Analysis of the Repeatability and Reproducibility (R&R) in the Surface Roughness of the "Alloy X" in Milling Process

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Abstract: At present, the factors involved in the machining processes have advanced very quickly. But the results and efficiency of the final product is a very important point during the milling process. In the case of final finishing of a piece that goes through a milling process, there are characteristics such as the surface roughness that are factors of great importance due to the final finishes and tolerances required by each specific piece given by the customer. A repeatability and reproducibility analysis are a great help when verifying if our measurement system is reliable or not. Repeatability and reproducibility are the two precision components in a measurement system. In this case the repeatability is the variation that we would have for the measuring device and in the case of reproducibility it would be the variation caused by the measuring system.

Keywords: Analysis of the repeatability, Surface roughness, Alloy X