

## **ABSTRAK**

*PT XYZ which is a pharmaceutical industry company in Indonesia which was founded by the Dutch East Indies Government. In the drug production process, there is a very important process, namely in packaging because this process is the final process before the drug is distributed. In the stage of the packaging process at PT XYZ uses a machine called the Duan Kwei machine which functions to package all herbal medicines in tablet form, thus the machine needs special attention so that it can work optimally and can produce the right product. In the root cause analysis using fishbone diagrams and FMEA, it is known that the factors that influence the effectiveness of the Duan Kwei machine are the limitations of spare parts analysis. Based on the company's historical data, the Sensor and Bearing sub-systems have a high frequency of breakdowns, therefore special maintenance is needed for these machines. The approach is carried out using the Reliability centered spare method, which is an approach that aims to determine the required spare parts requirements based on through-life costs and equipment requirements in maintenance operations to support inventory. By using the Reliability centered spare method, the Sensor and Bearing requirements obtained are as many as 3 and 4 units of components in one year with 1 unit of safety stock for each subsystem.*

***Keywords — Sensor, Bearing, Reliability centered spare, through-life cost, Safety Stock***