

Cutting Tool-Life Test of Ceramic Insert for Engine Sleeve

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Abstract : The article is looking for an experimental determination of tool life tests for ceramic cutting inserts. Mentioned experimental determination should provide an added information about cutting process. The mechanism of tool wear, cutting temperature in machining, quality machined surface and machining process itself is the information, which are important for whole manufacturing process. Mainly, the roughness plays very important role in determining how a real object will interact with its environment. The main aim was to determine the number of machined inserts, tool life and micro-geometry, as well. On the basis of previous tests the tool-wear was measured at constant cutting parameter which is more typical for high volume manufacturing processes.

Keywords : ceramic, insert, machining, surface roughness, tool-life, tool-wear

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