

GOM mbH
Mittelweg 7-8
38106 Braunschweig
GERMANY

070308B07010

Abnahmeschein Nr.

Acceptance-Certificate No.

Werks-Abnahmeschein
Proprietary Acceptance Certificate

VDI Acceptance test with dumbbell

General data

System: ATOS II 400 SN: B07010
Measurement volume: 481 x 380 x 380 mm³
Date: Thu Mar 8 11:05:37 2007
Inspector: B.Dangelat
Temperature: 22.00 °C

Artefact

Name: TK100HF275
Scale: 275.414 mm
Diameters calibrated: Yes
Diameter sphere 1: 100.028 mm
Diameter sphere 2: 100.030 mm
Certification temperature: 20.00 °C
Expansion coeff.: 14.10 µm / °C / m

Measurement parameter

Raster: 1:1
Movement check: Enabled
Movement check threshold: 0.20 Pixel
Lighting check: Light check (normal)
Lighting check value: 1.0 Grayvalues
Modulation check threshold: 15 Grayvalues
Strong ambient light: Disabled
Use points at strong color transition: Enabled
Use shiny points: Enabled
Corner mask: 35
Data from one camera only: Disabled
Size restriction mode: Size restriction mode
Phase steps: 4
Use smoothing: Enabled
Filter radius: 4
Filter threshold: 100.00 mm

Sensor calibration info

Calibration date: Thu Mar 8 10:59:43 2007
 Calibration object type: Cross (coded)
 Calibration object name: CC20/500/D05722
 Calibration scales: 495.300 mm, 496.119 mm
 Certification temperature: 20.00 °C
 Expansion coeff.: -0.85 µm / °C / m
 Camera lense: 12.0 mm
 Calibration deviation: 0.017 Pixel
 Scale deviation: 0.003 mm
 Camera angle: 31.3 deg
 Angle variance: -32.5 / 35.3 deg
 Height variance: 333.23 mm

Probing error 1 (deviation best fit sphere)

ID	Points	Diameter (actual) [mm]	Sigma [mm]	Dev. min. [mm]	Dev. max. [mm]
0	45204	100.071	0.005	-0.016	0.015
1	40795	100.065	0.005	-0.017	0.017
2	55553	100.089	0.005	-0.015	0.015

Probing error 2 (deviation best fit sphere)

ID	Points	Diameter (actual) [mm]	Sigma [mm]	Dev. min. [mm]	Dev. max. [mm]
0	37263	100.057	0.005	-0.014	0.014
1	33997	100.047	0.006	-0.017	0.017
2	45174	100.060	0.005	-0.015	0.015

Sphere spacing error

ID	Sphere spacing (nominal) [mm]	Sphere spacing (actual) [mm]	Sphere spacing dev. [mm]
0	275.422	275.463	0.041
1	275.422	275.470	0.048
2	275.422	275.446	0.024

Acceptance test summary

Probing error (max. sigma): 0.006 mm
Sphere spacing error (max.): 0.048 mm

VDI Acceptance test with flatness normal

General data

System: ATOS II 400 SN: B07010
Measurement volume: 481 x 380 x 380 mm³
Date: Thu Mar 8 11:10:22 2007
Inspector: B.Dangelat
Temperature: 22.00 °C

Artefact

Name: EBN420x50x20
Length: 420.000 mm
Width: 50.000 mm

Measurement parameter

Raster: 1:1
Movement check: Enabled
Movement check threshold: 0.20 Pixel
Lighting check: Light check (normal)
Lighting check value: 1.0 Grayvalues
Modulation check threshold: 15 Grayvalues
Strong ambient light: Disabled
Use points at strong color transition: Enabled
Use shiny points: Enabled
Corner mask: 35
Data from one camera only: Disabled
Size restriction mode: Size restriction mode
Phase steps: 4
Use smoothing: Enabled
Filter radius: 4
Filter threshold: 100.00 mm

Sensor calibration info

Calibration date: Thu Mar 8 10:59:43 2007
Calibration object type: Cross (coded)
Calibration object name: CC20/500/D05722
Calibration scales: 495.300 mm, 496.119 mm
Certification temperature: 20.00 °C

Expansion coeff.: -0.85 $\mu\text{m} / ^\circ\text{C} / \text{m}$
Camera lense: 12.0 mm
Calibration deviation: 0.017 Pixel
Scale deviation: 0.003 mm
Camera angle: 31.3 deg
Angle variance: -32.5 / 35.3 deg
Height variance: 333.23 mm

Flatness measurement error:

ID	Points	Sigma [mm]	Dev. min. [mm]	Dev. max. [mm]
0	120643	0.011	-0.032	0.037
1	97413	0.019	-0.049	0.057
2	152883	0.021	-0.058	0.063

Acceptance test summary

Flatness measurement error (max. sigma): 0.021 mm

VDI Acceptance test with dumbbell

General data

System: ATOS II 400 SN: B07010
Measurement volume: 179 x 133 x 116 mm³
Date: Thu Mar 8 11:50:48 2007
Inspector: B.Dangelat
Temperature: 22.00 °C

Artefact

Name: TK30HF80
Scale: 80.079 mm
Diameters calibrated: Yes
Diameter sphere 1: 30.003 mm
Diameter sphere 2: 30.003 mm
Certification temperature: 20.00 °C
Expansion coeff.: 14.40 µm / °C / m

Measurement parameter

Raster: 1:1
Movement check: Enabled
Movement check threshold: 0.20 Pixel
Lighting check: Light check (normal)
Lighting check value: 1.0 Grayvalues
Modulation check threshold: 15 Grayvalues
Strong ambient light: Disabled
Use points at strong color transition: Enabled
Use shiny points: Enabled
Corner mask: 35
Data from one camera only: Disabled
Size restriction mode: Size restriction mode
Phase steps: 4
Use smoothing: Enabled
Filter radius: 4
Filter threshold: 100.00 mm

Sensor calibration info

Calibration date: Thu Mar 8 11:34:29 2007

Calibration object type: Panel (coded)
 Calibration object name: CP20/175/D05701
 Calibration scales: 141.002 mm, 140.686 mm
 Certification temperature: 20.00 °C
 Expansion coeff.: 22.90 µm / °C / m
 Camera lense: 35.0 mm
 Calibration deviation: 0.018 Pixel
 Scale deviation: 0.003 mm
 Camera angle: 31.6 deg
 Angle variance: -28.4 / 29.1 deg
 Height variance: 118.28 mm

Probing error 1 (deviation best fit sphere)

ID	Points	Diameter (actual) [mm]	Sigma [mm]	Dev. min. [mm]	Dev. max. [mm]
0	32424	30.009	0.002	-0.006	0.006
1	29409	30.010	0.002	-0.007	0.007
2	35334	30.013	0.002	-0.007	0.007

Probing error 2 (deviation best fit sphere)

ID	Points	Diameter (actual) [mm]	Sigma [mm]	Dev. min. [mm]	Dev. max. [mm]
0	29629	30.003	0.002	-0.006	0.006
1	27248	30.010	0.003	-0.008	0.008
2	32451	30.011	0.002	-0.007	0.007

Sphere spacing error

ID	Sphere spacing (nominal) [mm]	Sphere spacing (actual) [mm]	Sphere spacing dev. [mm]
0	80.081	80.081	-0.000
1	80.081	80.077	-0.004
2	80.081	80.085	0.004

Acceptance test summary

Probing error (max. sigma): 0.003 mm
Sphere spacing error (max.): 0.004 mm

VDI Acceptance test with flatness normal

General data

System: ATOS II 400 SN: B07010
Measurement volume: 179 x 133 x 116 mm³
Date: Thu Mar 8 11:53:42 2007
Inspector: B.Dangelat
Temperature: 22.00 °C

Artefact

Name: EBN280x50x20
Length: 280.000 mm
Width: 50.000 mm

Measurement parameter

Raster: 1:1
Movement check: Enabled
Movement check threshold: 0.20 Pixel
Lighting check: Light check (normal)
Lighting check value: 1.0 Grayvalues
Modulation check threshold: 15 Grayvalues
Strong ambient light: Disabled
Use points at strong color transition: Enabled
Use shiny points: Enabled
Corner mask: 35
Data from one camera only: Disabled
Size restriction mode: Size restriction mode
Phase steps: 4
Use smoothing: Enabled
Filter radius: 4
Filter threshold: 100.00 mm

Sensor calibration info

Calibration date: Thu Mar 8 11:34:29 2007
Calibration object type: Panel (coded)
Calibration object name: CP20/175/D05701
Calibration scales: 141.002 mm, 140.686 mm
Certification temperature: 20.00 °C

Expansion coeff.: 22.90 $\mu\text{m} / ^\circ\text{C} / \text{m}$
Camera lense: 35.0 mm
Calibration deviation: 0.018 Pixel
Scale deviation: 0.003 mm
Camera angle: 31.6 deg
Angle variance: -28.4 / 29.1 deg
Height variance: 118.28 mm

Flatness measurement error:

ID	Points	Sigma [mm]	Dev. min. [mm]	Dev. max. [mm]
0	497123	0.003	-0.009	0.009
1	432329	0.004	-0.012	0.012
2	502033	0.004	-0.012	0.012

Acceptance test summary

Flatness measurement error (max. sigma): 0.004 mm