Examining the Possibilities for Efficiency Improvement of SMED Method Using Simulation Modelling

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We can reach significant results in the field of waste reduction in production processes with application of the tool and rule systems of lean philosophy. One of the frequently applied lean methods is SMED (Single Minute Exchange of Die), which is able to reduce the changeover times and the resulting wastes. Length of the changeover time has a relevant effect on several parameters of the production process (inter-operational inventories, batch sizes, production lead time, manufacturing flexibility, etc.), consequently its reduction is an important competitive factor for a companies. The paper introduces in detail the role of the set-up time in production logistics and its reduction possibilities in real-life situations as well. We examined and summarized the application possibilities of simulation modelling for the efficiency increase of the SMED method as well.

Keywords: SMED, process improvement, simulation

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