ABSTRACT

PT HRL International will make product diversification by creating new product that is air filter which is divide as silinder filter and cartridge filter to marketing invention of otomotif supporting parts. To do that, company need production facilities and layout design to produce 2 kinds of that product.

This research tries to propose production facility layout design and implemented production capacity measurement using Systematic Layout Planning (SLP) method and simulation with ARENA 301 in order to measure existing system production capacity. Phases in facility layout design are collecting all related data then create Activity Relationship Chart as the basic to generate Activity Relationship Diagram. From here, the next steps are creating Space Relationship Diagram base on space requirement and space available. After that, generate layout alternatives base on limitation and modification needed.

Performance evaluation of each alternative is doing using simulation. The result at this phases included production capacity estimation of every alternative and choose the best alternative to make improvement until get optimal performance.

Keywords: production facility layout design, Systematic Layout Planning, simulation, performance evaluation, and production capacity.