

# TO REDUCE THE FIXTURE SET UP TIME ON VMC MACHINE.

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## ABSTRACT

*Nowadays the automotive industry is facing various problems because of changing global scenario in terms of high quality expectation, reduced cost of production and increased productivity. All the companies are in the motive to solve these problems through the application of modern techniques.. The suggestions were made by identifying and implementing various improvements in processes by applying kaizen activity on VMC machines.*

**Keyword :** *competitive manufacturing, enormous ,productivity,utilization*

## 1. OBJECTIVE AND NECESSITY OF PROJECT

In today's scenario suppliers have a great concern over improving quality and delivery and decreasing cost, which leads to improved system productivity? In order to remain competitive, waste from the value stream must be identified and eliminated so to run system with maximum efficiencies.

### 1.1 The problems of Pre-assembly productions are :

- delayed deliveries,
- long queues, and
- high work in process inventories,
- Improper utilization.
- Transport
- Inventory
- Motion
- Extra processing

### 1.2 The processing in small batch sizes necessitates:

- The adjustment in the flow of production through different processes as per their processing speeds.
- In addition it requires close monitoring of processes to reduce process variability.

The efficient utilization of machines while producing in small batches reduced WIP inventories, reduced times and reduction in lead times leads to competitive manufacturing.

## 2. THEME OF THE PROJECT

The theme of the project is to increase productivity of the machine and to decrease the cycle time of the machine by fixture setup by kaizen activity”

### 2.1 Preface of this problem

1. Every time we have to change the setup.
2. Set up change time is two hours.
3. In a week set up change time is two times.
4. In a month set up change setting is 16 hours means 8 times.
6. Also due to various different parts machining, number of fixtures has increased on VMC machine.
7. This has increased enormous pressure on machine shop. It lead to increased set up time on VMC machine as each fixture change is a major set up.



### 2.2 After kaizen activity

1. The models having the different fixtures so the fixture set up time was required more.
2. So the production was very less.
3. We made one base of the fixture and in that fixture we made the two ID bore.
4. For Every Mode 1 new Bush was made in that fixture
5. Due to this the set up time was reduced from the 2 hours to 30 minutes . Thus overall time reduced to 1.30 minutes.
6. We find that in one week we have save the time is 3 hours.
7. In one month we have save almost 10 hours 40 minutes.



### **3. ADVANTAGES:**

1. Due to our kaizen activity the overall production of the company goes High.
2. The manpower of the company is saving.
3. We can use various bushes of the different models. Thus different models can be use in the VMC machine.

#### **3.1 Tangible Benefits:**

1. Productivity & so Delivery performance improved.

2. Customer is getting devices in time so he is placing more & more orders

### **3.2 Intangible benefits**

- 1.No Operator Fatigue.
2. Presentation skill improved.
3. Team work improved.
4. Motivation for more & more Kaizens in the shop floor

### **4. CONCLUSION**

Due to our kaizen activity productivity of the company increases and thus making profit for the company. Fixture set up time decreases so manpower also decreases. Workers getting more time to think over another type of the kaizen activity.

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