

THE EVALUATION OF THE USE OF COORDINATE MEASURING MACHINE

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Abstract: *This paper examines the decision-making process of the case study company (a traditional mould making company) that encounters challenges of advanced products, such as lead frames. The case study company's production lines have gradually enhanced by introducing advanced manufacturing machines, such as NC lathes, CNC machining centre, and robots. In contrary, some conventional tools are still being utilised in the inspection division. The use of conventional tools brings negative impacts to the accuracy and the production speed to lag behind customers' demands. Therefore, a task force is formed to investigate the feasibility of introducing an automatic measuring system: Coordinate Measuring Machine (CMM). It is anticipated that the CMM machine would enable the mould inspection process from the conventional manual operations with a variety of gauges to an automated measurement and data processing system. The advantages of implementing this machine and economic benefits are considered. A detailed evaluation and analysed results are presented by simulated data, which finally determines the suitable investment decision for a manual CMM and a CNC CMM.*

Key words: *decision, manufacturing, finance, machine, CNC*



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