

LEAN MANUFACTURING

BOOT CAMP

Looking for a practical way to teach the principles and tools of Lean manufacturing?

This training provides an overview of the basic principles and tools of lean manufacturing. A simulation is used to introduce the core principles related to lean manufacturing and continuous improvement, as well as to support team problem solving.

In the Lean Simulation, participants become employees of a company called “Traditional Manufacturing Company” for the duration of the workshop. The simulation alternates between Production Weeks, Lean training and Improvement Planning Rounds. Following each production week, an income statement (the “scoreboard”) is developed to see the impact of recommended changes made to the bottom line.

This training uses equipment handcrafted out of oak to simulate the dynamics of a factory that produces “metal linkages.” Production processes simulated include: injection molding, heat treating, painting, assembly, conveying, and customer order fulfillment. Three product variations requested from customers require die-changes. The simulation begins with traditional manufacturing and moves to lean as participants suggest changes that can be immediately tested in the simulation in “production” rounds.

Through the simulation, participants learn what to look for when making improvements, identify the lean tools that will help improve operations, how to consider the system as a whole (not just their area), the importance of documenting their plans and predicting the outcomes, and comparing the actual results achieved with their predicted results.

Issues brought out by the simulation:

1. Quality (scrap) issues
2. Space utilization
3. Production flow
4. WIP – Work in Process (cost and need for some “safety” stock)
5. FG – Finished Goods in Inventory (cost and need for some “buffer” stock)
6. Effective, efficient labor utilization



Topics discussed include:

- Why implement lean manufacturing?
- Measures of lean
- Key philosophies of lean manufacturing.
- Focus on flow and flow inhibitors
- Eight categories of waste
- The visual factory (5S, visual controls, visual management)
- Quick changeover
- Standardized work and its importance
- Pull systems
- Cellular manufacturing and when to use it
- Production smoothing

OBJECTIVES

Participants will:

- Describe why change is necessary in today's world
- Develop a vision of the "ideal" production system
- Experience the differences between traditional and lean production systems and their impact on the bottom line
- Describe the critical factors for planning improvements
- Identify improvements they will make and predict their outcomes
- Document, implement and analyze the changes they made
- Develop confidence in their ability to know the "most powerful questions to ask" when making improvements back on the job
- Make a commitment to action
- Have fun!

NOTE

The content of this training can be customized to highlight any specific topics your company may want to focus on.