

Customized Lean Methods

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Abstract	Single Minute Exchange of Die (SMED) refers to Quick Change Over (QCO), a process designed to reduce the set-up time of a production machine or a production line. The term "tool change" is misleading, since the time from the last good part of the old production lot to the first good part of the new production lot is meant and is better to be called "production change". The difference is that not the pure time of changing a tool is decisive, but also things like the provision of the new material or the parameterization of the machine and the like; The entire time in which it can not be produced.
Keywords	SMED
Challenge	The aim of SMED is to reduce inventories by retrofitting the machine to a new production process without disturbing the production flow. The final goal can be achieved if a machine or production line can be converted within a production cycle so that a one-piece flow or even a mixed-model one-piece flow can be implemented even with the most diverse products Can In this case, the stocks in the line are also equal to zero. The main objective is to reduce waste, viz., time wasting, by applying the SMED technique.
Current condition	The process was developed by Shigeo Shingō, who as an external consultant was instrumental in the development of the Toyota production system (TPS). Implementation: In several iterative steps the set-up time is only improved by organizational measures and later by technical measures. To minimize the cost, it is important that the steps are completed in the given order. The experience is that each step results in a reduction of the set-up time from 50 to 60% (in relation to the previous step). Major investments are made at a very late stage, if at all.
Target condition	The main objective is to reduce waste, viz., time wasting, by applying the SMED technique. Normally the SMED-Method is cobined with the Kaizen Approach to have a more agile, efficient waste reduction.
Moving toward the target condition	-