

ABSTRACT

PT Wijaya Karya Industri dan Konstruksi is one of the subsidiaries of PT. Wijaya Karya (Persero) where the company is implementing authority in the field of Casting, Pressing and Plastic. One of the factories owned by PT Wijaya Karya Industri dan Konstruksi is pressing plant that acts as a production plant manufacturing various types of tubes and reparations. Pressings factory can not perform repairs on time according to customer demand. This is evidenced by the delay in the repair process tube at PT Wijaya Karya Industri dan Konstruksi that is need for further action to reduce waste processing that occurs. In this research, it is known that there are several factors that influence the occurrence of waste processing, human and machine. PT Wijaya Karya Industri dan Konstruksi has analyzed the causes of waste processing one of them is due to sandblasting machine is still using a manual system. So the proposed sandblasting designing tools that have automated system a top priority of this research. This study focused on the design of automatic machine tools such as automated sandblasting process using rational method Nigel Cross. On the rational method, product development carried out in six stages, namely clarifying objectives, establishing functions, setting requirements, Determining characteristics, generating alternatives, and evaluating alternatives. Results from research using these methods is the specification and design of automated sandblasting process tools that can be implemented in future studies so that the objective of reducing waste processing at PT Wijaya Karya Industri dan Konstruksi achieved.

Keywords: *automated sandblasting process tools, Waste of processing, various types of tubes, Rational Product Development Method.*