

ABSTRACT

PT. XYZ is an industrial manufacturing company that works in the military and commercial product manufacturing in Indonesia since 1808. According to the company data, there are 162 counted defects that are higher than the defect tolerance percentage of 2% throughout January – October 2016. A more detailed research is done to identify the defects.

This research uses the six sigma method to reduce the hole defect rate. The stages in six sigma consists of DMAIC (Define, Measure, Analyze, Improve, Control). Define is the problem identification stage, in which it is the stage where the hole defect is found with the average percentage of 2.69%. In the following Measure stage, process stability and process capability is calculated, in which the results turns out to be out of control. Processes that are out of the control bound will be processed further in the Analyze stage in order to determine the suitable hole defect repair and to find the root of the problems. In the next stage, Improve is done in order to set up a proposal of the efforts that could be done in order to minimize the hole defect.

The suggestion that are advised for the repairs is based on human factor, machines, and methods as the cause factors of the hole defects. The repair suggestion that is given is to build a warning display for machine usage standard and to develop a tool aid that is used in the hole making process.

Keywords : Six Sigma, Hole Defect, DMAIC