

ABSTRAC

PT. XYZ is a company engaged in the manufacturing industry that manufactures various kinds of spare part specifically for motorcycle vehicles. One product is Guide Comp Level K1AA. For product Guide Comp Level K1AA in the process of producing Guide Comp Level K1AA there are many defcets. This research focuses on the spot welding process whic has the highest number of defect. Based on historical data of the company in Januari 2019 – December 2019, there was an average defect of 5.08%, indicating that the production process was not running optimally.

This research aims is to improve the quality of product Guide Comp Level K1AA using the Six Sigma method with the DMAIC approach. Based on the company's historical data it can be seen that the six sigma level is at an average of 3.8 sigma and is still below 6 sigma. For the define phase discuss about, Critical To Quality (CTQ) product and process, then the production process flow. For the measuring phase discuss about, the process stabiliy (p-control chart) and process capability. For the analyze phase discuss about, root cause analysis using fishbone diagram and 5Why's, as well as prioritizing improvement using FMEA. To minimize defects, the improvement is to provide an alarm working system automatic.

Keyword: Guide Comp Level K1AA, Six Sigma, Defect, DMAIC