

Set up Reduction / Quick Changeover / SMED – Single Minute Exchange of Die

"The concept of Economical Order Quantity (EOQ) is entirely correct. Yet this concept conceals an enormous blind spot: The assumption that drastic reductions in setup times are <u>Impossible</u>." Shigeo Shingo

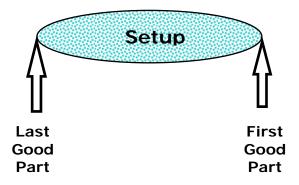
Shingo's SMED

Single Minute Exchange of Die: Achieve Setups In Under 10 minutes (Single Digit Setups)

- Setup Reduction
 - ✓ Scientific Approach
 - ✓ Any Factory
 - ✓ Any Machine
 - ✓ Rethinking Production Itself
 - ✓ Biggest Obstacle: "It Won't Work"
- "Traditional View: Long runs and Large lots Setup Reduction view: Multiple Setups and Small Lots" Shigeo Shingo

Setup Time Definition

Elapsed time from completion of last good part of last run to completion of first good part of next run.



SMED Principles

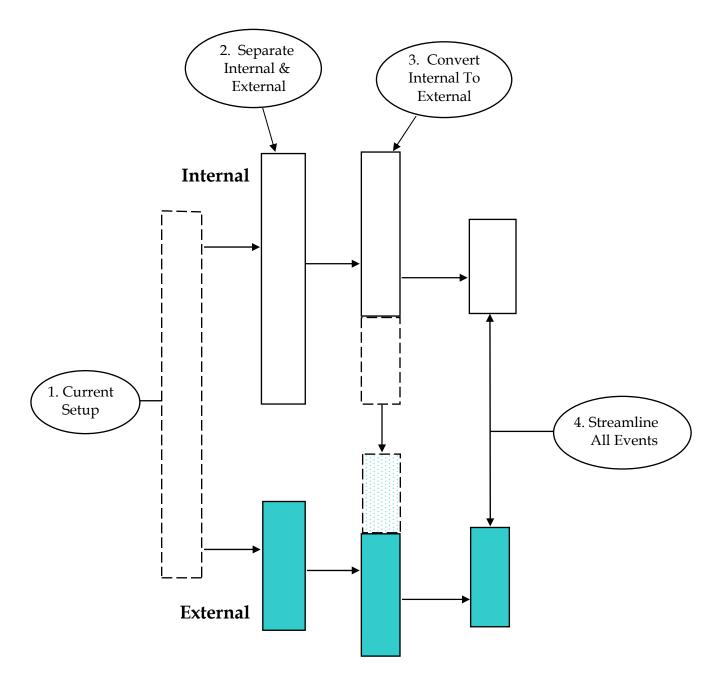
There are two types of setup activities:

- 1. Internal Interrupts production run
- 2. External Does not interrupt production run



SMED Approach and Stages

- 1. Current Setup Process
- 2. Separate Internal & External Events
- 3. Convert Internal to External
- 4. Streamline all Setup Activities



Shingo: The SMED System

Scientific Approach to SMED

- Measure
- Flowchart Analyze (Video tape)
- Improve
- Monitor & Repeat
- Transfer Knowledge

Setup Reduction Project

- **Objective:** Reduce down time and increase flexibility
- **Goal:** 75% Reduction in setup with low or no cost

Contact **Doug Anton of AEM Consulting Group** and learn how setup reduction / quick changeover techniques can be used at your company along with other customized solutions we can offer to meet your business's unique needs. Call us at (800) 950-7123, or e-mail us at <u>anton@aemconsulting.com</u>

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