

## **ABSTRACT**

*PT Smart Teknik Utama is a manufacturing company belonging to state owned enterprises (BUMN) that manufactures main parts for railway needs, such as: rodding system point. In producing the products, the machines used include lathe machine, milling & drilling machine, skraf machine, dan NC cutting machine. Based on the history data machines that has a very significant damage in the last three years is lathe machine.*

*By using the risk matrix in the selection of selected components that are significant to the damage of the lathe machine then obtained namely components toolpost, headstock, and leadscrew. The method used is Risk Based Maintenance with the aim of knowing the value of the risk to accepted by the company if the priority component is included in critical component caused by malfunction.*

*Based on the results of collecting and processing the data can be obtained at a risk 1,2% with a total risk cost of Rp 7.317.595. the proposed maintenance plan is interval preventive maintenance for each year of 78 hours, on a monthly scale of 6,5 hours, and weekly scale of 1,6 hours.*

*Key words: Time Interval Preventive Maintenance, Maintenance Plan, Risk Based Maintenance, Risk Matrix, Rodding System Point*