

Hailong Group meets Chinese Track and Trace requirements with RSI and HP Thermal Inkjet Technology



At a glance

Industry: Specialty Printing Systems
Business name: Hailong Group
Headquarters: Beijing, China
Website: hailongjituan.com



Industry: RSI
Business name: Gaithersburg, MD, USA
Headquarters: Beijing, China
Website: rsipro.com



Challenge

- Hailong wanted to develop a print solution that would enable the effective printing of fine pitch barcodes in order to comply with Product Identification, Authentication Tracking System PIATS legislation.

Solution

- Hailong partnered with RSI to develop a bespoke solution based on HP thermal inkjet technology.

Results

- Hailong can now effectively produce fine pitch 128 barcodes using real-pulse generation.
- This enables the company to print barcodes in line with the PIATS legislation.
- The RSI/HP solution is best-in-class for speed, stability and adaptability.
- Ease of operation removes the need for specialist training.

“In terms of technology, we believe that among products using HP TII Technology, RSI’s boasts the greatest stability, speed and adaptability. In addition, this product has a lot of potential for research and development.”

– Miao Hailong, President, Hailong Group

The Hailong Group, established in 1999, is a systems integrator for print solutions. In 2003, the company partnered with U.S.-based RSI, to introduce a new inkjet system for printing variable data. At the inception of the partnership, the primary applications targeted were printing business forms and tax invoices in China.

RSI leads the industrial printing market in the development of HP-based marking equipment. The RSI CaseJet, for example, is powered by HP thermal inkjet (TIJ) technology for printing high resolution text and barcode for secondary packaging. The RSI CaseJet is designed with printheads and mechanical features that are robust for the industrial environment. The integration of the HP printheads are easily aligned to produce repeatable high quality barcodes.

“We found RSI’s inkjet system stable, reliable, reasonably priced, easy to operate and very versatile,” explains Miao Hailong, President, Hailong Group. “We felt that with the evolution of computers and the development of the Internet, the demand for variable data printing would definitely increase.”

An evolving print solution

Hailong incorporated RSI’s printers in its sheet-fed, roll-to-roll, fold-to-fold and packaging print solutions. This fostered a development opportunity between the companies and advanced HP TIJ into the industrial printing market in China.

In 2007, the Chinese authorities introduced the Product Identification, Authentication Tracking System (PIATS), the largest track and trace programme in the world. It requires the serialisation of all pharmaceuticals, food and beverage and other packaging to enable traceability and to stem the proliferation of counterfeit products.

“PIATS first applied to seven categories in nine main classes of food products. It was fortuitous that the sheet-fed inkjet printer we developed with RSI was suitable and cost-effective for this purpose,” adds Hailong. “Between 2007 and 2008, we made a number of breakthroughs in this field with our RSI based solution. China has now extended PIATS to include all pharmaceutical products.”

During the initial phase of implementation, Hailong encountered some difficulties reproducing the high quality barcode efficiently. However, the company was able to use some of its equipment addressing other sectors to produce the fine-pitch barcode required for PIATS. When China mandated the full implementation of PIATS in 2010, the solution was welcomed by the market. That positioned Hailong for a breakthrough in sales.

The HP value-add

At the heart of RSI and Hailong’s solution lies HP TIJ technology, which allows for faster time to market. Unlike other solutions, there is no requirement for a new print system to be re-designed for a new print environment. RSI leverages HP TIJ to provide a modular design. Customers make the initial investment in the print system. This could be for two inches or four inches of print. As its print requirement grows, the system can scale up to a maximum of 16 inches of print with little change to the software. The equipment could be scaled up to support customers’ growing business needs.



RSI has also leveraged HP TIJ to develop track and trace solutions. One of the most important facets in any track and trace application is the barcode. HP TIJ technology prints superior 1D and 2D barcodes on both porous and non-porous surfaces. RSI takes this technology to the next level by incorporating features such as variable DPI, nozzle flipping and electronic stitching. The result is a highly reliable, comprehensive track and trace solution.

For PIATS, Hailong was required to produce a high-density 7ml GS128 barcode with 20 to 24 characters within a one and a quarter inch zone. This is a difficult task and could only be achieved by working with HP and RSI.

“The advantages of HP TIJ technology include ease of operation, which removes the need for specialised training prior to operation. There is also a low initial investment outlay and total visibility of costs per print. In addition, the ink is incredibly versatile,” continues Hailong. “These four advantages mean that the technology’s market prospects are good. We believe that through the research and development of new inks, HP TIJ print systems will be even more widely adopted in China. In terms of technology, among products using HP TIJ, RSI’s boasts the best stability, fastest speed, and greatest adaptability.”

Fit for the future

The experience RSI and Hailong gained from HP technology is helping them produce fine pitch barcodes, and given them the ability to successfully apply these barcodes, to products of all shapes, sizes and materials. This makes it possible to track the circulation of any product, and should a problem arise, facilitate its recall. In addition, individual products can be traced to allow consumers to verify the authenticity of the product.

“China is set to extend PIATS to liquor, cigarettes, cosmetics, fertilizers, pesticides and flour, which means there will be greater scope for on-going partnership with RSI,” concludes Hailong. “It is our hope to work more closely with RSI and HP to increase our sales in the Chinese market, and in so doing, promote RSI’s print solutions.”



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