

Reduce Changeover Time for Printing Presses using SMED (Single-Minute Exchange of Die) Methodology



The Challenge:

Changeover times for the printing presses were highly variable across shifts and with average times taking 1.07hrs on one press and 1.18hrs on the second.

The Solution:

Approach used:

- Get 'buy-in' from management team
- Communication of intent across all operation staff
- Training of selected operational staff on SMED process and presentation of approach
- Observation of the existing changeover process utilising video cameras and spaghetti charts for each operator
- Detailed analysis of the video and spaghetti charts, breaking each segment into 10min sequences
- Observation and capture of important facts and operations
- Completion of SMED charts
- Group review of conversion of internal operations into external
- Rationalise internal operations
- Rationalise external operations
- Creation of action plan to pilot changes and to standardise across all shifts
- Run new changeover process and re-train operational staff
- Video new process to demonstrate 'before' & 'after'
- Standardise and communicate results

One of the primary issues was the lack of a consistent standardised process across all shifts. It was decided that a pilot change to the first twenty minutes of the process would be carried out which would reduce this part of the changeover time by 50%. This was then used to standardise the process and to create further operator buy-in to rollout further reductions in changeover times. By the use of visual aids such as video and spaghetti charts it was easier to point out inefficient working practices and to agree significant process changes across all shifts.



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**Reduction of
changeover time which
happens 6-8 times per
day will increase
productivity and lead
times to customer.**

The Results:

A 50% reduction in the time for the initial pilot ensured rollout success and the acceptance of the SMED approach. Average changeover times to date have reduced by up to 53% with further improvements continuing to be addressed and implemented. Lead times to customer have increased in line with the reduced changeover times.