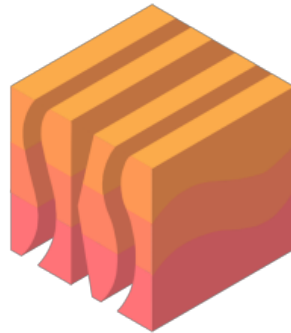


# DEMO UNDERGROUND STORAGE TANK INSPECTION REPORT

*Report done by PT. SURYA KWON SUNG*



*For*

**CLIENT**

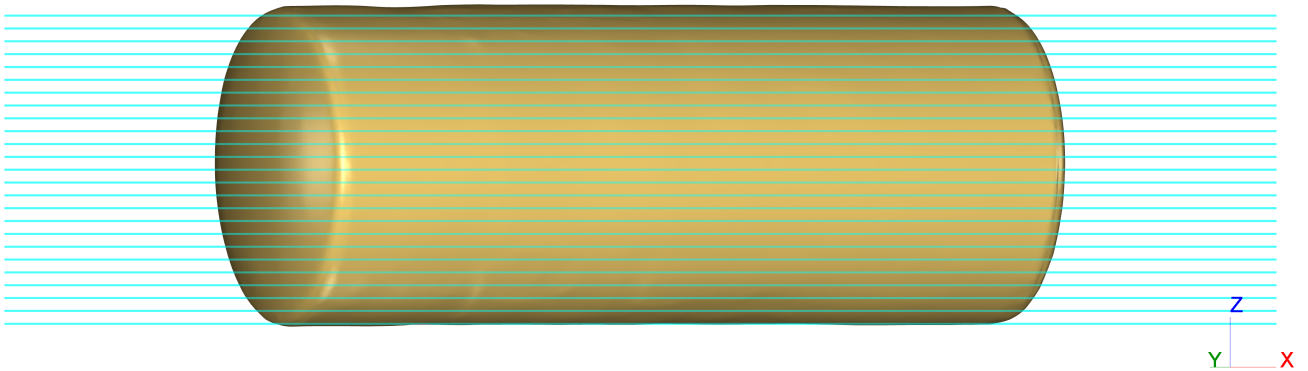
3/12/2025

Website: [www.3dscanindonesia.co.id](http://www.3dscanindonesia.co.id)  
Tel & WhatsApp: +6287876772196  
Email: [stephen@3dscanindonesia.co.id](mailto:stephen@3dscanindonesia.co.id)

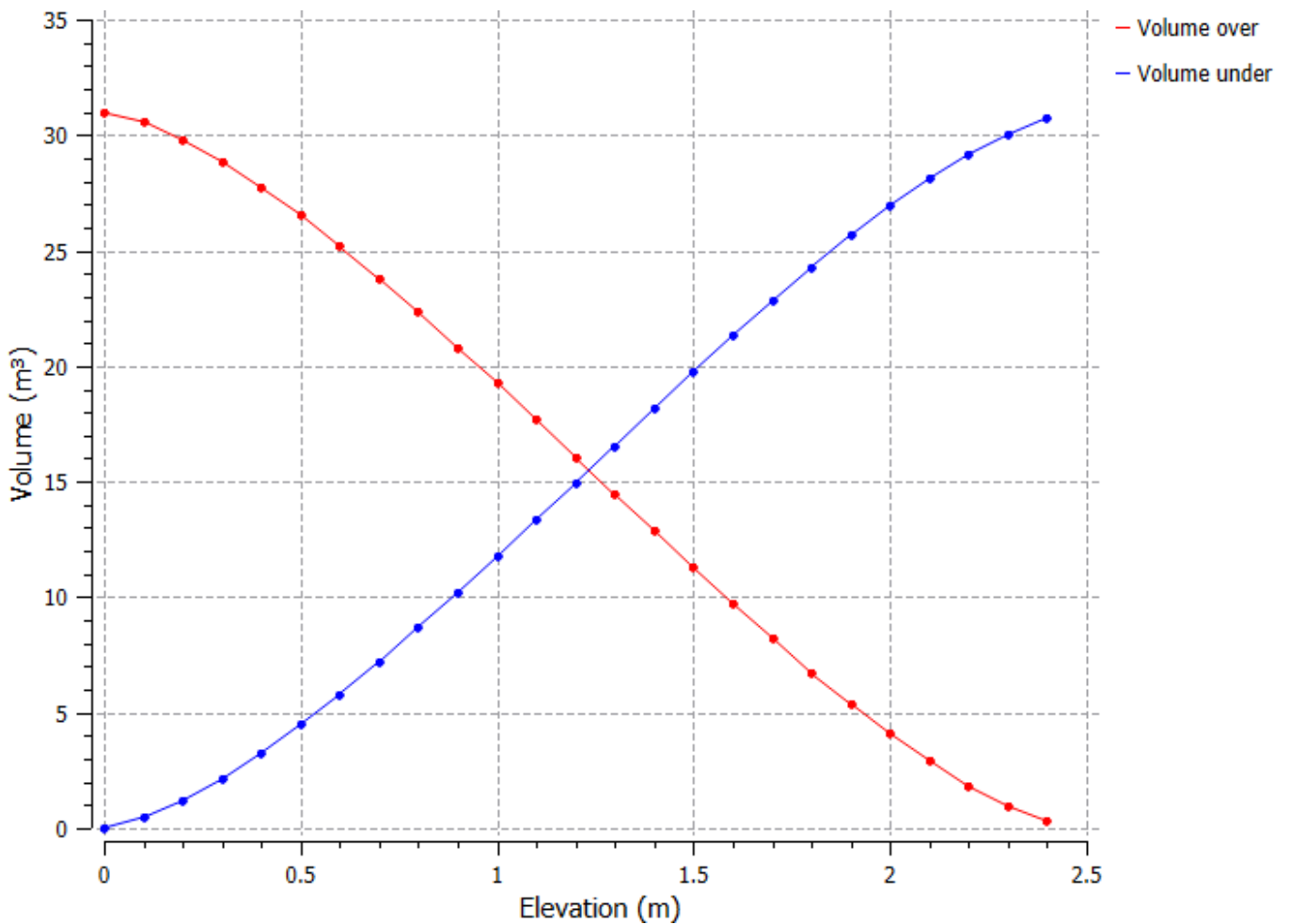


# Volume from Elevation

Direction: X= 0 m ; Y= 0 m ; Z= 1 m



1 : 59 | 1.2 m





Elevation (m)	Volume over (m <sup>3</sup> )	Volume under (m <sup>3</sup> )
0.000	30.9910	0.0117
0.100	30.5449	0.4579
0.200	29.7940	1.2088
0.300	28.8472	2.1557
0.400	27.7501	3.2529
0.500	26.5313	4.4717
0.600	25.2114	5.7917
0.700	23.8083	7.1948
0.800	22.3384	8.6648
0.900	20.8160	10.1872
1.000	19.2545	11.7488
1.100	17.6662	13.3372
1.200	16.0626	14.9408
1.300	14.4541	16.5494
1.400	12.8514	18.1522
1.500	11.2661	19.7375
1.600	9.7110	21.2926
1.700	8.1997	22.8040
1.800	6.7460	24.2578
1.900	5.3650	25.6388
2.000	4.0733	26.9306
2.100	2.8893	28.1147
2.200	1.8357	29.1683
2.300	0.9461	30.0580
2.400	0.2776	30.7266



# DEMO UNDERGROUND STORAGE TANK

## Tank definition

Elevation marker: X= 0 m ; Y= 0 m ; Z= 0 m

Orientation marker: X= 0.000 m ; Y= 0.000 m ; Z= 2.459 m

Tank height: 6.600 m

## Best cylinder computation

Number of points: 29,059

Distance of worst point: 0.014 m

Standard deviation: 0.004 m

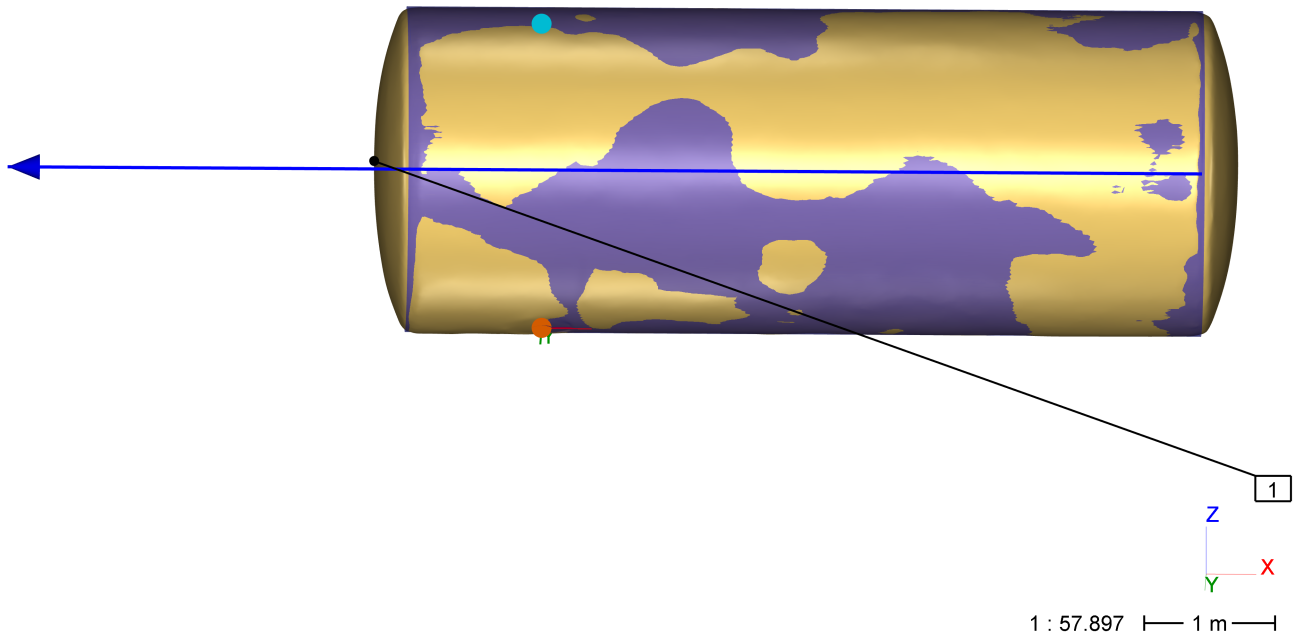
Cylinder axis: X= -1.000 ; Y= 0.008 ; Z= 0.000

Cylinder diameter: 2.485 m

## Plumbness computation

Measured plumbness: 6.086 m

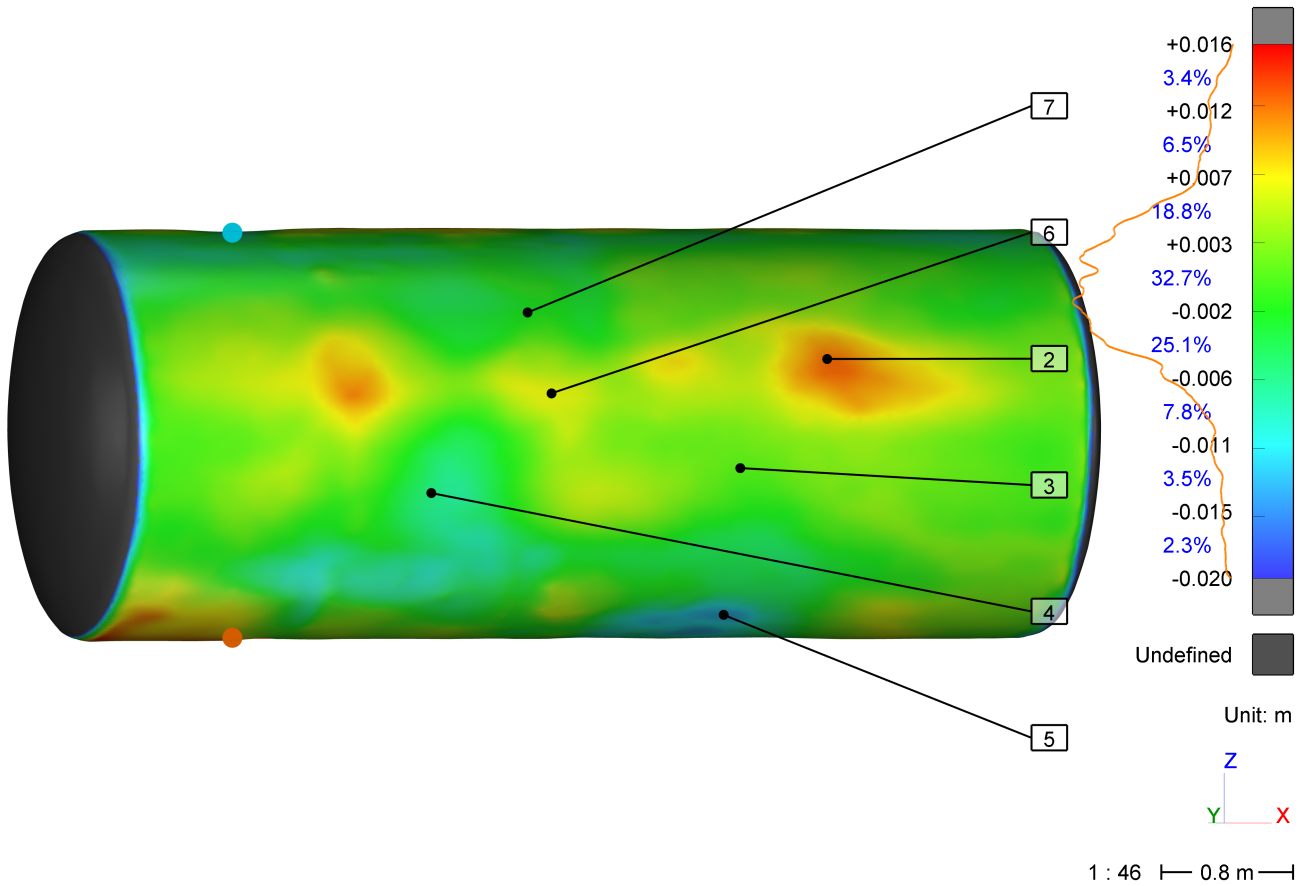
Tolerance: 0.066 m (according to API 653)



id	Meas Dist (m)	Comment
1	6.086	Plumbness



### COLOR MAP

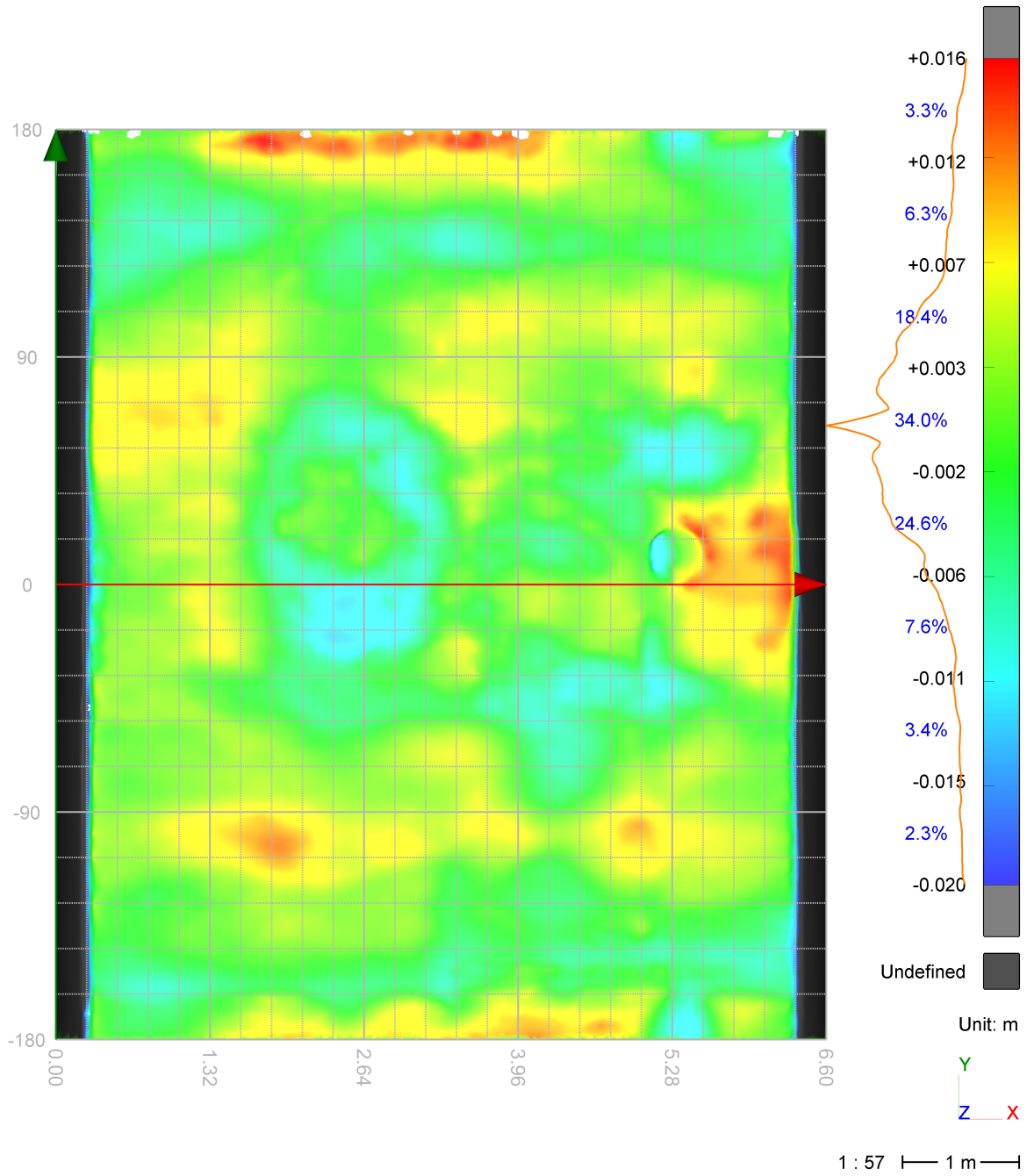


id	Dev 3D (m)	Dev X (m)	Dev Y (m)	Dev Z (m)
2	0.012	-0.000	-0.011	0.004
3	0.001	-0.000	-0.001	-0.000
4	-0.006	0.000	0.006	0.002
5	-0.013	0.000	0.006	0.012
6	0.006	-0.000	-0.006	0.001
7	-0.002	0.000	0.002	-0.001

**+ = Outside of Best Cylinder**  
**- = Inside of Best Cylinder**



# UNROLL



**+ = Outside of Best Cylinder**  
**- = Inside of Best Cylinder**



## ROUNDNESS

Section Height (m)	Avg. Radius (m)	Min. Radius (m)	Max. Radius (m)	Min. Acc. Radius (m)	Max. Acc. Radius (m)
0.500	1.243	1.236	1.251	1.205	1.281
1.000	1.244	1.235	1.252	1.205	1.281
1.500	1.245	1.236	1.253	1.205	1.281
2.000	1.243	1.235	1.256	1.205	1.281
2.500	1.241	1.229	1.256	1.205	1.281
3.000	1.242	1.233	1.255	1.205	1.281
3.500	1.244	1.234	1.257	1.205	1.281
4.000	1.243	1.235	1.255	1.205	1.281
4.500	1.242	1.234	1.252	1.205	1.281
5.000	1.243	1.234	1.254	1.205	1.281
5.500	1.244	1.232	1.257	1.205	1.281
6.000	1.244	1.235	1.256	1.205	1.281

Tolerances are computed according to API653.

The level 0 passes through the point X= 5.320 m ; Y= -0.164 m ; Z= 1.234 m

The sections are perpendicular to the cylinder axis.



### Section at 0.500 m

**Position on cylinder axis:**

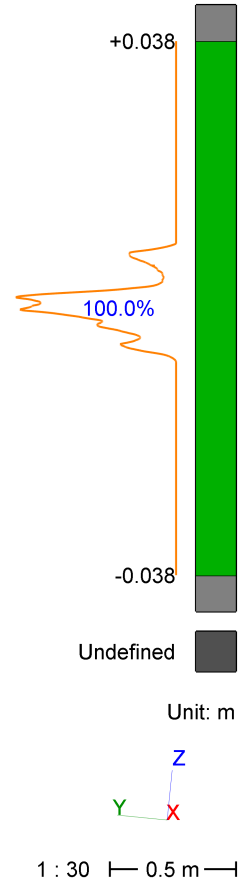
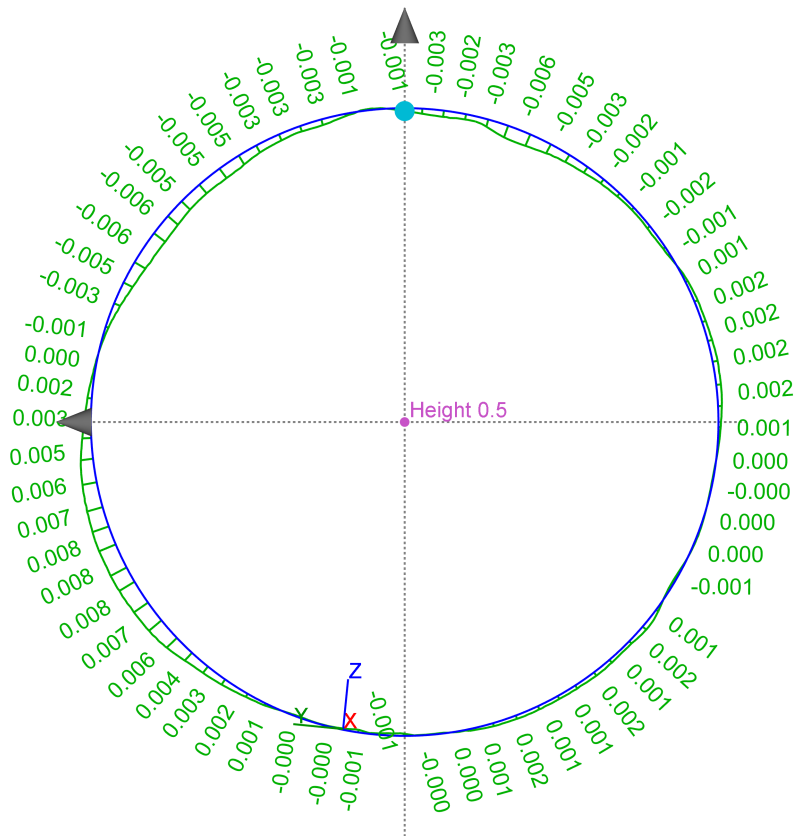
X= 4.820 m ; Y= -0.160 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.236 m

**Maximum radius:** 1.251 m

**Average radius:** 1.243 m



Deviation magnification x8.864



### Section at 1.000 m

**Position on cylinder axis:**

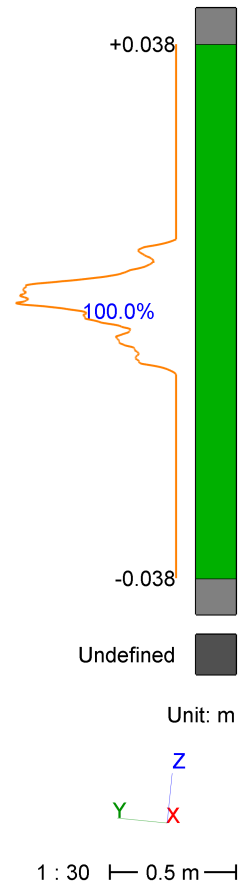
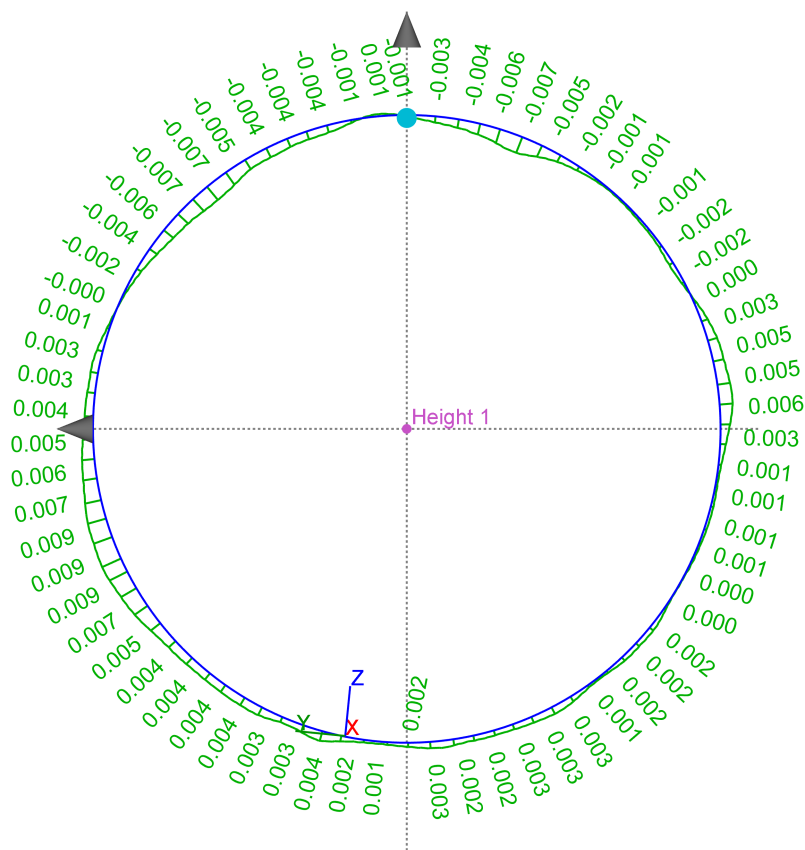
X= 4.320 m ; Y= -0.156 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.235 m

**Maximum radius:** 1.252 m

**Average radius:** 1.244 m



Deviation magnification x8.864



### Section at 1.500 m

**Position on cylinder axis:**

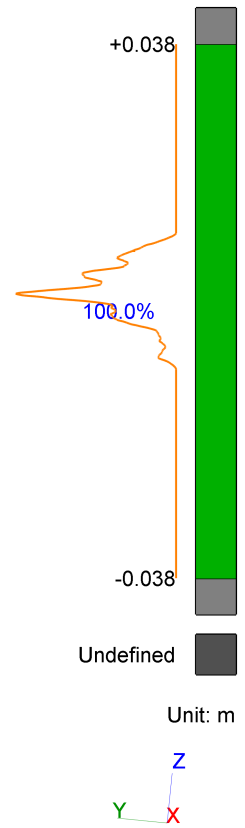
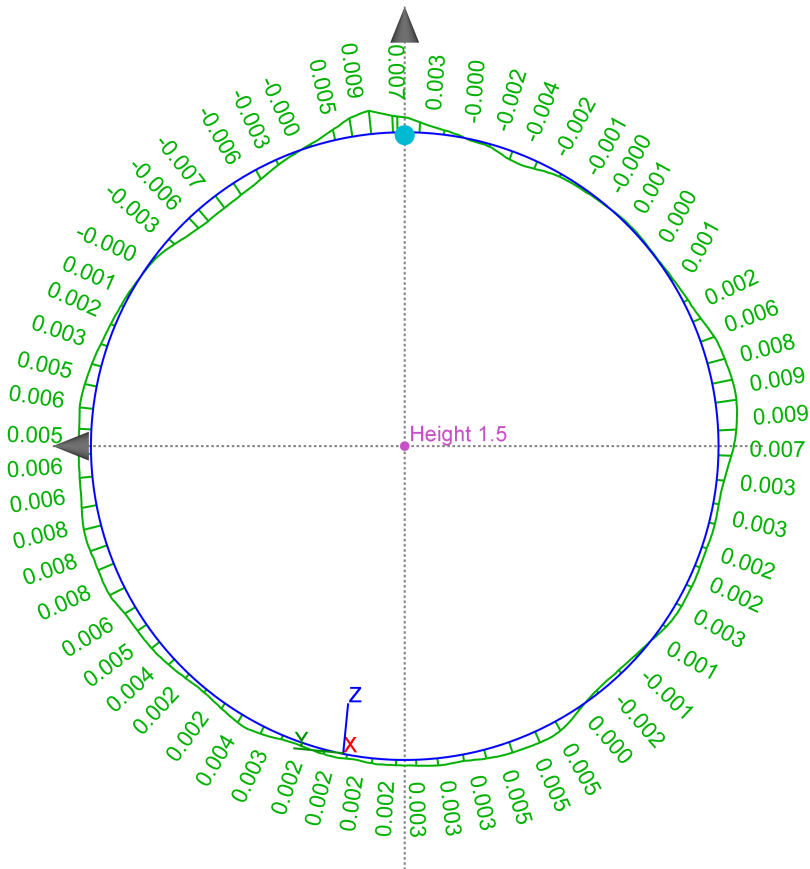
X= 3.820 m ; Y= -0.152 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.236 m

**Maximum radius:** 1.253 m

**Average radius:** 1.245 m



1 : 30 | 0.5 m

*Deviation magnification x8.864*



### Section at 2.000 m

**Position on cylinder axis:**

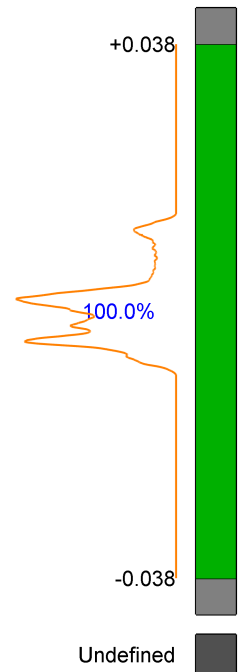
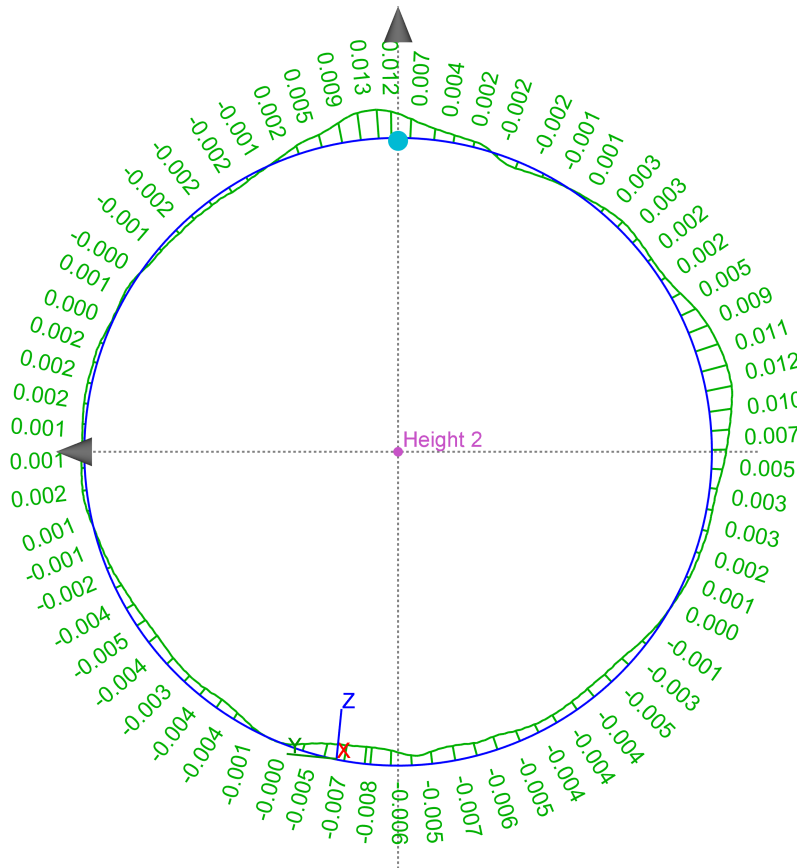
X= 3.320 m ; Y= -0.148 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.235 m

**Maximum radius:** 1.256 m

**Average radius:** 1.243 m



Undefined

Unit: m



1 : 30 | 0.5 m

Deviation magnification x8.864



### Section at 2.500 m

**Position on cylinder axis:**

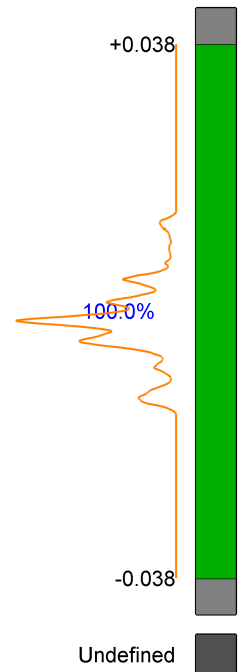
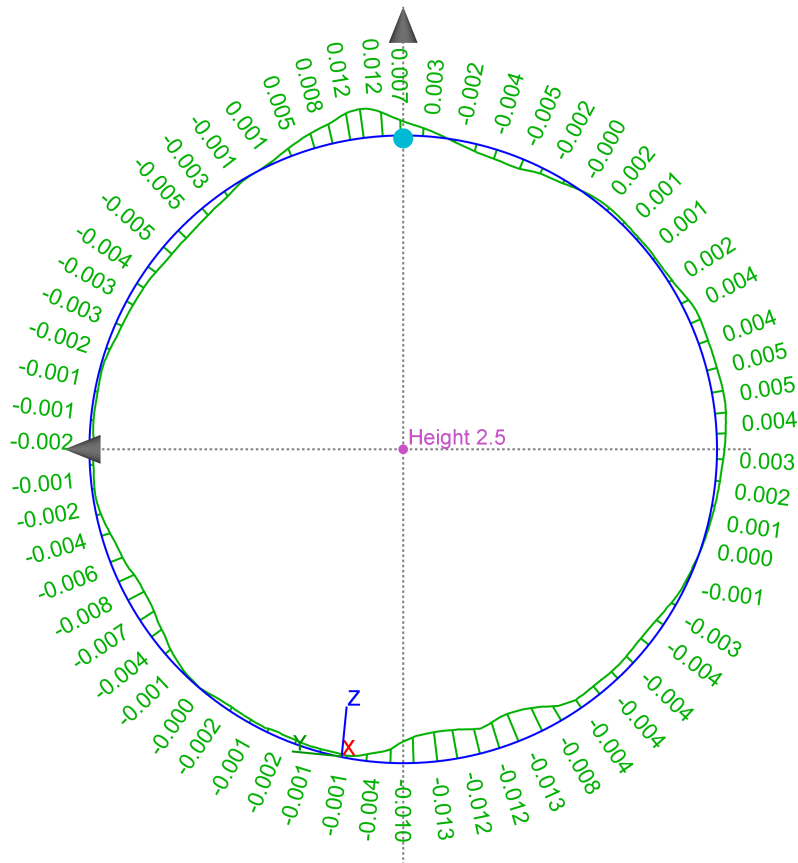
X= 2.820 m ; Y= -0.144 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.229 m

**Maximum radius:** 1.256 m

**Average radius:** 1.241 m



Unit: m



1 : 30 | 0.5 m

Deviation magnification x8.864



### Section at 3.000 m

**Position on cylinder axis:**

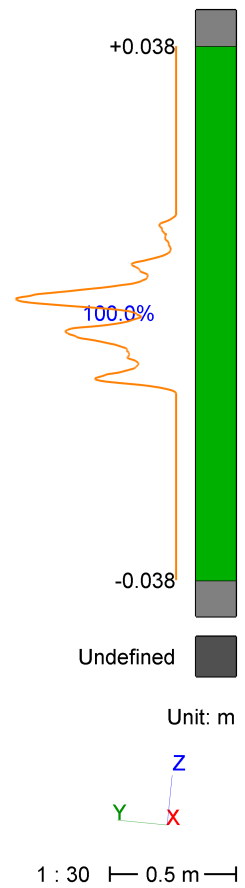
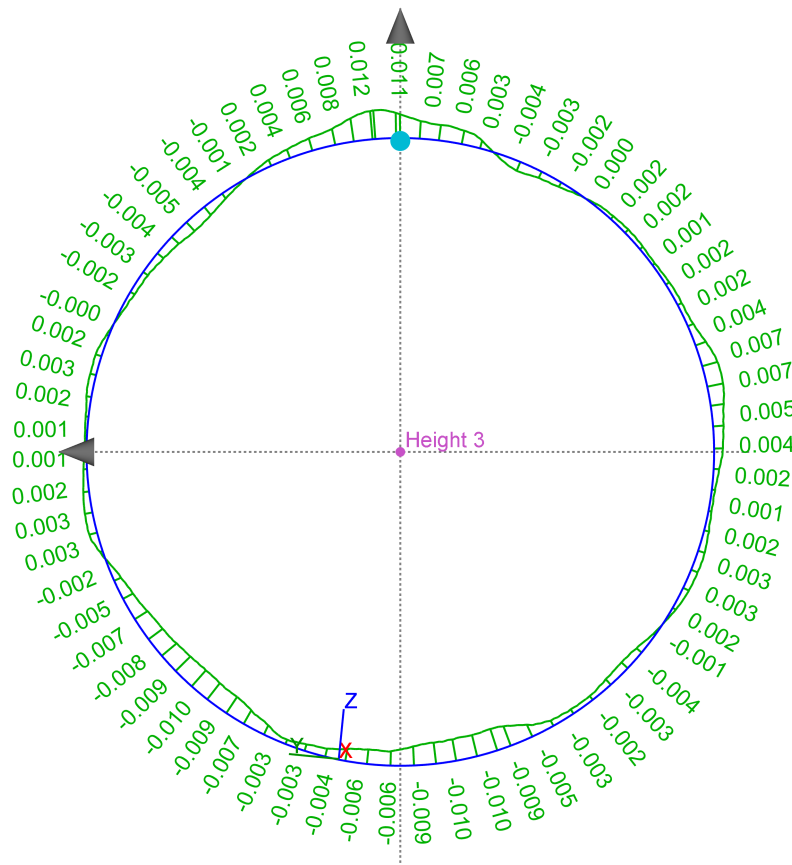
X= 2.320 m ; Y= -0.140 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.233 m

**Maximum radius:** 1.255 m

**Average radius:** 1.242 m



1 : 30 | 0.5 m

Deviation magnification x8.864



### Section at 3.500 m

**Position on cylinder axis:**

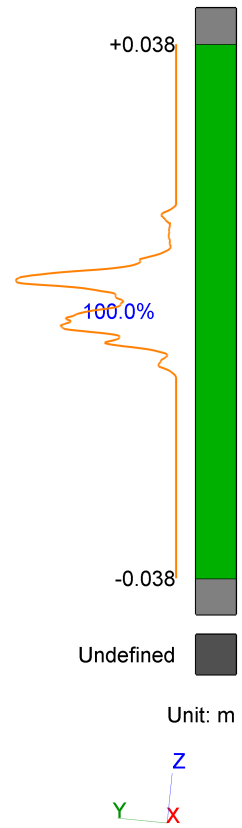
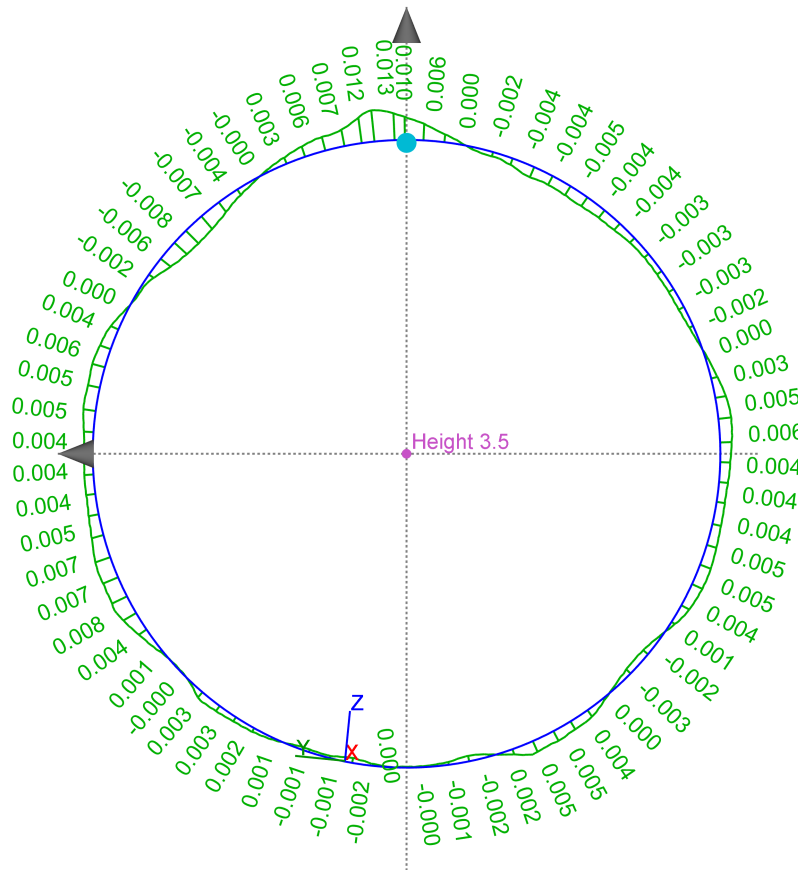
X= 1.820 m ; Y= -0.136 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.234 m

**Maximum radius:** 1.257 m

**Average radius:** 1.244 m



1 : 30 | 0.5 m

Deviation magnification x8.864



### Section at 4.000 m

**Position on cylinder axis:**

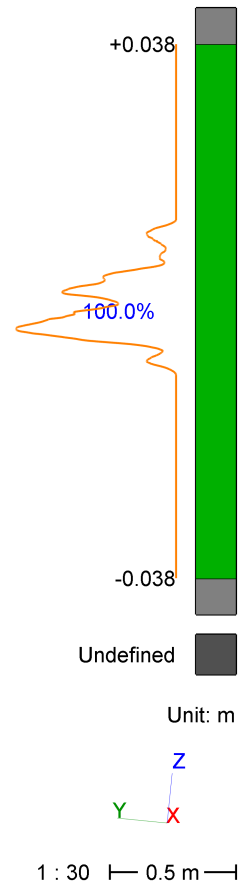
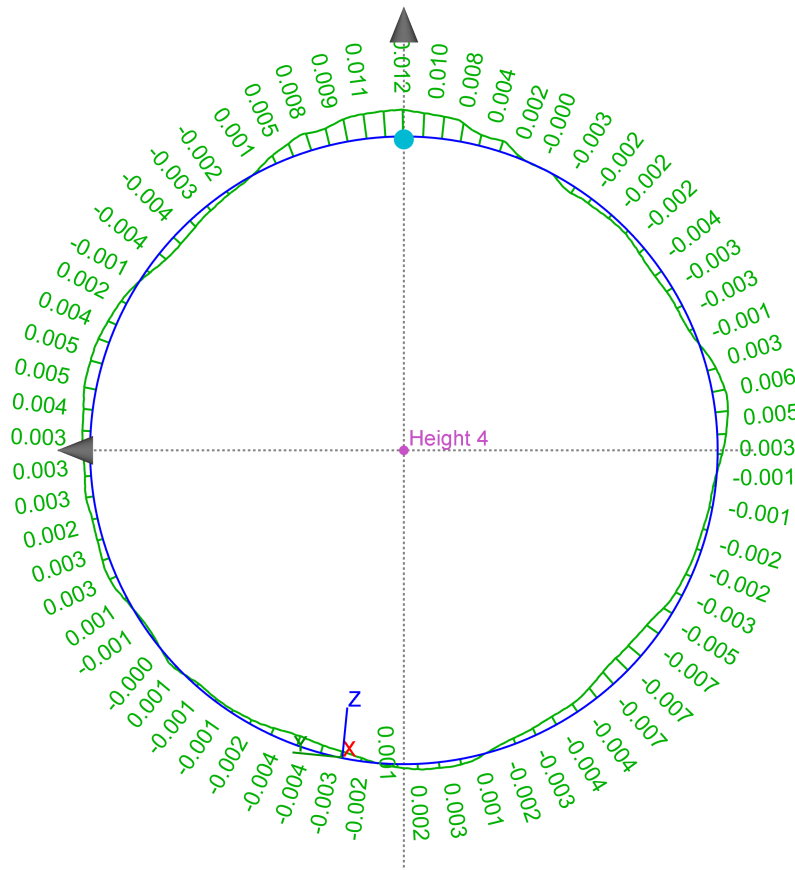
X= 1.320 m ; Y= -0.133 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.235 m

**Maximum radius:** 1.255 m

**Average radius:** 1.243 m



Deviation magnification x8.864



### Section at 4.500 m

**Position on cylinder axis:**

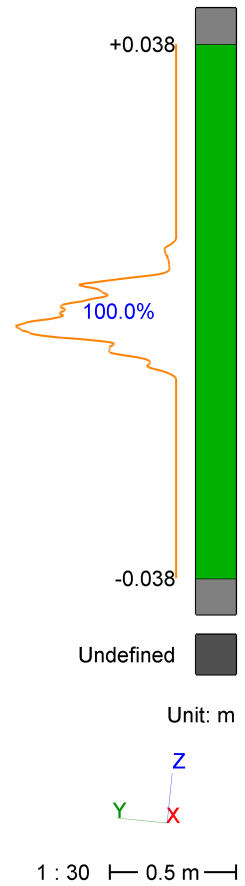
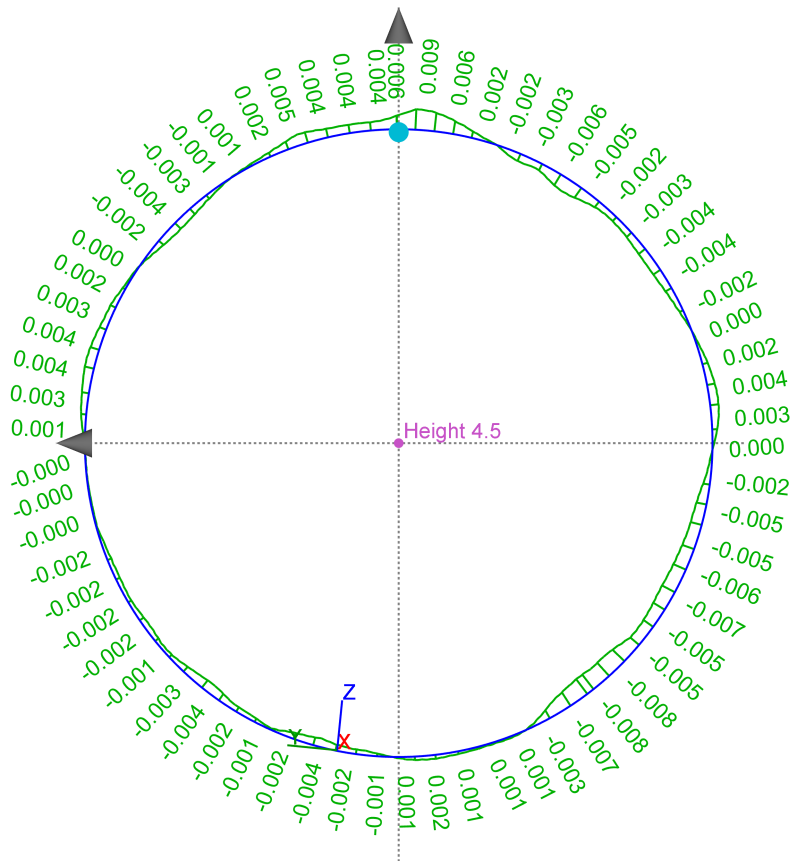
X= 0.820 m ; Y= -0.129 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.234 m

**Maximum radius:** 1.252 m

**Average radius:** 1.242 m



Deviation magnification x8.864



### Section at 5.000 m

**Position on cylinder axis:**

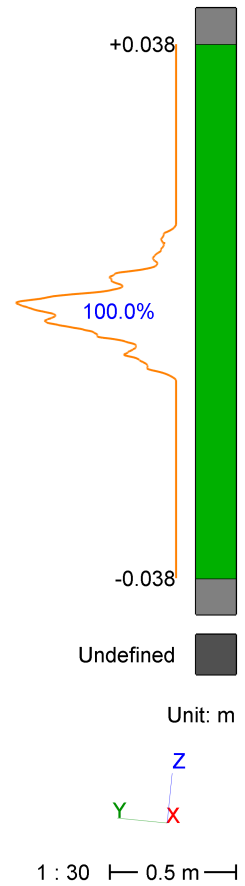
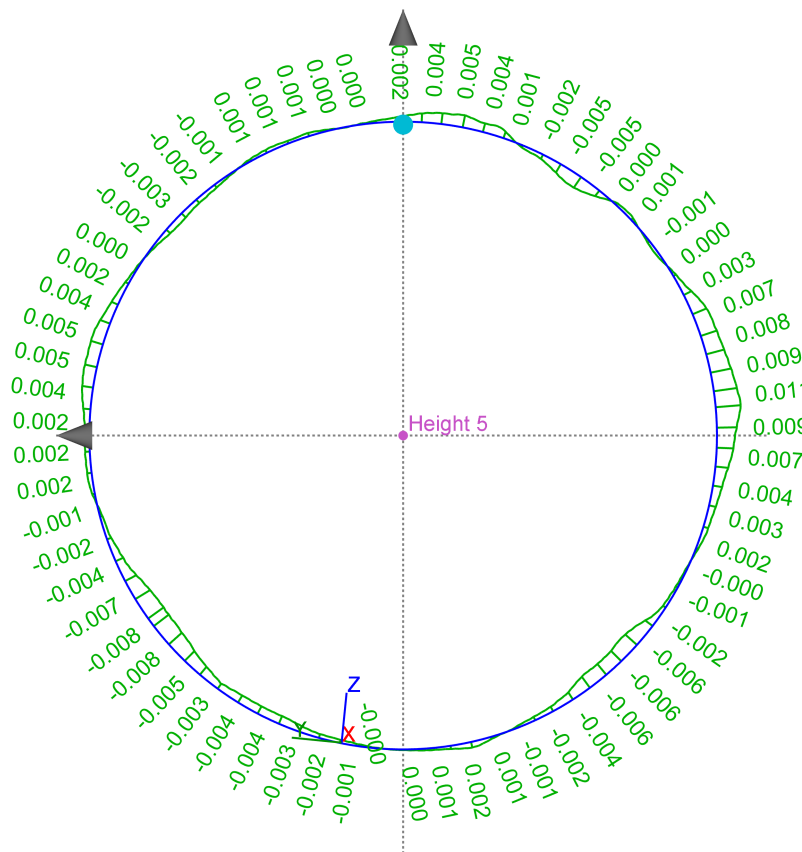
X= 0.320 m ; Y= -0.125 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.234 m

**Maximum radius:** 1.254 m

**Average radius:** 1.243 m



Deviation magnification x8.864



### Section at 5.500 m

**Position on cylinder axis:**

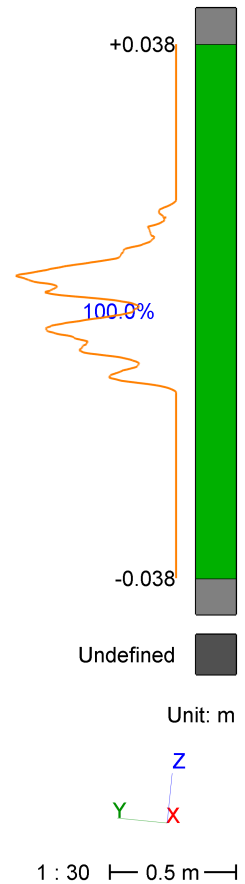
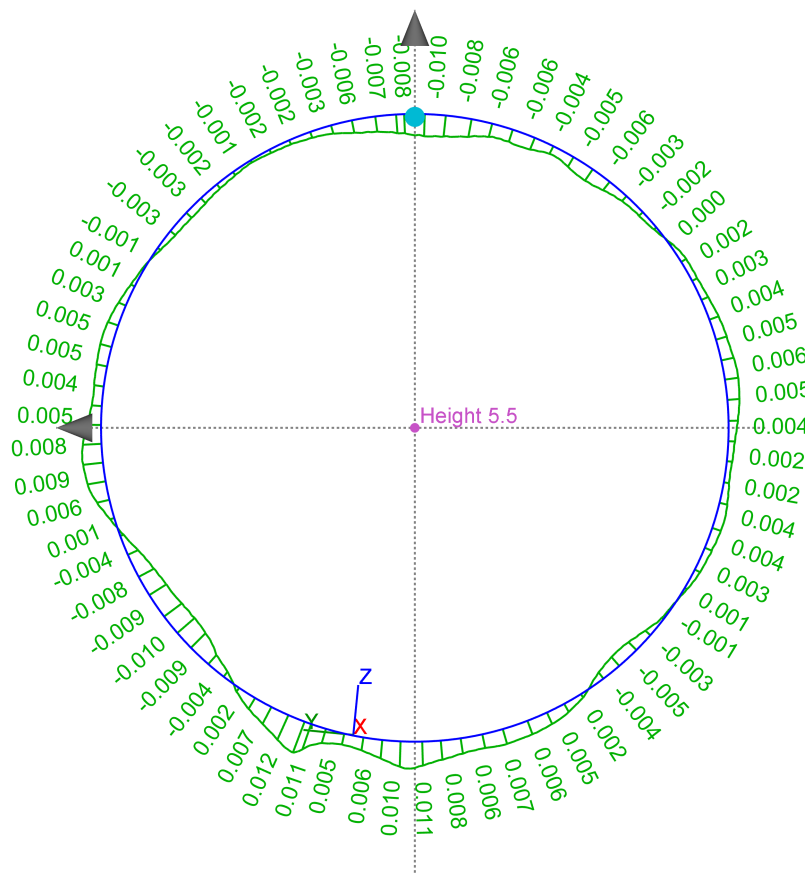
X= -0.180 m ; Y= -0.121 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.232 m

**Maximum radius:** 1.257 m

**Average radius:** 1.244 m



Deviation magnification x8.864



### Section at 6.000 m

**Position on cylinder axis:**

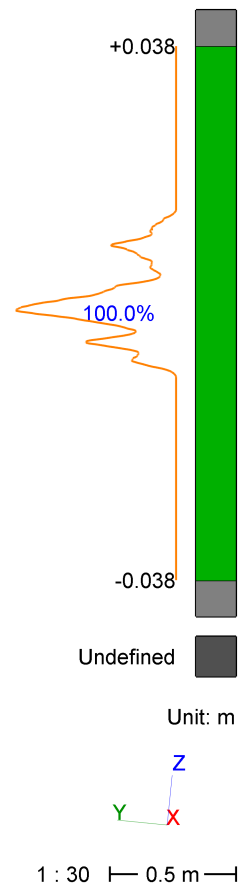
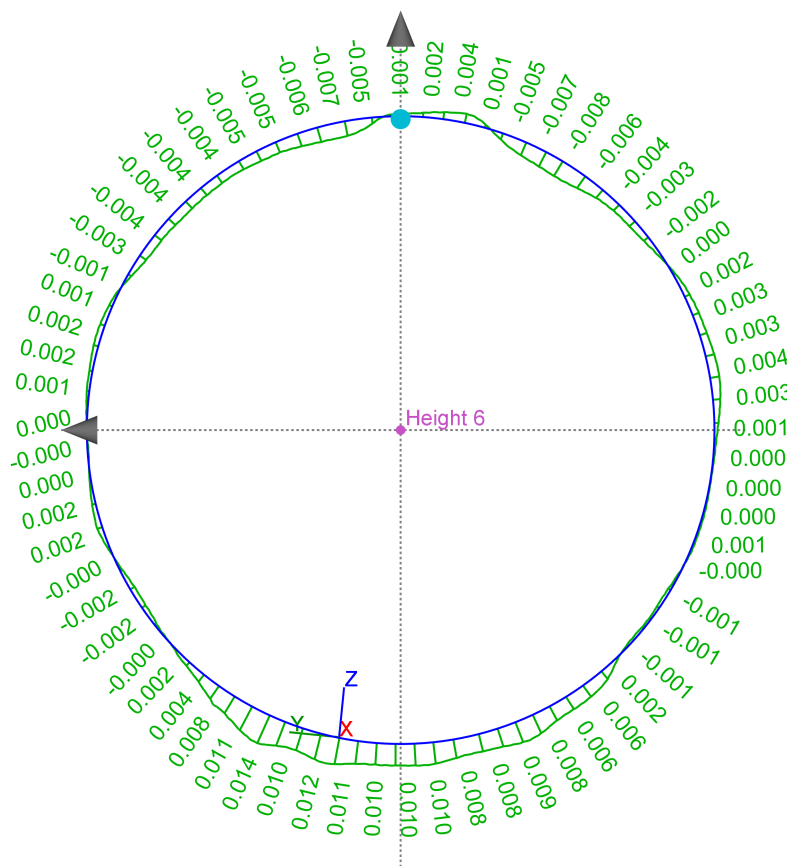
X= -0.680 m ; Y= -0.117 m ; Z= 1.234 m

**Acceptable radius:** [1.205 m;1.281 m]

**Minimum radius:** 1.235 m

**Maximum radius:** 1.256 m

**Average radius:** 1.244 m



1 : 30 | 0.5 m

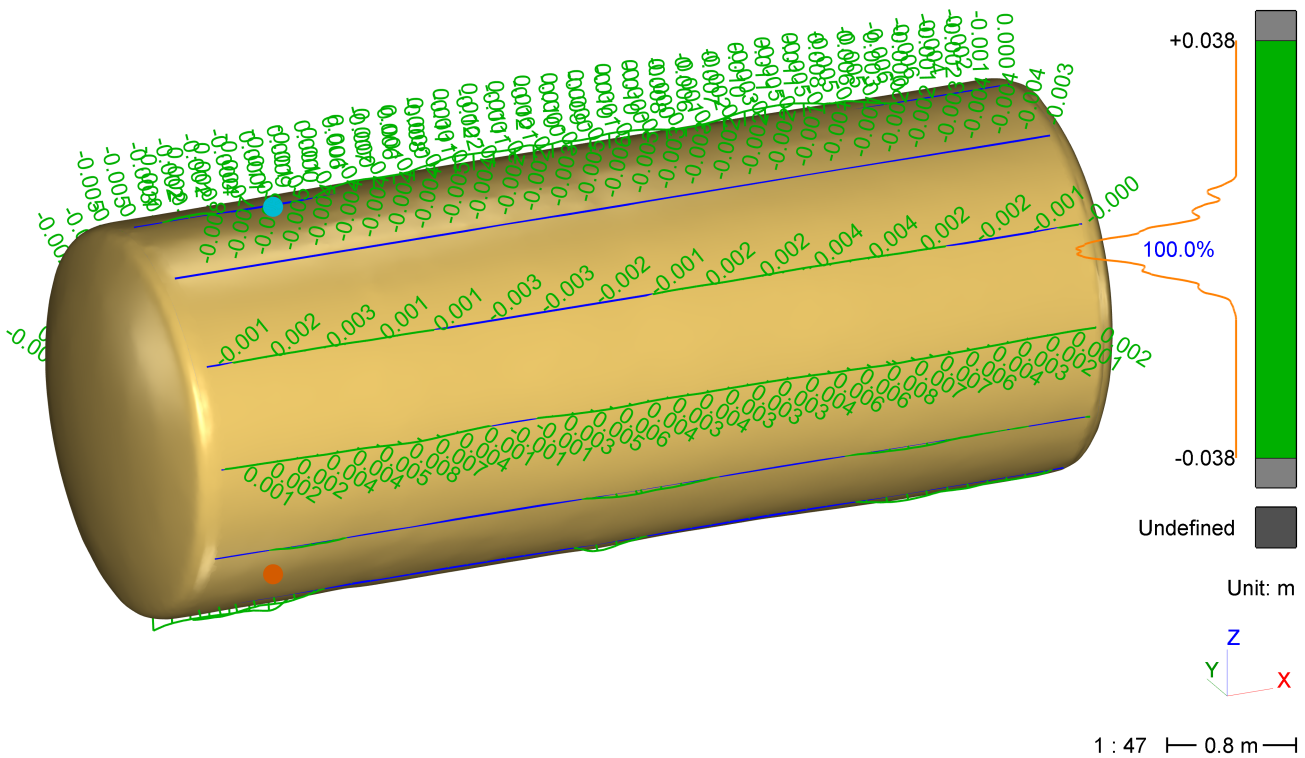
Deviation magnification x8.864



## VERTICALITY

Section Angle (°)	Avg. Radius (m)	Min. Radius (m)	Max. Radius (m)
0.000	1.248	1.231	1.255
30.000	1.239	1.235	1.242
60.000	1.243	1.239	1.247
90.000	1.246	1.242	1.251
120.000	1.242	1.236	1.246
150.000	1.242	1.235	1.250
180.000	1.243	1.232	1.256
210.000	1.243	1.234	1.254
240.000	1.242	1.234	1.251
270.000	1.245	1.241	1.250
300.000	1.242	1.237	1.245
330.000	1.241	1.237	1.244

Tolerances are computed according to API653.  
**Acceptable radius:** [1.205 m;1.281 m]



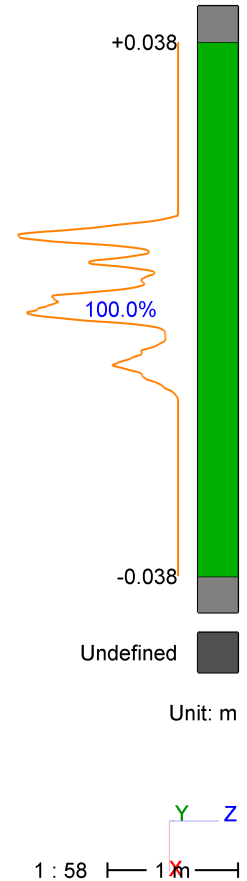
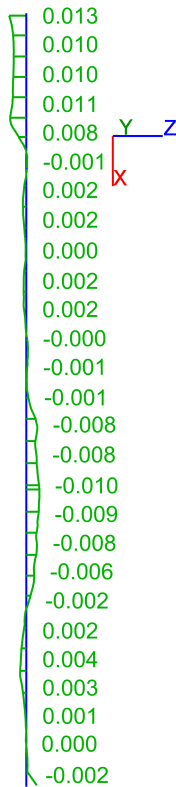
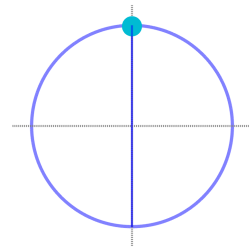


### Section 0.000°

Minimum radius: 1.231 m  
Maximum radius: 1.255 m  
Average radius: 1.248 m

### Section 180.000°

Minimum radius: 1.232 m  
Maximum radius: 1.256 m  
Average radius: 1.243 m



Deviation magnification x10.093

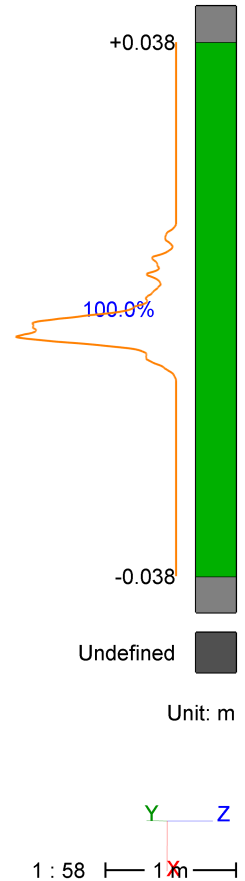
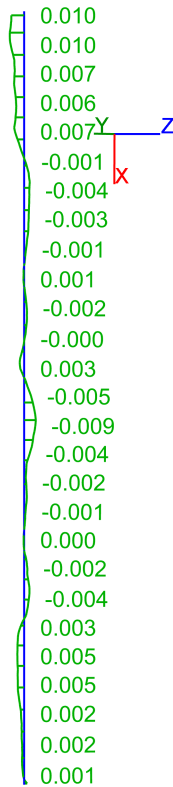
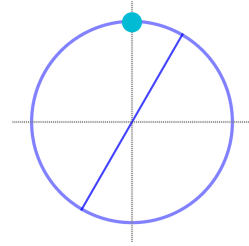


### Section 30.000°

Minimum radius: 1.235 m  
Maximum radius: 1.242 m  
Average radius: 1.239 m

### Section 210.000°

Minimum radius: 1.234 m  
Maximum radius: 1.254 m  
Average radius: 1.243 m



Deviation magnification x10.093

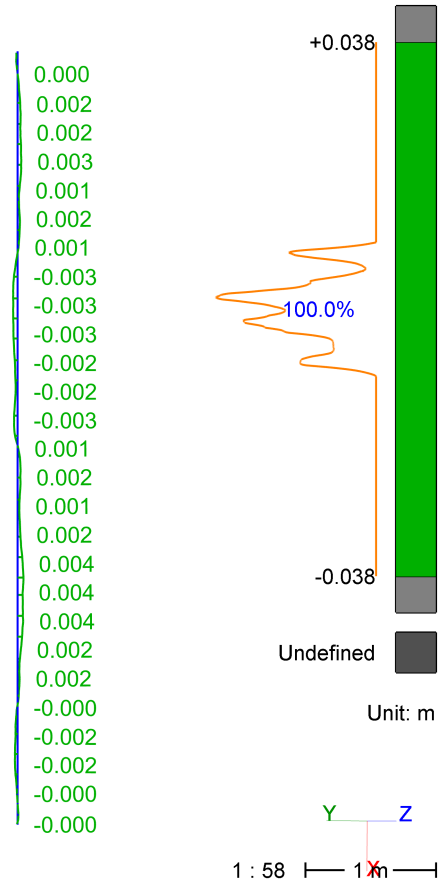
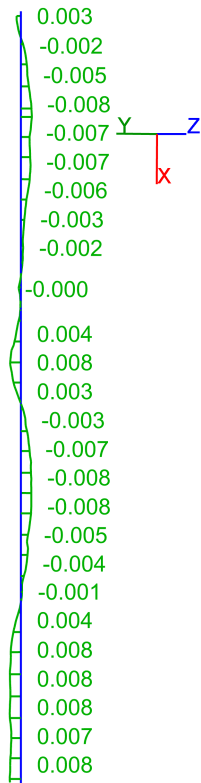
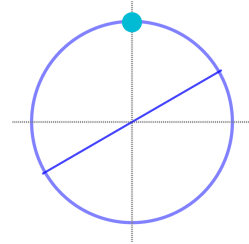


### Section 60.000°

Minimum radius: 1.239 m  
Maximum radius: 1.247 m  
Average radius: 1.243 m

### Section 240.000°

Minimum radius: 1.234 m  
Maximum radius: 1.251 m  
Average radius: 1.242 m



Deviation magnification x10.093

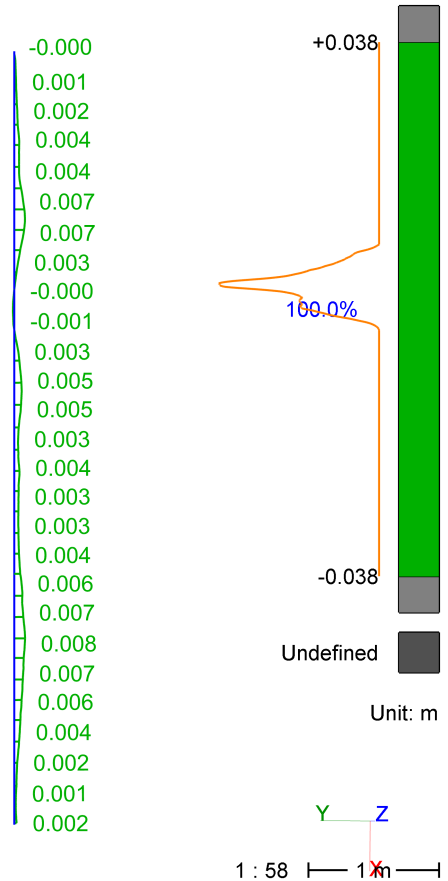
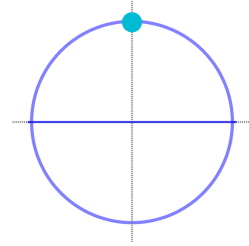


### Section 90.000°

Minimum radius: 1.242 m  
Maximum radius: 1.251 m  
Average radius: 1.246 m

### Section 270.000°

Minimum radius: 1.241 m  
Maximum radius: 1.250 m  
Average radius: 1.245 m



Deviation magnification x10.093

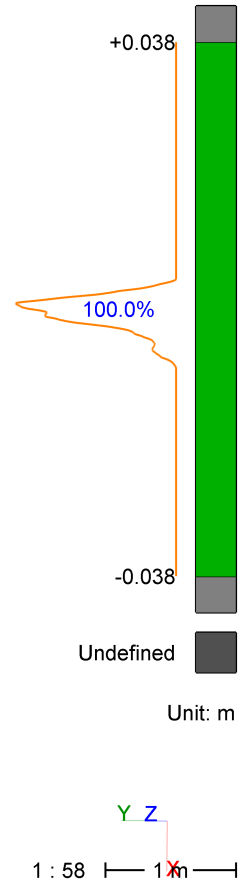
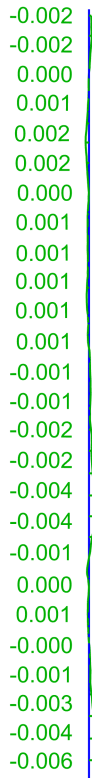
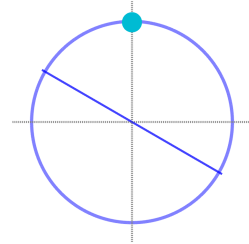


### Section 120.000°

Minimum radius: 1.236 m  
Maximum radius: 1.246 m  
Average radius: 1.242 m

### Section 300.000°

Minimum radius: 1.237 m  
Maximum radius: 1.245 m  
Average radius: 1.242 m



Deviation magnification x10.093

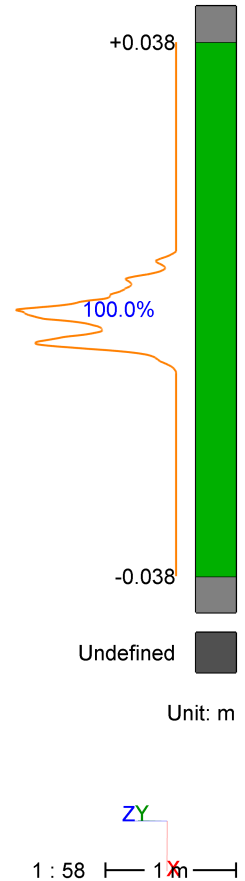
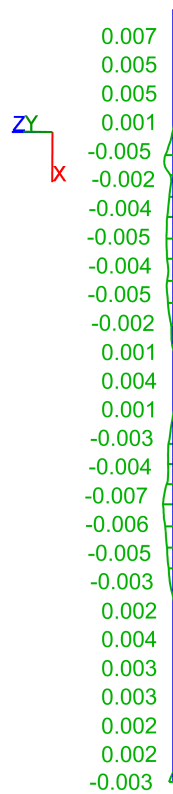
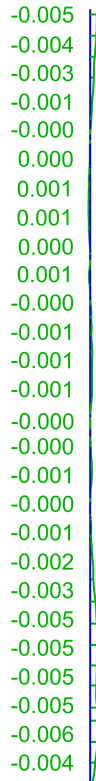
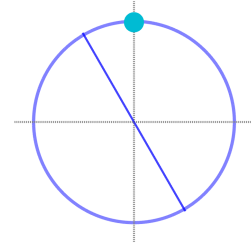


### Section 150.000°

Minimum radius: 1.235 m  
Maximum radius: 1.250 m  
Average radius: 1.242 m

### Section 330.000°

Minimum radius: 1.237 m  
Maximum radius: 1.244 m  
Average radius: 1.241 m



Deviation magnification x10.093