The Evaluation of Straightness and Circularity
by the Minimum Zone Principle

이상용 · 강재관

경남대학교 산업공학과

ABSTRACT

Since every manufacturing operation is associated with systematic and random variations, the evaluation of geometric errors of engineering surfaces is very important. In this research, new algorithms are presented to evaluate straightness and circularity on the evaluation of geometric errors using the computational geometry.

The algorithms guarantee the minimum zone criterion established by ISO. Because the algorithms are developed by considering the characteristics of measuring operations, they are more efficient in time complexity than any other algorithms. Especially the proposed on-line dynamic algorithms have advantages of the reduction in test cost as well as time in analysis.