

# Manufacturing Basics

In General & In Wisconsin: 1960 to Present

## Wisconsin Government Options to Return Tier II & III Jobs

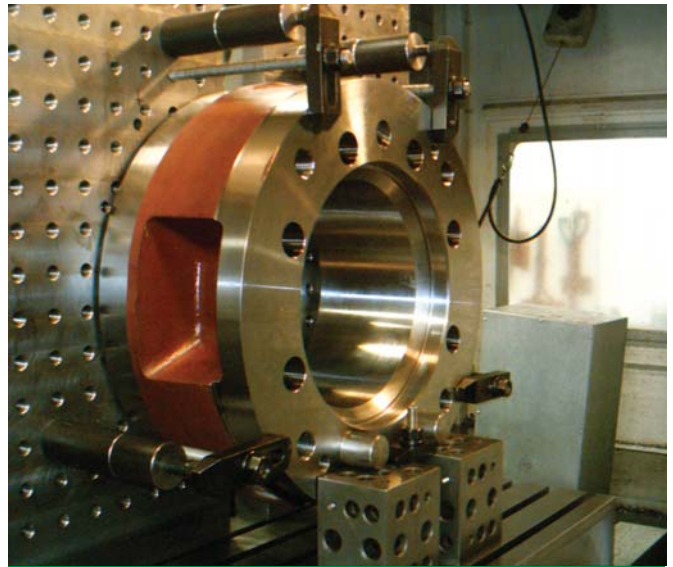
Our Association believes all parties must recognize manufacturing is a primary strength of this State and that there is more than one level of manufacturing. State government should create policies that foster Tier II & III productivity and job creation. We must reestablish and play to our State's strengths.

Wisconsin manufacturers, as part of their normal product and production processes, have implemented technology that makes our manufacturing sector one of the best in the world. If you look at today's products that are sold by Johnson Control, Kohler, Trane and other OEMs, vs. 20 years ago, you will see the evolution of technology in their end products. And, at the Tier II & III levels, computer controlled machines (CNC), computerized production systems and computer design technologies are only a few of the technologies being routinely implemented.

Manufacturing is Wisconsin's strong suit. It is common sense to work towards our strengths and not abandon them. For example, it does not make sense to become another Silicon Valley anymore than it would make sense for Silicon Valley to create an infrastructure for Mercury Marine, Harley Davidson, etc. *Note: Silicon Valley has an 11% unemployment rate as of December 2010 due to world sourcing of their skill base.*

In summary, we believe Wisconsin should work to develop our manufacturing strengths. Manufacturing is unquestionably Wisconsin's historic and current leading economic sector. We should strive to maintain that strength as the best way to create jobs in Wisconsin.

Contact TDMAW if you would like to further discuss how you can help Wisconsin manufacturing SUCCEED - [toolmaker@TDMAW.org](mailto:toolmaker@TDMAW.org) or 262-532-2440



## Types of Manufacturers

**Tier I** – National or International companies make an end product; also known as Original Equipment Manufacturers (OEMs) – Harley Davidson, Oshkosh Truck, Mercury Marine, G.E., etc.

**Tier II** – Manufacturers that supply parts/assemblies for Tier I manufacturers. Historically these companies were located near Tier I manufacturers.

**Tier III** – A manufacturer who supports a Tier II company. Examples: heating treating, plating, grinding and tooling.

## Manufacturing in General

- Manufacturing is one of only three wealth creating sectors of our economy.
- To create economic wealth you must “grow it”, “mine it” or “manufacture it”. This has been true throughout history.
- Service industries such as hospitality, legal and banking exist to support and enhance these economic engines.
- Growing manufacturing directly enhances both the service industry and community service capabilities.

# Timeline - Wisconsin Manufacturing

## National Dilution: The First Manufacturing Decline

- Through the 1960s, Milwaukee, and indirectly Wisconsin, was the “machine shop” of the world. Manufacturing jobs provided the highest per capita income in the United States.
- Tier I manufacturers outsourced to local Tier II and III manufacturers – often employees left Tier I companies to start Tier II and III manufacturers to handle Tier I “overflow and outsourcing”.
- In the late 1960s, because of increasing manufacturing costs, Wisconsin Tier I manufacturers began to face increased national competition. This situation was magnified when other states offered incentives to draw manufacturing jobs out of Wisconsin.
- As a result, jobs from all three tiers moved out of Wisconsin to other parts of the nation.

## From the Late 1970s to Present

### Two Major Transfers of Manufacturing Jobs Occurred:

#### 1) The U.S. opened its markets to Japan/Korea/Taiwan in the 1970s and 1980s.

- a. The Japanese/Korean/Taiwan workforce, based on a total population of approximately 110-120 million people, entered the U.S. supply chain, the number one world consuming market, of 250 million people.
- b. Not only did U.S. manufacturers suffer, but whole industries disappeared during this period. Notable manufacturers who were severely effected in Wisconsin were such giants as AO Smith, Kearney & Trecker, and Cutler Hammer. As a result, additional jobs were also lost at the Tier II and III levels.

#### 2) In the 1990s, the manufacturing sector was used as a tool to improve “trade” with a host of countries, most notably China and India. This had an even greater negative effect because China and India have a workforce based on a combined population of 2.4 billion people.

- a. We outsourced a lion’s share of our ability to create wealth in many manufacturing sectors - without protections or safety nets for these sectors. Given Wisconsin’s large manufacturing concentration, we have been affected more than most.
- b. A major economic assumption was that we are sending low-paying jobs to developing countries and replacing them with high value service jobs. Unfortunately, with the advent of the world wide internet, all levels of jobs were exported to low cost countries.

## Wisconsin Tier II & III TODAY

- It is estimated that between 50% to 70% of Wisconsin’s manufacturing jobs are Tier II and Tier III.
- Tier I manufacturers now source work worldwide. There are significantly less combined local Tier I, II and III manufacturers supporting local economies.
- State governments are not in a position to impact international policy at this time. It will be difficult to bring jobs back from overseas, but we can compete for manufacturing jobs nationally.

## Current Wisconsin Facts

### Average Cost of Equipment

\$ 500,000-\$1.5 million	Vertical Turning Center
\$ 250,000	CNC Lathe
\$ 1.2 million	Horizontal Boring Machine

### Average Cost of All Shop Equipment

\$4 million to \$ 10 million per shop

### Did you know?

- As stated at the February 2008 *May is for Manufacturing* planning meeting, our manufacturing revenues are greater than the world’s biotechnology revenues.
- WI manufacturers are leaders in “implementing” new technologies.



Costs: \$1.2 Million