MSA ANOVA Results

Study Advisor

Number of Distinct Categories (ndc)
7
A value of 5 or more denotes an acceptable measurement system.

5

Xbar chart

The current chart is locked to prevent modification of the X and Y Axis of the Xbar chart. To edit this chart, unprotect it in Excel.

Range chart

The current chart is locked to prevent modification of the X and Y Axis of the Range chart. To edit this chart, unprotect it in Excel.

ANOVA Table

Source | Degree of Freedom | Sum of Squares | Mean Square | F-value | p-value
--- | --- | --- | --- | --- | ---
Parts | 2 | 0.0004939 | 0.00024695 | 0.001490 | 0.882713
Operators by Part | 6 | 0.00031202 | 0.000052004 | 0.000284 | 0.718377
Interaction (Operator by Parts) | 12 | 0.00066775 | 0.000055647 | 0.000423 | 0.611792
Total | 41 | 0.00147217

Components of Variation

<table>
<thead>
<tr>
<th>Source</th>
<th>% Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parts</td>
<td>80.95%</td>
</tr>
<tr>
<td>Operators</td>
<td>8.02%</td>
</tr>
<tr>
<td>Operators by Part</td>
<td>1.00%</td>
</tr>
<tr>
<td>Interaction (Operator by Parts)</td>
<td>0.01%</td>
</tr>
</tbody>
</table>

MSA ANOVA Results

Gage & R&R Results

<table>
<thead>
<tr>
<th>Source</th>
<th>Standard Deviation</th>
<th>A* Value</th>
<th>% Contribution</th>
</tr>
</thead>
</table>
| Total | 0.01463 | 0.01256 | 0.91%
| Repetibility (PV) | 0.01305 | 0.01125 | 0.94%
| Operator | 0.01446 | 0.01286 | 0.90%
| Part to part (PV) | 0.01242 | 0.01097 | 0.87%

Non-AIAG Statistics

$$F$$-ratio: NA

The Precision to Tolerance Ratio is defined by NIST (see http://www.itl.nist.gov/div898/handbook/glossary.htm)