Productivity Improvement in Press Shop through Application of Lean Methodology

Student's Name	**Disil D. Kumar**	**EMM (FT-2011)**
Academic Supervisor(s)	A. C. Lokesh	
Industrial Supervisor(s)	Shibith, Veer o Metals, Bangalore	

Disil D. Kumar

disil2008@gmail.com
Ph. No: 0 88678 25490

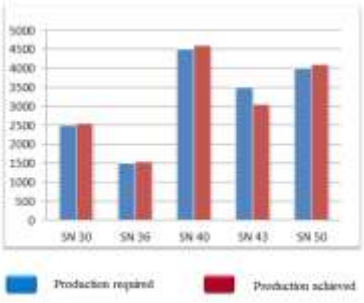
Keywords: Productivity Improvement, Lean, Set –up Time, SMED Concepts, Why-Why Analysis

Abstract:

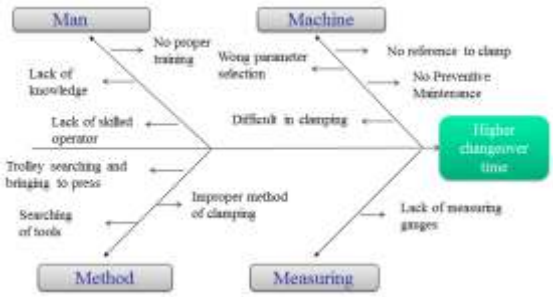
Lean is a time tested philosophy in meeting customer order in the right time, right quality and quantity. It is a systematic approach for identifying and eliminating waste through continuous improvement. Lean is all about doing more with less. Most of the companies fail to meet their delivery targets due to various extraneous and intravenous factors affecting the smooth flow in manufacturing / production process. One of the factors is due to time consumed during changeover, which consumes a major portion of the available time. The idea of set – up time reduction plan is to move towards SMED concept. This lean management strategy helps in reducing the changeover times, creating flow in manufacturing, leveling the production based on demand and reducing capital investment. Such lean concepts have provided organizations with a major source of competitive advantage. The utilization of the source is mainly due to the capability of the organization to change and manage the change.

The main aim of this study/project was to reduce the manufacturing process time by 20% in manufacturing a sheet metal component, which is supplied to an MNC for manufacturing electrical connectors. This problem was analyzed using value stream mapping (VSM) technique. VSM helped in identifying the bottle neck process and suggest alternatives to improve the throughput and reducing the setup time.

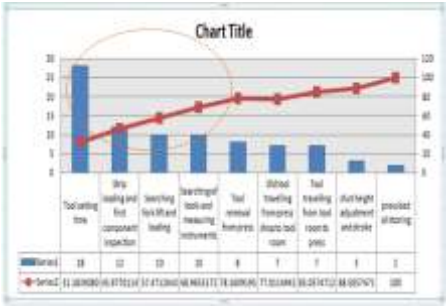
As a result of this study three modular fixtures were designed and evaluated for time reduction during changeover. Of the three one design was selected through brainstorming and validated by testing the same in pilot area, which resulted in reduction of set up time from 87 minutes to 30 minutes.



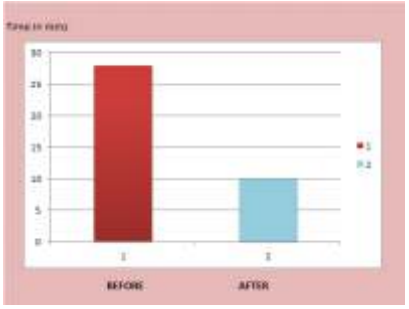
Bottle neck identification



Cause & effect analysis



Pareto chart of operation



Set-up time after implementation