



# Traditional yet digital – Taiwan Lamination pioneers flexible and ‘green’ packaging solutions

Taiwan Lamination Industries, Inc. is committed to excellence in flexible packaging materials and packaging. Founded in 1977, the company provides clients with packaging products for various industries including food and beverage, household chemicals, aesthetic medicine and industrial materials. In order to support development of sustainable packaging, Taiwan Lamination Industries is producing new flexible packaging materials, while introducing state-of-the-art digital printing and new CI-flexo printing technology.



**Industry sector:** Flexible Packaging

**Business name:** Taiwan Lamination Industries, Inc.

**Headquarters:** Taiwan

**Testimonial from:** Tsai Zhi Hao - General Manager,  
Shi Huang Ching - Production Department Manager,  
Liu Zhi Cheng - Sales Manager

**HP presses:** HP Indigo 20000 Digital Press



## Challenge

“Traditionally, we used conventional rotogravure printing technology, which causes issues such as the discharging of electroplating wastewater and VOC ink. Furthermore, packaging materials can also be contaminated by residual solvents.”

Shih Huang Ching, production department manager, Taiwan Lamination Industries, Inc.



## Environmentally conscious printing to support small but varied orders

In recent years, Taiwan Lamination has noticed an increase in sustainable thinking and food safety, which has an influence on the packaging materials that play such a pivotal role in the product life cycle. In addition to constantly improving packaging and introducing innovation, Taiwan Lamination also strives to ensure that the manufacturing process of packaging materials complies with environmental, safety and efficiency criteria. This demonstrates its sense of responsibility towards environmentally-conscious printing.

“We aim to adopt environmentally-responsible technologies, such as high-quality digital printing, ‘green’ ink printing, and solvent-free and hydrogel laminating, to achieve a low-pollution printing process that is free from VOC emissions,” explains Shih.

“During the past five years, the flexible packaging industry in Asia has been challenged to take on orders that are small but varied. Clients are demanding speed and diversity in the delivery and range of products so that they can respond to rapidly changing markets and customer needs,” adds Liu. “Although traditional gravure printing enjoys advantages in terms of mass production, it lacks the adaptability and flexibility to maintain profitability for small, customized orders that require short turnaround time. We needed to obtain cost-effective, highly efficient printing technologies that are flexible in terms of production in order to cater for small but varied orders and ultimately, enhance the core competitiveness of Taiwan Lamination.”

## Solution

“HP Indigo superior liquid ElectroInk is not only safe, but also suitable for printing food packaging materials; all that is required is to use it under set conditions, in line with the requirements of the Good Manufacturing Practices on non-food contact surfaces.”

Tsai Zhi Hao, general manager, Taiwan Lamination Industries, Inc.



## Small orders, high efficiency, cost-effective, fast delivery

Over the past two years, the company has invested US\$15 million to introduce various high-end manufacturing equipment and technologies, including the HP Indigo 20000 Digital Press, solvent-free laminating machines and water-based flexo printing technology.

“The HP Indigo 20000 is a comprehensive production solution that provides the tools from taking orders to delivery. Its built-in automated process reduces the need for operator intervention, and design plans can be sent directly from the computer to the press without using any cylinders,” says Shih. “Now, we only need two digital printing operators to complete the entire printing process. Complicated steps required in the process of traditional printing are no longer needed, allowing faster delivery.”

The HP Indigo 20000 supports up to 76cm wide roll materials, and boasts 73.6 x 110cm maximum image printing allowing it to satisfy the requirements for most consumer products and almost all standard flexible packaging. This means that the company can save costs by using Taiwan’s PET and OPP films for production.

“The advantage of digital printing is that we can produce a range of products in small amounts more cost effectively, which reduces waste and facilitates environmentally conscious development,” comments Tsai. “It can also easily be integrated into our current production process.”

## Result

“Taiwan Lamination is adhering to eco-friendly values, while integrating software and hardware equipment development. Our open attitude, combined with a progressive mentality, enables us to achieve sustainable company growth.”

Liu Zhi Cheng, sales manager, Taiwan Lamination Industries, Inc.



## Opening new markets and creating value for clients

“Operational efficiency has increased since the introduction of the HP Indigo 20000, while allowing us to break into new markets of which we were once apprehensive, including small-volume packaging. We tried using gravure printing without success due to the delivery dates and costs incurred. Now, we believe that we will be able to find new ways to boost our brand in an increasingly competitive market,” explains Liu.

Taiwan Lamination’s production equipment has expanded from the stand-alone units to one-stop integrated services equipment, encompassing machines with computerized operations for designing, plate-making, printing, coating, cutting and bag making. The printing process is separated into three of today’s most popular options: high quality gravure printing, eco-friendly flexographic printing and digital printing with faster production cycle. This demonstrates Taiwan Lamination’s symbiotic fusion of traditional and digital printing methods.

The HP Indigo 20000 Digital Press complies with the highly regulated food and packaging industry. All materials used in the manufacturing process must be suitable for the intended use and conditions of use, and its printing must also comply with the standards in the Good Manufacturing Practices.

“Digital printing technology can also create greater value for our clients through personalizing products in small quantities, for example, recyclable shopping bags,” concludes Liu. “With this, clients can now launch personalized projects in the most economical quantities and optimal costs.”



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