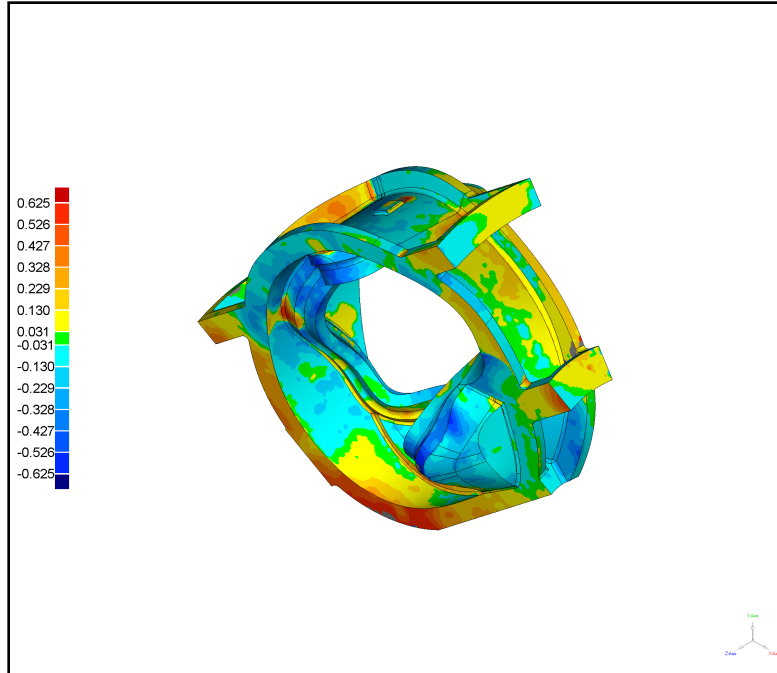


Qualify Report

Title: C4-AR
Date: 11/9/2005, 3:28 pm



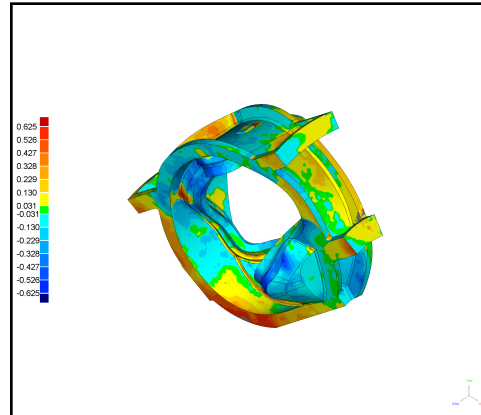
Author: Steve Pilgram
Part: C4 Coil

3D Comparison Results

| | |
|-----------------|-----------------|
| Reference Model | c-coil-casting |
| Test Model | Merged Points 1 |
| # Data Points | 1213785 |

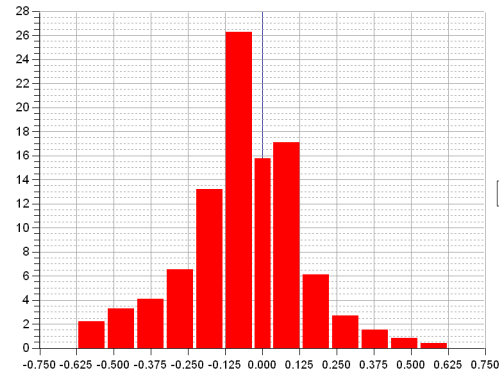
| | |
|------------|--------|
| Tolerances | in |
| Max Tol + | 0.625 |
| Min Tol + | 0.031 |
| Min Tol - | -0.031 |
| Max Tol - | -0.625 |

| | |
|-------------|----------------|
| Deviation | in |
| Max Dev + | 0.625 |
| Max Dev - | -0.625 |
| Average +/- | 0.121 / -0.166 |
| Std Dev | 0.194 |



Percentage Deviations

| >=Min | <Max | # Points | % |
|--------|--------|----------|--------|
| -0.625 | -0.526 | 26956 | 2.221 |
| -0.526 | -0.427 | 40097 | 3.303 |
| -0.427 | -0.328 | 49279 | 4.060 |
| -0.328 | -0.229 | 79265 | 6.530 |
| -0.229 | -0.130 | 160073 | 13.188 |
| -0.130 | -0.031 | 318555 | 26.245 |
| -0.031 | 0.031 | 191359 | 15.765 |
| 0.031 | 0.130 | 207663 | 17.109 |
| 0.130 | 0.229 | 74408 | 6.130 |
| 0.229 | 0.328 | 32860 | 2.707 |
| 0.328 | 0.427 | 18560 | 1.529 |
| 0.427 | 0.526 | 9726 | 0.801 |
| 0.526 | 0.625 | 4983 | 0.411 |

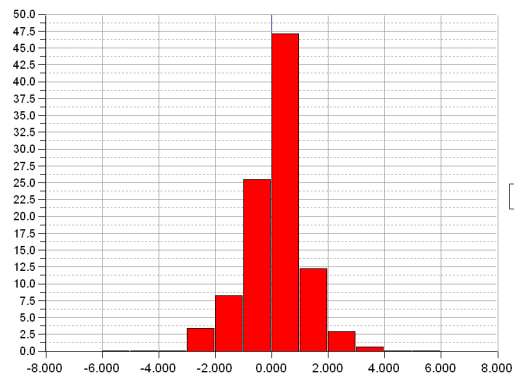


Deviation Distribution

| | | |
|------------------|---|-------|
| Out of Max Tol + | 0 | 0.000 |
| Out of Max Tol - | 1 | 0.000 |

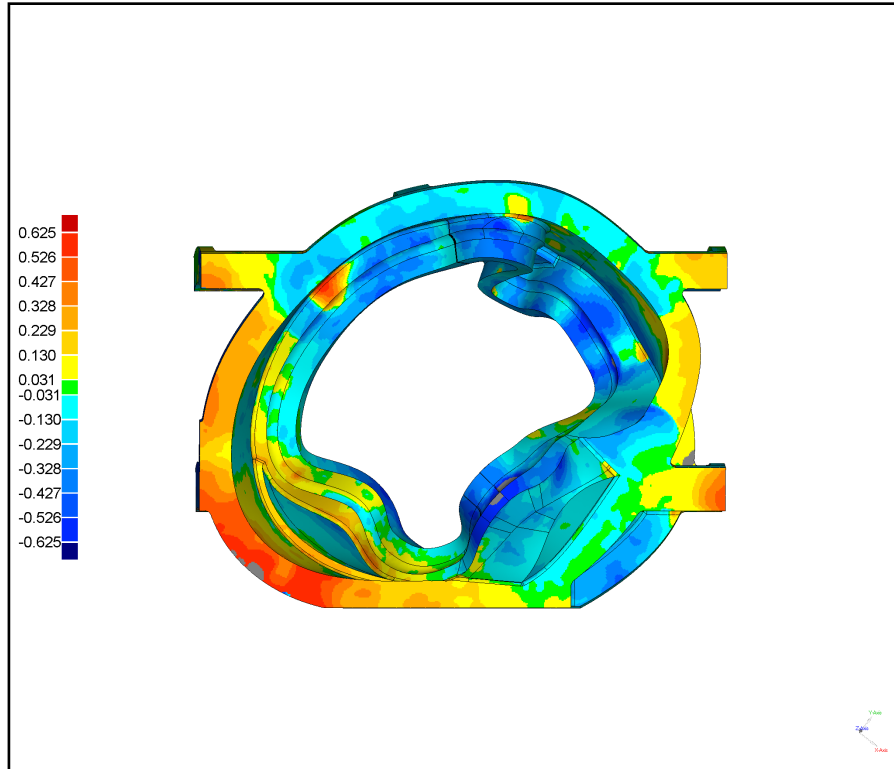
Standard Deviations

| Distribution (+/-) | # Points | % |
|--------------------|----------|--------|
| -6 * Std Dev | 0 | 0.000 |
| -5 * Std Dev | 0 | 0.000 |
| -4 * Std Dev | 0 | 0.000 |
| -3 * Std Dev | 41262 | 3.399 |
| -2 * Std Dev | 100464 | 8.277 |
| -1 * Std Dev | 308832 | 25.444 |
| 1 * Std Dev | 571334 | 47.070 |
| 2 * Std Dev | 148552 | 12.239 |
| 3 * Std Dev | 35279 | 2.907 |
| 4 * Std Dev | 8062 | 0.664 |
| 5 * Std Dev | 0 | 0.000 |
| 6 * Std Dev | 0 | 0.000 |

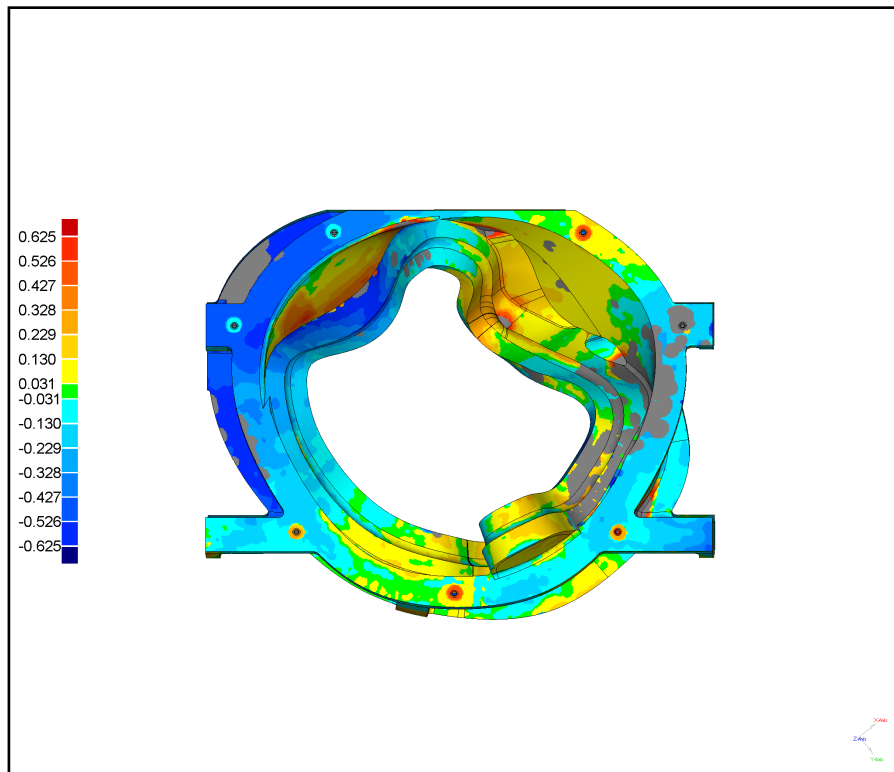


Standard Deviations

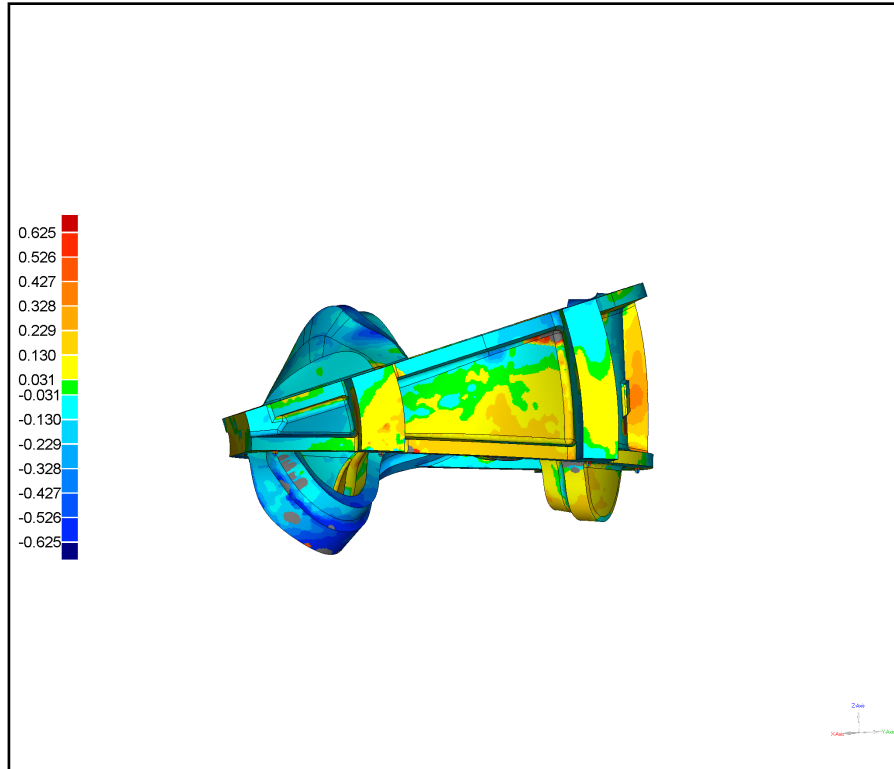
UserDefined: top



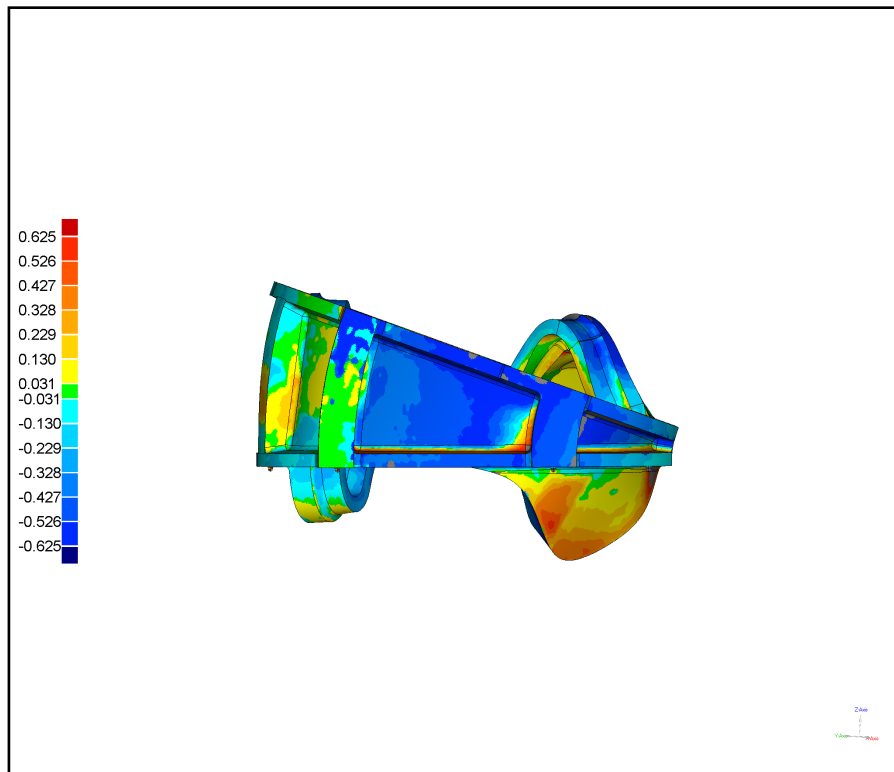
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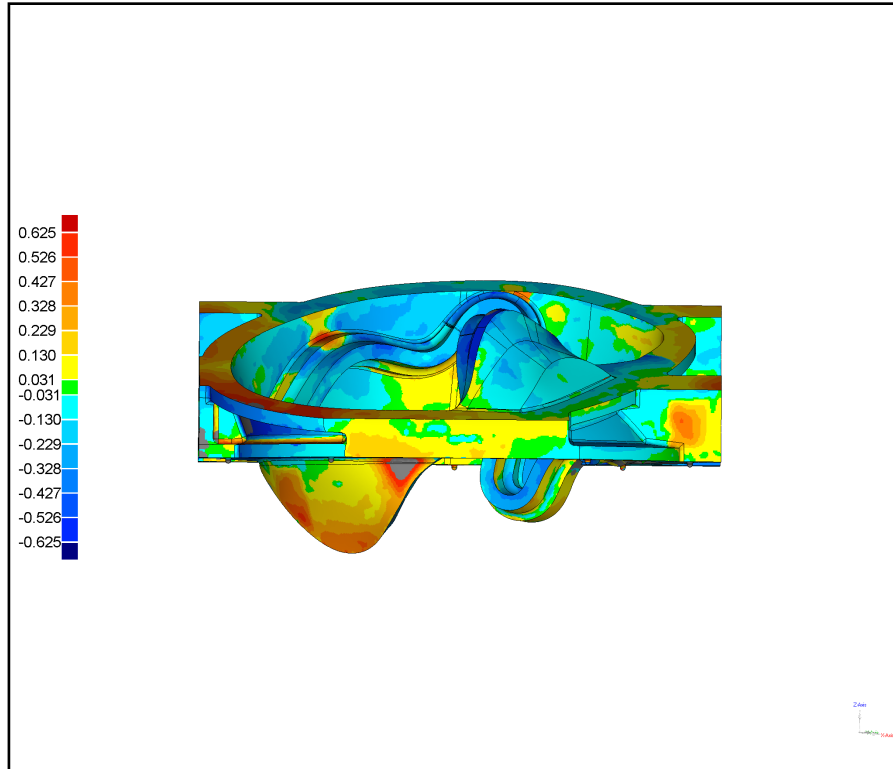
UserDefined: right



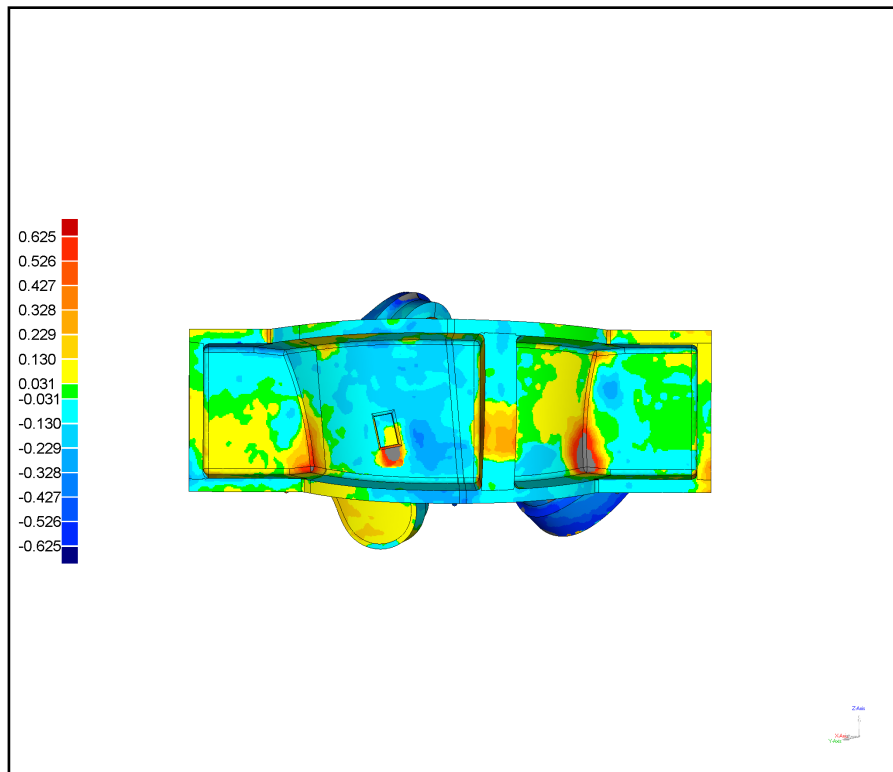
UserDefined: left



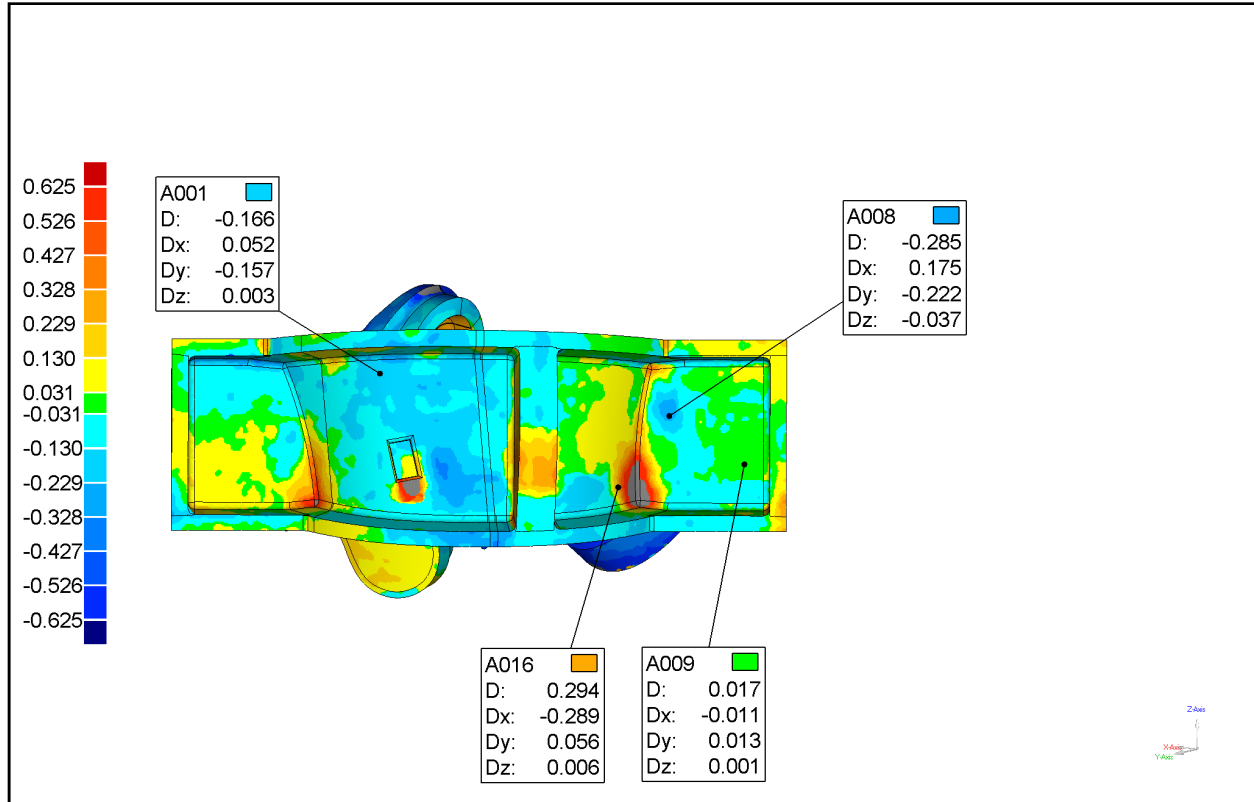
UserDefined: front



UserDefined: back



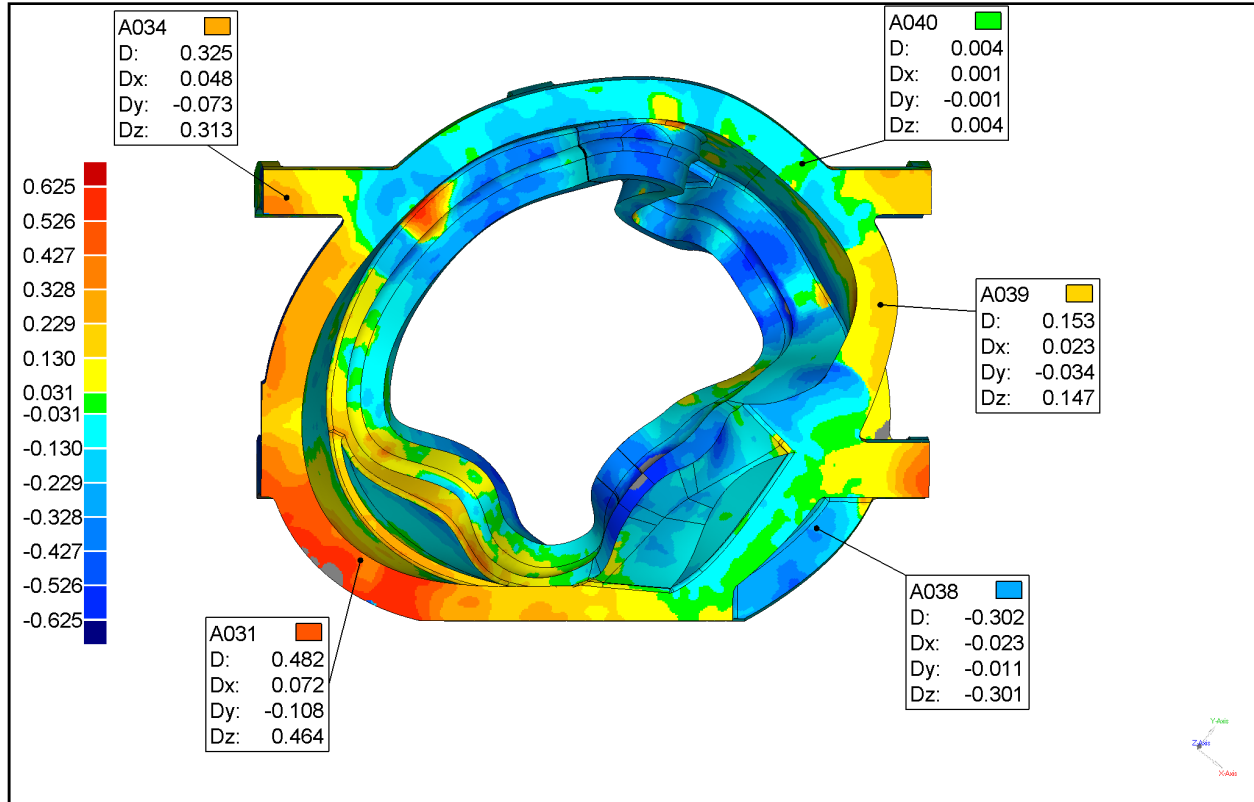
Annotated: Annotation View 1



Units: in

| Name | Dev | Status | Tol + | Tol - | Ref X | Ref Y | Ref Z | Dev Radius | Dev X | Dev Y | Dev Z | Test X | Test Y | Test Z |
|------|--------|--------|-------|-------|--------|--------|--------|------------|--------|--------|--------|--------|--------|--------|
| A001 | -0.166 | | | | 57.864 | 76.351 | 50.959 | 0.039 | 0.052 | -0.157 | 0.003 | 57.916 | 76.194 | 50.963 |
| A008 | -0.285 | | | | 27.846 | 41.336 | 41.954 | 0.039 | 0.175 | -0.222 | -0.037 | 28.020 | 41.114 | 41.917 |
| A009 | 0.017 | | | | 18.293 | 34.683 | 34.165 | 0.039 | -0.011 | 0.013 | 0.001 | 18.282 | 34.696 | 34.166 |
| A016 | 0.294 | | | | 32.170 | 49.151 | 31.349 | 0.039 | -0.289 | 0.056 | 0.006 | 31.881 | 49.207 | 31.355 |

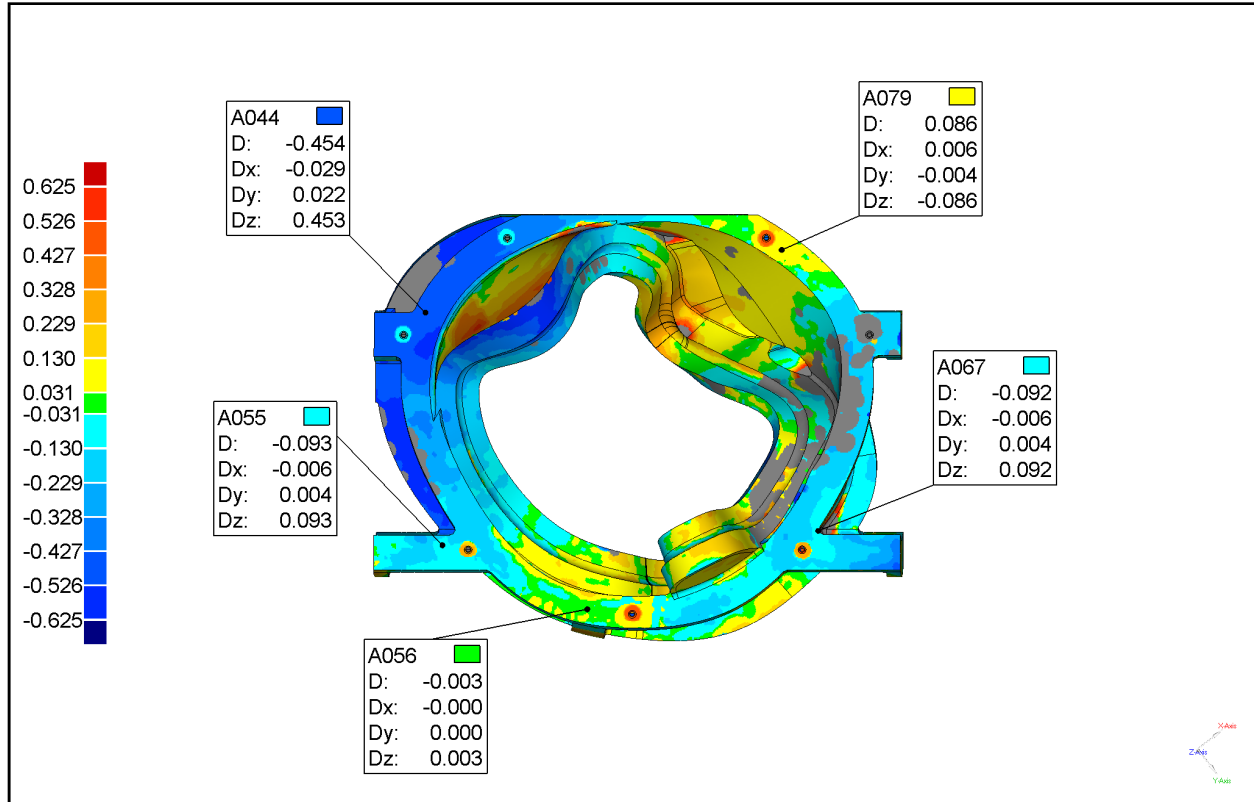
Annotated: Annotation View 2



Units: in

| Name | Dev | Status | Tol + | Tol - | Ref X | Ref Y | Ref Z | Dev Radius | Dev X | Dev Y | Dev Z | Test X | Test Y | Test Z |
|------|--------|--------|-------|-------|---------|--------|--------|------------|--------|--------|--------|---------|--------|--------|
| A031 | 0.482 | | | | 57.285 | -2.758 | 38.936 | 0.039 | 0.072 | -0.108 | 0.464 | 57.357 | -2.866 | 39.400 |
| A034 | 0.325 | | | | 16.996 | 30.435 | 52.898 | 0.039 | 0.048 | -0.073 | 0.313 | 17.045 | 30.362 | 53.211 |
| A038 | -0.302 | | | | 106.186 | 42.369 | 32.818 | 0.039 | -0.023 | -0.011 | -0.301 | 106.164 | 42.359 | 32.518 |
| A039 | 0.153 | | | | 93.952 | 71.406 | 50.523 | 0.039 | 0.023 | -0.034 | 0.147 | 93.975 | 71.372 | 50.670 |
| A040 | 0.004 | | | | 72.636 | 79.922 | 55.804 | 0.039 | 0.001 | -0.001 | 0.004 | 72.637 | 79.922 | 55.808 |

Annotated: Annotation View 3



Units: in

| Name | Dev | Status | Tol + | Tol - | Ref X | Ref Y | Ref Z | Dev Radius | Dev X | Dev Y | Dev Z | Test X | Test Y | Test Z |
|------|--------|--------|-------|-------|---------|--------|--------|------------|--------|--------|--------|---------|--------|--------|
| A044 | -0.454 | | | | 47.217 | 2.387 | 27.920 | 0.039 | -0.029 | 0.022 | 0.453 | 47.188 | 2.409 | 28.373 |
| A055 | -0.093 | | | | 23.420 | 38.216 | 24.667 | 0.039 | -0.006 | 0.004 | 0.093 | 23.414 | 38.220 | 24.760 |
| A056 | -0.003 | | | | 37.084 | 63.860 | 24.311 | 0.039 | -0.000 | 0.000 | 0.003 | 37.084 | 63.860 | 24.314 |
| A067 | -0.092 | | | | 79.240 | 78.429 | 26.319 | 0.039 | -0.006 | 0.004 | 0.092 | 79.234 | 78.433 | 26.411 |
| A079 | 0.086 | | | | 105.669 | 33.346 | 30.187 | 0.039 | 0.006 | -0.004 | -0.086 | 105.674 | 33.342 | 30.101 |

Annotated: All

Units: in

| Name | Dev | Status | Tol + | Tol - | Ref X | Ref Y | Ref Z | Dev Radius | Dev X | Dev Y | Dev Z | Test X | Test Y | Test Z |
|------|--------|--------|-------|-------|---------|--------|--------|------------|--------|--------|--------|---------|--------|--------|
| A001 | -0.166 | | | | 57.864 | 76.351 | 50.959 | 0.039 | 0.052 | -0.157 | 0.003 | 57.916 | 76.194 | 50.963 |
| A008 | -0.285 | | | | 27.846 | 41.336 | 41.954 | 0.039 | 0.175 | -0.222 | -0.037 | 28.020 | 41.114 | 41.917 |
| A009 | 0.017 | | | | 18.293 | 34.683 | 34.165 | 0.039 | -0.011 | 0.013 | 0.001 | 18.282 | 34.696 | 34.166 |
| A016 | 0.294 | | | | 32.170 | 49.151 | 31.349 | 0.039 | -0.289 | 0.056 | 0.006 | 31.881 | 49.207 | 31.355 |
| A031 | 0.482 | | | | 57.285 | -2.758 | 38.936 | 0.039 | 0.072 | -0.108 | 0.464 | 57.357 | -2.866 | 39.400 |
| A034 | 0.325 | | | | 16.996 | 30.435 | 52.898 | 0.039 | 0.048 | -0.073 | 0.313 | 17.045 | 30.362 | 53.211 |
| A038 | -0.302 | | | | 106.186 | 42.369 | 32.818 | 0.039 | -0.023 | -0.011 | -0.301 | 106.164 | 42.359 | 32.518 |
| A039 | 0.153 | | | | 93.952 | 71.406 | 50.523 | 0.039 | 0.023 | -0.034 | 0.147 | 93.975 | 71.372 | 50.670 |
| A040 | 0.004 | | | | 72.636 | 79.922 | 55.804 | 0.039 | 0.001 | -0.001 | 0.004 | 72.637 | 79.922 | 55.808 |
| A044 | -0.454 | | | | 47.217 | 2.387 | 27.920 | 0.039 | -0.029 | 0.022 | 0.453 | 47.188 | 2.409 | 28.373 |
| A055 | -0.093 | | | | 23.420 | 38.216 | 24.667 | 0.039 | -0.006 | 0.004 | 0.093 | 23.414 | 38.220 | 24.760 |
| A056 | -0.003 | | | | 37.084 | 63.860 | 24.311 | 0.039 | -0.000 | 0.000 | 0.003 | 37.084 | 63.860 | 24.314 |
| A067 | -0.092 | | | | 79.240 | 78.429 | 26.319 | 0.039 | -0.006 | 0.004 | 0.092 | 79.234 | 78.433 | 26.411 |
| A079 | 0.086 | | | | 105.669 | 33.346 | 30.187 | 0.039 | 0.006 | -0.004 | -0.086 | 105.674 | 33.342 | 30.101 |