,每个企业都有自己的“风格”,达意隆的风格就是更专注于科技前沿以及企业核心技术的开发,企业非常注重科研队伍的建设,从目前来看,研发人员占了公司人数的四分之一,现在有超过100多个科研人员。每年,达意隆都会拿出当年销售总额的10%以上作为科研经费。2005年11月15日,达意隆“技术研发中心”正式升级为“广东省饮料包装成套设备工程技术研究中心”。

It should be said that every enterprise has its own “style”, and the style of Tech-long is to pay more special attention to the forefront of science and technology as well as the development of key technology of the enterprise, and to lay more stress on the construction of scientific research ranks. Viewing from the present conditions, the research and development personnel account for one quarter of the number of people of the company, having more than one hundred scientific research personnel. Every year, Tech-long has taken more than 10% of total sales for that year as the scientific research expenses. On 15 November 2005, Tech-long “Technical Research and Development Center” was formally upgraded to “Guangdong Provincial Beverage Packaging Complete Plant engineering technological Research and Development Center”.

作为自主创新的主体,达意隆不仅重视新技术、新产品的开发,还注重新市场的开拓。这样才使得达意隆能够引领市场潮流,获得技术创新所带来的超额利润,实现可持续发展,并领先于竞争对手。As a main body of independently creating the new, Tech-long not only attaches importance to the development of the new technology and new equipment, but also to lays stress on the exploitation of new market. In this way, it enables Tech-long to lead a trend of market, and to obtain the super-profit which was brought about by technically creating the new, to realize the sustainable development, and to be in the lead among the competitive opponents.

在上月刚结束的2006(第七届)中国国际啤酒、饮料制造技术及设备展览会(China Brew & Beverage 2006)上,首次亮相的CPXX22吹瓶机,是达意隆自主研发的当今最先进制瓶技术的最新力作,一经展出便在业界同行引起了强烈震动。很小很微弱的噪音和震动使在现场的客户亲身感受了这台设备在高速运行下的良好状况。

WBT主编:达意隆作为定位在替代国外进口设备水平的供应商,请介绍一下国际吹瓶技术发展的情况,达意隆目前处于什么水

平?从设计角度出发怎样才能体现产品的先进性?我们的设计依据是什么?
Topic of Conversation Two:
WBT: Tech-long has been positioned as the supplier at the level of replacing the imported equipment from abroad. Please give an introduction to the conditions for development of the international bottle blowing technology. What level is Tech-long now in (introduce Tech-long bottle blowing technique in detail, including the new product to be specially put out in September exhibition)? To start from the angle of design, how can it embody the advancement of a product? And what is our design basis?

张颂明:目前,吹瓶技术水平高的企业主要集中在欧洲少数几家大的设备供应商。它们在吹瓶机的设计、制造及技术性能等方面都居于领先地位,其专业化程度很高,工艺流程自动化越来越高而且在能源消耗方面则呈现出越来越低的趋势。
Mr. Zhang SongMing: At present, the machines of which bottle-blowing technique is at the high level are mainly concentrated on a few large equipment suppliers in Europe, which are in a leading position in the aspects of design, manufacture, and technical performance of the bottle blowing machines, etc. Their specialized extent is very high, process flow-sheet automation is increasingly high, and in the aspect of energy consumption, it has shown the increasingly low trend.

应该说达意隆在包装机械行业的影响力日益增长。达意隆的吹瓶技术的综合表现已经达到了国际先进水平,这点从最新吹瓶设备在可口可乐、达能、中富、紫江等高端客户工厂运行就可以体现出来,我们可以很自豪地说:达意隆已经成为高速吹瓶机的全球主要供应商之一。
It should be said that the influential force of Tech-long in the packaging machinery industry is to be increased with each passing day. The comprehensive expression of Tech-long bottle blowing technique has already reached the international advanced level. This point may be embodied from the operation of our latest bottle blowing equipment in the factories of the high-end clients of Coca Cola, Danone, Zhongfu, and zhijiang, etc. We may say very proudly that Tech-long has already become one of the globally main suppliers of high-speed bottle blowing machines. In China, we were the first factory that researched and manufactured the high-speed fully automatic rotary type bottle blowing machines, and now possess a series of products of RJM10, RJM14, RJM16, RJM20, and CPXX22, etc.

在中国，我们是首家研制生产高速全自动旋转式吹瓶机的厂家。目前，拥有 RJM10 RJM14 RJM16 RJM20 CPXX22等系列产品。CPXX22吹瓶机单模产量可以达到1600瓶/模小时，22模腔总产量高达33000瓶/小时（600ml），一台设备就可以满足一条中高速饮料线的制瓶需求。该设备广泛应用于瓶装水、茶、果汁、运动饮料、含汽饮料、功能饮料等的PET瓶容器的吹制，其具有自动化、智能化高、低成本、生产效率高的特点。In China international Brew and Beverage 2006, Tech-long put out the contemporarily most advanced bottle manufacturing technology of their independent research and development—the new type CPXX22 high-speed bottle blowing machine. This equipment is widely applied to blow and mold PET bottles for packaging of water, tea, fruit juice, sport drinks, carbonated beverage, and functional beverage, etc., which is characteristics of high automation, high intelligence, low cost, and high production efficiency. CPXX22 type bottle blowing machine that was firstly struck a pose on this exhibition was the latest master piece of Tech-long on the bottle blowing technique, which has caused a great shock in the same trade of the industry. The clients might feel by themselves that the noise and vibration of the machine were very small while it ran at a high velocity. The single-mould output of CPXX22 type bottle blowing machine may reach 1600 bottles/h, and the total output of 22 moulds is highly up to 33,000 bottles (600ml)/h. One set of machine can meet the requirement for the manufacture of bottles by a medium and high speed beverage packaging line.

我个人认为，产品的先进设计要融合现代科技成果，适应客户不断变化的设计。我们拥有各种先进的设计理论和方法，在产品的功能结构、造型、竞争力和经济效益上体现客户的价值。In my opinion, the advanced product design should have fusion of the contemporarily scientific and technological fruits, and should be adapted to the requirement for the uninterrupted changes of clients. We have the various advanced design theories and methods which will embody the value of clients on the function structure, modeling, competitive force, and economic benefit of products.

在饮料行业激烈竞争的今天，用户更为关心的是如何购买到“质优价廉”的设备。达意隆吹瓶机已经与国际顶尖供应商相媲美，并且能为用户带来利益最大化。只有性价比最优才是真正的低价，达意隆公司一直将定位锁定在替代进口产品设备这一水平上，在技术性

能达到国外同行90%水平基础的同时，价格远远低于国外进口设备的40%。

WBT主编：与国外吹瓶机械供应商相比，请描述从哪些角度进行产品设计才能体现低成本制造？

Topic of Conversion Three:

WBT: In comparison to the foreign bottle blowing machinery suppliers, please describe that from which angles to carry on the product design can embody the low cost manufacture (not confined to the manufacturing cost, there are also other aspects, such as manpower resources, etc.)?

张颂明：低成本制造是中国制造业最具竞争力的重要因素，概括地说，我们的低成本是贯穿在整个生产流程之中的。低成本制作应该体现在生产流程优化，而不只是强调设备的价格，应综合考虑低设备投入、高制造质量、高制造效率和低维护维修等几个方面。正是基于这一考虑，达意隆选择了世界知名公司作为供应商，组成供应链战略联盟，配合生产流程，创造新的利润增长点。

Mr. Zhang SongMing: The low cost manufacture is the important factor that the Chinese manufacture industry mostly has the competitive force, to put it briefly, our low cost is to be penetrated in the complete production flow-sheet. The low cost manufacture should be embodied in the superiority of a production flow-sheet, for which we do not merely lay stress on the price of equipment, but should have a comprehensive consideration of the following a few aspects, such as the low input of equipment, high manufacturing quality, high manufacturing efficiency, and low maintenance expense, etc. It is precisely based on this consideration that Tech-long has selected the world well-known companies as its suppliers, composing a strategic alliance of supply links, coordinating the production flow-sheet, and creating a new profit increasing point.

与国外吹瓶机械供应商相比，我们在低成本制造方面的优势还体现在生产管理、人才战备、供应链管理、企业制度等方面。

In comparison to the foreign bottle blowing machinery suppliers, our superiority on low cost manufacture is also embodied in the aspects of production management, talent preparation, supply link management, and enterprise rule and system, etc.

饮料市场的激烈竞争，使中外企业把目光瞄准了迅速崛起的“中国制造”，但产品质量仍然是这些饮料巨头的首选因素。中外饮料巨头纷纷选择了达意隆正是

因为看中了其产品质量过硬和价格的优势能为他们带来长远的利益。

WBT主编：从纯经济的观点来讲，为了减少维修费用，提高产品的利用率，高可靠性是非常必要的。但也不是可靠性最好时总的消耗费用一定最低，因为还有产品的制造成本问题，需要综合考虑优化选择，以找出使总费用最低的最佳可靠性。

Topic of Conversion Four:

WBT: Speaking from the purely economic viewpoint, in order to reduce the maintenance cost and to raise the utilization of product, the high reliability is very necessary. But it is also not that when the reliability is in the optimum state, the expense of gross consumption will certainly be the lowest because there is also a cost for manufacture of product. It is necessary to have a comprehensive consideration of preferential choice, so as to find the optimum reliability to enable the overall cost to be the lowest.

也就是说，在产品的可靠度与成本之间有个最优选择，这也要通过可靠性优化设计来求解。达意隆是怎样实现这一最优选择的？

That is to say, there is the optimum choice between the reliability of product and cost, which will also be solved by optimizing the design through the reliability. And how does Tech-long realize this optimum selection?

张颂明：产品的可靠度和成本同等重要，产品质量是价值和尊严的起点，我们引进质量管理体系就是为对产品的质量进行过程管理，提高产品的可靠性，但是这要涉及到成本问题，刚才我们也谈到了这个问题。因此，要系统的、综合的去考虑这个问题，以达到优化选择。由于可靠性指标涉及产品的成本，因此，在进行可靠性优化设计时，达意隆对产品的可靠度分配采用优化方法。首先建立可靠度分配的费用最少、维修费用最少，消耗最小的目标函数及可靠度约束条件，通过求优化解，最后求得产品的最佳设计方案和最优可靠度值。

Mr. Zhang SongMing: The reliability of product was the equally important as the cost. The quality of product is a start point of the value and dignity. That we imported the quality management system is to carry out the process management for the quality of product, to improve the reliability of product, but it will refer to the cost. Just now, we had a talk of this issue as well. Therefore, it is necessary to



systematically and comprehensively consider this problem, so as to obtain the optimizing selection. Owing to the reliability index that refers to the cost of product, carrying out the optimized design of reliability, Tech-long adopted the optimized method for the distribution of product reliability. First of all, setting up an objective function of the minimum expenses for the distribution of reliability, minimum maintenance expense, minimum consumption, and the restraint conditions of reliability, through seeking optimized selection, it finally acquires both the optimum design scheme and optimum reliability of the product.

选择达意隆的产品，意味着你拥有了最可靠的产品和能给用户带来节省成本的整体最优投入方案。

To select the product of Tech-long is meant that you have possessed the most reliable product and the overall most optimum input scheme that can bring about the cost saving for the user.

短短几年，达意隆厂房从一期到四期，产品从单一到整厂解决方案，员工从几十人到近千人，业绩从默默无闻到行业瞩目。2006年4月达意隆四期厂房全部竣工投产，整个生产总面积达13万平方米。

目前，达意隆已成为亚洲最大、世界前三的系列饮料包装设备制造与研发基地。作为一个后来者达意隆能够在短短几年就能赶上甚至在某些方面超越了竞争对手

印尼达能采用达意隆设备灌装“脉动”生产现场

Tech-Long filling equipment running in "MIZONE" production site. Indonesia DANONE

手，靠的是先进的制造技术，更得益于先进的管理理念。

WBT主编：任何先进制造模式除了采用先进制造技术之外，更反映了某种全新的生产哲理和管理思想。中国制造商如果要想成为国际名牌企业，除了要拥有世界一流的制造技术外，更重要的是要有世界一流的组织管理模式和管理水平。当然其先决条件是企内外必须建立比较完善的市场竞争机制。请您介绍一下达意隆在这方面的经验。

Topic of Conversion Five:

WBT: Any advanced manufacturing models, besides adopting the advanced manufacturing technology, also reflect some completely new production philosophy and management concept. If the Chinese manufacture suppliers want to become an international famous brand enterprise, besides possessing the world first class manufacture technology, the more important is to have the world first class organization management model and management level. Of course, its pre-requisite is that the inside and outside of the enterprise must establish comparatively perfect market competitive mechanism. Now please kindly request Mr. Zhang Songming, the Chairman of Board, to give an introduction to the experience of Tech-long in this aspect.

张颂明：达意隆在建立初期，就意识到企业管理对一个企业的重要性。为提高公司的运营效率，适应日益激烈的外部竞争，在长期的管理实践中，公司把卓越绩效管理作为一种基本的、基础的管理模式，并从领导、战略、生产、市场、资源、过程管理等方面付诸实施。虽然达意隆在管理能力和整体业绩上得到了提高，但是和国外的公司相比，还存在太多的不足，要想成为国际名牌企业，我们要不断地学习，实际上我们也正在不断地提高。

Mr. Zhang SongMing: At the initial stage on the establishment of Tech-long, Tech-long was conscious of the importance of enterprise management to an enterprise. In order to improve the operation efficiency of the enterprise and to adapt to fiercely outer competition with each passing day, in the practice of long-term management, the company took the management model of the outstanding achievement and efficiency as a kind of fundamental and basic management model, putting into effect from the aspects of leadership, strategy, production, market, resources, and process management, etc. Although tech-long has improvement in the management ability and overall achievement, in comparison with

the foreign companies, there has also been too many deficiency. If want to become the international well-known brand enterprise, we must continuously study, and actually, we are also uninterruptedly improving ourselves.

WBT主编：设计出成功的产品，首先要了解市场需要什么样的产品，不同的市场它的需求状况也不一样，这就需要企业去了解和研究，最后才是创作设计。您觉得中国本土企业比国外企业在了解市场需求方面有什么优势？

Topic of Conversion Six:

WBT: Designing the successful product, it is necessary to firstly understand what kind of product the market needs. For different markets, their requirements are also not the same. It is necessary to request enterprises to go to understand and research, and finally to carry out the creation and design. What superiority the Chinese native enterprises have in the aspect of understanding the market demands in comparison with the foreign enterprises?

张颂明：我觉得这方面中国本土企业的优势是不明显的，因为国际化进程正在加快。但就中国市场来说，中国企业比外国企业更了解中国的政治、文化和经济水平，能更好地从客户的角度去考虑问题，并根据市场需求推出适合市场需要的产品。比如说瓶形，还有包装的形式，中国本土的企业更能从消费习惯的角度进行创作设计。

Mr. Zhang Songming: I think that the superiority of the Chinese native enterprises in this aspect is not obvious because the internationalized progress is just quickening. But speaking from the Chinese market, the Chinese enterprise has more understanding than



印尼达能采用达意隆设备灌装“脉动”生产现场
Tech-Long filling equipment running in "MIZONE" production site. Indonesia DANONE

the foreign enterprise of the Chinese politic, culture and economic level, and can much better consider the problems from objective angle, and put out the products that are suitable for its demands on the basis of the demand of market. Taking the shape of a bottle as an instance, also the way of packaging, the Chinese native enterprises are more able to carry out the creation and design from the angle of consumption habits.

WBT主编：产品设计是体现品牌价值的的一个重要元素，如果要以百分比划分的话，达意隆的设计会占到品牌价值的多少个百分点呢？

Topic of Conversion Seven:

WBT: The product design is an important element to embody the value of brand. If it is expressed by a percentage, how much percentage does the Tech-long design Account for in the value of brand?

张颂明：从某种意义上讲，产品设计是体现品牌价值的重要载体，作为制造型企业，产品就是最好的品牌宣传，这比任何广告都有效，别人一看到这个产品就马上知道这是达意隆的。

Mr. Zhang Songming: Speaking from some significance, the product design is an important carrier to embody the value of brand, but as a manufacturing type enterprise, the product is just the best propaganda of brand which is more effective than any adverts because other people immediately know that this is Tech-long as soon as they have a look at that product.

说到设计占品牌价值多少个百分点，每个企业都有不同的标准，就达意隆而言，我个人认为，设计应该占到80%的比重。Speaking of how much percentage points the design accounts for in the brand value, every enterprise has the different standard. So long as Tech-long is concerned, in my opinion, their design accounts for 80% of the specific weight.

WBT主编：从客观上来讲，中国啤酒饮料机械产品设计一直受欧洲风格的影响，而中国本身作为一个庞大及有发展潜力的市场，请问张颂明董事长，您觉得中国何时才能赶上欧洲成为世界液态食品机械产品的设计中心呢？

The Last Question:

WBT: Objectively, the product design of the Chinese beer and beverage machinery has constantly been influenced by the European style, and China itself, as a giant and potential market, please ask Chairman Zhang Songming, do you think when China can catch

up with Europe and become the design center of the world liquid food machinery products?

张颂明：我觉得这种差距是不能用多少年来定义的。有人说国内液态食品机械产品的设计与国外还有二三十年的差距，也许从纯粹的技术设计角度来看，这是对的，但从市场角度来看，我不这样认为，因为纯粹的技术设计先进并不代表在应用领域就能领先，就好比非常领先技术设计的磁悬浮交通的实用价值就远不如目前的轮轨道交通，因为它的成本过于昂贵。我们提倡站在市场需求的角度来将设计转化为应用，这也是设计的精髓所在。同时我们也必须承认欧洲的设计水平领先于中国，只要我们应用好中国的制造优势、人力资源优势、市场优势，相信我们的设计水平上升速度会远远快于欧洲。

Mr. Zhang SongMing: I think that this kind of difference cannot be defined by means of years. Some people said that the design of the domestic liquid food machinery products will also have a gap of two or three decades in comparison with the foreign countries. Viewing from the angle of purely technical design, perhaps, it is right, but as viewed from the market, I don't think so because the purely advanced technical design cannot represent that it can take a lead in the applied realm. It seems the magnetic suspension train, though it is of extremely leading technical design, its practical value is far not as good as wheel, road and rail communication because its cost is extremely high. We advocate transforming the design into application from the angle of the market demand, which is where the key of design lies. In the meanwhile, we must also admit that the European design level is more advanced than China. As long as we apply well the Chinese manufacture superiority, manpower resource superiority, and market superiority, it should be believed that the rising velocity of our design level would be much quicker than Europe.

越南槟城采用达意隆设备生产现场
Tech-Long machinery running in THP group, BINH duong province Vietnam



水是生命之源

Water is the source of life

地球上生命的起源与水的存在有着密切的关系。可以说，如果没有水，那么这个地球上不可能有今天人类的生命和其他一切生物的存在。在所有的生命体中，含水量最大的生物算是人类自己。人体内的水按重量计算占有60-80%。据生物医学界的估算，人处于困境、没有食物的条件下，只要有充足的水，生命可维持10天以上，在一些记录中达到一个月之久。可见水对生命是极为重要的。

The origin of life on the earth has a close relation with the existence of water. We can say human life and all other creatures cannot exist on the earth today without water. Of all life entity, man is the one containing the most water. Weight of water in human body occupies 60-80% of the total weight. According to estimation of biological and medical circle, if man is in trouble and has no food, he can survive for over 10 days and even 1 month according to some records with water provided. So it is obvious water is extremely important to life.

水是地球上分布最广的物质，是人类环境的一个重要组成部分，以气、液、固三种聚集状态存在，地球水的总量约有136000万立方公里，即接近于14亿立方公里，如果全部铺在地球表面上，水层厚度可达到约3000米，海洋中聚集着绝大部分水，占地球总水量的97.2%，它覆盖着地球表面70%以上，陆地上到处都分布着河河湖沼，这些地面水总量约为23万立方公里，其中淡水约一半，只占地球水总量的万分之一，地下土壤和岩层中含有多层地下水，总量估计有840万立方公里，在高山和冰冻地区还积存着巨量冰雪和冰川，占陆地水总量的四分之三，天空大气中总是流动着大量的水蒸气和云，在动植物机体中也饱含水份，即使在矿物岩石结构中也包含了大量的结晶水，由此可见，水在地球上几乎是无所不至，确实是一种分布极广的常见物质，它在整个自然界和人类社会中发挥着不可估量的巨大作用。

Water is the matter scattering most widely on the earth as an important component of human environment. It exists in gas, liquid or solid state. The total amount of water on the earth is 1,360 million cubic kilometers, nearly approaching 1.4 billion cubic kilometers. In case all water is spread on the surface of the earth, the thickness of water layer can reach about 3000 meters. Most water gathers in the ocean, accounting for 97.2% of the total amount of water on the earth and covering over 70% of the surface of the earth. Rivers, lakes and swamps are spread on land and this surface water totals about 230,000 cubic kilometers, among which fresh water accounts for a half or so, only covering 0.001% of the total amount of water on the earth. Underground soil and rocks have layers of groundwater and the total amount is estimated to be 8,400,000 cubic kilometers. A large amount of ice, snow and glaciers exist in mountains and frozen areas, accounting for 3/4 of total land water. Water vapor and cloud always float in the sky and the air. Animals and plants are also full of water and even minerals and rocks contain a large amount of water. Therefore, it's clear water exists everywhere on the earth and is indeed common matter widely scattered. It plays an inestimable and enormous part in the whole nature and human society.

达意隆水处理设备 给用户最纯净的水

Tech-Long's Water
Treatment Equipment
Offers users the purest water

水处理的意义

Significance of water treatment

我国是一个水资源贫乏的国家，总量不足，分布不均，污染比较严重，随着经济的增长，人们对水的需求量和品质要求越来越高，但水污染的范围和程度也越来越大，解决水资源短缺和水污染的一个主要途径就在于水处理。

China is poor in water resources. The total amount is insufficient The distribution is uneven and pollution is comparatively serious. With economic growth, people demand more and more water of higher and higher quality, but the scope and extent of water pollution become increasingly bigger and bigger. Now a main solution for water shortage and pollution lies in water treatment.

我国有很多地方不是没有水，而是水质不合用。水处理的目的是改善水质，即运用工程技术手段将原水中的杂质去除，加工成符合生产或生活水质要求的成品水并输送到用户，以及收集使用的废水并处理到水质符合循环使用及排放要求。

A lot of places in China do have water, but water quality is not qualified. The purpose of water treatment is to improve water quality by using engineering technology to remove the impurity in the original water, processing it into drinkable water qualified for living requirements to be carried to users and treating used waste water collected to the extent of quality qualified for recycling and discharging requirements.

达意隆水处理系统概述

Outline of Tech-Long's water treatment system

根据处理水的使用，水处理系统可以分污水处理系统及给水处理系统，达意隆主要产品为给水处理系统。给水处理包括饮料食品加工用水、电子医药用水、工业用水等几个方面。

According to the use of treated water, water treatment system can be divided into the sewage treatment system and water supply treatment system. The main product of Tech-Long is water supply treatment system. Water supply treatment system includes water for beverage and food processing, water for electronics and medicine and water for industrial use, etc.

给水处理的水源大致上可分为地表水及地下水这两种情况。地表水也可称为地上水，是指江、河、湖泊及水库中的水，其最大的特点是含盐量及硬度较

离子交换软化水处理设备
Ion exchange and water softening
treatment equipment



部分过滤器技术参数 Technical parameters of some filters

多介质过滤器:

进水浊度: < 15 NTU
出水浊度: ≤ 1NTU
过滤速度: 8 ~ 14 m/H
设计压力: 6 kg
运行压力: 3 ~ 4 kg
过滤介质: 水
主体材料: SS304

Multi-media filter:

Turbidity of influent water: < 15 NTU
Turbidity of effluent water: ≤ 1NTU
Filtration speed: 8 ~ 14 m/H
Designed pressure: 6 kg
Operation pressure: 3-4 kg
Filtered medium: Water
Subject material: SS304

活性炭过滤器:

进水浊度: ≤5 NUT
过滤速度: 10 ~ 20 m/H
设计压力: 6 kg
运行压力: 3 ~ 4 kg
过滤介质: 水
主体材料: SS304

Active carbon filter:

Turbidity of influent water: ≤ 5 NUT
Filtration speed: 10-20 m/H
Operation pressure: 3-4 kg
Designed pressure: 6 kg
Operation pressure: 3-4 kg
Filtered medium: Water
Subject material: SS304

除铁除锰过滤器:

过滤速度: 6 m/H
设计压力: 6 kg
运行压力: 3 ~ 4 kg
过滤介质: 水
主体材料: SS304

Iron and manganese filter:

Filtration speed: 6 m/H
Designed pressure: 6 kg
Operation pressure: 3-4 kg
Filtered medium: Water
Subject material: SS304

低, 水质不稳定, 随着季节变化而有着较大的变化。地下水指的是由人工开凿的深井水, 其最大的特点是水中溶入较多的盐类, 水质较稳定, 不会应季节变化而改变。

The water source of treatment can roughly be divided into surface water and groundwater. Surface water can also be called water on land, referring to water in rivers and lakes. Its clearest characteristics are its low content of salt, relatively low hardness, instability of water quality and great changes influenced by seasons. Groundwater refers to water in wells dug by man. Its clearest characteristics are more salt contained in water, relative stability of water quality and no change influenced by seasons.

达意隆水处理工艺

Water treatment technology of Tech-Long

一套水处理系统所采用的工艺取决于水源的水质以及用水的目的, 所选定的工艺基本可分为预处理系统、深度处理系统及终端处理系统三部分。其中预处理包括多介质过滤器、活性炭过滤器、软化器、除铁除锰过滤器、超滤、微滤等; 深度处理为膜法处理及离子交换; 后处理系统为杀菌、离子交换等。

The technology a set of water treatment system uses depends on water quality and purpose of water use. The adopted technologies can basically be divided into pre-treatment system, depth treatment system and terminal treatment system. Pretreatment system includes media filter, active carbon filter, softener, iron and manganese filter, ultra-filtration, micro-filtration, etc; depth treatment includes membrane method treatment and ion exchange; aftreatment system includes sterilization and ion exchange, etc..

预处理系统

Pretreatment system

预处理系统就是采用机械过滤、吸附、混凝等形式尽可能的去除水中的固体颗粒、胶体、悬浮物、游离性余氯及有机物等, 并降低进水浊度、色度、臭味、硬度等来保证预处理的出水能够达到深度除盐系统的进水要求。

Pretreatment system refers to using mechanical filtration, absorption and coagulation to remove solid grains, colloid, suspended substances, free residual chlorine and organic as much as possible and lowering turbidity, colority, stink and hardness of influent water to guarantee pretreated water meets the requirements of depth salt-removing system.

深度处理系统

Depth treatment system

国内早期采用离子交换技术来做为深度处理系统。由于离子交换使用一段时间后需要进行酸碱再生处理, 其再生液排放后容易造成环境污染, 而且维护费用较高, 故现在较多的采用技术成熟的膜法处理。膜法处理有超滤、反渗透及纳滤处理。超滤一般用于预处理不属于深度处理系统。反渗透主要是去除水中盐分、金属离子、微生物来保证最终出水的要求或符合终端处理系统的进水要求。

Ion exchange technology was adopted in depth treatment system in China in early days. Because ion exchange needs acid-alkali reclaiming treatment after a period of use, its reclaiming solution is apt to pollute the environment after it's discharged and the maintenance cost is relatively high. Membrane method treatment matured at technology is more widely employed now. Membrane method treatment includes ultra-filtration, reverse osmosis and ion filtration. Ultra-filtration is generally used in pretreatment instead of depth treatment system. Reverse osmosis primarily removes salt, metal ion and microbe in water to guarantee final effluent water is qualified for the influent water requirements of terminal treatment system.

终端处理系统



达意隆水处理设备在济南普利思生产现场平稳运转

Tech-Long's water treatment equipment operates steadily in Jinnan Pulisi Mineral Water Co., Ltd.

Terminal treatment system

终端处理系统根据最终用水使用大致可分为两种, 一种是饮用水的制取; 另外一种为超纯水的制取。

According to end water, terminal treatment system can be roughly divided into two types: one is preparations of drinking water and the other is preparations of ultrapure water.

做为饮用水的后处理系统主要采用臭氧消毒, 臭氧是特别强烈的氧化剂, 具有高效瞬时的灭菌功能, 同时臭氧反应后的生成物是氧气, 其性能优于氯与紫外线, 是高效的无二次污染的氧化剂。正是臭氧的这种特性, 在最近几十年中广泛运用在水处理系统中。

After treatment system for drinking water mainly uses ozone for sterilization. Ozone is extremely strong oxidant with the function of high-efficiency and sterilization. Meanwhile, the product of ozone reaction is oxygen whose performance is better than that of chlorine ultraviolet ray as a high-efficient oxidant without second pollution. It is exactly this characteristic of ozone that has been widely used in water treatment system extensively during recent decades.

做为超纯水的终端处理系统主要采用最先进的连续电除盐简称EDI技术或混床进一步去除水中的各种离子。EDI是利用混合离子交换树脂吸附给水中的阴阳离子, 同时这些被吸附的离子又在直流电压的作用下, 分别透过阴阳离子交换膜而被去除的过程, 在运行的过程中持续的对树脂进行再生。混床同样也是利用阴阳离子树脂交换水中各种盐分, 到达一定程度后需要通过酸碱进行再生, 在一套水处理系统中往往都需要采用一用一备形式才能使系统连续出水。

Terminal treatment system for ultrapure water mainly uses the most advanced technology of EDI, short for electrodeionization, or mixed resin bed to further remove various kinds of ion in water. EDI utilizes mixed ion exchange resins to absorb anion and cation in supplied water and meanwhile the absorbed ion is affected by direct current voltage to reclaim resins continually in course of operation with the help of removing by anion and cation Mixed resin bed also utilizes anion and cation exchange resins to remove salt in water to a certain degree and then carries on reclaiming with the help of acid and alkali. Utilization-use-preparations means are often needed to keep the system's incessant water effluence.

部分离子交换设备 技术参数

Technical parameters of some ion exchange equipment

强酸阳离子交换器

强碱阴离子交换器

混合离子交换器

进水浊度: <1 NTU
过滤速度: 20 ~ 30 m/H
运行压力: 3 ~ 4 kg
设计压力: 6 kg
过滤介质: 水
进水余氯: ≤ 0.1PPM
主体材料: SS304

Strong acid cation exchanger

Strong alkali anion exchanger

Mixed ion exchanger

Turbidity of influent water: <1 NTU
Filtration speed: 20-30 m/H
Operation pressure: 3-4 kg
Designed pressure: 6 kg
Filtered medium: Water
Residual chlorine of influent water: ≤0.1PPM
Subject material: SS304



EDI 系统

PH: 6.0~9.0

进水余氯: ≤ 0.1 PPM

进水温度: 5~35 C

硬度: (以CaCO₃计)
 ≤ 1.0 ppm

有机物: (TOC) < 0.5 ppm

二氧化硅: < 0.5 ppm

出水电阻率: 5 ~ 18M/cm

注: 1ppm=百万分之一

EDI system

PH: 6.0~9.0

Residual chlorine of influent water: ≤ 0.1 PPM

Temperature of influent water: 5~35 C

Hardness: (by CaCO₃) ≤ 1.0 ppm

Organic: (TOC) < 0.5 ppm

Silicon dioxide: < 0.5 ppm

Resistivity of effluent water: 5-18M/cm

Note: 1ppm=1/1000000

常见水处理技术

Commonly water treatment technology

普通过滤技术

Ordinary filtration technology

水进入滤层后, 水中的部分悬浮物由于吸附和机械阻流的作用被滤层表面截留下来的过程叫过滤。在过滤的实际运行中, 当水流经滤层中间时可以起到截留和吸附的作用, 这种过滤称为渗透过滤。这是水处理行业中普通的过滤技术也是最原始、最简单的。

After water enters the filtration layer, the process in which some suspended substances in water are held back by superficial filtration layer under the influence of absorption and mechanical choke is called filtration. During the actual filtration, when water flows through filtration layer, it can play a role in holding back and absorbing and such filtration is called permeating filtration. This is an ordinary filtration technology among water treatment industry and also the most primitive and the simplest.

根据过滤器的过滤形式可分为重力式和压力式两种。常用的重力式有除铁除锰过滤器; 常用的压力式有多介质过滤器、单介质过滤器等。单介质过滤器指的是过滤器里装的是一种滤料; 多介质过滤器指的是过滤器里装的是两种或两种以上的滤料。滤料指的是装在过滤器里起过滤作用的物质, 常用的滤料有石英砂、锰砂矿、无烟煤、活性炭等。普通过滤技术常用于预处理系统。

According to the filtration means of filter, filter types can be divided into gravity type and pressure type. Commonly used gravity type is iron and manganese filter; commonly used pressure type includes multi-media filter and single medium filter, etc.. Single medium filter means only one kind of filter material is put in filter; multi-media filter means at least two kinds of filter materials are put in filter. Filter material refers to the material put in filter to play a filtration role and commonly used filter materials include quartz sand, manganese placer, anthracite, active carbon, etc.. Ordinary filtration technology is often used in pretreatment system.

离子交换除盐、软化技术

Ion exchange salt removing and softening technology

在自然界的水体中存在着多种阴阳离子也就是我们平常所说的盐分。而这些盐分的存在对工业用水有着极大的害处, 严重的影响产品的性能, 在工业用水中根据最终的用水目的对水进行软化、除盐, 离子交换技术就是在水处理目前常用深度处理和终端处理中的一种。常用的离子交换设备有软化器、阴床、阳床、混床、抛光混床等。

There are many kinds of anion and cation in nature which we usually call salt content. And existence of salt content does a great harm to water for industrial use and seriously influences the performance of products. Water is softened and removed of salt according to the final goal of water for industrial use. Ion exchange technology is used in water treatment and especially in depth treatment and terminal treatment. Commonly used ion exchange equipment includes softener, negative bed, positive bed, mixed resin bed, polished mixed resin bed, etc..

离子交换技术是用离子交换剂也就是树脂上的H⁺交换了Na⁺、Mg⁺、Ca⁺及其他金属离子; 用OH⁻交换Cl⁻等阴离子, 交换下来的H⁺与OH⁻结合成为水。等树脂上的离子耗尽后就需要进行再生处理。再生时将树脂与氢氧化钠接触, 进行反向交换。

Ion exchange technology uses ionite, i.e., H⁺ in resins to exchange Na⁺, Mg⁺, Ca⁺ and other metal ion; uses OH⁻ to exchange Cl⁻ and other. anion and the exchanged H⁺ combines OH⁻ into water. When ion in resins is all consumed, reclaiming treatment must be conducted. In course of reclaiming, sodium hydroxide should be touched by resins to make

a counter-exchange.

在二十世纪九十年代末出现了一种新技术就是连续电除盐简称EDI。EDI系统也是采用传统的离子交换树脂将水中的污染离子去除, 其最大的特点是采用直流电迫使污染性离子连续的从进水中迁移出来并穿过树脂床和交换膜汇集到浓水室。同时直流电能将水分子电离成氢离子和氢氧根离子, 持续的对树脂进行再生。EDI与传统的离子交换相比有着不需化学再生、连续简单的操作、占地面积小等特点。

At the end of 1990s, a new technology called EDI appeared. EDI system adopts traditional ion exchange resins to remove pollution ion from water. Its most obvious characteristic is to use direct current to force pollution ion to leave influent water continuously and cross resin bed and exchange membrane to gather in concentrated water chamber. In the meantime, direct current can ionize water molecule into hydrogen ion and oxyhydrogen ion to reclaim resins continuously. Compared with traditional ion exchange, EDI has the characteristics of needing no chemical reclaiming, continuous and simple operation and occupying less floor area.

膜法过滤

Membrane method filtration

在自然界中的水体中存在着各种各样的盐分、有机物、悬浮物和微生物, 随着环境污染的日益严重, 水质日益恶化, 为了保证系统的最终出水能符合用水的要求就得进一步处理。膜法过滤、除盐技术是其中的一种重要手段。

All kinds of salt, organic, suspended substances and microbe exist in natural water. With the increasing severity of environmental pollution, water quality deteriorates day by day. To ensure the end influent water can meet the requirements for water, it must be further treated. Membrane method filtration and salt removing technology is one of important methods.

膜法过滤包括超滤、纳滤、反渗透装置。膜法过滤都是通过膜孔的滤除、筛除作用直接去除及截留水中的物质, 其去除的物质在粒度上涵盖了从亚纳米级的微观颗粒到微米级的宏观颗粒的全部尺寸, 由于其等级不同去除及截留水中的物质的级别也不同。

Membrane method filtration includes ultra-filtration, sodium filtration and reverse osmosis device. Membrane method filtration directly removes and holds back substances in water under the influence of membrane filtration and screening and the removed substances cover the whole size from sub-nanoscale microcosmic grain to micronscale macroscopic grain in terms of granularity. Owing to the difference of scale, the scale of substances removed and held back in water is different.

超滤简称UF, 只是筛除水中的悬浮颗粒, 滤后水不存在水质的变化问题, 常用在预处理系统上; 纳滤简称NF其主要作用是筛除包括了构成水溶液性质的溶解离子, 同时还能够截留DBP前体以及NOM等低分子量的有机物, 其滤后水不止在溶解离子的浓度上有变化, 硬度、碱度、PH、TDS这些重要的水质参数也有一定的变化。由于纳滤在对水进行软化而且还可脱除各种有、无机物质, (尤其是致癌物质), 微生物和溶解有机物方面有着优越性, 在国外纳滤广泛用于水厂对饮用水的处理; 反渗透简称R/O, 它是用足够的压力使溶液中的水通过反渗透膜而分离出来, 因为它和自然渗透的方向相反, 故称为反渗透。由于反渗透性能优越能去除水中95% - 99%以上的离子, 所以它广泛应用于苦咸水和海水制取饮用水、锅炉水的净化、饮料行业饮用水、电子与医药行业的超纯水制取。由于特殊的性能所以反渗透也可以算是近代出色的除盐技术的其中

部分膜法过滤 技术参数

Technical parameters of some filters

反渗透系统

进水浊度: ≤ 1 NUT

进水余氯: ≤ 0.1 PPM

进水温度: < 45 C

污染指数(SDI): ≤ 4

过滤介质: 水

操作压力(标准): 10~15kg

运行Ph值: 4 ~ 11

Reverse osmosis system

Turbidity of influent water: ≤ 1 NUT

Residual chlorine of influent water: ≤ 0.1 PPM

Temperature of influent water: < 45 C

Pollution index (SDI): ≤ 4

Filtered medium: Water

Operation pressure (standard): 10~15kg

Operation Ph quantity: 4 ~ 11

EDI系统 EDI system



纳滤系统

进水浊度: ≤1 NUT
 进水余氯: ≤0.1PPM
 进水温度: < 45 C
 污染指数(SDI): ≤ 4
 过滤介质: 水
 操作压力: (标准) 5 ~ 15 kg
 运行Ph值: 3 ~ 9

NF system

Turbidity of influent water: ≤ 1 NUT
 Residual chlorine of influent water: ≤ 0.1PPM
 Temperature of influent water: < 45 °C
 Pollution index (SDI): ≤ 4
 Filtered medium: Water
 Operation pressure: (standard) 5~15 kg
 Operation Ph quantity: 3 ~ 9

超滤系统

进水浊度: ≤5 NUT
 进水余氯: ≤5 PPM
 进水温度: < 40 C
 污染指数(SDI): ≤ 4
 过滤介质: 水
 操作压力 (标准): 1 ~ 5 kg
 Ph值范围: 2 ~ 13

Ultra-filtration system

Turbidity of influent water: ≤ 5 NUT
 Residual chlorine of influent water: ≤ 5 PPM
 Temperature of influent water: < 40 °C
 Pollution index (SDI): ≤ 4
 Filtered medium: Water
 Operation pressure (standard): 1 ~ 5 kg
 Range of Ph quantity: 2 ~ 13

之一。

Ultra-filtration, abbreviated as UF, just screens out suspended grains in water and the quality of filtered water will not change. It's often used in pretreatment system at present; sodium filtration, abbreviated as NF, mainly screens out solution ion comprising water solution nature and can also hold back DBP forebody and organic of low molecular weight like NOM. After the filtration, water not only changes in the concentration of solution ion, but also changes to some extent in important water quality parameter such as hardness, alkalinity, PH and TDS. Because NF excels in softening water, removing all kinds of organic, inorganic(especially carcinogen) and microbe and dissolving organic, it is widely used by water works to treat drinking water overseas; reverse osmosis, abbreviated as R/O, uses enough pressure to make water in solution separated through reverse osmosis membrane, earning the name because its direction is reverse to that of natural osmosis. R/O has the excellent performance of removing more than 95%-99% of the ion in water, so it's extensively applied in making drinking water from bitter and sea water, purifying boiler water and making drinking water for beverage industry and ultrapure water for electronic and medical industries. Owing to its special performance, reverse osmosis can be regarded as one of outstanding modern salt removing technologies.

水处理电控系统

Electrical controlled system

一辆杰出的跑车，除了具备性能优良的发动机及造型外，一套完整、科学的加注重设备的系统性，即科学的工艺设计、完善的电控设计，使用户用得更加放心、设备运行更加安全、可靠。

A remarkable sports car should possess a complete and scientific equipment emphasis system, i.e., scientific technology and design and perfect electrically controlled design to reassure users and guarantee a safer and more reliable operation of equipment in addition to possessing an engine with good performance and attractive design

水处理电控设计，摒弃传统的中间继电器、时间继电器等控制方式，选用成熟的可编程序控制器（PLC）进行逻辑控制，采用西门子S7系列、三菱FX系列、ABLogix500系列等知名品牌的PLC，使用PPI、MPI、Profibus、CClink等网络控制，最大程度保证了系统的可靠性、安全性；同时也可实现远程监控。

Electrically controlled design for water treatment abandons traditional intermediate relay and time relay control methods and selects mature programmable controller(PLC) to carry on logic control. It adopts PLC of famous brands such as Siemens S7 series, Mitsubishi FX series and ABLogix500 series and network control such as PPI, MPI, Profibus and CClink. It maximizes the guarantee of system dependability and security and can also realize remote monitoring.

在低压电器元件选型上，达意隆公司承继一贯的作风，ABB、TE施耐德及穆勒、Siemens低压电气成为标准配置，且根据现场工艺要求或工程的特殊要求，选用三菱、丹佛斯、ABB等品牌的变频器，Siemens、ABB、丹佛斯等软启动器作为大功率或工艺重点设备电气控制中，极大的拓展了工艺灵活性，发挥设备最大潜能。

In choosing low-voltage electric apparatus, Tech-long always selects standard parts of ABB, TE Schneider and Muller, Siemens low-voltage apparatus and selects Mitsubishi, Denver and ABB converter according to the site technological requirements or special project requirements. Siemens, ABB or Denver soft starter expands technological flexibility greatly and gives play to the greatest potential of equipment in electrical control of high power or technologically key equipment.

在人机操作部分上，达意隆一贯选用不锈钢电柜，选用优质的雷子克电风

扇，配以ABB、TE施耐德、穆勒按钮及触点开关，有时根据工程需要，还配置先进、可靠的GP Proface、Siemens TP/OP及AB系列人机触摸屏（HMI），直观、迅速的显示设备运行状况，同时将操作人员的指令及时传输至PLC控制系统。

In ergonomic operation, Tech-Long always selects stainless steel electric cabinet and Boanerges electric fan matched with ABB, TE Schneider or Muller snap fastener and contact switch and sometimes matched with advanced and reliable GP Proface, Siemens TP/OP or AB series human-machine touch-screen(HMI) according to the needs of project to demonstrate the operation of equipment vertically and rapidly and have the order of operator transmitted to PLC control system in time.

在远程的或办公室中，达意隆公司为客户提供了设备现场解决方案，在远程的控制室或办公室内，远处生产车间的运行操作一览无遗，同时只需要轻点鼠标及操作电脑键盘，即可对远程的设备进行操控。将西门子的上位机软件WINCC、亚控的KINGVIEW软件及昆仑的MCGS软件，其流畅的操控画面与现场枯燥乏味的机械操作隔离开来，将操作更加直观、更加平易近人。

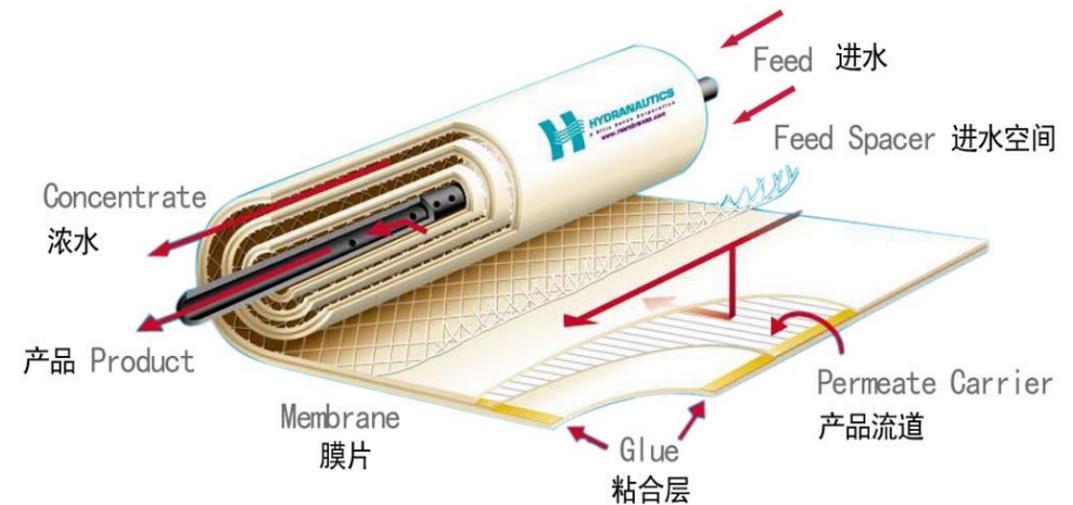
In long distance or office, Tech-Long Company offers customers on-the-spot solution to equipment. In a long-distance control room or office, the operation of the workshop can be completely monitored. As long as you click the mouse and press on the keyboard of the computer, you can control long-distance equipment. Use Siemens epignous software WINCC, Asia Control KINGVIEW software and Corn MCGS software to separate smooth control picture from dull machinery operation on the spot to have a more ocular and simpler operation.

达意隆水处理系统自控系统，依托于全球优质电气、自动控制产品厂家，向客户提供全面的水处理解决方案。

Tech-Long's water treatment system relies on global high-quality electricity, automatically controlled products producers and offers overall water treatment solution to customers.

反渗透膜示意图

Sketch map of reverse osmosis membrane



Text and Pictures by:Tech-long Xipeng Shen/Mukce

达意隆水处理设备发展大事记

Memorabilia of the development of water treatment of Tech-Long

- 1999.09 为广州今日集团(既乐百氏)提供一套13吨/小时纯净水处理系统,同时也是达意隆第一套水处理设备
Offer Guangzhou Today Group(i.e., Robust) a sets of pure water treatment system with an output of 13tons/hour, the first Tech-Long water treatment
- 1999.10 为黑龙江红光公司提供一套20吨/小时矿泉水处理系统
Offer Heilongjiang Hongguang Company a set of /mineral water treatment system with an output of 20 tons/hour
- 1999.11 为中山添利公司提供一套30吨/小时工业水处理系统
Offer Zhongshan Tianli Company a set of treatment system for water for industrial use with an output of 30 tons/hour
- 2001.01 为广州添利公司提供一套70吨/小时工业水处理系统,此项目为达意隆公司第一套超过50吨/小时工业水处理系统
Offer Guangzhou Tianli Company a set of treatment system for water for industrial system with an output of 70 tons/hour, the first set of Tech-Long
- 2001.10 为海南椰树(海口)提供一套20吨/小时矿泉水处理系统
Offer Hainan Cocomat tree (Haikou) a set of mineral water treatment system with an output of 20 tons/ hour.
- 2001.12 为可口可乐(东莞太古)提供一套23吨/小时纯净水处理系统
Offer Coca-cola (Dongguan Swire) a set of purified water treatment system with an output of 23 tons/ hour.
- 2001.12 为可口可乐(杭州中萃)提供一套23吨/小时纯净水处理系统
Offer Coca-cola (Hangzhou Zhongcui) a set of purified water treatment system with an output of 23 tons/ hour.
- 2002.01 为广东乐百氏提供一套50吨/小时矿泉水及24吨纯净水处理系统,此项目是配套达意隆公司提供的亚洲第一条也是亚洲最大的2000桶/小时旋转式五加仑灌装机
Offer Guangdong Robust a set of mineral water treatment system with an output of 50 tons/hour and purified water treatment system with an output of 24 tons/hour, which matches the first 5-gallon revolving filling machine with an output of 2000 barrels/hour provided by Tech-Long.
- 2002.01 为可口可乐(上海申美)提供第一套22吨/小时纯净水处理系统
Offer Coca-cola (Shanghai Shenmei) the first set of purified water treatment system with an output of 22 tons/ hour.
- 2002.04 为新丰江提供一套30吨/小时采用超滤的山泉水处理系统
Offer Xinfengjiang a set of ultra-filtration mountain spring water treatment system with an output of 30 tons/hour.
- 2002.07 为香港可乐公司提供一套2x23/小时纯净水处理系统
Offer Hong Kong Coca-cola Company a set of purified water treatment system with an output of 2x23 tons/hour.
- 2002.10 为可口可乐(太原)提供一套13吨/小时纯净水处理系统
Offer Coca-cola (Taiyuan) a set of purified water treatment system with an output of 13 tons/hour.
- 2002.12 为宁波五洲星提供一套100吨/小时纯净水处理系统,此项目为达意隆公司第一套超过100吨/小时水处理项目
Offer Ningbo Wuzhouxing a set of purified water treatment system with an output of 100 tons/hour, the first Tech-Long water treatment system exceeding
- 2003.01 为威海昆仑啤酒提供一套13吨/小时纯净水处理系统
Offer Weihai Kunlun Beer a set of purified water treatment system with an output of 13 tons/hour.
- 2003.02 为阿联酋提供2套6吨/小时纯净水处理系统,这是公司首次为海外客户提供水处理系统
Offer the United Arab Emirates two sets of purified water treatment system with an output of 6 tons/hour, the first time to offer an overseas customer water treatment system.
- 2003.11 为北京燕京啤酒提供一套30吨/小时矿泉水处理系统
Offer Beijing Yanjing Beer a set of mineral water treatment system with an output of 30 tons/hour.
- 2003.12 为顺丰源(中富集团)提供一套13吨/小时纯净水处理系统
Offer Shunfengyuan (Zhongfu Group) a set of purified water treatment system with an output of 13 tons/ hour.
- 2004.03 为百事可乐(广州)提供一套30吨/小时纯净水处理系统
Offer Pepsi Cola (Guangzhou) a set of purified water treatment system with an output of 30 tons/ hour.
- 2004.04 为北京汇源集团提供一套独立臭氧杀菌系统;
Offer Beijing Huiyuan Group a set of independent ozone sterilization system.
- 2004.11 为上海紫江集团(武汉)提供一套15吨/小时纯净水处理系统
Offer Shanghai Ziji Group (Wuhan) a set of purified water treatment system with an output of 15 tons/hour.
- 2005.05 为生力啤酒集团食品饮料公司(顺德)提供预处理为200吨/小时、105吨/小时二级反渗透系统、一套105吨/小时杀菌系统、一套20吨/小时软化水的整合给水处理系统
Offer Sanmiguel Beer Group Food & Beverage Company (Shunde) a set of pretreatment system with an output of 200 tons/hour, a set of second-grade RO system with output of 105 tons/hour, a set of sterilization system of 105 tons/hour, a set of soft water of 20 tons/hour.
- 2005.08 为北京燕京啤酒(北京)提供两套50吨/小时反渗透处理系统做为啤酒调配用水
Offer Beijing Yanjing Beer (Beijing) two sets of reverse osmosis treatment system with an output of 50 tons/hour to allocate the water for beer
- 2006.01 为燕京啤酒(沧州)提供一套150吨全自动预处理及一套50吨/小时反渗透处理系统
Offer Yanjiang Beer (Changzhou) a set of full-automatic pretreatment system with an output of 150 tons and a set of RO treatment system of 50 tons/hour
- 2006.06 第一次为福建达利食品集团提供6套20吨/小时纯净水处理系统
The first time to offer Fujian Dali Food Group six sets of purified water treatment system with an output of 20 tons/hour.

Text by: Tech-long Xipeng Shen



达意隆的外籍专家Inde Soor, 在碳酸饮料和啤酒灌装机械领域有20多年的从业经验, 此次参与啤酒设备研发工作, 为达意隆啤酒设备的研发提供专业意见。

Tech-Long's foreign expert Inde Soor, who has been engaged in the fields of Carbonated Beverages equipment and beer filling machine for over 20 years. Participating in the research and development of beer equipment, he offers professional advice for the development.

There are different choices of packaging boxes during the later stage of filling production line, so plastic circulating boxes, cartons or film wrappers are usable. The packaging equipment is slightly different before bottling washing machine and after the labeling. Therefore, we divide beer filling production lines into Type A and Type B according to the different uses of equipment.

A类 Type A

- 双端洗瓶机
Double-end bottle washing machine
- 灌装、压盖机
Filling, capping machine
- 灌装CIP系统
Filling CIP system
- 瓶盖提升机
Bottle lid hoister
- 隧道式杀菌机
Tunnel type sterilization machine
- 输瓶系统
Conveyor system
- 贴标机
Labeling machine

A类中的CIP系统及输瓶系统在达意隆是成熟产品, 贴标机为外配设备, 达意隆开发的产品主要为双端式洗瓶机、灌装压盖机、隧道式杀菌机。
Type A CIP system and conveyance system are Tech-Long's mature products. Labelling machine is outside distribution equipment. The products Tech-Long develops mainly include double-end bottle washing machine, filling capping machine and tunnel type sterilization machine.

B类 Type B

- 卸(装)箱机或装卸箱机器人
Decriater (boxing machine) or loading and unloading robot
- 塑箱洗箱机
Plastic box washing machine
- 输箱系统
Box transmission system
- 卸(码)垛机
Palletizer
- 纸箱全裹机或薄膜包装机
Full carton wrapping machine or film packaging machine

B类的设备, 已经完全是达意隆的成熟产品, 并已在多个啤酒用户中运行。
Type B Equipment is completely Tech-Long's mature products and used by a lot of beer user. salready.

达意隆开发的啤酒灌装生产线具体为:
The concrete condition of beer filling production line developed by Tech-Long is as below:

双端式洗瓶机 *Double-end bottle washing machine*

功能要求 Functional requirements

- 双端式进瓶、出瓶结构
Double-end bottle entrance and exit structure
- 出瓶端部分箱体, 喷淋装置, 温、热水槽采用不锈钢结构
Box body in bottle exit, spray equipment, warm and hot flume adopts stainless steel structure
- 进瓶端包括预浸泡槽共三级升温, 循环水热能吸收率提高; 采用三级小梯度升温, 降低破瓶率
Entrance bottle end includes pre-soak trough, totally 3 levels to raise temperature, circulating water and raising heat energy; adopts 3-level small gradient to raise temperature and lower rate of bottle breaking
- 碱液浸泡时间按8~10分钟设计
Alkali solution soaking time is designed to be 8~10 minutes
- 配置碱液自动检测、控制装置, 确保洗瓶工艺的稳定性, 避免人为因素对洗瓶效果造成的影响
Dispose automatic detection and control device for alkali solution to guarantee the stability of bottle washing technology and avoid the bottle washing effects influenced by human factors.
- 碱槽底采用弧底结构, 避免旧结构碱槽底碎标容易沉积的不足, 除标效果好, 同时也提高碱液的耐用度
Alkali trough bottom adopts arc bottom structure to prevent broken parts of old structure alkali trough bottom from being deposited and have a good removing effect and also raise the durability of alkali solution.
- 出瓶端具有一个循环的热水槽, 共5级降温, 降温梯度平缓, 把从碱槽出来的瓶子上的碱及温度降到最低
Bottle exit end has a circulation hot flume, totaling 5 levels. Its temperature lowering gradient is placid and decreases the alkali from alkali trough into the minimal level.
- 进、出瓶分别设置过载安全保护及自动复位功能和机构
Bottle entrance and exit are respectively set up with safe protection against overloading and automatic reset function and structure.
- 采用旋转喷射系统, 降低水耗, 避免喷嘴堵塞
Adopt revolving spray system to decrease consumption of water and prevent the spray nozzle from being blocked up
- 出瓶部分配蒸汽抽吸装置
Bottle exit part is equipped with steam release and inhalation device
- 具有各浸泡槽温度显示功能, 故障显示及喷淋水压力报警系统, 实现智能化
Have temperature indication function, trouble indication and spray water pressure warning system for every soaking trough to realize intellectuality
- 出瓶端配自清洗装置, 消毒水自动添加, 具有防滴水装置
Bottle exit end is equipped with washing device, automatic adding of sterilization water and antidrip device

灌装、压盖机 *Filling, capping machine*

功能结构 Function & structure

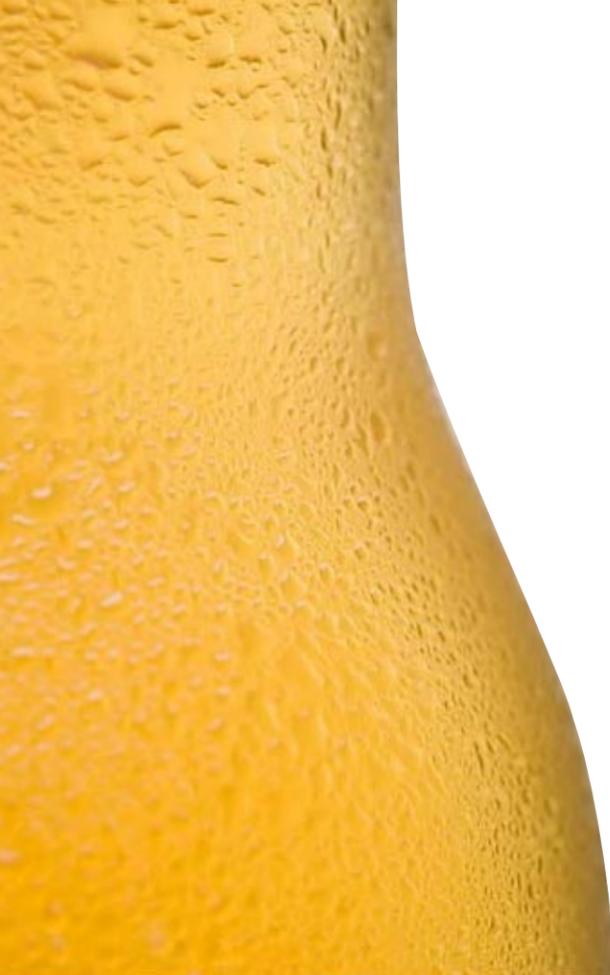
Inde Soor 达意隆外籍专家
Inde Soor, Tech-Long's foreign expert

在英国伦敦Uxbridge technical College获得机械与生产工程HND学位, 并且有多年在机电工程方面的工作经验
Obtaining machinery and production engineering HND degree of Uxbridge technical College in London, Britain, he has many years' working experience in electromechanical engineering

1982~1989年开始在Meyer-Mojonnier UK担任设计及服务工程师, 积累了极丰富的机电方面和机器保养维修方面的经验
Between 1982 and 1989, he worked as design and service engineer in Meyer-Mojonnier UK, accumulating extremely abundant electromechanical and machine maintenance experiences.

1990~2003年开始在美国WPC公司担任啤酒、含汽饮料灌装设备高级技术顾问
Between 1990 and 2003, he served as senior technology adviser for beer and gas-bearing beverage filling equipment in WPC Company of U.S.A

2004年入职达意隆, 担任啤酒、含汽灌装设备技术顾问。
He joined Tech-Long in 2004 as technical consultant for beer and carbonated drink filling equipment.



- 灌装机组设计为灌装、压盖组合的整体结构，设计中初步引入模块化设计概念，采用屋顶式的洁净平台，平台中不会残留破瓶，及易于清洗
Filling machine group is designed as the filling and capping combination. Modularization is first introduced to the design, clean platform of roof type is used and no broken bottles can be left in the platform, which makes it easy to wash.
- 灌装机采用酒缸内置式机械阀，两次抽真空等压灌装，具有无瓶不抽真空功能；卸压时，瓶内的二氧化碳气体由专门的通道收集集中排放
Filling machine adopts the built-in mechanical valve for wine jar and releases vacuum equipressure filling twice with the function of every bottle's being released into vacuum; when the pressure is released, carbon dioxide in the bottle will be collected and released through special passway
- 托瓶汽缸为新式结构，瓶碎屑不会积在气缸处；具有适应不同瓶高的主机升降机构，可与主机同步的控制环、定中架提升凸轮的升降结构，具有破瓶喷吹功能
Bottle cylinder is in new structure and broken bottle pieces will not be accumulated in air cylinder. It has main processor lifting structure adapting to different bottle height, can upgrade the lifting structure of cam with control ring and centering shelf in pace with main processor
- 压盖机采用开放式压盖头，可方便卫生清洗；压盖头有自动卸荷功能，降低破瓶率
Capping machine uses open capping head facilitating keeping clean and being washed; the capping head has the function of automatic unloading, reducing bottle breaking rate
- 理盖滑道和理盖料斗设置卫生清洗系统，瓶盖提升机水平段配紫外线杀菌灯，对盖双面杀菌
Lid arranging slide and hopper are equipped with hygienic washing system and horizontal part of bottle lid lifting machine is equipped with ultraviolet sterilization light to sterilize both sides of lid
- 压盖头具有缺瓶不上盖检测功能，同时具有自动除盖功能，去除缺瓶工位的余盖
Capping head has the function of uncapping inspection in case of bottle shortage and automatic lid removing function to remove surplus lid at the process of bottle shortage.
- 具有缺盖检测，缺盖报警功能
Has the function of inspection and warning in case of lid shortage
- 整机传动拟采用两台电机带动、同步控制的新传动技术
Complete machine transmission is planned to adopt new transmission technology with two electrical machines to drive and control in step
- 设有自动集中润滑装置，分别按不同需要定时定量给各润滑点供油
Is equipped with automatic concentration and lubrication device, supplying every oil site with a quota of oil at a regular interval separately according to various needs
- 有高压激泡装置和高压水加热（85° C）和自动恒温功能
Has high pressure foaming equipment and high pressure water heating function (85 ° C) and automatic temperature-controlling function
- 安全防护为不锈钢方钢框架结构，钢化玻璃门，并设置安全开关
Safety protection is set with stainless steel and square steel frame structure, glass door of spray of molten steel and equipped with safety switch

双端式洗瓶机主要技术参数

Main technical parameters of double-end bottle washing machine

额定生产能力: 40000瓶/时
每排瓶合数: 38个
浸泡时间: 8~10分钟
适应瓶型 (最小/最大): 50/82
适应瓶高 (最小/最大): 170/290

Rated production capacity: 40000 bottles / hour
Quantity of each row of bottles: 38 pieces
Soaking time: 8~10 minutes
Suitable bottle type (minimum / maximum): 50/82
Suitable bottle height (minimum / maximum): 170/290

- 灌装机组的控制终端具有灌装故障显示、灌装参数显示和设定等功能
Control terminal for filling machine has the function of filling trouble indication, filling parameter indication and setting, etc..

隧道式杀菌机

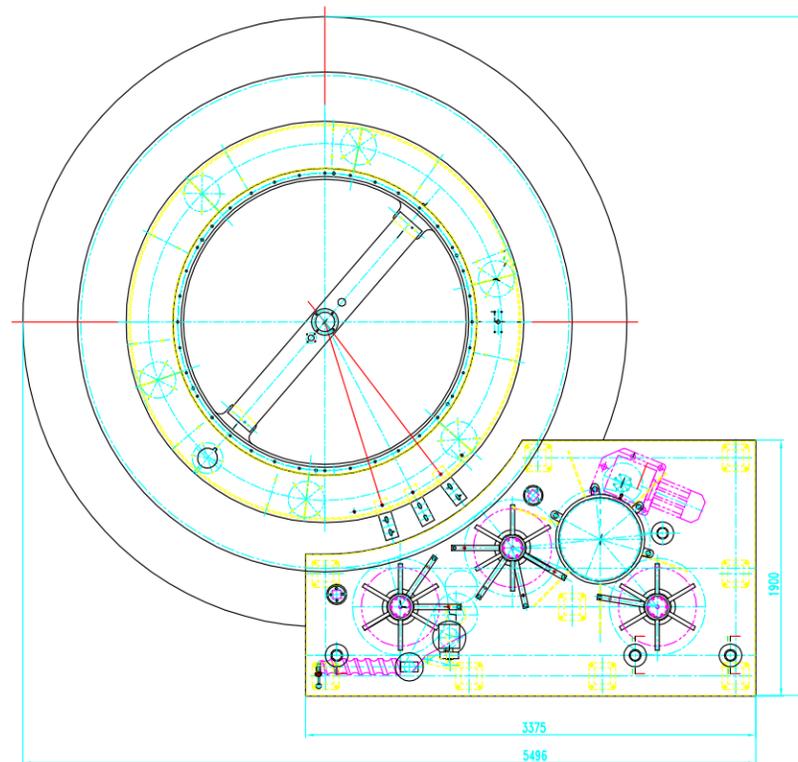
Tunnel type sterilization machine

结构功能

Structure & function

- 双层链网式，机体、水箱等主要结构为不锈钢结构
Double-layer grid and main structures of body and water tank are stainless steel
- PU值自动显示、人机界面
Automatic indication of PU quantity and human-machine interface

啤酒灌装机122-20示意图
Layout for beer filling machine 122-20



Text by: Tech-long Wenjie Cheng/Mukee
Picture by: Tech-long Wenjie Cheng/Mukee/Anya

灌装、压盖机主要技术参数

Main technical parameters of filling and capping machine

额定生产能力: 36000瓶/时 (640ml)
适用瓶高: 150~320mm
适用瓶径: φ52~φ82
灌装阀数: 122
压盖头数: 20
设备节距: 30π (94.2mm)

Rated production capacity: 36000 BPH (640ml)
Suitable bottle height: 150~320mm
Suitable bottle diameter: φ52~φ82
Filling valve quantity: 122
Capping head quantity: 20
Equipment pitch: 30π (94.2mm)

杀菌机主要技术参数

Main technical parameter of sterilization machine

额定生产能力: 36000瓶/时 (640ml)
总处理时间: 约45分钟
主杀菌温度: 62°C
杀菌单位: 15~30PU

Rated production capacity: 36000 BPH (640ml)
Total treatment time: about 45 minutes
Main sterilization temperature: 62 °C
Sterilization unit: 15~30PU



南中国区 之 South China Region

打造高效团队合作 为客户创造价值

Make high-efficient teamwork Create value for customers

达意隆南中国区再创骄人业绩
—访南中国区总经理张崇明先生

Tech-Long South China Region accomplishes proud achievements again--Interview to Mr. Zhang Chongming, general manager of South China Region

2006年，又是达意隆南中国区取得辉煌成绩的一年，上半年，南中国区合同总额已超过1亿元，提前半年完成全年销售任务，到年底，南中国区销售额有望突破2.5亿元。这个团队共同的成功秘诀就是诚信、务实，并以精诚所至、金石为开的信念对待所有客户。

In 2006, Tech-Long South China Region made brilliant achievements again. In the first half of the year, total amount of contract price in South China exceeded 100 million yuan, finishing the sales task of the whole year in advance of half a year. By the end of the year, sales volume in South China Region can be expected to reach 250 million yuan. The common success secret of this team are honesty, sincerity, practicality and to treat reating all customers with the belief that complete sincerity can affect even metal and stone.

中国是世界人口最多的国家，每年的饮料需求量巨大，而华南区因经济基础好、天气炎热等原因已成为国内饮料消费量最大的地区。扛起达意隆国内销售大旗的任务自然就落到了销售部南中国区的身上。居于华南区强大的市场需求，必然成为竞争对手的必争之地，达意隆对该市场也是十分的重视，每年给南中国区下达了明确的销售任务，在这个高标准的目标指引下，南中国区销售团队团结奋斗、勤奋作业，创造了一个个辉煌的成绩。

China is the most populous country in the world, so its annual beverage demand is enormous. South China Region has become a region with the largest beverage consumption in China because of the good economic basis of south China. Shouldering Tech-Long's sales task in China naturally is put on the shoulders of sales department of Tech-Long South China Region. In the light of strong market demand in South China Region, it's certain to become hotly contested region among rivals. Tech-Long attaches great importance to this market and assigns clear sales task to South China Region every year.

Under the guidance of this high-standard goal, sales team of South China Region has made one brilliant achievement after another by making concerted efforts and working hard.

自达意隆成立以来，南中国区在大客户的建立、老客户的巩固、新客户的开发、货款的回收以及客户数量、合同数量、新产品的市场开发各方面一直走在同行的前列，取得了骄人的业绩。

Since the establishment of Tech-long, South China Region has always ranked first in respect of creating VIP customers, consolidating old customers, developing new customers, taking back goods payment, customers quantity, contract quantity and market development of new products and made proud achievements.

南中国区大客户的建立 Creation of VIP customers in South China Region

大客户是实现企业利润和可持续发展的最为重要的保障之一，对于企业具有无与伦比的重要性和战略意义。自达意隆成立以来，凭着高要求的起点、高质量的产品、良好的售后服务，引起了国际国内饮料业巨头的高度关注，现已成为业界购买国产设备及取代进口设备的首选目标。

VIP customers are the most important guarantee to achieve company profit and sustained development, also important and strategically significant to the company. Because of Tech-long's high starting point, high-quality products and excellent after sales service, great concern has aroused from international and domestic beverage giants since the establishment of Tech-long industry. When buy domestic machines and reported equipments.

针对大客户，我们有一套完善的大客户管理方案，从寻找客户线索、建立客户关系、对潜在大客户销售到产品安装与实施、售后服务等诸多环节都有完善的管理，从而为大客户提供持续的、个性化解决方案，并以此来满足客户的特定需求，从而建立长期稳定的大客户关系，帮助我们建立和确保竞争优势。目前我们已经为香港太古可口可乐、百事可乐、珠海中富集团、椰树集团、乐百氏等饮料巨头提供了设备和及时周到的服务。

We have a set of complete management solution for VIP customers from searching customer clues, creating customers relationship, selling, installing and

operating products and providing after-sales service and offering VIP customer lasting and individualized solution, thus meeting customers' particular demand. In this way, we establish long-term and steady VIP customers relationship and set up and guarantee competitive advantage. At present, we have provided beverage giants such as Hong Kong Swire Coca-cola, Pepsi Cola, Zhuhai Zhongfu Group, Coconut Group and Robust with equipments and thoughtful and timely services.

南中国区老客户的巩固 Consolidation of VIP customers in South China Region

老客户是企业最重要的一部分财产，留住老客户可使企业成本大幅度降低，竞争优势长久。针对老客户，我们会用一套老客户关系维护方法明确客户需求，细分客户，积极满足老顾客需求，并建立客户数据库，和客户建立良好关系，以及不断培养业务人员的服务意识来做好老客户的管理。

Old customers is an important part of company property. Keeping old customers can greatly lower company cost and lengthen company competition advantage. In line of old customers, we use a set of maintenance solution to old customers to define customer's demand, subdivide customers, meet old customers' demand actively, set up customer database, establish good relations with customers and keep on training salespersons in service awareness to handle old customers well

南中国区的每年销售额，老客户的份额超过了60%，而且这些老客户均在一定区域有较高的市场占有率，在某一地方有非常大的影响力。当客户第一次用达意隆设备时，可能对达意隆还存在一定的担忧态度，但在达意隆产品为客户创造出高质量的产品和源源不断的利润之时，客户认为达意隆设备值得购买，并为购买了达意隆设备而庆幸。南中国区的业务员也在合同签订之后做了大量的工作，对客户售后服务的完善及技术方面的支持起了非常重要的作用。所以在合同执行完毕之时，很多客户会主动提出将设备尾款与我们进行结算，并且在下一次订购设备之时，就会毫不犹豫选择达意隆。达意隆的老客户群体涵盖了华南地区最优秀的饮料企业，如深圳怡宝、肇庆鼎湖山泉、东莞日之泉、深圳益力、富山清泉、深圳景田、珠海永隆加林山、厦门绿泉等。



南中国区总经理张崇明(前排左二)带领下的销售团队

The Sales Group under the leadership of Zhang Chongming, General Manager in Southern China (front, 2nd from the left)

60% of South China Region annual sales volume comes from old customers and these old customers all have a relatively high market occupation rate in a certain region and have an enormous influence power in a certain place. As a customer uses Tech-Long equipment for the first time, maybe he's a bit worried about Tech-Long products. But when Tech-Long equipments make high-quality products and help customers earn profit continually, customers will think it's worthwhile buying Tech-Long products and feel lucky for buying Tech-Long products. Salespersons in South China Region also do a large amount of work to play a big role in perfecting after-sales service for customers and providing support in technology after the signing of contracts. Therefore, when the implementation of a contract is finished, a lot of customers often voluntarily propose to pay us the balance for equipment and as they place a new order, they will choose Tech-long without hesitation. Tech-Long's old customers includes most excellent companies in South China, such as Shenzhen C'estbon, Zhaoqing Dinghu Mountain Spring, Dongguan Rizhiquan, Shenzhen Health, Fushan Spring, Shenzhen Jiangtian, Zhuhai Yonglong Jialinshan and Xiamen Luquan.

南中国区新客户的开发 Development of new customers in South China Region

在巩固老客户关系的同时，我们同样重视新客户的开发，达意隆在不断发展壮大中的过程中，新客户同样为达意隆创造了成

长的动力和机会，而新客户与达意隆的合作，都是鉴于达意隆的优势和实力，并能充分满足他们对设备的定位和档次的需求，如福建达利集团第一次与达意隆合作，就签订了6条整线订单，这都充分说明达意隆的竞争优势。

While consolidating relations with old customers, we pay equal attention to development of new customers. In process of Tech-Long's continual expansion and development, new customers also give Tech-long growth power and chance and the cooperation with new customers is based on Tech-Long's advantage and strength and full satisfaction to their position and grade requirements for equipment. For example, Fujian Dali signed a contract for 6 sets of whole lines in his first cooperation with Tech-Long, which fully showed Tech-Long's competitive advantage.

新老用户选择达意隆产品的原因 The reason that old and new users choose Tech-Long products

达意隆以能提供满足客户各种高要求的设备为宗旨，拥有国内同行最高水平的研发队伍及最为精良的基础加工设备，这些都是达意隆实力的象征和认可，也坚定了客户购买达意隆设备的信心。另一方面，目前饮料包装机械的现状是国外设备性能优良但价格让许多饮料企业望而却步；而国内的一些饮料包装机械供应商的产品质量又无法满足饮料企业的高要求。达意隆看

到了其中的市场空白，因此达意隆的目标就是带给客户最优的性价比，做进口产品的首选替代产品。

The principle of Tech-Long is to offer equipment meeting the requirements of customers. We have the most advanced research and development team and most excellent base processing equipments in China, which is the symbolism and approval of Tech-Long's strength and also convinces customers of buying Tech-Long equipment. On the other hand, the current situation of beverage packaging machine is that foreign equipment is of good performance but the price makes a lot of beverage companies hang back; some domestic beverage packaging machine suppliers provide products which quality cannot meet the high requirements of beverage companies. Tech-Long has observed this market blank, so our aim is to offer customers first-selected products with the best cost performance in place of imported products.

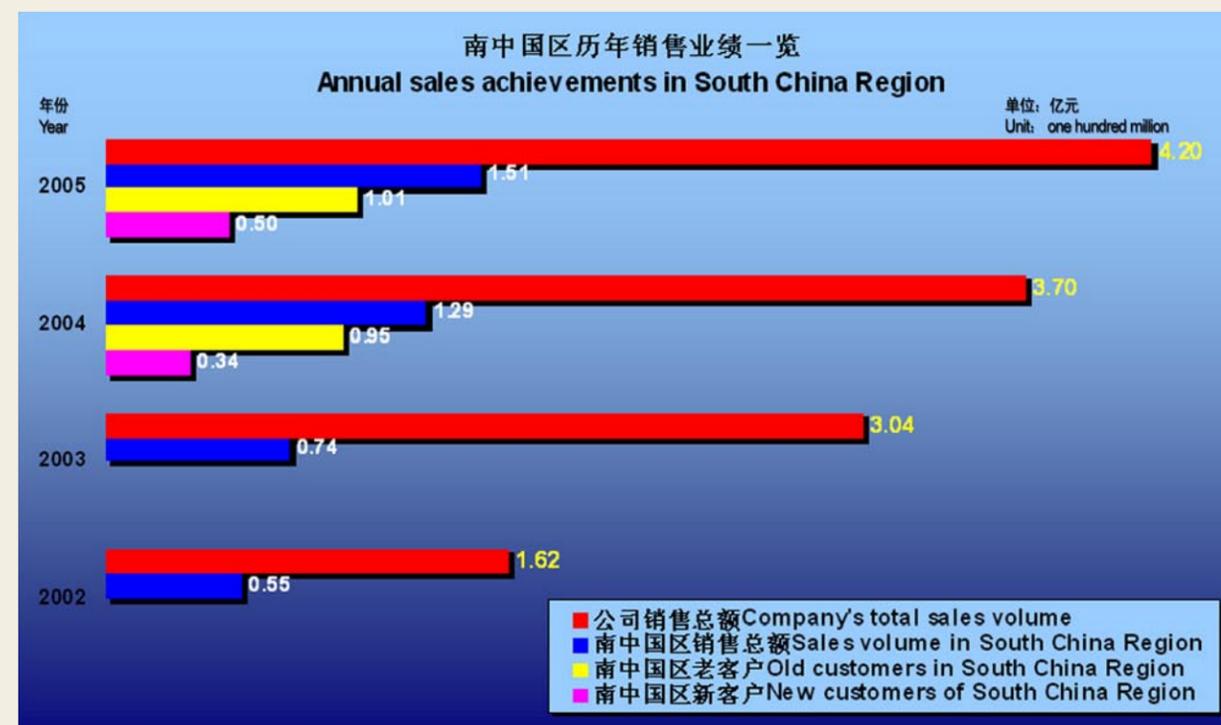
2006年又是南中国区取得辉煌成绩的一年。早在今年六月，南中国区合同总额已超过1亿，到年底，南中国区销售额有望突破2.5亿。2006年的每一个月，南中国区的销售回款率均超过1千万，为公司的稳健发展提供良好的回款率。另外，目标客户的储备工作已全面展开，已在为明年更上一层楼做好前期准备。

The year of 2006 is a brilliant year for the South China Area with glorious achievements. Early in the June, the contract amount of south china area has

totaled over 100 million, and the amount is expected to reach 250 million by the end of this year. The sale returned money rate of each month of 2006 has exceeded 10 million in south China area, this forms a good foundation for the future development of the company. In addition, the work of keeping in touch with target customers has been carried out, which has paved a good way for the development of next year.

南中国区所有成绩的取得，都与团队合作密不可分，做为一个团队，我们有清晰的目的，正是凭着这个目标，我们的团队才有了一种方向感。通过多年的销售经验及在与客户的沟通过程中，都使我们深深体会到，在很多情况下，一个人的能力是有限的，团队不仅能够完善和扩大个人的能力，还能够帮助每个成员加强相互理解和沟通，把团队任务内化为自己的任务，真正做团队工作的主人，这样的团队会战胜一切困难，赢得最终的胜利。而作为这样的团队成员也会在团队协作这个过程中迅速地成长起来。

The total success of south China area is related with the cooperation of the whole group. As a group, we have a clear goal and it is this goal that gives us the sense of direction. It is proved to us by years of sales experiences and communications with guests that the capability of each individual is limited. Group-work can not only perfect and improve individual capability but also promote the communication and mutual understanding among the group members,



thus turning the group task into individual work and finally make all of us the host of the group. In this way, we are able to overcome all the difficulties and finally win the success. And as a member of this group, we can grow up quickly in the group cooperation.

而一个高效率的团队是一个表现优秀、使内部成员和外界均感到满意的工作集体。团队在成长过程中不可避免地会遇到很多困难和冲突，我们无论遇到任何问题时，团队合作的精神都能够把我们紧密的团结在一起，使我们有战胜一切困难的勇气和决心；我们同样会以达意隆的长期发展为出发点，坚决维护客户的利益，甚至放弃既得的丰厚利润，最后解决所有的困难。我们这个团队最大的爱好莫过于一起享受成功的喜悦，这不仅是个人的胜利，更是整个团队的骄傲。我们一起庆祝成功并且总结失败，将失败当作学习的机会并且努力在下一一次做得更好。

However, an efficient team is a group in which people who work together, perform well and satisfy both the inner members and the outer people. The difficulties

and conflicts are unavoidable. But no matter what kind of difficulties we meet, the spirit of teamwork can strongly unite us together and give us courage and determination to defeat them. On consideration of the further development of Tech-long, we will maintain the interests of customers or even sacrifice the generous acquired profit and finally solve all the difficulties. The members in the group love enjoying together the joy of success, which is not only an individual success but also the proud of our whole group. We celebrate the success together and summarize the failure together. Failure is regarded as a good chance of learning and we will try to do better in the nearer future.

几年来，我们为企业创造了一个又一个成绩，但现有的成绩只能说明过去，我们相信，达意隆南中国区在将来也将会成为行业内最为璀璨的明星。

During the past years, we have obtained achievements one after another. However, the current success just represents the past efforts. We believe that the south China area of Tech-long will become the most brilliant star among its peer group.

达意隆设备为用户提升价值

Tech-long equipment increase customer value

灌装设备-广州怡宝

Bottling equipment- C'estbon Guangzhou

怡宝公司在与达意隆合作之前，全部使用进口设备，自2004年第一次选择国产设备时即与达意隆购买1套30000瓶/小时产能的瓶装纯净水设备，不到一年的时间又再次与达意隆合作订购了2套36000瓶/小时的瓶装设备。2006年怡宝公司再度与达意隆合作，计划订购二套36000瓶/小时的瓶装设备。这是建立在达意隆高质量、高稳定性的产品及高质素的售后服务，给了客户与达意隆合作的信心的基础上的。

C'estbon all the time adopts import facilities before it cooperated with Tech-long, and within one year, C'estbon has reordered 2 sets of 36000bottles/hour bottling equipments after the first cooperation with us in 2004 ordering one set of bottled pure water facilities with the capability of 30000 bottle / hour. In 2006, C'estbon cooperates with Tech-long again, planning to order 2 sets of 36000 bottle / hour bottled facilities. This is due to our products with high quality, high stability, and high-quality after-sale service, which gives great confidence for C'estbon to cooperate with Tech-long.

桶装水设备-肇庆鼎湖山

Barreled water equipment

- Dinghu Mountain Spring Co, Ltd, Zhaoqing (hereinafter as "Dinghu")

鼎湖山泉在与达意隆合作之前使用的是意大利进口设备，2000年起第一次与达意隆合作并订购一套450桶/小时五加仑机设备之后，又陆续在2002年订购达意隆900桶/小时五加仑机、

15000瓶/小时瓶装生产线及35吨水处理设备；2004年订购达意隆2000桶/小时五加仑机及机器人自动码垛机；2006年订购达意隆1500桶/小时五加仑机及机器人码垛机。鼎湖山泉由发展初期日产几千桶五加仑水到今年日产几万桶五加仑水的发展进程中，与达意隆的合作从未间断，达意隆的设备及服务也给了客户强有力的支持。

Dinghu employs Italy-imported facilities before it cooperated with Tech-long. In 2000, for the first time cooperated with Tech-long and ordered a set of Five-Gallon machine of capability at 450 barrel / hour, Dinghu has ordered a set of five-gallon machine of 900 barrel / hour, a bottling production line of 15000 bottle / hour, some 35-ton water treatment facilities in 2002. Then it orders the five-gallon machine of 2000 barrel / hour, automatic robot-hacking machine in 2004 and the five gallon machine of 1500 barrel / hour and robot hacking machine in 2006. During the developing, from the day output of several thousand barrels of five-gallon water in the early times to more than 10 million barrels of five-gallon water this year, Dinghu never stops the cooperation with Tech-long. Our products and after-sale services have given him powerful supports.

吹瓶设备-广州信联

bottle blowing equipments- Guangzhou Xinlian Co, Ltd. (hereinafter as "Xinlian")

广州信联公司是为怡宝公司、屈臣氏公司供应PET瓶的生产企业，达意隆全自动吹瓶机研制成功时即与达意隆订购了1台吹瓶机，2004年与达意隆定购第2台全自动吹瓶机，2006年又与达意隆签订五台吹瓶机。达意隆充分满足了信联公司对设备的高要求，对用户提升了价值。Xinlian is a manufacturer of PET bottles for C'estbon and Watsons. It ordered a set of full-automatic bottle blowing machine right after the Tech-long's successful development and production. In 2004, Xinlian ordered a second set of full-automatic bottle blowing machine and reordered 5 sets of bottle blowing machines in 2006 from Tech-long. Tech-long fully satisfies the high requirements upon the facilities of Xinlian Company and helps its customer to be more successful.

整线设备-达利集团

Whole-line project - Dali Group

达利集团是国内大型知名企业，2006年初计划上饮料生产设备时，考察了多家国外、国内设备制造企业。最终决定与达意隆签订了包括前处理、全自动吹瓶机、灌装机和后段包装机在内的六条饮料生产整线设备。（详情请见第45页“达意隆与达利集团成功签订6条整线订单”报导）。

Dali Group is a famous national large-scale enterprise. They have researched on many facility manufacturers at home and abroad when they planned to purchase drinks production equipments in early 2006. And finally they did decide to sign contact with Tech-Long, covering six beverage whole production line equipments including pretreatment, full-automatic machine, bottling machine, and packer. For information in details, see page 45, about the report on "Dayiling and Dali Group successfully sign a contract for 6 production lines."

Text by:Tech-long Youhua Li/Qiongqiu Zheng/Mukee

Picture by:Tech-long Mukke

南中国区部分用户产品

Products of Users (selected) of South China Area





达利集团

Dali Group

达利集团创办于1989年，是一家致力于研发和制造健康美味食品的大型集团化企业。公司总占地面积1600亩，各类专业技术人才及员工12000多人，拥有分布在华北、东北、华东、华中、西南、西北的八大生产基地，拥有“好吃点”饼干，“可比克”马铃薯休闲食品，“达利园”派类的三大产业品牌，其品种之全，技术含量之高，市场之广位于国内同行之列，三大品牌的销售量更是雄居市场榜首。

Dali Group is founded in 1989, which is a large-scale enterprise devoted to the development and manufacture of the healthy and delicious foods. The total area of company is 9600 acres and there are more than 12000 professionals technicians from kinds of majors. It possesses 8 production bases respectively located in North China, the Northeast, East China, Central China, southwest and northwest. "Haochidian" Biscuits, "Copico" Chips and "Daliyuan" Pie series are its three famous brands, which rank the first place among the peer group with its various types, high technology and large sales volume.

作为国内最大的休闲食品生产厂家达利首次进军饮料市场，是其长远发展战略中具有历史意义的一笔，达利集团已真正成为全方位、多元化的集团公司。

This is the first time for Dali, the largest leisure food producer, to step into the drinks market. It is also a step with historical significance on its development. And Dali Group has become a real omni-directional, pluralistic group company.

闽商， 慈善践行者

*Fujian-merchants,
the practitioner of
charity*

如果说，以财富数字为指标的富豪榜曾经一度深深吸引了中国人眼球的话，那么，在今天人们眼里，象征着爱心和责任的慈善榜，则似乎更加引人注目。慈善榜上闽商身影频现，向以低调著称的闽商，对慈善事业并不“低调”。闽商的爱心并不仅仅狭隘的体现在故乡，随着事业版图的扩张，他们的善举也随之散播到全国各地。不论海外抑或本土，“义”与“利”的兼顾，似乎是闽商群体的集体意识，在低调务实和不事张扬中，实践着他们的人生价值和对社会责任的承担。

The List of richest-person ranked by wealth figure once had attracted Chinese eyes. However, in the modern people's eyes, the List of Philanthropist representing love and responsibility is more attractive. Fujian-merchants' frequent appearance on the lists of philanthropy show that they do not keep low-key on charity, although they are known for the character of being "low-key". Fujian merchants do not just carry out charity careers in their hometown. Their charity behaviors can be seen everywhere around China, along with the expansion of their careers. No matter in home or abroad, giving equal attention to both "righteousness" and "benefit" seems to be the consciousness of Fujian merchants group. They practice their value of life and their responsibilities to the society with the characteristic of low-key and pragmatic.

作为成功的商人和企业家，在追逐功利的同



捐款1600万元资助惠安建设老年活动中心
Donate 16 million yuan to the construction of Hui'an Aged Activity Center



本组图片为甘肃凉州地区
This picture refers to the area of Liangzhou, Gansu

- 1 家园周围栽一棵树比养活一个娃娃还要难，这是生活在沙漠边缘人们的一句口头禅。
It is harder to live a tree than to raise a baby which is a tag of locals there.
- 2 在沙漠周边的学校，学生为了减少沙尘，就在校门前洒水降尘。
Students have to spill water to reduce dust and sand in front of the school gate which is around the region of desert.
- 3 沙漠化的家园，导致村庄周围的水池也相继干枯。
The pool around the country has dried up which is caused by the desertification.
- 4 在沙漠边缘种植玉米，在收割季节都是沙土四起。
Corns are grown at the verges of the desert, and are overflowing with dust and sand in the harvest time.

时，他们对慈善公益并不吝嗇。现代本土闽商致富之后首先想到的一件事，就是回馈桑梓，回报社会。福建达利集团的董事长许世辉的慈善事业曾得到业界广泛赞誉。2005中国慈善家排行榜、2006福布斯慈善家排行榜，相继不久公布的两个慈善榜都把他列为慈善家。尤其在最近公布的福布斯慈善榜，累计捐资2000多万的许世辉排在第七的位置。在事业有成后，许世辉选择了慈善捐助作为自己回报社会的一种方式，得到了社会各界的广泛赞扬。达利集团董事长助理曾经表示，许世辉投身慈善事业，让达利所有的员工感到骄傲和自豪，这种回报社会的高尚精神，会感染每一个达利员工。

As successful merchants and entrepreneurs, they are not mean to philanthropy when chasing the material gains. The first thing that modern local Fujian-merchants think of after they get rich is to repay the hometown, repay the society. The charity act of Xu Shihui(the president of Fujian Dali Group) has been widely praised in business circles. He has been ranked in 2005 China philanthropist list, 2006 Forbes philanthropist list and also been put in two lately announced philanthropic lists. Especially in the recent announced Forbes philanthropic list, Xu Shihui is listed the 7th with the total donation of more than 20 million yuan. After his success in career, Xu Shihui chooses the donation as the way of his social repayment, and is widely praised in business circles. The assistant to the president of Dali Group once said that Xu Shihui's devotion to charity made all of their stuff feel proud and pride. And this noble spirit of social repayment, would affect every employee of Dali Group.

据了解，1998年许世辉就开始较大数额地捐助，涉及捐赠自然灾害、教育等。1998年抗洪中，捐资30万元支援部队；2000年捐资80万元修建紫山中心小学；2003年捐资1000多万修建惠安老年人活动中心。而最新一笔是今年年初，捐助500万元给甘肃省武威市凉州区，用于发展当地教育卫生事业。

It is know that Xu Shihui started his large-amounts of donation from 1998, covering natural calamity, education, etc. In the flood fighting of 1998, he offered 300 thousand yuan to army; in 2000, he offered 800 thousand yuan for the construction of Central Primary School of Mount. Zi; in 2003, he offered more than 10 million yuan for the construction of Huian Aged activity centre. While the new sum of donation is 5 million yuan for developing the local education and

sanitation of Liangzhou district Wuwei of Gansu province in the beginning of this year.

对因为捐款1600万元资助惠安建设老年活动中心和当地教育事业，名列“2005福布斯中国慈善榜”第四位的福建达利集团董事长许世辉来说，捐款500万元给甘肃武威市凉州区用于发展当地教育卫生事业，缘于他看到这座西部古城教育现状的落后。2005年9月，达利进军西北，斥资1个多亿在甘肃武威凉州投资马铃薯全粉项目。在到凉州之前，他对这座西部的古城几乎不了解，没想到这个地方教育现状的落后，与闽南的差别竟如此巨大。许世辉此次捐款中的400万元，即是用来资助凉州区部分乡镇中小学的危房改造和特困生上学，这笔钱，将使6万多名中小学生受益。

Xu Shihui is listed in the 4th of 2005 Forbes China philanthropy list for his offering of 16 million yuan to the construction of the aged activity centre. And the reason why he offered 5 million yuan to Liangzhou district Wuwei of Gansu province for developing local education sanitation is that he spotted the behindhand education status of this western ancient city. In September 2005, Dali marched into northwest, and invested more than 100 million on the potato granule project in Liangzhou Wuwei of Gansu. He knew nothing about this ancient city before coming, and what was worse, the education status here is unbelievable backward, quite different from that of Fujian. The 4 million yuan of Xu Shihui's donation, is used not only in the reconstructions of part of the dilapidated house in the primary middle school in villages and towns but also in the supporting of the exceptional poor students, which will benefit more than 60 thousand students of primary and middle school.

可以说，闽商的事业发展到哪里，慈善公益就做到哪里，从19世纪海外闽商慈善不分种族、信仰，到当代闽商这种超越地域的广济博施，体现出了闽商慈善的普世情怀。

That is to say, Fujian merchants do donation where their businesses reach. In 19th century, the Fujian merchants carry out charity activity despite of ethnic and religion; in modern times Fujian merchants donate while overcoming the regional restriction, all the above situations reflect the philanthropic charaters of Fujian merchants.



2006年6月15日，达意隆与达利正式签订了高达1.2亿的设备订单。上图为达利集团厂长余军（左二）、达利集团董事长助理林春雨（右三），达意隆董事长张颂明（左四），与达意隆此项目小组成员。

On July 15 2006, Tech-long formally signed the 120-million facility contract with Dali Group. The above picture shows factory director of Dali Group Yujun(2nd from the left), president assistant Lin Chunyu(3rd from the right), president of Tech-long Zhang Songming(4th from the left) and other project members of Tech-long.

达意隆与达利集团，成功签订6条整线订单

Tech-long and Dali Group Succeed in signing the contract of six complete production lines.

达意隆凭借丰富整厂解决方案经验，迎接全新挑战

With abundant experiences of factory problem solution, Tech-Long is always ready to meet new challenges

快速响应，赢得用户 High-speed respond, win the user

2006年6月15日达意隆与福建达利集团（以下简称达利）正式签订了6条整厂热灌装生产设备订单，这在整个中国饮料行业是一个震惊，也是达意隆国内迄今为止单一合同金额最大的订单。无论对于休闲食品行业龙头企业达利，还是饮料设备制造商的达意隆，这次联手都是一个具有历史意义的新里程，达意隆人用自己的执着、专业、实力再次印证“中国民族产业本土造”已是大势所趋，饮料企业对包装整线整厂解决方案的需求时代已经到来。

On June 15 2006, Tech-Long and Dali Group(short for Dali) formally signed the contract of 6 sets of

hot bottling production lines, which is considered to be a hot topic in the drinks industry of China. This cooperation between Tech-Long and Dali is a new course with historical meanings, to both leading enterprise of leisure food in China-Dali and drink equipment manufacturer.Tech-Long. By the persistence, professionalism, strength, Tech-Long proves once more the tendency of“Made in China”, which shows that a new echo of drink enterprises' need of whole solution plan has come.

与达利的结缘是在2006年4月的一个星期天，得知达利公司一行到了广州，达意隆负责人迅速与达利取得联系，第二日便带领达利相关人员参观了整厂，达意隆张董事长就目前饮料机械的发展趋势做了简要的介绍，使达利对达意隆的行业龙头地位有了初步了解，而达意隆也从中得知达利

需要采购6条24000BPH的乳饮料生产线，这个大项目对达意隆来说，无疑又是一个全新的挑战。

It was a Sunday of April 2006 that we became attached with Dali. On receipt of the arrival of Dali to Guangzhou, the director of Tech-Long got in touch with Dali and invited them to visit the whole factory. Director of Tech-Long Mr. Zhang delivered a brief introduction to the present development of drink equipment and acknowledged them of the industrial leading position of Tech-Long. Then Tech-Long got the news that Dali would order 6 sets of the 24000BPH milk drinks production lines, which was no doubt a new challenge for Tech-Long.

初次见面的三天后，达意隆就把24000BPH的热灌装生产线方案提交给了达利负责人。为了让客户对达意隆的设备、综合实力有更深入的了解和确认，方案提交后达意隆与达利积极联系，多次邀请相关人员到达意隆生产厂家进行实地考察。Three days after the first meeting, Tech-Long submitted the 24000BPH hot bottling production line plan to the director of Dali. In order to make customers better understand the equipments and comprehensive power, Tech-Long contacted with Dali frequently and actively, and for many times they invited related personnel to have on-site inspection.

2006年5月3日，达意隆接到了达利接受邀请到济南普利思参观的电话，这个电话改变了达意隆与达利的合作进程。On May 3, 2006, Tech-Long received the call of the receipt of Dali for the visit to Lipusi in Jinan, which changed the whole cooperation process between Tech-Long and Dali.

5月7日，在济南普利思的配合下，达利顺利的参观了24000BPH热灌装生产线在现场的工作状况，并对设备运行平稳表示满意，一周后达利正式邀请达意隆到其福建总部就24000BPH热灌装项目进行阐述，这标志着达意隆已顺利进入与其他国内外优秀设备供应商的最后角逐阶段。On May 7, Dali successfully visited the working 24000BPH hot bottling production line under the

cooperation of Ji'nan Pulisi, and showed satisfaction with the stable operation. One week Later, Dali formally invited Tech-Long for introduction of the whole 24000BPH hot bottling project, which meant that Tech-Long had successfully stepped into the final competition phase against other outstanding equipment suppliers both home and abroad.

丰富经验，完善解决方案 Enrich experiences, perfect settlement plans

这个项目的对手除了国内的一流供应商，还有在行业内最优秀的跨国公司，竞争异常激烈。随着达利对达意隆公司成立的背景、经营理念、各阶段的产品转型、扩展，今后的发展战略以及饮料包装行业的发展趋势等情况的逐步了解，达利对达意隆的信心也不断稳固。达意隆项目负责人员在考察了达利总部新厂房后连夜通宵设计设备布置，双方反复探讨前处理工艺、设备布局、自动化程度、工艺可靠性、辅助设备布局合理性，物料和人员流动各个环节，更重要的是各单机设备与其它厂家的细化比较。在饮料工艺处理上结合了达利经营品种多样性的要求，参考了目前国内、国际市场上多种畅销饮料的工艺，设计能生产多种产品且经济实用的解决方案，真正从客户利益出发，协助客户创造一流、高效、灵活的生产条件。

Beside big suppliers abroad, the competitors of this project include the excellent transnational companies in the industry which make the competition extremely violent. Along with the Dali's further understanding of the founding background, management theory, product transition, expansion in every stage, the future developing strategy etc., Dali's confidence towards Tech-Long is more and more stable. After investigating the new workshop, the project responsible persons of Tech-Long stayed up the whole night to design the distribution of equipments, and discussed the pretreatment equipments, equipment distribution, degree of automatization, reliability of technology, rationality of distribution of auxiliary equipments, materials, personnel flow etc, and finally the deep comparison of the equipments with those

of other suppliers. In the aspect of drinks treatment technology, we design an economic and practical solution considering the various requirements of Dali, consulting the drinks technology of popular drinks in the modern civil and international markets. Starting from the interest of customers, we assist our customers to build a first-class, efficient and flexible production condition.

5月下旬，达利高层再次对达意隆生产基地全面严格的审核，合作的步履再次加速。从2006年5月12日到6月15日的一个多月里达意隆回复达利的110多封邮件，邮件内容覆盖面之广，包含设计原理、依据，制造流程，材料资质，加工精度，加工设备，安全隐患的防范，生产能效，投资回报等等。负责该项目的成员经常加班到3点多，甚至有7~8次通宵达旦，夜以继日的工作，达意隆人扎实的工作态度，精湛的专业技术，迅速敏捷的反应让达利折服，最终把6条24000BPH热灌装整线的项目一次投交给本土民族企业。达意隆也再一次证明了完全可以达到世界先进水平。而达意隆做为整厂解决方案供应商，能为达利提供更多的附加值，也是达利选择达意隆的重要原因之一。

In late May, the seniors of Dali conducted an all-round and strict verification to the production base of Tech-Long. The cooperation speeded up again. The 110 E-mails between Tech-Long and Dali during the one-month time from May 12 2006 to June 15 2006, covers broad aspects ranging from design principle, foundation, manufacture flow, material quality, process precision, process equipments precautions against hidden danger, manufacture efficiency, to investment repayment etc. The members of such project always work overtime to even 3 a.m. for more than 7 to 8 times. The sturdy working attitude, professional technology and speedy reaction satisfy Dali and finally hand over the project of 6 sets hot bottling whole production lines (24000BPH) to a civil national enterprise at one time. And Tech-Long proves again that its production level of drink equipments has reached international standard, with abundant experiences. Meanwhile, Tech-Long as the supplier of whole solution plan, can provide Dali

with more added value which is a very important reason why Tech-Long is chosen.

与用户共同成长 Develop together with customers

2006年6月15日，达意隆和达利正式签订了高达1.2亿的设备订单，随后达意隆根据方案的具体实施组建了达利项目组。正式合同签订后，接踵而来的工作还是很琐碎和繁重，准确及时的提供相关数据、图纸协助配合达利，跟进督促整个项目，按时按质完成。达利集团许董事长在商务洽谈时曾说过：“达利饮料项目对于达意隆来说是一把双刃剑”，虽然我们有越南、生力等热灌装整厂项目经验，但与国际饮料设备制造巨头企业相比，在整合资源、优化配置、制造管理、现场经验上都存在一定的差距，达利项目对达意隆来说既是机会更是考验，达意隆人将继续用坚定的技术创新、服务用户理念锻造强大的核心竞争力，稳步成长！

On June 15 2006, Tech-Long formally signed the equipment contract valued at 120 million yuan, and Tech-Long organized the Dali project teams according to the specific implementation. Followed by the formal signature of contract is a great deal of trifle and heavy work, including accurate and timely offering of relevant datum, and drawings to assist and cooperate with Dali in the urge of the completion of the whole project on schedule and quality. President of Dali Group once said in a commercial meeting: "the drinks project of Dali means a two-edged sword to Tech-Long", although we have the experiences of whole hot bottling project of Viet Nam and Green, we still have a distance from the international giant enterprise of equipment manufacture in resource conformity, optimized dispose, manufacture management and spot experience. This project means a test to Tech-Long, and we will keep on developing steadily with the core forged by technology innovation and serve users!

Text by:Tech-long Haizhou Wu/Mukee

Pictures by:Tech-long Haizhou Wu/Mukee/Bin Lv

达利项目设备清单

List of equipment for Dali

前处理系统 Pretreatment System	-- CIP系统 CIP System	6 sets
	-- 热水系统 Hot Water System	6 sets
	-- 脱氧水系统 Deoxidated Water System	6 sets
	-- 饮料调配、贮藏系统 Drink-mixing & Storage System 14T/H UHT	6 sets
水处理系统 Water Treatment System	-- RO水系统 RO Water System	6 sets
	-- 软化水系统 Soft Water System	6 sets
吹瓶机系统 Bottle blow Molding Machine System	-- RJM14全自动旋转式吹瓶机 RJM14 Fully-automatic Blow Molding Machine	12 sets
灌装系统 Filling Machine	-- 热灌装线 Hot Filling Line	6 sets
	-- 风送系统 Air conveyor	6 sets
输送系统 Conveyor System	-- 实瓶输送系统 Bottle Conveyor System	6 sets
	-- 箱输送系统 Case Conveyor System	6 sets
后包装系统 Packing Machine	-- 套标机 Labeller(Roll)	6 sets
	-- 纸箱裹包机 Wraparound	6 sets
	-- 封箱机 Case Sealer	6 sets
	-- 纸箱成形机 Carton Former	6 sets
	-- 机器人装箱机 Robot packer	6 sets
工程服务 Engineering service	-- 工程规划 Engineering Plan	
	-- 安装调试 Installation and Test	
	-- 备品备件 Choice & Spare Parts	
	-- 操作、维修培训 Operation & Maintenance Training	
	

Data supplied by: Tech-long Ming Jiang

达意隆组织达利集团饮料工厂设备操作骨干进行产品知识培训

Tech-Long organized the training course for Dali operators

10月10日至16日，达意隆组织了达利项目第一次关于吹瓶和灌装设备的产品工艺、设计原理、设备结构、日常使用、常见故障处理、日常维护保养等产品知识的培训活动。

October 10-16, Tech-Long organized the first training course on products technology of bottle blowing and bottling, design principle, equipment structure, daily use, treatment for common troubles, daily maintenance, etc.

此次活动达利集团派出成都、济南、长春、武汉、泉州等地的工厂车间主任、班长等技术骨干共36人参加，通过设备理论和生产现场直观的讲解，达利的技术骨干们对达意隆的设备从一无所知到有了一定的了解，效果十分理想，达意隆将根据项目进度陆续组织培训活动，配合客户完成整线方案。

This training is joined by 36 persons including the workshop directors, team leaders and technology backbones of Dali from Chengdu, Ji'nan, Changchun, Huhan, Quanzhou, etc. Through the ocular explanation of equipment theory and manufacture spot, the trainees from Dali get acknowledged of the equipments of Tech-Long, and the results turn to be good. Tech-Long will organized further training assist customer finishing the whole line plan.

text amd pictures by: Tech-long Mukce



达意隆灌装、吹瓶事业部工程师对设备的理论知识及实际操作进行了详细的讲解

The engineers in filling and blowing of Tech-Long impose specific explanation on the theory and actual operation.

苏丹之旅

Tour to Sudan

2006年8月，达意隆第一次出访苏丹，为用户提供项目协助及考察当地市场。苏丹位于非洲东北部，是非洲面积最大的国家。从首都喀土穆到另外一个城市克里马350公里的路，一路风沙，小中巴开着窗户，一个小时就已经完全灰头土脸，身上都是沙子了，包括首都喀土穆都是整日有风沙，可以说只有尼罗河沿岸的范围内有人居住，其他地区全部被沙漠覆盖，这也是作为非洲第一大国的苏丹却只有3,4千万人口的原因之一。

In August of 2006, Tech-Long visited Sudan for the first time, for providing the local customers with project cooperation and market investigation. Sudan is the largest country in Africa by area, located in the northeast of Africa. In the 350-mile way from capital city-Khartoum to Quelimane, sand in wind overflowing, you will get sand and dust all over the body in just one hour with the window of the mini-bus opened and the capital city Khartoum is all the same. Therefore, we can say that in Sudan people just live along River Nile and other parts of the country is covered totally by desert, which is one of the reasons why there are only 30-40 million people in the largest country of African.

苏丹经历了数十年内战，近年来在苏丹政府的努力和政府间发展组织协助下，苏丹政府先后与南方8个反政府派别签署《和平协定》，和平解决南方问题，巴希尔政府执政以来，采取了一系列整改措施，苏丹经济状况有所好转；现在的苏丹基本已处于百废待兴中，在未来的十年内将飞速发展。今年的阿拉伯各国首脑峰会就是在苏丹喀土穆召开，苏丹有望发展成为整个非洲文化，政治，经贸中心。

Having suffered from civil war for several decades, Sudanese government has solved the problem of stability by signing "peace agreement" with eight

southern anti-government groups under the efforts of Sudanese government and Inter-Governmental Authorities on Development. Ever since the period of Bashir government, a series of reform measures are imposed which make the economic situations of Sudan take a favorable turn. Everything in Sudan is waiting to be improved, and Sudan will develop at full speed in the coming ten years. The head summit of Arabian countries of this year is held in Khartoum Sudan, and Sudan is expected to become the cultural, political, commercial center of the whole Africa. We visit the factory of coca-cola and Pepsi Cola, acknowledging that all of the equipments they use are Germany & Europe imported. And the local third largest company Vinta Cola is even adopting the second-hand equipment of Europe, which means a new challenging opportunity for business for the civil manufacturers.

我们参观了可口可乐、百事可乐工厂，了解到目前他们使用的还全部是德国、欧洲的进口设备；而当地第三大的Vinta Cola采用的则是欧洲二手设备，对国内制造商来说，这也是一个新的挑战商机。

达意隆在苏丹有三个项目，目前已经成功的启动了一个约300万美元的项目，这个项目安装了达意隆的水处理RO系统。目前用户已经设计好现代化的模板工厂，不久将正式投产，这个工厂将成为达意隆供苏丹用户参观的模板工厂。另外两个项目投资金额全部超过180万美元，这两个用户一致认为达意隆的设备是最能符合他们要求的设备，达意隆能够为他们提供周到的服务，两个项目正在启动过程中。

At present, a project of 3 million US dollar has been started in Sudan for installing the RO-water system of Tech Long and it is just one of our three cooperation projects with Sudan. Recently, users have finished designing the modernized sample factory, which will be put into operation in a short time, and this will be

the first sample factory of Tech-Long for Sudanese users to visit. The investment amount of other two projects are all over 1.8 million dollars, and the users of these two projects agree that equipments of Tech-Long are the most suitable ones for them. Tech-Long is ready to provide them with considerate services during the process of these two projects.

苏丹是一个干旱少雨的国家，年降雨量不足100毫米，解决好水的问题一直是苏丹政府的国策。政府也将逐步解决半沙化水利，实现港海水淡化。苏丹水力资源丰富，有200万公顷淡水水域，饮用水前景十分广阔。中国一瓶500毫升矿泉水在超市约一块钱，在苏丹当地却卖到了3块钱，苏丹目前仅有土耳其人投资经营的一家超级市场，饮用水和饮料大部分来自阿联酋，利比亚等国家，随着苏丹同中国多元化合作的加强，原油出口供应的增加，当地居民的生活水平也将逐步提高，苏丹的水，饮料的需求量将不断增长，市场前景非常广阔，苏丹也将成为达意隆在非洲的重要市场之一。

Sudan is an arid county with little rainfall of less than 100 mm per year. Therefore, finding the appropriate solution to the water crisis is always the notional problem of Sudanese government. And the government will also solve the semi-desertification water problem, realizing the desalinization of the harbor water. Sudan has abundant water resource covering 2-million-acre fresh water area, and the source of drinking water is utterly sufficient. The price of a bottle of 500 ml water is about one yuan in supermarket but the price turns to be three in Sudan. At present, there is only one supermarket invested and operated by Turkey. Most of the drinking water and beverage are imported from the U.A.E. and Libya etc. Along with the further of the pluralism in Sudan, the export increase of crude oil, the living standard of local people is increasing and the demand of water and beverage is growing as well. All the above shows that the potential is extremely vast and Sudan will become Tech-Long's one of the most important markets in Africae.

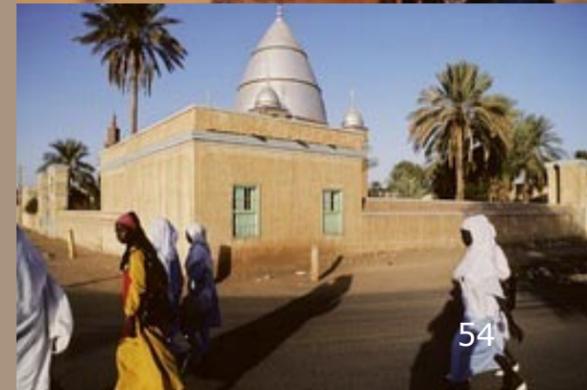
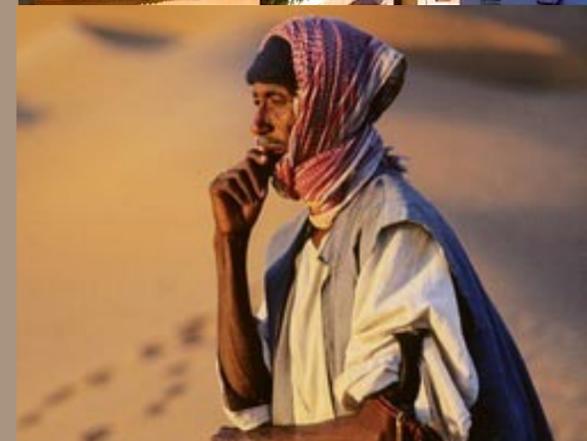
Text and Pictures by:Tech-long Paul/Mukce

Sudan

苏丹的城市具有欧洲风格或阿拉伯风格。每个城市基本上都是由中心区和外围区两部组成。城市四周围绕着城墙，城外郊区则与热带草原的村落相同，城市位置与水源有密切关系。

Cities of Sudan is overflowed with European and Arabian atmosphere. Every city is made up of two parts: Central District and Peripheral District. The city is surrounded by city wall, and the outskirts out of city is the same as the villages in tropical grassland. The location of the city has close relationship with source of water.

苏丹的饮料市场产品不是非常丰富，有非常大的发展空间。The beverage market is not very big in Sudan, but sees a hopeful future.





燕京集团 Yanjing Group

感动世界
超越梦想

*Inspiring the world and
exceeding the dream*

燕京集团为2008年北京奥运会赞助商，奥运精神就是向人类极限挑战，超越自我，而“感动世界，超越梦想”这句燕京啤酒集团公司的格言，也恰恰代表了一种不断超越，不断进步的奋斗精神，人类在梦想中进步，在梦想中超越！

Yanjing Group is the sponsor of the 2008 Beijing Olympic Games. The spirit of Olympics is to challenge human limit, surpass oneself. The watchword of Yanjing Beer Group Co., is “inspiring the world and realizing the dream”, representing a spirit of constant surmounting and constant advancing. Human-beings advance in dream, surmount in dream!

燕京经过20年来的发展，已经成为中国最大的啤酒企业集团之一。现拥有控股子公司（厂）28个，其中啤酒生产企业20个，相关和附属产品企业8家，现在燕京总部是亚洲最大的啤酒生产基地。燕京自1980年建厂，1993年组建集团，1997年进行股份制改造。目前全国市场占有率达到11%以上，华北市场50%，北京市场90%以上，2004年度燕京啤酒品牌产销量已连续十年全国第一，世界啤酒产销量列名第十一位。

Yanjing has become one of the largest Beer enterprises in China through 20-year development. At present, it possesses 28 share-controlled branch companies, among which there are 20 beer producing enterprise, 8 related and auxiliary product enterprises. And the present general headquarters of Yanjing is the Asian's largest beer manufacturing base. Yanjing was founded in 1980 and in 1993 organized into a group. In 1997 the shareholding reform was conducted. The present occupation rate in national market is more than 11%, North China market 50%, Beijing market more than 90%. By 2004, the Brand of Yanjing has remained at the first place in China for the production amount and sales amount for ten years, and is listed the 11th among worldwide peer group for beer production and sales.

达意隆与燕京啤酒集团的合作过程:

The cooperating process between Tech-Long and Yanjing Beer Group.

2002年，北京燕京矿泉水厂引进了达意隆的桶装水灌装生产线，产量为1200桶/小时旋转式的生产线是当时国内最先进的桶装水设备，50吨/小时的制水设备，既可生产矿泉水，也可生产纯净水。经过此次的合作后，燕京对达意隆的技术实力和服务都有了更深的了解。

In 2002, Beijing Yanjing Mineral Water Company introduced the barreled water bottling production line, the output of which is 1200 barrel / hour. This kind of rotating production line is the most advanced barreled water equipments in China. The 50 ton / hour -water-producing equipments can be used for producing mineral water and purified water as well. Yanjing furthered the understanding of the technological strength and the service of Tech-Long after this cooperation.

2005年，燕京啤酒引进了达意隆2套50吨/小时一级RO反渗透设备，主要为糖化用水。该设备的良好运行，使燕京更确定了达意隆设备的优质与稳定。

In 2005, Yanjing Beer introduced 2 sets of 50 ton / hour first-class RO counter-infiltration equipments, mainly for the saccharification of water. The stable operation makes Yanjing confirm its confidence on the high-quality and stability of the equipments of Tech-Long.

2006年初，燕京准备进入瓶装水市场，达意隆先进的设备与成熟的工艺，赢得了北京燕京饮料厂的认可，并在2月份签订了一套20吨/小时的矿泉水制水设备，设备很快投入使用，自此，燕京正式敲响了进军瓶装水市场的钟声。同年5月，燕京饮料工厂陆续与达意隆签订了一条11吨/小时二级RO反渗透制水设备。同年6月，燕京饮料工厂开始正式生产矿泉水和纯净水；与此同时，燕京沧州工厂也与达意隆签订了一套50吨/小时糖化用水制水设备，该设备的控制系统采用了当今最先进的自动化控制程序，进一步提高了设备工作效率。

At the beginning of 2006, Yanjing planned to step into the market of bottled water. The advanced equipments and mature technology win the appreciation of Yanjing Beverage Factory and finally ordered a set of 20 ton / hour mineral water production equipment in February, which was put in use in a short time. Since then, Yanjing formally stroke the bells of the march into the bottled water market. In May of this year, Tech-Long and Yanjing beverage factory successively signed an order of a set of 11 ton / hour second-level RO counter-infiltration water-production equipments. In June of the same year, Yajing Beverage Factory formally started to manufacture mineral water and purified water; Meanwhile, Yanjing Factory in Cangzhou ordered a set of 50 ton / hour saccharification water production equipments, the control system of which adopts the most advanced automatic control programme and improves the working efficiency.

Text and Pictures by:Tech-long Wenbin Ning

达意隆的水处理及五加仑设备在燕京稳定运转
The water-treatment equipments and five-gallon equipments
operate stably in Yanjing Group



上海正广和饮用水有限公司成立于1995年5月，是上海最早生产饮用水的企业之一，现由上海梅林正广和股份有限公司与法国达能（亚洲）有限公司共同投资组建。公司引进国外先进的生产工艺技术和成套生产流水设备，年生产饮用水能力达40万吨，目前已成国内唯一能生产饮用纯净水、蒸馏水、矿泉水、矿化纯水、山泉水、水果饮料等六大类饮用水的大型企业，也是目前国内唯一获得国际食品卫生标准评审机构认证（NSF）、ISO9001认证、国际瓶装水协会会员（IBWA）、国家绿色食品等四项国际资质证书的企业，是当今中国饮料十强之一。

Shanghai Zhengguanghe Drinking water Co., Ltd was founded in May of 1995 which is one of the earliest-founded drinking water enterprises. It is now jointly invested and set up by Shanghai Zhenglin Inc. and France Aqua (Asia) Co., Ltd. The company introduces advanced manufacture technologies and complete production line equipments and the annual output of drinking water has reached 400 thousand tons. At present, it has become the only national large-scale company that can manufacture water of six categories including, purified water, distilled water, mineral water, mineralized purified water mountain spring, fruit beverage etc. Also it is the only one of the current China beverage top ten enterprises which is approved by NSF, ISO9001 Authentication, IBWA, National Pollution-Free Food and other international quality certifications. And it is listed as one of the current China beverage top ten.

上海正广和 Aquarius Shanghai

改善饮用水品质
提高健康水平

*Improve the quality of drinking water,
improving health standard*

1999年，上海正广和饮用水公司（以下简称正广和）和达意隆公司第一次合作，并购进了一条900BPH五加仑生产线，此灌装线是当时全国第一条900BPH五加仑生产线，这条生产线至今已在上海正广和饮用水公司“服役”了7年，目前仍在正广和饮用水公司三厂正常稳定的运行。8年来，正广和和达意隆也建立了良好、长期的合作伙伴关系。In 1999, Shanghai Aquarius Company (short for Aquarius) cooperated with Tech-Long for the first time and ordered a set of 900BPH five-gallon production line. Then entitled bottling production line is the first one in China and so far it has been “on active service” for more than seven years which is still normally operating in 3rd Aquarius drinking water factory. Tech-Long and Zhengguanghe have been in good and long-term cooperation for eight years.

正广和早在1999年就在国内率先采用先进的“网上销售+电话销售”的模式，在申城引起了轰动，销量剧增。2003年，国际饮料巨头法国达能斥巨资参股正广和，新的发展模式开始，为了弥补产品单一，分别在湖州、长兴建立3家矿泉水分厂，增加了矿泉水、山泉水等系列产品，同时又在武汉、宁波、常熟等城市建立了3个饮用水分厂。正广和再次与达意隆公司牵手，购进了2套450BPH五加仑生产线、2套240BPH五加仑生产线及相关辅助设备。Early in 1999, Zhengguanghe introduced the national-advanced mode of “online sale + phone sale” which caused a shock and the sales volume increased rapidly. In 2003, the international beverage giant- Aqua furnish a huge amount of money for equity participation of Zhengguanghe, and the new developing mode get started. In order to make up the oneness of their products, they set up three subsidiary factories of mineral water in Huzhou and Changxing enrich the series of products of mineral water and spring water, and set up three subsidiary factories of drink water in Wuhan, Ningbo, and Changshu. Zhengguanghe leads along by hands with Tech-Long again, ordering two sets of 450BPH five-gallon production line, two sets of 240BPH five-gallon production line and relevant auxiliary equipments.

多年来，正广和对达意隆公司的五加仑产品提出了许多建议，对达意隆企业的发展和五加仑技术的进步起到积极的促进作用。而达意隆丰富的经验、顶尖的技术、创新的工艺以及专业的服务为正广和提供了高效、灵活的生产条件，这是双方合作并取得成功的基础。For many years, Zhengguanghe gives a lot of advises towards the five-gallon products of Tech-Long, which play a very active role in the improvement of the five-gallon technology and the development of the whole Tech-Long. While the abundant experiences, top technologies, innovating crafts and professional services supply Zhengguanghe with high-efficient and flexible production condition, which is considered to be fundamental of the cooperation and success of the two parties.

Text by: Tech-long Feng Wang

蓝光饮品 Langguang Group

达意隆成为用户值得信赖的合作伙伴

Tech-Long the reliable cooperater for customers

蓝光饮品本着“客户满意是我们的第一目标，尊重和关心员工的个人利益”的企业理念，在市场开拓上成绩斐然，目前其桶装水在四川市场占有率名列前茅。蓝光饮品与达意隆的合作关系开始于2003年年初，当时蓝光饮品购买了达意隆一条900BPH五加仑设备，设备在使用过程中，运行十分稳定。2005年8月，蓝光投资3亿元在成都郫县现代工业港征地500多亩分期建立一个集食品、饮料、饮料包装于一体的生产基地，一期基地主要用于桶装水生产线的扩建，2005年底，蓝光饮品再次从达意隆购进一条1200BPH旋转式五加仑灌装线，用来满足桶装水产量的扩大，在与达意隆签订设备订单时，蓝光饮品公司黄穹总经理说：“我们和达意隆通过几次愉快的合作，现在已经成为战略合作伙伴，希望双方在今后的合作中相互支持，最终达到双赢的目的。”

In line with the enterprise spirit that “satisfaction of customers is our final goal, respect and care for the individual interest of every staff”, Languang Drink takes a outstanding results in market exploration, and at present the barreled water of Languang occupies the main Sichuan market share. The cooperation between Tech-Long and Languang Drink started in the beginning of 2003, when Languang Drink brought a set of 900BPH five-gallon equipments and the equipments operated well during application. In August 2005, Languang invested 300 million to expropriation of more than 3000-acre's land in modern industrial port of Pi County for the by stages establishment of a manufacture base concerning on food, beverage and beverage package. The first-stage base is mainly used for the expansion of the barreled water production line. At the end of 2005, Languang drink ordered a set of 1200BPH rotating five-gallon bottling production line to meet the need of the increasing of output of barreled water. Mr. Huangqiong, general manager of Languang drink once said when he signed the order with us: “we have had happy cooperation with Tech-Long several times, and now we become strategic collaborative partners. And I wish two parties can support each other in future cooperation and realize the win-win.

由于有了好的产品，好的服务，2005年蓝光桶装水市场迅速增长，在2006年年初，蓝光饮品再次向达意隆购进两条2000BPH旋转式五加仑灌装线。这充分表明了达意隆制造的产品是充分值得用户信赖的。目前两条2000BPH五加仑已顺利通过生产阶段，已于今年8月份正式投产，而一个日产10万桶、亚洲最大的桶装水生产基地也成功的屹立在成都郫县现代工业港。Due to the good products and service, in 2005 Languang barreled water sales increased rapidly. At the beginning of 2006, Languang drink ordered two sets of 2000BPH rotating five-gallon bottling production line for the second time. This fully indicates that the products of Tech-Long are reliable. Recently, the two sets of 2000BPH five-gallon machines have successfully been manufactured, and have been put into operation in this August. And the largest barreled water manufacture base is standing in the Pi County modern industrial port with the daily output of 100 thousand.

正如蓝光集团杨铿总裁所说：“事业无涯，行者无疆，壮志无悔”！我们相信蓝光一定可以激流勇进，再创辉煌，而达意隆也将与用户并肩同在，迎接一切挑战，共同成长！

Just as Mr. Yangqian, the CEO of Lanwguang Group said: “Career with no end, faquir with no boundary, and great aspiration with no regret”! We believe that Languang will march bravely through difficulties and make more successes. Tech-Long will be shoulder to shoulder with users to challenge together, and to develop together!

Text and picture by: Tech-long Jian Yang



四川蓝光饮品实业有限公司是四川蓝光集团下属子公司。蓝光集团成立于1991年，通过十五年的蓝光人励精图治，至今集团总资产已达几十个亿，员工总数达1500多人。同时，多年来曾荣获“全国百强优秀企业”、“四川省23家重点民营企业”、“成都市模范纳税企业”、“四川房地产企业综合实力最强”等多项荣誉。蓝光品牌也被权威部门评定价值4.1亿。如今，蓝光已发展成为以房地产开发、投资、物业管理、绿色饮品为核心板块的集团企业

Sichuan Languang Drinks Industry Co., Ltd is a subsidiary of Langguang Group. Langguang Group was founded in 1991, and after 15-year's hard work and efforts it has a total assets of more than several billion yuan with the total staff of more than 1500. Meanwhile, it has wined the awards of one of “National Outstanding Enterprise Top 100”, “23 Key Private Enterprise in Sichuan”, “Model Tax-paying Enterprise in Sichuan”, “the First of Sichuan Real Estate Enterprise in Comprehensive Strength”, etc. And it has also been evaluated at 410 million yuan by authoritative department. Nowadays, Languang has developed into a group enterprise concerning on real estate exploration, investment, property management and pollution-free drink.



达意隆ASIA PROPAK 2006展位, 简洁明亮, 吸引了众多专业观众
The booth of Tech-Long in ASIA PROPAK 2006 is simple and bright attracting multitudinous professional spectators.



越南Tan Hiep Phat Grou公司的Mr.Boss(左二)与达意隆国际销售部参展人员在达意隆展台前合影。
Group photo taken in front of the exhibition stand of Mr. Boss(2nd from the left) from Tan Hiep Grou of Vietnam and the exhibit personnel from the sales Dept. of Tech-Long.

1 达意隆进军泰国市场 Tech-Long marches into Thai market

ASIA PROPAK 2006展后回顾 Retrospect of ASIA PROPAK 2006

2006年6月14日, 为期四天的ASIA PROPAK 2006在泰国曼谷隆重开幕, 自1984年第一届ASIA PROPAK 在新加坡举办以来, 已有22年的发展历史, 堪称亚洲食品工业领域规模最大的展览会。ASIA PROPAK 2006由泰国包装中心 (TPC)、东南亚食品科学与技术协会联盟 (FU、FIFSTA) 联合举办, 展品涉及食品加工与包装、饮料/酿造技术、灌装技术、包装机械、液体处理、机械装置及储藏、包装原料、药品和化妆品包装和处理技术、PET和塑料包装技术等。

On June 14 2006, the four-day ASIA PROPAK 2006 was held in Bangkok Thailand. Ever since the first ASIA PROPAK held in Singapore in 1984, this exhibition has a long history of twenty-two years, which can be titled as the largest exhibition in Asia in the field of foodstuff industry. ASIA PROPAK 2006 is held by TPC and FU, FIFSTA, and the exhibits include process and package of foodstuff, beverage / fermentation technology, bottling technology, package machinery, liquid treatment, device and store of machinery, raw materials for package, medicines and chemical reagents, package and treatment technology of cosmetics, package technology of PET and plastics, etc.

本届展会展馆面积为2万平方米, 有来自日本、德国、意大利、马来西亚、新加坡、菲律宾、台湾、印尼、印度、香港、孟加拉、中国、缅甸、和澳大利亚等30多个国家和地区的650家参展商参展, 并在现场展示了2000多台代表当前新技术、新工艺的设备。世界领先的设备供应商Krones, Sidel, SMI, SIPA, ZIEMANN等都参与了这次展会。据大会统计, 本届展会吸引了来自世界各地的专业买家和观众超过4万人次。

The exhibition centre of this exhibition covers an area of 20,000 square meters, and the number of exhibit is more than 650 from more than 30 regions and countries including Japan, Germany, Italy, Malaysia, Singapore, Philippine, Taiwan, Indonesia, India, Hong Kong, Bangladesh, China, Burma and Australia. On the scene more than 2000 equipments of new technologies and new crafts are displayed. The world-leading equipment suppliers, such as Krones, Sidel, SMI, SIPA, ZIEMANN, etc. have attended this exhibition. Statistics of the exhibition shows that more than 40 thousand professional buyers and spectators are attracted by this exhibition.

随着泰国经济的快速发展, 泰国市场逐渐成为食品加工和包装工业投资的世界首要市场之一, 为了开拓泰国市场, 探寻新的

发展机遇, 达意隆以64平方米的富有时代感的形象参加了此次展会, 达意隆展台吸引了大批的专业观众, 现场洽谈气氛活跃, 为行业人士的合作和交流提供了一个有效的平台, 许多专业买家对达意隆的设备都表示了浓厚的兴趣, 而来自印尼、菲律宾、马来西亚、新加坡、印度、和泰国当地的用户与达意隆的现场交流最多, 达意隆开拓了大批有效用户群体。

With the rapid development of Thai economy, Thai market is gradually becoming one of the chief markets in the world for foodstuff processing and package industry investment. To explore the Thai market, and seek for new opportunities for development, Tech-Long sets up a 64-square-meter modern booth attracting numerous professional spectators in an active atmosphere which provides the professional personages with a good communicating and cooperating platform. Many professional buyers show great interest in our products especially those from Indonesia, Philippine, Malaysia, Singapore, India and the local users in Thailand. Tech-Long has explored a large group of effective user-group.

本届展会, 达意隆通过在产品、技术的交易洽谈中收集到了重要的市场信息, 为进军泰国市场奠定了良好的基础。

In this exhibition, Tech-Long has made a good and stable foundation for the march to Thai market by the important information collected during the dealing consultations on products and technologies.

Text by:Tech-long Anya/Adong/Mukkee
Pictures by:Tech-long Anya

2 百届广交会 The 100th Guangzhou Export Commodities Fair (GECF)

达意隆走向世界的平台 A Platform for Tech-Long to go abroad

10月15日, 第一百届中国出口商品交易会(广交会)在广州国际会展中心隆重开幕。作为“中国第一展”的广交会, 自一九五七年创办以来, 就成为中国走向世界、世界了解中国的一个重要窗口, 并已成为中国历史最久、层次最高、规模最大、商品种类最齐全、到会采购商最多、成交效果最好、信誉最佳的国际知名品牌展会, 赢得了超过二百一十多个国家和地区的近二十万客户的厚爱, 为中国外贸由小到大发展, 为中国全面融入世界贸易体系、积极参与经济全球化进程作出了贡献。

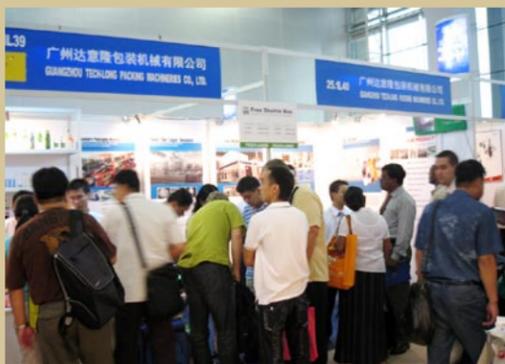
On October 15, the 100th Guangzhou Export Commodities Fair(GECF) was opened in Guangzhou international exhibition centre Called as" the No.one exhibition in China ", ever since it was established in 1957 GECF has developed into not only a very important window for China to step into the world and acknowledge the world but also the well-known brand exhibition in China with the longest history, highest level, most complete commodity categories, most purchaser, best deal result and best prestige. Also does GECF win great trust of more than 200000 customers from more than 210 countries, and enable China to develop foreign trades, incorporate into the world trade system, and to participate in economic globalization.

本届广交会取得了良好成效, 到会采购商人数和出口成交额平稳增长。据大会统计, 广交会一期共有来自209个国家和地区的121576名采购商到会, 比第99届同期略有增长0.2%, 比去年秋交会增长8.3%。一期成交额达221.9亿美元, 比第99届同期增长5.8%, 比去年秋交会增长15.6%。

The exhibition gains good results, and the number of spot exhibitors and the amount of export deal also increases. Statistics shows, there are 121576 exhibitors from 209 countries and regions in the first stage, the number has increased by 0.2% and 8.3% in comparison of the 99th GECF and the last Autumn Fair. The amount of deal in the first stage has reached 22,190 million US dollars, increasing by 5.8% and 15.6% in comparison of the 99th GECF and the last Autumn Fair.



第100届广交会开幕现场，国家总理温家宝为开幕式致词
Prime Minister of China Wen Jiabao is making a speech in the inaugurating ceremony of the 100th GECF.



达意隆第100届广交会展台，吸引了众多专业观众
Booth of Tech-Long in the 100th GECF attracts multitudinous professional spectators.

本届广交会达意隆位于25.1L39-40展位上，展台风格新颖别致，富有时代感，充分展示了达意隆自主出口品牌的风采。广交会是达意隆参与国际竞争，接触国际行业先进水平的重要舞台之一。

The booth of Tech-Long in this exhibition is located at 25.1L39-40, with novel and unique style and sense of the times which fully shows the elegant demeanor of the export brand of Tech-Long. GECF is one of the important stages for Tech-Long to participate in international competition and get close to the advanced level among the international peers.

从国际采购群体来看，在广交会上前来洽谈采购业务的客商较多，达意隆的客户主要来自中东、亚洲、中南美洲和欧盟等国家。开展以来，达意隆先后与印度尼西亚、泰国、菲律宾、摩洛哥、巴西、孟加拉国、南非、沙特阿拉伯、斯里兰卡、马来西亚、伊朗、也门等二十多个国家和地区的国际客商进行了信息化、多元化、互动式的洽谈，并达成了很多合作意向。

From the view of international purchasing group, the purchase traders of GECF are relatively numerous, and the main customers of Tech-Long are mainly from Middle East, Asia, E.U., etc. Ever since the beginning of the exhibition, Tech-Long has conducted the informative, pluralistic, interdynamic consults and finally reached many cooperative contracts with exhibitors from more than 20 countries including Indonesia, Thailand, Philippine, Morocco, Brazil, Bangladesh, South Africa, Saudi Arabia Arab, Sri Lanka, Malaysia, Iran, Yemen, etc.

从成交市场来看，本届展会达意隆收获丰厚，在6天的展览过程中，共取得了150多万美元的成交业绩，较去年增长了30%。其中，与埃及客户签订了金额为100多万美元的吹瓶设备出口合同，分别为全自动旋转式吹瓶机RJM10和RJM2各2台；另外，中南美洲的客户在参观达意隆的工厂后，对在达意隆的灌装机、包装机械和注塑机产生了浓厚兴趣，有初步合作意向。

From the view of market of deal, Tech-Long has got a rich and generous harvest. In the six-day-exhibition, we reached the deal of more than 1.5million US dollar increasing by 30% in comparison of last year. Among them, we signed the exporting contract of bottle-blowing equipments of more than 1 million dollars with Egypt including full-automatic rotating bottle blowing machine, RJM10 and RJM2, the number of each of which reached two. In addition, the traders of Mid and South America showed great interest in our bottling machine, packing machine and plastics-moulding machine and tentatively showed the intention of cooperation after visiting around our factory.

从信息交流来看，通过本届广交会，国际采购商对达意隆的实力有了更充分的了解，达意隆也从大会中获取了许多国际采购信息，收集了国际包装机械先进技术，这对达意隆今后在商品出口和技术升级上提供了重要帮助。

From the view of data communication, through this GECF Tech-Long has been well-introduced and known by the international traveling purchasers and also has Tech-Long obtained much international purchasing information, and collected the advance technologies in the international packaging equipments which will do a lot of good to the future IMP & EXP and technology upgrade.

Text by:Tech-long Adong
Pictures by:Tech-long Hakim

打造战略发展的

核心供应商群

Establish strategic core supplier group

全球竞争中先进制造技术的发展要求企业将自身业务与合作伙伴业务集成在一起，缩短相互之间的距离，站在整个供应链的观点考虑增值，（供应链合作关系可以定义为供应商与制造商之间，在一定时期内的共享信息、共担风险、共同获利的协议关系）。所以许多成功的企业都将与合作伙伴的附属关系转向建立联盟或战略合作关系。

In the global competition, the development of advanced technology requires that enterprises should integrate their own business and cooperators' business together, shorten the distance between each other, and consider appreciation with the viewpoint of the whole supplying chain,(the supplying chain symbiosis can be defined as the agreement relationship between suppliers and producers in a certain period with common risk, shared information and profits). Therefore, many successful enterprises turn the affiliated cooperation relationship to union or strategic cooperation relationship.

建立战略性合作伙伴关系是供应商战略管理的重点，供应商管理的关键就在于与各节点企业之间的联接和合作，以及相互之间在设计、生产、竞争策略等方面良好的协调。

It is the key point for the suppliers to establish strategic partnership. The crux of the management of suppliers is the link and cooperation with enterprises in every area and the good mutual coordination in design, manufacture, competition, etc.

当今的市场竞争的白热化程度有目共睹，企业要生存、发展已经不能单纯在发展技术（产品研发）和销售方面得到最满意的结果。采购的发展越来越得到众多企业的极大的重视。达意隆深信，打造战略发展地位的供应商群不仅可以达意隆提高竞争力，更能给我们的用户提供更好更优质的产品与服务；也能让我们的供应商获得长远利益。

The fierce degree of current market competition is obvious to all, therefore, the surviving and development of enterprises cannot rely only on technology exploration (products exploration) and sales. The development of purchasing attracts extreme attention by more and more enterprises. Tech-Long firmly believes that to attract strategic supplier group can not only heighten competitiveness of Tech-Long, enable us provide users with better and high-qualified service but also supply our suppliers with long-term profits.

货物的买卖→共同长远发展

Purchase of Goods→common and long-term development

达意隆与众多的供应商有着共同的目标就是企业的长远发展，因此从简单的货物买卖到追求长远的战略伙伴发展是必然的路，达意隆与供应商的合作关系主要着眼于以下几个方面：

让供应商了解达意隆的生产程序和生产能力，使供应商能够清楚地知道达意隆需要产品或原材料的期限、质量和数量；

Tech-Long shares the common goal with many suppliers which is long-term development, therefore it is an inevitable procedure for Tech-Long to establish strategic partnership with its cooperators. The focus of the partnership between Tech-Long and suppliers mainly covers the following aspects:

向供应商提供达意隆的经营计划、经营策略及其相应的措施，使供应商明确自身的希望，以使自身能随时达到达意隆要求的目标；

Let suppliers know about Tech-Long's production procedure and production ability, thus clear about which kind of products are needed by Tech-Long, the quality, quantity and the time limit of the raw material;

达意隆与供应商明确双方的责任，并各自向对方负责，使双方明确共同的利益所在，并为此而团结一致，以达到双赢的目的；

Make definite responsibilities of the two parties, and take charge of each duties and responsibilities mutually to clarify the common interests of the two parties and unite. Finally Tech-Long and suppliers can achieve the goal of mutual benefit.

排除其他干扰，包括人为的影响：最大限度地杜绝个人与企业或个人与个人的台底交易；合同中签订反贿赂条约，让竞争公平透明。

Get rid of other disturbances, including man-made factors: Put an end to the private dealing between individual and enterprise or between individuals utmostly; add the treaty of anti-bribe to make the competition fair and clear. ;

共同发展，共同承担责任：达意隆对于战略合作伙伴可以派员指导技术和管理，帮助其发展和通过提高管理而降低制造成本；可以共同进行产品的推广，共同开发新产品新市场，以及其他方面为供应商提供支持，达意隆还可以组织供应商的行业交流，双方共同提高。

Share development, share responsibility: Tech-Long can arrange professionals instructing technology and management for the strategic partners to help them advanced management and reduce manufacture cost; Tech-Long is willing to conduct product promotion together with you, explore the new market together with you, supply suppliers with other supports, organize the industrial exchanging and improve together.

对于产品迟交货，质量不合格的产品，供应商承担应有的责任；没有能力承担责任或没有决定与达意隆共同向我们的客户提供优质性价比的产品和服务，以及承担责任的。都不是达意隆发展的目标。

Suppliers are responsible for the delay of delivery and qualified products; the one that not capable of the above responsibilities or the one that has not decided to supply our customers with products and service of high grade cost performance with Tech-Long and undertake responsibilities are not the exploring goals of Tech-Long.

集中采购、独家购买：有利于供应商的规模效应和降低包括销售费用等的各项管理费用。
Centralized purchase, individual buying: favorable to the scale effect of suppliers and reduce the management expense including sales expense, etc.

严格按合同付款，从资金上优先保证有战略发展意义的核心供应商。

Pay bill strictly according to contract, and preferential guarantee the core suppliers with strategic function in capital.

加强内部管理，全面提高工作效率，方便供应商。从向供应商承诺一小时内完成收货、不向供应商摊派到建立送货司机休息室等细节中，体现达意隆用心打造战略合作伙伴关系的决心。

Strengthen the internal management, improve work efficiency all-round and give convenience to suppliers. The details ranging from the promise of one-hour-receipt, and no apportion to the suppliers to the establishment of lobby for delivery driver reflect the determination of Tech-Long to build strategic partnership with suppliers.

货物的买卖→看作销售去做

Purchase of Goods → treat it as sales

企业需要开源节流，把销售看作开源的话，采购当然是节流，这两方面都可以为公司带来利润！没有恰到好处的性价比就不可能让客户在使用达意隆设备时处于竞争优势。能够节流、降低成本，就可以有效地为用户节省投资。

Broaden resources of income and reduce expenditures are essential for company. Taking sale as the way of broadening the income, purchase natural comes to the way of reducing expenditure and both of the two aspects can bring company profits! Without good cost performance, Tech-Long cannot stand in a preponderant position in competition with others. Reach the principle of reduce expenditure and cost, and we can effectively save cost for our customers.

在过去的日子里达意隆得到各方供应商的大力支持，达意隆感谢所有供应商为达意隆的发展壮大所做出的努力，我们深信，只有我们的用户在残酷的市场竞争中更好地发展，达意隆才能更好的发展，面对日益残酷的市场竞争，我们将更加深入地同供应商合作，达意隆也将继续本着把采购当做销售去做的热情，和所有供应商为共同的发展而努力，共同打造战略发展的合作伙伴关系。

In the past days, Tech-Long has been greatly supported by all suppliers and Tech-Long is willing to show our thankfulness to all of you. We firmly believe that Tech-Long can develop well only if our users develop well in the cruel market competition. Facing the violent market competition we will further the cooperation with suppliers and Tech-Long will make great efforts together with all suppliers for common development, and further the strategic partnership with the enthusiasm of taking purchase as buying.

Text by:Tech-long Shaojian Huang/Mukee
Pictures by:Tech-long Mukee Zhiben Zhang

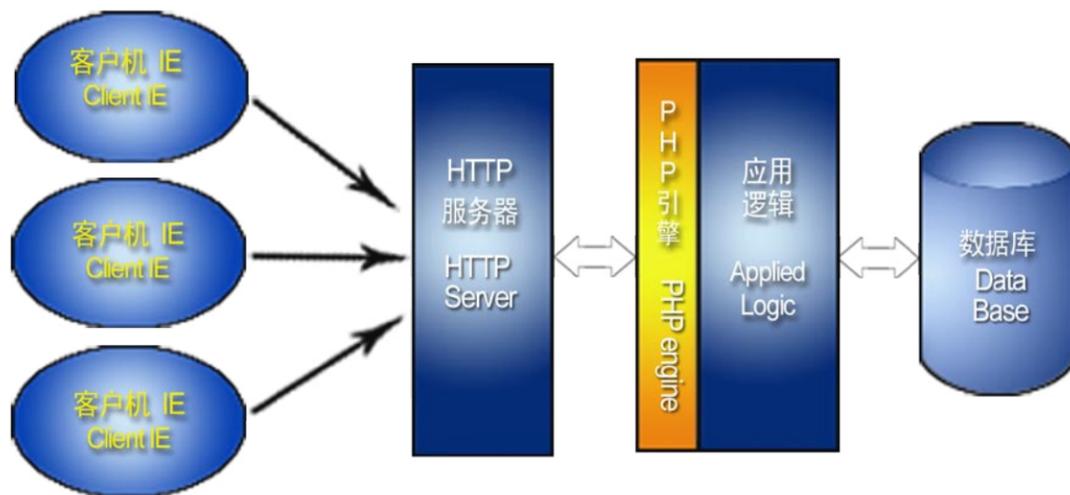
达意隆对供应商收货的承诺，大大缩短了供应商的送货时间。
The promise of Tech-Long greatly shortens the time of delivery.



达意隆信息化建设 Tech-Long's Informationization development

之公司内部通讯OA平台 OA plant form company's internal communication

达意隆OA系统采用基于WEB的企业计算平台
The OA system of Tech-Long is set upon the enterprise compute platform based on WEB



现代企业的客户和供应链仅仅在国内已经无法满足企业本身在业务上的要求，越来越多的企业都逐步把自己的大门向世界开放。在市场和供应这两大环节里面最频繁的可能就是沟通。而传统的交流方式已经无法满足现代企业的低成本和低风险的要求，达意隆也在不断探索自己的信息化建设之路。

The domestic customers and supplying chain cannot satisfy the enterprises' own business. More and more enterprises are opening their door to the world, learning from outside. Communication may be the most frequent link in the two segments of marketing and supplement. While the traditional way of communication cannot meet the modern enterprises' need of low-cost and low-risk. Tech-Long is exploring our own way of informatization.

达意隆在投资与回报的问题上反复思考和衡量，决定采用目前比较前沿的VPN技术和VOIP技术，用集团公司的VPN技术可以达到集团内部的各大办事处与总部之间的文字，语音，文件等的低成本交流。

After repeated consideration and judgment on investment and repayment, Tech-Long decides to adopt the relatively forward-positioned VPN technology and VOIP technology. By VPN technology, company can reach the goal of the low-cost communication between general headquarters and each office in written language, pronunciation, file, etc.

目前的规划里面，首先整理的是公司的内部的OA平台，目前的电子邮件交流的方式必然会被将来的及时通讯工具所代替，当然，目前电子邮件还是整个大时代的交流方式。下一代的3G技术革命将会把及时通讯推到顶峰。语音视频会议，企业及时通讯系统等能方便企业员工之间的及时文件和文字的交流工具会逐步取代目前传统的邮件交流方式。

According to the present planning, the OA Platform is the first subject to be arranged. The present communication way of E-mail will inevitably be replaced by prompt communication tool in future, while, E-mail is still the way of communication all through the present epoch. The 3G technology revolution in the future generation will push the prompt communication to a top position. Voice & videoconference, prompt communication system of enterprises and other way of communication can give convenient the communication between staff in prompt files and written language, which will take the place of traditional E-mail step by step.

在投资与回报的问题上，我们更着眼于长期利益，在信息化建设方面的思考也遵循不重复建设与不超前消费的原则。

On the matter of repayment, we have our long-term interest in mind and follow the principle of no duplicate construction and no pre-mature consumption.

目前达意隆准备更新的系统有VOIP与VPN系统，这两大系统是连接公司与外界的安全通道，尤其是企业内部各办事处的安全通道，降低话费成本和方便移动办公都将有所体现。

At present, Tech-Long plans to upgrade VOIP and VPN system, which are the safe ways for company to communicate with the external world, and the reduction in telephone expenses and convenience in official working will also be reflected especially in the safe ways for each office in company.

已经上线的OA系统已经给我们带来了可喜的变化，即时的通讯和强大的功能给

我们带来了方便。

The online OA system has brought us gratifying changes, and prompt communication and powerful functions have also brought us convenience.

OA系统功能介绍 Functions of OA system

OA系统网络智能办公系统是专为中小型企业定制的网络办公软件，采用领先的B/S(浏览器/服务器)操作方式，使得网络办公不受地域限制。

OA system network intelligent official working system is specially customized network official working software for medium and small-sized enterprises. It adopts the leading operation form of B/S (browser / server) which frees the network official working from the region restriction.

集成了包括内部电子邮件、短信息、公告通知、个人考勤、日程安排、工作日志、通讯簿、工作流、公告通知管理、考勤管理、工作计划、工资上报、会议管理、车辆管理、网络会议、讨论区、聊天室、文件柜、系统日志、列车时刻查询、电话区号查询、邮政编码查询、法律法规查询等30余个极具价值的功能模块。OA系统在功能上媲美网络办公系统，在安装维护上更提供了采用独有技术开发的傻瓜型安装工具、配置工具和数据库管理工具，用户可在30秒内自行安装完毕，无需专业人员即可自行维护。

OA system integrates more than 30 valuable function modules including E-mail, message, announcement & notice, personal attendance-checking, schedule, daily record of work, address list, working flow, announcement & notice management, attendance-checking management, work plan, wage report, conference management, vehicle management, network conference, discussion area, chatting-room, file cabinet, daily record of system, timetable inquiry, phone area code inquiry, postcode inquiry, law & rules inquiry, etc. OA system is better than network office system in function, which adopts full-automatic installation tools, configuration tools, and data base management tools developed by unique technology in installation and maintenance. By this, system can be installed within 30 seconds and maintained without professional personnel.

OA系统采用基于WEB的企业计算，主HTTP服务器采用了世界上最先进的Apache服务器，性能稳定可靠。

OA system adopts the WEB-based enterprise computing method, and the world-advanced Apache server with stable and reliable performance which is adopted in main HTTP server.

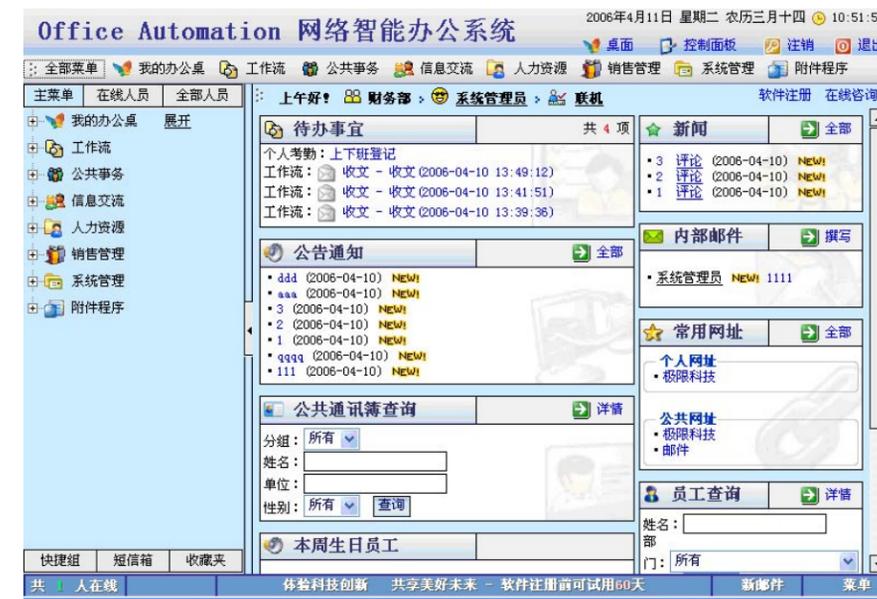
数据存取集中控制，避免了数据泄漏的可能。完善的密码验证与登录验证机制更加强了系统安全性，并且所有页面均进行身份验证和权限验证。

The central-controlled database prevents the data from getting leaked. Perfect systems of password verification and log-in verification strengthen the security of system with identity verification and authority verification for every page.

基于工作流的公文流转和业务管理，使得业务表单、流程步骤和权限都可以由用户灵活定制。公文流转支持使用多种格式的附件。

The work processing-based official document circulation and business management make the business forms, procedures and authorities to be flexibly customized by users. And the use of appendix in many forms is supported by the official document circulation.

达意隆OA智能办公系统主界面及其组成 The main interface and formation of Tech-Long OA Intelligent Official Working System



菜单有三种显示的方式: Three Display Mode for Menu

菜单栏: 列出所有主菜单，用于选择菜单框显示的上级主菜单，如果点击【全部菜单】，菜单框才将所有主菜单列出。
Menu bar: list all main menu, for selecting menu box displayed previous main menu, only by clicking 【all menu】 can all the main menu be listed in menu box.

菜单框: 根据菜单栏的选择列出菜单树形结构表。
Menu frame: List tree-menu like structure form according to the selection of menu bar

菜单窗: 点击状态栏右侧的【菜单】，即可弹出独立的菜单窗口，该窗口显示所有菜单树形结构表。
Menu window: Click 【menu】 on the right of status bar, and the independent menu window will pop-up in which the tree-like structure form will be displayed.

系统默认的主菜单主要由8大部分组成，分别是我的办公桌、工作流、公共事务、信息交流、人力资源、销售管理、系统管理、附件程序。不同角色的用户进入系统后可使用的功能是不同的。
The system-acquiesced main menu consists of eight segments, including my desk, work flow, public affairs, information exchange, human resources, sales management, system management and appendix program. Users in different roles can enjoy different application functions.

Text by: Tech-long Yang Lv/Mukee
Pictures by: Tech-long Yang Lv

品味

德国啤酒文化

Taste German beer culture



关于啤酒的起源，众说纷纭，一种比较可靠的说法是：欧洲大陆上的农场主在收割之后，总是把麦子堆放在粮仓内，这些简陋的粮仓往往因屋顶漏水而使仓内的麦子受潮，从而开始发芽并发酵，一位大胆的农民好奇地尝试了一下，发现这种液体又香又美味可口，从此人们便模仿着依样画葫芦，这样最原始的“啤酒”便问世了。

On the origin of beer, there is an relatively reliable view among different opinions: the farmer of Continental Europe always piled up wheat in granaries which were so simple and crude that make wheat in them damped because of the water leaking into from the roof, then the wheat began to sprout and ferment. Once an audacious local peasant had a taste with curiosity and discovered that the liquid was delicious. Ever since then, people begin to follow the same method, and the original "beer" came into existence.

就像瓷器使人联想到中国、樱花使人想到日本、牛仔使人想到美国一样，啤酒让人想到的是德国。德国是世界上啤酒消耗量最大的国家，德国人酷爱喝啤酒，因此德国形成了一种特殊的“啤酒文化”——有悠久的历史、古老的传说和各式酿制方法，还有专属的节庆和舞蹈。

Just like chinaware reminds people of China, oriental cherry reminds people of Japan, cowherd reminds people of America, beer always reminds us of Germany. Germany is the biggest beer consumers in the world, and Germen are also fond of beer. Therefore, a kind of special "beer culture" is formed in Germany—with long history, ancient legends, all kinds of vintage methods and exclusive festival celebration and dancing.

啤酒之乡——巴伐利亚 Cradle of beer-- Bavaria

在德国最著名的啤酒之乡巴伐利亚，啤酒存在的历史几乎和当地的历史一样悠久，可以追溯到公元前的古罗马时代。人们在巴伐利亚北部的库姆巴赫发现了一些有将近3000年历史的盛啤酒容器。

In the famous cradle of beer--Germany-Bavaria, the history of beer nearly equals to that of the locality, which can date back to Ancient Rome Times B.C. People discovers some beer containers with nearly 3000 years history in Kulmbach, north of Bavaria.

由于巴伐利亚啤酒的历史与当地文化紧密相联，因此啤酒也和天主教息息相关。在阿尔卑斯山北麓上，有条山径直通最原始的巴伐利亚“啤酒天



啤酒的故乡，美丽的巴伐利亚
Cradle of beer , beautiful Bavaria

规模最大的啤酒节-慕尼黑啤酒节

The Largest Beer Festival- Munich Beer Festival



慕尼黑，德国南部重镇，位于阿尔卑斯山北麓，是一座依山傍水、景色秀丽的山城，慕尼黑是一座文化名城，除拥有一家规模巨大的国家图书馆、43个剧院及一所拥有8万多学生的大学外，慕尼黑还有四多，这就是博物馆多、公园喷泉多、雕塑多和啤酒多。

Munich, an important city in south Germany, locates in the northern foot of the Alps. It is a pretty mountain city situated at the foot of a hill and beside a stream. Munich is a well-known cultural city. Besides a huge national library, 43 theaters and a university with more than 80 thousand students, Munich possesses 'Four Large'—large number of museum, large number of park fountain, large number of sculpture and large quantity of beer.

每年十月的慕尼黑啤酒节是世界上最盛大的民间节日，届时有来自世界各地宾客来此欢度这一盛大的节日。慕尼黑的啤酒节源于1810年为庆贺巴伐利亚的储君德亲王与萨克森-希尔登豪森的黛丽丝公主共结百年之好而举行的一系列庆祝活动。一百多年来每逢9、10月间，全城街头一派“啤酒气氛”，街

上啤酒小吃摊林立，人们坐在长条木板椅上，手捧能装一公升啤酒的陶瓷大杯，尽情畅饮，整个城市一片欢腾，几百万升啤酒，几十万支香蕉被一扫而光。慕尼黑人的“啤酒肚”也向人们展示他们的能喝善饮。

The Munich Beer Festival held in every October is the grandest folk festival in the world, when guests all over the world will gather in Munich to celebrate this grand festival. Munich Beer Festival has its origin in the series of celebrations for the wedding of Crown-Prince Ludwing of Bavaria and Princess Delice of Saxony Wiesn. For more than hundred years, every period between September and October, the streets of the whole city is full of "beer atmosphere" --- among numerous refreshment stands sit the people holding a one-liter big pottery cup of beer in hand and drink heartily. The whole city is bathing in great rejoicing and millions of bananas and billions of cups of beer are finished off. The "beer belly" of Munich people also represents their love and ability for drinking

堂”——修士自行酿造黑啤酒的安蝶斯修道院。这里每年吸引着大批游客前来朝圣。在慕尼黑有座“奥古斯丁”(Augustiner)啤酒厂，酒厂的名字也让人们联想到宗教改革领袖马丁·路德所属的奥古斯丁修士团。据说，由于当时每年复活节前6周的四旬斋期间，修士们不能吃肉，他们便任由“大麦汁”自然发酵，最终生成了一种高酒精度的饮料，并将它作为四旬斋餐饮的代替品。为了使教廷准许他们饮用这种美味的饮料，修士们便送一桶给教皇，教皇品尝后为之倾倒，表示这种饮料可作为“四旬斋餐饮的代替品”及“罪恶的洗涤剂”，并准许巴伐利亚的修道院酿造之。这种美味的饮料便是啤酒，据说啤酒的酿造技术就是这样诞生的。

Due to the close relationship between the history of beer in Bavaria and local culture, beer is also closely bounded up with Catholicism. In the northern foot of the Alps, there is a path leading straightly to the most ancient Bavaria "beer paradise". The friars brew dark beer by themselves. Every year, a great number of pilgrims are attracted here. There is a brewery called "Augustine" (Augustiner) in Munich, and the name of the brewery reminds us of the Augustine brother group to which religion reform leader Martin.Luther belonged. It is said that in the period of Quadragesima, six weeks before Easter, friars cannot eat meat, therefore, they let the "barley juice" ferment naturally and finally get a kind of high-alcoholic beverage, which is drunk as the substitute for the fast during Quadragesima. In order to get the permit of the Vatican to have this delicious beverage, friars escorted pontiff a barrel of beer. Pontiff was overwhelmed with admiration after tasting some of that, which showed that this kind of beer can be drunk as "substitute for Quadragesima fast" and "crime detergent" and permitted the brewery in the convents of Bavaria. The delicious drink is the so called beer, and the above story is said to be the birth history of beer.

在德国，有种“啤酒与巴伐利亚”的说法，因为世界上再没有哪个地方的啤酒消耗量可以媲美巴伐利亚。巴伐利亚有1100万居民，每个人的年平均啤酒消耗量为230升，换句话说，每个巴伐利亚人(无论男女老少)每天要喝半升啤酒。因此，许多人说“喝啤酒是德国人‘最爱的休闲活动’，而巴伐利亚人是其中翘楚。”

There is a saying of "beer and Bavaria, because there isn't another place which can compare with Bavaria in consumption of beer. The population of Bavaria is 11 million, with the beer consumption of 230 ml per one person, that is to say, every Bavarian (despite of male or female, young or old) turns to drink 0.5 ml of beer per day. Therefore, people say that "drinking beer is the favorite leisure activity of German, and Bavarians are the top of them".

慕尼黑著名景点宁芬堡门前的天鹅
The swan in front of the gate of Nymphenburg-
the famous scenic spot in Munich



巴伐利亚北部有种举世无双的“石头啤酒”。酿造这种啤酒必须将重约400公斤的石头放在山毛榉堆上烤，而且温度须高达1200℃。然后把烤得红热的石头放进煮沸釜中。石头的高温使麦芽糖迅速转变为焦糖，紧紧粘附在石头上，之后再吧石头放进发酵槽中，迅速冷却的焦糖再次溶解，如此便使这种啤酒中含有一种特殊的烟熏味了。

There is an unique kind of stone beer “ in the north of Bavaria. To brew this kind of beer, you must bake the 400-kilogram-stone on beech until the temperature is over 1200 °C. And then put the baked stone which has already been hot and red into boiling pot. The heat of the baked stone quickly makes the malt sugar change into caramel and closely adhered on the stone. Then put the stone back into the fermenter to make the fast-cooled caramel dissolve again. Brewed in this way, there will be a special flavor in beer.

由于德国人将喝酒视为每天的“必修课”，各种酒馆、酒屋、小客栈便多似天上的星星。人口仅有100万的慕尼黑就有3000多个每天都座无虚席的啤酒馆。几乎每个踏进酒馆的人至少都点半升啤酒佐餐(最受欢迎的是“比尔森”啤酒)，但人们最常点的还是一升。所以“一升”在慕尼黑及整个巴伐利亚可说是个“计量单位”，当地还盛行一谚语“有节制地一天喝一升，健康赛神仙”。人们也不只是进餐时才喝酒，几乎是随时随地喝。德国各地几乎都有“啤酒公园”，只要太阳一露脸，人们就蜂拥而至啤酒公园，尽情享受一下大自然。

Due that German consider drinking beer as daily “ required course “, all kinds of public houses, bars, small inns are established like the stars in the sky. There are only 1 million people in Munich, and the number of the beer bar reaches 3000 with no empty seat. Everyone that steps into the bars will at least order 0.5ml-beer to go with meal (the most popular one is called Pilsen “ beer), however, usually people will order one liter. Therefore, “ one liter “ can be stated as a “ measurement unit “ in Munich and whole Bavaria, there is also a very famous local proverb, which goes like: “a liter a day, keep you more healthy than Lord”. People drink beer almost everywhere and anytime not just during the meal time. There are “ beer park “ in almost every part of Germany. People will go there and enjoy the nature as long as the sun comes.

慕尼黑一向是公认的“啤酒之都”，每年秋季都会举行世界上规模最大的啤酒节——十月庆典。来自世界各地的观光客纷至沓来，涌向慕尼黑，一品“巴伐利亚啤酒”，并亲身体会德国人民欢庆节日的热闹和喜悦。其实，早从公元1517年起，德国每隔7年就会在慕尼黑举行一场“桶匠之舞”。这种

花式舞蹈是由18人共同演出，他们不断舞动桶箍，并把它弄成王冠，在黑死病终止蔓延的年代，这些桶匠就是第一批通过欢乐的舞蹈而重燃希望之火的灾民。而制造啤酒桶的这种职业，对整个啤酒业和饮酒者都是不可或缺的。不过，由于清洁大木桶的工作不仅费事又昂贵，所以如今只剩下少数酿酒厂遵循古老的习惯将啤酒装进大木桶中。桶装啤酒的味道最是香醇。但真正的桶装啤酒只有小酒厂才会有，其他在各大城市及民俗节中见到的木桶都是假的，只用来装饰而已。

Munich is generally acknowledged as “ city of beer “ where there will be the hugest beer festival—October Ceremony in every autumn. Guests all over the world rushed into Munich tasting “ Bavarian beer “ and sincerely experience the excitement and happiness of the celebration of the German festival. As a matter of fact, “ dance of barrel craftsman ” has been held every seven years ever since 1517 A. D. This fancy dancing is performed by 18 dancers, who wave the kit hoop as crown. In the period of the end of plague, these dancers were the first group of people that relight the fire of hope by joyful dancing. The profession of beer kit manufacture is indispensable to both the whole beer industry and non-abstainers. However, due that the procedure of clean the big kit is bothersome and expensive, and there are few breweries that follow ancient custom filling the beer in big kit. The barreled beer is of the most bouquet kind. However, the barreled beer can only be found in small breweries, and the big barrels in big cities or folk custom festival are fake which are just for decoration.

慕尼黑每年的二三月份还举行著名的“四旬斋节”。每到这时，德国最重要的政治人物汇聚在山城“Nockher-Berg”测试巴伐利亚四旬斋啤酒的品质。过去的测试是这样的：一些“达官贵人”身着皮裤坐在木板凳上，然后开始畅饮新鲜啤酒，并在凳子上坐半个小时，等他们起身时，木板必须能够贴着他们的皮裤，才表示啤酒真正通过了测试，不然就表示这种啤酒浓度太低，没有资格成为“真正的四旬斋啤酒”。

In Munich the famous “ Quadragesima festival “ is held in every February or March. At this moment, the most important politicians of Germany will gather in mountain city “Nockher-Berg” to test the quality of Bavaria Quadragesima Beer. The previous test goes in this way: some high officials and noble lords in chaparajos sit on the bench and begin to drink the fresh beer while sitting on the bench for half an hour. When the stand up the plank should adhere on the chaparajos, only in this way can prove the beer qualified. The failure may show that the density of beer is too low and the failed beer is not qualified to be “ the real Quadragesima beer “.

每年的慕尼黑啤酒节都会吸引上千万游客参加，规模异常壮观
over ten millions of guests are attracted by the Munich Beer Festival every year, the scale is extremely grand.



慕尼黑街头随处可见的啤酒小屋
Beer house is available everywhere on the streets of Munich



烤鱼是慕尼黑啤酒节中常见的小吃
Grilled fish is a kind of familiar snack in
Munich Beer Festival.



今天，政治人物仍在波克啤酒与音乐相伴下见面，仪式与前却有不同：政治人物聚集之后便举行开桶仪式(即将第一桶啤酒开封)，好让那些挑剔的嘴品尝、点评。艺术家与演员也获准参与这项仪式，他们可以用幽默机智的方式公开谴责政治人物的恶行，甚至公然揭露这些政治人物的“真面目”。这种活跃、充满嘲讽的“政治大游行”真算得上是世界独一无二的戏剧演出，这都是啤酒节的功劳。另外，在斯图加特、科隆、多特蒙德等地，也有啤酒节举行，热闹非凡。

Nowadays, politicians still gather in the companionship of Bolker beer and music but the ceremony is different from the past: after the gathering of politicians, they will host the kit-open ceremony(to open the first kit of beer), to let the nitpicking 'mouth' taste and comment. Artists and performers are also permitted to participate in this ceremony. They, in a humorous quick-witted and public way, can condemn politicians for their vicious behavior or even reveal the "true faces" of the so called politicians. The kind of active and ironic politics parade "can really be regarded as the unique drama performance, which is the contribution of the Beer Festival. In addition, Beer Festival is also held in Stuttgart, Cologne, Totmontto, etc. and they are also extremely lively.

始终渗透于德国文化之中 Bathing in the German Culture

北欧以前的传统是由女性酿造啤酒的，那些女性就是传说中的“女武神”(北欧神话中决定谁该阵亡并将阵亡将士引至英烈祠的女神)，她们酿造出的酒被视为“不死之水”。这种习俗也流传到了德国北部，年轻女人出嫁时会带着不同的酿造器具到夫家。这种传统直到公元8世纪葡萄酒文化的涌入才有所改变。由于德国地处北欧，气候严寒，啤酒不仅可以御寒，还跟洋葱一样被当成药物，用来医治坏血病，加上严寒不能种植葡萄，啤酒便成了德国的饮料之王。

According to the previous of the North European tradition, beer is always brewed by women, those women are the "Goddesses of Military"(the Goddess that determine who would fall in battle and lead the beds of honors to the ancestral hall of heroic martyr). And the beer they brewed is consider as "water of eternal life". The same custom has spreaded to North Germany as well, and when young women get married, they will take different kinds of vintage wares to their husband's house. This tradition does not change until the pour-in of the grape wine culture in the 8th century A.D.

德国人都以自己的啤酒文化的精纯而自豪，这是有

史可考的。公元1516年，巴伐利亚公爵威廉四世为了保持啤酒的精纯，编纂了一部严苛的法典“精纯戒律”，明确规定只能大麦(以及后来的大麦芽汁)、水及啤酒花生产啤酒，这是人类历史上最古老的食品法律文献。

Because Germany locates in North Europe, and is severe cold, beer can not only keep out the cold but also be regarded as medicine just like onion to cure scurvy. Meanwhile, grasp cannot grow in severe cold weather, and beer logically becomes the king of beverage in Germany. Germen are all proud of the fineness and pureness of their beer culture, which is referable in recorded history. In 1516 A.D. Duke of Bavaria William IV compiled a strict and severe code "Discipline of fineness and pureness" to keep the fine and pureness of beer. In this code, he clearly stipulated that only barley (along with the barley juice later on), water and hops can be used in the brewing of beer, and this code turns to be the most ancient foodstuff law

19世纪工业革命开始后，蒸汽机的出现大大提高了啤酒的产量，冷却器的发明使啤酒可以整年贮存，铁路、海运、航空运输的开拓和发展，使啤酒在更短时间内运往世界各地，复杂的电子设备完成配制、酿造过程，而不再靠人的“灵魂和感觉”了，这使啤酒的品质更加稳定，品种更加多样。

After the industrial revolution in 19th century, the appearance of steam engine greatly improves the output of beer; the invention of cooler make it possible to store beer the whole year; meanwhile, the exploration and development of railway, sea-freight and airline enables people to transport beer to every parts of the world in a shorter and shorter time. And the procedure of compound and brew are done by comprehensive electrical equipments but not by people's "soul and feel", and this makes quality of beer more stable, category more various.

啤酒中含有许多有价值的矿物质和维生素，其低酒精度和高二氧化碳也有助于放松身体，同时能冲刷掉对身体有害的物质，洗净肾脏等。德国人对啤酒的狂热很大部分的原因应该是缘于此。啤酒，从历史走向未来，将一直渗透德国文化中，成为它的一部分。

There are a great deal of valuable mineral substance and vitamin contained in beer, its low alcohol degree and high carbon dioxide can wash the harmful matter away from your body, clean your kidney, etc. And that's why Germen are fanatic with beer. Beer, from the past to the future, will always permeate in Germany culture and be a part of it.

部分资料来源于人民网
part of the materials from People Daily

啤酒节中街头表演的人群
raree- show people at the Beer Festival.

