

ABSTRACT

PT Star Mustika Plastmetal is a company engaged in manufacturing located in the Tangerang Industrial Estate area. This company produces automotive parts guaranteed as suppliers of Original Equipment Manufacture (OEM) by automotive companies in Indonesia. PT Star Mustika Plastmetal uses many machines in production. One of the existing machines is a die-casting injection machine with the hot chamber category. Please note that this die-casting machine is at a stage in production. If there is damage, then the machine must be repaired. If a machine component is continuously damaged, it will cause the spare part stock to be unavailable, and then the machine is running out of stock. In overcoming this problem, designing a spare parts policy can use the Poisson Process. According to Ebeling, the Poisson Process can be used in inventory analysis to determine the number of spare parts. Backup when the time between failures. Results Based on the design that has been made, it is needed to meet 95% of the need for spare parts. For critical spare parts, Gooseneck requires ten units of spare parts, Heater Nozzle spare parts require eighteen units of spare parts, and Thermocouple spare parts need four units of spare parts; this amount will be used for one hot chamber die casting machine..

keyword —Poisson Process, System Breakdown Structure, *Risk matrix*.