

Complete green-shaded sections as required

|                                                   |                                   |
|---------------------------------------------------|-----------------------------------|
| SELECT TOLERANCE TYPE >><br>(MIN, MAX, Bilateral) | Bilateral tolerance: MIN<br>/ MAX |
|---------------------------------------------------|-----------------------------------|

NUMBER of SAMPLES in EACH SUBGROUP >>  
(2- 10)

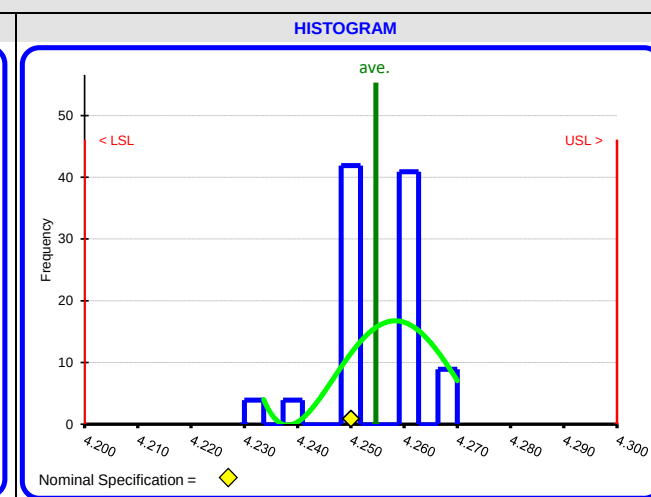
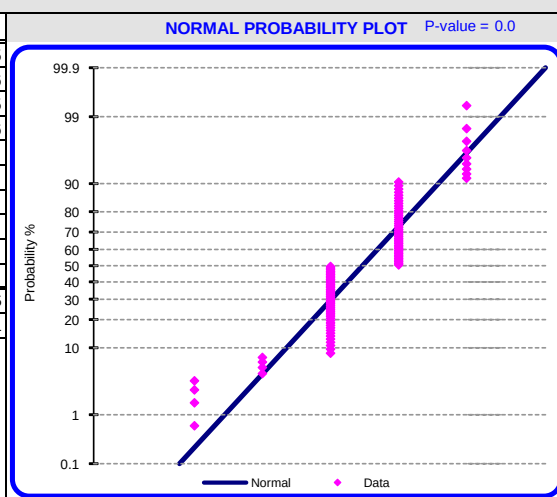
4 BACK to MasterList tab

|                  |                          |       |      |                   | Select Number Separator >> | Comma              | Decimal     | GRAND AVE.       | 4.255 |                      |      |
|------------------|--------------------------|-------|------|-------------------|----------------------------|--------------------|-------------|------------------|-------|----------------------|------|
| Plant / Location | 8400                     | Dept. | 4383 | Tool Number /     | 00000471 MA A F00J         | Mat'l Spec.        |             | SPEC.            | 4.25  | SPECIFICATION        | 4.25 |
| Part Number      | 35589655                 | ECL   | 1    | Description       |                            | # of Tool Cavities |             | PLUS             | 0.05  | USL-MAXIMUM          | 4.3  |
| Customer Part #  |                          | ECL   |      | Tool Revision #   |                            | Date of Study      | 25-Nov-2022 | MINUS            | 0.05  | LSL-MINIMUM          | 4.2  |
| Part Description | TAXI ASM TERM F APEX 2.8 |       |      | Operator/Recorder | Francisco Cazares          | Build- date        |             | Units of Measure | MM    | Cpm Target Dimension |      |
| Characteristic:  | ITEM 22                  |       |      | Meas. Equipment   | KEYENCE                    | Comments           |             |                  |       |                      |      |

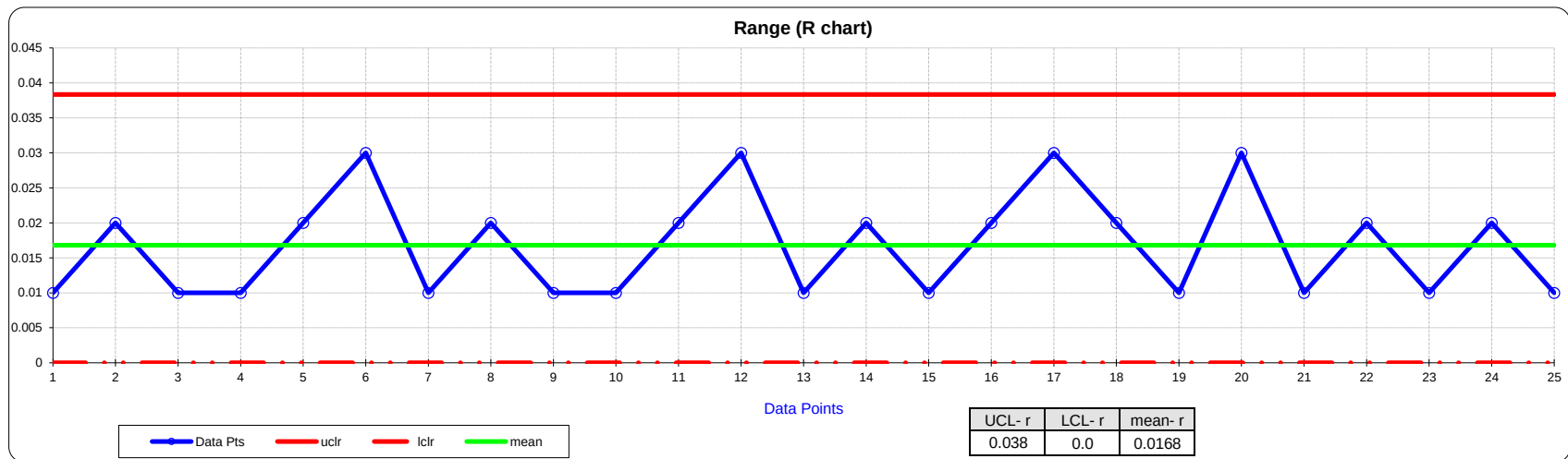
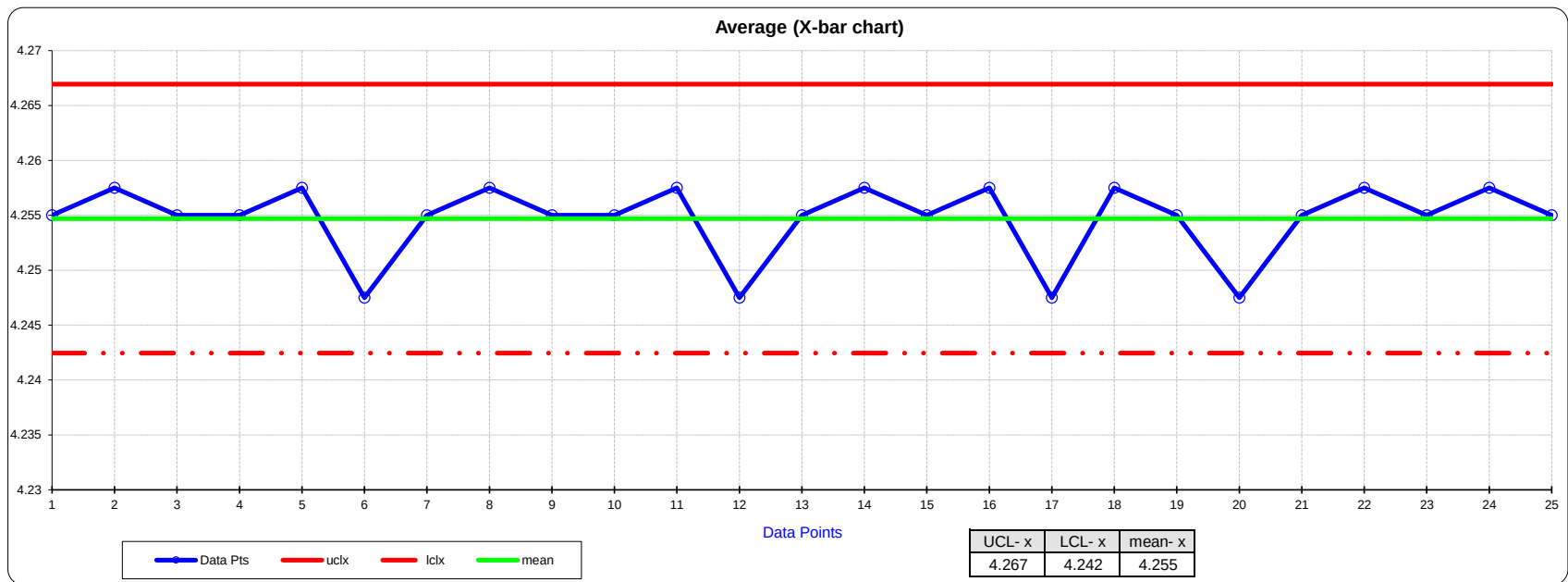
|                |                        |                        |                       |                                                                                                                                        |                          |                |
|----------------|------------------------|------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------|----------------|
| Study Criteria | C <sub>pk</sub> = 1.85 | P <sub>pk</sub> = 1.74 | C <sub>pm</sub> = N/A |  <b>Normality Tests</b><br>< click icon for details | P-value = 0.00           | CLEAR READINGS |
|                |                        |                        |                       |                                                                                                                                        | A <sup>2</sup> * = 6.576 |                |

|           |   |       |       |       |       | S     |       |       |       | U     |       |       |       | B     |       |       |       | G     |       |       |       | R |  |  |  | O |  |  |  | U |  |  |  | P |  |  |  | S |  |  |  |  |  |  |  |
|-----------|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|--|--|--|---|--|--|--|---|--|--|--|---|--|--|--|---|--|--|--|--|--|--|--|
| READING S | n | 1     | 2     | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12    | 13    | 14    | 15    | 16    | 17    | 18    | 19    | 20    |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           | 1 | 4.25  | 4.25  | 4.25  | 4.25  | 4.25  | 4.24  | 4.25  | 4.25  | 4.25  | 4.25  | 4.25  | 4.24  | 4.25  | 4.25  | 4.25  | 4.25  | 4.24  | 4.25  | 4.25  | 4.24  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           | 2 | 4.26  | 4.27  | 4.26  | 4.26  | 4.27  | 4.26  | 4.26  | 4.27  | 4.26  | 4.26  | 4.27  | 4.26  | 4.26  | 4.27  | 4.26  | 4.27  | 4.26  | 4.27  | 4.26  | 4.26  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           | 3 | 4.25  | 4.26  | 4.25  | 4.25  | 4.26  | 4.23  | 4.25  | 4.26  | 4.25  | 4.25  | 4.26  | 4.23  | 4.25  | 4.26  | 4.25  | 4.26  | 4.25  | 4.26  | 4.23  | 4.26  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           | 4 | 4.26  | 4.25  | 4.26  | 4.26  | 4.25  | 4.26  | 4.26  | 4.25  | 4.26  | 4.26  | 4.25  | 4.26  | 4.26  | 4.26  | 4.25  | 4.26  | 4.25  | 4.26  | 4.25  | 4.26  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
|           |   |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
| Average   |   | 4.255 | 4.258 | 4.255 | 4.255 | 4.258 | 4.248 | 4.255 | 4.258 | 4.255 | 4.255 | 4.258 | 4.248 | 4.255 | 4.258 | 4.255 | 4.258 | 4.248 | 4.258 | 4.255 | 4.248 |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |
| Range     |   | 0.01  | 0.02  | 0.01  | 0.01  | 0.02  | 0.03  | 0.01  | 0.02  | 0.01  | 0.01  | 0.02  | 0.03  | 0.01  | 0.02  | 0.01  | 0.02  | 0.03  | 0.02  | 0.01  | 0.03  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |   |  |  |  |  |  |  |  |

| READING | n | 21    | 22    | 23    | 24    | 25    |
|---------|---|-------|-------|-------|-------|-------|
|         | 1 | 4.25  | 4.25  | 4.25  | 4.25  | 4.25  |
|         | 2 | 4.26  | 4.27  | 4.26  | 4.27  | 4.26  |
|         | 3 | 4.25  | 4.26  | 4.25  | 4.26  | 4.25  |
|         | 4 | 4.26  | 4.25  | 4.26  | 4.25  | 4.26  |
|         |   |       |       |       |       |       |
|         |   |       |       |       |       |       |
|         |   |       |       |       |       |       |
|         |   |       |       |       |       |       |
|         |   |       |       |       |       |       |
| Average |   | 4.255 | 4.258 | 4.255 | 4.258 | 4.255 |
| Range   |   | 0.01  | 0.02  | 0.01  | 0.02  | 0.01  |



| Spec. = 4.25                       |       | LSL = 4.2                    |        | USL = 4.3                                |                                                                                       | DESCRIPTIVE STATISTICS              |                 |           |  |
|------------------------------------|-------|------------------------------|--------|------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------------|-----------------|-----------|--|
| Number of readings                 | 100   | Std Deviation (n-1)          | 0.0087 | Capability index (Cp)                    | 2.0427                                                                                | Significant trends of data points:  | X - Chart       | R - Chart |  |
| Grand Average, (X-double bar)      | 4.255 | Std Deviation (n)            | 0.0087 | Capability ratio (CR)                    | 0.4896                                                                                |                                     | 0               | 0         |  |
| Maximum Reading                    | 4.27  | Variance (n-1)               | 0.0001 | Capability Index - C <sub>pk</sub>       | 1.85                                                                                  | Consecutive data points above avg.  | 5               | 3         |  |
| Minimum Reading                    | 4.23  | Variance (n)                 | 0.0001 | Performance index (Pp)                   | 1.916                                                                                 | Consecutive data points below avg.  | 1               | 2         |  |
| Average Range (R-bar)              | 0.017 | R-bar / d <sub>2</sub>       | 0.0082 | Performance ratio (PR)                   | 0.5219                                                                                | Other Capability Index              |                 |           |  |
| # Readings < MINIMUM specification | 0     | Upper Capability Index (CPU) | 1.8506 | Ppk - USL = 1.7359    Ppk - LSL = 2.0961 |  | Process Capability Index - (Target) | C <sub>pm</sub> | N/A       |  |
| # Readings > MAXIMUM specification | 0     | Lower Capability Index (CPL) | 2.2347 | Performance Index - P <sub>pk</sub>      | 1.74                                                                                  |                                     |                 |           |  |



| STUDY NOTES (Reference Study Criteria Tab for Assessment of the Study) |  |                                         |                  |
|------------------------------------------------------------------------|--|-----------------------------------------|------------------|
|                                                                        |  | Enter Additional Notes: (if needed) >>> |                  |
|                                                                        |  |                                         |                  |
|                                                                        |  |                                         |                  |
|                                                                        |  | Approval                                | Octavio Espinoza |
|                                                                        |  | Title:                                  | Tooling Engineer |
|                                                                        |  | Date:                                   | 25-Nov-2022      |