

Executive Summary

The main goal of the project is to reduce the current inventory value at Tremco Illbruck. Tremco Illbruck is a sealant products manufacturer with four production units in Europe and several sales departments over the world. The research is performed at one of these production units, Production Facility Arkel (PFA).

Companies use (finished) goods inventory to overcome the constraints of their production process and to achieve a short time of delivery. Raw materials inventory can be the result of uncertain supply or supply in large batches. Inventory reduction is attractive and actual. Attractive because keeping units in stock is expensive and actual because today's market place is characterized by turbulence and uncertainty. Companies are forced to react quicker to the market and inventory creates a delay between demand and production.

The analysis is performed along the two mainlines of the organization (model of Bikker). These two mainlines represent *the targets and policy of the company* and *the performance of the company*. PFA aims to produce and distribute with *operational excellence*. The performance is analysed for external and internal measures. The external performance contains an overview of the revenue, service level and inventory value. The internal performance is amongst others determined by the efficiency of the machine park.

The extended analysis proves that PFA faces huge opportunities for inventory reduction and performance improvement. A plan of approach is developed to reduce the inventory value with 57%, a capital reduction of about €2,8 M. Taking all cost for holding inventory into account, the annual savings opportunity is estimated at €750 k. In addition to the inventory reduction, a rough estimation is made for the annual savings opportunity of production cost. If PFA is able upgrade its production departments to World Class Level, the annual savings are estimated at €3 M.

The plan of approach comprises a number of projects for the different departments of PFA. The projects can be executed by small teams (SGA's).

Initiating small teams with multidisciplinary participants creates exchange of knowledge and remarkable results.

This report describes the search for reducing the inventory at Tremco Illbruck. This resulted in an extended analysis of the production processes at PFA. I have tried to present an objective and clear picture of the situation at PFA. The conclusions give an overview of the savings opportunities that PFA is facing. With the hands-on plan of approach Tremco Illbruck is able to start the improvements today. The outline of the report is as follows:

Chapter 1 contains an introduction to the research area and an overview of Tremco Illbruck. The problem definition defines the scope of the project and the objective of the research.

Chapter 2 describes some of the global developments in the market and observed trends in inventory management. This chapter also contains an overview of the advantages and disadvantages of keeping inventory.

Chapter 3 introduces the reader to the used methodology: The model of Bikker.

Chapter 4 presents the results of the *analysis along the first mainline*. The company structure is explained and the targets and policy of Tremco Illbruck are reported.

Chapter 5 contains the results of the *analysis along the second mainline*. A data-intensive chapter with a lot of tables and numbers. The reader is able to get a detailed overview of the performance of the two major production departments of PFA.

Chapter 6 reports the conclusions and insights that are generated during the investigations, this also includes the saving opportunities.

Chapter 7 contains a hands-on plan of approach for the production departments of PFA.

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