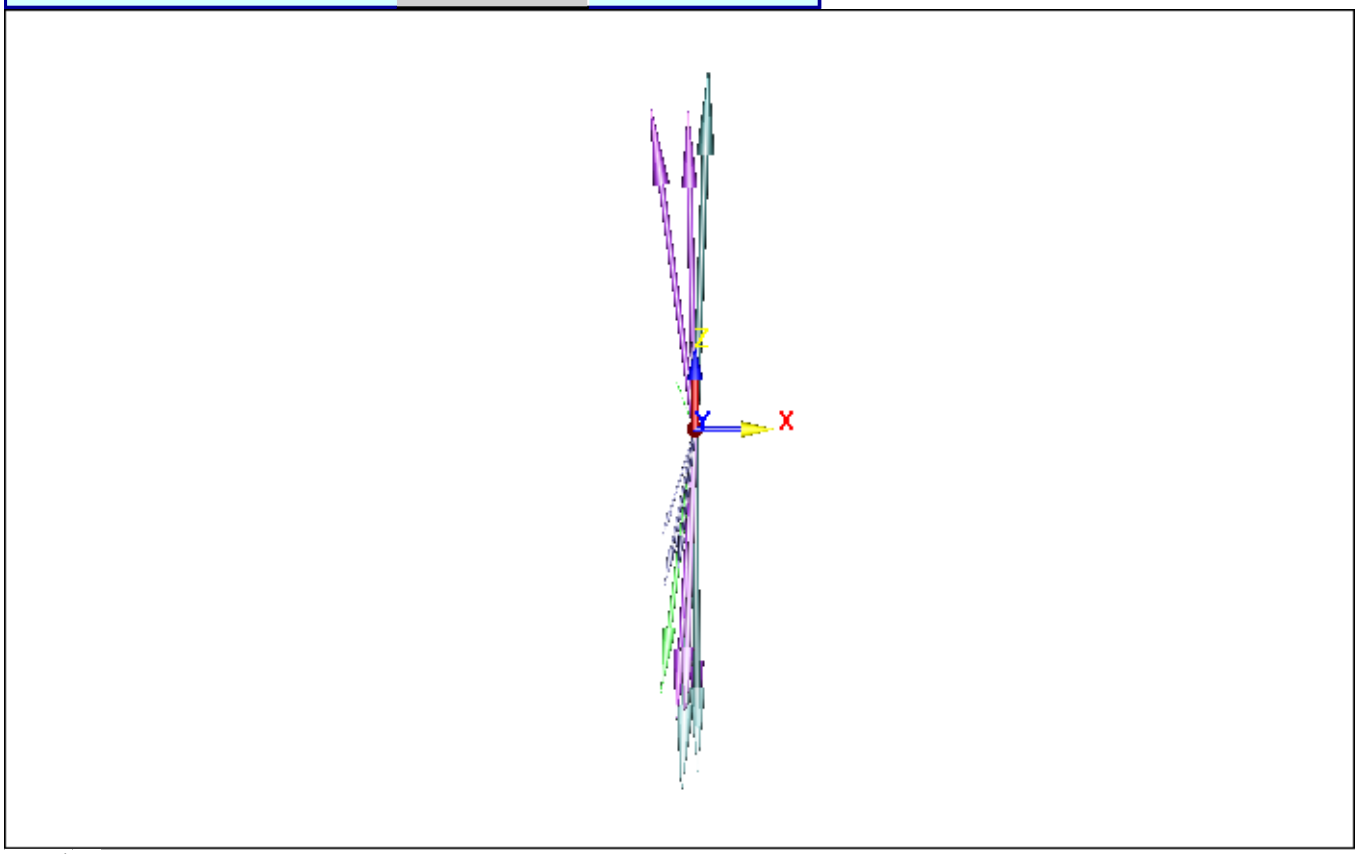
| pc-dmis | PART NAME : 440004A | | April 18, 2014 | 18:09 |
|---|---|---|---|---|
| | REV NUMBER : | SER NUMBER : | STATS COUNT : | 1 |

Part Number: 440004-A
SRF 1.3 GHz Superconducting R.F. Cavity

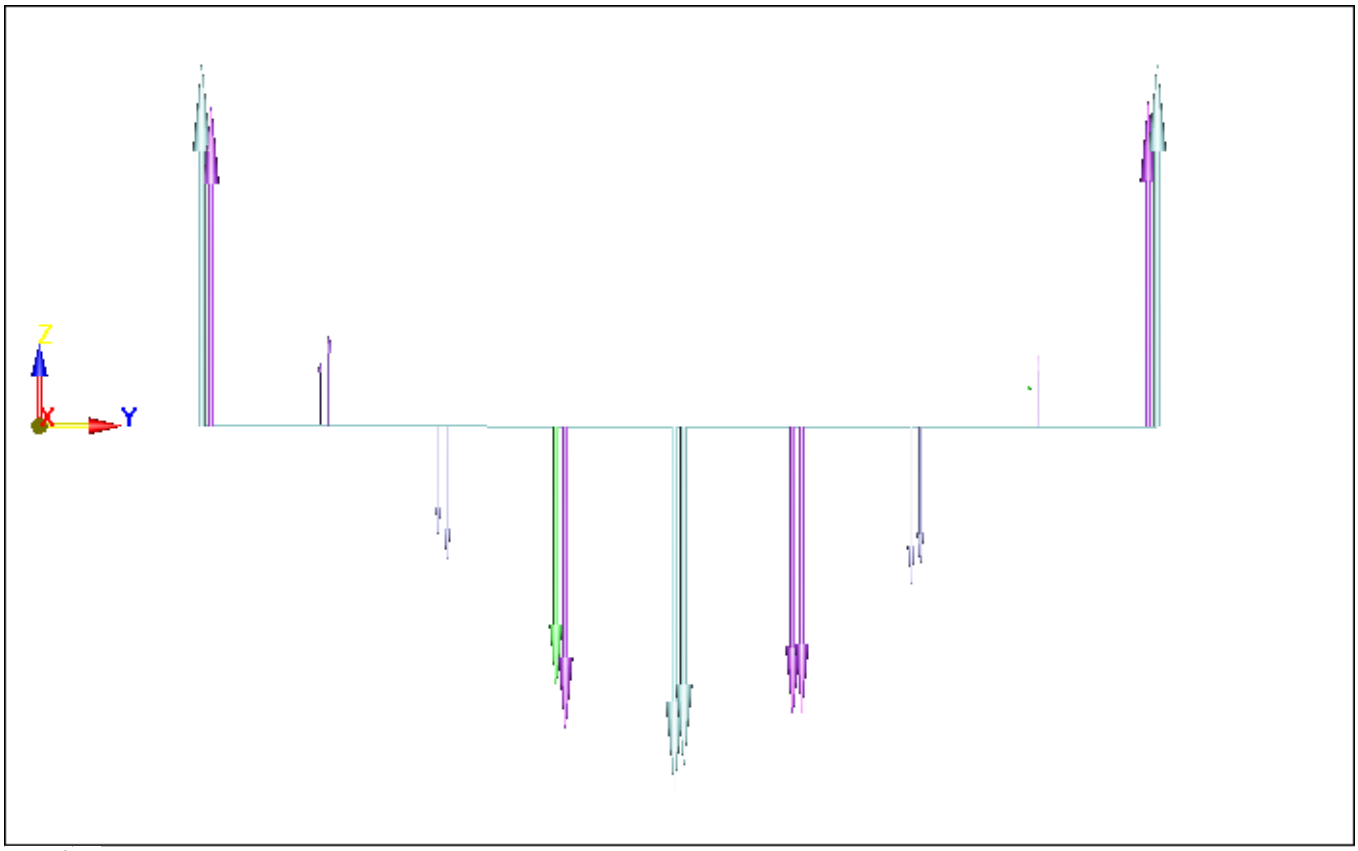
Sample Number : TB9AES031 RF96754
Inspected by : Ted Beale/Robert Riley
Measurement Date : Apr/18/2014 15:27

Straightness of measured half-cells

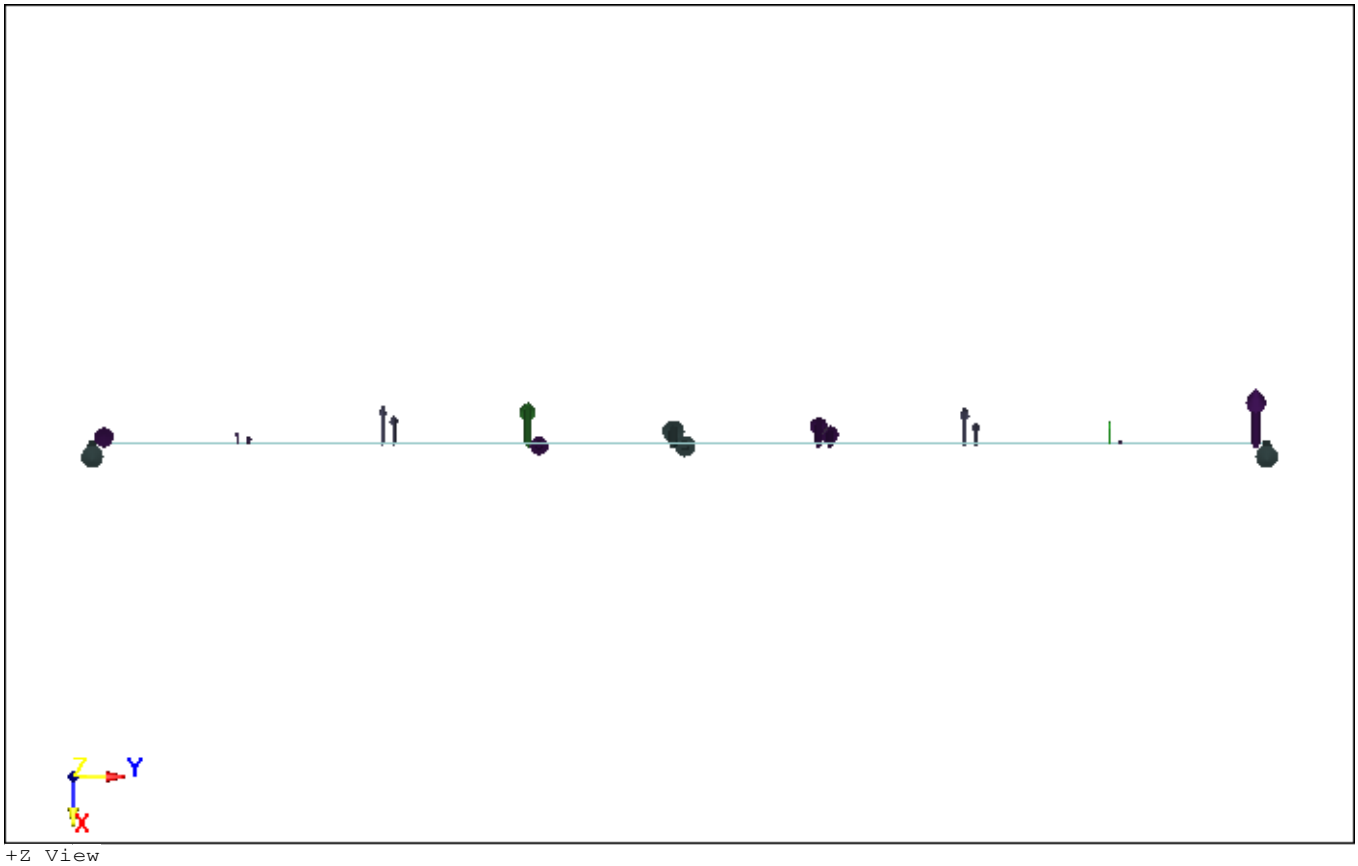
| FCFSTRA1 | MM | 1 | | |
|---|---|---|---|---|
| Feature | MEAS | OUTTOL | MAX | MIN |
| LINE_CELL_ODS | 0.716 | 0.000 | 0.358 | -0.358 |




-Y View
x1000




+X View
x1000




+Z View
x1000

| ⊕ | MM | LOC01 - OD_CELL_1A | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | 0.036 | 0.036 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | -0.123 | -0.123 | 0.200 | 0.200 | 0.000 |
| D | 210.300 | 211.258 | 0.958 | 0.200 | 0.200 | 0.758 |
| RN | 0.000 | 0.261 | 0.261 | 0.200 | 0.000 | 0.061 |

| ⌖ | MM | LOC02 - OD_CELL_1B | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | 0.014 | 0.014 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.167 | -0.167 | 0.200 | 0.200 | 0.000 | |
| D | 210.300 | 211.160 | 0.860 | 0.200 | 0.200 | 0.660 | |
| RN | 0.000 | 0.264 | 0.264 | 0.200 | 0.000 | 0.064 | |

| ⌖ | MM | LOC03 - OD_CELL_2A | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | -0.003 | -0.003 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.429 | -0.429 | 0.200 | 0.200 | 0.229 | |
| D | 210.300 | 211.189 | 0.889 | 0.200 | 0.200 | 0.689 | |
| RN | 0.000 | 0.253 | 0.253 | 0.200 | 0.000 | 0.053 | |

| ⌖ | MM | LOC04 - OD_CELL_2B | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | 0.002 | 0.002 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.405 | -0.405 | 0.200 | 0.200 | 0.205 | |
| D | 210.300 | 210.959 | 0.659 | 0.200 | 0.200 | 0.459 | |
| RN | 0.000 | 0.258 | 0.258 | 0.200 | 0.000 | 0.058 | |

| ⌖ | MM | LOC05 - OD_CELL_3A | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | -0.041 | -0.041 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.623 | -0.623 | 0.200 | 0.200 | 0.423 | |
| D | 210.300 | 211.198 | 0.898 | 0.200 | 0.200 | 0.698 | |
| RN | 0.000 | 0.313 | 0.313 | 0.200 | 0.000 | 0.113 | |

| ⌖ | MM | LOC06 - OD_CELL_3B | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | -0.033 | -0.033 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.652 | -0.652 | 0.200 | 0.200 | 0.452 | |
| D | 210.300 | 211.109 | 0.809 | 0.200 | 0.200 | 0.609 | |
| RN | 0.000 | 0.268 | 0.268 | 0.200 | 0.000 | 0.068 | |

| ⌖ | MM | LOC07 - OD_CELL_4A | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | -0.056 | -0.056 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.793 | -0.793 | 0.200 | 0.200 | 0.593 | |
| D | 210.300 | 211.144 | 0.844 | 0.200 | 0.200 | 0.644 | |
| RN | 0.000 | 0.270 | 0.270 | 0.200 | 0.000 | 0.070 | |

| ⌖ | MM | LOC08 - OD_CELL_4B | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | -0.022 | -0.022 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.836 | -0.836 | 0.200 | 0.200 | 0.636 | |
| D | 210.300 | 211.097 | 0.797 | 0.200 | 0.200 | 0.597 | |
| RN | 0.000 | 0.210 | 0.210 | 0.200 | 0.000 | 0.010 | |

| ⌖ | MM | LOC09 - OD_CELL_5A | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.051 | -0.051 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | -0.910 | -0.910 | 0.200 | 0.200 | 0.710 |
| D | 210.300 | 211.168 | 0.868 | 0.200 | 0.200 | 0.668 |
| RN | 0.000 | 0.267 | 0.267 | 0.200 | 0.000 | 0.067 |

| ⌖ | MM | LOC10 - OD_CELL_5B | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.037 | -0.037 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | -0.889 | -0.889 | 0.200 | 0.200 | 0.689 |
| D | 210.300 | 211.138 | 0.838 | 0.200 | 0.200 | 0.638 |
| RN | 0.000 | 0.248 | 0.248 | 0.200 | 0.000 | 0.048 |

| ⌖ | MM | LOC11 - OD_CELL_6A | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.072 | -0.072 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | -0.857 | -0.857 | 0.200 | 0.200 | 0.657 |
| D | 210.300 | 211.136 | 0.836 | 0.200 | 0.200 | 0.636 |
| RN | 0.000 | 0.240 | 0.240 | 0.200 | 0.000 | 0.040 |

| ⌖ | MM | LOC12 - OD_CELL_6B | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.064 | -0.064 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | -0.854 | -0.854 | 0.200 | 0.200 | 0.654 |
| D | 210.300 | 211.095 | 0.795 | 0.200 | 0.200 | 0.595 |
| RN | 0.000 | 0.237 | 0.237 | 0.200 | 0.000 | 0.037 |

| ⌖ | MM | LOC13 - OD_CELL_7A | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.098 | -0.098 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | -0.743 | -0.743 | 0.200 | 0.200 | 0.543 |
| D | 210.300 | 211.149 | 0.849 | 0.200 | 0.200 | 0.649 |
| RN | 0.000 | 0.224 | 0.224 | 0.200 | 0.000 | 0.024 |

| ⌖ | MM | LOC14 - OD_CELL_7B | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.086 | -0.086 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | -0.729 | -0.729 | 0.200 | 0.200 | 0.529 |
| D | 210.300 | 211.138 | 0.838 | 0.200 | 0.200 | 0.638 |
| RN | 0.000 | 0.234 | 0.234 | 0.200 | 0.000 | 0.034 |

| ⌖ | MM | LOC15 - OD_CELL_8A | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.102 | -0.102 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | -0.559 | -0.559 | 0.200 | 0.200 | 0.359 |
| D | 210.300 | 211.171 | 0.871 | 0.200 | 0.200 | 0.671 |
| RN | 0.000 | 0.289 | 0.289 | 0.200 | 0.000 | 0.089 |

| ⌖ | MM | LOC16 - OD_CELL_8B | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | -0.086 | -0.086 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.536 | -0.536 | 0.200 | 0.200 | 0.336 | |
| D | 210.300 | 211.081 | 0.781 | 0.200 | 0.200 | 0.581 | |
| RN | 0.000 | 0.222 | 0.222 | 0.200 | 0.000 | 0.022 | |

| ⌖ | MM | LOC17 - OD_CELL_9A | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | -0.142 | -0.142 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.304 | -0.304 | 0.200 | 0.200 | 0.104 | |
| D | 210.300 | 211.165 | 0.865 | 0.200 | 0.200 | 0.665 | |
| RN | 0.000 | 0.267 | 0.267 | 0.200 | 0.000 | 0.067 | |

| ⌖ | MM | LOC18 - OD_CELL_9B | | | | | |
|---|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| X | 0.000 | -0.086 | -0.086 | 0.200 | 0.200 | 0.000 | |
| Z | 0.000 | -0.268 | -0.268 | 0.200 | 0.200 | 0.068 | |
| D | 210.300 | 211.080 | 0.780 | 0.200 | 0.200 | 0.580 | |
| RN | 0.000 | 0.274 | 0.274 | 0.200 | 0.000 | 0.074 | |

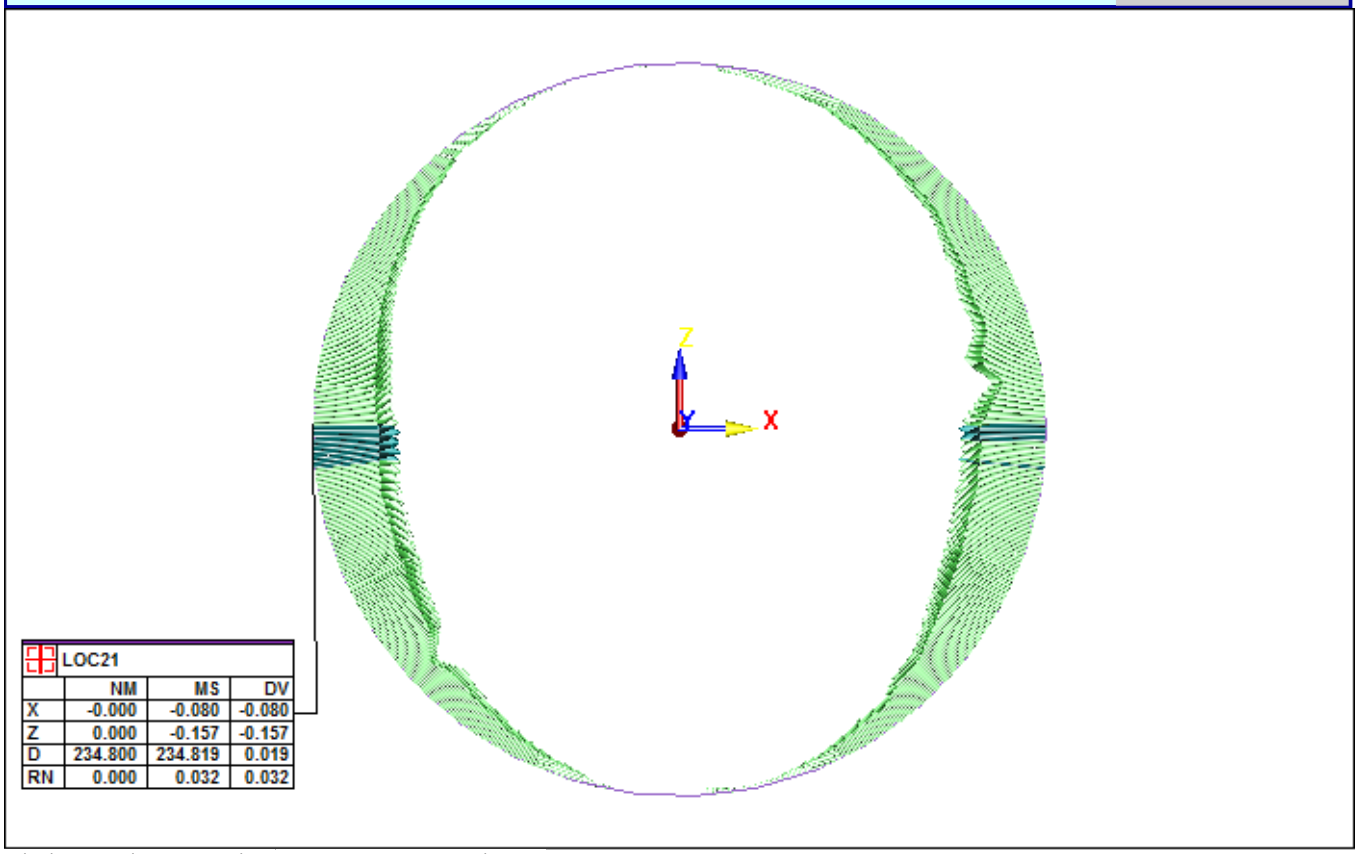
Datum Discs O.D.

| | MM | LOC19 - MC_DATUM_DISC_OD | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Z | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| D | 111.000 | 110.854 | -0.146 | 0.050 | 0.050 | 0.096 |
| RN | 0.000 | 0.020 | 0.020 | 0.050 | 0.000 | 0.000 |

| | MM | LOC20 - FP_DATUM_DISC_OD | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Z | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| D | 111.000 | 110.837 | -0.163 | 0.050 | 0.050 | 0.113 |
| RN | 0.000 | 0.023 | 0.023 | 0.050 | 0.000 | 0.000 |

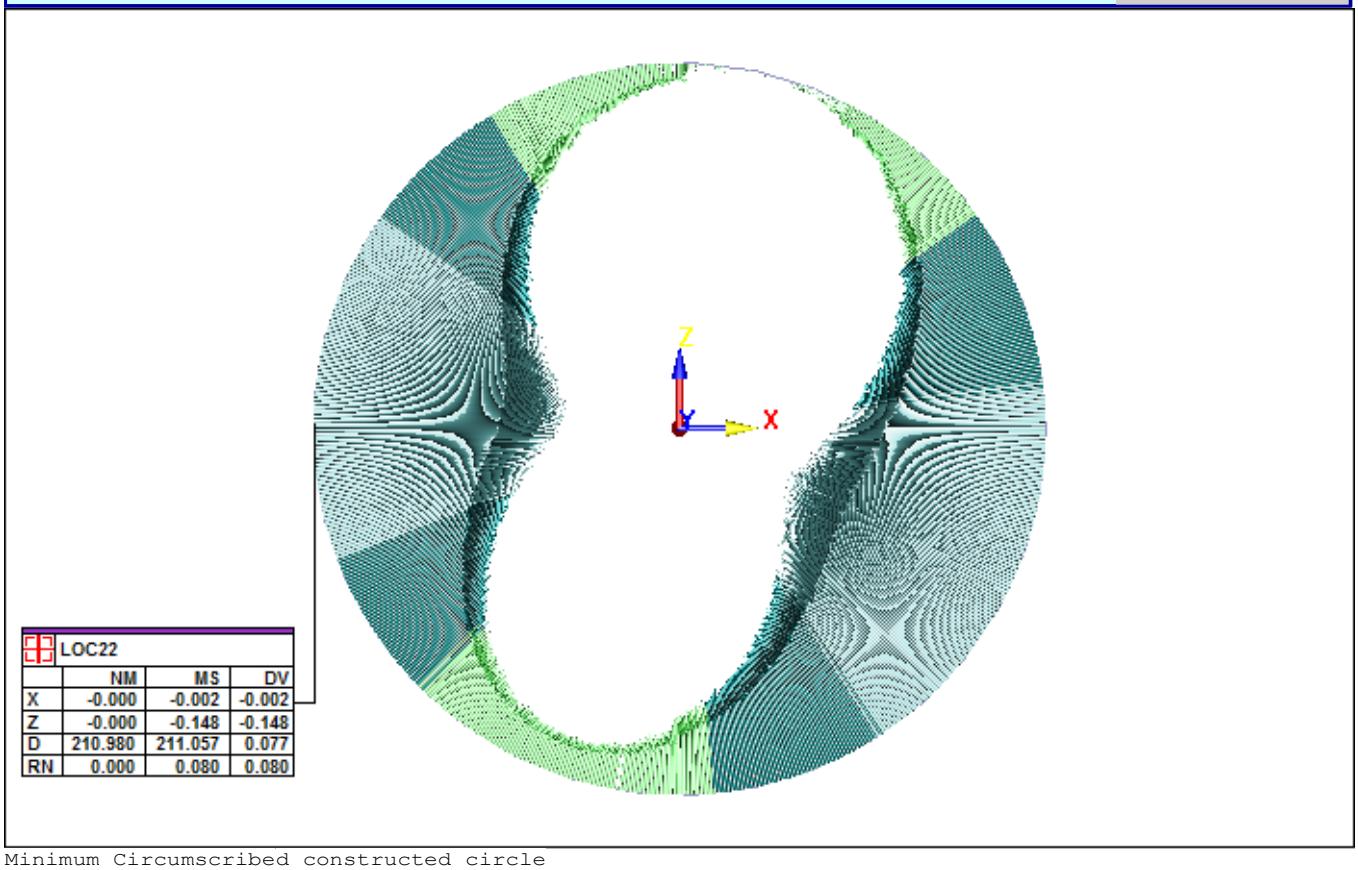
Transition Rings

| | MM | LOC21 - MC_TRANSITION_RING_LARGE_OD_MIN_CIR | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.080 | -0.080 | 0.250 | 0.250 | 0.000 |
| Z | 0.000 | -0.157 | -0.157 | 0.250 | 0.250 | 0.000 |
| D | 234.800 | 234.819 | 0.019 | 0.250 | 0.250 | 0.000 |
| RN | 0.000 | 0.032 | 0.032 | 0.250 | 0.000 | 0.000 |




Minimum Circumscribed constructed circle
Transition Ring Main Coupler End
x1000

| | MM | LOC22 - FP_TRANSITION_RING_LARGE_OD_MIN_CIR | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.002 | -0.002 | 0.250 | 0.250 | 0.000 |
| Z | 0.000 | -0.148 | -0.148 | 0.250 | 0.250 | 0.000 |
| D | 210.980 | 211.057 | 0.077 | 0.250 | 0.250 | 0.000 |
| RN | 0.000 | 0.080 | 0.080 | 0.250 | 0.000 | 0.000 |




Minimum Circumscribed constructed circle
Transition Ring Field Probe end
x1000

Transition Rings Planes

| | MM | LOC23 - MC_TRANSITION_RING_LARGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| Y | 1124.114 | 1126.995 | 2.881 | 10.000 | 10.000 | 0.000 |
| FL | 0.000 | 0.105 | 0.105 | 0.200 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | 0.002 | 1.000 | 0.005 |

| | MM | LOC24 - FP_TRANSITION_RING_LARGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| Y | 120.088 | 119.893 | -0.195 | 10.000 | 10.000 | 0.000 |
| FL | 0.000 | 0.231 | 0.231 | 0.200 | 0.000 | 0.031 |

| AX | I | J | K |
|---|---|---|---|
| V | 0.000 | -1.000 | 0.005 |

Average distance between Transition Rings

| | MM | DIST01 - MC_TRANSITION_RING_LARGE_PLN TO FP_TRANSITION_RING_LARGE_PLN (YAXIS) | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 1004.026 | 1007.102 | 3.076 | 1.000 | 1.000 | 2.076 |

| ⌖ | MM | LOC25 - F_MAX_X1 | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | 103.460 | 103.460 | 1000.000 | 1000.000 | 0.000 |
| Y | 119.726 | 119.995 | 0.269 | 1.000 | 1.000 | 0.000 |
| Z | 0.000 | -1.589 | -1.589 | 1000.000 | 1000.000 | 0.000 |

| ⌖ | MM | LOC26 - F_MIN_X1 | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -103.499 | -103.499 | 1000.000 | 1000.000 | 0.000 |
| Y | 119.726 | 119.977 | 0.251 | 1.000 | 1.000 | 0.000 |
| Z | 0.000 | 1.342 | 1.342 | 1000.000 | 1000.000 | 0.000 |

| ⌖ | MM | LOC27 - F_MAX_Z1 | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -3.631 | -3.631 | 1000.000 | 1000.000 | 0.000 |
| Y | 119.726 | 120.311 | 0.585 | 1.000 | 1.000 | 0.000 |
| Z | 0.000 | 103.475 | 103.475 | 1000.000 | 1000.000 | 0.000 |

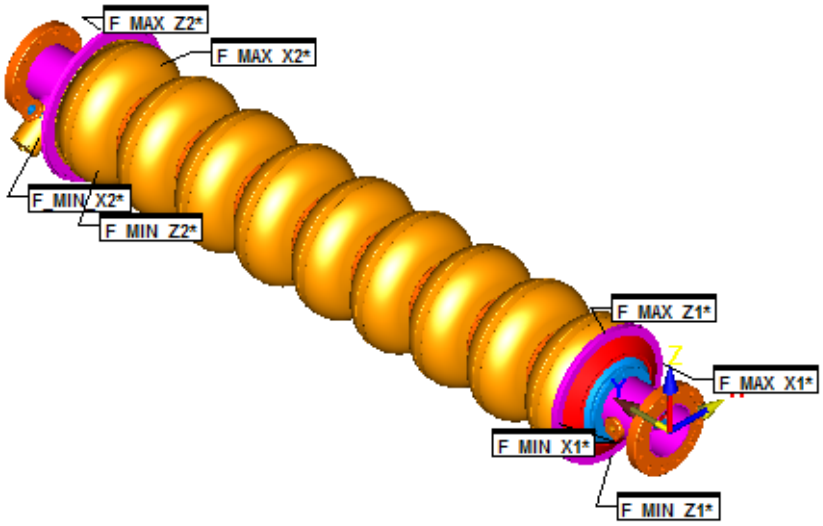
| ⌖ | MM | LOC28 - F_MIN_Z1 | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | 2.140 | 2.140 | 1000.000 | 1000.000 | 0.000 |
| Y | 119.726 | 119.310 | -0.416 | 1.000 | 1.000 | 0.000 |
| Z | 0.000 | -103.444 | -103.444 | 1000.000 | 1000.000 | 0.000 |

| ⌖ | MM | LOC29 - F_MAX_X2 | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | 117.926 | 117.926 | 1000.000 | 1000.000 | 0.000 |
| Y | 1123.752 | 1126.564 | 2.812 | 1.000 | 1.000 | 1.812 |
| Z | 0.000 | 1.538 | 1.538 | 1000.000 | 1000.000 | 0.000 |

| ⌖ | MM | LOC30 - F_MIN_X2 | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -117.982 | -117.982 | 1000.000 | 1000.000 | 0.000 |
| Y | 1123.752 | 1127.061 | 3.308 | 1.000 | 1.000 | 2.308 |
| Z | 0.000 | -2.668 | -2.668 | 1000.000 | 1000.000 | 0.000 |

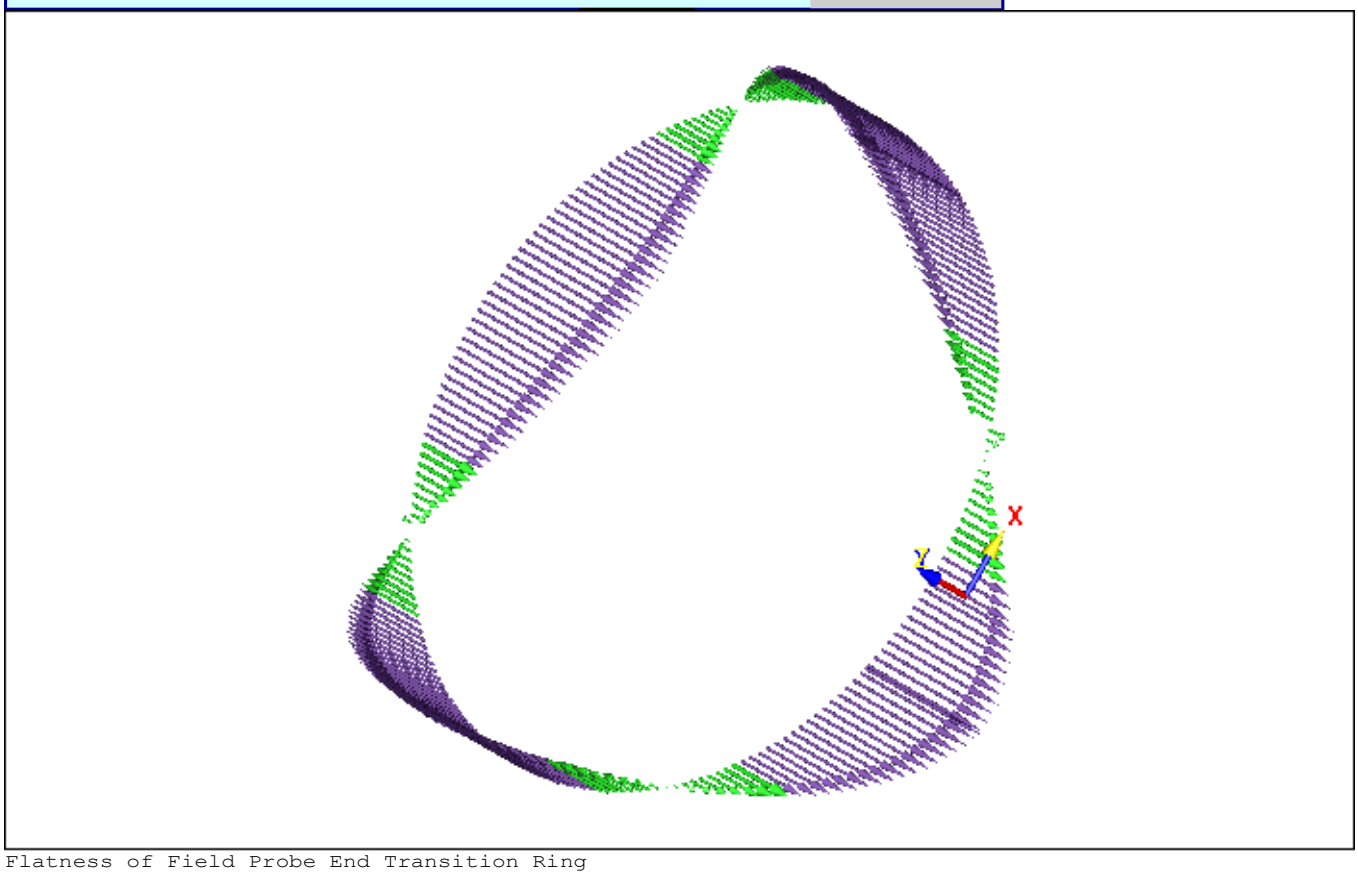
| ⌖ | MM | LOC31 - F_MAX_Z2 | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | 0.793 | 0.793 | 1000.000 | 1000.000 | 0.000 |
| Y | 1123.752 | 1126.324 | 2.572 | 1.000 | 1.000 | 1.572 |
| Z | 0.000 | 117.989 | 117.989 | 1000.000 | 1000.000 | 0.000 |

| ⌖ | MM | LOC32 - F_MIN_Z2 | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -2.014 | -2.014 | 1000.000 | 1000.000 | 0.000 |
| Y | 1123.752 | 1127.448 | 3.696 | 1.000 | 1.000 | 2.696 |
| Z | 0.000 | -117.958 | -117.958 | 1000.000 | 1000.000 | 0.000 |



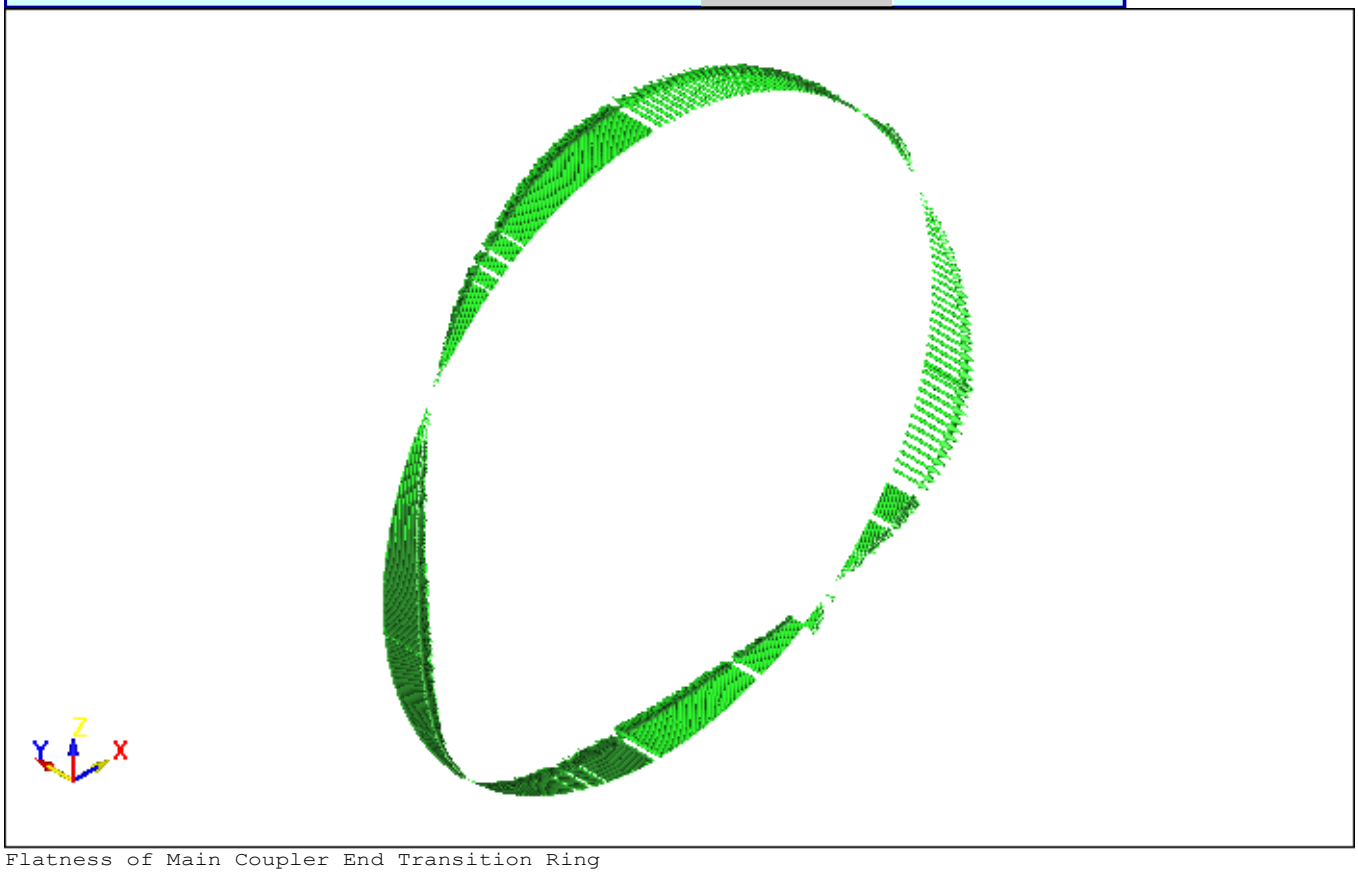

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| ↔ | MM | DIST02 - F_MAX_X1 TO F_MAX_X2 (YAXIS) | | | | | |
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| M | 1004.026 | 1006.569 | 2.543 | 1.000 | 1.000 | 1.543 | |
| ↔ | MM | DIST03 - F_MAX_Z1 TO F_MAX_Z2 (YAXIS) | | | | | |
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| M | 1004.026 | 1006.013 | 1.987 | 1.000 | 1.000 | 0.987 | |
| ↔ | MM | DIST04 - F_MIN_X1 TO F_MIN_X2 (YAXIS) | | | | | |
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| M | 1004.026 | 1007.083 | 3.057 | 1.000 | 1.000 | 2.057 | |
| ↔ | MM | DIST05 - F_MIN_X1 TO F_MIN_Z2 (YAXIS) | | | | | |
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | |
| M | 1004.026 | 1007.471 | 3.445 | 1.000 | 1.000 | 2.445 | |

| FCFFLAT1 | MM | ▱ 1 | | | |
|---|---|---|---|---|---|
| Feature | MEAS | OUTTOL | MAX | MIN | |
| FP_TRANSITION_RING_LARGE_PLN | 0.212 | 0.000 | 0.106 | -0.106 | |




Flatness of Field Probe End Transition Ring
x500

| FCFFLAT2 | MM | 1 | | | | |
|---|---|---|---|---|---|---|
| Feature | +TOL | MEAS | OUTTOL | | MAX | MIN |
| MC_TRANSITION_RING_LARGE_PLN | 1.000 | 0.085 | 0.000 | | 0.042 | -0.042 |




Flatness of Main Coupler End Transition Ring
x500

| ⌖ | MM | LOC33 - FP_END_PLN_CONSTRUCTED | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| Y | 0.000 | 0.000 | 0.000 | 0.001 | 0.001 | 0.000 |
| FL | 0.000 | 0.031 | 0.031 | 0.200 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | 0.000 | -1.000 | 0.003 |

| FCFPERP2 | MM | ⊥ 2 A | | | |
|---|---|---|---|---|---|
| Feature | MEAS | OUTTOL | MAX | MIN | |
| FP_END_PLN_CONSTRUCTED | 0.352 | 0.152 | 0.188 | 0.164 | |

| ∡ | DEG | ANGL1 - FP_END_PLN_CONSTRUCTED TO Y_AXIS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 90.000 | 90.149 | 0.149 | 0.100 | 0.100 | 0.049 |

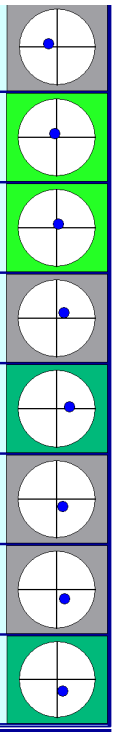
| ⌖ | MM | LOC34 - FP_END_FLANGE_CIR | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | 0.050 | 0.050 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | 0.306 | 0.306 | 0.200 | 0.200 | 0.106 |
| D | 140.000 | 140.027 | 0.027 | 0.300 | 0.300 | 0.000 |
| RN | 0.000 | 0.017 | 0.017 | 0.200 | 0.000 | 0.000 |

| ↔ | MM | DIST06 - FP_END_PLN_SS TO FP_END_PLN (YAXIS) | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 1.000 | 0.986 | -0.014 | 0.100 | 0.100 | 0.000 |

| FCFLOC1 Size | MM | 12XØ8.8 0.3/0.3 | | | | | |
|---|---|---|---|---|---|---|---|
| Feature | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | BONUS |
| FP_CIR1 | 8.800 | 8.727 | -0.073 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR2 | 8.800 | 8.742 | -0.058 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR3 | 8.800 | 8.735 | -0.065 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR4 | 8.800 | 8.751 | -0.049 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR5 | 8.800 | 8.731 | -0.069 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR6 | 8.800 | 8.753 | -0.047 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR7 | 8.800 | 8.734 | -0.066 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR8 | 8.800 | 8.748 | -0.052 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR9 | 8.800 | 8.745 | -0.055 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR10 | 8.800 | 8.742 | -0.058 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR11 | 8.800 | 8.728 | -0.072 | 0.300 | 0.300 | 0.000 | 0.000 |
| FP_CIR12 | 8.800 | 8.722 | -0.078 | 0.300 | 0.300 | 0.000 | 0.000 |

| FCFLOC1 Position | MM | ⌖ Ø.3 C | | |
|---|---|---|---|---|
| Feature | MEAS | OUTTOL | BONUS | |
| FP_CIR1 | 0.078 | 0.000 | 0.000 | |
| FP_CIR2 | 0.079 | 0.000 | 0.000 | |
| FP_CIR3 | 0.056 | 0.000 | 0.000 | |
| FP_CIR4 | 0.102 | 0.000 | 0.000 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| FP_CIR5 | 0.000 | 0.071 | 0.071 | 0.300 | | 0.000 | 0.000 |
| FP_CIR6 | 0.000 | 0.033 | 0.033 | 0.300 | | 0.000 | 0.000 |
| FP_CIR7 | 0.000 | 0.032 | 0.032 | 0.300 | | 0.000 | 0.000 |
| FP_CIR8 | 0.000 | 0.072 | 0.072 | 0.300 | | 0.000 | 0.000 |
| FP_CIR9 | 0.000 | 0.102 | 0.102 | 0.300 | | 0.000 | 0.000 |
| FP_CIR10 | 0.000 | 0.075 | 0.075 | 0.300 | | 0.000 | 0.000 |
| FP_CIR11 | 0.000 | 0.094 | 0.094 | 0.300 | | 0.000 | 0.000 |
| FP_CIR12 | 0.000 | 0.102 | 0.102 | 0.300 | | 0.000 | 0.000 |



FCFLOC1 Datum Shift

| Segment | Shift X | Shift Y | Shift Z | Rotation X | Rotation Y | Rotation Z |
|---|---|---|---|---|---|---|
| Segment 1 | 0.008 | Fixed | 0.032 | Fixed | -0.424 | Fixed |

FCFLOC1 Summary FIT TO DATUMS=ON, DEV PERPEN CENTERLINE=ON

| Feature | AX | NOMINAL | MEAS | DEV |
|---|---|---|---|---|
| FP_CIR1 | PR | 60.000 | 59.963 | -0.036 |
| | PA | 75.000 | 74.986 | -0.014 |
| FP_CIR2 | PR | 60.000 | 59.963 | -0.037 |
| | PA | 45.000 | 44.988 | -0.012 |
| FP_CIR3 | PR | 60.000 | 59.973 | -0.027 |
| | PA | 15.000 | 14.993 | -0.007 |
| FP_CIR4 | PR | 60.000 | 59.949 | -0.051 |
| | PA | -15.000 | -15.002 | -0.002 |
| FP_CIR5 | PR | 60.000 | 59.968 | -0.032 |
| | PA | -45.000 | -45.015 | -0.015 |
| FP_CIR6 | PR | 60.000 | 59.984 | -0.016 |
| | PA | -75.000 | -75.002 | -0.002 |
| FP_CIR7 | PR | 60.000 | 59.985 | -0.016 |
| | PA | -105.000 | -104.997 | 0.003 |
| FP_CIR8 | PR | 60.000 | 59.965 | -0.036 |
| | PA | -135.000 | -134.995 | 0.005 |
| FP_CIR9 | PR | 60.000 | 59.949 | -0.051 |
| | PA | -164.999 | -164.993 | 0.006 |
| FP_CIR10 | PR | 60.000 | 59.969 | -0.031 |
| | PA | 165.001 | 165.021 | 0.020 |
| FP_CIR11 | PR | 60.000 | 59.953 | -0.047 |
| | PA | 135.000 | 135.004 | 0.003 |
| FP_CIR12 | PR | 60.000 | 59.949 | -0.050 |
| | PA | 105.000 | 104.991 | -0.009 |

| | MM | LOC35 - MC_END_FLANGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| Y | 1247.400 | 1249.843 | 2.443 | 3.000 | 3.000 | 0.000 |
| FL | 0.000 | 0.032 | 0.032 | 0.200 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | 0.000 | 1.000 | 0.002 |

| FCFPERP3 | MM | ⊥ .2 A | | | | |
|---|---|---|---|---|---|---|
| Feature | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| MC_END_FLANGE_PLN | 0.000 | 0.304 | 0.304 | 0.200 | 0.000 | 0.104 |

| ∡ | DEG | ANGL2 - MC_END_FLANGE_PLN TO Y_AXIS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 90.000 | 89.872 | -0.128 | 0.100 | 0.100 | 0.028 |

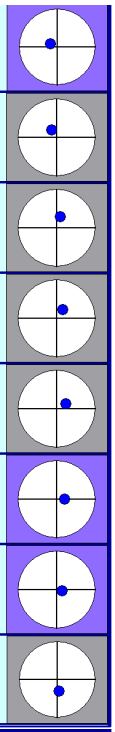
| | MM | LOC36 - MC_END_FLANGE_CIR | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 0.000 | -0.026 | -0.026 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | 0.248 | 0.248 | 0.200 | 0.200 | 0.048 |
| D | 140.000 | 140.023 | 0.023 | 0.300 | 0.300 | 0.000 |
| RN | 0.000 | 0.023 | 0.023 | 0.200 | 0.000 | 0.000 |

| ↔ | MM | DIST07 - MC_END_FLANGE_PLN TO MC_END_FLANGE_PLN_SS (YAXIS) | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 1.000 | 0.962 | -0.038 | 0.100 | 0.100 | 0.000 |

| FCFLOC2 Size | MM | 12XØ8.8 0.3/0.3 | | | | | |
|---|---|---|---|---|---|---|---|
| Feature | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL | BONUS |
| MC_CIR1 | 8.800 | 8.728 | -0.072 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR2 | 8.800 | 8.751 | -0.049 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR3 | 8.800 | 8.758 | -0.042 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR4 | 8.800 | 8.746 | -0.054 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR5 | 8.800 | 8.760 | -0.040 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR6 | 8.800 | 8.786 | -0.014 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR7 | 8.800 | 8.749 | -0.051 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR8 | 8.800 | 8.760 | -0.040 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR9 | 8.800 | 8.736 | -0.064 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR10 | 8.800 | 8.744 | -0.056 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR11 | 8.800 | 8.744 | -0.056 | 0.300 | 0.300 | 0.000 | 0.000 |
| MC_CIR12 | 8.800 | 8.748 | -0.052 | 0.300 | 0.300 | 0.000 | 0.000 |

| FCFLOC2 Position | MM | ⌖ Ø.3 E | | |
|---|---|---|---|---|
| Feature | MEAS | OUTTOL | BONUS | |
| MC_CIR1 | 0.090 | 0.000 | 0.000 | |
| MC_CIR2 | 0.063 | 0.000 | 0.000 | |
| MC_CIR3 | 0.082 | 0.000 | 0.000 | |
| MC_CIR4 | 0.090 | 0.000 | 0.000 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| MC_CIR5 | 0.000 | 0.060 | 0.060 | 0.300 | | 0.000 | 0.000 |
| MC_CIR6 | 0.000 | 0.068 | 0.068 | 0.300 | | 0.000 | 0.000 |
| MC_CIR7 | 0.000 | 0.090 | 0.090 | 0.300 | | 0.000 | 0.000 |
| MC_CIR8 | 0.000 | 0.083 | 0.083 | 0.300 | | 0.000 | 0.000 |
| MC_CIR9 | 0.000 | 0.081 | 0.081 | 0.300 | | 0.000 | 0.000 |
| MC_CIR10 | 0.000 | 0.060 | 0.060 | 0.300 | | 0.000 | 0.000 |
| MC_CIR11 | 0.000 | 0.044 | 0.044 | 0.300 | | 0.000 | 0.000 |
| MC_CIR12 | 0.000 | 0.090 | 0.090 | 0.300 | | 0.000 | 0.000 |



FCFLOC2 Datum Shift

| Segment | Shift X | Shift Y | Shift Z | Rotation X | Rotation Y | Rotation Z |
|---|---|---|---|---|---|---|
| Segment 1 | 0.613 | Fixed | -2.693 | Fixed | -0.360 | Fixed |

FCFLOC2 Summary FIT TO DATUMS=ON, DEV PERPEN CENTERLINE=ON

| Feature | AX | NOMINAL | MEAS | DEV |
|---|---|---|---|---|
| MC_CIR1 | PR | 60.000 | 59.957 | -0.043 |
| | PA | 75.000 | 74.988 | -0.012 |
| MC_CIR2 | PR | 60.000 | 59.971 | -0.029 |
| | PA | 45.001 | 44.989 | -0.011 |
| MC_CIR3 | PR | 60.000 | 59.961 | -0.038 |
| | PA | 15.000 | 14.986 | -0.014 |
| MC_CIR4 | PR | 60.000 | 59.957 | -0.043 |
| | PA | -15.000 | -15.013 | -0.013 |
| MC_CIR5 | PR | 60.000 | 59.972 | -0.028 |
| | PA | -45.000 | -45.011 | -0.011 |
| MC_CIR6 | PR | 60.000 | 59.968 | -0.032 |
| | PA | -75.000 | -75.011 | -0.011 |
| MC_CIR7 | PR | 60.000 | 59.955 | -0.045 |
| | PA | -105.000 | -104.998 | 0.003 |
| MC_CIR8 | PR | 60.000 | 59.959 | -0.041 |
| | PA | -135.000 | -135.007 | -0.006 |
| MC_CIR9 | PR | 60.000 | 59.961 | -0.039 |
| | PA | -165.000 | -165.008 | -0.008 |
| MC_CIR10 | PR | 60.000 | 59.971 | -0.029 |
| | PA | 165.000 | 164.993 | -0.007 |
| MC_CIR11 | PR | 60.000 | 59.981 | -0.019 |
| | PA | 135.000 | 134.990 | -0.010 |
| MC_CIR12 | PR | 60.000 | 59.956 | -0.045 |
| | PA | 105.000 | 105.005 | 0.005 |

Datum Disc planes

Datum Disc Field Probe End

| ⌖ | MM | LOC37 - FP_DATUM_DISC_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| Y | 92.842 | 94.150 | 1.308 | 0.200 | 0.200 | 1.108 |
| FL | 0.000 | 3.178 | 3.178 | 0.200 | 0.000 | 2.978 |

| AX | I | J | K |
|---|---|---|---|
| V | 0.038 | -0.999 | 0.002 |

| FCFPERP4 | MM | ⊥ .2 A |
|---|---|---|
| Feature | MEAS | OUTTOL |
| FP_DATUM_DISC_PLN | 3.588 | 3.388 |

| ∡ | DEG | ANGL3 - FP_DATUM_DISC_PLN TO Y_AXIS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 90.000 | 87.806 | -2.194 | 0.100 | 0.100 | 2.094 |

Datum Disc Main Coupler End

| ⌖ | MM | LOC38 - MC_DATUM_DISC_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| Y | 1153.900 | 1156.319 | 2.419 | 0.200 | 0.200 | 2.219 |
| FL | 0.000 | 0.081 | 0.081 | 0.200 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | 0.003 | 1.000 | 0.004 |

| FCFPERP5 | MM | ⊥ .2 A |
|---|---|---|
| Feature | MEAS | OUTTOL |
| MC_DATUM_DISC_PLN | 0.542 | 0.342 |

| ∡ | DEG | ANGL4 - MC_DATUM_DISC_PLN TO Y_AXIS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 90.000 | 89.722 | -0.278 | 0.100 | 0.100 | 0.178 |

Distance between Datum Discs

| ↔ | MM | DIST08 - FP_DATUM_DISC_PLN TO MC_DATUM_DISC_PLN (YAXIS) | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 1061.057 | 1062.168 | 1.111 | 0.200 | 0.200 | 0.911 |

| ↔ | MM | DIST09 - MC_DATUM_DISC_PLN TO MC_END_FLANGE_PLN_CONSTRUCT (YAXIS) | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 93.500 | 93.525 | 0.024 | 0.200 | 0.200 | 0.000 |

Field Probe Flange

| ⌖ | MM | LOC39 - FP_FLANGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | -53.800 | -54.159 | -0.359 | 0.200 | 0.200 | 0.159 |
| FL | 0.000 | 0.003 | 0.003 | 0.200 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | -1.000 | -0.001 | 0.010 |

| FCFPARL1 | MM | // .2 X- |
|---|---|---|
| Feature | MEAS | OUTTOL |
| FP_FLANGE_PLN | 0.282 | 0.082 |

| ∡ | DEG | ANGL5 - FP_FLANGE_PLN TO WORKPLANE_X_MINUS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 0.000 | -0.574 | -0.574 | 0.100 | 0.100 | 0.474 |

| ⌖ | MM | LOC40 - FP_FLANGE | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| Y | 60.600 | 60.453 | -0.147 | 0.200 | 0.200 | 0.000 |
| Z | 0.000 | 0.761 | 0.761 | 0.200 | 0.200 | 0.561 |
| D | 33.800 | 33.851 | 0.051 | 0.150 | 0.150 | 0.000 |
| RN | 0.000 | 0.021 | 0.021 | 0.150 | 0.000 | 0.000 |

| ↔ | MM | DIST10 - FP_FLANGE_PLN TO FP_FLANGE_PLN_SS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 0.500 | 0.564 | 0.064 | 0.200 | 0.200 | 0.000 |

Main Coupler Flange

| ⌖ | MM | LOC41 - MC_NW40_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 88.000 | 87.938 | -0.062 | 0.200 | 0.200 | 0.000 |
| FL | 0.000 | 0.013 | 0.013 | 0.200 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | 1.000 | -0.002 | -0.001 |

| FCFPARL2 | MM | // \| .2 \| X- | | | | |
|---|---|---|---|---|---|---|
| Feature | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| MC_NW40_PLN | 0.000 | 0.151 | 0.151 | 0.200 | 0.000 | 0.000 |

| ∡ | DEG | ANGL6 - MC_NW40_PLN TO WORKPLANE_X_MINUS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 0.000 | -0.133 | -0.133 | 0.100 | 0.100 | 0.033 |

| ↔ | MM | DIST11 - MC_NW40_PLN TO MC_NW40_PLN_SS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 0.500 | 0.502 | 0.002 | 0.200 | 0.200 | 0.000 |

| ⌖ | MM | LOC42 - MC_NW40_CIR | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| Y | 1186.800 | 1189.144 | 2.344 | 0.200 | 0.200 | 2.144 |
| Z | 0.000 | -0.059 | -0.059 | 0.200 | 0.200 | 0.000 |
| D | 76.000 | 76.042 | 0.042 | 0.200 | 0.200 | 0.000 |
| RN | 0.000 | 0.012 | 0.012 | 0.200 | 0.000 | 0.000 |

| ↔ | MM | DIST12 - MC_NW40_CIR TO MC_END_FLANGE_PLN_CONSTRUCT (YAXIS) | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 60.600 | 60.700 | 0.100 | 0.200 | 0.200 | 0.000 |

Main Coupler Flange Hole Pattern offset to -Z- axis (rotation)
and Hole Pattern

| ∡ | DEG | ANGL_22PT5 - MC_NW40_22PT5_ANGLE TO ZAXIS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 22.500 | 22.733 | 0.233 | 0.500 | 0.500 | 0.000 |

| FCFLOC3 Size | MM | 8XØ6.7 0.3/0.3 |
|---|---|---|

| Feature | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| MC_NW40_BH_1 | 6.700 | 6.761 | 0.061 | 0.300 | 0.300 | 0.000 |
| MC_NW40_BH_2 | 6.700 | 6.780 | 0.080 | 0.300 | 0.300 | 0.000 |
| MC_NW40_BH_3 | 6.700 | 6.774 | 0.074 | 0.300 | 0.300 | 0.000 |
| MC_NW40_BH_4 | 6.700 | 6.790 | 0.090 | 0.300 | 0.300 | 0.000 |
| MC_NW40_BH_5 | 6.700 | 6.784 | 0.084 | 0.300 | 0.300 | 0.000 |
| MC_NW40_BH_6 | 6.700 | 6.775 | 0.075 | 0.300 | 0.300 | 0.000 |
| MC_NW40_BH_7 | 6.700 | 6.762 | 0.062 | 0.300 | 0.300 | 0.000 |
| MC_NW40_BH_8 | 6.700 | 6.764 | 0.064 | 0.300 | 0.300 | 0.000 |

| FCFLOC3 Position | MM | ⌖ Ø.3 X- |
|---|---|---|

| Feature | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| MC_NW40_BH_1 | 0.000 | 0.089 | 0.089 | 0.300 | | 0.000 |
| MC_NW40_BH_2 | 0.000 | 0.005 | 0.005 | 0.300 | | 0.000 |
| MC_NW40_BH_3 | 0.000 | 0.138 | 0.138 | 0.300 | | 0.000 |
| MC_NW40_BH_4 | 0.000 | 0.084 | 0.084 | 0.300 | | 0.000 |
| MC_NW40_BH_5 | 0.000 | 0.138 | 0.138 | 0.300 | | 0.000 |
| MC_NW40_BH_6 | 0.000 | 0.043 | 0.043 | 0.300 | | 0.000 |
| MC_NW40_BH_7 | 0.000 | 0.138 | 0.138 | 0.300 | | 0.000 |
| MC_NW40_BH_8 | 0.000 | 0.121 | 0.121 | 0.300 | | 0.000 |

FCFLOC3 Datum Shift

| Segment | Shift X | Shift Y | Shift Z | Rotation X | Rotation Y | Rotation Z |
|---|---|---|---|---|---|---|
| Segment 1 | Fixed | 2.428 | 4.684 | 0.230 | Fixed | Fixed |

FCFLOC3 Summary FIT TO DATUMS=ON, DEV PERPEN CENTERLINE=ON

| Feature | AX | NOMINAL | MEAS | DEV |
|---|---|---|---|---|
| MC_NW40_BH_1 | PR | 1175.016 | 1175.036 | 0.020 |
| | PA | 1.430 | 1.429 | -0.002 |
| MC_NW40_BH_2 | PR | 1157.531 | 1157.531 | 0.001 |
| | PA | 0.601 | 0.601 | 0.000 |
| MC_NW40_BH_3 | PR | 1157.531 | 1157.598 | 0.068 |
| | PA | -0.601 | -0.602 | -0.001 |
| MC_NW40_BH_4 | PR | 1175.016 | 1174.988 | -0.028 |
| | PA | -1.430 | -1.429 | 0.002 |
| MC_NW40_BH_5 | PR | 1199.309 | 1199.255 | -0.053 |
| | PA | -1.402 | -1.399 | 0.002 |
| MC_NW40_BH_6 | PR | 1216.194 | 1216.173 | -0.021 |
| | PA | -0.572 | -0.573 | 0.000 |
| MC_NW40_BH_7 | PR | 1216.194 | 1216.145 | -0.048 |
| | PA | 0.572 | 0.570 | -0.002 |

| | | | | |
|---|---|---|---|---|
| MC_NW40_BH_8 | PR | 1199.309 | 1199.279 | -0.030 |
| | PA | 1.402 | 1.399 | -0.003 |

Main Coupler HOM Flange

| | | |
|---|---|---|
| ⊕ | MM | LOC43 - MC_HOM_FLANGE_PLN |

| AX | MEAS | +TOL | OUTTOL |
|---|---|---|---|
| FL | 0.004 | 0.200 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | -0.551 | 0.255 | 0.794 |

| | | |
|---|---|---|
| ∠ | DEG | ANGL7 - MC_HOM_FLANGE_PLN TO XAXIS |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| A | 35.000 | 34.768 | -0.232 | 0.500 | 0.500 | 0.000 |

| | | |
|---|---|---|
| ⊕ | MM | LOC44 - MC_HOM_FLANGE |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| X | -71.549 | -71.686 | -0.137 | 10.000 | 10.000 | 0.000 |
| Y | 1190.022 | 1192.538 | 2.516 | 10.000 | 10.000 | 0.000 |
| Z | -9.573 | -9.275 | 0.297 | 10.000 | 10.000 | 0.000 |
| D | 33.800 | 33.844 | 0.044 | 0.150 | 0.150 | 0.000 |
| RN | 0.000 | 0.007 | 0.007 | 0.150 | 0.000 | 0.000 |

| | | |
|---|---|---|
| ↔ | MM | DIST13 - MC_HOM_FLANGE_PLN_SS TO MC_HOM_FLANGE_PLN |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| M | 0.500 | 0.545 | 0.045 | 0.050 | 0.050 | 0.000 |

Main Coupler HOM

| | | |
|---|---|---|
| ⊕ | MM | LOC45 - MC_FORMTEIL_CYL |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| X | -88.468 | -86.181 | 2.288 | 100.000 | 100.000 | 0.000 |
| Y | 1186.800 | 1189.280 | 2.480 | 0.200 | 0.200 | 2.280 |
| Z | -61.946 | -60.048 | 1.898 | 100.000 | 100.000 | 0.000 |
| D | 44.000 | 44.024 | 0.024 | 0.000 | 0.100 | 0.024 |
| RN | 0.000 | 0.143 | 0.143 | 0.100 | 0.000 | 0.043 |

| AX | I | J | K |
|---|---|---|---|
| V | 0.820 | 0.003 | 0.572 |

| | | |
|---|---|---|
| ↔ | MM | DIST14 - MC_FORMTEIL_CYL TO MC_END_FLANGE_PLN_CONSTRUCT (YAXIS) |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| M | 60.600 | 60.563 | -0.037 | 0.200 | 0.200 | 0.000 |

| | | |
|---|---|---|
| ∠ | DEG | ANGL8 - MC_FORMTEIL_CYL TO XAXIS |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| A | 35.000 | 34.883 | -0.117 | 0.500 | 0.500 | 0.000 |

| | | |
|---|---|---|
| ∠ | DEG | ANGL11 - MC_FORMTEIL_CYL TO Y_AXIS |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| A | 90.000 | 89.838 | -0.162 | 0.500 | 0.500 | 0.000 |

| | | |
|---|---|---|
| ⊕ | MM | LOC46 - MC_FORMTEIL_BUTTON_PNT |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| PR | 116.000 | 116.162 | 0.162 | 0.200 | 0.200 | 0.000 |

| | | |
|---|---|---|
| ⊕ | MM | LOC47 - MC_FORMTEIL_COVER_PLN |

| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
|---|---|---|---|---|---|---|
| PR | 111.000 | 111.008 | 0.008 | 0.200 | 0.200 | 0.000 |
| FL | 0.000 | 0.018 | 0.018 | 0.200 | 0.000 | 0.000 |

Field Probe HOM Flange

| | MM | LOC48 - FP_HOM_FLANGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| FL | 0.000 | 0.006 | 0.006 | 0.200 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | -0.491 | -0.261 | -0.831 |

| | DEG | ANGL9 - FP_HOM_FLANGE_PLN TO XAXIS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 30.000 | 30.544 | 0.544 | 0.500 | 0.500 | 0.044 |

| | MM | LOC49 - FP_HOM_FLANGE | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 38.431 | 37.750 | -0.681 | 10.000 | 10.000 | 0.000 |
| Y | 57.119 | 56.780 | -0.339 | 10.000 | 10.000 | 0.000 |
| Z | -61.636 | -62.081 | -0.445 | 10.000 | 10.000 | 0.000 |
| D | 33.800 | 33.827 | 0.027 | 0.150 | 0.150 | 0.000 |
| RN | 0.000 | 0.010 | 0.010 | 0.150 | 0.000 | 0.000 |

| | MM | DIST15 - FP_HOM_FLANGE_PLN_SS TO FP_HOM_FLANGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 0.500 | 0.546 | 0.047 | 0.050 | 0.050 | 0.000 |

Field Probe HOM

| | MM | LOC50 - FP_FORMTEIL_CYL | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | 93.531 | 90.509 | -3.022 | 100.000 | 100.000 | 0.000 |
| Y | 60.600 | 60.449 | -0.151 | 0.200 | 0.200 | 0.000 |
| Z | -54.000 | -53.325 | 0.675 | 100.000 | 100.000 | 0.000 |
| D | 44.000 | 43.883 | -0.117 | 0.000 | 0.100 | 0.017 |
| RN | 0.000 | 0.059 | 0.059 | 0.100 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | -0.861 | 0.000 | 0.509 |

| | MM | DIST16 - FP_FORMTEIL_CYL TO FP_END_PLN_CONSTRUCTED (YAXIS) | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 60.600 | 60.449 | -0.151 | 0.200 | 0.200 | 0.000 |

| | DEG | ANGL10 - FP_FORMTEIL_CYL TO XAXIS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 30.000 | 30.577 | 0.577 | 0.500 | 0.500 | 0.077 |

| | DEG | ANGL12 - FP_FORMTEIL_CYL TO Y_AXIS | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 90.000 | 89.993 | -0.007 | 0.500 | 0.500 | 0.000 |

| | MM | LOC51 - FP_FORMTEIL_BUTTON_PNT | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| PR | 116.000 | 115.975 | -0.025 | 0.200 | 0.200 | 0.000 |

| | MM | LOC52 - FP_FORMTEIL_COVER_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| PR | 111.000 | 110.932 | -0.068 | 0.200 | 0.200 | 0.000 |
| FL | 0.000 | 0.013 | 0.013 | 0.200 | 0.000 | 0.000 |

| | MM | LOC53 - PNT_MC_FORMTEIL | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | -56.665 | -56.854 | -0.189 | 0.200 | 0.200 | 0.000 |
| Y | 1183.070 | 1185.443 | 2.373 | 3.000 | 3.000 | 0.000 |
| Z | -31.531 | -31.115 | 0.416 | 0.200 | 0.200 | 0.216 |
| T | 0.000 | 1.049 | 1.049 | 0.200 | 0.200 | 0.849 |

| | MM | LOC54 - PLN_MC_FORMTEIL | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| X | -55.776 | -55.962 | -0.186 | 0.200 | 0.200 | 0.000 |
| Y | 1184.500 | 1186.864 | 2.364 | 3.000 | 3.000 | 0.000 |
| Z | -31.376 | -30.952 | 0.425 | 0.200 | 0.200 | 0.225 |
| T | 0.000 | 1.051 | 1.051 | 0.200 | 0.200 | 0.851 |
| FL | 0.000 | 0.000 | 0.000 | 0.200 | 0.000 | 0.000 |

| AX | I | J | K |
|---|---|---|---|
| V | -0.551 | 0.256 | 0.794 |

| | MM | DIST17 - PNT_MC_FORMTEIL TO MC_HOM_FLANGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 28.400 | 28.410 | 0.010 | 0.200 | 0.200 | 0.000 |

| | MM | DIST18 - PLN_MC_FORMTEIL TO MC_HOM_FLANGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| M | 28.400 | 28.410 | 0.010 | 0.200 | 0.200 | 0.000 |

| | DEG | ANGL13 - PLN_MC_FORMTEIL TO MC_HOM_FLANGE_PLN | | | | |
|---|---|---|---|---|---|---|
| AX | NOMINAL | MEAS | DEV | +TOL | -TOL | OUTTOL |
| A | 0.000 | 0.053 | 0.053 | 1.000 | 1.000 | 0.000 |