

An Effective Drilling Wear Measurement based on Visual Inspection
Technique

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Abstract

The purpose of this research is to use the visual inspection technique for the automatic tool wear measurement of different coated drills. The tool wear images with the different coated drilling are captured using a machine vision system incorporating with an effective vertex detection algorithm based on subpixel edge detector and Gaussian filter is presented. The results show that the proposed algorithm is an effective method for the different coated drilling factor is recognized to make the most significant contribution to the over all performance. All drilling tests were carried out under dry cutting conditions without any coolant being used, The TiAlN-coated drilling has the least wear rate amongst these coated drilling cutters and has the longest tool life in this experiment

Keyword : Visual Inspection, Different Coated Drilling, Tool Wear, Machine Vision, dry cutting.