## Yokogawa Hokushin Electric

By Hiroshi Sasaki

Amid the growing number of Sino-Japanese tie-ups that have sprung up in the last few years, Yokogawa Hokushin Electric Corp., a major maker of measuring instruments, has found direct technology transfer the key to efficient and good business. Indeed, Yokogawa Hokushin is now considered a proven success story.

It all began in 1979 when Yokogawa signed its first technology transfer deal with Xian Measuring Instruments Works. It now supplies measuring instrument manufacturing technology to seven factories in five cities. Now Yokogawa has finally set up a joint venture to actually manufacture and market measuring instruments locally. Initially, however, the new company will function mostly as a kind of administrative office to coordinate Yokogawa's China business. "Instead of setting up joint ventures in a rush, it makes better sense to sign technology transfers on a product-by-product basis," says Yokogawa Hokushin President Shozo Yokogawa. And presumably that is how Yokogawa Hokushin will continue to handle its China business in the future.

While Yokogawa is known today for its success in providing technology to China, the first deal the company ever cut with the Chinese was purely accidental.

It all goes back to the autumn of 1979 when President Yokogawa was visiting Beijing to arrange some export business.

As the business talks went off smoothly, the chief exec took time out for a weekend trip to the ancient city of Xian in pursuit of his hobby, snapping photographs.

On his way from the airport to downtown Xian, Yokogawa glimpsed a respectably large factory along the way. Offhandedly, he asked his guide what it was, "A measuring instruments factory," he was told. His curiosity aroused, Yokogawa immediately arranged to have a tour of the plant which, as things later turned out, became the first Chinese factory to sign a technology transfer deal with his company.

As Yokogawa toured the factory-an inspection no doubt eased by his company's big name-it became immediately apparent that the Chinese badly needed improved product quality and better technology. Right on the spot, the Yokogawa president offered a technology transfer deal to the Xian plant.

The deal was the result of Yokogawa's enthusiasm to, as he puts it, "help a neighboring country." Yet, when the time for real contract negotiations came, everything was done on a strictly business basis.

Under the agreement, Yokogawa Hokushin was to supply the technology for building its I-Series electronic control systems, which were widely used in the chemical plants being built for China at the time. The Chinese were already familiar with the machine, and the manufacturing technology was relatively easy to learn because the I-Series operated on an analog system.

Yokogawa Hokushin did a thorough job. It helped the Xian factory replan its floor layout, and gave them advice on each technical step. Yokogawa engineers were sent to supervise the technology transfer, and Chinese engineers received on-the-spot training at Yokogawa factories in Japan.

The royalty payment consisted of two parts: initial royalties and running royalties, in conformity with prevailing practices in the United States and Western Europe.

At first, most of the parts for the I-Series had to be imported from Japan. But now the Chinese make almost all non-key components strictly to Hokushin's specifications. The finished products are tested rigorously, so much so that the I-Series rolling off the Xian factory line are comparable in quality to those produced in Japan, as demonstrated by their immense popularity among Chinese clients.

One success led to another. Soon, Yokogawa Hokushin was supplying technology for the more advanced EK-Series control systems to Beijing, and technology for industrial recording instruments to Sichuan. More recently, the company has made manufacturing technology for its latest computerized control system available to a Xian factory.

Yokogawa Hokushin's booming business in China is duly reflected in the company's balance sheet. Last year, Yokogawa sold ¥2.5 billion (\$10 million) worth of parts to China, with China trade accounting for 80% of its total parts exports. For fiscal 1985, exports alone are expected to top ¥4 billion. On top of that the company earns royalties, and gets extra revenue through equipment sales.

President Yokogawa is now fully convinced that one need not participate in joint ventures to do business in China. Choosing the right technology level for the Chinese to absorb, as well as providing thorough instruction and personnel training, can ensure the success of technology transfer deals.

While Yokogawa Hokushin has been supplying its latest technology to China, its president insists that he has no worries about the so-called boomerang effect of future Chinese competition. "The pace of our technical innovation is much faster than China's," he explains, insisting that his company will continue to provide state-of-the-art technologies to Japan's giant neighbor.



Technology transfer is the key to efficient business for Yokogawa Hokushin.