

# Quindos Measuring Report



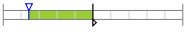
3D-Application Center

|                    |                  |                   |                       |
|--------------------|------------------|-------------------|-----------------------|
| Description        | COLD PLATE BASE  | Customer          | J. TICE               |
| Drawing Number     | PF-391-521-46    | Serial Number     | 002 (BOTTOM PROGRA    |
| Remarks            |                  | Article Number    |                       |
| Supplier           | MFD              | Delivery Date     |                       |
| Delivery Note      |                  | Delivery Volume   |                       |
| Lot Number         |                  | Lot Size          |                       |
| Test Schedule      |                  | Sample Size       |                       |
| Production Machine |                  | Production Tool   |                       |
| Production Date    |                  | Production Time   |                       |
| Order              | 25236-5          | Department        | MET. QUALITY INSPEC   |
| Inspector          | kcaban           | Inspection Date   | 09-NOV-2009, 08:39:34 |
| Measuring Device   | PMM 12 10 6 #496 | Measuring Program | Quindos7 - V 7.1.9294 |
| User Name          | kcaban           | WKP Name          | NO\$NAME              |

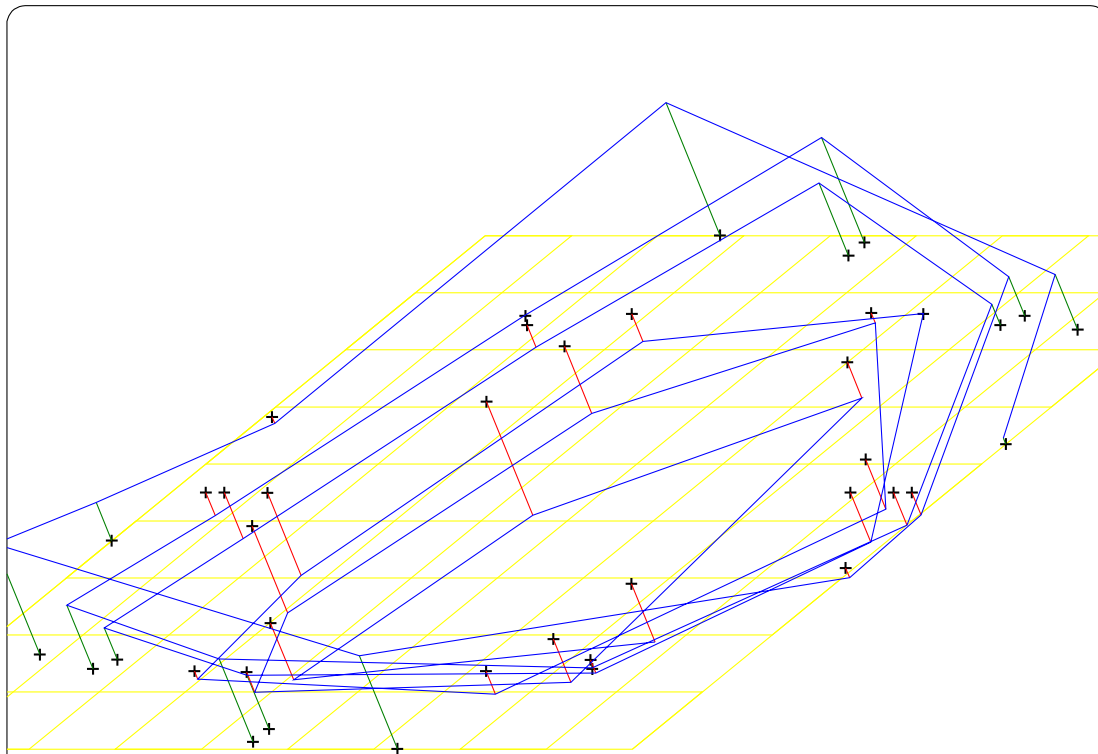
| Text | Eval. | Actual | Nominal | Up.To1. | Low.To1. | Act-Nom | Graphic |
|------|-------|--------|---------|---------|----------|---------|---------|
|------|-------|--------|---------|---------|----------|---------|---------|

|                    |         |            |           |         |          |          |            |
|--------------------|---------|------------|-----------|---------|----------|----------|------------|
| <b>DATUM_A</b>     |         | <b>PLA</b> |           |         |          |          |            |
|                    | FORM    | 0.00946    | 0.00000   | 0.00200 | 0.00000  | 0.00946  | 0.00746 ◀  |
| <b>DATUM_B</b>     |         | <b>CIR</b> |           |         |          |          |            |
|                    | FORM    | 0.00198    |           |         |          |          |            |
|                    | DM      | 8.57837    | 8.58000   | 0.00500 | 0.00000  | -0.00163 | -0.00163 ◀ |
| <b>DAT\$CIR_C</b>  |         | <b>CIR</b> |           |         |          |          |            |
|                    | FORM    | 0.00037    |           |         |          |          |            |
|                    | RA      | 0.12476    | 0.12500   | 0.00500 | -0.00500 | -0.00024 |            |
| <b>DIA_AG</b>      |         | <b>CIR</b> |           |         |          |          |            |
|                    | FORM    | 0.00210    |           |         |          |          |            |
|                    | DM      | 8.12316    | 8.12400   | 0.00500 | -0.00500 | -0.00084 |            |
|                    | X       | 0.00012    | 0.00000   |         |          | 0.00012  |            |
|                    | Y       | 0.00073    | 0.00000   |         |          | 0.00073  |            |
| <b>DIA_AG_CAV</b>  |         | <b>CIR</b> |           |         |          |          |            |
|                    | RA      | 0.06121    | 0.06200   | 0.00500 | -0.00500 | -0.00079 |            |
|                    | X       | -1.39928   | 1.40000   |         |          | -0.00072 |            |
|                    | XY      | 4.06059    | 4.06200   |         |          | -0.00141 |            |
| <b>DIA_P281(1)</b> |         | <b>CIR</b> |           |         |          |          |            |
|                    | DM      | 0.28385    | 0.28100   | 0.00500 | -0.00200 | 0.00285  |            |
|                    | PP_PXPY | 55.00326   | 55.00000  |         |          | 0.00326  |            |
|                    | XY      | 2.85001    | 2.85000   |         |          | 0.00001  |            |
| <b>DIA_P281(2)</b> |         | <b>CIR</b> |           |         |          |          |            |
|                    | DM      | 0.28302    | 0.28100   | 0.00500 | -0.00200 | 0.00202  |            |
|                    | PP_PXPY | 144.97451  | 145.00000 |         |          | -0.02549 |            |
|                    | XY      | 2.85000    | 2.85000   |         |          | 0.00000  |            |
| <b>DIA_P281(3)</b> |         | <b>CIR</b> |           |         |          |          |            |
|                    | DM      | 0.28395    | 0.28100   | 0.00500 | -0.00200 | 0.00295  |            |
|                    | PP_PXPY | 234.98017  | 235.00000 |         |          | -0.01984 |            |
|                    | XY      | 2.84829    | 2.85000   |         |          | -0.00171 |            |
| <b>DIA_P281(4)</b> |         | <b>CIR</b> |           |         |          |          |            |
|                    | DM      | 0.28444    | 0.28100   | 0.00500 | -0.00200 | 0.00344  |            |

| Text                      | Eval. | Actual | Nominal  | Up.To1. | Low.To1. | Act-Nom     | Graphic |
|---------------------------|-------|--------|----------|---------|----------|-------------|---------|
| Date: 09-Nov-09, 08:39:34 |       |        | NO\$NAME |         |          | Page 1 of 6 |         |

| Date: 09-Nov-09, 08:39:34 |         |            | NO\$NAME  |         |          | Page 2 of 6 |   |
|---------------------------|---------|------------|-----------|---------|----------|-------------|---|
| Text                      | Eval.   | Actual     | Nominal   | Up.Tol. | Low.Tol. | Act-Nom     | Graphic   |
| <b>DIA_P281(4)</b>        |         | <b>CIR</b> |           |         |          |             |   |
|                           | PP_PXPY | 325.02217  | 325.00000 |         |          | 0.02217     |   |
|                           | XY      | 2.84872    | 2.85000   |         |          | -0.00128    |   |
| <b>PLA_P030</b>           |         | <b>PLA</b> |           |         |          |             |   |
|                           | FORM    | 0.00543    |           |         |          |             |   |
|                           | Z       | 0.03144    | 0.03000   | 0.01000 | 0.00000  | 0.00144     |  |

| Text                      | Eval. | Actual | Nominal  | Up.Tol. | Low.Tol. | Act-Nom     | Graphic |
|---------------------------|-------|--------|----------|---------|----------|-------------|---------|
| Date: 09-Nov-09, 08:39:34 |       |        | NO\$NAME |         |          | Page 2 of 6 |         |



0.00306  
Inch

Actual points : \* \* \*      Neg. Deviation : ———      Pos. Deviation : ———

Notation : COLD PLATE BASE      Producer : J. TICE      Draw. No. : PF-391-521-46  
 Ser. No. : 002 (BOTTOM PRO      Part No. :      Department: MET. QUALITY IN  
 Calcul. .: Bestfit (Gauss)      Filtering: No      Probe dia.: 1      mm  
 Element : DATUM\_A      X      Y      Z      No.  
 Form .....: 0.0095      Neg. Deviat.: -0.0044      -2.2015      1.5415      0.0163      38  
 Error Magnif.: 10      Pos. Deviat.: 0.0051      -1.8286      4.3379      0.0256      3  
 No. of points: 40

MESSTECHNIK WETZLAR



*FLATNESS*  
*ISO 1101*

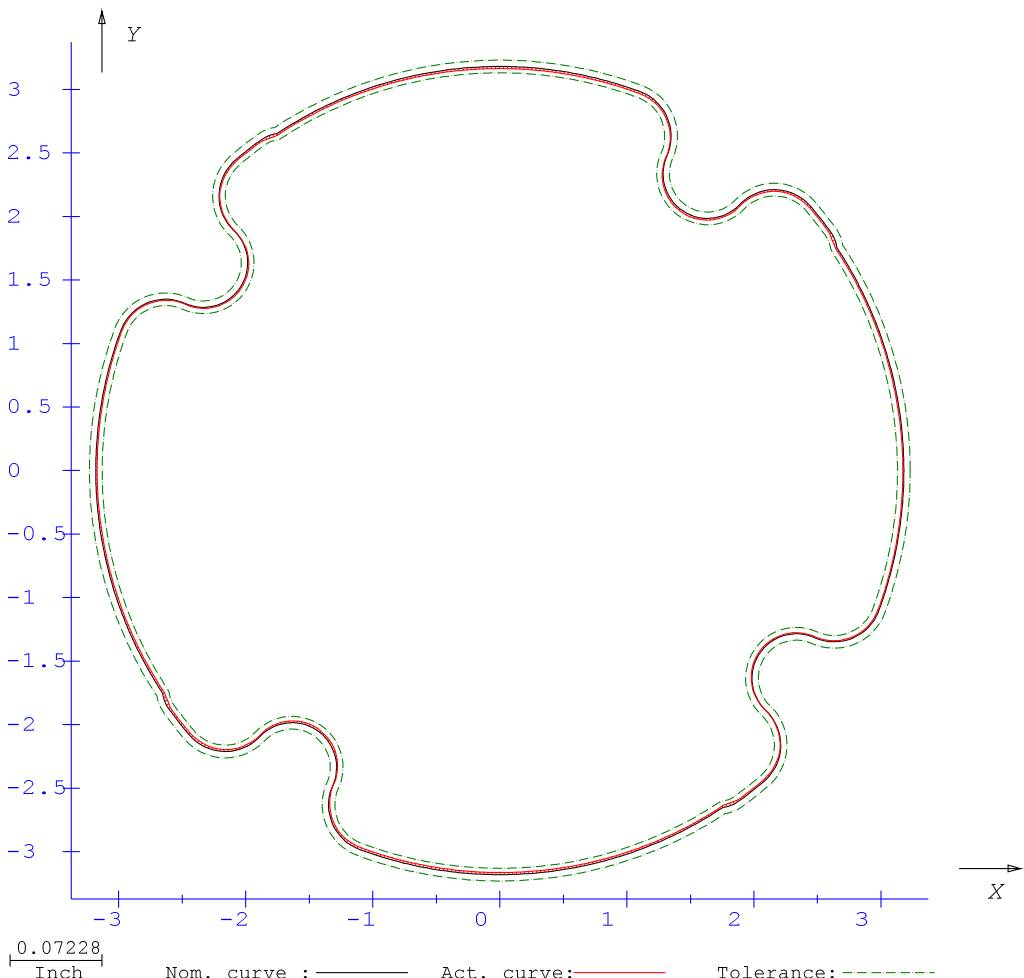
Inspector :kcaban  
 Date .....:09-NOV-2009  
 Time .....:08:39:34

PI\$Pages\_3700

Date: 09-Nov-09, 08:39:34

NO\$NAME

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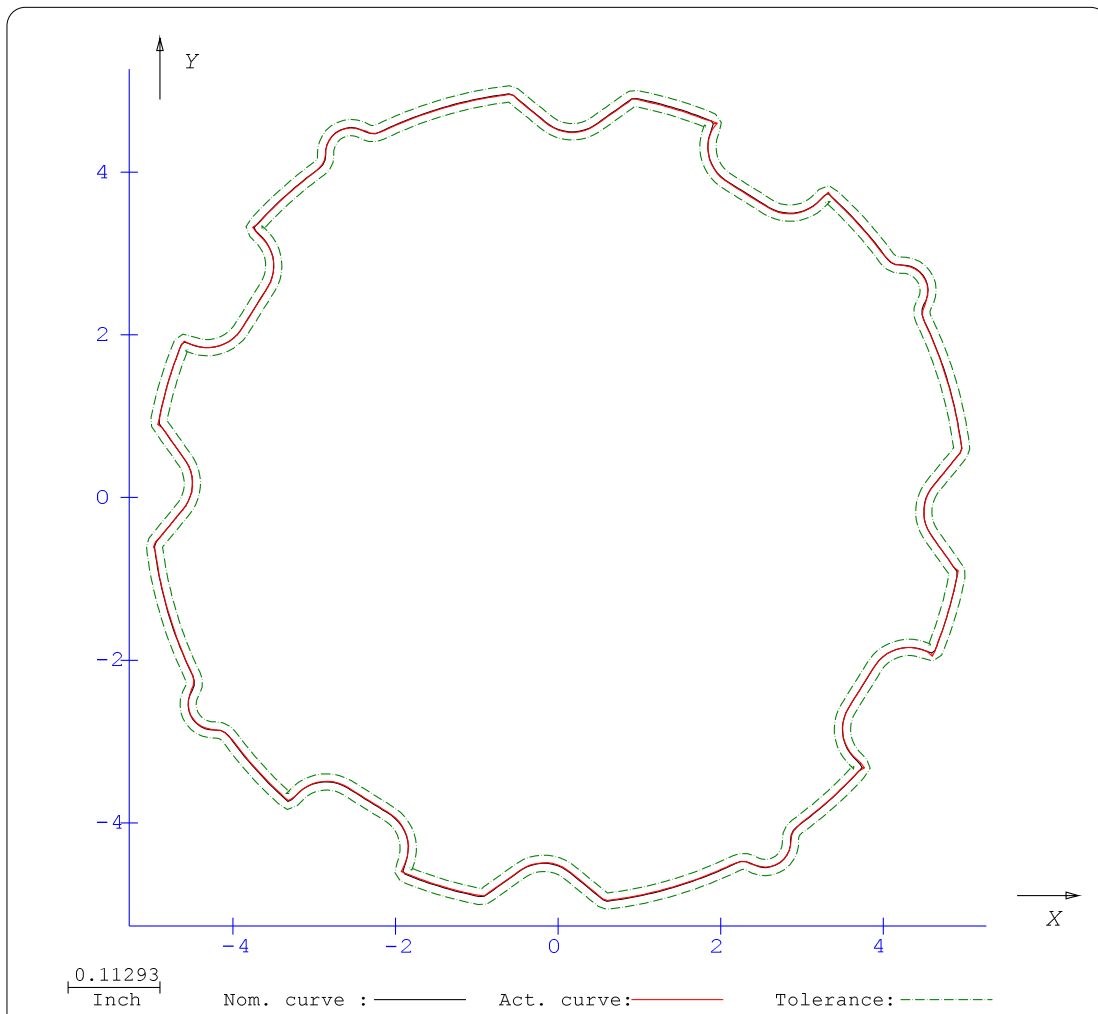
Notation : COLD PLATE BASE    Producer : J. TICE    Draw. No. : PF-391-521-46  
 Ser. No. : 002 (BOTTOM PRO    Part No. :    Department: MET. QUALITY IN  
 Element : ACNO\_IN

|                |          | X             | Y       | Z       | Nr.      |          |     |
|----------------|----------|---------------|---------|---------|----------|----------|-----|
| Form .....     | 0.00227  | Min. Deviat.: | 0.00004 | 2.09000 | -1.88505 | -0.09400 | 616 |
| Lower Toler. : | -0.00500 | Max. Deviat.: | 0.00231 | 1.81607 | -2.63722 | -0.09400 | 586 |
| Upper Toler. : | 0.00500  |               |         |         |          |          |     |
| Error Magnif.: | 10       |               |         |         |          |          |     |
| No. of points: | 700      |               |         |         |          |          |     |



2D - CONTOUR

Inspector.:kcaban  
 Date .....:09-NOV-2009  
 Time .....:08:39:34



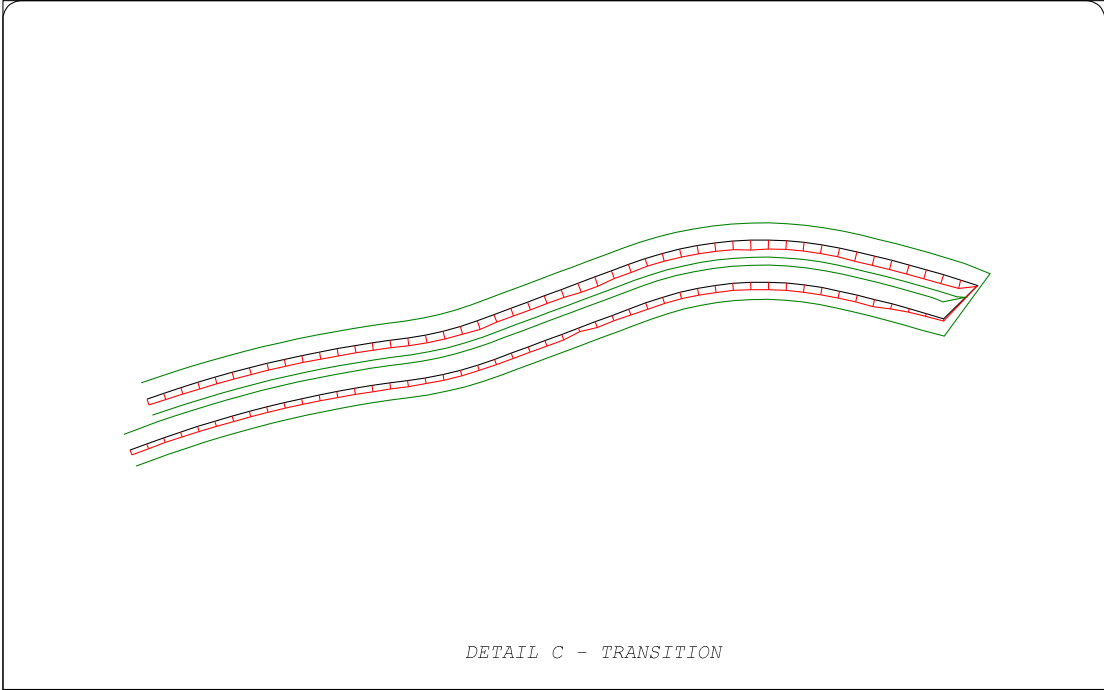
Notation : COLD PLATE BASE    Producer : J. TICE    Draw. No. : PF-391-521-46  
 Ser. No. : 002 (BOTTOM PRO    Part No. :    Department: MET. QUALITY IN  
 Element : ACNO\_OUT

|                |          | X                     | Y        | Z        | Nr.      |          |     |
|----------------|----------|-----------------------|----------|----------|----------|----------|-----|
| Form .....     | 0.00620  | Min. Deviat.:-0.00158 | -0.96680 | -4.90564 | -0.14150 | 404      |     |
| Lower Toler. : | 0.01000  | Max. Deviat.:         | 0.00461  | 1.91028  | 4.59432  | -0.14150 | 108 |
| Upper Toler. : | -0.01000 |                       |          |          |          |          |     |
| Error Magnif.: | 10       |                       |          |          |          |          |     |
| No. of points: | 560      |                       |          |          |          |          |     |

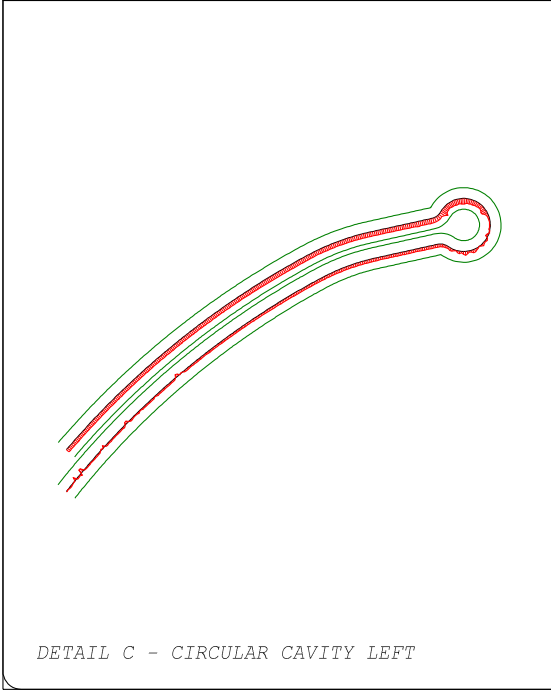


2D - CONTOUR

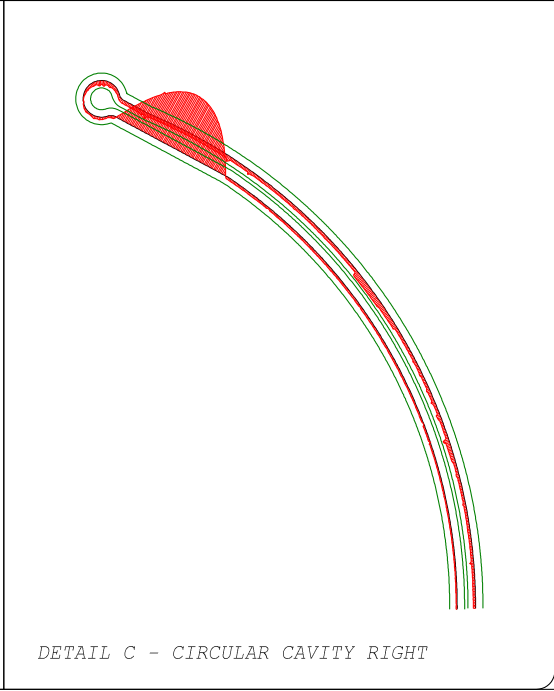
Inspector.:kcaban  
 Date .....:09-NOV-2009  
 Time .....:08:39:34



DETAIL C - TRANSITION



DETAIL C - CIRCULAR CAVITY LEFT



DETAIL C - CIRCULAR CAVITY RIGHT



**COLD PLATE BASE**  
 DRAWING #: PF-391-521-46 REV 0  
 SERIAL NUMBER: 002 (BOTTOM PROGRAM)  
 SHEET 2 DETAIL C PLOTS

BLK = NOMINAL  
 RED = DEVIATIONS  
 GRN = +/- .005 TOL  
 DATE: 09-NOV-2009