

Cross-Border Comeback

Maquiladora Industry on an Upswing With Surge From Biotech and Automakers

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In a small prototype room, two technicians are assembling coaxial cables for use in radio communications.

If their bosses like what they see, the mini-assembly line will expand and move to the spacious factory floor across the hall. There they will work alongside technicians in hair nets and lab coats soldering electric circuits printed in plastic membrane switches, that will help Americans make their freezers colder, get gas, reheat their morning coffee, and speed up the cycles on their exercise machines.



There are 649 maquiladoras in Tijuana, big and small, that are moving technology along while playing a crucial role in the bi-national economy.

Maquiladora industry executives contend that over the past six months, cross-border manufacturing in Tijuana has seen a revival in the high-value electronics, automotive, and medical device manufacturing sectors.

Maquiladoras are manufacturing assembly plants located in Mexico that are typically foreign owned. The maquiladora program, which was established in 1965, essentially allows foreign manufacturers to ship components into Mexico duty-free for assembly at their twin plant in Mexico, then re-export the assembled product back to the United States.

In addition, the North American Free Trade Agreement allows companies to sell into the Mexican market and use Mexico as a platform for exporting to markets where Mexico has other trade agreements.

The recovery executives are referring to comes after almost 60,000 jobs — over half in the electronics industry — were lost in Tijuana between the industry peak in October 2000 and the bottoming out in December 2002, according to a maquiladora survey released last summer by the U.S. General Accounting Office.

The economic downturn in the United States following the tech wreck of early 2000, increased competition with China and other Asian countries, and weaker consumer product demand was the cause of the layoffs. Over the last few years, jobs were lost in Mexican plants that make textiles and clothing, ready-to-assemble furniture, toys, sporting goods, and lower-value electronics products.

“Many years ago, maquiladoras came like manna. We didn’t have to worry about promoting. It rained,” explained Fernando Cervantes, chairman of the Tijuana Economic Development Corp., as he leaned over an old map of Mexico in his Tijuana law office.

“We are no longer competitive in certain areas, and those are the jobs we have lost to China, basic manufacturing, textiles, the garment industry, some electronics such as small televisions.”

He stressed that Tijuana is still strong in large TV and plasma-screen manufacturing.

Though many Japanese firms have relocated portions of their consumer electronics production, Hasbro was the only big maquiladora to ship its entire operation to China, Cervantes said.

“A huge number of companies in the TV business have left the Tijuana area. Sony has shrunk from 5 buildings to 1,” said Jean Paul de Kervor, president and principle broker at Maquila Properties, a La Jolla-based industrial real estate brokerage that specializes in the northern Baja-San Diego region. “Sanyo has sold off several buildings.”

However, a shift in type of manufacturing operations is helping Tijuana to recover, he said.

The new Toyota Manufacturing de Baja California plant, which will make Tacoma truck beds and pickups, will be fully operational by 2005. It is the first automaker with a manufacturing facility in Baja. General Motors, BMW, Daimler/Chrysler, Nissan, and Honda, with manufacturing facilities further south, all registered drops in production in 2003, according to the Mexican Automobile Association. Only Renault increased production.

Toyota’s move has prompted increased interest from automotive parts suppliers and other automakers that are looking to open plants in Tijuana and elsewhere in Baja, de Kervor said.

“I’ve got a big Detroit automotive company looking at some space, and there’s also a major Japanese company looking at setting up something similar to Toyota,” de Kervor said. “Everybody looks up to them.”

Maquila Properties recently represented American Racing, a Los Angeles-area company that manufactures aluminum after-market wheels, in a \$5 million lease deal.

• **Biotech Expanding In Tijuana**

San Diego-based Alaris Medical Systems, Inc., which develops and markets products for the safe delivery of intravenous medications, has had a plant in Tijuana for more than 15 years. The plant makes sterile disposables used with the infusion pumps the company manufactures in San Diego.

Alaris employs between 1,200 and 1,300 workers in two factories that total 90,000 square feet. The company will soon consolidate operations into one 180,000-square-foot building just two miles away that they will move into this summer, said Sally Grigoriev, Alaris’ vice president of operations.

“We’ve had very robust business growth over the last three to four years here at Alaris, so the volumes are increasing and we need additional space to manufacture product,” Grigoriev said. “One of the good things about the medical device industry is it is not impacted by the dot-com boom and electronic business sector trends.”

Alaris has no plans, she said, to move its San Diego plant, which employs 100 people making the infusion pumps, to Mexico since it’s not labor intensive.

Grigoriev said there are no plans to shift its Mexico operations to China despite a lower wage structure there, because the company relies on a rapid supply chain and proximity to its “very large” North American market.

• A Lot Of Options

Rick Jaime of North American Production Sharing, a Del Mar-based maquiladora services company, said he's seeing more small and medium-sized manufacturing companies with 50 to 200 employees coming to Tijuana "and not really investing a huge amount of capital or resources." He sees a "growth trend" in industrial and computational electronics manufacturing and other products that require small production runs and quick turnarounds.

The electronics sector represents some 30 percent of the manufacturing industry in Tijuana, according to the Tijuana Economic Development Corp.

De Kervor of Maquila Properties said in the last six months, "the small guys are really crawling around" the Tijuana industrial market, and his firm can hardly keep up with the demand.

There are many options for small and mid-sized manufacturers looking to start operations in Mexico. One popular option is to use a Maquiladora management firm. The firms provide any combination of services such as payroll, human resources, accounting, customs brokering, on-site operations management, legal services, transportation, real estate, and contract manufacturing. Individual contractors also offer many of those services.

One option for a manufacturer that doesn't want to have facilities in Mexico but wants to test the waters or start small, such as in an incubator project, is a shelter maquiladora.

Vertek International, Inc. is one of many maquiladora management firms that offer this. Vertek's president and COO, John Riley, explained, during a tour, that the company provides manufacturing management services for its operational partners at four shelter maquiladoras in Tijuana that employ over 150 people. Three are owned by BC Manufacturing, a Mexican-owned company at which Vertek's president and COO Riley also is CEO.

Because the BC Manufacturing facilities are Mexican-owned with "albergue" legal status — a complex new program introduced by the Mexican government last year for Mexican-owned maquiladoras — there are additional tax savings available that a foreign-owned maquiladora wouldn't have, Riley said.

The BC Manufacturing facilities make membrane switches for Wisconsin-based Xymox, semi-conductors for Pennsylvania-based Advanced Power Technology, Inc., and computer and medical cables for Oregon-based Moore Electronics, Inc.

The fourth maquiladora, Microelectra, is a subsidiary of Vertek in a small Tijuana industrial park. Microelectra makes automotive sensors for San Francisco-based BEI Technologies, Inc., whose clients include some of the big U.S. automakers.

All of the above are considered shelters whereby the clients provide the raw material, manufacturing process and equipment, and either Vertek or BC Manufacturing provides the factory floor space, contracts the employees and operations managers, and takes care of administration.

Clients can also send their own managers to Tijuana. It's also possible for production lines for a variety of clients to be housed in one building.

"In my many years of being here I've never seen the activity level that we are seeing now," said Riley. He first came to Tijuana as a quality control manager for Union Carbide in 1969. "In the early days... (companies were) just coming down to get the low cost labor, and people weren't available with any of the skills so we had to teach people over the years. Everybody is really trained now."

• Good for Tijuana, Good for San Diego

An upswing in maquila business has a direct benefit to San Diego's economy.

"There is no doubt they impact the economy of San Diego," said Kenn Morris, director of the San Diego-based research and analysis firm Crossborder Business Associates. "You look at just the border crossings, the shipments being made of materials, trucking across the Otay Mesa border crossings."

Morris said raw materials suppliers, packaging manufacturers, printing companies, attorneys, architects, accountants, logistics providers, customs brokers, warehousing staff, inventory software developers, real estate brokers, and commercial bankers on both sides of the border stand to profit from the maquilas.

A total of \$20 billion worth of products were shipped both ways through the Otay Mesa commercial border crossing in 2003, according to Crossborder Business Associates analysis of U.S. Department of Transportation data. Each month products valued between \$900,000 and \$1 million are shipped into San Diego from Tijuana for distribution in this region and throughout the U.S.

Some San Diego County companies that have maquiladoras in Tijuana are Hunter Industries Inc., Solar Turbines Inc., Cubic Corp., Hyspan Precision Products, Inc., dj Orthopedics, Inc., and Remec Inc.

Several national and international companies that have a maquiladora presence in Tijuana, but whose headquarters are based outside the San Diego region, have sizeable branches or even their western corporate headquarters here. Additionally, Mexican maquiladora workers are part of the Mexican middle and upper class that spend their money in San Diego, said Morris. Inevitably part of the \$2 billion paid out to maquiladora workers in Baja California last year made its way into the San Diego economy he said.

Between \$50 million and \$65 million was spent by Mexicans crossing the border to shop during the Christmas season alone, according to Crossborder.

Just What Is a Maquiladora?

Synonymous with Mexico manufacturing, maquiladoras are Mexican assembly plants that manufacture finished goods for export.

Maquiladoras are generally owned by non-Mexican corporations that take advantage of low-cost Mexican labor, advantageous tariff regulations, and close proximity to U.S. markets.

Maquiladoras are one of Mexico's primary sources of foreign exchange.

Maquiladoras at a Glance

Average wage for workers in most maquiladoras: Between \$11-\$15 daily.

Official minimum wage in Baja: \$4.40 per day.

— Source: Crossborder Business Associates

A Growth Industry

Number of maquiladoras in Baja (including Tijuana, Mexicali, Ensenada, and Tecate): 1,024.

Number of Tijuana maquiladoras: 649.

Number of Mexicans employed by Tijuana maquiladoras: 140,967.

— Source: Tijuana EDC