A STUDY ON THE MIXING PROCESS IN THE PAINT INDUSTRIES
DEVELOPMENT OF A DRUM BARREL JIG

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"I declared that this thesis is the result of my own work except the ideas and summaries which I clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in the candidature of any degree."

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ABSTRACT

Objective: The objective of this thesis is to study the whole process of mixing that is equivalent on the research. Identify the main problem that occurs when mixing process happens and develops the design equipment using CATIA software and simulation

Methods: Methods of preparation are used Quality Function Deployment as a survey to identify the problems in the mixing are. From QFD result, then apply the Basic Decision Matrix Method analysis to determine which ideas that is suitable for development in the mixing area. After gain the result, structural analysis has been calculated using Macaulay's methods that determine the deflection of beams.

Result: From the Basic Decision Matrix Method, The ideas that have gain the highest marks will be choose to form a true model and also simulate it using the CATIA software

Significant: Firstly, enhances the usage of jigs in order to reduce the cycle time of making the paint. Secondly, when this design are complete, it can be used in the different ways of lifting and handling a drum barrel and can be develop more to enhance the usage of the drum barrel jig. Lastly, also the development of this design jig will be beneficially for others industries that involve lifting and handling the drum barrel.

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