

ABSTRAK

Penelitian ini bertujuan untuk membuat usulan tata letak fasilitas *workshop* PT. Mitra Industrial Chrome Teknologi yang menggunakan metode *system layout planning*, dengan alat bantu matrix jalur service, ARC (Activity Relationship Chart), activity relationship worksheet, ARD (Activity Relationship Diagram), OMH (ongkos material handling), *From to Chart*. Area *workshop* terbagi atas area dismantle, hardchrome, machining, honing, assembly, testing, painting dan packing. Hasil penelitian menggunakan data 80% prosentase customer (periode Januari s/d Desember 2013) menghasilkan 6 perusahaan. Dari 6 perusahaan ini mayoritas memberikan *order* dibidang 6 jasa service. Diketahui bahwa masalah terbesar adalah terbatasnya ruang gerak yang diakibatkan oleh area *workshop* yang masih sempit, beberapa departemen yang masih menggunakan satu tempat, dan keterlambatan pengiriman akibat *delay*nya proses produksi. Hasil perhitungan ARC dan activity relationship worksheet menghasilkan 2 alternatif layout. Dari perhitungan *from to chart* menghasilkan ongkos material handling alternatif 1 Rp 5,470,890,550.00 dan alternatif 2 Rp 5,316,909,994.00. Selisih dari kedua alternatif tersebut sebesar Rp 153,980,556.00 sehingga layout yang efektif dan optimal yaitu layout alternatif 2.

Kata kunci: *System layout planning*, *Material handling*, ARC, ARD



ABSTRACT

This research is heading to make proposed workshop of PT.Mitra Industrial Chrome Teknologi's layout of facility which applied system layout planning method,by using matrix path of service, ARC (Activity Relathionship Diagram), Material Handling Costs,From to Chart. Workshop area is divided into dismantle area, hardchrome,machining, honing, assembly, testing, painting,and packing. The result of research are using 80% percentage of customer data (period : January-December 2013) produced 6 companies. From this 6 companies, lots of order in 6 kind of service sector. Known that the biggest problem is restricted area because of the workshop area is still tight, some of department is still using the same space. And delayed of delivery because of delayed the production process. Calculation result of ARC and activity relathionship workshop generate 2 alternative layout. From calculation from to chart results first alternative costs of material handling for Rp 5.470.890.550.00 and the second are Rp 5.316.909.994.00. The difference from that 2 alternatives are Rp 153.980.556.00 so that the most effective and optimal is the second alternative.

Keyword : System layout planning,Material Handling,ARC,ARD

