Rockwell Data

**Cp Definition:** Is a means to understand if the process is capable of producing parts within a given tolerance limit. The desired numerical value for Cp anything over 1. The higher the Cp value is, the better the process is capable of producing parts within a tolerance. A Cp value less than 1 is undesirable.

**Cpk Definition:** Is a value that informs if the process is capable of producing and takes into account that the mean may not be centered in-between the tolerance limits. If Cp equals Cpk then the process is perfect. However, if the Cp equals the Cpk, it is an indicator that your system of measuring is not precise enough.

**Kurtosis Definition:** Is the sharpness of the peak of a frequency distribution curve. A positive kurtosis indicates the distribution is leptokurtic, and a negative kurtosis indicates a platykurtic distribution.

**Skewness Definition:** Is an indicator showing mean leaning to the left or right. A positive skewness indicates that the mean is skewed to the left. A negative skewness indicates that the mean is skewed to the right.

**Conclusions for Rockwell Data:** The Rockwell measurements produced a Cp of 0.45, which means the process is not capable of producing accurate measurements within the given 40 and 70 hardness limits. The Kurtosis was -0.712, which indicates that the measurements are wildly distributed.