

**Siemers Inspection Service, inc.**  
*Dimensional Layouts - Statistical Process Control*

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A2LA ACCREDITED  
A2LA TESTING CERTIFICATE #1287.01

**J O B H E A D E R**

LOG NUMBER..... SAMPLE- 100%  
CUSTOMER..... ABC MANUFACTURING, INC.  
RESPONSIBILITY..... JOHN SMITH  
PART NAME..... COVER, MOLDED  
PART NUMBER..... 123-45-678A  
B/P NUMBER..... 123-45-678XXXX  
REV. LEVEL & DATE... -C- 12MAY06  
TOOL/MOLD NUMBER...  
FIXTURE NUMBER....  
MATERIAL.....  
UNIT OF MEASURE... MM  
GENERAL TOLERANCE 1 POS 2 POS 3 POS 4 POS 5 POS ANGLE  
0.25000 0.13000 0.00000 0.00000 0.00000 0.50  
JOB DATE..... 12/27/11  
CHECK DATE..... 12/27/11  
LAYOUT TYPE..... FULL  
# PIECES..... 4  
TOTAL FEATURES..... 13  
INSPECTED BY..... TAMMY AERTS

COMMENTS: 100% INSPECTION OF 1 PIECE EACH OF 4 CAVITIES

DATE PART RECEIVED: 12/20/06  
CONDITION OF PARTS: GOOD  
THIS REPORT CONTAINS A JOB HEADER PAGE, A NOTEPAD PAGE, A DETAIL REPORT AND  
AN OUT-OF-TOLERANCE REPORT.

CUSTOMER SIGN OFF: \_\_\_\_\_ DATE: \_\_\_\_\_  
CHECKED BY : \_\_\_\_\_ DATE: \_\_\_\_\_  
REVIEWED BY : \_\_\_\_\_ DATE: \_\_\_\_\_

SAMPLE- 100%/123-45-678A/COVER, MOLDED/In Process/ABC MANUFACTURING, INC./-C- 12MAY06/12/27/11

NOTE PAD

**EQUIPMENT USED FOR THIS INSPECTION:**

| <u>NAME</u>     | <u>SERIAL #</u> | <u>ESTIMATED UNCERTAINTY*</u> |
|-----------------|-----------------|-------------------------------|
| CMM #2          | #409            | 118L+1283 $\mu$ "             |
| SCOPE #2        | #10314          | 104L+296 $\mu$ "              |
| CALIPER #5      | N/A             | 6L+290 $\mu$ "                |
| OPT. COMPARATOR | #3958           | 54L+1291 $\mu$ "              |

\*\*\* The measured parts were chosen at random from parts supplied by the customer \*\*\*

\*An estimation of the range of values within which the measurand quantity is likely (stated in millionths).  
L = Length in inches

The stated uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

The temperature in the laboratory during this inspection was within our acceptable limits of 22 deg C +/- 2 deg C and the humidity was within our acceptable limits of 50% max.

Traceable to SI Units

**The inspection results contained herein pertain ONLY to the samples inspected.  
Siemers Inspection Service, Inc. makes no statements  
or judgements concerning identical or similar parts.**

**All methods used for this inspection are in accordance with  
ASME Y14.5M-1994, unless stated otherwise.**

**THIS DOCUMENT MAY NOT BE REPRODUCED EXCEPT IN ITS ENTIRETY.**

SAMPLE- 100%/123-45-678A/COVER, MOLDED/In Process/ABC MANUFACTURING, INC./-C- 12MAY06/12/27/11

COLUMN DETAIL - GROUP SIZE: 1 - STD. DEV BASED ON: Population (N)

| BAL/Desc/Loc      | 1           | 2        | 3        | 4        | 5        |
|-------------------|-------------|----------|----------|----------|----------|
| Nominal           | 1.          | 0.64     | 2.45     | 2.05     | 2.05     |
| Geo. Name         | Draft Angle |          |          |          |          |
| Tolerance         | +/-0.500    | +/-0.130 | +/-0.050 | +/-0.130 | +/-0.130 |
| Comment           |             |          |          |          |          |
| Device            | Scope #2    | Scope #2 | Scope #2 | Scope #2 | Scope #2 |
| CAV. 1            | 0.756       | 0.843    | 0.073    | 2.431    | 2.127    |
| CAV. 2            | 1.130       | 0.840    | 0.070    | 2.454    | 2.104    |
| CAV. 3            | 0.878       | 0.833    | 0.063    | 2.474    | 2.166    |
| CAV. 4            | 0.887       | 0.822    | 0.052    | 2.517    | 1.924    |
| Minimum           | 0.756       | 0.822    |          | 2.431    | 1.924    |
| Maximum           | 1.130       | 0.843    |          | 2.517    | 2.166    |
| Range             | 0.374       | 0.021    |          | 0.086    | 0.242    |
| Mean              | 0.913       | 0.835    |          | 2.469    | 2.080    |
| Std. Dev.         | 0.156672    | 0.009327 |          | 0.036506 | 0.107264 |
| Cr                | 0.940       | 0.215    |          | 2.190    | 2.475    |
| Cp                | 1.064       | 4.646    |          | 0.457    | 0.404    |
| Cpk Sigma +/- 3   | 0.878       | -2.305   |          | 0.283    | 0.310    |
| Std. Dev. (Range) | 0.156672    | 0.009327 |          | 0.036506 | 0.107264 |
| XBarBar           | 0.913       | 0.835    |          | 2.469    | 2.080    |
| RBar              | 0.000       | 0.000    |          | 0.000    | 0.000    |
| Pp                | 1.064       | 4.646    |          | 0.457    | 0.404    |
| Ppk               | 0.878       | -2.305   |          | 0.283    | 0.310    |

SAMPLE- 100%/123-45-678A/COVER, MOLDED/In Process/ABC MANUFACTURING, INC./-C- 12MAY06/12/27/11

COLUMN DETAIL - GROUP SIZE: 1 - STD. DEV BASED ON: Population (N) - (Continued)

| BAL/Desc/Loc      | 6        | 7        | 8           | 9        | 10          |        |
|-------------------|----------|----------|-------------|----------|-------------|--------|
| Nominal           | 45.      | 1.28     | 1.          | .40      | 10.         |        |
| Geo. Name         | Degrees  |          | Draft Angle |          | Draft Angle |        |
| Tolerance         | +/-0.500 | +/-0.130 | +/-0.500    | +/-0.130 | +/-0.500    |        |
| Comment           | 2 PLACES |          |             |          |             |        |
| Device            | Scope #2 | Scope #2 | Scope #2    | Scope #2 | Scope #2    |        |
| CAV. 1            | 45.000   | 1.963    | 0.553       | 1.120    | 0.372       | 10.000 |
| CAV. 2            | 45.000   | 1.832    | 0.422       | 0.692    | 0.312       | 10.000 |
| CAV. 3            | 45.000   | 1.744    | 0.334       | 1.122    | 0.356       | 10.000 |
| CAV. 4            | 45.000   | 1.849    | 0.439       | 0.963    | 0.398       | 10.000 |
| Minimum           | N/A      | 1.744    |             | 0.692    | 0.312       | N/A    |
| Maximum           | N/A      | 1.963    |             | 1.122    | 0.398       | N/A    |
| Range             | N/A      | 0.219    |             | 0.430    | 0.086       | N/A    |
| Mean              | N/A      | 1.847    |             | 0.974    | 0.360       | N/A    |
| Std. Dev.         | N/A      | 0.089989 |             | 0.202373 | 0.036088    | N/A    |
| Cr                | N/A      | 2.077    |             | 1.214    | 0.833       | N/A    |
| Cp                | N/A      | 0.482    |             | 0.824    | 1.201       | N/A    |
| Cpk Sigma +/- 3   | N/A      | -1.619   |             | 0.781    | 0.827       | N/A    |
| Std. Dev. (Range) | N/A      | 0.089989 |             | 0.202373 | 0.036088    | N/A    |
| XBarBar           | N/A      | 1.847    |             | 0.974    | 0.360       | N/A    |
| RBar              | N/A      | 0.000    |             | 0.000    | 0.000       | N/A    |
| Pp                | N/A      | 0.482    |             | 0.824    | 1.201       | N/A    |
| Ppk               | N/A      | -1.619   |             | 0.781    | 0.827       | N/A    |

SAMPLE- 100%/123-45-678A/COVER, MOLDED/In Process/ABC MANUFACTURING, INC./-C- 12MAY06/12/27/11

COLUMN DETAIL - GROUP SIZE: 1 - STD. DEV BASED ON: Population (N) - (Continued)

| BAL/Desc/Loc      | 11       | 12       | 13       |        |
|-------------------|----------|----------|----------|--------|
| Nominal           | 0.50     | 2.0      | 0.50     |        |
| Geo. Name         |          |          |          |        |
| Tolerance         | +/-0.130 | +/-0.250 | +/-0.130 |        |
| Comment           |          |          |          |        |
| Device            | Scope #2 | Scope #2 | Scope #2 |        |
| CAV. 1            | 0.572    | 1.750    | 0.386    |        |
| CAV. 2            | 0.610    | 1.883    | 0.382    |        |
| CAV. 3            | 0.533    | 2.019    | 0.368    | -0.002 |
| CAV. 4            | 0.584    | 1.807    | 0.371    |        |
| Minimum           | 0.533    | 1.750    | 0.368    |        |
| Maximum           | 0.610    | 2.019    | 0.386    |        |
| Range             | 0.077    | 0.269    | 0.018    |        |
| Mean              | 0.575    | 1.865    | 0.377    |        |
| Std. Dev.         | 0.032035 | 0.116374 | 0.008617 |        |
| Cr                | 0.739    | 1.396    | 0.199    |        |
| Cp                | 1.353    | 0.716    | 5.029    |        |
| Cpk Sigma +/- 3   | 0.575    | 0.329    | 0.261    |        |
| Std. Dev. (Range) | 0.032035 | 0.116374 | 0.008617 |        |
| XBarBar           | 0.575    | 1.865    | 0.377    |        |
| RBar              | 0.000    | 0.000    | 0.000    |        |
| Pp                | 1.353    | 0.716    | 5.029    |        |
| Ppk               | 0.575    | 0.329    | 0.261    |        |

SAMPLE- 100%/123-45-678A/COVER, MOLDED/In Process/ABC MANUFACTURING, INC./-C- 12MAY06/12/27/11

OUT OF TOLERANCE SUMMARY

| BAL# / DESC<br>FEATURE | NOMINAL<br>TOLERANCE +/- | CAV. 1<br>MEASURED<br>OUT TOL | CAV. 2<br>MEASURED<br>OUT TOL | CAV. 3<br>MEASURED<br>OUT TOL | CAV. 4<br>MEASURED<br>OUT TOL |   |
|------------------------|--------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|---|
| 2<br><br>Scope #2      | 0.64<br>+/- 0.130        | 0.843<br>0.073                | 0.840<br>0.070                | 0.833<br>0.063                | 0.822<br>0.052                | * |
| 3<br><br>Scope #2      | 2.45<br>+/- 0.050        | 2.431                         | 2.454                         | 2.474                         | 2.517<br>0.017                | * |
| 7<br><br>Scope #2      | 1.28<br>+/- 0.130        | 1.963<br>0.553                | 1.832<br>0.422                | 1.744<br>0.334                | 1.849<br>0.439                | * |
| 13<br><br>Scope #2     | 0.50<br>+/- 0.130        | 0.386                         | 0.382                         | 0.368<br>-0.002               | 0.371                         | * |