



## EMS Consulting Group

### **Kaizen Tools: Quick Changeover (SMED) and Total Productive Maintenance (TPM)**

***Description:***

**Course: KAI02**

This course will teach the principles of Total Productive Maintenance and Quick Changeover (SMED). TPM and SMED are two essential ingredients in a lean manufacturing program. The TPM system addresses production operation with a solid, team-based proactive program. It helps eliminate losses from breakdowns, defects, and accidents and improves Overall Equipment Effectiveness (OEE). The SMED system for quick changeover is a three-phase system aimed at reducing changeover time on equipment; this allows for smaller batches and less inventory throughout the value stream.

***Audience***

This course is designed for manufacturing and plant managers, production control managers and supervisors, materials managers and analysts, manufacturing and industrial engineers, industrial managers, operations engineers, purchasing personnel, and anyone involved in the changeover to a lean operation.

***Learning Objectives***

Learn how to apply key process kaizen tools Total Productive Maintenance (TPM) and Quick Changeover (SMED) to improve equipment uptime and effectiveness and to reduce inventory and lead time.

***Benefits***

- Improved Productivity / Equipment Uptime
- Improved Quality
- Smaller Batches / Less Inventory
- Improved Ability to Respond to Customer Needs

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### **Kaizen Tools: Quick Changeover (SMED) and Total Productive Maintenance (Cont.)**

#### **Outline**

- Overview: Process Kaizen Tools
- Total Productive Maintenance
  - Why TPM is Important
  - The Big Six Losses
  - Measuring and analyzing Overall Equipment Effectiveness (OEE).
  - Autonomous Maintenance/TPM Teams
  - Daily/Weekly Maintenance Tasks
  - TPM and 5S
  - Sustaining/Improving the Program
- SMED/Quick Changeover
  - Why are setup times important?
  - What is the SMED system?
  - Four stages of any setup
  - Analyzing current setups
    - Identifying Internal versus External Setup
    - Converting Internal versus External Setup
    - Streamlining External and Internal Setup steps
  - Setup reduction worksheet
  - Case Studies
  - Implementing the changes
  - Measuring the Improvement

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