

Kamuttraiyos Chutasen 2014: Practical Dimensioning Tolerance Allocation Method for Machined Part. Master of Engineering (Industrial Production Technology), Major Field: Industrial Production Technology, Faculty of Engineering. Thesis Advisor: Associate Professor Chatchapol Chungchoo, Ph.D. 105 pages.

Currently, assembly tolerance allocation of precision mechanical equipments can be determined by many methods such as engineer's experience, the worst on worst tolerance analysis (WOW) method, the root sum square tolerance analysis (RSS) method, or the Monte Carlo simulation method. However, there are other factors that need to be considered when engineers allocate individual tolerance values to each part. Examples of these factors include production cost and uncertainty of measuring equipment. In this paper, a new method for allocating the suitable tolerance value to each part/component is introduced. By using a real industrial case, as a case study, experimental results indicated that the new method could provide suitable component tolerance values for the production line.

Student's Signature

Thesis Advisor's Signature

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