ABSTRACT

PT. Foximas *Mandiri is a manufacturing company which produces shoes which have a market at home and abroad. In this research on the production floor* PT. Foximas Mandiri, *here there are inefficiencies in the layout can be seen from the flow and the displacement back tracking much among divisions. In addition to molding division, particularly in the molding machine is not able to meet demand by about 360 pairs per day so it needs additional capacity of the machine according to the number of requests.*

Type of layout used is process layout design. The algorithm used to solve the existing problems in the production floor PT. Foximas Mandiri *the algorithm SA-CRAFT and continued by comparing the results of SA-CRAFT with the existing layout. SA-CRAFT is a improvement algorithm to minimize moment displacement and solution simulated annealing algorithm is able to get out of local optimum and approach the global optimum.*

After completing the study, the proposed layout produce a total displacement of 1071.12 moment by moment transfer efficiency of 24%. Meanwhile, to meet consumer demand there are several machines that have additional significant is 8 facilities for moulding machine, 2 facilities for cutting 3 machine, 1 facilities for paint spray, 3 for facilities obras machine, and 1 facilities for mata itik *machine.*

Keywords : *Layout, Agorithm SA-CRAFT, Total moment of movement*