

ABSTRACT

Total Productive Maintenance is a method to manage company that now developing in japan. It is activity to maintence and also to increase productivity that have been achieved by a company in their whole sector. TPM consist of 8 element which one of them is Quality Maintenance. This research will discuss about implementing QM to support all TPM implementation.

Research was done at a process called barrel. This process has function to make shine instrumental key. This process still produce a lot of defect products. According to pre identification, there are 3 factor may influence to the process. The factors are process time, compound composition, and media composition. The respon variable for those factors are kizu defect and nami defect. To get the right methode for barrel process, we had done an experiment using multi respon taguchi method with 3 levels in each factor.

From this research we got an optimal factors and level combination for each respon and both respons. The optimal combination for respon variabel kizu defect is 10 hours process time and 60 spoons for compound composition. The optimal combination for nami defect is 9 hours processing time and 120 Kg for media comosition. The optimal combination for both respons are 10 hours processing, 60 spoons for compound, and 120 Kg for media. Convidence interval from this optimal combination is on the convidence interval of confirmation experiment, it indicate that the result of this research can be aplicated. This research also increasing capability of barrel process from 3,3 sigma to 3,5 sigma.

Key words : Quality Maintenance, Kizu defect, Nami defects, Taguchi, TOPSIS