THE ERGONOMIC WORK FACILITY DESIGN WITH RECOMMENDED WEIGHT LIMIT (RWL) AND LIFTING INDEX ANALYSIS

Linda Herawati, Markus Hartono
Work Design and Ergonomic Laboratory
Industrial Engineering Department-University of Surabaya
e-mail: us61124@dingo.ubaya.ac.id

Abstract

In the modern industrial era that solid filled up, work comfortable factor for operator often to be attention, remembered comfortable working is one of the most issue that can support productivity. The ergonomic work facility design is one of the way to become increasing productivity.

This research take case study in "XYZ" limited corporation that concentrate plastic molding. This plant has 12 molding machines. From the observation seen that doing machining setup, operator have to lift heavy molding from bottom floor into molding machine up. The weight of molding is 17.5 kilogram per piece. Every shift per day, operator must do setup 6 machines averagely. This molding lifting felt tiring for operator. Because of that, needed designing simply work facility that can minimize fatigues. To analyze that problem, needed calculation based on *RWL (Recommended Weight Limit)* and calculation of *lifting index* before and after designing new work facility.

Based on implementation result, after improvement that system happens decreasing lifting index. Operator also feel comfort to work because reduction moving distance in vertical way, so not too tired.

Keywords : ergonomic, RWL(Recommended Weight Limit), lifting index