



# Certified Lean Manufacturing Professional Sample Material

**V-Skills Certifications**

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## 1. LEAN BASICS

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Lean manufacturing focuses on lean philosophy which is about elimination of waste in all forms at the workplace. Specific lean methods include just-in-time inventory management, Kanban scheduling systems and 5S workplace organization.

Many of these concepts were developed by a Japanese company, Toyota which is an automobile manufacturer in the 1940s and these concepts became widespread for removing waste thus, graduating as best practices in many industries beyond automotive companies. Applying these principles to production has the potential for both improved profitability and increased complexity.

### 1.1. Need

Manufacturing industries in these ever competitive times face immense pressure to minimize turn around time or cycle time, provide greater product variety and maintain product quality with the most economical output.

Hence, a system is needed which results in continual improvement and simultaneous extension of the bottom line profits without extreme initial costs or increase in administrative costs. Lean Manufacturing systems, which implemented can serve this purpose in easing out manufacturing challenges.

### 1.2. Factors

Lean manufacturing focuses waste reduction and removal with an holistic view thus, creating higher stocks and increasing the bottom line profits. Lean manufacturing has positive effect on the employees by motivational endeavors and also on the customers by offering them increased value and customer services. The turn around time also reduces and the products are produced much faster with increased quality and variety.

Lean manufacturing takes a holistic view and instead of treating, each department as an individual firm the techniques binds all the involved departments to boost the overall organization's performance.

Few factors which also support application of lean manufacturing technique are

- ✓ Reduction of the administrative costs
- ✓ Reduction in inventory levels and storage space requirements as well
- ✓ Focuses on waste reduction
- ✓ Special emphasis on unnecessary cost generating points
- ✓ A better control over the day to day activities is deployed
- ✓ Reduction of the production cycle time
- ✓ Enabling offering of different variety by manufacturing flexibility
- ✓ Maintains quality standards whilst reducing costs
- ✓ Promotes environment friendly practices
- ✓ Enables safer work environment with improved employee morale