

PROPOSED DESIGN OF LAYOUT PRODUCTION FACILITIES USING CONVENTIONAL METHOD AND CRAFT ALGORITHM IN PT SELECTRIX INDONESIA

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ABSTRACT

PT Selectrix Indonesia is a company that produces Locking Hinging and Sealing Solution or cabinet lock or house lock. Selectrix has two main specialties: selectlock brands as trademarks that produce industrial keys, hinges, end bars, and rubber seals that are typically used in sheetmetal cabinets that include IT server racks, telecommunication cabinets, electrical switchboards, vehicles and related applications with the use of metal. The second one is from Selectrix Group, which is a trademark called Selectrial. Selectrial specializes in a railway-related production, more precisely in the Railway Signaling industry.

A good layout will support the continuity and smoothness of a production process well so that there will be a flow of work that is regular, safe and comfortable. With the current layout, distances far from each department will lead to more expensive fees, less production, and longer processing time. With the existing problem should be done the layout of alternative production layout that provides the optimum material handling cost and distance from each department is not far apart to avoid the collision of each process flow.

Calculations performed using conventional methods by calculating the cost of material handling initially, and using CRAFT algorithm method that aims to calculate OMH revision as well as provide a more optimum alternative layout. Calculation with CRAFT algorithm using Win QSB software, to calculate using QSB Win software is first calculate the cost of material handling manually, after earning the initial OMH of Rp. 14.206.50 then do OMH calculation to find alternative optimum layout by using CRAFT algorithm. If the OMH yield by using the CRAFT algorithm is equal to the manual calculation of Rp. 14206.50 then it can proceed to find the minimum OMH with initial layout relay layout. The result of initial layout relay layout is Rp. 9.959.03, the result is lower by Rp. 4,247.47 from OMH prior to revision. So this alternative layout can be applied as alternative layout of production for PT Selectrix Indonesia.

Keywords: Material Handling Fee, CRAFT Algorithm