

我们为用户量身定做，做到最贴身
We make to measure for users, and make it most caring

FOCUS TECH-LONG

聚焦 達意隆

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注塑 Injection

吹瓶 Blow Moulding

前处理 Processing

灌装 Filling

输送 Conveying

装箱 Packing

码垛 palletizing

⋮



总投资8000万元的达意隆四期厂房隆重竣工 P49

The Phase IV workshop of Tech-Long with a gross investment of 80 million yuan completed ceremoniously P49



广州科技创业投资有限公司巨资入股达意隆 P39

Guangzhou Venture Limited invests a huge sum of money to become a shareholder of Tech-Long P39



农夫山泉，好品质的水——达意隆与农夫山泉首次合作成功 P25

Nongfu Spring, water of good quality -Tech-Long succeeded in cooperation with Nongfu Spring P25

达意隆致力于饮料包装设备整线交钥匙工程的领先供应商

Tech-Long is devoted to work as the leading supplier of beverage packaging equipment turn-key projects

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Contents

目录

特别报导 Special Report

- 3 做具有国际竞争力的饮料整线设备供应商
Be a whole line equipments' supplier of beverage with international competitiveness

产品 Products

- 6 达意隆投入开发啤酒灌装设备，与世界优秀的同行同台竞技
Tech-Long invests to develop beer filling equipment, and competes with outstanding peers of the world on the same stage
- 11 CPXX22新型高速吹瓶机，把先进的吹瓶技术带到用户身边
CPXX22 new-type high-speed bottle blow molding machine,Brings advanced bottle blow molding technology for users
- 13 与高速吹瓶设备配套的优势产品-达意隆PET注坯系统
Superior auxiliary products for high-speed bottle blow molding machine,Tech-Long PET injection molding system
- 17 设备系统优化升级-达意隆二次包装设备
Equipment systematic optimization and upgrading- secondary packaging equipment of Tech-Long

实例 Product Running Status

- 25 农夫山泉，好品质的水
-达意隆与农夫山泉首次合作成功
Nongfu Spring, water of good quality,Initial successful cooperation between Tech-Long and Nongfu Spring
- 29 紫江集团，为用户实现期望
-紫江集团为达意隆提供制瓶领域新平台
Zijiang Group realizes expectations of user, Zijiang Group offers new platform of bottle manufacturing field for Tech-long
- 32 乐百氏集团，27层的纯净考验
-乐百氏集团，见证达意隆的腾飞
Robust group, 27 layers of purity tests,Robust group witnesses rapid development of Tech-Long
- 35 生力集团项目，达意隆顺利交付前期设备
Project of San Miguel group,Tech-Long delivered the previous equipments smoothly

简讯点击 News Brief

- 37 达意隆2006年展会预告
Exhibition announcement of Tech-Long in 2006
- 39 广州科技创业投资有限公司巨资入股达意隆
Guangzhou Venture Capital Limited invests a huge sum of money to become a shareholder of Tech-Long
- 40 可口可乐再次订购达意隆吹瓶设备
Hong Kong Swire coca-cola re-ordered the high-speed bottle blow moulding machine from Tech-Long
- 40 达意隆加强国际网络平台建设
Tech-Long strengthens international network platform construction

企业长廊 Enterprise Story

- 41 达意隆总裁王忠先生寄语2006
Words of Mr.Wang Zhong of Tech-Long in 2006
- 45 达意隆斥巨资3000万元引进大型数控加工中心，加工水平跃居世界先进行列
Tech-Long furnished 30 million yuan to introduce the large-scale numerical control machining center, and the processing level leaps to the advanced ranks of the world
- 49 四期厂房竣工，达意隆成为亚洲最大的饮料设备制造基地
With the completion of Phase IV workshop, Tech-Long has become the largest beverage equipment manufacturing base in Asia

行业动态 Industry Dynamics

- 51 酒、饮料优秀平面广告欣赏
Advertisement paly a very important role in publicizing and popularzing of the beverage
- 54 饮料与时尚-啤酒家族新宠：爱尔啤酒
Beverage and fashion ,New favorite of beer family: Ale beer

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做具有国际竞争力的饮料整线设备供应商

Be a whole line equipments' supplier of beverage with international competitiveness

近年，饮料工厂对整线设备的需求持续增长，我们认为努力成为替代进口设备的整线供应商，让我们的产品为广泛的饮料用户服务，是我们今后的发展方向，我们可以为用户带来更大的附加价值和成本优势。

In recent years, the demand for whole line equipment of beverage factory increases continuously, we think it is our developing direction in the future to become the whole line supplier who substitutes the import equipment and let our products serve extensive beverage users. We can bring larger extra value and cost advantages to users.

技术做核心，为用户创造最高利益

Taking technology as the core, and creating supreme interests for users

“与用户合作，为用户创造最高利益”是达意隆一直追求的目标。给用户带来更高的效率是其中的表现之一，而这些都要靠先进的技术来实现。达意隆的宗旨就是以技术为核心为用户创造最高利益。

“Cooperate with users and create supreme interests for users” is the goal that Tech-Long has been pursuing. Bringing higher efficiency to users is one of the goals, and all these will be realized through advanced technology. The aim of Tech-Long is to regard technology as the core and create supreme interests for users

早期，达意隆也生产半自动化的设备，但这只是一种过渡的设备，目前达意隆生产的全自动大型设备已经能够与国外顶尖供应商的设备相媲美，并能够为用户带来利益的最大化。目前许多同行似乎更多地关注如何能够将设备做得更便宜，而忽略了技术。这样的设备可能在短时间内能够带来一些利益，但不能带来长远的利益。在饮料行业竞争激烈的今天，纵观整个行业，用户真正需要的是能够为自己带来长远利益的供应商。达意隆看到用户的这种需求后坚定了以技术为核心的宗旨，不断加强自己的研发力量，达意隆目前已经拥有了达到国内同行最高水平的110人的研发团队。近两年的研发资金已经达到了销售额的7~8%。目前，广东省饮料包装行业

的技术研发中心就设在达意隆总部。

At early stage, Tech-Long also produced the semi-automatic equipment, but it was only a kind of transitional equipment. At present the full-automatic heavy-duty equipment that Tech-Long produces can compare favorably with the equipment of top foreign suppliers, and can bring maximum interests to users. Many counterparts seem to pay close attention to how to make the equipment cheaper, while the technology has been neglected. Perhaps such equipment can bring some interests within short time, but long-term interests cannot be gained. Today competition in the of beverage trade is fierce. Through a general survey of the whole trade, we can see that what users really need is the supplier who can bring long-term interest. After seeing this kind of demand of users, Tech-Long strengthened the aim of taking technology as the core and improving his own research and development strength constantly. Now Tech-Long has a research and development group of 110 persons which has reached highest-level among domestic counterparts. The research and development fund of the past two years has reached 7~8% of the sales volume. Now the technological research and development centre of the beverage packing trade of Guangdong Province is sets up at the general headquarters of Tech-Long.

替代进口设备，带给客户最优的性价比

Substitute the import equipment and bring optimum cost performance for customers
价格无论在什么时候，都是用户所关注的最敏感的问题。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。达意隆正是清楚地看到了其中的市场空白，因此达意隆的目标就是做进口产品的替代产品，带给客户最优的性价比。

Price is always the most sensitive problems that all users concern. The current situation of the beverage packaging machinery is that the foreign equipment is of good performance but the price let a lot of beverage enterprises hang back; Product quality of some domestic beverage packaging machinery suppliers can't meet the high requirements of beverage enterprises. Tech-Long has seen this market blank clearly, and set up its goal to be the substitution of imported products and bring optimum cost performance to customers.

想做到这些并不容易，与国外同行的博弈，是达意隆发展的促动力之一。国外供应商近一两年来加快了本土化的发展步伐，但是真正意义上的本土化并不是轻易就可以达到的，尤其是在成本中的研发成本投入方面。达意隆选择了利用企业的灵活性来与国外企业对抗，这其实是一个兔子与大象相比较的道理。大象一般都不十分灵活，会跳舞的大象灵活但不容易练出，兔子就是要在大象的动作之前，凭借灵活的特点提前动作，取得市场先机。

But it is not easy to accomplish these. Gaming with foreign fellow traders is one of motivators for Tech-Long's development. Foreign suppliers accelerated their developing steps of localization over the past two years, but the real localization can not be achieved easily, especially in the input of research and development cost. The reason that Tech-Long chose to make use of flexibility of enterprises to confront with overseas enterprise is similar to the comparison between a rabbit and an elephant. Generally the elephant is not flexible; elephant that can dance is flexible but not easy to be trained. The rabbit should take measures to gain market priority relying on the flexible characteristic before action of the elephant.

达意隆始终认为：只有性价比最优才是真正的低价。因此，公司的设备一直定位在代替国外进口设备这一水平。在技术性能达到国外同行90%水平的同时，价格远远低于国外进口设备的40%——这是达意隆带给用户的高性低价，也是达意隆在性价比最优理念上最好的诠释。

Tech-Long believes that: Real low price lies in optimum cost performance. So, the equipment of the company has been orientated as at the level of

replacing the foreign imported equipments. While the technical feature reaches 90% of the levels of foreign counterparts, the price is far lower than 40% of the imported equipment --This is the high performance and low price that Tech-Long bring to the users, and which is also the best annotation of Tech-Long's idea of optimum cost performance.

响应市场需求，致力于做全套解决方案的供应商

Respond to market demand and be devoted to becoming a supplier of the complete solution

目前饮料企业在配置包装生产线时都希望能够做到最优化合理，他们希望能够找最少数量的供应商解决整条包装生产线的配置，在这种市场需求下，许多供应商都逐渐扩大了业务范围，达意隆凭借在吹瓶、灌装方面的核心优势，已率先成为整线供应商的佼佼者。目前饮料行业的行业整合现象日趋严重，饮料企业逐渐向规模化发展。在这种情况下，企业就迫切需要高速的包装设备满足大规模工业生产的需要。尤其是在目前前段包装线能够达到每小时3-3.6万瓶生产速度的情况下，后段包装线必须提高效率才能达到整线的效率最优。而目前的情况是，国内后段包装线可以选择的供应商不多，且技术水平相对不高，虽然国外供应商的后段包装线技术水平高，但价格之高又让很多国内用户无法承受。基于市场的这个需求，达意隆已经在后段包装方面加大了研发力度，达意隆的二次包装设备在行业内已有更新的突破。

At present all beverages enterprises hope to achieve optimization while disposing the production line of the packaging. They hope to let minimum number of suppliers solve the disposition of the whole production line of packaging. Under this market demand, a lot of suppliers have expanded the business scope gradually. Tech-Long has taken the lead in becoming an outstanding whole line supplier relying on its key advantages in such respects as bottle blowing and filling. Currently integration has become a common phenomenon in the beverage trade, and the beverage



山东九发使用达意隆整线设备生产“深海泉”产品现场

The scene of "Deep sea spring" water that being produced on Tech-Long's whole line equipments ShanDong Jiu Fa's plant.

enterprises gradually develop towards greater scale. In this case, enterprises are in urgent need of high-speed packaging equipment to meet extensive industrial production. Especially under the condition that currently the speed of production of packaging line at the first phase can reach 30,000-36,000 bottles per hour, only the efficiency of the latter packaging line is improved can the optimum efficiency of the whole line be achieved. But the present situation is that there are few domestic suppliers for the back section of packaging line, and the technical level is relatively low. Though the technology of the back section of packaging line of foreign suppliers is competent, many domestic users cannot afford the high price. Based on the market demand, Tech-Long has devoted more efforts to the research and

development of back section packing. The secondary packaging equipment of Tech-Long has newer breakthrough in the trade.

总体说来，达意隆在市场开发方面特别重视设备的整合能力和交钥匙工程的提供，公司希望能够不断完善产品的类型，以便为用户提供最优化的全套解决方案。Overall, Tech-Long pays special attention to the integration ability of equipment and offering of the turn-key project in market development. The company hopes to improve the type of the products constantly in order to offer optimized complete solution to users.

达意隆整线设备主要包括: The whole line equipment of Tech-Long mainly include

水处理系统、饮料前处理系统、注坯注塑系统、全自动旋转式PET吹瓶机、瓶装饮料灌装系统、五加仑桶装水灌装系统、二次包装设备系统
Water treatment system, Beverage processing system, Injection moulding system, Bolw moulding machine, bottle Water filling line, 5 gallon filling system, Packing system,etc.



达意隆投入开发啤酒灌装设备，与世界优秀的同行同台竞技

Tech-Long invests to develop beer filling equipment, and competes with outstanding peers traders of the world on the same stage

啤酒-健康的饮料
Beer-healthy beverage

啤酒的酿造方式
Method of beer brewing

啤酒是以麦芽、大米、酒花、啤酒酵母和酿造水为原料，在不锈钢设备中经过数周酿造而成的产品，整个生产过程卫生监控严格，环境清洁。啤酒中也没有添加人工化学制剂、色素和防腐剂。因此，啤酒是上等的液体食品。

Beer is a product with malt, rice, hops, beer yeast and water as raw materials, and through several weeks of fermentation in the stainless steel equipment. The hygiene of the whole production process is controlled strictly, and the environment is clean. There are no added artificial chemical preparation, pigment and antiseptic in beer. So, beer is the first-class liquid



food.

啤酒含有大量的有益成分
Beer contains a large amount of beneficial compositions

每升啤酒中一般含有一定数量的糖类物质如葡萄糖、麦芽糖、麦芽三糖等；含有蛋白质的水解产物——肽和氨基等碳水化合物；乙醇量是所有饮料和酒中最低的；含有CO₂，可以协助人们的胃肠运动；含有钠、钾等矿物质，助于人们保持细胞内外的渗透压平衡，也有利于人们解渴和利尿；含有钙、镁、锌、硅等一定数量的人体必须的离子元素；含有丰富的水溶性维生素，有助于降低人们血液中半胱氨酸含量，半胱氨酸含量高会诱发心脏病。

Generally each liter of beer contains certain amounts of carbohydrate such as glucose, malt sugar, maltotriose, etc.; Hydrolysat with protein -- carbon hydrate such as peptide and amino; The ethanol amount is the lowest of all beverages and wine; CO₂, which can help people's stomach intestines activity; Such mineral substance as sodium, potassium, which can help people keep the balance of osmotic pressure inside and outside of cell, and also help people quench his thirst and diuresis; Certain amounts of necessary ion element of human body such as calcium, magnesium, zinc, silicon, etc.; Abundant water soluble vitamin, which can reduce content of the cysteine in people's blood, high content of cysteine can induce heart disease

另外啤酒中存在着多类抗氧化物质，如从原料麦芽和酒花中得到的从酚或类黄酮、在酿造过程中形成的还原酮和类黑酮以及酵母分泌的谷胱甘肽等，都是减少氧自由

基积累的最好的抗氧化物质。

In addition there are many kinds of anti-oxidant materials in beer, e.g. phenol or flavonoids from the raw materials such as malt and hops, reductone and melanoidin in the course of fermentation, and glutathione secreted from yeast. They are all the best anti-oxidant material that can reduce the accumulation of oxygen free radical

啤酒是一种微酸性的饮料，由于人们的食物大多为碱性，因此，饮料的酸性有利于酸碱平衡；

Beer is a kind of sub acid beverage. As people's food is mostly alkaline, so the acidity of the beverage is favorable for the acid - base balance;

这些有益成份使产生了良好的口感，解口渴，同时补充了身体多方面所需的微量元素、营养和热量，成为人们日常生活中必不可缺的一种饮品，适量饮用啤酒有益身体健康。

These beneficial compositions can generate good mouth feel and quench thirsty, at the same time supplement the trace elements, nutrition and heat that the body needs in many aspects. It has become a kind of indispensable drinks for people's daily life. Drinking right amount of beer is beneficial for people's health.

啤酒包装市场现状 Current situation of beer packaging market

目前，啤酒每年的消费在全球占据全部灌装饮料五分之一以上的份额。

At present, the annual consumption of beer occupies more than 1/5 of shares of all filling drinks in the whole world

早在2004年，中国的啤酒销量已经超过美国，而世界最大啤酒商比利时英博集团人士曾表示，中国已成为全球最大啤酒市场。今后10年内，世界啤酒市场的一半增量将来自中国。世界啤酒业巨头正在通过兼并收购等多种手段，全面介入中国啤酒业的重组整合进程。



As far back as in 2004, the sales volume of beer of China has exceeded U.S.A. The personage of Inbev group of Belgium, which is the world's largest beer producer expressed that China has become the largest beer market in the world. In the following 10 years, half of the increment of the beer market of the world will come from China.

总部设在比利时的英博啤酒集团亚洲区总裁韦理斯说，中国每年啤酒销量已超过290亿升，成为全球最大的啤酒市场。而且这一市场的规模目前正以每年6%至7%的速度在扩大。估计今后10年内，世界啤酒市场增量的50%将来自中国。

Mr. Willis, President of Asia Area of Inbev Beer Group based in Belgium says that the annual sales volume of beer in China has exceeded 29 billion liters, and China has become the largest beer market in the world. And the scale of this market is expanding at an annual rate of 6% to 7% at present. It is estimated that in the following 10 years, half of the increment of the beer market of the world will come from China.

面对啤酒带来的巨大需求，国内啤酒设备供应商具有巨大的发展空间。但是啤酒包装机械属于一种单一行业性专用设备，中国啤酒包装机械的主要市场在东南亚、非洲、俄罗斯等发展中国家。而国际市场基本被国外的包装业巨头所垄断。

The enormous demand brought by the beer provided enormous space for the development of domestic beer equipment supplier. But beer packing machine is a kind of single trade dedicated device. The staple

market of China's beer packing machine lies in such developing countries as Southeast Asia, Africa, Russia, etc. And the international market is basically monopolized by the giants of foreign packing service.

近几年，中国制造设备在国内占有率快速增长，粗略估计，现在国内啤酒生产企业新购国产啤酒设备的比例已达90%左右。选用进口设备主要是一些封箱检测设备、灌装纯生啤酒用的电子阀机及少量高速贴标机。

In recent years, the occupation rate of equipment made in China increases fast in domestic market. It is estimated roughly that 90% of the beer equipment that the domestic manufacturing enterprises purchased recently are from China.

而国际啤酒生产企业受市场竞争的压力的影响，采购本地化已是大势所趋，中国的啤酒设备生产企业具有巨大的市场空间。

The international beer manufacturing enterprise is greatly affected by the pressure of the market competition. Localization of purchase has been the trend of the times; so there's enormous market space for the beer equipment manufacturing enterprise of China

达意隆的啤酒灌装设备 Beer filling equipment of Tech-Long

面对庞大的市场，达意隆已开始投入一个全新的领域--啤酒包装设备。达意隆将开发一种玻璃瓶普通啤酒灌装压盖机，用于对普通啤酒或汽酒、含汽软饮料等进行高质量的灌装压盖，同时对于不含汽饮料、纯净水、黄酒、白酒等，也可在0.1MPa的背压下进行一般质量的灌装。

In the face of the huge market, Tech-Long has been devoted to a brand-new field --Beer packaging equipment. Tech-Long will develop a vial ordinary

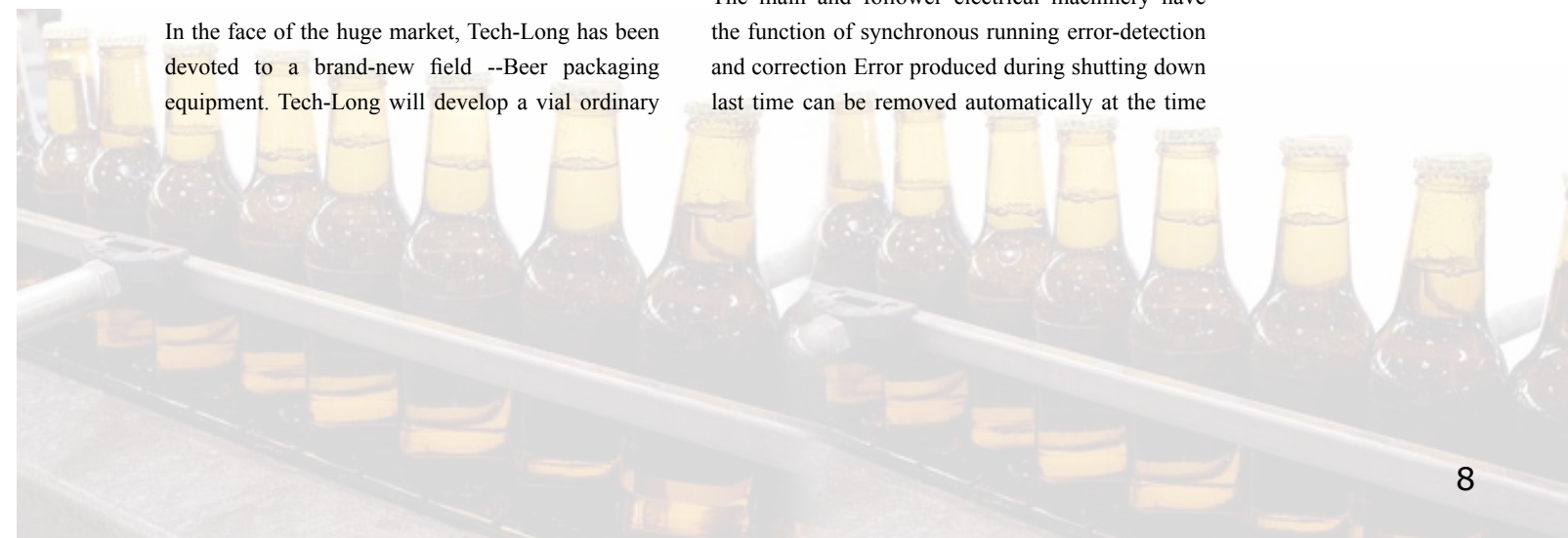
beer machine to be used for high quality filling pressure cover for ordinary beer, light sparkling wine, or CSP drink, etc.; and general quality filling can be done for non CSP drink, pure water, yellow rice wine, white spirit, etc. under a 0.1MPa of back pressure.

该机具有二次抽真空、液位精度高、有瓶抽真空、无瓶不抽真空、高压激泡、自动冲洗破瓶等特点；有瓶无瓶及瓶盖检测等均为自动控制；全机采用集中润滑，噪声小、寿命长。

The machine has such characteristics as secondary vacuum, high level precision, bottled vacuum, non bottled and non vacuum, high pressure excitation bubble, automatic flushing of the broken bottle, etc.; with or without bottles and the bottle lid detection are all controlled automatically; centralized lubrication is adopted for the whole machine, which can ensure little noise and long life

传动所用的两台电机将灌装部分与压盖机、星轮部分单独驱动。采用德国SEW公司的变频同步运行技术，由同步变频控制器来达到两台电机同步运行的目的（按设定好的速度要求）。主电机和从电机均有同步运行误差检测及校正功能，在每次启动时可以自动消除前次停机时产生的误差，没有累积误差。具有结构简单，调整方便，运行精确。

Filling parts and pressure cover machine, star wheel parts of the two electrical machineries for transmission are driven separately. The frequency conversion synchronous running technology of SEW Company of Germany is adopted; the synchronous controller of frequency conversion is used to achieve the purpose of synchronous running of two electrical machineries (according to the requirement of established speed). The main and follower electrical machinery have the function of synchronous running error-detection and correction Error produced during shutting down last time can be removed automatically at the time



of each start, so there's no accumulated error. It has the characteristics of simple structure, convenient adjustment and accurate running.

来自进瓶输送带的瓶子被进瓶螺杆分隔开（使瓶距与灌装缸阀距相等），并且传递给进给星轮。星轮把瓶子推到提升气缸瓶台托板的中心上，在此处，在提升气缸的提升运动被启动之前，它们被对中导向装置夹住。在灌装过程完成和提升气缸的机械向下运动之后，瓶子被导瓶板送给传送星轮。此星轮把瓶子传递到压盖机星轮上。然后，压盖机星轮将它们准确地定中心在压盖机压盖柱塞平台座上。当压盖过程完成之后，出瓶星轮将灌装完毕了的瓶转送到出瓶输送带。

Bottles which come from the conveyer belt are separated by bottle feeding screw rod (enable the bottle distance equal to valve distance of filling case), and transmitted to feeding star wheel. The star wheel pushes the bottle onto the centre of the lifting air cylinder bottle platform board, here, before the promoting movement of the lifting air cylinder is started, they are clipped by the centering guide device. After the completion of filling process and the machinery that lift the air cylinder moves downward, the bottle is conveyed to the star wheel by the bottle guiding board. This star wheel transmits the bottle to that of the pressure cover machine. Then the star wheel of pressure cover machine put the centre of bottles accurately on the platform seat of the pressure cover plunger of the pressure cover machine. After finishing the pressure covering, the output bottle star wheel sends the bottles output bottle conveyer belt after filling.

灌装阀位于灌装缸内，在缸内的灌装压力之下它保持关闭状态。当一个瓶子压到阀上之后，操纵阀杆打开，压缩CO₂通道打开。使瓶内压力与缸内压力保持恒定，灌装阀里的主液通道将自动打开。流入的主液将压缩空气排出，并通过一个排气针孔和排气管返回到灌装缸中，当不断增加的液面达到排气管最低面时就将这个通道关闭。从外部将灌装阀机械地关闭，瓶颈内的压力经过一个喷嘴释放出来。万一瓶子破裂，由于瓶子内的压缩空气的压力突然消失，灌装阀将自动迅速关闭，而不让任何更多的主液损失。如果在个别的灌装阀下面瓶子脱漏，电磁锁控制系统将不会打开灌装阀。这种设备产量可达（640ml瓶）

24000瓶/小时，适用于150~350mm瓶高，瓶径在Φ52~84mm之间的瓶型。

The filling valve is in the filling cylinder, and it is in the state of shutting off under the filling pressure within the cylinder. After a bottle is pressed on the valve, the control valve stem opens, and the compression CO₂ pass way opens. Thus the pressure within the bottle and the cylinder are kept constant, and the main liquid pass way of filling valve opens automatically. The inpouring main liquid expels the compressed air, and returns to the filling cylinder through a gas extraction pinhole and exhaust pipe; close this passway when the increasing liquid level reaches the lowest level of exhaust pipe. Close the filling valve mechanically from outside, and the pressure in the bottleneck will be released through a spray nozzle. In case the bottle breaks, because the pressure of the compressed air in the bottle suddenly disappears, the filling valve closes automatically rapidly, and losses of main liquid can be reduced. If the bottle is left out under specific filling valve, the control system of the electric spring lock will not open the filling valve. The output of this kind of equipment can reach (bottle of 640ml) 24000 bottles / hour, and it is suitable for the bottle type with 150~350mm height and a diameter of Φ 52- 84mm.

世界啤酒工艺发展趋势：优质、高效、节能、降耗、环保
Technological development trend of beer in the world: High-quality, high-efficiency, energy-conservation, consumption reduction, and environmental protection

我们一直认为，一条质量好、技术先进，设计合理的啤酒生产线，可以帮助用户生产出优质的产品占领市场，又可以节约成本、提高经济效益。

We always think that a high quality, technologically advanced and rationally designed beer production line can help users to produce high-quality products to dominate the market, save cost and increase economic efficiency.

我国是一个世界啤酒生产大国，但还不是世界啤酒强国。我国现有啤酒企业的能源消耗指标与欧美啤酒厂对比有较大差别。而且不同企业之间也有较大差距。如何缩短与世界先进水平的差距，优质、高效、

节能、降耗、环保的设备将在未来的啤酒市场占有主导地位，这也是中国啤酒走向强国的必经之路！

China is a big beer producing country in the world, but not a powerful one. There's great difference in the energy consumption indexes of the existing beer enterprises of our country and the American and European breweries. And there is greater disparity between different enterprises. To shorten the gap with the advanced international standards, the equipment with high-quality, high-efficiency, energy-conservation, consumption reduction and environmental protection will occupy leading position on the future beer market; this is the only road that China's beer industry becomes powerful!

啤酒领域对于达意隆来说，是一个全新的领域，达意隆面对的是同世界最优秀的同行同台竞技，这无疑是一个极大的挑战，这就要求达意隆要多方面吸收国际先进设

备成功经验，在技术及产品品质等方面严格要求，时刻关注用户的需要，这样才能更稳健地进步与成长。

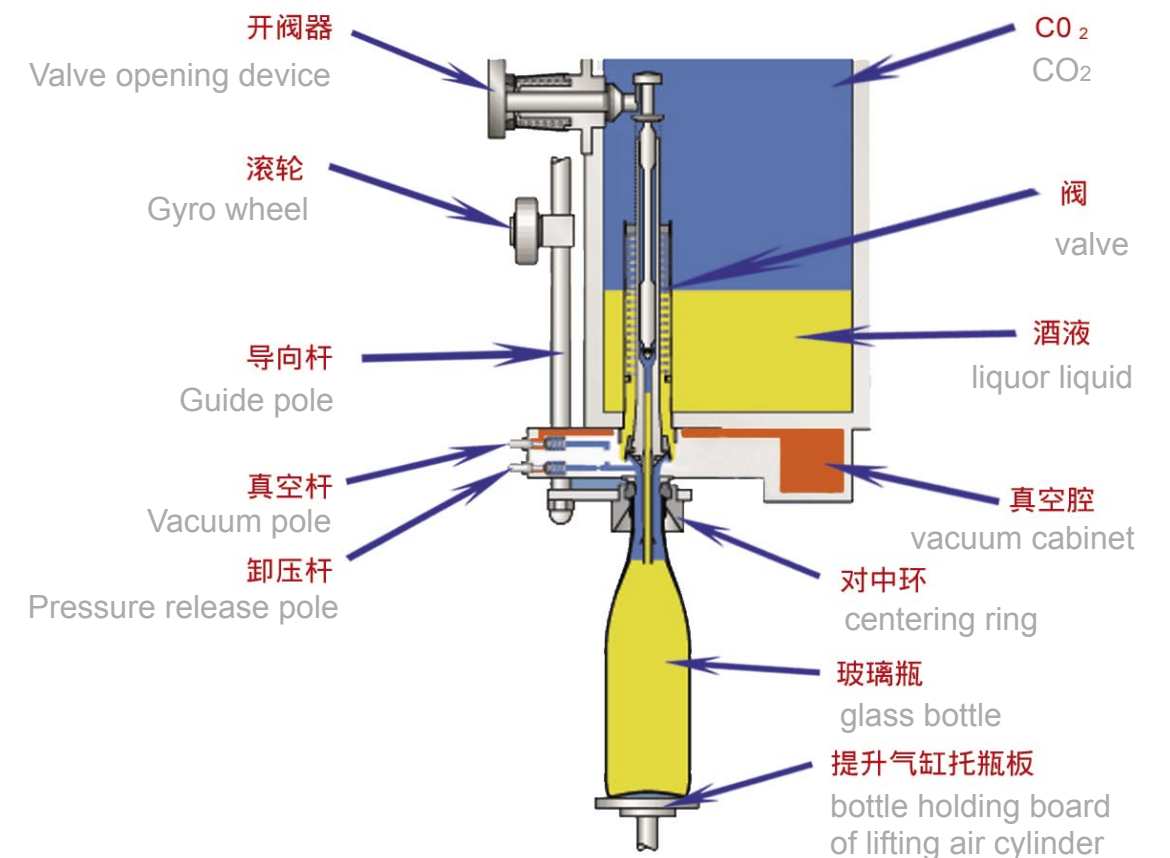
For Tech-Long, beer field is a brand-new field. What it faces is racing with the most outstanding counterpart in the world on the same stage. This is undoubtedly a great challenge, and demands Tech-Long to absorb the successful experience of the international advanced equipment in many aspects, be strict with such aspects as technology and products quality, pay close attention to users' need constantly, only in this way could it improve and grow up steadily.

部分资料来自《酒.饮料技术装备》及《中国啤酒酿造工业》

Some materials came from Technical Equipment for Wine. Beverage and China Brewing Industry

Text by: Tech-long Song Junjie/Mukee
 Picture by: Tech-long Song Junjie

达意隆啤酒灌装设备灌装阀示意图
 The sketch map of the beer filling equipment's filling valve of Tech-Long





CPXX22新型高速吹瓶机

把先进的吹瓶技术带到用户身边

CPXX22 new-type high-speed bottle blow moulding machine Brings advanced bottle blow moulding technology for users

CPXX22是达意隆在RJM14的基础上，采用当今国际最先进的制瓶技术自主研发的新型小瓶形高速吹瓶机，近期将投放市场。

CPXX22 is a new-type high-speed small bottle blow moulding machine researched and developed by Tech-long independently with the most advanced bottle making technology of the world on the basis of RJM14, and it will be put on market in the near future

CPXX22的自动化、智能化程度均比RJM系列有所提高，机器性能稳定可靠，生产效率高、成本低，产品不受中间环节污染，可以广泛应用于食品、饮料、化妆品、医药容器的生产。

The automation and intelligence degree of CPXX22 is improved to some extent than RJM series, with steady and reliable mechanical performance, high production efficiency, low costs, and products are free from pollution of intermediate link; it can be applied extensively in the production of food, beverage, cosmetics, medical containers, etc

CPXX22高压单模产量可以达到1500瓶/模小时，22模腔总产量高达33000瓶/小时（600ml）；

The output of CPXX22 high-pressure single mould can reach 1500 bottles / mould hour, and the total output of 22 moulds are up to 33000 bottles / hour (600ml);

CPXX22瓶坯采用38mm间距加热，比传统加温机节能25%，最大可吹制70mm瓶径；除此之外还选配了废气回收系统，可节约高压气15-20%，能耗大幅降低；这一系列吹瓶机自动化、智能化程度非常高，整个生产过程全部由机器独立完成，无需人工操作；

The preform of CPXX22 is heated with an interval of 38mm. Compared with the tradition heating machine, 25% of energy can be saved, and a maximum of 70mm of bottle diameter can be blown; In addition waste gas recovery system is equipped, and 15-20% of high pressure gas can be saved, the

energy consumption is reduced by a wide margin; The automation and intelligence degree of this line of bottle blow moulding machine are very high. The whole production process is finished by the machine independently, and no manual work is needed;

CPXX22配置了友好的图表人机界面，触摸屏式的工控电脑，机器可以按照人的意愿得到控制，同时人可通过触摸屏反映的数据随时掌握机器运转情况。如发生故障，维修人员可根据触摸屏显示的故障类型、原因等进行维修；

CPXX22 has friendly chart man-machine interface and touch-sensitive screen type industrial computer, by which machine can be controlled according to will of people, at the same time people can know the situation of running of machines through data on the touch-sensitive screen at any time. When it breaks down, the maintenance person can carry on maintenance according to trouble types and reasons etc displayed on the touch-sensitive screen;

CPXX22品质稳定优良，该机配备了稳定的红外线加温系统及高精度的吹瓶模闭合系统，并采用了欧洲知名品牌的高压吹气阀，其余气动元器件及电气元器件均采用国际知名品牌；CPXX22依据产品专门设计的拉伸导轨，保证了吹瓶过程吹制动作的准确性，充分保障了产品品质的稳定性；

The quality of CPXX22 is steady and fine. The machine is equipped with steady infrared heating system and high-accuracy bottle blow moulding closed system, the high pressure pneumatic valve of famous brand of Europe is adopted, other pneumatic components and parts and electric components and parts are of international famous brand; Relying on the specially designed stretching guide rail, the CPXX22 has guaranteed the accuracy of bottle blow moulding action, and fully ensured the stability of the quality of the products;

CPXX22采用了全封闭的生产区域，其优良的自润滑系统，使清洁度进一步提高，完全避免了二次污染，绝对保障了产品的卫

生性。

CPXX22 adopted the totally closed production area. Its fine self-lubricating system improved the cleaning degree, and secondary pollution has been avoided totally, the hygiene of the products is ensured definitely.

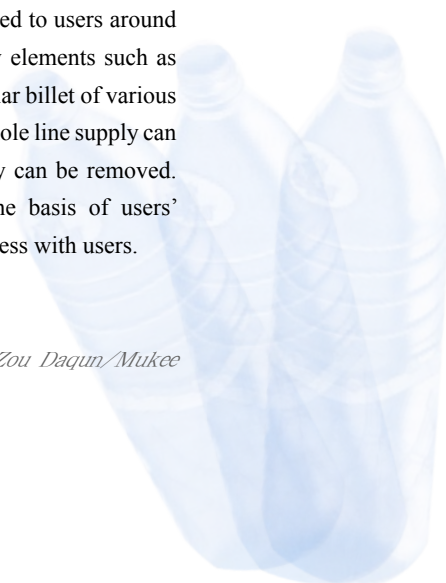
CPXX22采用合理的工艺步骤，在工艺参数的设计上大大减少了电、气、水消耗量，使生产成本大幅度降低；该机体积和占地面积较小，可以使用户减少固定资产的投入，再一次降低了生产成本。

CPXX22 adopts the rational processing step, reduces consumption of electricity, gas and water greatly in the design of the processing parameter, lowers production cost by a large margin; The volume and floor space is relatively small, which can reduce users' input in fixed assets, and the production cost is reduced again

达意隆的吹瓶技术目前已达到国际先进水平，我们除了能为世界各地的用户提供高速度高品质的吹瓶设备之外，还能为用户配套提供各种规格的注塑管坯模具，真正做到整线供应，解除用户的后顾之忧。达意隆时刻根据用户的需求而改变，做到与用户共同进步。

The bottle blow moulding technology of Tech-Long has reached the most advanced international level at present. Besides offering high-quality bottle blow moulding equipment at a high speed to users around the world, we also offer auxiliary elements such as molds for mould plastics and tubular billet of various kinds of specifications, thus the whole line supply can be accomplished and users' worry can be removed. Tech-Long makes changes on the basis of users' demand, and make common progress with users.

Text/picture by: Tech-long Zou Daqun/Mukee



与高速吹瓶设备配套的优势产品

达意隆PET注坯系统

Superior auxiliary products for high-speed bottle blow moulding machine

Tech-Long PET injection molding system

我国PET注坯设备的现状

Current situation of PET injection molding equipment in China

随着PET瓶包装方式在饮料以及更多行业中的应用，市场占有率的逐渐提高，给全自动数控PET瓶注坯机带来了很大的发展机遇。国内目前全自动高速PET瓶注坯设备主要依赖进口，据统计，高昂的设备投入使企业需要大量的固定资产投资，并导致企业的固定成本居高不下，制约了我国饮料行业的规模化发展和市场竞争能力。

The application of PET bottle packing method in the beverage and more trades and the gradual improvement of market share have brought great development opportunity for the full-automatic numerical control PET bottle injection molding machine. At present domestic full-automatic and high speed PET bottle injection molding equipment mainly relies on import. According to statistics, the enterprise needs a large amount of capital investment due to the high equipment input, so the fixed cost of enterprises remains high, thus restricted the scale development and market competitive power of the trade of beverage in our country.

目前全球市场全自动高速PET瓶注坯设备领先的代表公司主要有：加拿大HUSKY公司、瑞士NETSSTAL公司、德

国KRAUSSMAFFEI公司等。这些国家的生产厂家已抢占了全自动高速PET瓶注坯设备工艺技术的制高点，设备的最高生产能力已经达到40000瓶/小时。其产品在模具设计、电气控制、注胶系统、液压系统等关键工艺技术及设备的成套开发能力上已非常成熟。

The leading representative company of full-automatic and high speed PET bottle injection moulding equipment on the global market are mainly as follows: HUSKY company of Canada, NETSSTAL of Swill, KRAUSSMAFFEI of Germany, etc. Manufacturers in these countries have seized the commanding point of full-automatic and high speed PET bottle pinjection moulding equipment; the supreme production capacity of the equipment has reached 40000 bottles / hour. The products are very successful in complete set development ability in its key processing technology and equipment such as mold design, electric control, impregnation system, hydraulic pressure system, etc.

达意隆研发PET注坯系统的契机

Opportunity of research and development of PET injection moulding system of Tech-Long

在达意隆还没有生产注坯设备之前，只能由用户自己购买相应的设备与吹瓶机配

套，达意隆错失了很多商机。在这个过程中达意隆看到了注坯设备的市场前景非常广阔，还可以与现有的吹瓶设备产品配套，于是达意隆决定自主研发生产注坯系统。

Before Tech-Long produced the injection moulding system, users had to buy corresponding related equipment to match bottle blow moulding machine by themselves, so Tech-Long lost a lot of businesses opportunities. During this course Tech-Long saw that the market prospects of the injection moulding equipment are very wide, and it can also form a complete set with the existing bottle blow moulding equipment products, so Tech-Long decided to develop and produce injection moulding system independently.

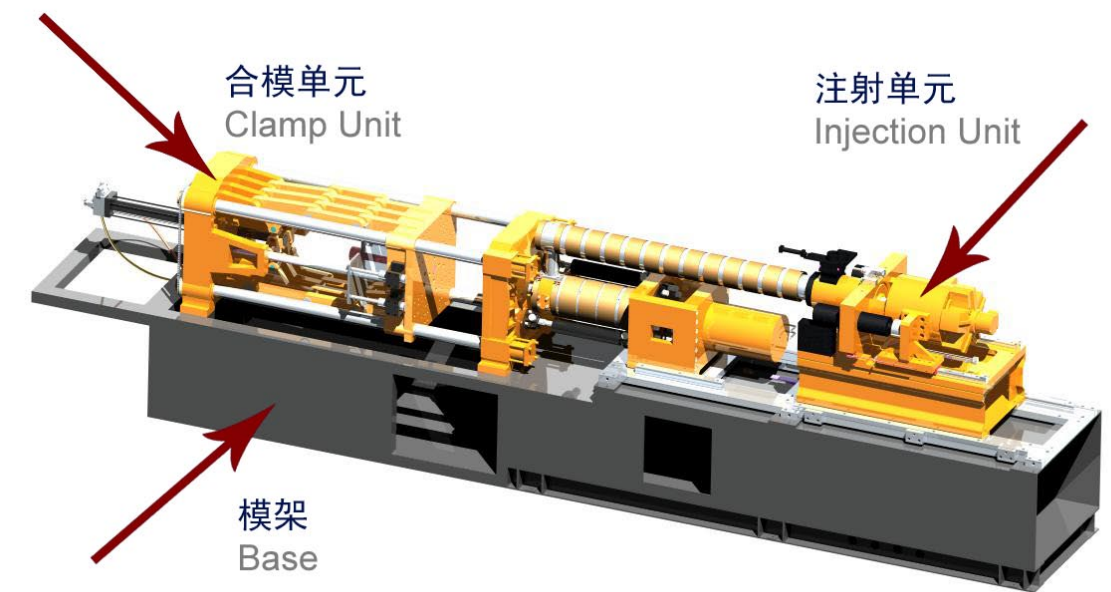
开发具有国内领先水平的全自动高速PET瓶注坯设备，与公司现有的PET瓶吹瓶设备配套，形成成套的大型装备，是达意隆公司今后进一步发展做大做强的重要契机之一。

Developing full-automatic and high speed PET bottle injection moulding equipment with the leading national level, forming a complete set with the existing PET bottle blow moulding equipment of the company to gain a large-scale complete equipment is one of Tech-Long's opportunities to become bigger and more powerful.

达意隆PET注坯系统的优势

Advantage of PET injection moulding system of Tech-Long

达意隆目前已经开始研发16000支/小时全自动数控PET双级注坯系统。此设备主要由



锁模系统、双级注塑系统、液压系统、全自动多工位机械手、高精度模具等几个部分组成。

Tech-Long has begun to research and develop 16000 pieces / hour of full-automatic numerical control PET double stage injection moulding system, which is mainly made up of several parts such as mould locking system, double stage moulding system, hydraulic pressure system, full-automatic multi-stage manipulator, high-accuracy mould, etc..

全自动数控PET双级注坯系统是一种以锁模装置、注射装置以及机械手为主体的大型设备，集原材料的干燥、PET原料的塑化射出、瓶坯的取出、输送、检测等为一体的综合性项目，应用了多项现代高新技术，涉及到高分子、材料、液压、机械加工、电子电器等多学科、多行业。

The full-automatic numerical control PET double-stage injection moulding system is a heavy-duty equipment that takes the mould locking device, inject device and manipulator as the main bodies, and also a comprehensive project that integrates drying of raw material, plastification and penetration of PET raw materials and taking out, conveyance and examination of preform, etc. Multiple modern new and high technologies are adopted, which involve many disciplines and many trades such as high polymer, material, hydraulic pressure, machining, electronic apparatus, etc.

技术先进性:

16000支/小时全自动数控PET双级注坯系统是生产PET瓶的关键设备。目前，我国生产国产全自动高速PET瓶注坯设备的厂家

只有少数的两家公司，而且他们生产的产品一般只有24个模腔，这样的话生产能力一般只能达到4000支/小时至6000支/小时，即使是个别技术先进的厂家，产品也只能做到48个模腔，最大产能也只能达到12000支/小时。而我们开发的产品将会采用国内独有的双级注射技术，而且模腔数可以达到56个，产能达到16000支/小时，整体技术将达到国内领先水平。

Technological advance:

The full-automatic numerical control PET double-stage injection moulding system of 16000 pieces / hour is the key equipment for producing PET bottle. At present, only two or three companies in China can produce full-automatic and high speed PET bottle injection moulding equipment, and generally their products have only 24 mould cabinets, so generally their production capacity can only reach 4000 pieces / hour to 6000 pieces / hour. Even products of some producers with modern techniques can have 48 mould cabinets, and the maximum productivity is only up to 12000 pieces / hour. With the unique double-stage injecting technology in China, the No. of mold cabinets of the products that we will develop can reach 56, the productivity can reach 16000 pieces/hour, the whole technology will reach the leading competence at home.

达意隆专门设计了先进的PET模具热流道，与国内其他厂商相比，不仅节约了生产原料，而且提高了产品质量，加快成型周期（250ml产品的成型周期可保持在11秒左右），提高了生产效率；机械手采用独有的多工位设计，国内的机械手设计都是单工位；将锁模机构进行了优化，避免了机铰容易断裂的现象。

Tech-Long designed a special advanced PET mould hot runner. Compared with other domestic manufacturers, not only the raw materials for production can be saved, but also the product quality can be improved, and the shaping cycle is accelerated (the shaping cycle of 250ml products can be kept in about 11 seconds), and production efficiency is improved; The manipulator adopts the unique multi-stage design, and many domestic manipulators are designed as single-stage; Optimize the mould locking structure, thus the problem of easy breaking of hinge is avoided.

技术创新性:

达意隆公司开发的16000支/小时全自动数控PET双级注坯系统是专门用于注塑PET瓶

坯的设备，所有的设计都以PET原料的特殊性能而设计，因此与传统的注塑机相比，在多个方面进行了技术突破和创新。主要体现在以下几个方面:

Technological innovation:

The 16000 pieces / hour full-automatic numerical control PET double-stage injection moulding system developed by Tech-Long company is an equipment specially used for plastics moulding of PET bottle base. All designs are according to the special performance of the raw materials of PET, so compared with traditional plastics moulding machine, technological break-through and innovation in a lot of respects have been carried on, mainly the following several respects are included:

双级注射系统不但可以加快成型周期，而且最重要的是降低了产品的AA值。

The double-stage injecting systems not only can accelerate the shaping cycle, but also can reduce AA value of the products.

PET模具热流道:

在模具的设计上，由于采用高模腔，所以专门选择了热流道设计。而且，鉴于国内目前的加工水平还存在不足，又专门委托德国厂家加工，从而保证了非常优秀的性能。高质量的热流道的设计不仅节约了生产原料，而且提高了产品质量，加快成型周期，提高生产效率。

Mould hot running of PET:

In the design of mould, because high mould cabinet is used, so special hot running design is chosen; And in view of the insufficiency of domestic processing level at present, we entrust the German producer to process, thus outstanding performance is guaranteed. The high-quality hot running design has not only



saved the raw materials for production, but also improved product quality, accelerate shaping cycle, and improved production efficiency.

优化了的锁模机构:

国内的厂家都采用传统的锁模机构，在使用过程中普遍反映机铰容易断裂，不仅会造成机械故障，还会给客户带来较大的损失。而我们正在开发的项目产品，将会从强度、结构等方面进行优化设计，从而从根本上解决锁模机构机铰断裂的问题。

Optimized mould locking structure:

Most domestic producers adopt the traditional mould locking structure. In the course of using the hinge is easy to break, which will not only cause the mechanical breakdown, but also bring greater loss to customers. But the design of products under our project will be optimized from such respects as intensity and structure, etc., thus the problem of hinge break of mould locking structure shall be solved fundamentally.

采用阀针式注胶口:

这种注胶方式是阀针注射完之后马上关闭，可以做到大流量注射，而且注射的产品不会产生胶口，不需要第二次加工，可以满足国际客户的高质量要求。

Adopt the valve needle type gluing inlet:

In this gluing method, the valve needle will be closed at once after injection, so large flow injection can be made, and glue mouth shall not be generated on the products injected, the second processing is not needed, the high quality requirement of international customers can be met.

采用多工位机械手:

这也是国内独创的，国内其他同行都是采用单工位机械手，我们开发出国内独有的多工位机械手，使成品有充足的时间冷却，大大提高了成品的合格率。

Adopt the multi-stage manipulators:

This is unique at home too. Other domestic counterparts adopt the single stage manipulator. We develop the unique multi-stage manipulators in China, by which the finished products have sufficient time to cool; the qualification rate of the finished product is improved greatly.

市场前景 Market prospects

达意隆开发的注坯设备价格只相当于国外产品的1/4，具有很大的性价比优势，这一举措将打破国外行业巨头技术垄断的局面，大幅降低生产厂家的投资成本，对发展我国包装设备制造行业起到巨大的推动作用。

The price of injection moulding equipment developed by Tech-Long is only equivalent to 1/4 of that of the foreign products, so it has great advantages in cost performance. This action will break the situation of technological monopolization of giants of foreign trade, reduce costs of investment of the manufacturers by a wide margin, and play an enormous role in developing the packing equipment manufacturing trade in our country.

Text/picture by: Tech-long Xu Zhijiang



设备系统优化升级

达意隆二次包装设备

Equipment systematic optimization and upgrading,

Secondary packaging equipment of Tech-Long



国际食品包装机械的发展趋势
Development trend of international food packing machine

据世界包装组织提供的信息，全球包装营业额已逾5000亿美元。国际上食品包装机械的发展是以大型客户的要求为目标，以此带动相关机械的发展。大型客户的要求主要体现在以下方面：

According to the information offered by world packing organize, the turnover of packing in the whole world has and exceeded 500 billion dollars. The development of the food packing machine in the world is to regard the large-scale customers' requirement as the goal, and bring along relevant mechanical development based on this. The large-scale customers' requirements mainly lie in the following respects:

一是对生产效率要求越高越好，这样可以降低单件产品的成本，满足交货期和降低工艺流程成本，同时，高速包装机要求与前道工序有相关衔接，不需搬运环节，包括控制衔接，整个生产线按生产及包装工序排列要做到倒序启动，顺序停机。如冷灌装生产线从塑料原料自动上线到饮料灌装、大包装码垛全部自动在封闭车间内进

行。

First, there are increasingly high expectations for higher production efficiency, thus the cost of single pieces of products can be reduced, delivery date can be met and process circulation cost can be lowered. Meanwhile, the high speed packer requires relevant linking up with the previous process, and no transportation link is needed, including control link. According to the arrangement of production and packing process, the whole production line should start with an inverted order and shuts down according to proper order. If the cold filling production line go to the drink filling automatically from the plastic material, all large package stacking shall done within the closed workshop automatically.

二是能适应产品的更新变化。因为产品的生命周期远短于设备使用寿命，变更产品及包装不至于更换昂贵的包装生产线，故要求包装机械要具有较高的柔性和灵活性，生产线允许在一定的范围内变化包装物大小。

Second, the equipment can adapt to newer changes of products. Because life cycle of products is far shorter than the service life of equipment, changing products and packing will not lead to changes of the expensive packaging production line, so it is required that the packing machine should have higher flexibility and adaptability; the production line should allow to change the size of the packing article in certain

range.

三是将设备的常见故障及解决方案预先输入电脑，当设备出现常见的故障时可以自行诊断，亦可实行远程诊断并排除故障。

Third, input the common troubles and solutions of the equipment in advance in the computer. Common trouble of the equipment can be diagnosed by the operator himself, also long-range diagnose and breakdown fixing can be adopted.

四是自动识别功能。一方面可以自动识别包装材料的厚度、硬度、反弹力等，通过电脑反馈到机械以使机械调整动作。另一方面具有高速视觉功能，各种不同的产品，其排列是有规律的，而生产线传递到的产品是无序的，可以先用探头扫描，确定不同形状的物料位置，再反馈到不同的机械手，它会准确无误地将物品按准确的位置及方向放入包装中，快而且准，不像人工那样会出现视觉及手指的疲劳。

Fourth, function of automatic identification. On the one hand thickness, hardness, rebound strength, etc. of the wrappings can be identified automatically, and then these information are sent to the machinery through computer so that the machinery can adjust movements. On the other hand the equipment should have a high-speed vision function. The arrangement of all kinds of products is regular, but the products transmitted by the production line are unordered. First probe scanning can be used to determine positions of materials with different forms, then feedback to

different manipulators, who can put articles into the package accurately according to precise position and direction. The action is quick and accurate, without the fatigue of the vision and finger like working with manpower.

五是在生产及包装过程中尽量减少污染，包括噪声、粉尘污染、污水等，并尽量减少废弃物。国际先进的作法是采用计算机仿真技术，大大缩短了包装机械（生产线）的设计周期，客户的满意度也大大提高。

Fifth, try best to reduce pollution in the course of production and packing, including noise, dust pollution, sewage, etc., and reduce offals. The internationally advanced practice is to adopt the computer simulation technology to shorten the design cycle of the packing machine (production line) greatly, and the customers' satisfaction improves greatly too.

这种仿真技术的应用提醒包装机械的制造按照部件的功能要先进行模块化，各部件有统一接口，各模块之间可以自由组合。这样可以变包装机械的单件小批生产为各种模块的批量生产，以降低生产成本。即使不是生产线而是单个机器，模块式组合也可以缩短设计及制造周期，降低生产成本。而模块化又可以使非标准零件走向标准化，使用户排除故障方便快捷，也就降低了用户的运行成本。

The application of such simulation technology

reminds that the manufacturing of the packing machine should be modularized first according to functions of the parts. There's unified interface for every part and every module can be combined freely. Thus the single small serial production of packing machine can be turned into the batch process of various kinds of modules to reduce the production cost. Even for production line and not individual machine, the module type combination can shorten the design and cycle too, and reduce the production cost. Modularization also can realize the standardization of non-standard part, and facilitate users to fix a breakdown conveniently and swiftly, thus reduce users' operating cost.

国外的食品包装机械，无论是在生产工艺、设备稳定性，还是在制造水平、设计理念各方面，都领先国内许多年，例如：国际先进的灌装生产线早就能做到每小时12万罐；一条灌装生产线可以卖2亿元；整条灌装生产线只用3个人；膜包机每分钟可开300包；

Foreign food packing machine took the lead for a lot of years, no matter the production technology, equipment stability, or in the manufacturing level, design idea, for example: the internationally advanced filling production line has reached the productivity of 120,000 cans per hour for a long time; a filling production line can sell for 200 million yuan; only 3 people are needed for the whole production line; The shrink wrapper can open 300 packs in a minute;

这几年国内乳业爆发式发展，仅几个龙头大公司就进口了数十条生产线，这无疑给国外设备供应商提供了更广阔的市场.....

Domestic milk industry develops rapidly during these years. Only several leading big companies import several dozens of production lines, which undoubtedly provides the wider market for foreign equipment suppliers

可喜的是，由于国内食品包装机械行业的发展壮大，我国正在迅速迎头赶上，缩短差距，提供的产品已能满足国内大部分的需求，并在国际上产生了“中国威胁”，这大大降低了国外产品的价格与利润，增强了国内设备的竞争力。

What is encouraging is that due to the development and growth of domestic food packing machine trade, China is catching up forthwith rapidly to shorten the difference. The products offered can meet most domestic demands, and has produced China Threat

in the world, which has reduced price and profit of the foreign products greatly, and strengthened the competitiveness of the domestic equipment.

国内食品包装机械市场空间巨大 Enormous space for domestic food packing machine market

在中国，民以食为天。随着改革开放、人民生活水平的提高，尤其是近十余年，中国食品饮料业出现了持续快速发展的势头，总产量每年都有20%以上的提高。每年食品工业销售额达2万余亿元以上，近几年进口的设备都是国内不能制造或者制造水平相差甚远的，进口代表着我们的差距所在。

In China, food is god for the people. With reform and opening-up, and the improvement of living standards of the people, especially in the recent ten years, continued fast developing momentum has appeared in the Chinese food beverage industry, and the total output increased by 20% each year. The annual sales volume of food industry is up to more than 2000 billion yuan, The equipments imported in recent years are those that can not be produced at home or there's great difference in the manufacturing level. Import represents difference.

食品安全问题已为举国关注，如果放任不管，将会影响人们的身体健康、降低人们的生活水平，会对社会的稳定、对食品工业乃至对整个经济发展带来严重的负面影响。因此，国家将会努力提高食品领域的科技和装备水平。

The food security problem has attracted attention of the whole nation. If let it go unchecked, it will influence people's health, lower people's living standard, bring serious negative effect to the stability of society, food industry and even on the whole economic development. So, the country will make great efforts to improve the science and technology and equipment.

由于中国食品和包装机械形成行业仅20这20年又是世界技术发展最快的时期，新技术不断在该行业上应用，而国内该行业的基础薄弱，技术及科研力量不足，其发展相对滞后，在某种程度上拖了食品和包装工业的后腿。总体发展虽然较快，但食品及包装工业发展更快，差距又拉大了。预测到2010年，国内行业总产值可达到1300亿元（现价），而市场需求可能达到2000亿元。这个市场的空穴将会有国外设备来填补。我国的目标是

要缩小这个空穴，为食品工业赶上世界先进水平，为使包装大国向包装强国迈进，提供先进的技术装备，让进口设备在国内市场上只起到拾遗补缺的作用。这就要求国内食品和包装机械发展的年速度超过18%，新产品产值率达到25%。

Because Chinese food and packing machine trade forms only 20 years, and this is the period when the world technology developed with the fastest speed, the new technology is applied on this trade constantly. But the foundation of this trade is weak in China, technological and scientific research strength are insufficient, and its development lags behind relatively, which has hindered the development of the food and packaging industry to a certain extent. Though its overall development is fast, food and packaging industry develop much faster, so disparity has been widened again. It is predicted they by 2010, the gross output value of domestic trade can be up to 130 billion yuan (current rate), and market demand may be up to 200 billion yuan. The gap of market will be filled in by foreign equipment. The goal of our country is to narrow this gap, offer advanced technical equipment to enable the food industry to catch up with the advanced international standards, and change a big packing country to a powerful one, let the import equipment only play a role in picking up the neglected and to supply the deficient on the domestic market. This requires the domestic food and packing machine develop at an annual rate of over 18%, and the rate of output value of the new products reaches 25%.

当前中国的食品和包装机械的一个突出问题是新产品开发周期长，模仿多，新的创意少，这不仅与相关行业的发展有关，也和设计人员的知识水平有关。

An outstanding problem of the food and packing machine of China at present is that the development period of new products is long, most of them are imitated ones, and with little new intention. This not merely relates to development of relevant trades, but has something to do with the designer's knowledge level too.

国外设备高昂的人力与售后服务成本，将迫使他们与用户进行低成本扩张，本地化生产与服务，许多大公司已决定优先采用国内同类设备，这给我国包装机械行业的发展带来了额外机会；同时，随着国内基础工业的长足进步，经过国内同行的不懈努力，随着一批像达意隆这样的企业的崛起，国内设备的地位已越来越高，像每小时2万瓶左右的灌装生产线已难见国外设

备。

The high manpower and service cost after sale of the foreign equipment will force them to carry on the expansion in low cost, localized production and service with users. Many big companies have determined to have priority to adopt the domestic similar equipment, which has brought extra chance to the development of the trade of packing machine of our country; At the same time, with the considerable progress of the domestic basic industries, through the untiring efforts of domestic counterparts, the emergence of such enterprises like Tech-Long, the position of the domestic equipment has been more important, for example, the 20,000 bottles/hour of filling production line seldom adopts foreign equipment.

达意隆有幸处在这样一个有识之士称之为“可做百年”的夕阳产业，只要我们有决心、有毅力、有行动，“百年企业”、“百强企业”都决不是梦想。

Tech-Long is lucky to be engaged in such a setting sun industry which the knowledgeable people say that it can be done for a century. So long as we have resolution, willpower, actions, the “century-old enterprise” and “enterprises of 100 tops” are not dreams.

达意隆公司二次包装机械的发展 Development of secondary packing machine of Tech-Long

对制成品进行后段处理的所有机械设备，统称为二次包装机械，这其实就是我们常说的通用的包装机械，其大致可分为品检、分选、计数、称重、套袋、装箱、膜包、打包、贴标、喷码、输送、码垛、缠绕、无人中转、自动仓储等多种机型。公司现在的二次包装机械还局限销售于饮料行业，事实上，从大米、水泥到家具、空调，几乎所有的产品都可用到包装机械。

All mechanical equipment dealing with the back segment of the manufactured goods is referred to as the secondary packing machine, which is what we call the all-purpose packing machine. It can roughly be divided into many models such as product examined, sorting, counting, weighing, bagging, shrink wrapping, baling, labelling, packing coding, conveying stacking, winding, unmanned transference, automatic storages. At present the secondary packing machines of the company are confined to the beverage trade. In fact, from rice, cement, or furniture, air conditioner, almost all products can use the packing

machine.

正是看到了二次包装机械的巨大市场，在2001年底，达意隆成立了合氏包装机械有限公司（现为包装事业部）与专门机构，开始研发二次包装机械。4年来开发出了简易膜包机、自动膜包机、纸箱裹包机、装箱机、码垛机、卸垛机、机器人、专用输送链等多类十多个产品，还储备了几个新产品，做出了不少成绩，使后段包装产品迅速形成了系列，赢得了同行的称赞。

It is just seeing the enormous market of the secondary packing machine that at the end of 2001, Tech-Long established the Heshi Packaging Machinery Co., Ltd. (Now the Packaging Department) and specialized agency to begin research and development of secondary packaging machine. Over the past 4 years more than ten products have been developed, including simple shrink wrapper, automatic shrink wrapper, carton wrapping machine, case packer, palletizer,depalletizer,stacker, robot, special-purpose conveyance chain, etc., also several new products are stored, and great achievements have been made, series back segment packaging products are formed rapidly, and have won praises from counterparts.

达意隆主要的几大类二次包装机械产品包括以个品种:

The secondary packaging machinery of Tech-Long mainly include the following several varieties

装箱机类

包括落瓶式，抓瓶口式，装箱机器人等。

Case packer

Including falling bottle type, bottle mouth clamping type, case robot, etc.

落瓶式装箱机为合氏公司（现为包装事业部）的第一个产品，经过多少个不眠之夜的摸索调试，当它首次出现在北京包装展时，一位老教授感叹道：我想有这种产品多年，很高兴看到你们开发出来了。以后经过多次的改进，它以简单的结构、良好的适应性与性价比，成为了我们包装机械的第一个定型标准产品。

The falling bottle type casing machine is the first product of the Heshi Company (now the packaging department). Through trying and testing of many sleepless nights, when it appeared in the packaging exhibition of of Beijing for the first time, an old professor said with feeling: I want these products for many years, now I'm glad that you have developed

it. that I want to have this kind of product.

Later after numerous improvements, it has become the first standardized product of packaging machine with simple structure, good adaptability and cost performance.

抓瓶口也是一种常规的装箱方式，但这类机器抓瓶头等磨损较快，相对体积要庞大，价格也不低。

Bottle mouth clamping is a routine way of case packing too, but the bottle clamping head of this machine is easy to wear, and volume is big, and the price is high.

现在的机器人每小时能完成3000次装箱动作，我们已完成这类装箱机器人的设计，并已有客户采用。

The present robot can finish casing movements of 3000 times per hour. We have finished the design of this packing robot, and some customers have adopted.

膜包机类

包括全自动膜包机、简易膜包机等。

Shrink wrapping machine

Including the full-automatic shrink wrapping machine, simple shrink wrapping machine etc.

热收缩膜包装优良的展示性能、低包装成本和运输成本、高自动化程度和生产速度以及美观的形象使它具有极强的生命力，在欧美发达地区早已大行其道，近年来也在中国包装领域兴起。

The fine exhibition performance, low packing and transportation cost, high automatic degree and the speed of production and beautiful appearance of the heat shrink wrapper enable it have extremely strong vitality. This belief has been propagated on a large scale in the developed area of America and Europe, and it also rises in China's packaging field in recent years.

公司敏捷的捕捉到市场寻求，仅用半年多时间、后来先上的推出了全自动热收缩膜包装机这一高难度产品，且电气伺服控制全部自己完成，在国内为首家，就是在后



装箱机 Case packer



膜包机 Shrink wrapping machine

来，几家大品牌做同样的伺服控制也没成功，可见其难度之大。现在青岛啤酒我们的膜包机一直在超速大生产运行，体现了达意隆机械的高品质。

The company quickly caught the opportunity of the market. Only half a year's later, it introduced the highly difficult product-- full-automatic shrink wrapper, and completed the electric servo control by himself. This is the first at home. Even later on, several big brands failed in making the servo control, so it is very difficult. Now our shrink wrapper is running in Tsingtao beer company with high speed and large production scale, which reflects the high-quality of Tech-Long's machinery .

针对客户有许多异型产品需要膜包，且产量不高，要求自动化程度低，我们学习欧美机的长处，又马上推出第二代、第三代简易膜包装机投入市场，有时仅用20天就完成了全部开发设计，体现了我们的市场观念与技术实力；此类机在出口的中、低产量生产线上用的较多。

In view of the fact that customers have a lot of products with abnormal shape to be packed with shrink, the output is not high, and require low automation, we study the strong points of machines in America and Europe, and introduced the second and the third generations of simple shrink wrapper and put them into the market at once; sometimes all development and design are finished in only 20 days, which reflected our market idea and technological capability; this kind of machine are mostly used in the exported production line of medium and low output.

膜包机系列，我们有许多先进技术，已在专利申请中。

For shrink wrapper series, we are applying patent for

many advanced technology.

纸箱裹包机

包括步进式，连续式等。

Carton wrapping machine

Including stepped type, continuous type, etc.

纸箱裹包机相对于装箱机工艺简单，整个装箱、封箱过程一机完成，一般要用到热熔胶封箱。

Compared with packaging machine, the carton wrapping machine has a simple technology. The entire process of casing and sealing can be finished with one machine; generally the hot-melt glue is used to seal the case.

连续式纸箱裹包机产量可做到很大，复杂程度与全自动膜包机相当，不计螺栓螺母仪机械主要零部件清单就达30多页；我们现在销售较多的还是步进式的，产量在每分钟25包。

The output of continuous type carton wrapping machine can be very high, its complexity is equal to the full-automatic shrink packer. The inventory of main spare part of machinery alone is up to more than 30 pages, not including bolts and nuts; Most of the products that we sell now are progressive type, with an output of 25 packs per minute.



纸箱裹包机 Carton wrapping machine

码垛、卸垛机

码垛卸垛机根据产量、场地等的不同，分为高位、低位等多种形式，从简单的单独码垛、卸垛，到复杂的码卸垛两用机，应用范围较广。空瓶码垛机是我们乃至国内需要开发的一个新产品。

Bottle palletizer and depalletizer

According to different outputs and places, etc. the bottle palletizer and depalletizer can be divided into various forms: high position or low position. From simple independent stacking, unloading to complicated dual-purpose machine of stacking and unloading, the range of application is wide. The empty bottle palletizer is a new product that we and even all Chinese counterparts should develop.

机器人

机器人是现代机电一体化设备的杰出代表，技术已相当成熟，在国外已有大量应用，它在解决劳动力不足、提高生产率、改进产品质量和降低生产成本方面，发挥



码垛、卸垛机
Bottle palletizer and depalletizer

着越来越显著的作用，成为保持经济增长速度和产品竞争能力的一支不可缺少的队伍。国内有的汽车生产线就配有上百台机器人。

Robot

Robots are remarkable representatives of the modern electromechanical integrated equipment. The technology has been quite mature, and is applied widely abroad. It plays a more and more remarkable role in solving the problem of insufficient workforce, boosting productivity, improving product quality and reducing production cost, and has become an indispensable team to keep economic growth rate and competitive power of products. Some automobile production lines at home are furnished with more than one hundred robots.

在包装方面，机器人能完成分选、开箱、装箱、码垛、搬运等动作，尤其可用在高低温、多尘、超高、超重、高精度、低故障等环境要求下。随着国内人力成本的提高，综合考虑维修、品牌等因素，必将有更多的客户应用它。如在每小时2千、3千桶的大桶生产线上，若两班生产，用机器人码垛是一个不错的选择。

In packing, the robot can finish such movements as sorting, unpacking, casing, stacking, carrying, etc., especially they can be used under the environment of high and low temperature, many dust, super elevation, high accuracy, low trouble, etc. With the increasing of the domestic manpower cost, and considering such factors as maintenance, brands, etc., more customers will use it. For a large barrel production line with 2,000, 3,000 barrels per hour, and if the production is carried out in double shifts, stacking by robot is a good choice.

我们抓住市场机遇，引进国外名牌机械人，自己进行夹具、输送链、运动程序等的开发，走了一条又快又好的捷径，使之性能满足客户的需要；现已推向市场，走在了国内同行的前列。

We catch the market opportunity, introduce the foreign famous-brand robot, develop jig, conveying chain, movement procedure, etc. by ourselves, and find a good and fast shortcut fast to make performance meet demands of customers; now the robots have been introduced to the market, and is at the forefront of the counterparts at home.

专用输送链

各种输送链在包装生产线中占有重要的位置，造价可占整线的1/4；它可分为平板链、网链、滚珠链、皮带、滚筒、堆积链、特种输送链等多种，我公司已有专门机构进行研究。

Special-purpose conveyer chain

Various kinds of conveyer chains occupy the important position in packing production line, the cost can account for 1/4 of that of the whole line; It can be divided into many types such as flat chain, network chain, ball chain, belt, roller chain, stacked chain, special type conveyer chain, etc. Our company has specialized agencies to carry on this research.

自动仓储设备

自动仓储设备与无人中转车（LGV）配套于大型生产线等，是现代自动物流的高级装备，国内烟草、电子等行业已有应用，我们也在进行这方面的开发准备。

Automatic storage equipment

The automatic storage equipment and laser guided vehicle (LGV) form a complete set on the large-scale production line, they are the advanced equipment of the modern automatic logistics, and have been applied in such trades as domestic tobacco, electron, etc.. We are preparing for the development in this respect too.

Text by: Tech-Long Li weimin

Picture by: Tech-long Hakim

达意隆二次包装机械发展大事记

Memorabilia of the development of secondary packing machine of Tech-Long

- 2001.11 合氏包装机械有限公司成立，二次包装研发开始运作
Heshi Packaging Machinery Co., Ltd. was established, and research and development of secondary packaging began to operate
- 2001.12 推出第一代自动装箱机
Introduced the first generation of automatic case packer
- 2002.5 针对热点，迅速研发全自动热收缩膜包装机投放市场
Aiming at the focus, researched and developed the full-automatic heat-shrink wrapper to put on market rapidly
- 2002.10 完成了卸垛机的设计
Finished the design of depalletizer ;
- 2002.11 完成简易膜包机的设计
The designing of facility shrink wrapper was finished
- 2003.3 正式成立合氏公司技术部、生产部，合氏公司独立运作
Established technological department and production department of Heshi company formally, and Heshi company operated independently
- 2003.7 步进式纸箱裹包机面市
The stepped type carton wrapping machine appeared on the market
- 2003.8 码垛机推出
Palletizer was introduced
- 2003.11 完成第二代简易膜包机的设计
inished the design of second generation of simple shrink wrapping machine
- 2003.12 完成了双通道热收缩膜包装机的设计
Finished the design of the two-passway heat-shink wrapper
- 2004.2 合氏与达意隆公司合并
Heshi was merged with Tech-Long Company
- 2004.6 完成了连续式纸箱裹包机的设计
Finished the design of continuous type carton wrapping machine
- 2004.12 完成了第三代简易膜包机的设计
Finished the design of the third generation of simple shrink wrapper
- 2005.3 采用三维设计软件；对多项装箱技术进行了研究
Adopted the three-dimensional design software; Carried on research in multiple case packing technology
- 2005.6 在国内同行中率先开发码垛机械人，并投入客户使用
Took the lead in developing the robot for stacking among the domestic counterparts, put into use for customers
- 2005.9 码垛机、卸垛机进军香港太古，多种机型出口量大增
The palletizer and depalletizer marched into the Pacific of Hong Kong, the export volume of different types of machines increased greatly

Text by: Tech-Long Li weimin

农夫山泉

好品质的水

Nongfu spring

Water of good quality

农夫山泉股份有限公司成立于1996年，为中国饮料工业十强企业之一。公司品牌“农夫山泉”在国内享有很高的认知度，2002年农夫山泉天然水的总产量达61万吨。中华商业信息中心市场监测报告显示，从1999年至2003年在全国瓶装饮用水十大品牌中，农夫山泉市场综合占有率连续五年荣列第一名。农夫山泉的产值不断递增，每年上一个台阶。2003年后农夫山泉先后推出“夫果园混合果汁饮料”、“尖叫系列功能饮料”，2005年又推出“新概念茶饮料农夫汽茶”，均获得显著成功。

The Nongfu Spring Limited Company was established in 1996. It is one of the top ten enterprises of Chinese beverage industry. The company's brand Nongfu Spring enjoys high cognition degree at home; the total output of natural water of Nongfu Spring was up to 610,000 tons in 2002. According to the market monitoring report of China Commercial Information Central, among ten major brands of national bottled drinking water from 1999 to 2003, market comprehensive occupation rate of Nongfu spring has ranked the first place for five years in succession. The output value of the Nongfu spring is increasing progressively constantly, and goes a step forward each year. Nongfu Spring put out Nongfu Orchard Mixed Fruit drink, Jianjiao Serial Function Beverage successively after the 2003, and introduced new concept tea beverage—Nongfu Soda Tea in 2005, and gained great success.

1997年-2003年底，农夫山泉相继在国家一级水资源保护区浙江省千岛湖、吉林省长白山矿泉水保护区、湖北省丹江口建成五座现代化的饮料工厂，投资总额逾18亿元人民币。2004年，为满足珠三角和港澳地区的市场需求，农夫山泉公司投资10亿，在国家级森林公园广东万绿湖建设华南最大的景点式旅游工厂。

1997 - the end of 2003, Nongfu Spring built up five modernized beverage factories in succession in the national first class water resource protection zones Qiandao Lake of Zhejiang Province, Changbaishan mineral water protection zone of Jilin Province and Danjiangkou of Hubei province, with a total investment of over 1,800 million yuan. In 2004, in order to meet the market demand of Zhujiang Delta, Hong Kong and Macao, Nongfu Spring Company invested 1 billion yuan to build the largest beauty spot type travel factory in South China in Guangdong Wanlu lake, a national-level Forest Park.

农夫山泉的目标是加入世界最优秀的饮用水饮料公司行列，成为中国最具竞争力的企业之一。

The goal of the Nongfu Spring is to join the ranks of the world's most outstanding drinking water beverage company, and become one of the most competitive enterprises of China.

农夫山泉四大水源

Four major water sources of Nongfu Spring

农夫山泉认为，优质的水源是奠定好品牌的基石。不同于其他厂家为节约成本在中心城市建厂与城市争自来水的策略，农夫山泉寻找的都是大山深处的珍贵水源。

The Nongfu Spring thinks that the high-quality source of water is a foundation stone of establishing the good brand. Different from the strategy of other producers who build up the factory in key cities and struggle for running water with city to save cost, Nongfu Spring looks for precious sources of water in mountain depths.

农夫山泉水源地之一 ——国家一级水资源保护区千岛湖

千岛湖，面积580平方公里，森林覆盖率94.7%，空气质量指数一级。这里水质天然清纯，属国家一级水资源保护区。农夫山泉源自千岛湖优质深层水，常年水温12摄氏度，富含天然的钾、钠、钙、镁、偏硅酸等矿物元素。

The first water source of Nongfu Spring -- Qiandao Lake, protection zone of national first class water resource. Qiandao Lake has an area of 580 sq. km., the forest coverage rate is 94.7%, and the air quality index is grade A. The water quality here is natural and pure, and belongs to the national first class water resource protection zone. The Nongfu Spring stems from the high-quality deep water of Qiandao Lake, with a long-term temperature of 12°C, and is rich in such mineral elements as natural potassium, sodium, calcium, magnesium, metasilicic acid, etc..

农夫山泉水源地之二 ——长白山天然矿泉水保护区

长白山腹地的高寒山区，人稀林密。第四纪长白山火山群造就了最好的水源漫长的地质年代，使水中富含丰富的矿物元素。农夫山泉工厂就建在茂密的森林里，取水口错草泉日涌量达三万五千吨，并按国际标准建立水源保护区，周围10平方公里无人居住。

Second of Nongfu Spring's water source -- Natural mineral water protection zone of Changbai Mountain. High and cold mountain area of the hinterland of Changbai Mountain has fewer people and dense forest. The volcano group of Changbai Mountain in Quaternary Period has brought up the best source of water in China. Rich mineral elements exist in the water during long geological epoch. Nongfu Spring builds the factory in the dense forest. The daily water volume of the intake Cuocao Spring is up to 35,000 tons, and the water source protection zone is set up according to international standard, with no people living there around 10 square kilometers.

农夫山泉水源地之三 ——南水北调中线工程源头丹江口水库

位于秦岭大巴山流域的湖北丹江口生产基地，是南水北调中线工程源头，国家一级水资源保护区、亚洲第一大人工淡水湖，水域面积745平方公里，具立体生态系统特征。

Third of water source of Nongfu Spring -- Reservoir of Danjiangkou, source of centre line of South-North Water Diversion Project. The Danjiangkou production base of Hubei, which lies in the Daba mountain basin of Qinling Mountains, is the source of centre line of South-North Water Diversion Project, the national first class water resource protection zone, the largest artificial fresh water lake of Asia, with the water areas of 745 sq. km., and has the three-dimensional ecosystem characteristics.

农夫山泉水源地之四 ——华南最大国家级森林公园万绿湖

广东新丰江水库又名万绿湖，是华南地区最大的国家级森林公园，其中水域面积370平方公里。绿化率达到98%，空气质量达到国家标准一级，水质达到国家一类地表水标准，可直接饮用，并通过东深供水工程间接供往香港。

Fourth of water source of Nongfu Spring ---- Wanlu Lake, the largest national-level forest park in South China. The Xinfengjiang Reservoir of Guangdong, which has another name Wanlu Lake, is the largest national-level forest park of South China, with a water area of 370 sq. km. The afforesting rate is up to 98%, the air quality reaches the national first class standard, the water quality is up to the surface water standard in the country and can be drunk directly, and is used in Hong Kong indirectly through Dongshen water supply project.

农夫山泉广东万绿湖生产基地试生产仪式

主办：农夫山泉有限公司

2005



农夫山泉广东万绿湖生产基地试生产仪式现场，图中从左至右依次为：达意隆集团销售总监孔祥捷先生、农夫山泉公司总经理钟纪钢先生、达意隆集团总裁王忠先生。

Site of trial production ceremony of Guangdong Wanlu lake production base of Nongfu Spring. In the picture the people from left to right are: Mr. Kong XiangJie, sales director of Tech-Long, Mr. Zhong JiGang, general manager of Nongfu Spring Company, Mr. Wang Zhong, president of Tech-Long group.

达意隆与农夫山泉首次合作成功

Initial successful cooperation between Tech-long and Nongfu Spring

2005年12月28日，随着电控按钮的启动，一瓶瓶装着万绿湖源头活水的农夫山泉产品走下生产线。这标志经过5个月建设，投资5亿元的农夫山泉广东万绿湖生产基地正式投入生产。

Nongfu Spring adopts 1200BPH five gallon filling line of Tech-Long On December 28, 2005, with the start of automatically controlled button, bottles of Nongfu Spring products which contain running water at the source of Wanlu Lake were off the production line. This indicated that after 5 months' construction, the Guangdong Wanlu Lake production bases of Nongfu Spring with an investment of 500 million yuan is put into production formally.

农夫山泉广东河源万绿湖生产基地于2006年新年期间试产成功，这个基地是目前为止中国乃至整个亚洲最大的饮料生产基地。万绿湖生产基地占据的是国家级珍

贵的水资源，分两期实施，其中第一期已基本建成，建设总规模为8.9万平方米，生产区域整体洁净度达到10万级。

The trial production of the Wanlu lake production base of Guangdong Heyuan of Nongfu Spring which was conducted at the New Year of 2006 was very successful. This is the largest beverage production base in China and even in Asia. A Wanlu Lake production base occupies the national-level precious water resource. It is implemented in two stages, among them the first stage has been built up basically, with a total scale of construction of 89,000 square meters. The overall cleanliness in the production area reached 100,000 grades.

农夫山泉万绿湖生产基地第一期配备三条生产线，其中包括从达意隆引进的国内最先进的1200BPH旋转式桶装水生产线及从德国、意大利引进2条当今世界最先进

PET瓶灌装生产线。这个生产基地是农夫山泉全国六大生产基地之一，产品主要供应珠三角及港澳市场。二期工程完工后，河源基地最终将配备七条生产线。届时，年产能将达到70万至80万吨，年产值将达15亿元左右。

Three production lines are used in the first stage of Wanlu Lake production base of Nongfu Spring, including China's most advanced 1200BPH rotary type drummed water production line introduced from Tech-Long, and 2 world's most advanced PET bottle filling production lines introduced from Germany and Italy. This production base is one of the six major ones of Nongfu Spring in China. The products mainly supply Zhujiang delta, Hong Kong and Macro markets. After the completion of second stage, the Heyuan base will be equipped with seven production lines finally. At that time, the annual productivity can be up to 700,000 to 800,000 tons, and the annual output will be up to about 1,500 million yuan.

这次合作是农夫山泉与达意隆的第一次亲密接触。从2003年9月起，达意隆总裁王忠先生、销售总监孔祥捷先生曾多次亲赴杭州农夫山泉总部，向客户全面客观地介绍达意隆集团的发展情况和产品的优势。2005年9月30日，国庆节的前一天，客户对达意隆整体发展水平及产品的优势给予了高度的肯定和赞扬，双方代表在杭州签署了1200BPH旋转式PC桶装水生产线的供货合同，这条生产线于12月28日在万绿湖生产基地正式投入生产。

This cooperation is the first intimate contact between Nongfu Spring and Tech-Long. From September of 2003, Mr. Wang Zhong, president of Tech-Long and Mr. Kong XiangJie, the sales director went to Hangzhou, the general headquarters of Nongfu Spring many times to make an overall and objective introduction to customers of the development and advantage of products of Tech-Long. On September 30, 2005, the previous day of National Day, the customer offered affirmation and praise for the overall development level and advantage of the products of Tech-Long. The representatives of both sides signed the supply contract of 1200BPH rotating type PC drummed water production line in Hangzhou. This production line was put into production formally in Wanlu Lake production bases on December 28.

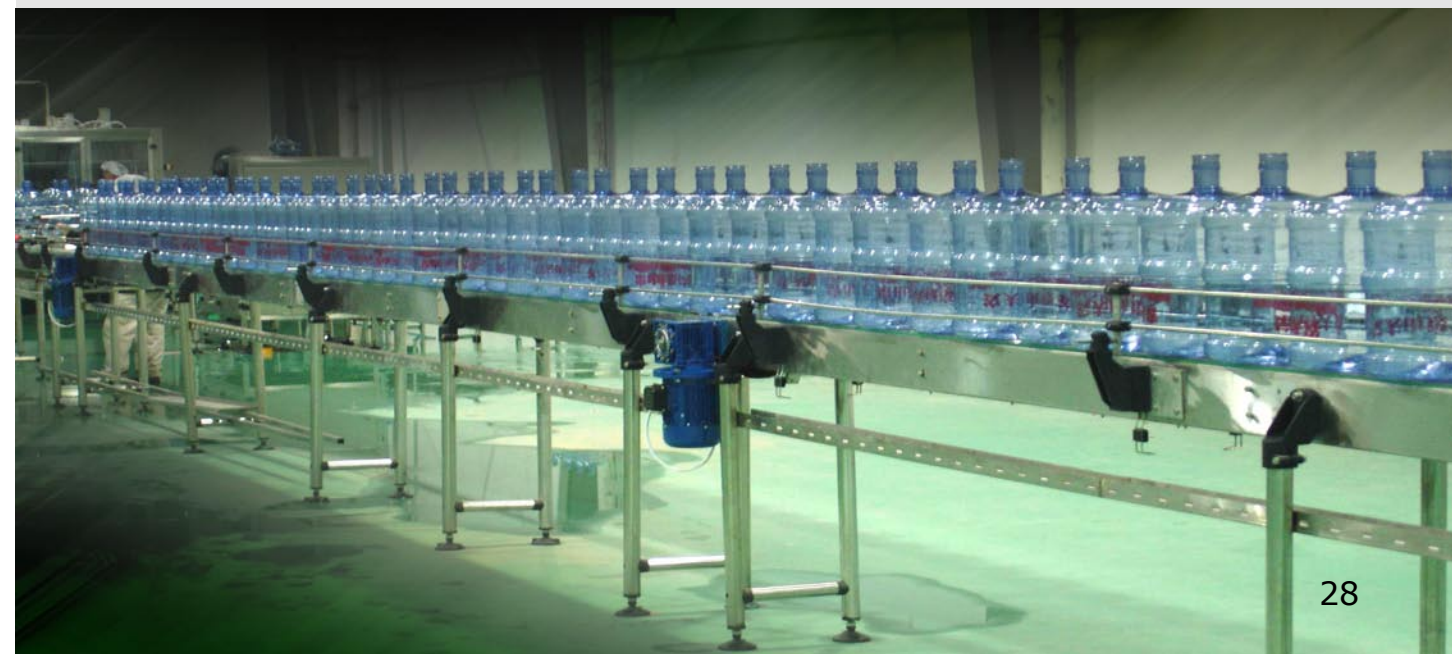
农夫山泉凭借珍贵的水资源，出产了可与世界上任何著名品牌水媲美的高品质水，在与农夫山泉的合作中，达意隆更深刻体会到了产品品质就是企业的生命！

Relying on the precious water resource, Nongfu Spring produces the high-quality water that can be compared with any famous brand water in the world. During cooperation with Nongfu Spring, Tech-Long realized deeply that quality of products is the lives of enterprises!

Text/Picture by: Tech-long Liu Yougang

农夫山泉采用的达意隆1200BPH五加仑灌装生产线

Nongfu Spring adopts 1200BPH five gallon filling line of Tech-Long



紫江集团 为用户实现期望

Zijiang Group, Realizes expectations of users

紫江集团于1989年创立于上海，是以包装业、地产业为核心的综合性多元投资控股集团。PET瓶与瓶坯制造业是上海紫江企业集团股份有限公司的核心产业。

Founded in Shanghai in 1989, Zijiang Group is a comprehensive pluralism investment holding group taking packing service and real estate industry as the core. PET bottles and bottle base manufacturing industries are key industries of Shanghai Zijiang Enterprise Group Co. Ltd.

紫江集团从涉足PET瓶制造领域至今，一直致力于具有环保概念的新型包装材料的开发与制造，在PET瓶与瓶坯制造工艺方面积累了丰富的经验。目前在包装容器、瓶盖标签、薄膜基材、饮料OEM、包装印刷领域形成了独到的优势。

From setting foot in the bottle manufacturing field of PET up to now, Zijiang has been devoted to the development and manufacture of new-type wrappings with environmental protection concept all the time, and has accumulated abundant experience in PET bottle and bottle base manufacturing technology. It has formed its unique advantage in such fields as packing container, bottle lid label, shrink sill, beverage OEM, packages printing field, etc.

紫江集团采用世界最先进的吹塑与注塑设备，以两步法的工艺生产各种规格的PET瓶和瓶坯。特种瓶业占地面积8.7万平方米，是目前世界最大的PET瓶生产企业之一。瓶坯中心占地面积7.1万平方米，以SPC软件监控生产全过程，整个系统采用中央集成控制管理，集瓶坯研发、生产于一体，是目前亚洲地区最大的瓶坯制造中心。紫江集团目前已形成40亿的PET瓶和40亿的瓶坯年生产能力。产品主要供应可口可乐、百事可乐、统一、顶新等著名企业。

Zijiang Group uses the world's most advanced blowing, plastics moulding equipment and two-stage technology to produce various specifications of PET bottle and bottle base. The special bottle industry covers an area of 87,000 square meters, which is one of the biggest PET bottle manufacturing enterprises of the world. The bottle base centre covers an area of 71,000 square meters, and use SPC software to control the whole production course. The whole system adopts central integrated control and management, and integrates the bottle base research, development and production in an organic whole. It is the largest bottle base manufacturing center of Asia. Zijiang Group has formed an annual production capacity of 4 billion PET bottles and 4 billion bottle bases. The products are mainly served for such famous enterprises as coca-cola, Pepesi Cola, Tongyi, Dingxin, etc.

于2003年4月正式成立专业从事饮料OEM的紫泉饮料工业公司，从灌装饮料的研发、代加工生产到物流配送等为国内外饮料品牌提供全方位服务。目前紫泉饮料在中国拥有9条灌装生产线，在宁波、南京、成都、沈阳、武汉均设有生产基地，年产能达5000万标箱。可口可乐、达能、乐百氏、三得利、农夫山泉都是紫泉饮料的稳定的合作伙伴，花莎尼、雀巢、统一、康师傅、伊利等更多的知名饮料企业正在和紫泉饮料建立长期合作关系。

Ziquan Beverage Industrial Company was formally established in April of 2003, which is specialized in beverage OEM. It can offer the omni-directional service for domestic and international beverage brand including research and development of canned beverage, processing and production on a commission basis and logistics etc. Now Ziquan Beverage has 9 filling production lines in China. It has production bases in Ningbo, Nanjing, Chengdu, Shenyang and Wuhan, and the annual output can be up to 50 million cases. Coca-cola, Dannon, Robust, Sandeli, Nongfu Spring are all steady cooperative partners of Ziquan Beverage; more famous beverage enterprise such as Fraser and Neave, Nestle, Tongyi, Chef Kang, Erie, etc. are establishing long-term cooperation with Ziquan Beverage.

紫

江集团真正关心用户在品质和追求卓越方面的需求，在饮料行业是高标准全方位的技术主导者，积极为客户创造价值，所提供的产品与服务完全能够迎合用户的期望。

Zijiang Group really cares about user's demand in quality and pursuing outstanding. It is a high-standard and omni-directional technological leader in the beverage trade, create value for customers actively. The products and service offered can fully cater to user's expectations.

紫江集团为达意隆提供制瓶领域新平台

Zijiang Group offers new platform of bottle manufacturing field for Tech-Long

达意隆与紫江集团的合作，还要从可口可乐说起。早在2002年，紫江集团正式与可口可乐签订了饮料代工业务，建立了长期的合作关系，成为可口可乐这一饮料巨头在中国最大的专业代工企业之一。此后，紫江集团相关负责人参观了上海申美可乐工厂，当时对达意隆提供的18000BPH三合一灌装线和900BPH五加仑生产线有了高度的认可。紫江集团首次对达意隆的肯定为双方未来的合作奠定了良好的基础，这次合作对达意隆来说具有深远的意义。

Tech-Long's cooperation with Zijiang group started from coca-cola. As far back as in 2002, Zijiang Group signed the sub-contract business of beverages with coca-cola formally, and established long-term cooperation. It became one of the coca-cola's (the beverage giant) largest specialized sub-contract enterprises in China. After this, relevant directors of Zijiang Group visited Shanghai Shenmei Coke Factory, and gave high approval of the 18000BPH three-in-one filling line and 900BPH five-gallon production line offered by Tech-Long. Zijiang Group's first approval of Tech-Long has settled good foundation for both sides' future cooperation. This cooperation has a far-reaching meaning for Tech-Long.

2003年4月，上海紫泉饮料工业有限公司成立（以下简称上海紫泉）投产，总投资2980万美元，占地155亩，是专业从事饮料OEM的公司，主要从事国际著名品牌饮料制造，代加工生产热灌装果汁、茶等绿色健康饮料，提供从热灌装饮料的研发、代

加工生产到物流配送等为国内外饮料品牌提供全方位服务，拥有可口可乐、乐百氏等著名品牌客户。

In April of 2003, Shanghai Ziquan Beverage Enterprise Co., Ltd. was established (hereafter referred to as Shanghai Ziquan) and went into operation. With a gross investment of 29,800,000 dollars, an area of 10.333 hectares, it is a company specializing in beverage OEM. It is mainly engaged in drink manufacturing of internationally famous brand, conducts sub-contract production of green healthy beverages such as hotly filling fruit juice, tea, etc., offer omni-directional service for domestic and international beverage brand from the research and development of the hot filling drink, sub-contract production and material flow delivery etc. and has such famous brand customers as coca-cola, Robust, etc..

紫江集团的饮料OEM企业主要包括：

上海紫泉饮料工业有限公司
成都紫泉饮料工业有限公司
沈阳紫泉包装有限公司
南京紫泉饮料工业有限公司
宁波紫泉饮料工业有限公司
武汉紫江包装有限公司

Beverage OEM enterprises of Zijiang Group mainly include:

Shanghai Ziquan Beverage Industrial Co., Ltd.
Chengdu Ziquan Beverage Industrial Co., Ltd.
Shenyang Ziquan Packing Co., Ltd.
Nanjing Ziquan Beverage Industrial Co., Ltd.
Ningbo Ziquan Beverage Industrial Co., Ltd.
Wuhan Zijiang Packing Co., Ltd.

上海紫泉的成立为达意隆提供了与紫江集团合作的更为广阔的空间，也为达意隆在专业制瓶领域的发展提供了新的平台。

The establishment of Shanghai Ziquan offered a wider space for Tech-Long to cooperate with Zijiang group, and also provided a new platform for Tech-Long's development in specialized bottle field.

上海紫泉经过同达意隆进行了多次的技术交流，认可了达意隆的技术能力，随后购买了达意隆热灌装后段输送系统，这标志

着达意隆与紫江集团的合作迈开了新的一大步。

After numerous technical exchanges with Tech-Long, Shanghai Ziquan approved Tech-Long's technological ability, and then purchased Tech-Long's back section of hot filling conveyer systems, which indicates that cooperation between Tech-Long and Zijiang Group take a new great step.

2004年是紫江集团与达意隆的合作全面展开的一年：7月，宁波紫泉购买了达意隆热灌装上瓶系统和后段系统；9月，南京紫泉购买了达意隆热灌装上瓶系统和后段系统；12月，武汉紫江采用世界最先进的生产工艺----吹瓶连线灌装，300BPM冷灌装整线（包括全自动吹瓶机和水处理系统）都是由达意隆提供，吹瓶单机合格率达到99.7%以上，整线效率为90%以上。同月，沈阳紫江也订购了我司一条300BPM冷灌装线和水处理系统。这标志着达意隆与紫江已进入稳定、长期的合作期。

In the year 2004,the cooperation between Zijiang Group and Tech-Long was launched in an all-round way: in July, Ningbo Ziquan bought the hot filling bottle feeding system and back segment system from Tech-Long; in September, Nanjing Ziquan bought the hot filling bottle feeding system and back segment system from Tech-Long; In December, Wuhan Zijiang adopted the most advanced production technology in the world ----Bottle blowing line filling and 300BPM

whole line of cold filling (including full-automatic bottle blowing machine and water process system) offered by Tech-Long, and the unit qualification rate of bottle blowing reached more than 99.7%, and the whole line efficiency is more than 90%. In the same month, Shenyang Zijiang also ordered a 300BPM cold filling line and water process system. All these indicated that the cooperation between Tech-Long and Zijiang has entered a steady and long-term stage.

在与紫江集团的合作过程中，达意隆的收益甚大，紫江集团无论是在整厂设计方面，还是在设备布置等方面的专业经验，都给了达意隆全新理念，达意隆在今后能够更合理、更充分利用空间、节省资源，为整厂的交钥匙工程打好了坚实的基础；而在技术方面，达意隆不但提高了自身的技术能力，而且在与国外著名进口设备配套的技术方面也大大地进步了。

In the course of cooperation with Zijiang group, Tech-Long has gained a lot. Zijiang Group's professional experience in either the whole factory designing or the equipment arrangement gave Tech-Long the brand-new idea. Tech-Long can fully and rationally utilize space, save resources in the future, which have made the solid foundation for the turn-key project of the whole factory; In technology, Tech-Long has not only improved his own technological ability, and has progressed greatly in technology related to famous import equipment of foreign countries.

Text by:Tech-long Wang Feng/Mukee

紫江集团的部分用户

Some users of Zijiang Group



乐百氏集团成立于上1989年，中山小榄是乐百氏集团初期的生产基地，目前，乐百氏集团是中国饮料工业十强之一，是居于世界食品行业领先地位的法国达能集团成员。集团成立初期是以奶制品为主要产品，随着中国消费市场的发展和支装、桶装纯净水等产品概念的引入，乐百氏成为中国最早投入支装、桶装纯净水生产的企业之一。现在，乐百氏集团已成为跨国食品公司达能集团在中国的重要成员，从而获得了更为先进的管理理念和长远的发展潜力与动力。乐百氏致力于生产、经营健康饮料产品，现有乳酸奶系列、牛奶系列、瓶装饮用水系列、桶装饮用水系列、功能性饮料等多个系列的优质产品，可满足不同年龄及层面的消费者的需求。其中纯净水系列采用了目前世界最先进的高科技成果反渗透技术制造，每一滴都经过足足二十七道严格工序，是高品质的纯净水。

Robust group was established in 1989. Xiaolan of Zhongshan was the production base in initial stage of Robust group. At present, Robust group is one of the industrial top ten of Chinese beverage, and members of French Danone Group who occupy leading position of food trade of the world. The group regards milk product as the main products in the initial stage of founding. With the development of Chinese consumer market, and the introduction of such product concepts as the drummed pure water, etc., Robust became one of China's earliest enterprises who are engaged in bottled and drummed pure water production. Now, Robust group has become an important member in China of Danone Group (a transnational food company), and obtained more advanced management idea, long-term development potentiality and motive force. Robust is devoted to production and management of healthy beverage products. The existing many series of quality products such as lactic acid series, milk series, bottled drinking water series, drummed drinking water series, energy water, etc. can meet the demands of consumers of different ages and levels. Among them the pure water series are made with the world's most advanced high-tech result-- counter-infiltration technology, every drop has undergone 27 rigorous processes, so high-quality pure water has been gained.

乐百氏以“成为在健康食品领域内最有可持续性发展能力的公司”为发展目标，以“创造健康生活，共享成功利益”为企业使命。乐百氏希望通过不断向大众提供更多优质、美味、营养的健康食品，满足大众的生活需求，提升大众的生活品质，营造健康的生活氛围；同时，乐百氏关注和尊重每一个消费者、员工和合作伙伴，与他们共享成功利益和美好人生。

Robust takes “becoming a company that has the most sustainable development ability in the healthy food field “ as the development goal, and takes “creating healthy life and sharing successful interests” as the enterprise's mission. Robust hopes to meet the masses' life demand, promote their quality of life and build healthy life atmosphere through offering more high-quality, delicious, nutritious healthy food to the masses constantly; Meanwhile, Robust pays close attention to and respects every consumer, staff and cooperative partner, and shares interests of success and beautiful life with them.

乐百氏集团在全国各大城市设有近三十个分公司，现有中山、武汉、丰润、重庆、成都、西安、沈阳等十个大型生产基地，年产销量将近100万吨。

Robust group sets up nearly 30 branch companies in large cities of the whole country, and owns ten large-scale production bases such as Zhongshan, Wuhan, Fengrun, Chongqing, Chengdu, Xi'an, Shenyang, etc.. Now the annual volume of production and marketing is nearly 1 million tons



乐百氏集团

27层的纯净考验

Robust group

27 layers of purity tests



乐百氏集团 见证达意隆 的腾飞！

Robust
group,
witnesses
rapid
development
of
Tech-Long!

乐百氏集团是一个年轻的企业，但却创造了令世人瞩目的成绩，这些成绩凝聚着创业者和全体乐百氏人的智慧和汗水，乐百氏在创业十几年间所沉积和升华的价值理念，是乐百氏人智慧与汗水的闪光点，也是乐百氏人在过去经营实践中所形成的独特的乐百氏企业文化的核心。

Robust group is a young enterprise, but has created the achievement that has attracted people's attention. These achievements condense intelligence and sweat of the entrepreneur and all Robust people. Robust's value and idea that have deposited and distilled for more than ten years during starting the undertaking are the shining points of intelligence and sweat of people of Robust, and is also the core of unique Robust corporate culture formed in the course of management practice.

乐百氏集团与达意隆的合作关系起始于1999年，当年乐百氏从达意隆公司购进了2套450BPH五加仑设备，在此之后又相继购进9套450BPH五加仑生产线以及相应配套水处理系统。8年来乐百氏一直与达意隆公司建立并保持了良好的合作伙伴关系，达意隆在乐百氏集团的多个项目中提供了品质优良的的设备、领先的技术及周到的服务支持，而乐百氏也为达意隆品牌的建立起到很好的宣传和推动作用，使达意隆再一次增强了为世界优秀的饮料企业服务的决心与信心。

Cooperation between Robust group and Tech-Long originated in 1999. Robust bought 2 450BPH five-gallon equipment from Tech-Long that year, then

bought 9 450BPH five-gallon production lines and corresponding related water process systems in succession. Over the past 8 years Robust has established and kept good partnership with Tech-long. Tech-Long offered best quality equipment, leading technology and thoughtful service support for many projects of Robust group, and Robust plays an important role in publicizing and promotion of the establishment of Tech-Long brand, which enables Tech-Long to strengthen its resolution and confidence of serving outstanding beverage enterprises of the world.

2002年，已被全球食品饮料界巨头法国达能集团收购的乐百氏集团，开始酝酿从国外引入一种新概念新包装的饮料产品。经过与国内同类型厂家的竞争，达意隆公司凭借实力再一次取得了乐百氏的信任。乐百氏于同年9月一次性购买了两条18000BPH热灌装整线，并于2003年4月一次投产成功，这也是达能集团在全球第一次使用中国制造的热灌装生产线。在以后的两年，这两条生产线生产的产品“脉动”在中国市场取得了空前的成功，宣起了大口瓶功能饮料的一股新潮流，各大饮料厂商也相继推出了自己的同类产品。乐百氏丰润工厂的总经理游天富在与我们座谈时，曾诚恳的说了一句：“你们的生产线这两年为我们乐百氏做了不小的贡献啊。”达意隆公司也在此次合作中收获很多。不仅第一次尝试制作大产量灌装机并取得了成功，而且以乐百氏这个知名客户为自身品牌的宣传点，从而在日后的国内大型灌装机领域建立了行业领航者的地位。可以说这次合作达意隆取得了空前的成果，并且为达能集团在中国的本土化采

购建立了信心。2003年9月，乐百氏集团再次购买了一条28000BPH热灌装配套生产线，并于2004年3月在郑州一次投产成功。再次表明了乐百氏以及达能集团对达意隆的认可。

In 2002, Robust group, who has been purchased by French Danone Group (a giant in global food and beverage circle), planned to introduce a beverage product that has new concept and new packing from foreign countries. Through competition with the domestic producers of the same type, Tech-long gained the trust of Robust again relying on its capability. Robust bought two 18000BPH hot filling whole lines on a lump-sum basis in September of the same year, and succeeded in putting into operation in April, 2003. This is the first time for Danone Group to use the hot filling production line made in China. During the following two years, "Mizone", the product produced in these two production lines made unprecedented success on the Chinese market, and lead a new trend for function beverages with large mouth bottle. Then other large beverage manufacturers put out their own similar products in succession. The general manager of Robust Fengrun factory You Tianfu said sincerely while having an informal discussion with us, "Your production lines have made great contributions for our Robust in these two years." Tech-Long also reaps a lot from this cooperation. Not only its first trial to make large output filling machine has achieved success, but regarding the famous customer Robust as the point to publicize the brand, thus established the position of the trade leaders in the large-scaly filling machinery field at home in the future. We can say Tech-Long has made unprecedented achievements from this cooperation, and set up the confidence of Danone Group to purchase in China. In September 2003, Robust group bought a 28000BPH hot filling auxiliary production line again, and went into operation successfully in Zhengzhou in March of 2004. These have shown Robust and Danone Group's approval of Tech-long again.

2002年底至2003年初，乐百氏集团购买了一条1200BPH和一条2000BPH旋转式五加仑生产线以及配套水处理系统，其中2000BPH五加仑生产线摆放在乐百氏广州工厂，于2003年5月投产，并验证了旋转式灌装技术在高速五加仑灌装线上具有很大的优势。在此之后，全国各大水厂相继上线大型旋转式五加仑生产线。而这些厂家在基本上会选择达意隆的灌装设备，如今达意隆在大型五加仑灌装机领域里再次建

立了霸主地位。

From the end of 2002 to the beginning of 2003, Robust group bought a 1200BPH and a 2000BPH rotary five-gallon production lines and related water process system, among which the 2000BPH five-gallon production line was put in the factory of Robust Guangzhou, and went into operation in May of 2003. It proved that the rotary type filling technology had great advantage in high speed five-gallon filling lines. After this, many large water works in China bought large-scale rotating type production line of five gallons in succession. And most of these producers will select Tech-Long's filling equipment. Tech-Long set up its hegemony again on the field of large-scale five gallon filling machine nowadays.

如今的乐百氏集团在新的领导班子的带领下正稳步实现着一个个目标，而与达意隆的合作也越来越广泛和深入。现在，达意隆公司已经与乐百氏集团在吹瓶领域建立了合作，乐百氏也针对全自动吹瓶机向达意隆提出了很多的有益建议。相信不久，达意隆的全自动吹瓶设备将再次为乐百氏的发展做出贡献，而乐百氏也将再次见证达意隆的成长与腾飞。

Today Robust group is realizing the goals one by one steadily under the leadership of new leading group, and the cooperation with Tech-Long becomes more and more extensive and deepening. Now Tech-Long has established cooperation with Robust group in the field of bottle blowing, and Robust has raised a lot of beneficial suggestions to Tech-Long concerning full-automatic bottle blowing machine. We believe that soon Tech-Long's full-automatic bottle blowing equipment will make contributions to the development of Robust again, and Robust will witness Tech-Long's growth and rapid development again.

Text/picture by:Tech-long Zen Jing/Mukee

乐百氏技术中心主任
付宝全先生(左)与
达意隆华南区销售经
理曾晶(右)

Director of Robust
technique center
Mr. Fu BaoQuan
(Left), Zeng Jing,
sales manager
of South China
district of Tech-
Long (Right)





2006年4月，顺德龙江生力建筑工地
In April of 2006, Sanic construction site of Longjiang in Shunde

生力集团项目

达意隆顺利交付前期设备

Project of San Miguel Group

Tech-Long delivered the previous equipments smoothly

生力(广东)食品饮料有限公司(以下简称生力)是菲律宾最大食品饮料公司生力集团的中国分公司之一,生产基地位于广东顺德龙江镇,是生力集团在华的第七个投资项目,投资金额达4500万美元。预计今年8月投入生产,以生产茶、果蔬等非酒精性和其他健康饮料为主,产品将销往国内和海外市场。生力于2005年5月18日与达意隆签订整

厂设备订单,合同总额高达1.5亿元。

San Miguel (Guangdong) food beverage Co., Ltd. (hereafter referred to as San Miguel) is one of the China Branches of the biggest food beverage Company in Phillipine--San Miguel. Its production base lies in Longjiang town of Guangdong Shunde, and it is the seventh investment project of San Miguel in China, with an investment amount of up to 45 million dollars. It is estimated to be put into production in August this year, mainly produce non-

顺德龙江生力项目达意隆水处理系统管道布局图
Pipeline arrangement of Tech-Long water process system of San Miguel project, Longjiang, Shunde



装载生力项目前期设备的货柜驶入广东生力厂区
The packing cupboard which contains the previous equipments of San Miguel project drives into Guangdong San Miguel factory



alcoholic beverages such as tea, fruits and vegetables, etc. and other health beverages. The products will sell on domestic and overseas markets. San Miguel signed the whole factory equipment order with Tech-Long on May 18, 2005; the total value of the contract is up to 150 million yuan.

生力项目的前期设备近期已开始交付,为了确保工程的顺利进行,达意隆生力工程项目小组成员于4月12日开始驻扎在生力厂区,负责生力工程现场的日常管理、设备安装、工程监理等工作。有效的保证了项目如期顺利进行。

The previous equipment of San Miguel project has begun delivery recently. To ensure the smooth carry-out of the project, the San Miguel project team of Tech-Long began to work in the San Miguel factory on April 12, and be responsible for such works as everyday control, equipment installation, project supervision at the San Miguel project scene. The progress of project can be effectively assured as scheduled.

前期交付设备所有水处理系统安装工程将于5月底完成,6月30日前将完成调试并投产,调配系统及热灌装线于6月份开始安装,7月份调试投产。到目前为止,生力项目的前期设备交付工作进展十分顺利,生力对达意隆的交付工作表示肯定。

All installation engineering of water process systems of previous delivered equipment will be finished at the end of May, debugging and going into operation will be finished before June 30; the installation of blending system and hot filling lines will begin in June, debugging and going into operation will begin in July. Up till now, the delivery work of previous equipment of San Miguel project progress very smoothly, and San Miguel was satisfied with the delivery work of Tech-Long.

生力项目是达意隆的精品工程,也是一个非常复杂的项目,其中凝聚了达意隆人的智慧和汗水,达意隆在与生力的合作中始终秉承的是专业和服务的理念,这一理念也将贯穿达意隆同所有用户的合作过程中。

San Miguel project is an excellent one of Tech-Long, and a complicated project too, which condensed the intelligence and sweat of people in Tech-Long. During cooperation with San Miguel, Tech-Long always inherits the idea of speciality and service, this idea will run through Tech-Long's cooperation with all users.

Text by:Tech-long Fang Heng/Mukee
Picture by:Tech-long Fan Zeng



达意隆2006年展会一览

Exhibition announcement of
Tech-long in 2006

■ 第十届中国国际啤酒、饮料及酿酒工业展览会
第十三届华南国际包装技术展
展会时间: 3.7-3.10
展会地点: 广州国际会议展览中心
展位面积: 36平方米
展位号: 1B102

The tenth China international beer, beverage And wine Industry exhibition
China Drinktec2006
The 13th South China International Packing Technological Exhibition
Sino Pack 2006
Time: 3.7- 3.10

Place: International Convention and Exhibition Center of Guangzhou
The area of exhibition location: 36 square meters
Location number of the exhibition: 1B102

■ 第99届中国出口商品交易会
展会时间: 4.15-4.20
展会地点: 广州国际会展中心
展位号: 25.1L39-40 26.1C23-24
参展设备: 40头灌装机

The 99th China Export Commodities Fair
Time: 4.15-4.20
Exhibition place: International Convention and Exhibition Center of Guangzhou
Location number of the exhibition: 25.1L39-40 26.1C23-24
Equipment for the exhibition: 40-head filling machine

■ 中国国际加工包装机械及器材工业展览会
展会时间: 4.18-4.20
展会地点: 北京中国国际展览中心
展会面积: 36平方米
展位号: 4A13

China International Processing and Packing Machinery and Appliances

Industrial Exhibition Packaging2006
Time: 4.18-4.20
Exhibition place: China International Exhibition Centre of Beijing
The area of exhibition location: 36 square meters
Location number of the exhibition: 4A13

■ 2006 (第十五届) 广州国际食品加工、包装机械及配套器材展览会
展会时间: 5.18-5.20
展会地点: 广州中国出口商品交易会展览馆
展位面积: 18平方米
展位号: 5A07

2006 (the 15th) Guangzhou International Food Processing, Packing Machinery and Necessary Accessories Exhibition
Time: 5.18-5.20
Exhibition place: China Export Commodities Fair exhibition hall of Guangzhou
The area of exhibition location: 18 square meters
Location number of the exhibition: 5A07

■ 第十四届亚洲包装展
展会时间: 6.14-6.17
展会地点: 泰国曼谷国际贸易展览中心
展会面积: 64平方米
展位号: B1

The 14th Asia Packing Exhibition Propak Asia
Time: 6.14-6.17
Exhibition place: Bangkok international Trade Show Central of Thailand
The area of exhibition location: 64 square meters
Location number of the exhibition: B1

■ 中国国际啤酒、饮料技术展
展会时间: 9.5-9.10
展会地点: 北京中国国际展览中心

展位面积: 600平方米
展位号: 5号馆
展出设备: 全线设备

China International Beer, Beverage Technological Exhibition China Brew 2006

Time: 9.5-9.10
Exhibition place: China International Exhibition Centre of Beijing
The area of exhibition location: 600 square meters
Location number of the exhibition: Hall 5
Equipment for exhibition: the whole line equipment

■ 中东 (迪拜) 海湾包装、印刷机械展览会
展会时间: 9.19-22
展会地点: 迪拜国际机场展览中心
展位面积: 150平方米
展位号: 待定
展出设备: RJM10全自动吹瓶机

Middle East (Dubai) Gulf Packing and Printing Machinery Exhibition GULF Print & GULF Pack 2006
Time: 9.19-22
Exhibition place: Exhibition centre of International airport of Dubai
The area of exhibition location: 150 square meters
Location number of the exhibition: Undetermined
Equipment for exhibition: RJM10 full-automatic bottle blowing machine

■ 第100届中国出口商品交易会
展会时间: 10.15-10.20
展会地点: 广州琶洲国际会展中心
展位面积: 18平方米
展位号: 待定

The 100th China Export Commodities Fair
Time: 10.15-10.20

Exhibition place: Guangzhou Pazhou International Convention and Exhibition Center
The area of exhibition location: 18 square meters
Location number of the exhibition: Undetermined

■ 第十八届印尼国际包装展
展会时间: 12.7-10
展会地点: 雅加达国际展览中心
展会面积: 18平方米
展位号: 待定

The 18th Indonesia International Packing Exhibition Propak Indonesia
Time: 12.7-10
Exhibition place: International Exhibition Centre of Jakarta
The area of exhibition location: 18 square meters
Location number of the exhibition: Undetermined



广州科技创业投资有限公司巨资入股达意隆

Guangzhou Venture Capital Limited invests a huge sum of money to become a shareholder of Tech-Long

2006年1月9日上午，达意隆与广州科技创业投资有限公司（以下简称广州科创）举行了隆重而简洁的投资合作签约仪式，至此，达意隆顺利完成了增资扩股的工作，广州科技创业投资有限公司，这一具有政府背景的科技投资公司，将成为达意隆的新股东。

On the morning of January 9, 2006, Tech-Long and Guangzhou Venture Capital Limited held a grand and succinct investment cooperative contract signing ceremony. So far, Tech-Long had finished the work of capital and stock increases smoothly. Guangzhou Venture Capital Limited, a science and technology investment Co., Ltd. with the government as the support, will become Tech-Long's new shareholder.

这一时刻，对于达意隆具有重要的意义。首先，广州科创对达意隆的投资，体现了政府加大对创新型、科技型企业的投入力度，实现经济可持续发展的战略；其次，该项投资又完全是市场行为，表明政府对达意隆过去六年发展的肯定和对达意隆未来前景的看好；再次，达意隆是国内同行业中首家引入战略投资者，这将改善达意隆的治理结构，为公司未来快速稳定的发展提供强有力的财务支持，这将进一步巩固达意隆在同行业中的龙头地位。

This moment has important meanings for Tech-Long. First of all, Guangzhou Venture Capital Limited

in Tech-Long has reflected that the government strengthens the input to innovative, scientific and technological enterprises, realizes the strategy of economic sustainable development; Secondly, the investment is entirely a market behavior, and it indicated the government's affirmation of development of Tech-Long in the past six years and it has an optimistic view of Tech-Long's good prospect; Moreover, Tech-Long is the first one to introduce strategic investment among the domestic counterparts, which will improve the administration structure of Tech-Long, offer strong financial support for fast and steady development in the future of the company. This will further consolidate Tech-Long's leading position in the same trade.

双方在签约仪式上，对达意隆未来的发展方向和规划取得了共识，双方将充分利用各自的资源和优势，推动达意隆更快速、稳步地良性发展。

Both sides have made common understanding in developing direction and planning in the future of Tech-Long on the signing ceremony. Both sides should fully utilize the resource and advantage, promote Tech-Long to begin benign development faster and steadily.

*Text by: Tech-long Wang Weidong
Picture by: Tech-long Hawkins*

香港太古可口可乐再次订购达意隆吹瓶设备

Hong Kong Swire coca-cola re-ordered the high-speed bottle blow moulding machine from Tech-Long

2006年3月3日，达意隆与香港太古可口可乐又签订了一台RJM14全自动吹瓶机订单，这是继达意隆第三代RJM10吹瓶机在香港太古公司成功投产并一次性通过连续72小时无故障验收测试，产品全部通过可口可乐品质认证后，双方在吹瓶设备上的又一次合作。

On March 3, 2006, Tech-Long signed a RJM14 full-automatic bottle blowing machine order with the Swire coca-cola in Hong Kong again, which is another cooperation of both sides on the bottle blowing equipment when Tech-Long's third generation of RJM10 bottle blowing machine has succeed in going into operation in Hongkong Swire coca-cola and passed trouble-free acceptance test for continuous 72 hours, and after all products gained the quality authentication of coca-cola.

此举标志着双方的合作进入了一个崭新的阶段。达



意隆以优异的产品性能、领先的技术创新、极优的性价比、良好的售后服务，再一次赢得香港太古公司的肯定。

This measure indicates the cooperation of both sides enters a brand-new stage. Tech-Long gained the affirmation of the Hongkong Swire Company again with the excellent properties of product, leading technological innovation, extremely excellent cost performance and good after-sale service

Text by: Tech-long Adong

达意隆加强国际网络平台建设

Tech-Long strengthened international network platform construction

为了能更好的让国外客户浏览在网上达意隆公司的信息，达意隆针对这个问题，近期已在美国租赁了网站服务器，解决了网站在国外打开速度较慢或打不开的问题，使国外的客户能快速、稳定的浏览我们的网页、产品信息、产品运行录像等相关资讯。

In order to let foreign customers browse the information of Tech-Long on the internet better, Tech-Long has leased the website server in U.S.A. recently to solve the problem that websites can not be opened of be opened with slow speed abroad, enable foreign customer to brows such relevant information as our webpage, product information, products operating video, etc..

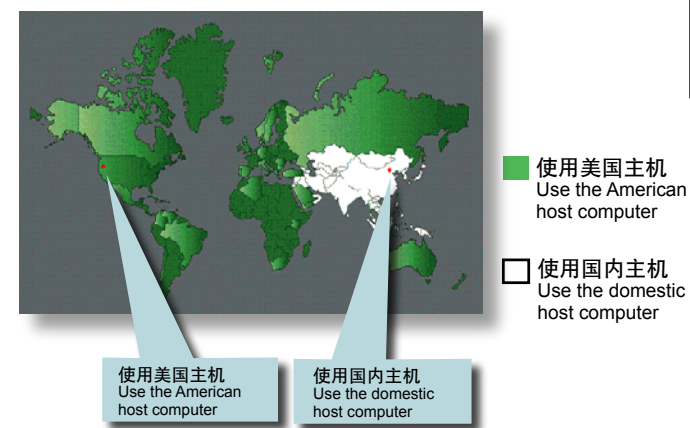
网站采用了IP分析系统，当用户打开www.tech-long.com时，系统会分析用户的所在地区并转向相应的服务器，为用户选择最快的浏览速度。

The websites adopted IP analytical system. When users open www.tech-long.com, the system will analyze users' location and turn to the corresponding servers, and choose the fastest surfing speed for users.

Text/Picture by: Tech-long Richard.Chen

达意隆网站服务器分布及适用用户说明

Explanation of the network server distribution and suitable users of Tech-Long



中国用户 中文站 | 中国 www.tech-long.com
Chinese users Chinese website | China www.tech-long.com

亚洲地区用户 英文站 | 中国 www.tech-long.com
Asian users English website | China www.tech-long.com

非亚洲地区用户 英文站 | 美国 en.tech-long.com
Non-Asian users English website | U.S.A. en.tech-long.com

达意隆总裁王忠先生

寄语 2006

Words of Mr. Wang Zhong

president of Tech-Long in 2006

过去的2005年对达意隆来说是一个不同寻常的年度，也是达意隆稳步成长的一年，达意隆调整了公司的组织和业务结构，力求最大限度的适合目前发展的需要，这一年里达意隆经历了许多风雨，使得年轻的达意隆更加成熟起来。达意隆努力探索企业发展方向和管理方法，不断进行各种尝试和努力，取得了一定的成果；2006年是达意隆发展壮大的第7个年头，新年伊始之际，总裁王忠先生和所有员工共同分享了2005年取得的成绩带来的喜悦，并对新的一年寄予了更深切的期望：

The past 2005 years was an unusual year for Tech-Long, and a year of steady development for Tech-Long. It adjusted the organization of the company and business structure to be suitable for the need of development. In this year Tech-Long experienced a lot of trials and hardships, make the young Tech-Long grow up further. Tech-Long made great efforts to explore enterprise's developing direction and management procedure, made various kinds of attempts and efforts constantly, and certain achievements were gained; 2006 is the 7th year for Tech-Long to develop. At the beginning of New Year, president Wang Zhong and all staff share the happiness brought about by success in 2005, and placed deeper expectations on the new year.

达意隆2005年成绩一览:

An overview of the achievement of Tech-Long in 2005

→ 公司成立新一届董事会，邀请资深的管理专家—世界500强企业的总裁，资深财务专家、中央财经大学教授兼博士加入公司董事会，新的董事会成立已对公司正确发展起到了决定性作用。

The company established the new board of directors, invited the reputable managerial experts - presidents of the world 500 top enterprises, reputable financial experts, professor and concurrently doctor of Central Finance and Economics University to join the board of directors of the company. The new board of directors has played decisive functions on the company's correct development.

→ 通过一年的努力，信息化建设也取得了初步成果。信息化建设的逐步展开将加强对达意隆经营过程的系统分析与全面管理，并将加快达意隆成为具有国际竞争力的现代化企业的进度。Through the efforts of one year, preliminary achievement has been gained in information construction. The gradual expansion of information construction will strengthen the system analysis and overall management of Tech-Long's administrative course, and will accelerate the progress of Tech-Long to become a modernized enterprise with international competitiveness.

→ 公司持续地进行了人才引进工作，各个事业部引进了大量技术人才，包括博士、硕士和各方面专家。不断的人才累积，也必将更加增加达意隆在国际舞台的竞争力。

The company has carried on talent introduction work continuously, a large number of technicians have been introduced for each department, including doctors, masters and experts of various fields. Constant talents accumulation will increase the competitiveness of Tech-long in the international arena.

在市场销售方面取得了令人瞩目的成绩:

- 2005年全年订单突破4亿元人民币，其中吹瓶机首次年度订单过亿元;
- 全年出口突破2000万美元，同比增长60%;
- 与菲律宾生力啤酒签订了折合人民币超过1.5亿元的合同，创造了中国饮料包装机械行业新的历史纪录;
- 在与国际同行业4家最大的对手竞争的情况下，与中国最大的吹瓶制造商珠海中富集团一次性签订10台吹瓶机的合同，彻底改变了吹瓶机的产业格局;与某跨国日用品巨头签订总额超过2亿元人民币的战略合作协议，开拓了达意隆新的业务领域;
- 德国慕尼黑DrinkTekw展会是行业奥运会，达意隆的参展是全会最大的亮点，这证明了达意隆制造与达意隆人正在为世界所瞩目。

Great achievements have been made in market sales:

The order reached 400 million yuan in 2005, among which the annual order of bottle blowing machine exceeded a hundred million yuan for the first time.

- Export exceeded 20 million dollars in the whole year, with an increase of 60% compared with that of last year.
- Signed a contract of over RMB150 million yuan with Philippine San Miguel beer, and created a historical trading record of the Chinese beverage packaging machine.
- Under a situation to compete with the 4 oldest rivals of international counterparts, Tech-long signed a contract of 10 bottle blowing machines with Zhuhai Zhongfu Group, the biggest bottle manufacturer of China, and has completely changed the industrial pattern of the bottle blowing machine.

The signing of the strategic cooperative agreement with a total value of 200 million yuan and above with a transnational daily necessities giant has opened up new business field for Tech-Long.

- Munich DrinkTek exhibition of Germany is the Olympic Games of the industry. Tech-Long's joining is the most brilliant point of the exhibition; this has proved that the manufacturing and the people of Tech-Long are becoming the focus of world.

→ 继续得到了省/市/区乃至各级国家政府部门的大力支持，获得了一系列的资金、科技攻关和技术改造支持以及“广东省饮料包装机械行业工程技术中心”称号。

It has got the continuous support from government departments at province / city / district and even country levels, obtained a series of support in fund, tackling of key scientific and technical problems, technological transformation and title of "Guangdong Beverage Packing Machinery Engineering Center".

→ 以上只是达意隆人在2005年取得的成绩的一部分，这一切表明随着我们客户结构不断调整，业务领域的不断拓展，达意隆不仅已经成为中国同行业的领导者，并且已经走向世界，参与全球化竞争，在国际舞台展示中国制造的的魅力。

The above are only parts of achievement made by Tech-Long in 2005, which indicate that with the changing of structure of our customers and constant expansion of the business field, Tech-Long has not only become China's leader of the same trade, but has gone to the world, participated in the competition for globalization, and showed the glamour of Chinese manufacturing trade in the international arena.



达意隆2006年展望:

Forecast of Tech-Long in 2006

成绩只能代表过去，所有的辉煌都会远逝，2006年对达意隆将是充满更大机遇与挑战的一年，国家创新政策的支持，巨大的市场潜力和全体达意隆人的激情将使得我们在前进的道路上充满胜利的信心；2006年，我们将继续调整经营战略与管理战略，以期待达意隆弱项变强，强项更强，达意隆将着重加强以下几方面工作：

The achievement can only represent the past, all brilliance will die far. 2006 will be a year full of greater opportunity and challenge to Tech-Long. Support of the national innovative policy, enormous market potential and passion of all Tech-Long people make us full of confidence of victories on the road of advancing; In 2006, we will continue adjusting management and administrative strategy to expect that the weak spot of Tech-Long to become stronger and the strong point become stronger. Tech-Long will strengthen the work of the following aspects:

→ 强化经营，创造利润

企业没有利润就无法生存，更谈不上发展，员工的待遇与福利也就无法提高。2006年公司将加强从设计、计划到采购、生产、工程等各个环节的管理，再造生产流程，加强成本控制，实施全面预算管理。公司希望每一位员工献策、献力，共同创造达意隆新的发展阶梯。

Strengthen management and create profits

If there are no profits, enterprises can't survive, let alone development, and the staff's treatment and welfare cannot improve. The company will strengthen management of each link from designing, planning to purchasing, production, engineering, etc. in 2006, redesign the production procedure, strengthen cost control and implement overall budget management. The company hopes every employee gives advice, offers strength and creates Tech-Long's new development ladder together.

→ 加强国际化建设

在成绩背后我们每一位员工都要清醒地看到我们与国际领先水平的差距，为更快的缩小这种距离，公司将在国际化建设上投入更多的力量，无论从管理、市场还是生产、技术全面提升企业的国际竞争力；公司也希望全体员工无论在思想意识还是实际工作中都要有大的转变，从每一件小事做起，把每一个零件、每一个产品做成精品，把达意隆做成精品。

Strengthen internationalization construction

Every employee should be fully aware the gap between us and the international leading level behind achievements. To narrow the gap quickly, the company will put more strength in internationalization construction. Promote the international competitiveness of the enterprise from management, market, production and technology in an all-round way; The company also hopes the staff should have great changes no matter in ideology or the real work, start from every minor matter, make every part and every product into masterpieces, and make the tech-Long into a masterpiece.

→ 加强技术进步，加大技术投入

一直以来，技术领先都是我们达意隆在市场上制胜的法宝，也是达意隆人的骄傲。2006年公司希望继续加快技术进步的速度，加快缩小与国际最高水平的差距，增强核心竞争力。为此经公司管理层报董事会批准，公司设立专项技术进步基金，一期注入人民币100万元，专门用于奖励新产品开发和工艺革新的技术、生产和工程人员，我们将实行奖励项目总数不限，奖励金额不封顶的原则，对为公司技术进步做出贡献并创造出市场价值的员工予以充分的奖励，2006年公司政策将继续向技术向管理倾斜。

Strengthen the technological progressw

increase the input in technology

All the time, Technological advancement is Tech-Long's magic weapon to get the upper hand on the market, and is also the pride of Tech-Long people. The company hopes to continue accelerating the speed of the technological progress in 2006, narrow the gap with the most advanced level in the world, and strengthen the key competitiveness. For this reason, after submission to the board of directors for approval by the management teams, the company sets up special technological progress fund, and invests 1 million yuan during the first stage to reward technical, production and engineering personnel for new product development and process innovation. We will follow the principle of no limit on the total amount of rewarding projects and no limitations on the amount of money awarded; give abundant reward to the staff who has made contributions to the company's technological progress and create market value. The company's policy will continue lay stress on management and technology in 2006.

新的一年新的机遇新的挑战，经历了6年的风雨洗礼后，达意隆将更加成熟，更加充满朝气、充满活力，我们有理由相信，在公司新的董事会指导下，在全体达意隆人共同努力下，达意隆人必将看到风雨后的彩虹，达意隆也必将走向世界走向新的辉煌。

There are new challenges and new opportunities in the New Year. After going through trials and hardships of 6 years, Tech-Long will be more mature, full of vigor and energy. We are convinced that under the guidance of new board of directors of the company, and through people's joint efforts, the Tech-Long people will see rainbow after the trials and hardship, and will move towards the world and new brilliance.



2006-01-23

达意隆斥巨资3000万元引进大型数控加工中心，加工水平跃居世界先进行列

Tech-Long furnished 30 million yuan to introduce the large-scale numerical control machining center, and the processing level leaps to the advanced ranks of the world

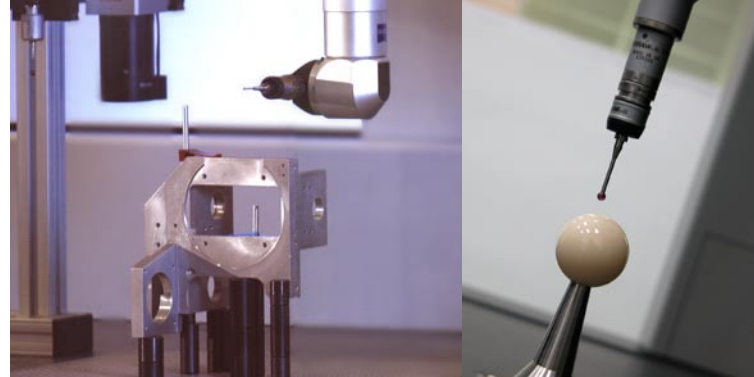
达意隆从创建到成为饮料包装设备制造行业中的领航者，只用了短短的五年时间，在这个过程中我们认为设备质量的保证是成功的最关键部分。

Tech-Long used only five years to become a leader in beverage packaging equipment manufacturing trade from its establishment. We think in this course the assurance of the quality of the equipment is the most key part of success.

■ 品质是企业生命的源头 *Quality is the source of an enterprise's life*

达意隆在发展过程中，一直都确信品质所带来的举足轻重的作用，对“品质是企业生命的源头”也有着非常深刻的理解，早在2000年就开始着手ISO的认证工作，同时开始向企业所有员工导入质量意识，不断加强员工的品质教育，从ISO的质量体系所体现的质量意识到质量对企业生存发展的影响；从人员方面的软件教育到设备上、量测具上的硬件增设，都做了重点投资，多方面提高员工品质监控水平；在配套设施方面也加大了投入，订购了相关的检测设备和仪器，设立了品控组织。2001年，达意隆取得了ISO德国莱茵公司的国际质量体系认证，同年，达意隆凭借技术指标和质量保证的优势顺利地取得了上海申美可乐系统内的第一张灌装机的订单，从而开启了达意隆飞速发展的新的篇章。

In the course of development, Tech-Long always believes the very important function that quality brings, and has a deep understanding to “quality is the source of enterprise's life”. As far back as in 2000 the work of ISO authentication started, at the same time began to introduce quality-mind to the staff, strengthen quality education of staff; from the quality mind embodied in the ISO quality system to the impact of quality on the enterprise's survival and development; Special investment are put in from software education for personnel to the hardware setting up of the equipment or measurement tools, improve staff's quality and control competence in many aspects; Increased input in auxiliary facilities, ordered relevant checkout equipment and instrument and set up product control organization. In 2001, Tech-Long obtained the ISO international quality system authentication of Rhine Company of Germany. At the same year, Tech-Long obtained the first order of filling machine of Shanghai Shenmei Coke system smoothly relying



检测中心

on the advantage in technical indicator and quality guarantee, thus opened the new chapter for the development at full speed of Tech-Long.

■ 达意隆创建初期对零部件品质的控制 *Quality control for spare parts during embryonic stage of Tech-Long*

达意隆在创建初期受自身条件限制，不得不将一些零部件发外加工，这就要求对一些大型精密零部件的加工和制造商的选择非常严格，达意隆采取了三方选定一票否决的方式进行，即零件的加工商在设备、场地、人员、技术符合加工条件后，再由公司的技术部、品控部和工艺师三方在现场认可后方执行委托加工，三方若有一方否决即放弃此加工制造商，从而有力地保障了零部件的加工质量，使达意隆的品牌在用户中的地位逐步提高。

Limited by the condition on the initial stage of establishment, Tech-Long had to have some spare parts processed outside, this demands strict selection of manufacturers to process and produce some large-scale accurate spare parts. Tech-Long took the mode of “selected by three sides and rejected by one vote”, namely when the part manufactures meet the requirement of processing in the equipment, place, person, technology, the technical department, product control department and technologist must approve at site, and then the consigned processing can start; if one of three sides reject and the processing manufacturer should be given up, thus the processing quality of the spare part was ensured effectively, the position of Tech-Long improves progressively among users.

■ 检测中心 确保零配件的精度

*Monitoring center
Guarantee the precision of the accessories*

企业要发展，就要在各方面进行长期的投

入，达意隆在发展过程中也不断地加大投入，不光是在技术、人员、场地方面，质量保证的投入更是达意隆的重点投资，我们认为检测设备是控制手段的根基。

The development of enterprises requires long-term input in various fields. Tech-Long also increases input constantly in the course of development, not only in the aspects of technology, personnel, place, the input in quality guarantees is a key investment of Tech-Long. We think the checkout equipment is the foundation of control means.

在新产品推出前，达意隆首先想的不是如何推出市场，而是如何检测。比如在第二代吹瓶机推出前，达意隆首先的决策是建立高标准、高精度的检测中心，首次投资就达到二百万元，购入了硬度计、光学仪、色普仪、红外线测温仪、三坐标测量仪等一批世界领先级检测设备。如红外线测温仪（日产）可精确地测量出模具内外的温度和其它零件的表面温度，从而可准确地向技术人员提供参考数据，以便选择最适合材料和配件；而三坐标（美国法若级合资）测量范围可精确到5um（微米），检测范围X轴方向10-800mm，Y轴由方向0-1200mm，Z轴方向0-900mm，可精确地测量出每个零配件的误差范围，从而有效地控制了零部件的质量关，同时向技术人员、品质人员提供了数字信息，另外检测中心还配有光学仪、色普仪等专业控制设备，从多方面确定零件加工后的可信、可行度。

Before the new products are introduced, what Tech-Long thinks is not how to put out the market, but how to measure. For example before the second generation of bottle blowing machine is produced, the first decision of Tech-Long is to set up high-standard, high-accuracy monitoring center. It invested 2 million yuan at the first stage to buy a batch of the advanced measuring equipment such as sclerometer, optical instrument, chromatograph, infrared thermoscope, three coordinate measuring apparatus, etc. The infrared thermoscope (made in Japan) can measure the temperature inside and outside the mould and the surface temperature of other parts accurately, thus offer accurate reference data for technical staff to choose suitable materials and fittings; The measure range of three coordinate (joint venture of U.S.A.

and France) can be precise as 5um (micron), testing range along X axle direction is 10-800mm, and along Y axle is 0-1200mm, and along Z axle direction is 0-900mm, the error range of each of accessories can be measured accurately, thus the quality of the spare parts can be controlled effectively, at the same time it offered digital information to technical staff and quality personnel. In addition the monitoring center is furnished with professional control and measuring equipment such as the optical instrument, chromatograph, etc. which can ensure the quality and feasibility of the part from many aspects after it is processed.

■ 加工中心

流数数控设备多方面确保加工部件的品质

Machining center

The numerical control equipment

guarantee the quality of processing part in many aspects

从2003年起, 达意隆开始进行大型、高精密的设备投入。首先, 增购了一台汉川加工中心, 二台永进加工中心, 二台德马数控机床, 三台德马加工中心和一大批其它辅助设备, 从而将整厂设备的加工能力提高了一倍, 加工精度提高了一个等级, 此批新购设备全部用于加工达意隆各类整机产品中的中小型的关键部件、精密配件和模具工件, 从而使中小型的关键部件达到企业自制自控化。

From 2003, Tech-Long started to invest in large-scale and high-precision equipment. First of all, it purchased a Hanchuan machining center, two

Yongjin centers, two Dema numerical control lathes, three Dema machining centers and other large quantities of auxiliary equipments, thus doubled the working ability of the equipment of the whole factory, machining and the machining accuracy has been improved. This batch of newly purchased equipments are all used in processing medium and small-scale key parts, accurate fittings and mould work pieces of all kinds of complete machine products of Tech-Long, thus the medium and small-scale key parts can realize automatic control by the enterprise.

2004年, 达意隆再次投入了约2000万元购进了一批当今国内为数不多、具有代表性的大型数控设备: 五米数控立车一台, 加工直径5000mm, 加工精度0.04mm, 加工光洁度1.6, 可车圆型、弧型、锥型等各类大型工件; 一台TK6916/L80数控落地铣镗床, 镗轴直径160mm, 加工范围X轴方向8000mm, Y轴方向3000mm, Z轴方向1200mm, 另外配有一个垂直铣头及万能铣头、一个高精度回转3000mmX3000mm工作台, 整台设备的任意重复定位精度达0.05mm, 加工精度可达0.03mm以内, 加工粗糙度可达1.6mm; 一台3.2米端面车, 加工直径3200mm, 可加工大型的环型、罐环形、板类件, 加工精度达0.04mm, 光洁度达1.6。这三台大型数控设备均已在2005年8月份投入使用, 一改过往达意隆有控制而制造能力较弱的问题, 使达意隆成为既有先进的检测设备和完善的质量控制, 又有精度一流达到国际先进水准的加工设备的饮料设备制造商, 从而结束了大型加工件靠外包加工中出现的周期长、反应慢、控制失误等瓶颈问题。

In 2004, Tech-Long invested about 20 million yuan to buy a batch of typical large-scale numerical control equipments that seldom seen in China: a five-meter numerical control vertical lathe machine, with a processing diameter of 5000mm, a machining accuracy of 0.04mm, a processing fineness of 1.6, and it can be used to process round, arc, tapered and all kinds of full-length work pieces; A TK6916/L80 numerical control floor milling-boring machine, with a bore axle diameter of 160mm, and the processing range is 8000mm along X axle direction, 3000mm along Y axle direction, and 1200mm along Z axle direction. Also it is furnished with one vertical mill head and omnipotent mill head, a high precision turning 3000mmX3000mm workbench. The arbitrary repeated orient precision of the whole sets of equipment can reach 0.05mm, the machining accuracy can reach within the 0.03mm, the roughness of processing can reach 1.6mm; One 3.2 terminal surface car, with the processing diameter of 3200mm, which can process large-scale ring type, pot ring and board type pieces, the machining accuracy reaches 0.04mm, and smooth finish is up to 1.6. These three large-scale numerical control equipments came into operation in August 2005. Tech-Long's problem of having strong control ability but weak manufacturing capacity is solved, enable Tech-Long to become a beverage equipment manufacturer who has not only advanced checkout equipment and complete quality control, but the processing equipment with first-class precision and reaches the international advanced level, thus solve the bottleneck problem of long cycle, slow response, and controlling fault when the large-scale processing pieces must be made outside.

大型数控加工设备主要用来加工达意隆主导产品吹瓶机的底架、回转支架、灌装环等大型零部件, 用如此先进的数控设备所加工出来的大型零部件可确保与技术设计要求的精度达到一致, 从而保障设备高速运转平稳、不跳动; 定位灌装、吹瓶准确无误; 设备还可以更超高速的运转, 累积误差细微可控。整机装配运转可提高设计预定的运转速度, 运作平稳无振动异响, 能耗减底灌装吹瓶定位准确, 大幅降低灌装、吹瓶的报废率, 有效的提高产能, 为用户降低了生产成本。

Large-scale numerical control process equipment is mainly used in large-scale spare parts such as

chassis, gyrated support, filling ring, etc. of the bottle blowing machine, the leading product of Tech-Long. The precision of large-scale spare parts processed with such advanced numerical control equipment can be guaranteed to be consistent with that of designing requirement, thus guarantee the steady running of equipment at a high speed and free of vibration; The oriented filling and bottle blowing is accurate; The equipment can run with ultrafast speed, the slight accumulated error can be controlled. The final assembly running can improve and predetermined speed in the design, the operation is steady, without vibration and abnormal sound; the energy consumption has been reduced to the bottom and the localization of filling and bottle blowing is accurate, reduce the scrap rate of filling and bottle blowing by a wide margin, improve the productivity effectively and reduce the production cost for users.

■ 与用户的合作

Cooperation with users

达意隆的制造依靠先进的控制设备和一流的数控设备来控制零部件及加工部件的品质, 在设备品质上真正为用户解决了后顾之忧, 多年来达意隆不仅在设备的设计与技术方面给了用户信心, 达意隆还将继续用管理与品质控制设备相运用的手段来确保产品品质回报用户。

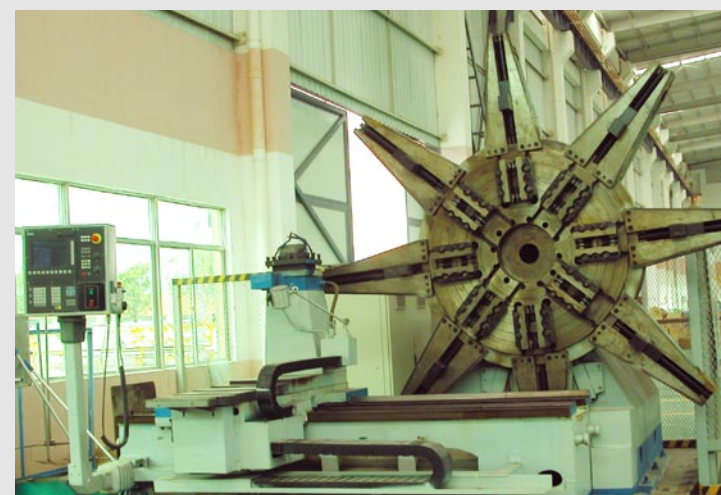
Tech-Long uses advanced detecting equipment and first-class numerical control equipment to control the quality of spare parts and processing parts solve the worry of users on the quality of the equipment. For many years Tech-Long has not only given users confidence in design and technology of the equipment, it will also adopt the means of combining the management with quality control equipment to guarantee product quality and reciprocate users.

Text by: Tech-long Zhang Zanming/Mukee

Picture by: Tech-long Hakim/Mukee



大型数控加工中心
Large numerical control processing center





2006年4月，竣工后的四期厂房
April of 2006, Phase IV workshop after completion



2004年4月，四期厂房动工仪式现场
In April of 2004, scene of building ceremony
of the Phase IV workshop

四期厂房竣工，达意隆成为亚洲最大的饮料包装设备制造基地

With the completion of Phase IV workshop, Tech-Long has become the largest beverage equipment manufacturing base in Asia

为满足不断增长的市场需求，进一步提高综合实力，构建国际化公司的发展规模，实施达意隆饮料包装设备领先供应商步伐，充分发挥本地化生产优势，达意隆于2004年4月开始兴建四期厂房，总投资额超过8000万人民币，占地面积约4万平方米。2006年4月，达意隆四期厂房全部竣工投产，整个生产基地总面积达到13万平方米，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，四期厂房对达意隆扩大生产规模和利润增长发挥了极大的作用，是达意隆适应新形势、明确新定位、增创新辉煌的又一个新起点。

In order to meet the ever-increasing market demand, further improve comprehensive strength, structure development scale of an international company, to achieve Tech-Long's goal of being the leader of beverage packing trade, and give full play to the localized production advantage, Tech-Long began to build fourth stage factory buildings in April of 2004, with the total capital cost exceeding RMB 80

million yuan, and covers an area of about 40,000 square meters. In April of 2006, fourth stage factory buildings of Tech-Long was completed and went into operation, the area of the whole production base reaches 130,000 square meters, Tech-Long has become the largest in Asia and the world No.3 serial beverages packing device fabrication, research and development base. The fourth stage factory buildings have played a great role for Tech-Long to expand production scale and profit increase. It is a new starting point of Tech-Long to adapt to new situation, make clear the new orientation and achieve new achievements.

达意隆四期厂房采用大跨度钢架式结构，构造指标全面领先，规划有条不紊，厂房宽敞大气、井然有序、大方统一，建有先进齐全的配套设备。引进数十台德国现代化精密机加工中心及三坐标柔性检测设备，为设备的制造精度带来可靠的保障；拥有7台国际最先进的大中型数控铣床以及48台各种型号的加工中心等专业制造加工设备，可进行各类大中型机械工件、零部件加工和组装配置的加工；建有三座大型装配车间区和“广东省饮料包装成套设备



2005年6月，四期厂房建筑工地
June of 2005, construction sites of Phase IV workshop

工程技术研究开发中心”，实现生产与研发的零距离交流，为达意隆设备的技术创新提供了可靠的保障，将最新研发产品推向世界前沿。

The fourth stage factory buildings of Tech-long adopt steel frame structure of large span, the construct index took the lead in an all-round way, and the planning is orderly; the factory building is spacious, in good order, good taste and unified, and there is also advanced complete corollary equipment. Several dozens of German modernized accurate machining centers and three-coordinate flexible checkout equipment are introduced to bring reliable guarantee for the manufacturing precision of the equipment; With professional manufacturing and processing equipment such as 7 world most advanced large-and-middle-scale numerical

control milling machines and 48 machining centers of different types, etc., it can carry on processing of all kinds of large-and-middle-scale mechanical work pieces, spare parts and assembling and layout; There are three large-scale assembly shop districts and “Guangdong beverage packing equipment engineering research and development centre”, face-to-face communication can be realized between production and research and development, provide reliable guarantee for the technological innovation of the equipment of Tech-Long, and introduce the newly researched and developed products to the front of the world.

四期厂房的投产大大提高了生产效率，解决了原有的不能满足规模化、现代化生产需要的问题。体现了生产规模大和经济效益高的特点，其综合生产能力将得到进一步提高，预计全年生产能力将提高50%，达到年产150台全自动吹瓶机、200台三合一灌装机、100套后段包装设备的产能，年产值超过15亿元人民币。

he operation of fourth phase workshop improves production efficiency greatly, solved the already existing problems that can't meet the needs of scaled and modern production. It reflected the characteristics of large production scale and high economic benefits. Its integrated production capacity will be improved further. It is estimated that the whole annual production capacity will rise 50%, and reach the productivity of producing 150 full-automatic bottle blowing machines per year, 200 three-in-one filling machines and 100 back section packaging equipment. The annual output exceeds RMB150 million yuan.

Text by: Tech-long Adong/Mukee
Picture by: Tech-long Mukee

酒. 饮料优秀平面广告欣赏

Advertisement plays a very important role in publicizing and popularizing of the beverage

广告对于饮料的宣传推广起着非常重要的作用,好的广告可以充分体现产品的特性,刺激消费者的味觉和视觉,使消费者产生购买欲望。

Advertisement plays a very important role in publicizing and popularizing of the beverage. Good advertisement can fully embody the characteristic of the products, stimulate consumers



娃哈哈激活活性维生素水
企业名称: 娃哈哈

Wahaha activated vitamin water
Enterprise's name: Wahaha



青岛啤酒
企业名称: 青岛啤酒股份有限公司

Tsingtao beer
Enterprise's name: Tsingtao Beer Limited Company



统一鲜橙多
企业名称: 统一集团

Tongyi Orangeate
Enterprise's name: Tongyi Group



农夫山泉尖叫饮料
企业名称: 农夫山泉股份有限公司

Jianjiao beverage of Nongfu Spring
Enterprise's name: Nongfu Spring Limited Company



他她营养素水
企业名称: 北京她加他饮品有限责任公司

Tata nutrient water
Enterprise's name: Beijing Tata Drinks Co., Ltd.



可口可乐离子水运动饮料
企业名称: 韩国可口可乐有限公司

Korea CocaCola Ion Water Sports Beverage
Enterprise's name: Korea Cocacoloc Co.,Ltd



雀巢冰极冰爽茶
企业名称: 雀巢产品有限公司

Nestle Ice Rush
Enterprise's name: Nestle Products Co., Ltd.



统一绿茶
企业名称: 统一集团

Tongyi green tea
Enterprise's name: Tongyi Group



宝矿力水特
企业名称: 天津大家饮料有限公司

Pocari Sweat
Enterprise's name: Tianjin Otsuka beverage Co., Ltd



燕京啤酒
企业名称: 燕京啤酒集团公司

Yan Jing Beer
Enterprise's name: YanJing Beer Group

啤酒家族新宠: 无醇、ALE(爱尔)啤酒
New favorite of beer family: ALE Beer

“在嘴唇已经能感受到金黄清凉的泡沫, 这第一口的味道多么悠长啊, 我们立刻把它喝下去, 用一种人性本能的贪恋, 然后慢慢体会到那种过滤掉苦涩的幸福。”这是法国作家菲利普·德朗在《第一口啤酒的滋味》中的描述。对于大多数爱酒之人, 啤酒都是他们初涉酒海的第一课, 因为它的平易近人, 因为它的流行, 因为它带来的那种畅饮气氛。啤酒, 记录了许多人的年少轻狂, 甚至记录了不少人的一段难忘岁月。

“One can experience golden yellow cool foam already in lip. How fragrant is the taste of the first mouthful, we drink it down at once, with a kind instinctive greed of human nature, then realize slowly that kind of happiness after filtration of the bitterness. “This is the description of French writer Philip · Delerm in “The Flavor of the First Mouthful of Beer “. For the majority of people who love wine, beer is the first lesson that they learn when they waded the wine sea due to its approachableness, prevalence and that kind of atmosphere of drinking to one’s heart content that it brings. Beer has written down many people’s youth and extreme frivolity; even records a period of unforgettable years of many people.

人们想到啤酒, 多不会以“鉴赏”的心情去审视它, 对此, 广州珠江啤酒厂总工程师、高级评酒师李女士认为, 啤酒给人的这种印象, 是与目前中国的啤酒市场单一、同质化有关, 尽管品牌繁多, 但几乎是清一色的窖藏啤酒, 清一色的淡色啤酒。其实啤酒的世界是精彩而丰富的, 不同的啤酒有着不同的文化内涵, 有的啤酒适合开怀畅饮, 有的啤酒值得慢慢品味。而中国的啤酒市场也正在向多元化发展, 目前, 啤酒家族又新增了无醇、爱尔等新品种, 啤酒文化正焕发出越来越诱人的光彩。

Thinking of beer, most people don’t examine it closely with a mood of “appreciation”. For this, Ms. Li, chief engineer of Guangzhou Zhujiang Brewery and senior judge of wine thinks that the impression of beer on people is related to the singularity and homogeneity of China’s beer market at present. Though there are various brands, most of them are Lager or ale. In fact the world of beer is excellent and abundant, different beer has different cultural intension. Some beer is suitable for drinking to one’s heart’s content, some is worth sampling slowly. The beer market of China is going towards pluralism too. Now new varieties are added to the beer family such as non-alcohol, Ale, etc., beer culture is radiating out more and more

captivating splendor.

珠江爱尔啤酒
The Zhujiang Ale

选择人群: 若是你喜欢酒精类饮品, 在独自品尝, 或与朋友把酒言欢时, 都很合适。

Selected persons: If you like the alcohol drink, it is suitable for you taste alone, or drink while chatting with friends.

饮品内涵: 要说清楚这种有内涵的啤酒, 得先说说啤酒最基本的两大类: 窖藏啤酒和爱尔啤酒。窖藏啤酒属于在酒的下部发酵类型, 目前在国内所能喝到的啤酒都是此类。起源于英国的爱尔啤酒则是在酒的上部发酵。和窖藏啤酒相比, 爱尔啤酒有较浓的香味和较多的酒精含量, 经发酵后散发出来一种如同苹果、香蕉般的香味, 还有谷物的香味, 传统的窖藏啤酒则没有特别的香味, 只有酒花和麦芽香。啤酒评酒师认为, 喝爱尔啤酒是要细细品味的, 这也颠覆了从前多数人所认为的啤酒就是用来“劈”的误区。

Intension of the drink: To say clearly the beer that has intensions, we must begin with the basic two big classes of beer: Lager and Ale. Lager is a type that beer is fermented at the underpart, now what one can drink in China are all this kind. Ale, which originated from Britain, is fermented on the top of the wine. Compared with Lager, Ale has denser fragrant smell and more content of alcohol, and sends off a kind of fragrant smell like apple or banana after fermenting, and also a fragrant smell of grain; traditional Lager does not have special fragrant smell, only fragrance of hops and malt exists. Judges of beer think Ale should be sampled carefully. This subverts mistaken idea that most people think beer should be drunk in big mouthfuls.

试饮报告: 颜色比较深, 不w如从前喝惯的啤酒清亮。入口味比较重, 酒液淌过舌头, 感觉味道比较复杂。

Trial drinking report: The color is darker, not as limpid as the beer we drank in the past. You will experience a hard-to-tell feeling when the liquid drop down tongue.

部分资料来源: 新浪网
Sources of some materials: Sina Web