

**ANALYSIS AND COMPARISON OF 3D LASER AND SCANNING
TECHNOLOGY TO MEASURE THE ACCURACY OF ACTUAL PRODUCTS
TO DESIGN**

By

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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

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ABSTRACT

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In the mold and dies manufacturing industry, measurements of 3D contours are difficult to measure using conventional measuring instruments. Currently many are using CMM (Coordinate Measuring Machine). However, measurement using CMM is relatively time consuming and less flexible because it must bring the workpiece to CMM.

In this research will be shown another 3 dimensional measurement technique that is using laser scanner. This laser measurement technique is expected to measure the 3D profile accurately.

The results of data scanning from this laser scanner can be reconstructed into three-dimensional images. This allows us to compare directly with the design of the workpiece, so that it can be directly visible visually the result of the dimensions of the workpiece compared to the product design.

Three-dimensional measurements using lasers are also faster and more efficient than using CMM.

Keywords: 3D scanning, laser scanning, reconstruction, 3D image, measurement



DEDICATION

I dedicate this works for my family, ATMI Cikarang and Indonesia



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