

# Implementation of in-plant milkrun system for material supply in lean automotive parts manufacturing

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**Abstract**— in the competitive environment of automotive parts manufacturing, elimination of activities that don't represent added value is becoming more and more important factor. How to handle with material should be one of the most important issues that should be taken into consideration while costs reduction and eliminating waste within internal logistics. Material supply logistics is responsible that the production runs smooth and balanced. In-plant material supply in automotive parts production is critical function as a shortage of material at assembly lines results in an expensive production stoppage. So a flexible and reliable system is needed to assure that the supply of material will be optimal and also at lower possible cost. Milkrun systems are becoming more and more applicable way of delivering material from supermarkets to assembly lines using small trains, due to providing material in small lot sizes and in high frequencies. Not a single production is the same so this means that there is no guide on how to implement milkrun material delivery to assembly lines using small train. In the paper we examined literature on in-plant milkrun material delivery systems and studied a case study in real manufacturing environment. The results of case study and implementation of in-plant milkrun system in real environment will also be presented. Based on observations we aim to prepare a basic guideline for automotive parts manufacturing companies that are considering the implementation of in-plant milkrun material supply.

**Key words**— lean logistics, manufacturing, in-plant milkrun, kanban, material delivery, supermarket.

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Abstract received by 1 May 2015.