A Case Study on Implementation of New MINOMI Type Material Handling System Concept as an Element of Global Manufacturing-in a Reputed Automotive Manufacturing Plant

Timir Gandhi and S. M. Bhatt
Mechanical Engineering Department
L. D. College of Engineering, Ahmedabad
India

Abstract

As per today's scenario the automotive production / Manufacturing plant has marvellous development. One critical element of the car making process, which significantly effects quality, is the Body Shop that is used for BIW (Body In White) Manufacturing. Before manufacturing and production of a BIW sedan car vehicle several significant factors need to focus for New Body Shop readiness. As per as Definition of MINOMI is concern it is “Nut without a shell” = “Part without container” means Minimal or no operator interaction with container. There are several types of MINOMI Concept based material handling devices but based on Production volume and necessity of automation it is clearly describe in this paper that which type of devices should be implement. Also in this Paper it is described that how Material is delivered to the point of use and presented to the operator for a single point pick without a container. The objectives of this invented methodology are to implement a new material handling system Concepts and to meet global manufacturing requirements. In this paper it is clearly shown and described the activity done during implementation for new material handling concept development, its design and methodology used for its implementation in a new automobile Body Shop manufacturing plant with comparatively difference between previous system and lately material handling concept. As well as in this paper evidently mention the crucial issues faced during Conceptual design phase, manufacturing phase and tryout phase of this new material handling concept. The end goal is to arrive at a common platform that can be utilized by global Body Shop manufacturing plant.