



Chinese manufacturing not ready for prime time

By Amy Wang, Contributing Editor -- Electronic News, 8/16/2007

SHENZHEN, China--Universal Instruments (UI) has scrapped its manufacturing operation in Shenzhen, China, based upon persistent quality complaints from customers of its precision instruments. The company has since turned the facility into an assembly center to serve its global market.

The move comes as U.S. companies begin voicing concerns about Chinese manufacturing. Unlike Mattel, the giant toy maker that recently recalled products made in China, UI did not outsource its manufacturing. But even under its own banner, UI ran into problems.

UI, which makes flexible assembly equipment, opened the manufacturing center five years ago to cut product costs and get closer to its market. It did succeed in cutting costs of its GSM product family in half and obtained 50 percent of its parts from local sources.

Ian deSouza, UI's former president, said during his visit to China last year that the initiative of opening such a plant in China enabled the company to deliver products to customers faster, as well as to make customized products. Like many international companies, UI wants to be close to its customer base given the fact that more and more manufacturing is moving to China.

Being a pioneer of highly sophisticated plants in China, UI believed it was well prepared to make the move. It consulted with PriceWaterhouseCoopers to understand how to run a factory in China. After carefully studying the location and available resources, it finally decided to build China's first high-precision surface-mount technology factory in Shenzhen, home to 40 percent of China's electronics manufacturing.

With the proliferation of RoHS rules around the globe, thousands of factories are purchasing new surface-mount technology production equipment to meet the new environmental protection needs. UI should have been well positioned to take advantage of the opportunity.

However, costs of flying expatriates to China to improve skills of technicians and hidden costs of outsourcing easily swallowed the costs reduction of labor and components. **It is not difficult to find a parts supplier in China, but getting the right supplier at the right quality level for sophisticated surface-mount technology equipment is a challenge.**

Many consumer products manufacturers enjoy rich component and parts supply in Shenzhen and the surrounding area at quality levels sufficient for commodity products. Surface-mount technology requires a different supply chain, however. UI put huge effort into educating the suppliers, which further raised costs and stretched UI's resources. And while the problem was being solved, UI continued to lose market share.

Market analysts do not believe China is ready for such high-precision manufacturing. Just shipping some Western engineers to China to train local engineers did not solve the problem, in part **because China is not ready for low-volume, high-mix production.** There



is little emphasis so far on quality control and supply chain management, and language and cultural differences only exacerbate these problems.

UI says it will not carry out purchasing and precision mechanical work in Shenzhen in the foreseeable future. If it reconsiders that decision, it will locate its operation in the Shanghai area, where education levels are higher.

The company's foray into China hasn't been a total disappointment, however. It has had success in managing an R&D innovation center in Suzhou, Jiangsu province, which provides technical supports to its customers. Sales offices in Beijing and Shanghai also worked well to provide pre-sales and post-sales technical services. EMS services providers are major customer group of UI. Foxconn, the Taiwan-based EMS giant, is one of UI's top customers.

According to data from China's Ministry of Information Industry, the country imported 10,351 units of surface-mount technology equipment in 2006, 77.5 percent from Japan. Driven by the fast growth in manufacturing products such as handset, notebook computers and digital cameras, China had a total of 20,000 surface-mount technology product lines with 50,000 units of production equipment by the end of 2006. Of that number, 90 percent of the equipment was imported from 2001 to 2006, with an annual growth rate of 27.2 percent.