

MEXICO vs. CHINA:

THE DEBATE CONTINUES



By Doreen Huro Michelini, C.P.M.

“Manufacturing in Mexico”, “Manufacturing in China”, “Mexico vs. China” – these are just a few of the hot topics circulating the seminar circuit over the past year in both the US and Mexico. As an executive with a US manufacturing company with facilities in both Mexico and China, I have been solicited for my opinion over and over again on this very subject.

To begin, we must come to the realization that US companies are losing the ability to manufacture in the US and stay profitable. More and more imports are pouring into the country at lower costs and comparable quality. This is forcing US manufacturers to look outside its borders for low cost labor and components in order to be competitive. So we look to our neighbor to the south for their reduced labor costs, large work force and favorable custom regulations. The concept of moving our production is ideal with minimal start up costs thanks to Maquila and Shelter programs. No sooner do we cut the opening day ribbon in Mexico that China enters the picture with the allure of labor costs as low as \$.50 per hour. With the continued pressure from our customers to reduce and cut costs we are now forced to look outside North America.

At first glance, China appears to be the answer to keep us competitive. But as someone who has both bought and manufactured in the Far East, there are considerations that need

to be investigated and analyzed before a realistic comparison can be made.

There is no doubt that China has lower labor costs than either Mexico or the US. But as decision-making executives, we must look at the entire package before coming to a final conclusion. Most novices to global sourcing expect an automatic reduction

of up to 50% when moving a product to China. What they don't realize and aren't aware of is the fact that many materials and secondary services taken for granted in Mexico and the US are not available and must be imported at higher costs than in North America. Utilities, such as electricity and phone lines in China are well below the costs in Mexico, but in many areas of the country not reliable and of poor quality. This takes us back to the biggest draw, the promise

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of low cost labor. Even though labor in China is well below the cost of Mexico or the US, the key to the savings is the operation must contain “human labor”. Jobs requiring machines, presses or automated equipment with little or no human touch can actually be more costly when figuring in the added costs of imported materials and transportation. This is especially true when the product or components must travel back to the U.S. market. Add to this the cost of travel and time associated if quality issues arise, and the savings forecasted can actually end up being negative savings.

Considerations to investigate may seem elementary, but are pertinent to your decision. First you must look at travel time and costs. From Chicago, the average travel time to Mexico is 4 –5 hours. It is practical to fly to Mexico on a Monday morning to return Friday night and have sufficient time to be productive. In comparison, travel time to China can be in excess of 19 or more hours. Leaving on a Monday morning will bring you into China Tuesday evening. This forces you to allot at least two weeks in order to justify your travel time. The cost to fly to China, on the other hand, in comparison to Mexico can actually be hundreds of dollars less depending on the time of year. Cost aside, Mexico is more accessible to the US having more alternative modes of transportation and carriers.

The time difference can also play a contributing part in your decision. Mexico is plus or minus 1-2 hours from anywhere in the US. China, depending on the location is 10 – 14 hours ahead. This can play a major role if constant communications and support are needed in China. You must rely on your managers and yourself to be available 24 hours a day.

Surprisingly, I have encountered more managers and production workers in China who spoke or understood English than in Mexico. This can be a major factor when hiring local managers to operate your facility. In Mexico's favor, over past year I have witnessed a push to provide English classes to the work force enabling them to better communicate with their U.S. offices and customers.

Unlike the US, Mexico and China do not have a minimum wage law that governs the entire country. Labor costs in Mexico vary from state to state while wages in China can fluctuate from town to town depending on what you negotiate with local government officials. The same holds true for benefits in China. The location of your facility dictates the benefits you must provide: in the southern region you are required not only to provide three meals a day, but housing, uniforms, medical and recreation, this can more than double your negotiated per hour rate when added in. Similar to Mexico, worker in Northern



China, although paid higher wages, leave each night to go to their own homes. Overtime in China is paid similar to Mexico, although the willingness to work extra hours in China surpasses the enthusiasm, or lack of, in Mexico.

As stated earlier, although utilities such as electric and telephone are far less in cost in China than Mexico, the reliability of service is inconsistent. Most, if not all industrial parks in China, have some form of backup generator system to ensure a constant flow of service. Even with their own generators in place and the cost to put them there, companies are still required to purchase a minimum of 80% of their electricity from the government. Phone service is considerably lower in cost in China, but again not reliable and often out of service or transmission is intermittent making it virtually impossible to transmit data via the phone lines. This can severely hamper your operation if you and your China facility need to be linked together on the same computer system.

Transportation by truck to the US from Mexico can average \$1.50 per pound depending on the weight and size you are shipping. In most cases you are shipping orders to several different customers across the US and freight cannot be consolidated for better pricing. Consolidated ocean freight from China can cost as little as \$0.75 per pound. The trade off being the travel time from Mexico, which averages 4-5 days while China, can take in excess of 4 –5 weeks. Air shipments with a good consolidator from China can be as little as \$1.50 per pound, where smaller individual packages from Mexico that can be as high as \$3.00 per pound. In both cases overnight service typically can take three days due to customs.

One area Mexico needs to improve is the charges imposed by Mexican Import/Export Brokers. Even with zero duty for materials between the two borders, charges can run up to \$100 per shipment especially if it is red lighted. Unless you have a creative way to pass this on to your customers, you are forced to

pay these charges eroding your profit margins. In China, you are somewhat forced to handle your own paperwork which can be audited at any time by the government. Average Chinese Broker charge is \$20 for a shipment to leave China.

One of the most significant costs you'll encounter when setting up in China is the start up cost. Even with China relaxing their views on foreign investors, a safe number to assign to start up is a minimum of \$1 million. Added to the cost is the time and patience needed to attain the various permits required to start your business. Compared to China, start up in Mexico is a relatively painless process with low cost associated to it. This can be directly attributed to Shelter companies who provide the building and labor along with a full staff of specialists supporting your company with their legal, accounting, finance, customs, shipping and purchasing expertise. Whereas, it can take up to one year to start a company in China, working through a Shelter in Mexico can guarantee you opening your doors for business within three months.

So the question to ask is how do we, as manufacturers and sourcing executives, decide if China is the answer for us. I offer the following advice and guidelines:

1. Evaluate the product – Are the materials and secondary services needed available in the region or do they need to be imported and developed and at what costs? Is there special technology or processes that will need to be taught and developed? Are they proprietary?
2. Determine the labor content – What percentages of the operations contain actual labor? Is there enough manual labor to justify the move?
3. Management – Above all do not make the assumption that



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Source: Elcoteq

once you decide to move to or source in China that it will manage itself. Even with local managers in place you need to monitor and stay in constant touch to guarantee the operation is running smoothly. Frequent visits and phone calls by corporate managers are needed to show you are closely watching the operation.

4. Product Destination – Where is the products final destination? Remember to add freight and duty if being shipped back to the US. Weight isn't the only factor when looking at shipping charges. Large lightweight parts can cost more than its smaller heavier counterparts.
5. Quality – Does your product have inherent quality issues that may require frequent visits or late night phone calls? Do you have the staff and resources available to handle the added burden of travel and late hours?
6. Customers – Are your customers open and agreeable to having their product made in China?

All the above questions should be analyzed and evaluated before making the final decision to manufacture or source in China.

A good example of a product that would actually cost more in China than the US or Mexico would be a terminal block used in the electrical industry. It is not uncommon for specific materials to be sourced, which cannot be deviated from, due to UL requirements. In the case of this product the Engineer has specified a special brass metal for the terminals, which cannot be procured in Asia and must be imported. Not only is the cost of

transportation and duty added to the price, but also it is common for materials exported to have a higher price structure than can be bought in North America. Coils of brass are not only heavy but also bulky, so the transportation costs are high. In many cases you don't want to ship ocean due to elements causing tarnish and pitting, so it is sent via air further increasing the cost. Since the terminals are stamped on a press, there is little human labor involved making it close in cost to Mexico.

The same scenario for the molded plastic parts applies with special engineered plastics that need to be imported. In many cases, these resins will only be sold at minimum quantity buys which may end up being several years worth of material based on annual forecasts and part weight. Limited labor is used due to the parts being automatically molded. The terminals are hand inserted in China, while the cost in Mexico is based on semi-automation. Finished parts are bulk packed for shipment back to the US, again with little labor involved.

A safe estimate would be to add at minimum of 17% for freight and duty when shipping to the US by ocean. Because it will take at least 4 – 5 weeks for it to get back to the US, its imperative to have a safety stock in place to avoid having to ship parts by air in case of drop in orders or a line down situation. Typically, this safety stock would equal the time to procure the material, manufacturing time and transportation time. In this case it may take 8 – 10 weeks to procure the raw materials, 2 weeks to produce the finished components and 5 weeks for shipping and clearing customs or a total of 17 weeks. If you are using 1,000,000 annually this breaks down to 19,000 a week or 323,000 for your safety stock. Multiply this by your manufacturing cost, in this case .25 each, you now have inventory valued at \$81,000 sitting on your shelves to cover "just in case" situations. If for some reason, the product is discontinued or material is damaged, lost or rejected when it reaches the US you have the added cost to remake the product and in most cases ship it by air to avoid having your lines go down.

The guidelines and examples are based on eight years of both sourcing and manufacturing in Mexico, China and the Far East. Like business in general, no matter where you manufacture, there are both successes and failures that can be reported. Several trips will be needed before a final outcome can be decided. Bottom line, whether to continue to manufacture in the US, open a facility in Mexico or move to China, you must review all your options thoroughly and only act upon them if the parameters meet the needs of you, the manufacturer and your customers. **MN**

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