

Improving Inventory Management in an Injection Moulding Company



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Abstract:

Inventory is generally one of the most tangible and visible aspects of owning any business. Raw materials, materials in process or finished goods represent inventory. The inventory must be well managed to maximize profits and minimize total inventory cost. There are tangible expenses associated with carrying an inventory that extend beyond the direct costs of purchasing. A small reduction in an inventory investment may result in large changes in the firm's cash position. By balancing these competing requirements, a company will discover their optimal inventory levels.

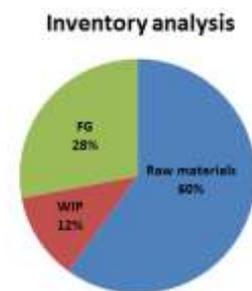
The main aim of this project was to reduce the overall inventory level in a plastic injection moulding company. The methodology adopted was to analyze the demand variability, lead time variability, inventory costs and physical space available for raw materials and finished goods. Material planning and reorder triggering systems were introduced to ensure appropriate communication between departments. Storage layout changes and visual control systems like raw material status chart were also proposed to improve space utilization and inventory visibility at any point of consumption.

The implementation of the proposed ideas will result in a significant reduction of inventory levels from 80 Lakh rupees to 73 Lakh rupees per month and thereby making a 10% inventory reduction in the current stock level without affecting any delivery schedules and customer service levels.

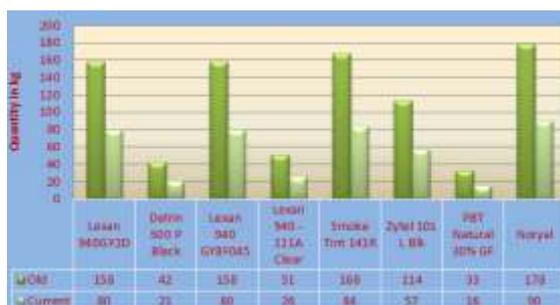
The improved storage layout and implementation of visual control systems has improved the material traceability and offered more space in the store for new and development materials.



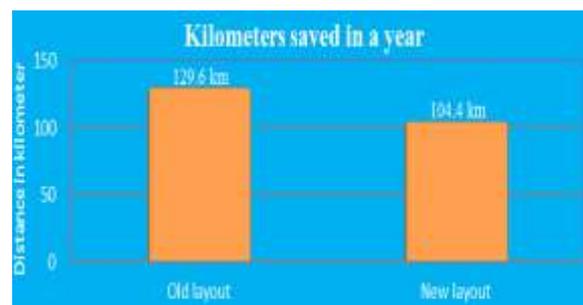
Past raw material procurement & consumption



Inventory analysis pie chart



Reduced stock level of raw materials



Travel distance reduced with new layout