

（原文）

## 一、公司介绍

天然宝杰，中国领先的喷墨产品和整体解决方案供应商。公司产品包括桌面打印墨水、宽幅打印墨水、纺织墨水、特种墨水及配套方案。公司是国家高新技术企业、珠海市知识产权优势企业、珠海市自主创新 30 强民营企业。也是珠海市耗材行业协会副会长单位、香港工业总会珠三角工业协会会员（FHKI）、珠海印制电子产学研创新联盟会员（CPCA），广东省油墨标准化技术委员会会员单位。

1988 年，全球最大的通用耗材供应商——天威在国内组建了第一个工厂；1995 年，天威人组建了第一支喷墨研发团队，这是天然宝杰的前身，也是中国第一个专业喷墨研发团队。2002 年，在此团队基础上组建了珠海宝杰数码喷绘材料有限公司。2005 年，公司迁至珠海保税区，更名为珠海天然宝杰数码科技材料有限公司，占地面积 2 万平方米。

时至今日，天然宝杰已拥有 200 多名员工，年产能超 6000 吨，开发墨水达 600 多款，是国内最大的墨水生产基地之一。公司近三年产销值均以 20% 以上的速度发展，发展势头良好，随着工业领域喷墨应用的产业化，公司的发展将更加迅速。

除了传统领域的墨水产品，尤其是在喷墨新兴领域的研发创新，我们始终走在行业的前列，诸如陶瓷墨水、快印墨水、医疗墨水、可食用墨水，这些产品早已突破墨水只能文字打印和图案喷绘的概念，被应用在纺织印花、建材装饰、商业艺术、医疗健康、日常生活等方方面面。

### ● 公司实力（大字体）

中国第一个专注于喷墨墨水研发的企业

中国第一个参与 ISO SC28 Photo Yield 国际标准制定的企业

中国第一个推出大幅面墨水和特殊应用墨水的企业

中国第一个通过 QC080000 产品安全认证的墨水厂家

中国第一个引进 SAP 管理系统的墨水厂家

## 二、发展历程（分企业和产品发展历程）

1995 年，中国第一个专业的喷墨墨水研发团队成立；

2002 年，成立"珠海宝杰数码喷绘材料有限公司"；

2003 年，通过 ISO9001 认证；

2005 年，年产能达 3000 吨；

2006 年，公司搬至珠海保税区 20000m<sup>2</sup> 新厂房，更名为"珠海保税区天然宝杰数码科技材料有限公司"，年产能超过 5000 吨；

2007 年，引进国际先进 SAP 管理体系；

2008 年，被授予"广东省高新技术企业"称号；

2009 年，通过 QC080000 认证。

2012 年，荣获“珠海市自主创新 30 强民营企业”称号

2012 年，荣获“珠海市中小企业创新产业化基地”认定

2012 年，荣获“珠海市专利优势企业”称号

2013 年，荣获“珠海“三高一特”重点培育民营企业”认定

2013 年，新增 3 个车间，产能超 6000 吨

2013 年，数码印花彩色热升华墨水、喷印式彩色陶瓷墨水获评为“广东省高新技术产品”

#### 四、企业文化/人才战略

##### ●文字内容

天然宝杰一向重视人才的储备、吸纳、培养和发展。与其他企业不一样，天然宝杰不仅重视人才对企业的贡献，也重视人才自身的发展，企业素有“喷墨黄埔军校”之称。

天然宝杰向来不拘一格降人才，不问资历不问出身唯才是举。

此外，公司致力于为员工提供更舒适更幸福的工作环境，公司为每一位员工提供五险一金，并不定期组织员工外出旅游、活动。公司常年有不同的文体活动，包括天威艺术节，有钓鱼协会、乒乓球协会，还有天威义工活动。

#### 五、研发实力

●**人才济济**：创新驱动研发，天然宝杰研发中心拥有 60 名专业技术开发人员，占公司总人数 30%；其中，硕士研究生以上学历 15 人，中高级职称以上 25 人。

●**专利众多**：公司率先在国内率先开发出热转印墨水、UV 固化墨水等行业尖端产品，目前拥有专利 32 项，授权 18 项，并于 2012 年荣获“珠海市专利优势企业”称号。其中：发明专利授权 10 项；实用新型授权 4 项；外观专利授权 4 项；2012 年度，我公司发明专利获授权 8 项，在珠海市专利先进工作单位评比中，我公司发明专利总数排第 6 名。（列明专利扫描件）

##### ● 做标准的企业：

俗话说：一流企业做标准。天然宝杰致力于引领和规范行业的发展，一直积极参与喷墨标准的制定，是中国第一家参与 ISO 国际标准制定的喷墨企业。

●**设施齐全**：天然宝杰研发中心占地 1500m<sup>2</sup>，包括 12 个实验室，8 个专项研发团队。公司每年投入**上千万**以上研发经费用于科研创新、设备投入，配备了 Q-sun 测试仪、墨滴观测仪等业内领先的设备，确保产品从概念到量产上的可行性和卓越性。

●**产学研合作**：公司长期与复旦大学、华南理工大学、北京理工大学珠海分校等知名学府广泛开展产学研合作。比如：2009 年，在中国印制电路行业协会 (CPCA) 组织下，公司联合珠海元盛、汉印机电等多家公司与电子科技大学、复旦大学等知名高校在珠海成立了印制电子产学研创新联盟。2013 年，与华南理工大学联合研发申报《工业领域数码喷印功能材料开发与产业化》。

公司率先在国内率先开发出热转印墨水、UV 固化墨水等行业尖端产品，承担了多个国家及省部级课题项目，并取得了各级政府和高校的大力支持和协助。参与项目及荣誉如下：

2008 年，主承担总投资 200 万珠海市香洲区科技计划项目“Epson 系列改装 UV 固化打印机及配套 UV 固化喷墨墨水”

2010 年，主承担总投资 1000 万科技创新平台项目“珠海市重点企业技术中心打印机用喷墨墨水科技创新平台”

2005 年，高级工程师田永中先生、张秀山先生主导研发的“86T 墨盒项目”荣获国家专利金奖

2010 年“高精环保 PCB 用喷印式电子油墨项目”获珠海市科技计划—产学研重点项目立项

2010 年“陶瓷墨水产学研项目”获得广东省省部产学研重大项目立项

2012 年“印制电子功能材料及设备工艺的研究与开发项目”获珠海市产学研项目

●在喷墨墨水的研发与创新上，天然宝杰拥有行业领先的技术：

>> 染料复配技术，有效提高染料墨水抗 UV 性能

>> 气相色谱法，精准区分原料组分

>> 墨滴观测法，直观监控墨滴状态

>> Q-Sun 测试仪，有效测试墨水耐晒性能

>> 研发阶段 29 项严格测试，层层把关

## 六、精细化生产

1. 精细化生产：携手世界排名第一的 ERP 软件供应商耗资数百万于 07 年实施了 SAP 系统，有效提升了生产效率。无尘化生产：1 个 10 万级无尘生产车间、1 个 30 万级生产车间。生产人员标配无尘工作服，生产环境堪比制药车间。
2. 生产规模：年产量超 6000 吨，有 5 个生产车间，生产用地超 4000 平方，拥有多套应急生产方案确保产能。
3. 采用纳米分子过滤技术，墨水颗粒粒径在 0.1um 以下。
4. 配备过滤车间风淋室、灌装车间传递窗及净化无电服，确保产品分装零“污染”。
5. 业内领先的过滤水房：通过 4 层过滤，水中颗粒度小于 0.22um，经过欧美多家 OEM 厂家及研究机构进行 ICP 分析测试，水中金属离子含量很低，采用高强度紫外线喷雾杀菌系统，水质达优级。

## 七、全程品控

1. 拥有多项检测项目：包括来料检测、研发检测、生产过程检测、成品出货检测等共计 4 个大类检测，近 200 个小类检测，仅包材来料检测就达 36 个检测项目。
2. 检测项目系统化：分点控制，比如化学试剂/色料/DI 水有 4 个控制点，并在控制点逐项检测。同时实施“5+N”喷墨检测体系，除 PH 值、粘度、表面张力、光谱、电导率等 5 项必检参数之外，按照市场动态、客户要求、竞品情况和产品发展灵活增加其他检测项目。
3. 品控团队细分化，分 QC（IQC/IPQC/OQC）、QA、QE 和打印测试组，QC、QA 和 QE 负责墨水的实验检测以及品质控制，打印测试组负责产品开发和出货时墨水上机后的测试。
4. 配套设施多样化：从机器、设备、场地等各方面确保检测条件的成熟稳定可靠，最大限度的模拟客户使用条件和环境进行检测。打印测试室占地面积 1500 平方，是亚洲最大的打印测试室，共拥有 1000 多台桌面打印机，70 多台大幅面打印机。并投入大量资金建立了留样房、打印测试室，以及行业罕见的环境模拟实验房。

5. 品质改进的持续提升，通过“质量月活动”等活动不断提升品质控制力度和效果。

## 九.我们的目标市场

喷墨墨水已突破办公文印、图片冲洗等传统概念，NPJ 各类新型墨水将带你领略奇特的喷墨工业应用：无需制版，所见即所得。NPJ 开发了多款优良墨水，尤其是风靡全球的热转印墨水、活性墨水、轻溶剂墨水、UV 墨水，以应用于 Seiko/Konica/Spectra/Xaar/Epson 等各类打印头，配合专业的写真机、平板打印机、数码印花机，你可以轻松快速的生产各类数码定制产品，比如手机壳、墙纸、数码印花服装等，收获一个全新的商机。

### 1.广告印刷公司

广告画册等图文印刷、包装打样、户内外广告制作、标牌制作、广告旗帜布

### 2.影像冲印公司

婚纱照、艺术照等冲印

### 3.个性礼品定制公司

定制个性马克杯、抱枕、手机壳、皮带、T 恤等

### 4.服装印花企业

个性印花 T 恤、服装打样、高档印花丝巾、羊毛衫、高档运动服

### 5.建材装饰企业

数码印花陶瓷，壁纸、木门、吊顶、推拉门等建材的个性定制

——关于各类墨水的具体应用参见产品介绍，或咨询我司专业销售人员。

## 十.服务与支持

售前，我们将为客户提供全面的技术、产品和应用方面的咨询，并提供电话、QQ、MSN、Skype 等多种沟通渠道；售中，我们将与客户全面沟通确认需求，确保产品、方案与客户的需求、使用环境等条件达到最佳的匹配，从而为客户提供最优的产品和解决方案；售后，我们将持续跟踪客户的使用情况，第一时间解决客户在产品和方案使用过程中碰到的问题和投诉，并在必要时候派技术人员上门服务。

1. 精细化生产：携手世界排名第一的 ERP 软件供应商耗资数百万于 05 年实施了 SAP 系统。如通过 SAP 组策略确认库存生产的层级，实现了精细化安排生产计划。

2. 同时实施 “5+N” 喷墨检测体系，除 PH 值、粘度、表面张力、光谱、电导率等 5 项必检参数之外

(Translated Text)

## **1. Company Profile**

Neojet-Apollojet is China's leading inkjet product and total solution provider. Our products include desktop printing inks, wide format printing inks, textile inks, special application inks and supporting solutions. The Company prides itself as a National high-tech enterprise, IP competitive enterprise and one of the Top 30 independent innovation enterprises of Zhuhai. It is also a vice president unit of Zhuhai Printing Consumable Industry Association, a member of Federation of Hong Kong Industries (FHKI) PRD Council, CPCA and Guangdong Ink Standardization Technical Committee.

In 1988, the world's largest printing consumable supplier - Print-Rite established its factory in China. In 1995, Print-Rite established the first inkjet ink research team, which is the predecessor of Neojet-Apollojet as well as the first professional inkjet ink R & D team in China. In 2002, Zhuhai Apollojet Imaging Materials Co., Ltd. was founded on the basis of this research team. In 2005, the Company was moved to Zhuhai Free Trade Zone and renamed as Zhuhai Free Trade Zone Neojet-Apollojet Imaging Materials Co., Ltd., taking up a space of 20,000m<sup>2</sup>.

Today, Neojet-Apollojet has more than 200 employees with an annual production capacity of over 6,000 tons. It has developed more than 600 types of inks and is the largest ink production base in China. Sales value of the Company has been growing by more than 20% every year over the past three years, with a good momentum of development. Along with the industrialization of inkjet applications in the industrial sectors, the Company foresees positive development.

As a veteran in the industry, not only have we been leading in producing traditional inks, but also in the R & D of the evolution of inkjet. Our innovations include ceramic ink, art paper ink, medical ink and edible ink. These products have broken through the traditional the limits that ink can be used only for imaging printing. They now are used in textile printing, decorative building materials, commercial art, health care, and other aspects of daily life.

We are the first Chinese ink manufacturer to

- focus on inkjet ink development
- participate the drafting of the ISO SC28 Photo Yield international standards
- introduce wide-format and Integrated Application inks
- certify under the QC 080000 safety standards
- implement the SAP management system

## **2. Company History (Branches and product development history)**

In 1995, established the first professional inkjet ink R & D team in China;

In 2002, founded Zhuhai Apollojet Imaging Materials Co., Ltd.;

In 2003, ISO9001 certificated;

In 2005, annual production reached 3,000 tons;

In 2006, moved to the 20,000 m<sup>2</sup> new plant in Zhuhai Free Trade Zone and renamed as "Zhuhai Free Trade Zone Neojet-Apollojet Imaging Materials Co., Ltd. ", with annual production capacity up to 5,000 tons;

In 2007, became the first ink factory that implemented SAP system;

In 2008, awarded the title "High-tech Enterprise of Guangdong Province";

In 2009, certify under the QC080000 safety standards;

In 2012, awarded the title "Top 30 Independent Innovation Enterprises";

In 2012, certified as "SME innovative industrial base of Zhuhai";

In 2012, awarded the title "IP Competitive Enterprise of Zhuhai";

In 2013, certified as "Key Cultivated Private Enterprise";

In 2013, three new workshops were built and the total annual production capacity exceeded 6,000 tons;

In 2013, digital printing sublimation ink and ceramic ink were rated as "High-Tech Products of Guangdong Province".

#### **4. Company culture and policies concerning talents**

Neojet-Apollojet attaches great importance to talent reserve, recruitment, cultivation and development. Different from other enterprises, Neojet-Apollojet not only concerns about talents' contribution to the enterprise, but also their personal development. The enterprise is widely known as "Whampoa Military Academy of Inkjet Industry".

Besides, the Company is committed to providing employees with a more comfortable working environment. We provide "five insurances and one fund" for all employees and organizes trips and other activities on an irregular basis. Throughout the year, the Company is involved in different art and sports activities, including Print-Rite Art Festival, Fishing Association, Table Tennis Association and Print-Rite volunteer activity.



## 5. Research and Development

- **Talents:** Innovation drives research and development. Neojet-Apollojet R & D Center has 60 professional technical developers, accounting for 30% of the total number of employees in the company. Among them, 15 people have master's degree or above and 25 hold intermediate or senior titles.

- **Numerous patents:** The Company first developed thermal sublimation ink, UV curable ink and other cutting-edge products in the industry in China. Currently we have 32 patents and 18 licenses, and were awarded the title of "Patent Competitive Enterprise of Zhuhai" in 2012. We have 10 invention patent licenses, 4 utility model patent licenses and 4 design patent licenses. In 2012, we received 8 licenses of invention patent, and ranked sixth in the total number of invention patents in the advanced patent unit competition of Zhuhai.

- **Enterprise to set standards:**

As the saying goes, first-class enterprises set the standards. Neojet-Apollojet is committed to leading and regulating the industry development and has been actively involved in the drafting of inkjet standards. It is China's first inkjet enterprise that participates in developing ISO standards.

- **Facilities:** Neojet-Apollojet R & D Center covers an area of 1,500 m<sup>2</sup>, including 12 labs and includes 8 special R & D teams. The Company invests more than ten millions of R & D funds in research and innovation, equipment, and is equipped with Q-sun durability testing instrument, ink drop watcher and other advanced equipment in the industry to ensure feasibility and quality of the products from concept to actual mass production.

- **Industry-University-Research Collaboration:** We have carried out extensive Industry-University-Research collaborations with Fudan University, South China University of Technology, Beijing Institute of Technology, etc. In 2009, organized by CPCA, the Company, along with Zhuhai Topsun, HanIn Electrical, and University of Electronic Science and Technology, Fudan University, etc., established the Innovation Printing Electronic Industry-University-Research Alliance in Zhuhai. In 2013, we developed and declared *Development and Industrialization of Industrial Digital Printing Functional Materials* jointly with South China University of Technology.

We were the first company to develop sublimation ink, UV curable ink and other cutting-edge products in China. We have undertaken a number of national and provincial research projects and received support and assistance from universities and governments at all levels. Projects and honors are as follows:

In 2008, we undertook the science and technology project "Epson modified UV curable printers and suited UV curable inkjet ink" in Zhuhai with an investment of two million Yuan;

In 2010, we undertook the scientific and technological innovation platform project "Key Enterprise Technical Center --- Inkjet Ink Scientific and Technological Innovation Platform of Zhuhai" with an investment of ten million Yuan;

In 2005, "86T Cartridge Project" led by senior engineers Tian Yongzhong and Zhang Xiushan won national patent golden prize;

In 2010, "High-precision Green PCB Jet Printing Electronic Ink Project" was appointed as the key Production, Teaching and Research Project for Science and Technology Plan of Zhuhai;

In 2010, "Ceramic Ink Industry-University-Research Project" was appointed as major provincial and ministerial Industry-University-Research project of Guangdong Province;

In 2012, "Printed Electronic Functional Materials and Equipment Technology Research and Development Project" was appointed as a Industry-University-Research Project of Zhuhai;

In 2012, "New Green Color Thermal Sublimation Ink" won the third prize of Zhuhai Municipal Science and Technology Progress Award;

In 2012, "Ceramic Ink Key Technology Research Project" obtained special support for SMEs development of Guangdong

In 2013, "Digital Printing Color Thermal Sublimation Ink" and "Jet Printing Color Ceramic Ink" were identified as high-tech products of Guangdong Province.

● In the inkjet ink R & D and innovation, Neojet-Apollojet has leading technologies in the industry:

>> Dye composing technology to effectively improve the UV resistance of dye ink;

>> Gas chromatography to precisely distinguish components of raw materials;

>> Ink drop watcher to closely monitor every ink drop status

>> Q-Sun testing instrument to effectively test durability of ink

>> 29 rigorous tests in research and development stage.

## **6. Meticulous Production**

1. Meticulous production: with an investment of several million Yuan, the SAP system was put into operation in 2007 in cooperation with the ERP software provider ranked top in the world, effectively improving production efficiency.
2. Clean production: equipped with one Class 100,000 clean production plant and one Class 300,000 clean plant. Production workers are equipped with clean outfits and the production environment is comparable to a pharmaceutical plant.
3. Production scale: An annual output of over 6,000 tons, 5 production plants, over 4,000 m<sup>2</sup> production land and several contingency plans for production to ensure production capacity.
4. Nano-molecular filtering technology is adopted to keep the ink particle diameter to below 0.1um.
5. Air shower before entering the plant, specially-designed delivery passage of raw materials and final products, and purified electricity-free overalls are provided to ensure no pollution of products in filtration and loading process.
6. Leading DI water filtration room: Four filtrations ensure granularity in water is smaller than 0.22um; assessed by ICP analysis and tests carried out by many OEMs and research institutes in Europe and America, the water is proved to contain very few metal ions; high-intensity UV spray disinfection system is adopted to make sure the quality of DI water reaches superior grade.

## **7. Comprehensive Quality Control**

1. We have a number of inspections and tests, including four major inspections: raw material inspection, R & D inspection, production process inspection and final product delivery inspection, and nearly 200 sub-inspections. For example, package material incoming inspection includes as many as 36 test items.
2. Systematic testing items: point control, such as chemical reagent / pigment / DI water has four control points, and testing is carried out on each points. “5+N” ink jet inspection system is implemented. Apart from the five parameters that must be checked, i.e. PH value, viscosity, surface tension, spectrum and conductivity, other inspection items can be added as appropriate according to the market trends, customer requirements, state of competitive products and product development tendency.
3. Quality control team is subdivided into QC (IQC/IPQC/OQC), QA, QE and printing testing team; QC, QA and QE are responsible for ink testing and quality control; printing testing team is responsible for product development testing and on-machine testing when delivered.
4. Diversified facilities: To simulate the conditions and environment customers encounter when using our products, we maintain mature, reliable and stable machinery,

equipment, space and other controls during product testing. Covering an area of 1,500 m<sup>2</sup>, our printing testing room is the largest one in Asia and has more than 1,000 desktop printers and more than 70 wide-format printers. We have also established a sample room, print testing room and a special environment simulation lab in the industry with a great investment.

5. Quality control capacity and effect are constantly improved through "Quality Month Activity" and other activities.

## **8. Diversified Product Line**

By attribute: water-based dye, water-based pigment

By industry: Desktop ink, wide format ink, textile ink and special application ink

## **9. Target Markets**

Inkjet ink has broken through the traditional limits of office printing and image printing. All new types of inks of NPJ bring different inkjet industrial applications. NPJ has developed a variety of fine inks, especially the world-popular sublimation ink, reactive inks, mild solvent inks, UV curable inks, to be used on Epson/Seiko/Konica/Spectra/Xaar/Ricoh/Kyocera and other types of printer heads. With professional roll-to-roll printer, flatbed printer and digital textile printer, you can quickly and easily produce various kinds of digital products, such as phone case, wallpaper, digital printing clothing, getting a new business opportunity.

### *a. Advertising & printing company*

Ad Photo book and other graphics printing, packaging proofing, indoor and outdoor advertising, signage, advertising banner production

### *b. Image printing company*

Wedding photos and art photos printing

### *c. Personalized gift customization company*

Customization of mugs, pillows, mobile phone case, belts, T-shirts, etc.

### *d. Garment printing enterprise*

Personalized Printed T-shirts, clothing proofing, high-end printed scarves, woolen sweaters and upscale sportswear

### *e. Building material and decoration enterprise*

Customization of digital printed ceramics, wallpaper, wooden doors, ceiling, sliding doors and other building materials

**-- For the specific application of the inks, please refer to the product description or contact our professional sales staff.**

## **10. Service and Support**

Before sales, we will provide customers with comprehensive advice on technology, products and their applications through various communication channels including telephone, QQ, MSN and Skype, etc.. During the sales, we will fully communicate with customers to ensure the products and solutions best match their needs, environment and other conditions, thus providing them with the best products and solutions. After sales, we will continue to track customers' product use and solve their problems and complaints during the use of products. When necessary, we will send technical personnel to provide door-to-door service.

1. Meticulous production: In collaboration with the world's premium software provider ERP, we have invested millions of Yuan to implement the SAP system in 2005. We have been approved by the SAP strategic identification test and realized a meticulous production plan.
2. We have also implemented the “5+N” inkjet testing system, in addition to PH value, viscosity, surface tension, spectroscopy, electrical conductivity.