

## ABSTRACT

*PT Sinkona Indonesia Lestari is a company engaged in the chemical industry. This company produces quinine salts and their derivatives for various industries, especially pharmaceuticals and beverages. In the production division, there are 3 production floor units, namely milling, processing and refining units. The author is placed in a processing unit where the unit has a reactor, centrifuge and pump engine. Based on damage data owned by PT SIL's engineering division, machines that have a history of high damage are centrifuge machines. The critical components of a centrifuge are determined in 2 ways, using a risk matrix and a Pareto diagram. The critical components selected from the centrifuse machine are the Vant Belt B110, the LRD 21 TOR Contractor and the LCD1D32M7 Contractor. In this study the authors used the Reliability Centered Spares (RCS), ReOrder Point (ROP) and Economic Order Quantity (EOQ) methods because this method aims to determine the number of critical component requirements for the next 1 year and determine the minimum and maximum number of components in the warehouse as well as determine how many components must be ordered in one order. The results of data collection and processing carried out obtained the number of critical component needs in the next 1 year based on MTTF data from vant belt B110, TOR LRD 21 contactor, and LCD1D32M7 contactor, which are 9 units, 8 units, and 8 units with minimum and maximum component limits. as many as 4-10 units, 0-8 units, and 0-8 units. Then for the reorder point is at 4 units, 2 units, and 2 units with the EOQ value of each component as much as 7 units.*

*Keywords: Reliability Centered Spares, Reorder Point, Economic Order Quantity, Risk Matrix, Diagram Pareto, Spare Parts Estimation.*