

ABSTRAK

PERENCANAAN PERAWATAN PADA MESIN *BLOW MOLDING* DENGAN MENGGUNAKAN METODE *RELIABILITY CENTERED* *MAINTENANCE II (RCM II)*

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Di beberapa perusahaan, isu mengenai pemeliharaan mesin sering kali tidak mendapat perhatian yang memadai, terutama terkait kurangnya perawatan yang baik. Pengoperasian mesin yang berkelanjutan pada mesin dapat berpotensi menyebabkan penurunan kinerja, yang pada gilirannya dapat menyebabkan kegagalan yang tak terduga sehingga mempengaruhi kelancaran proses produksi, maka dari itu perlu dilakukannya manajemen perawatan serta identifikasi faktor-faktor yang dapat menyebabkan kegagalan. Tujuan dari penelitian ini yaitu untuk mengidentifikasi factor-faktor penyebab terjadinya kegagalan serta mengimplementasikan metode RCM II dengan output berupa rencana perawatan berdasarkan task selection. Penelitian ini menggunakan metode *Reliability Centered Maintenance II (RCM II)* dimana terdapat tujuh tahapan yaitu pemilihan sistem, batasan sistem, deskripsi sistem dan *functional block diagram*, *system function and function failure*, *failure mode and effect analysis*, *logic tree analysis*, dan yang terakhir *task selection*. Hasil pada penelitian ini menunjukkan adanya 7 mode kegagalan pada mesin *blow molding* dengan 4 komponen masuk kedalam rekomendasi *time direct (TD)*, 2 komponen masuk kedalam rekomendasi *condition direct (CD)*, serta 2 komponen masuk kedalam rekomendasi *finding failure (FF)*. Selain itu terdapat factor-faktor penyebab terjadinya kegagalan pada mesin *blow molding* seperti manusia, metode, lingkungan, mesin, hingga material.

Kata Kunci : Mesin *Blow Molding*, *Reliability Centered Maintenance II (RCMII)*.

ABSTRACT

MAINTENANCE PLANNING ON BLOW MOLDING MACHINES USING THE RELIABILITY CENTERED MAINTENANCE II (RCM II) METHOD

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In some companies, issues regarding machine maintenance often do not receive adequate attention, especially regarding the lack of proper maintenance. Continuous operation of a machine can potentially cause a decrease in performance, which in turn can cause unexpected failures that affect the smoothness of the production process, therefore it is necessary to carry out maintenance management and identify factors that can cause failure. This research aims to identify the factors that cause failure and implement the RCM II method with the output in the form of a maintenance plan based on task selection. This research uses the *Reliability Centered Maintenance II (RCM II)* method where there are seven stages, namely system selection, system boundaries, system description and functional block diagram, system function and function failure, failure mode and effect analysis, logic tree analysis, and finally the task choice. The results of this study show that there are 7 failure modes in blow molding machines with 4 components included in the time direct (TD) recommendation, 2 components included in the condition direct (CD) recommendation, and 2 components included in the finding failure (FF) recommendation. Apart from that, some factors cause failure in blow molding machines, such as humans, methods, environment, machines, and materials.

Keywords : *Blow Molding Machine, Reliability Centered Maintenance II (RCMII).*