

# Quick Changeover

Quick Changeover, sometimes referred to as Setup Reduction or SMED (Single-Minute Exchange of Die), eliminates or reduces non-value added activities in the setup and teardown processes of manufacturing, allowing companies to quickly and efficiently change from one product to another. Quick Changeover is a critical component of Lean Manufacturing, allowing companies to reduce batch sizes and shorten lead time, making it easier to meet customer demands for high-quality, low-cost products, delivered quickly and without the expense of excess inventory.

## Workshop Objectives

The Quick Changeover workshop, with hands-on simulation, teaches the fundamental principles of set-up reduction. It defines set-up, and participants will discuss reasons and barriers to reducing set-up time. The course follows the principles first expressed by Dr. Shigeo Shingo and his work on Single Minute Exchange of Die (SMED). Participants learn the standard methodology in applying Quick Changeover to any type of set-up or industry. The techniques covered demonstrate how to reduce changeover time from hours to minutes and even seconds. This group training exercise is designed to precede a Quick Changeover implementation, or Kaizen event.

- Understand how quick changeover/setup reduction supports lean manufacturing
- Learn key concepts and principles related to Quick Changeover/setup reduction
- Develop skills required to apply Quick Changeover using a disciplined, visual process of documentation and improvement
- Experience a team approach to quick changeover/setup reduction
- Recognize how quick changeover/setup reduction can be applied to support functions throughout the value chain

## Topics Covered

- Defining Lean
- Defining SMED
- Traditional Changeover
- Current vs. Future State
- Documenting the Changeover
- Documentation Tools
- Analyzing the Changeover
- Internal and External Processes
- Streamlining Changeover Steps
- Keys to Success
- Performance Impact and Benefits

## Kaizen Implementation Event

IMEC will facilitate a group of your employees through the Quick Changeover process, implementing the techniques learned in the workshop. Whenever possible, elements of the new process are implemented during the Kaizen Event, and the results verified. Additional time is often required to fully implement improvements such as changes to equipment, tools, fixtures, etc. Therefore, confirmation of the results will be performed at a defined point in time in the future. The team will develop an action plan with assigned responsibilities and expected completion dates to insure that the necessary follow-up takes place.

### Benefits of Quick Changeover

- Reduce defect rates - Quick Changeover reduces adjustments as part of setup and promotes quality on the first piece.
- Reduce inventory costs - Reduction of batch sizes and associated overproduction/excess inventories, allows for recovery of operating cash and manufacturing space.
- Increase production flexibility - Increase output and improve timeliness of response to customer orders.
- Improve on-time delivery - Quick Changeover supports the ability to meet customer demands.

### Workshop Details

Duration: 6 hours

Class size: 8 to 15

### Implementation Details (including workshop)

Duration: 2-3 days

Group size: 6 to 10