ABSTRACT

In the production activity of Bottled Drinking Water (AMDK) in CV Barokah Abadi there is a gallon washing station. At the work station it involves three stages of activity such as washing and rinsing the outside of the gallon, spraying the inside of the gallon and rubbing the inside of the gallon which is done in a separate place. In the previous study, a washing machine was developed where the three washing activities were carried out in one machine. However, the development has not yet considered the human aspect. Whereas in the existing condition of pain experienced by workers allows for the occurrence of Musculoskeletal Disorders (MSDs). The risk was proven by the calculation of the Nordic Body Map (NBM) questionnaire that produced employee complaints data at the gallon washing station where workers complained of pain in the right upper arm, right forearm and right wrist respectively 88% and workers also complained Pain in the waist and right hand respectively by 81%.

Ergonomic gallon washers are one way to minimize the risk of MSDs. The design begins with an ergonomic evaluation of the existing conditions and the concept of the initial design of the gallon washer. The evaluation is utilized for consideration of design improvements with the utilization of Ergonomic Function Deployment (EFD) in order for the product concept to conform to the ECSHE principle (Effective, Comfortable, Safe, Healthy and Efficient).

Based on the ECSHE principle known that product attributes that consider the human aspect in order to create a comfortable washing tool comfortable to use by workers. Device repair designs can minimize the risk of MSDs seen from the worker's posture while using an ergonomic washer.

Keywords----Musculoskeletal Disorders, Ergonomical Evaluation, Ergonomic Function Deployment, Washing Machine