

LEAN MANUFACTURING

Lean manufacturing is changing businesses around the world through techniques that create outstanding results and translate directly into bottom-line profits. Lean Manufacturing is a process that originated in Japan, and centers around the Toyota Production System.

There are 5 principles to the process:

1. **Define value from your customers perspective**
2. **Identify the value stream**
3. **Define the flow of your system**
4. **Pull the production through the system**
5. **Strive for 100% quality**

The general idea is to eliminate any waste in the production system, as well as increase the flow of information and materials through the system.

Here is the the journey of implementing this lean concepts through the shop resulting in:

- shrinking lead times
- increases sales growth
- reduce set-up times
- avoid unnecessary equipment expense
- multiply inventory turns
- reduce costs, and
- pass the savings to the customer

We strive for Workplace Organization and Standardization through a method called the 5 "S"s. They are:

1. **Sort** through and sort out: Clean out the work area, keeping what is necessary in the work area, relocating or discarding what is not.
2. **Set** in order and set limits: Arrange needed items so they are easy to find, use and return, to streamline production and eliminate time searching for them.
3. **Shine** and inspect through cleaning: Clean and care for equipment and areas, and inspect while doing so.
4. **Standardize**: Make all work areas similar so procedures are obvious and instinctual, and defects stand out.
5. **Sustain**: Make these "rules" natural and instinctual. Once they are habits, the total benefits of 5S will be reaped.

The system as a whole creates a workspace that allows for minimized waste. Not only do the five steps help to ensure that time will be spent doing more productive activities, but it also reduces the chance of error, rework and injury which are all high cost activities.