

Deliverable IV: Charts

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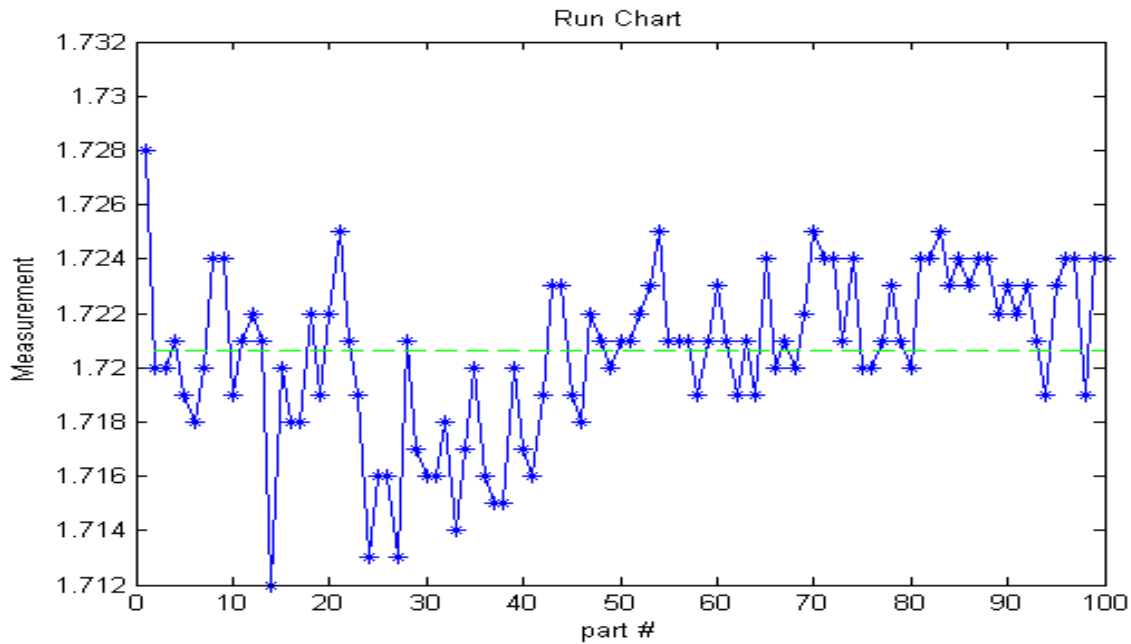
8 May 2015

There are four parts in our Yo-Yo. The charts for each part are listed below. We chose to sample at $n=5$ and had a C_p of 0.707

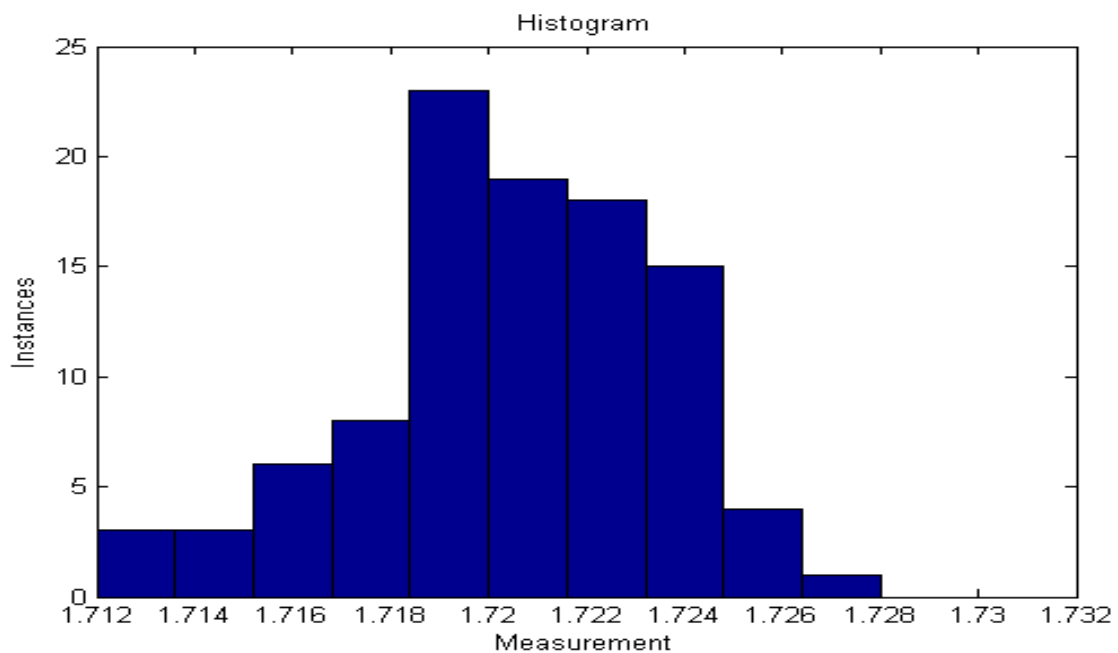
1. Thermoform Cover

The critical dimension for the Thermoform piece was its diameter.

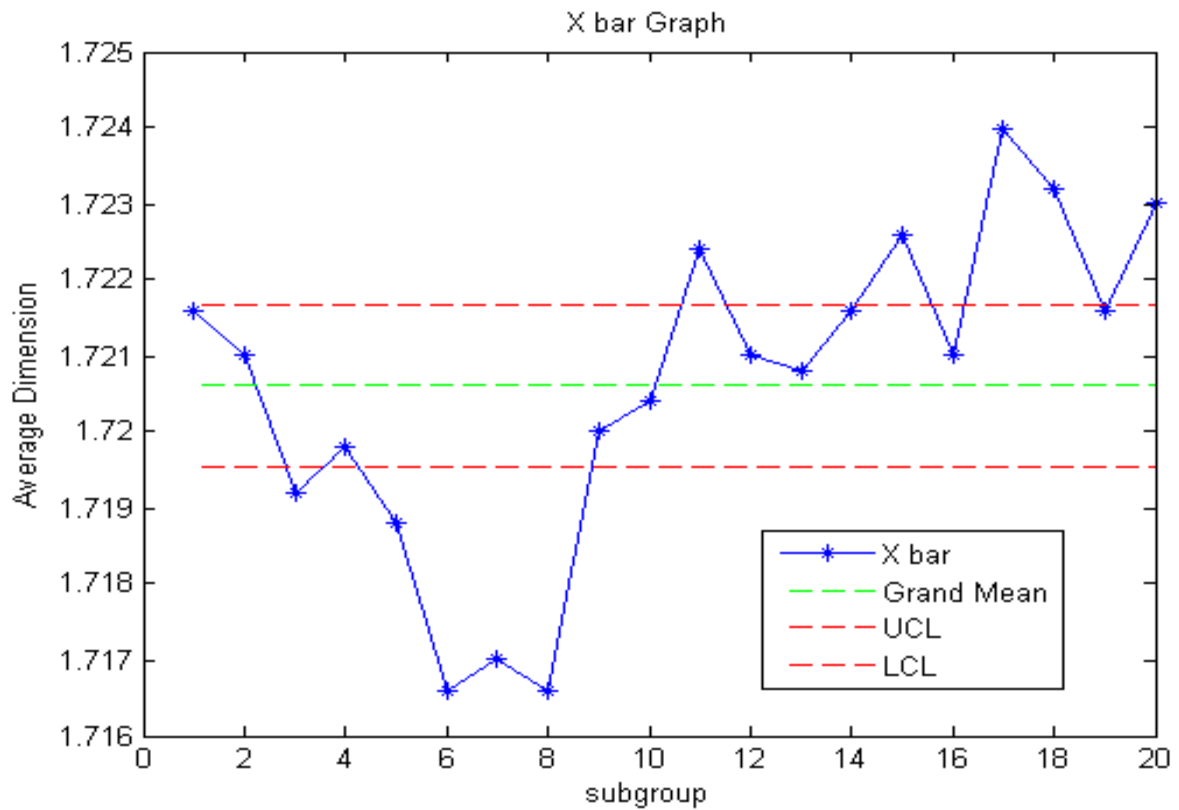
Run Chart



Histogram



Shewart X-bar Chart

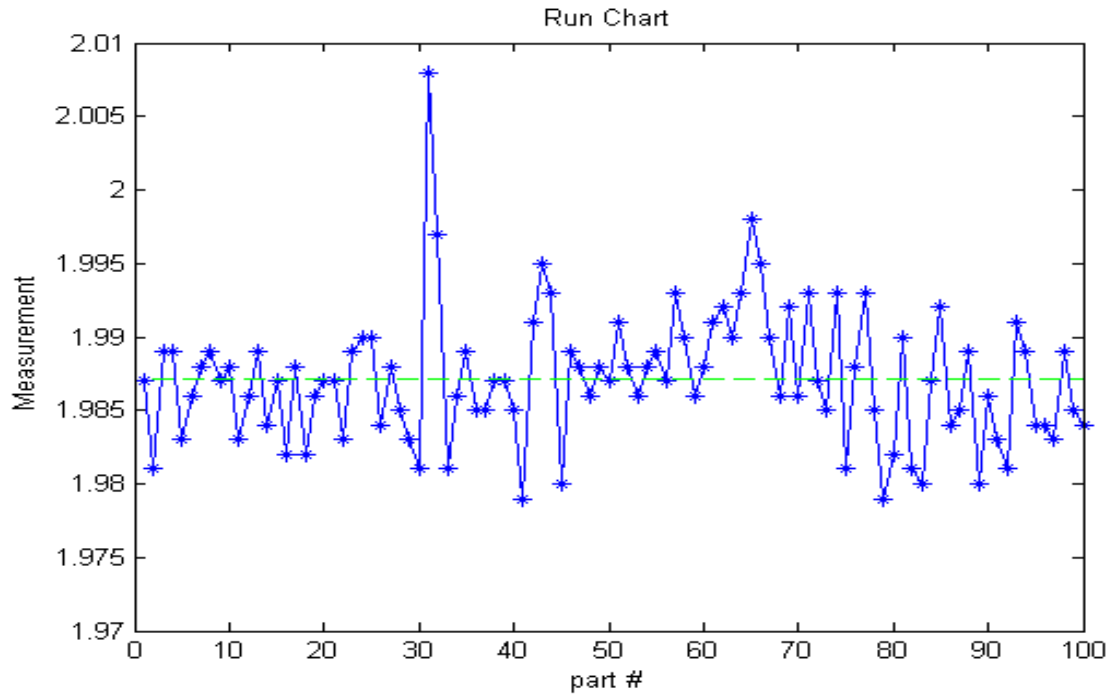


We chose to have a sample group size of 5 because the standard deviations were smaller the samples showed less variation from the mean.

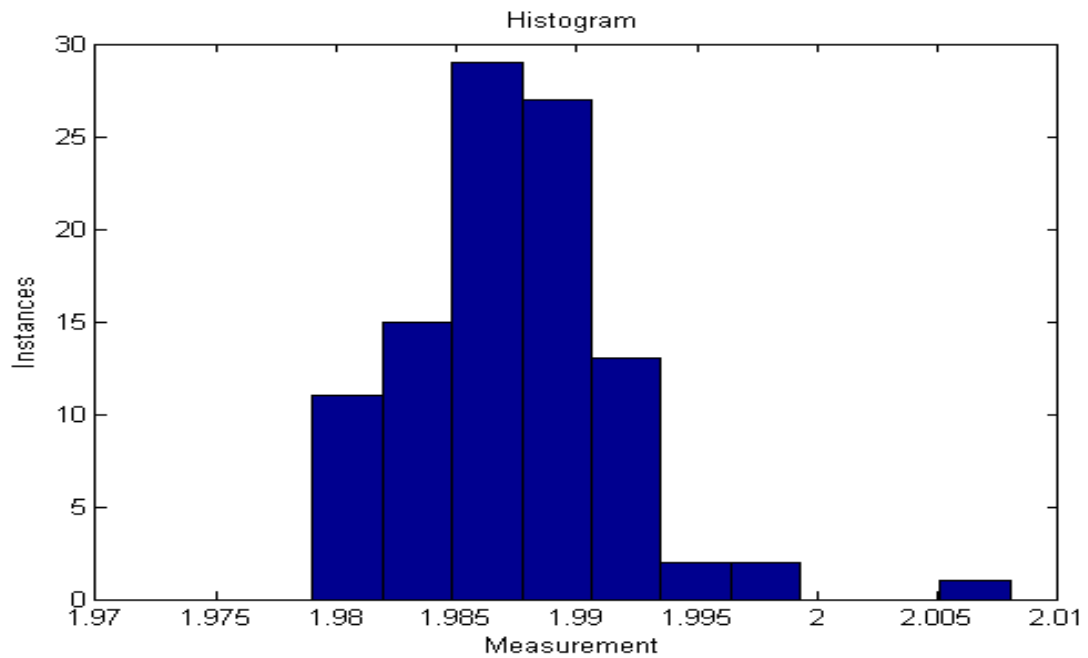
2. Black Retaining Ring

The critical dimension for the Retaining Ring was its inner diameter (ID).

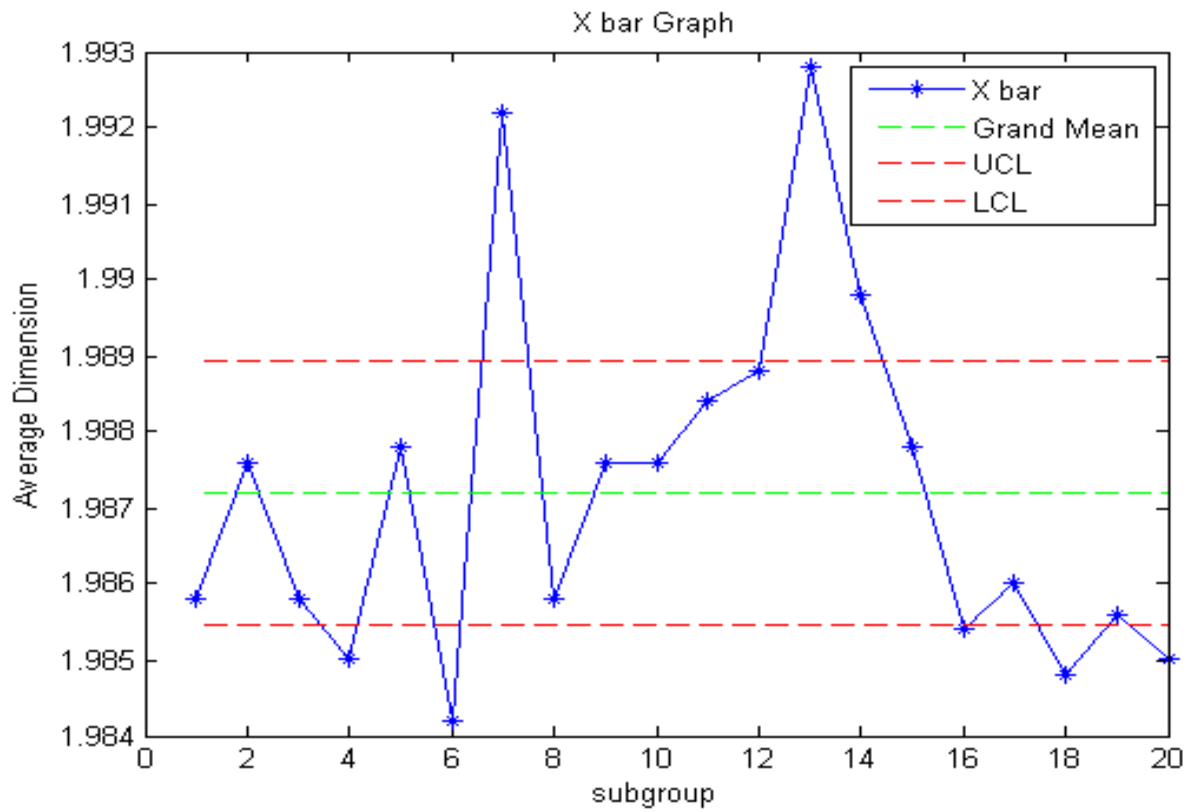
Run Chart



Histogram



Shewart X-bar Chart

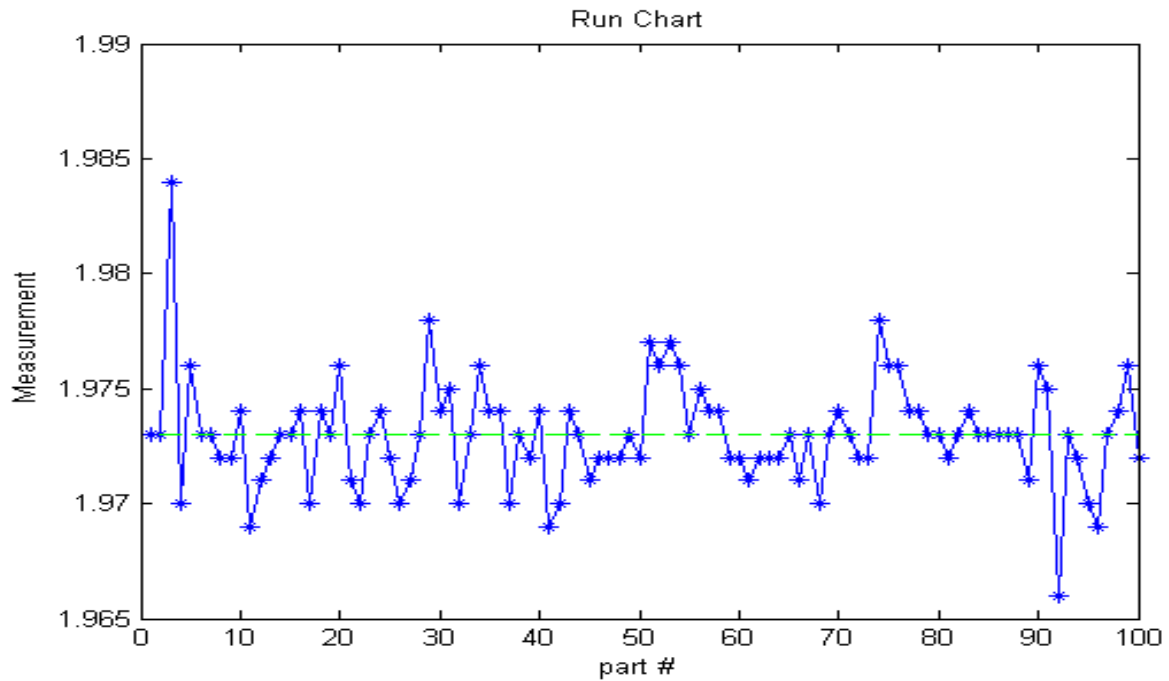


We chose to have a sample group size of 5 because the standard deviations were smaller the samples showed less variation from the mean.

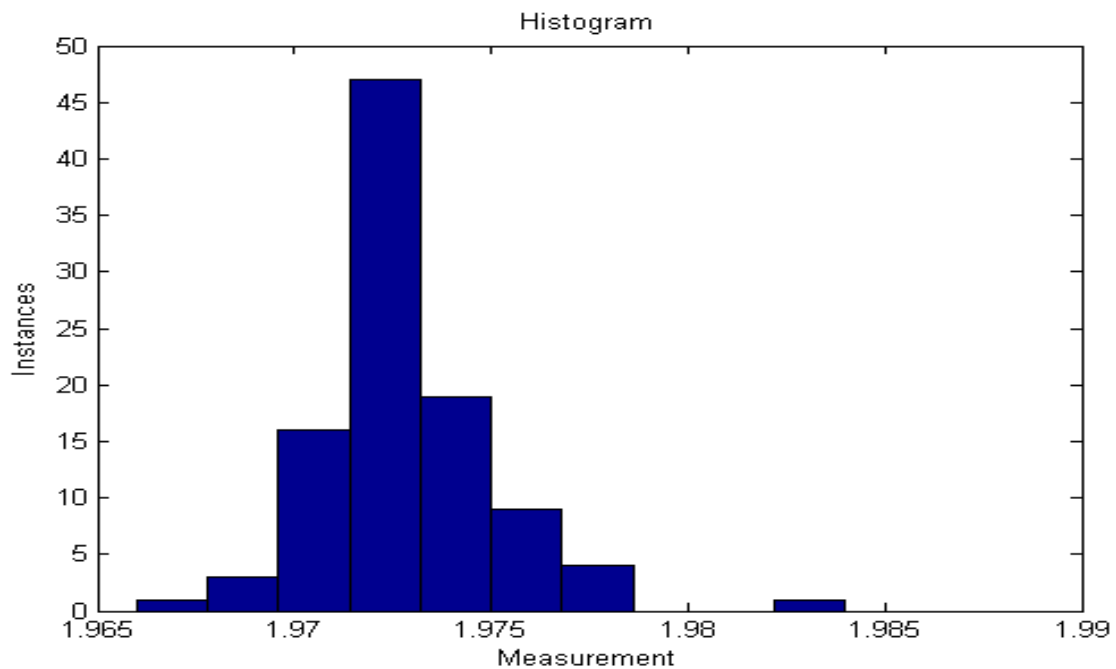
3. Orange Body

The critical dimension for the Body of the Yo-Yo was its inner diameter (ID).

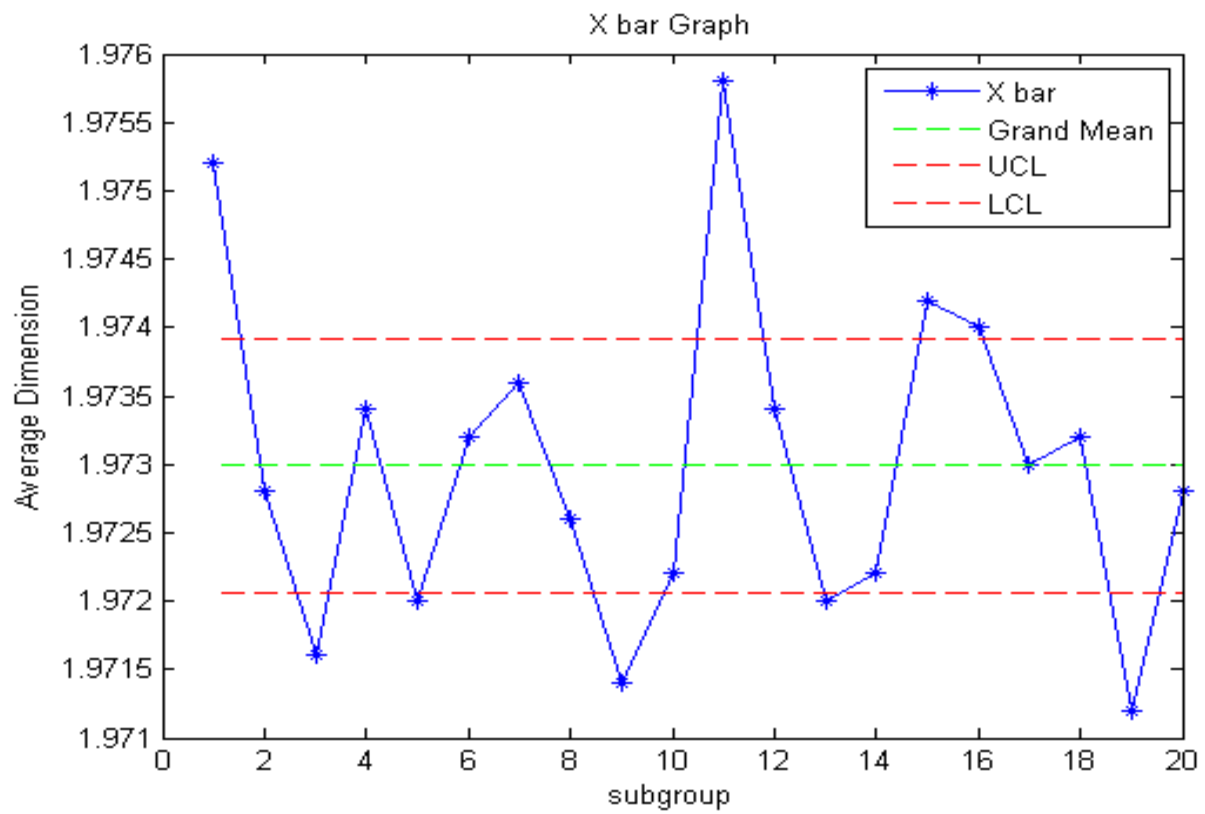
Run Chart



Histogram



Shewart X-bar Chart

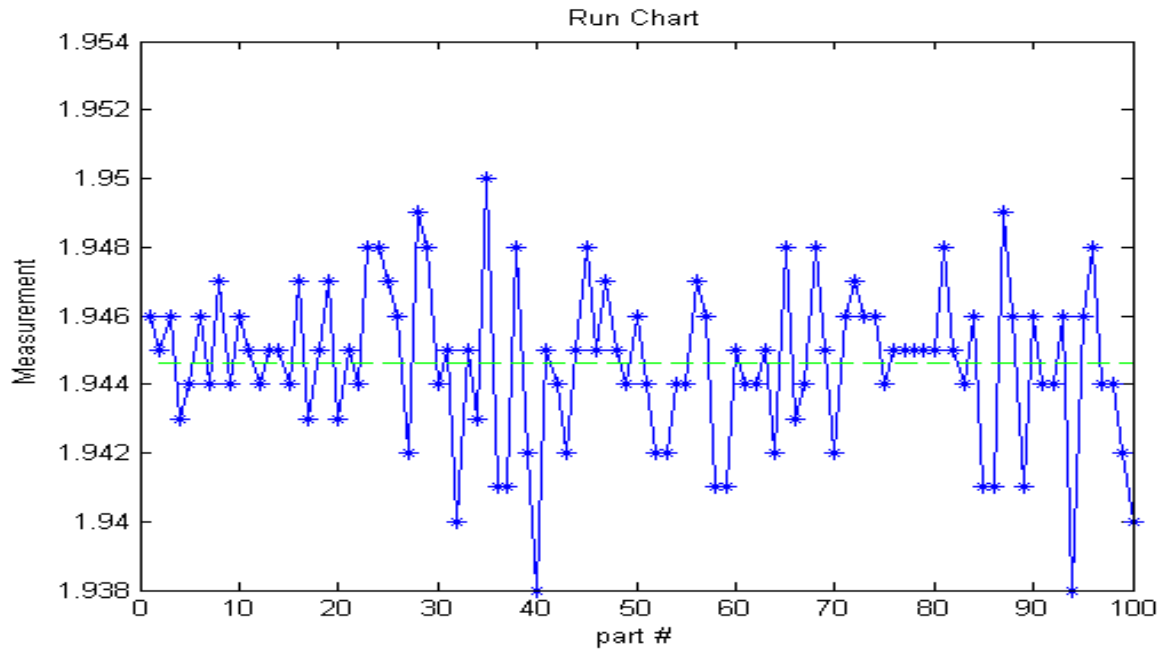


We chose to have a sample group size of 5 because the standard deviations were smaller the samples showed less variation from the mean.

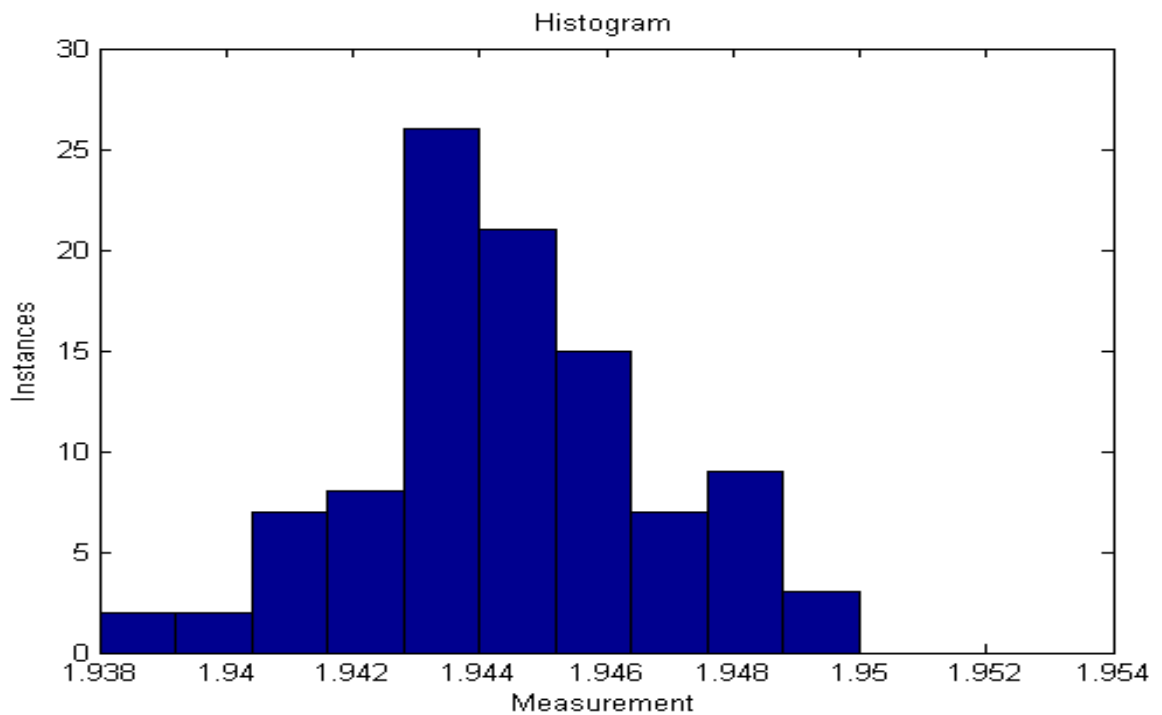
4. Lasercut Disk

The critical dimension for the laser cut disk was its diameter.

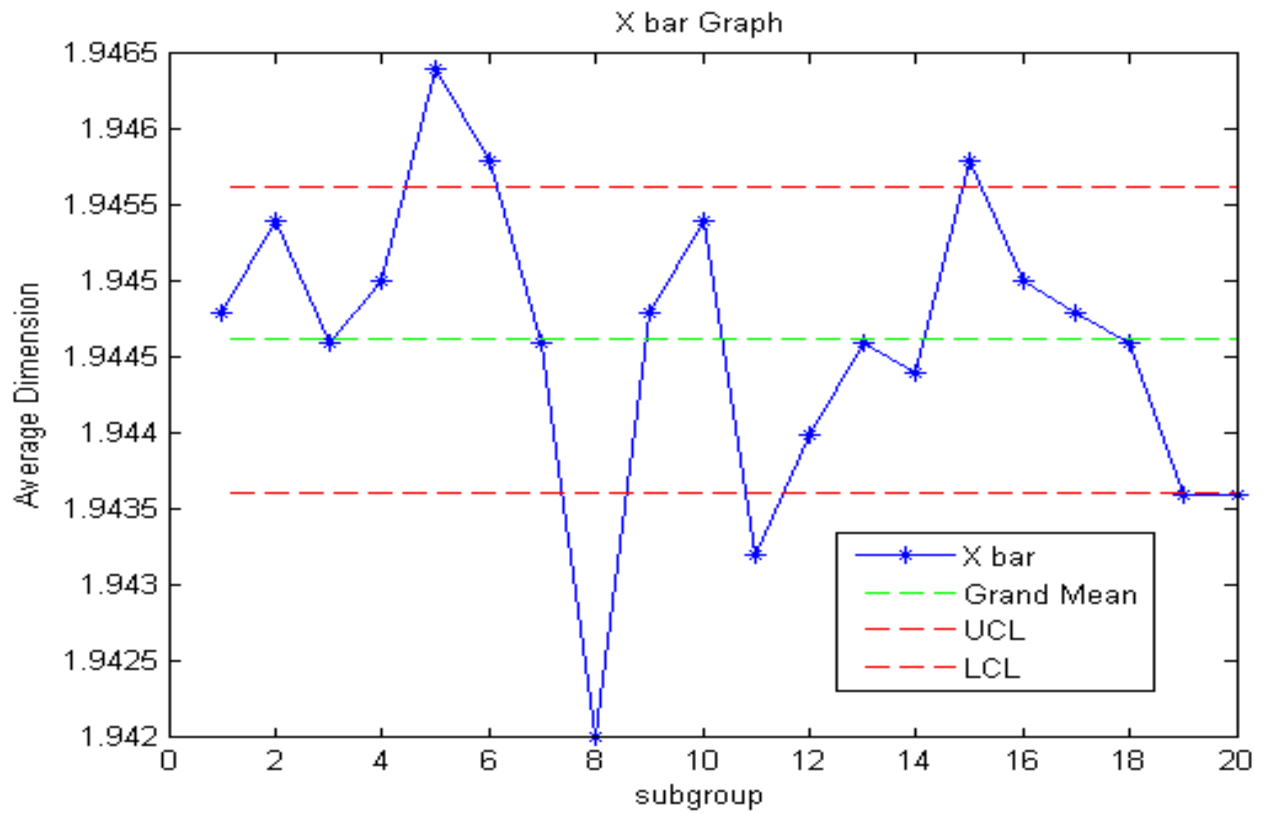
Run Chart



Histogram



Shewart X-bar Chart



We chose to have a sample group size of 5 because the standard deviations were smaller the samples showed less variation from the mean.

Process Capability

$n = 5$

$C_p = .707$

String Gap Histogram

