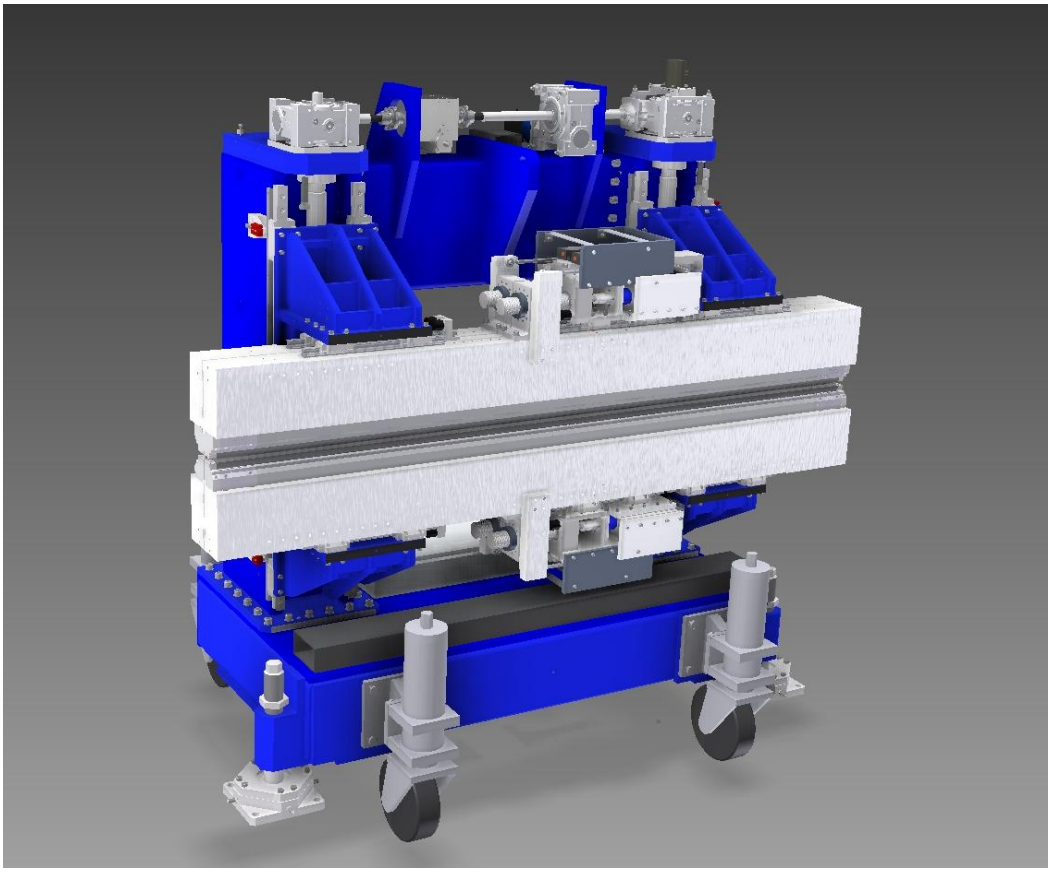
FEM simulation of Undulator



Document Author:
Jesper Nygaard Sørensen

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1 Introduction

This report contains the results of FEM simulations of an Undulator.

The purpose of the simulations, are to determine the deformation of the Undulator, and thereby find out if the distance between the Undulators magnets are altered more than permitted during usage. It has also been examined, what will happen to the Undulator in case of an earthquake.

The simulations are based on information from the following documents:

“Indledende beskrivelse”	dated 02-02-2011
“Force cases”	dated 02-02-2011

and the files:

7103010590_for calculations.stp	dated 01-02-2011
7103010626_updated.stp	dated 02-02-2011
7103010627_updated.stp	dated 02-02-2011
501050 7103010590.iam	dated 03-02-2011

2 Summary

The simulation shows that the maximum deformation of the magnets during usage is 0,045mm, and that the maximum stress in the construction is 30 N/mm^2.

Furthermore the simulations shows that the maximum stress in the construction, in case of an earthquake will be 56 N/mm^2.

3 Design data

All the parts in the simulation are divided into Structural Steel, Stainless Steel and Aluminum.

This assumption is done because the main purpose of the simulation is to find the deformation. These three materials roughly define the material data of all the materials in the construction when it comes to stiffness.

3.1 Material properties

3.1.1 Structural Steel

Density:	7.85e-006 kg mm^-3
Compressive Ultimate Strength:	0 MPa
Compressive Yield Strength:	250 MPa
Tensile Yield Strength:	250 MPa
Tensile Ultimate Strength:	460 MPa
Young's Modulus:	200000 MPa
Poisson's Ratio	0.3
Bulk Modulus	166670 MPa
Shear Modulus	76923 MPa

3.1.2 Stainless Steel

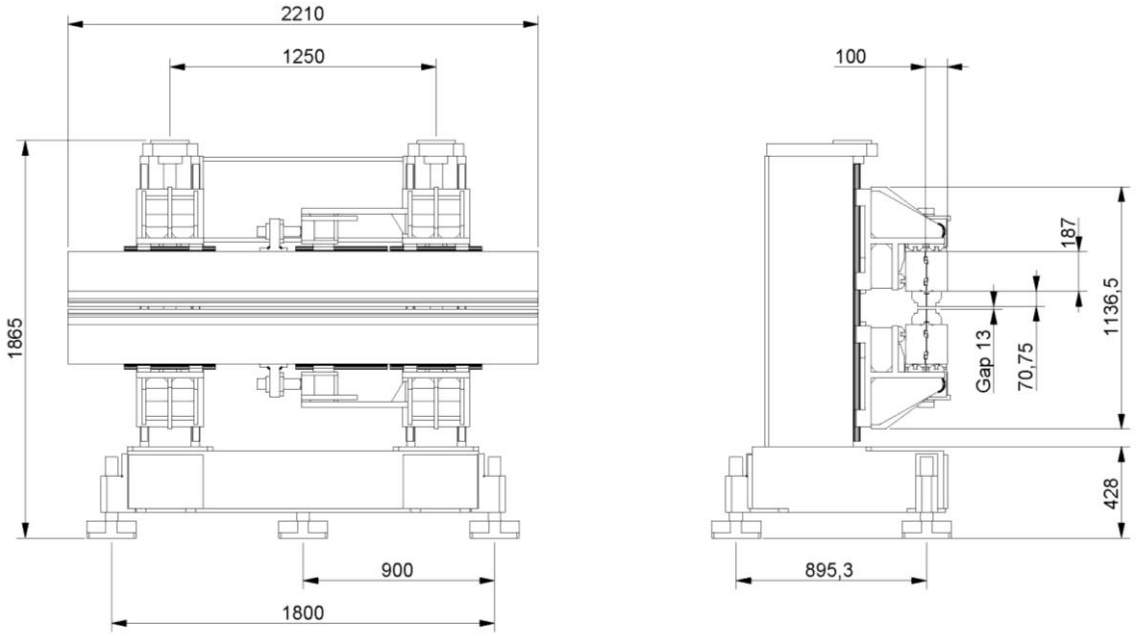
Density:	7.75e-006 kg mm^-3
Compressive Ultimate Strength:	0 MPa
Compressive Yield Strength:	207 MPa
Tensile Yield Strength:	207 MPa
Tensile Ultimate Strength:	586 MPa
Young's Modulus:	193000 MPa
Poisson's Ratio	0.31
Bulk Modulus	169300 MPa
Shear Modulus	73664 MPa

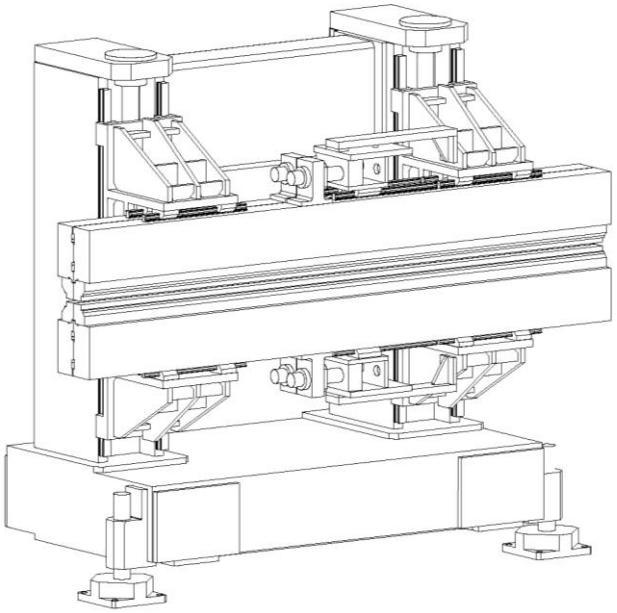
3.1.3 Aluminum Alloy

Density:	2.77e-006 kg mm^-3
Compressive Ultimate Strength:	0 MPa
Compressive Yield Strength:	280 MPa
Tensile Yield Strength:	280 MPa
Tensile Ultimate Strength:	310 MPa
Young's Modulus:	71000 MPa
Poisson's Ratio	0.33
Bulk Modulus	69608 MPa
Shear Modulus	26692 MPa

3.2 Undulator geometry

Main measurements in mm





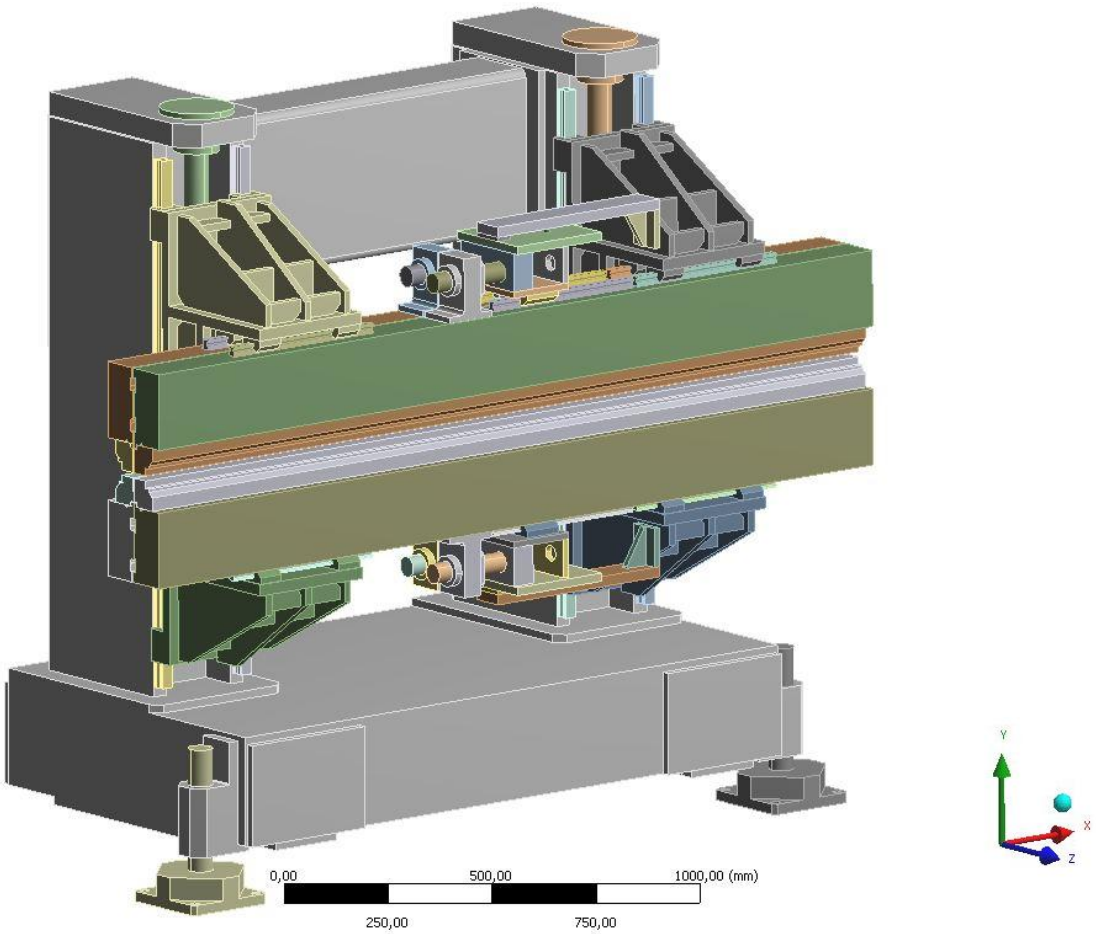
4 Model description

4.1 Simulation description

The simulations are made with Ansys v.12.1 on a Windows 7 Professional 64 bit workstation.

4.2 Geometry, mesh and boundary condition

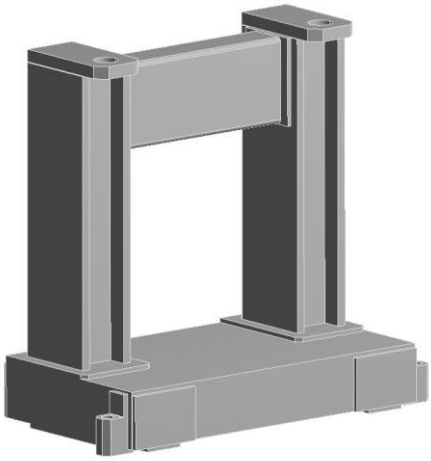
4.2.1 Geometry and orientation coordinate system



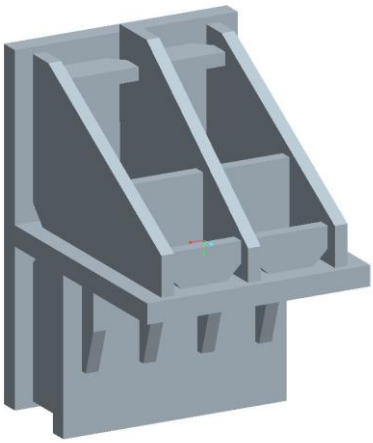
Model simplification and prepering of geometry for meshing:

The welded constructions have been changed into single parts, and holes and unnessesary parts have been removed.

Weld assemblies that have been converted to one part to simplify the simulation:



Undulator body



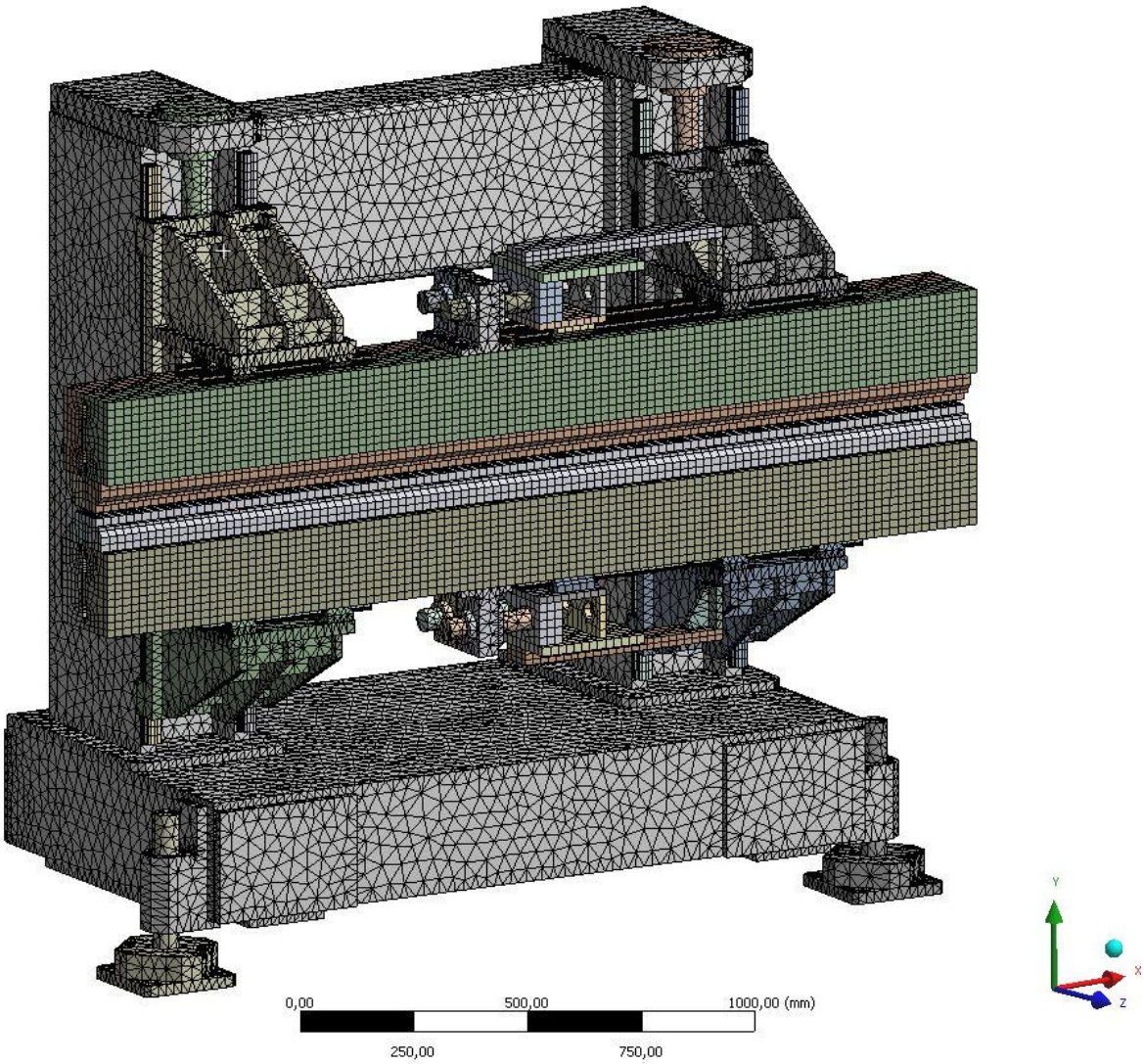
Console

4.2.2 Mesh

Mesh data:

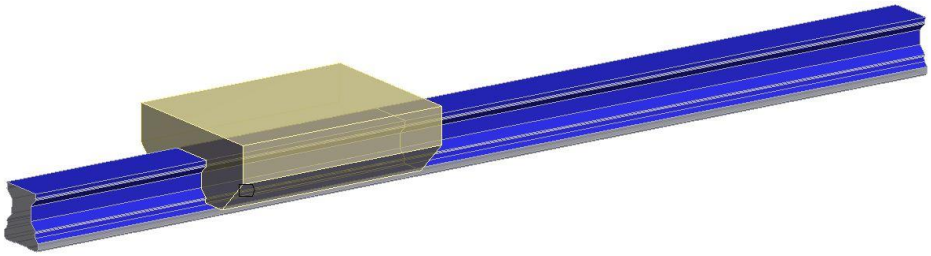
Number of nodes: 774451

Number of elements: 279074



4.2.3 Connections between parts

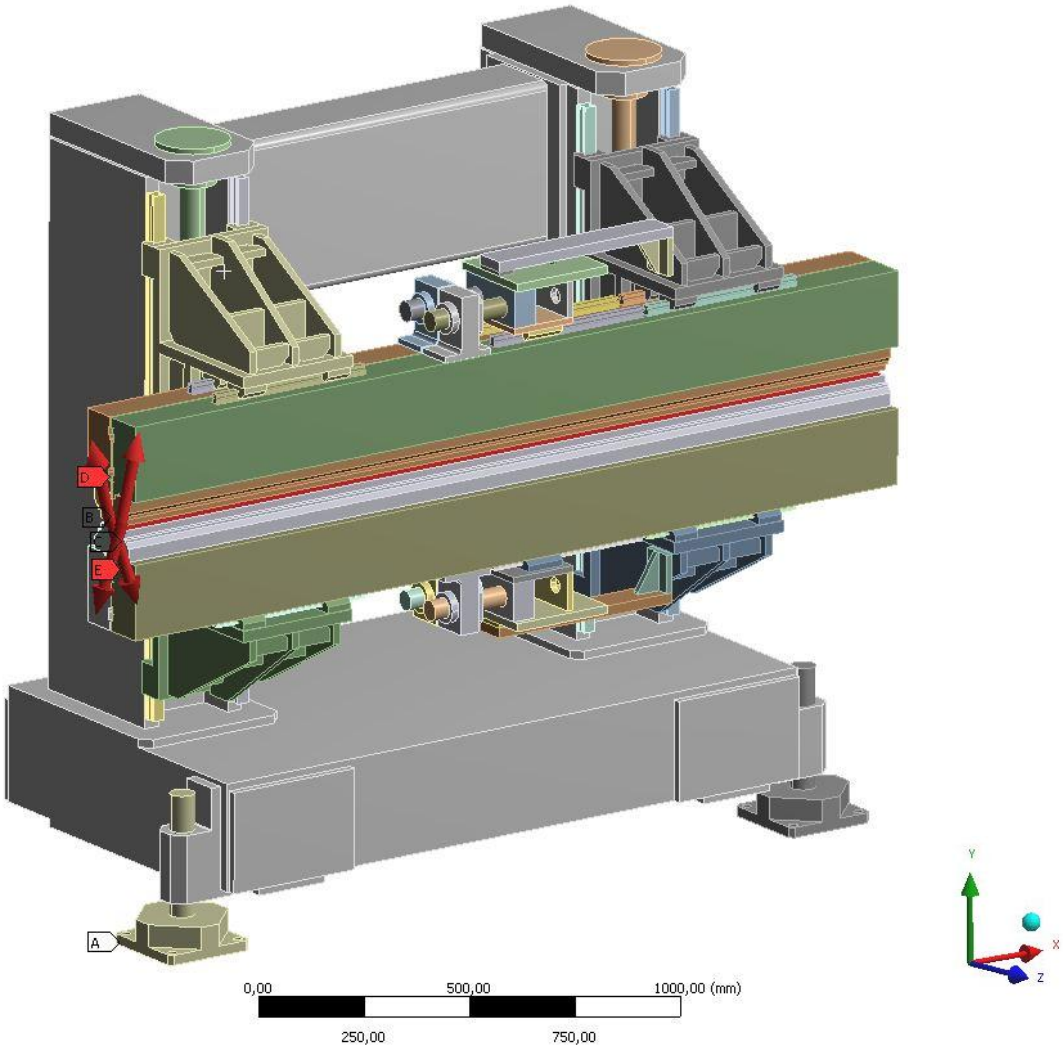
All surfaces on parts connected to each other has been assigned the connection type “Bonded”, except the surfaces in contact between the linear rails and linear guide blocks. These are connected with the connection type “no separation”, which allows the rail and guide to slide against each other.



5 Simulations of usage

The everyday usage is simulated by six different load cases.

5.1 Boundary conditions - usage



A:

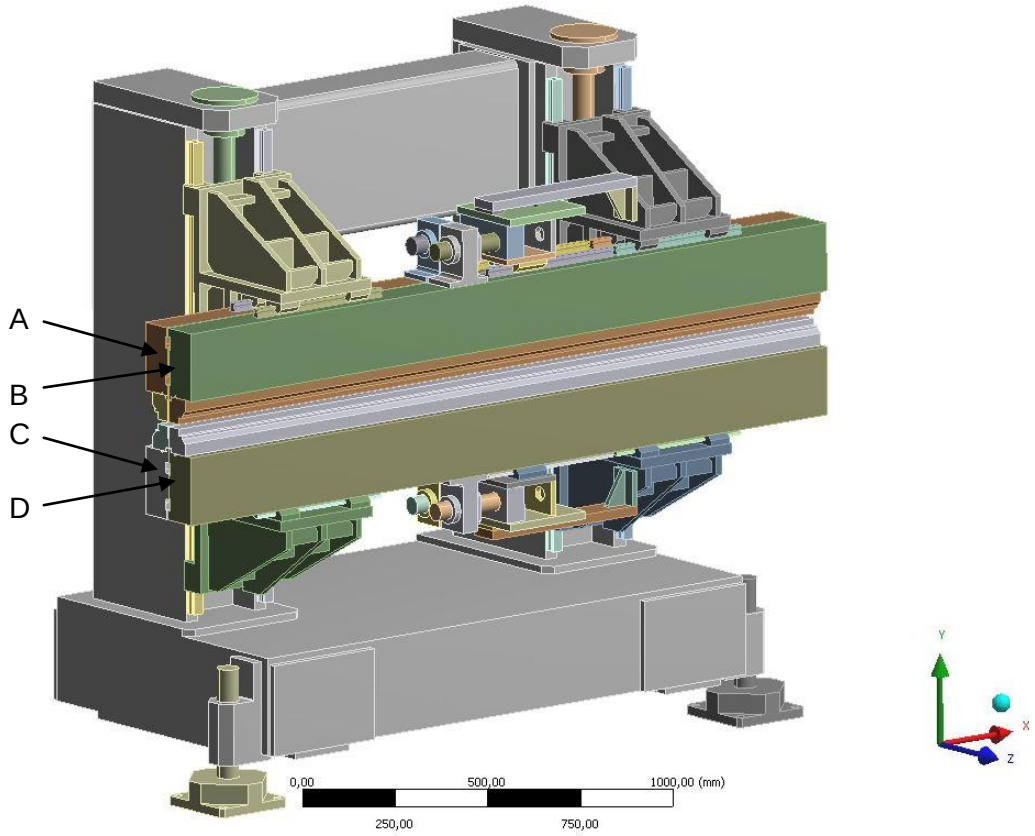
The construction is constrained by fixed supports on the three feets.

B,C,D and E:

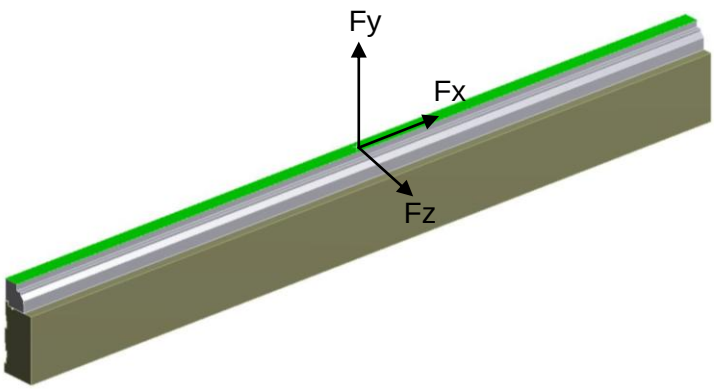
A force is acting on each magnetic bars. These forces are evenly distributed over the surfaces of the magnets.

5.1.1 Definition of load cases

Magnet bars:



Direction of forces:



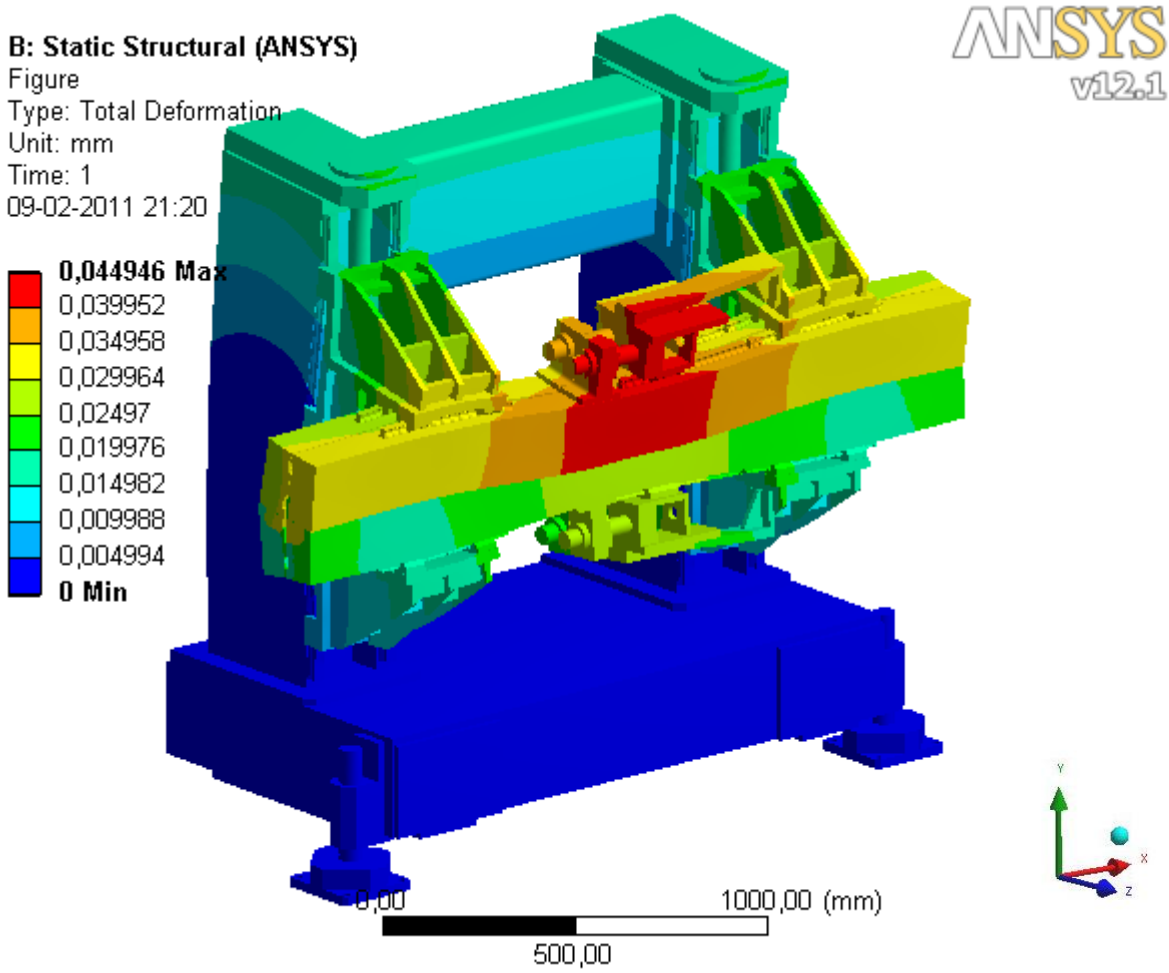
Forces for load cases [N]:

Load Case	Ax	Ay	Az	Bx	By	Bz	Cx	Cy	Cz	Dx	Dy	Dz
1	0	-17000	-4000	0	-17000	4000	0	17000	-4000	0	17000	4000
2	4000	-13500	1000	-4000	-13500	-1000	-4000	13500	1000	4000	13500	-1000
3	7000	-2000	6500	-7000	-2000	-6500	-7000	2000	6500	7000	2000	-6500
4	4000	7000	12500	-4000	7000	-12500	-4000	-7000	12500	4000	-7000	-12500
5	0	12000	16000	0	12000	-16000	0	-12000	16000	0	-12000	-16000
6	0	-200	-7500	0	-200	7500	0	200	-7500	0	200	7500

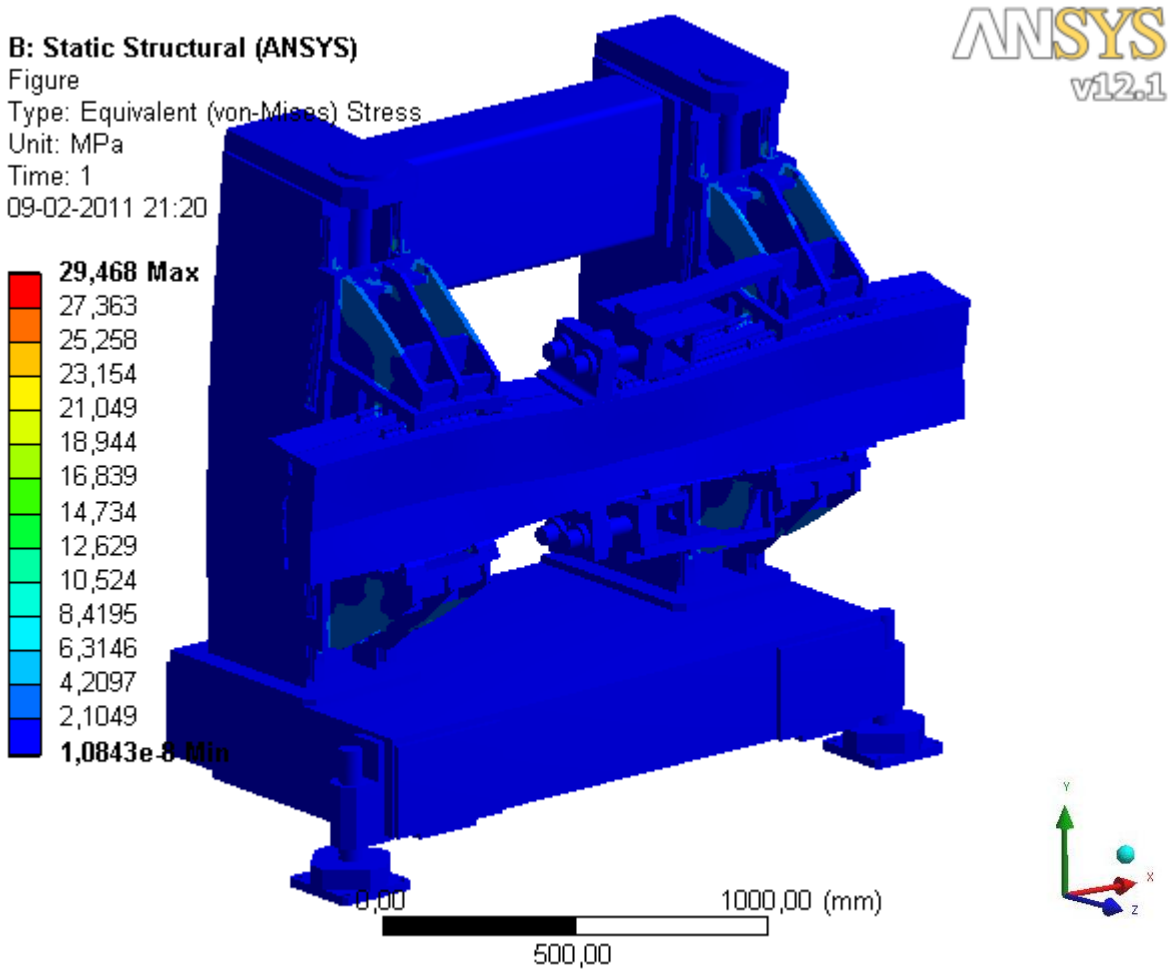
5.2 Results

5.2.1 Load case 1

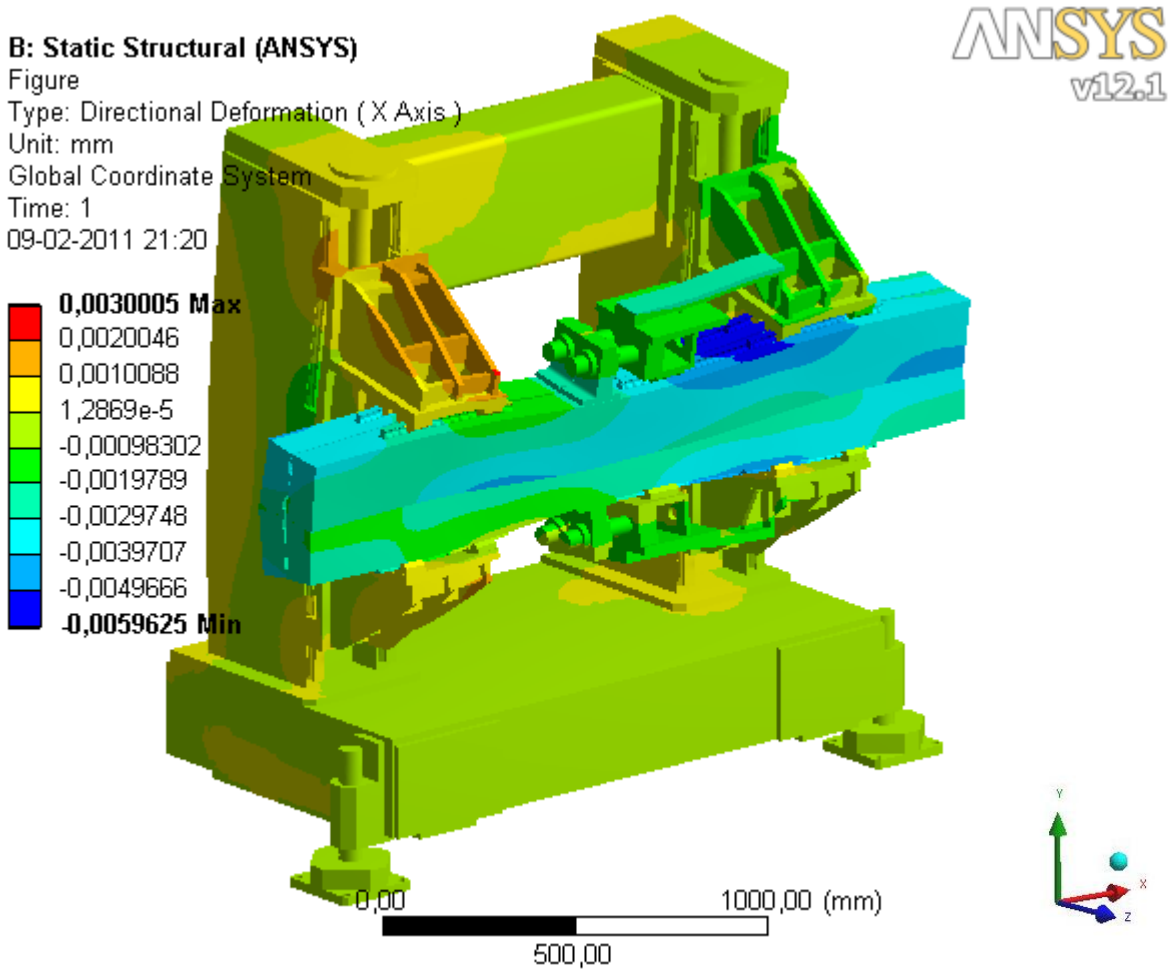
Total deformation (mm):



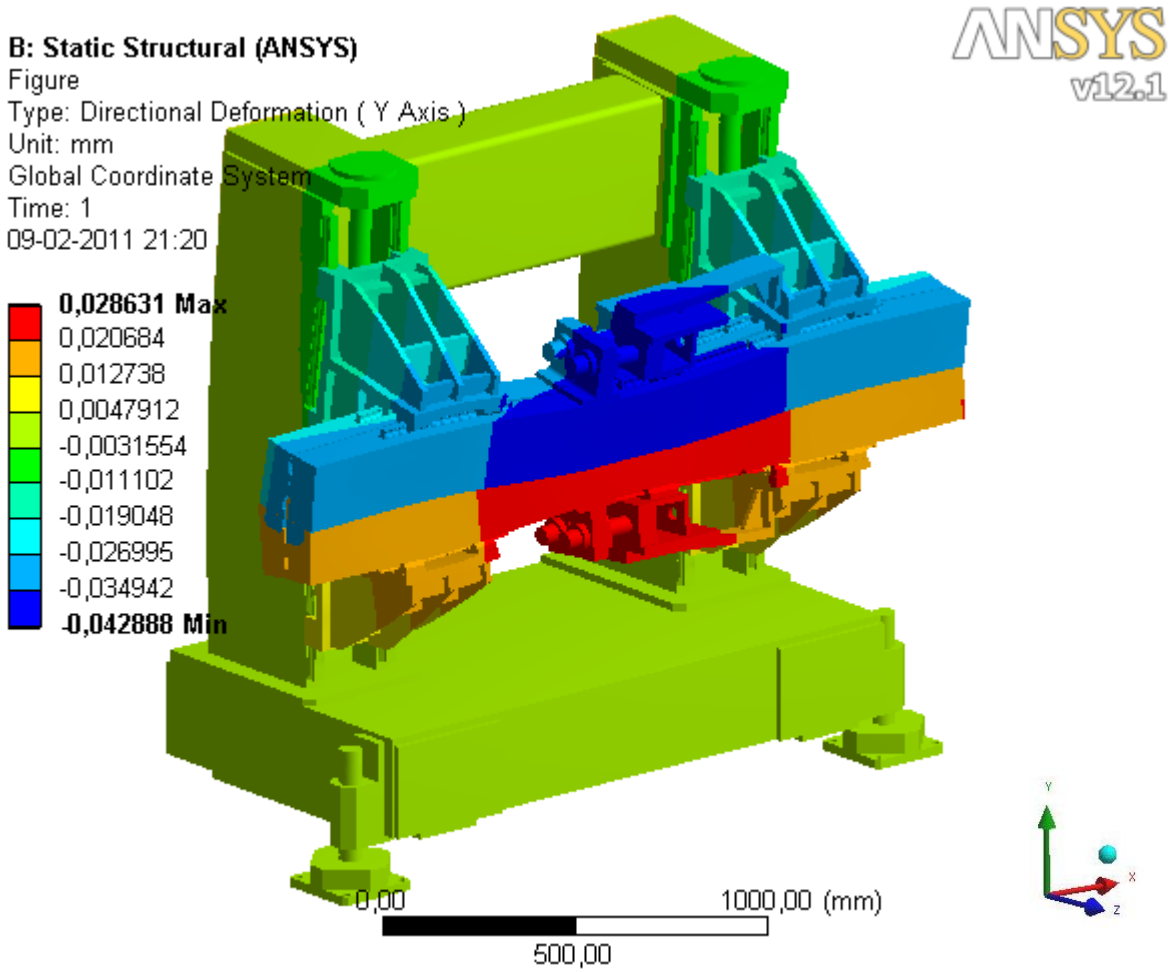
Equivalent stress (MPa):



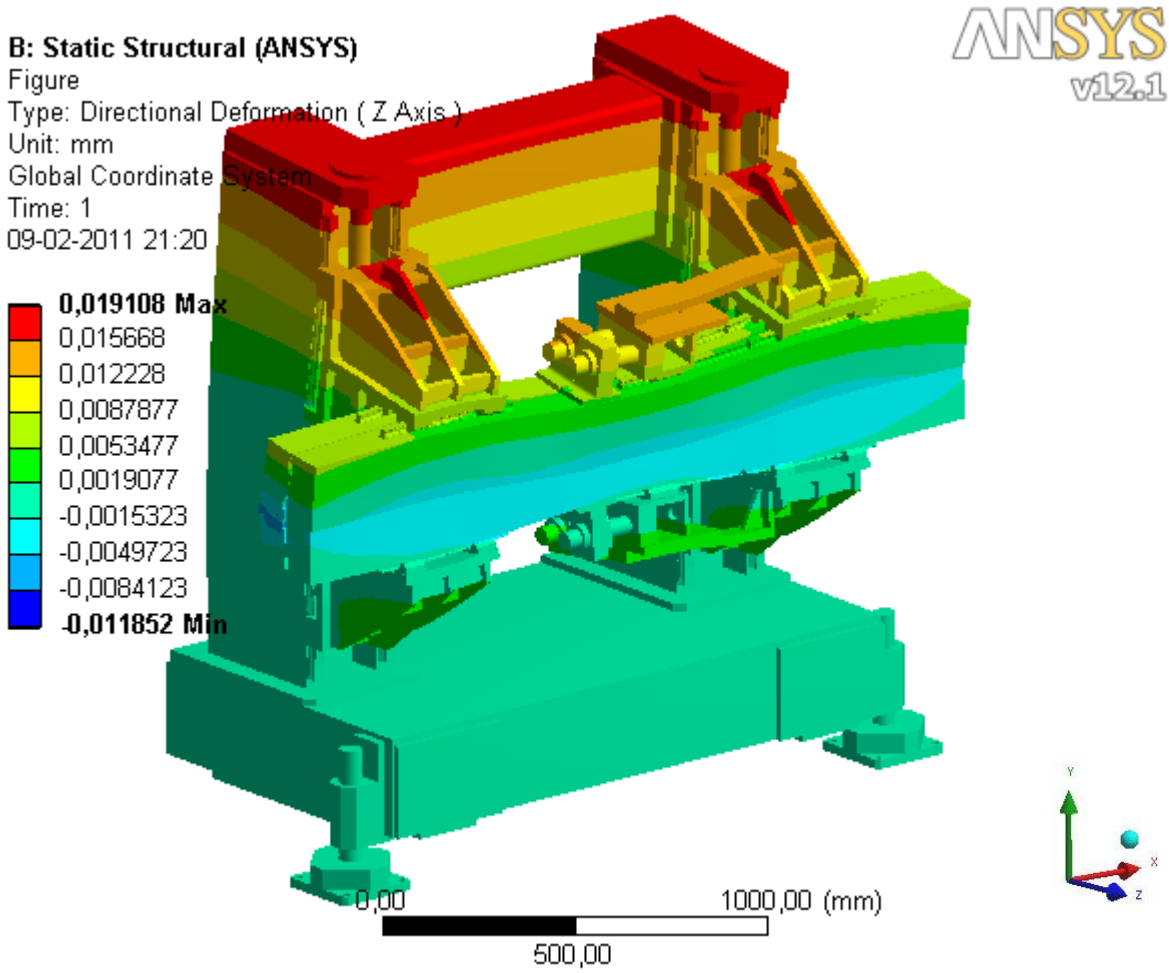
Deformation in X (mm):



Deformation in Y (mm):

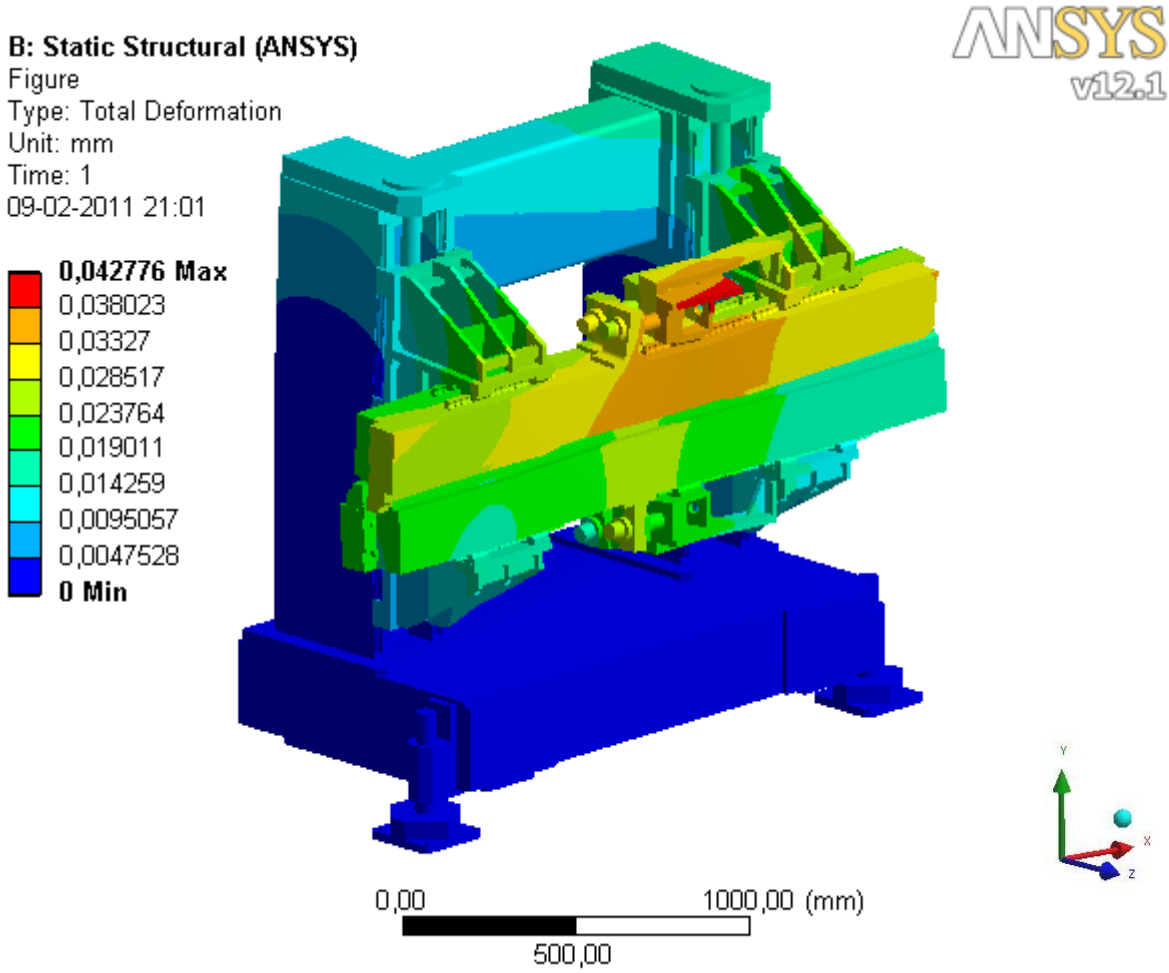


Deformation in Z (mm):

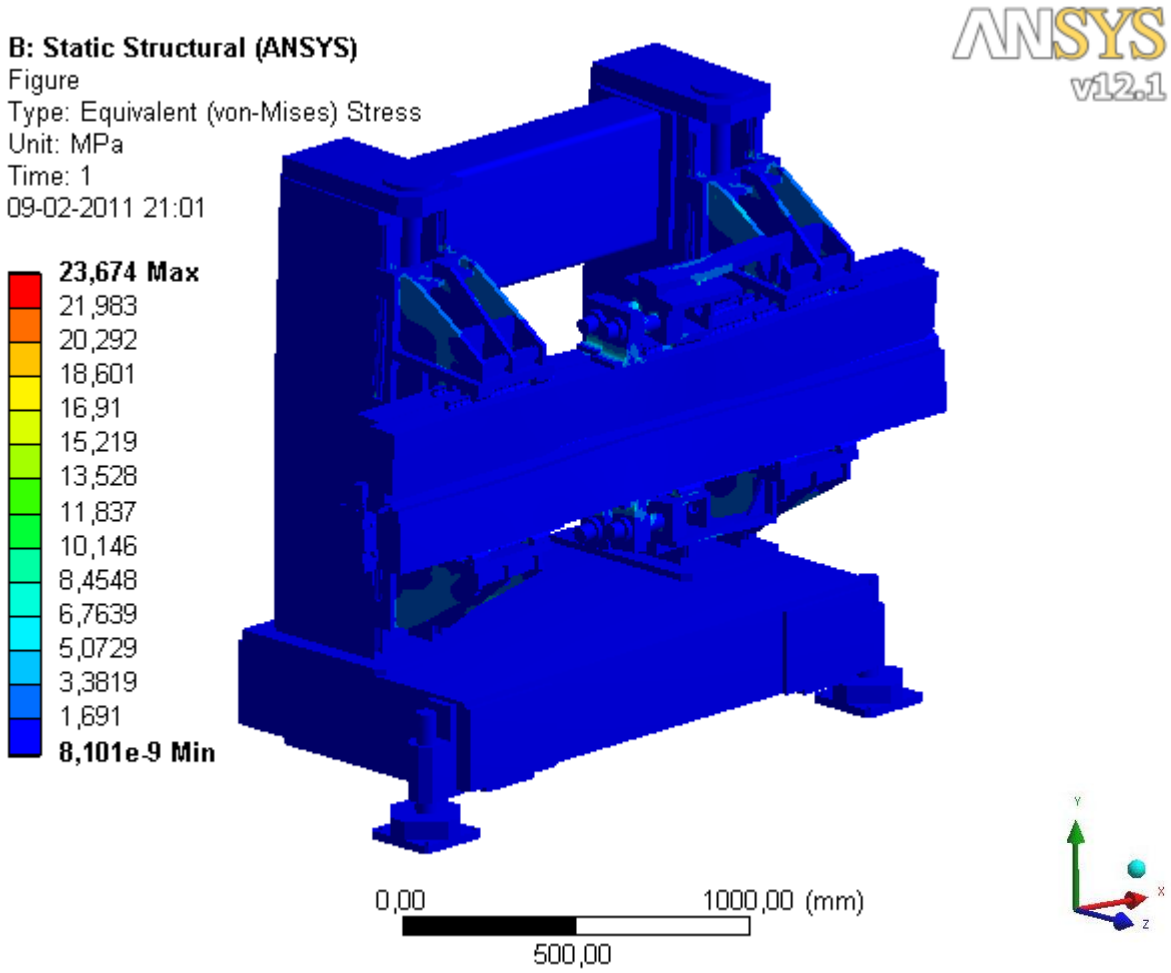


5.2.2 Load case 2

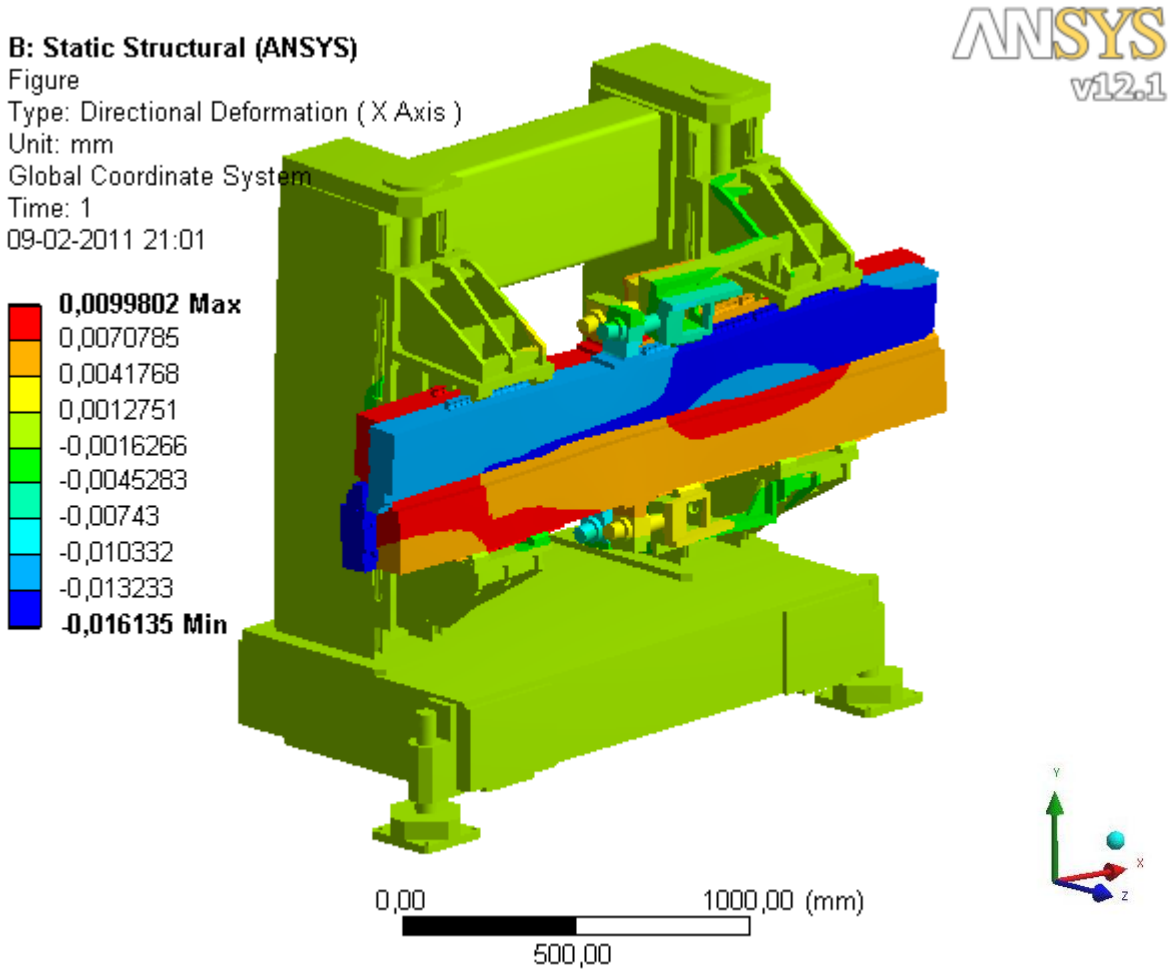
Total deformation (mm):



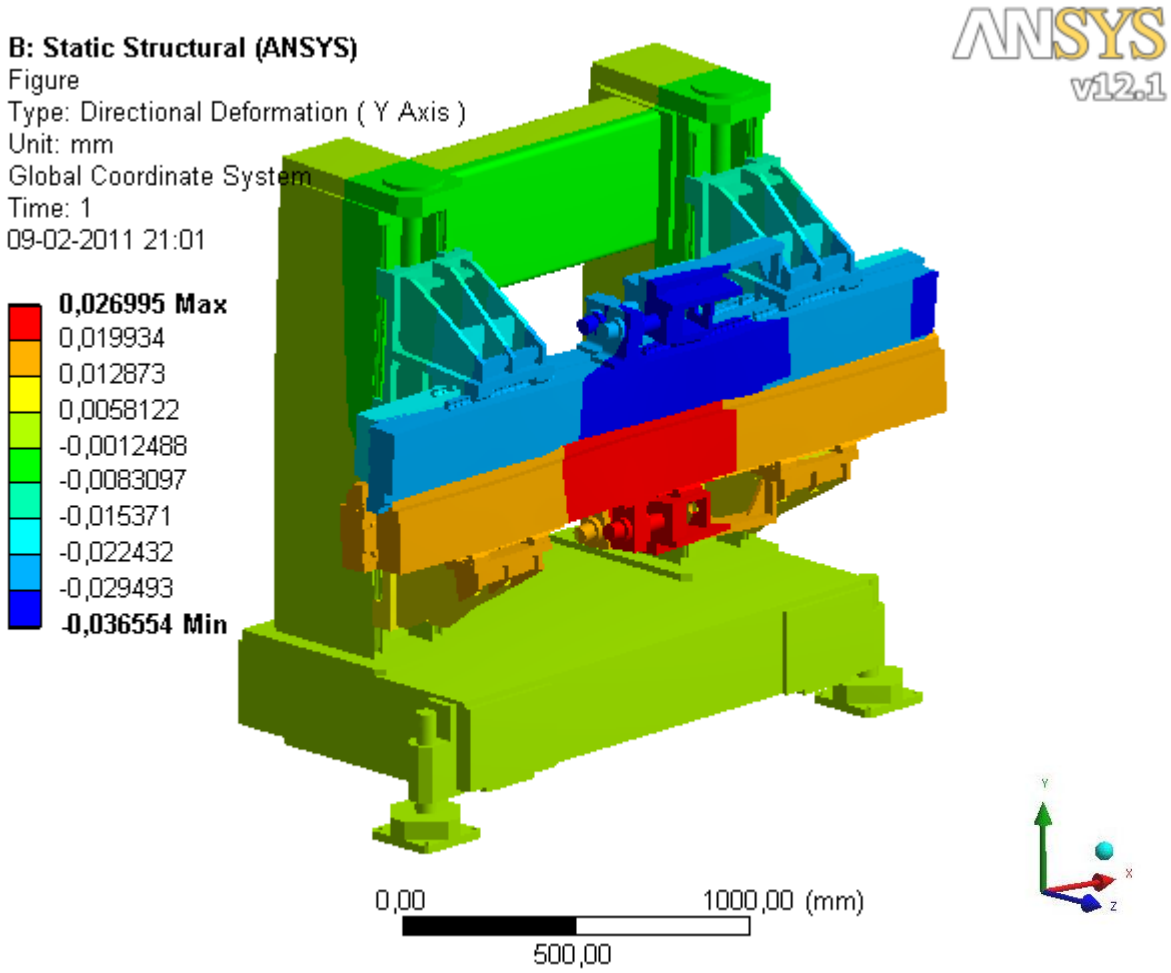
Equivalent stress (MPa):



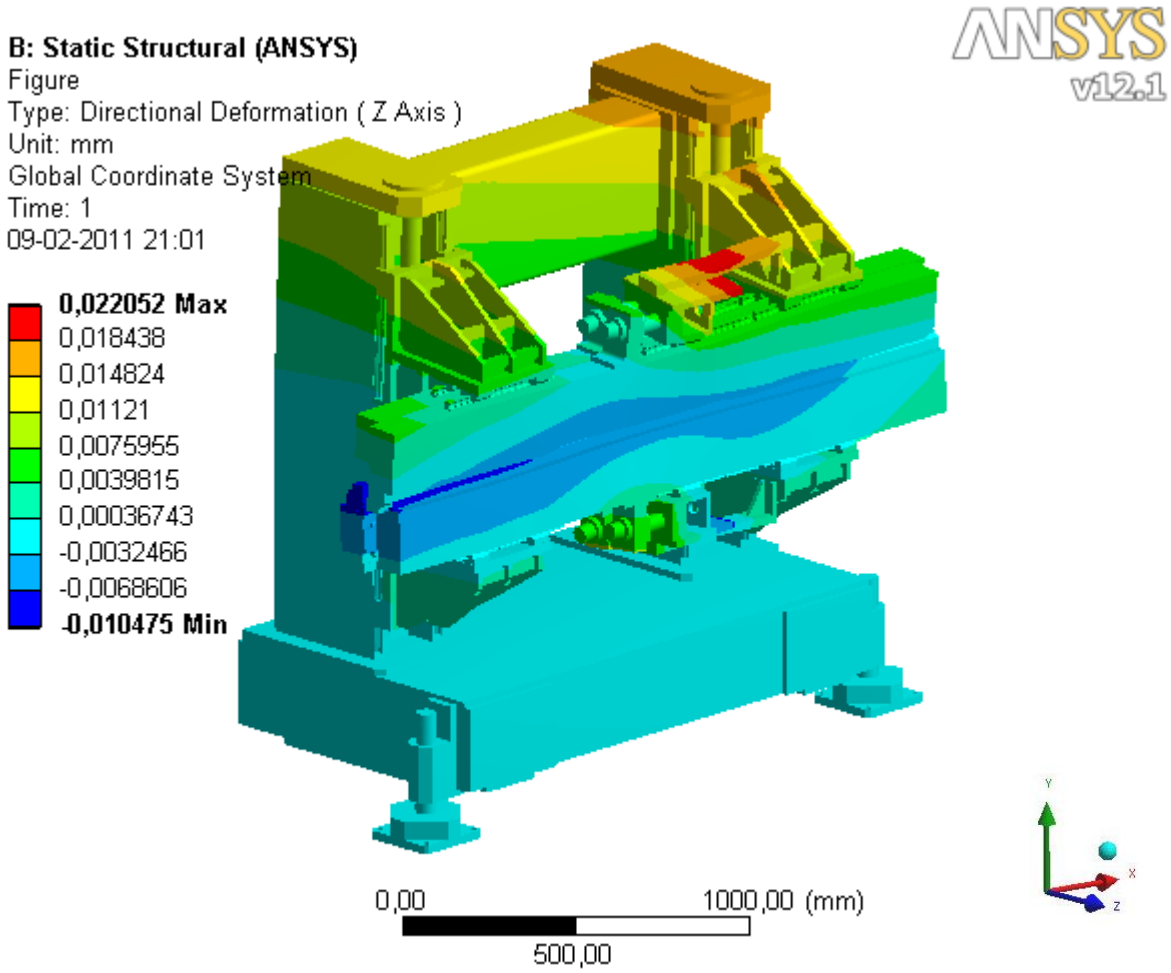
Deformation in X (mm):



Deformation in Y (mm):

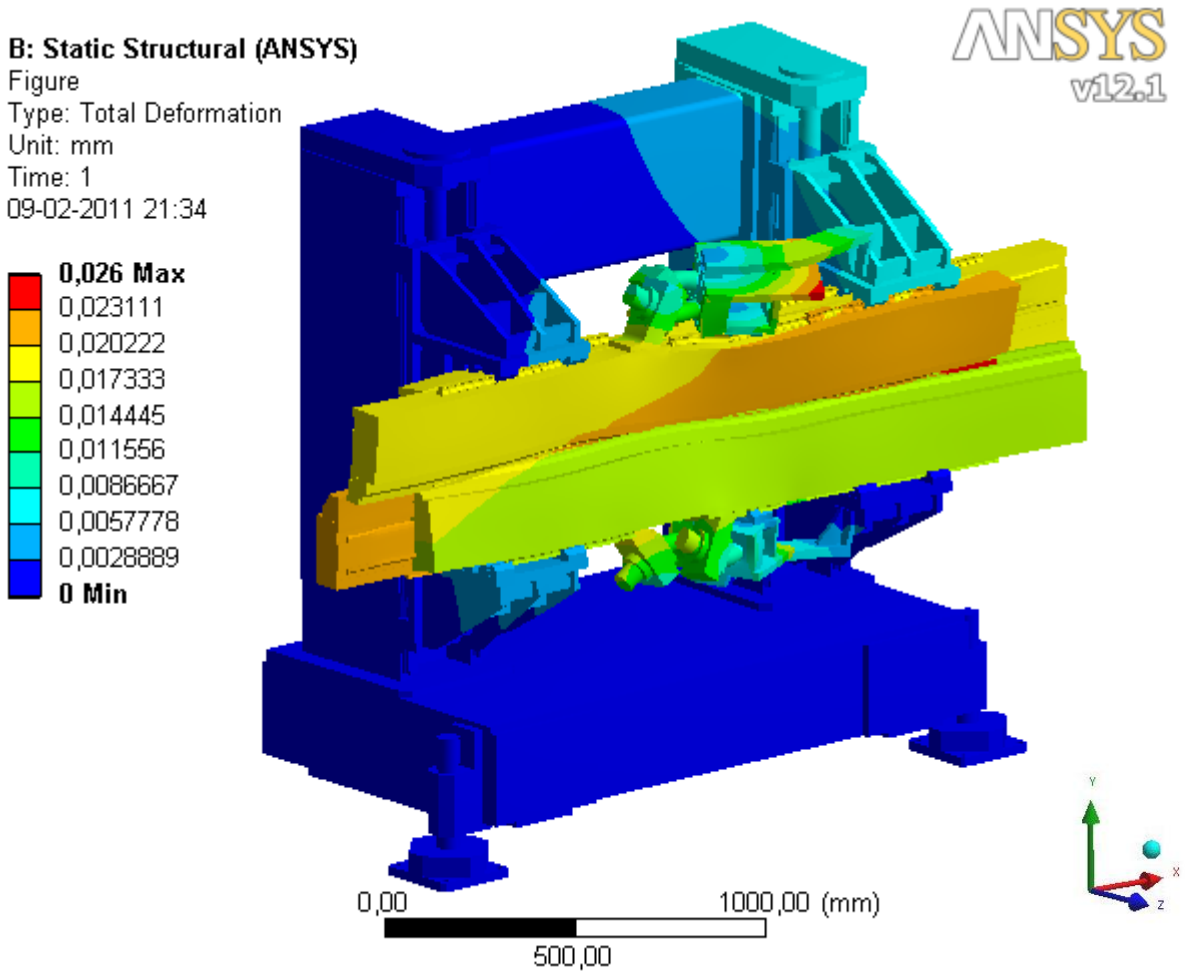


Deformation in Z (mm):

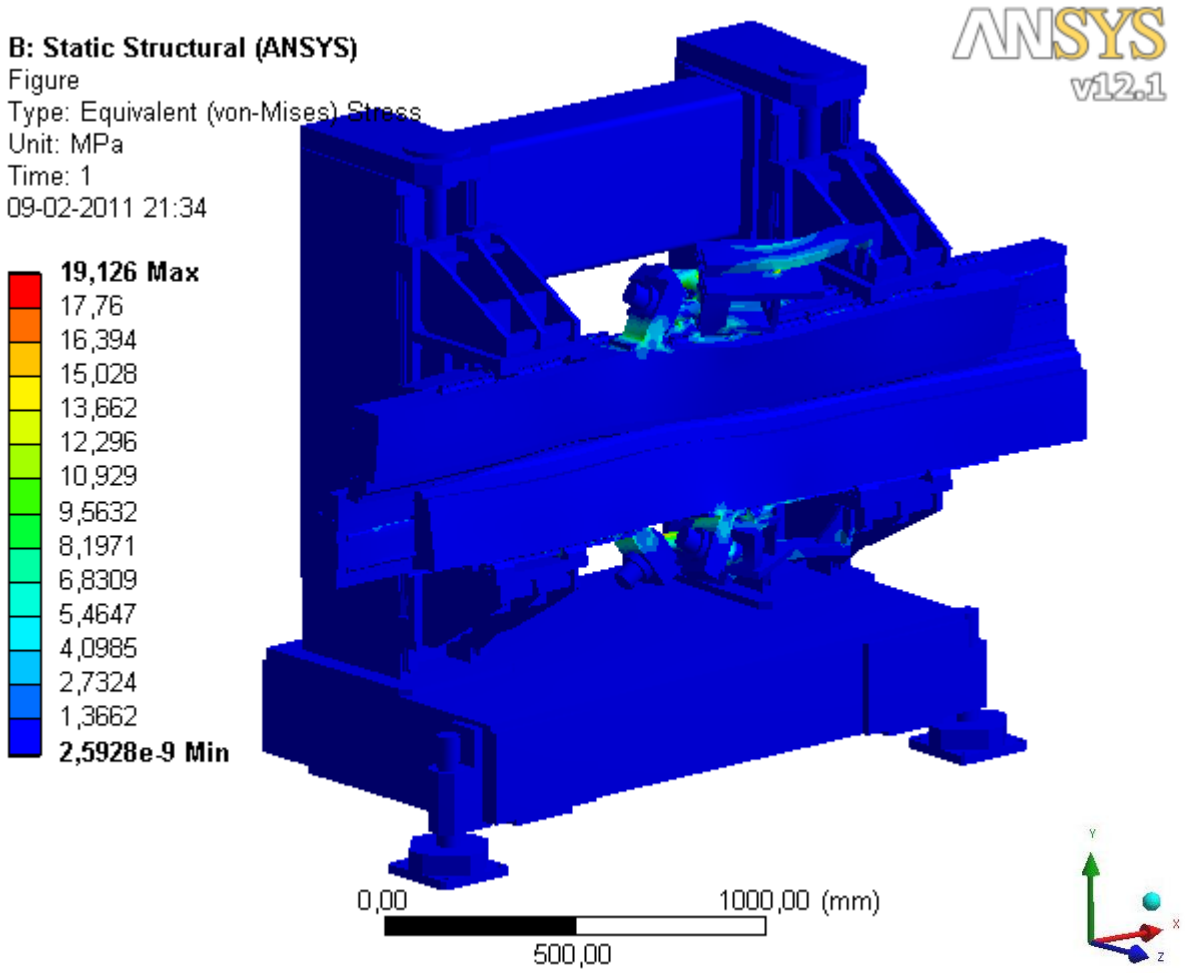


5.2.3 Load case 3

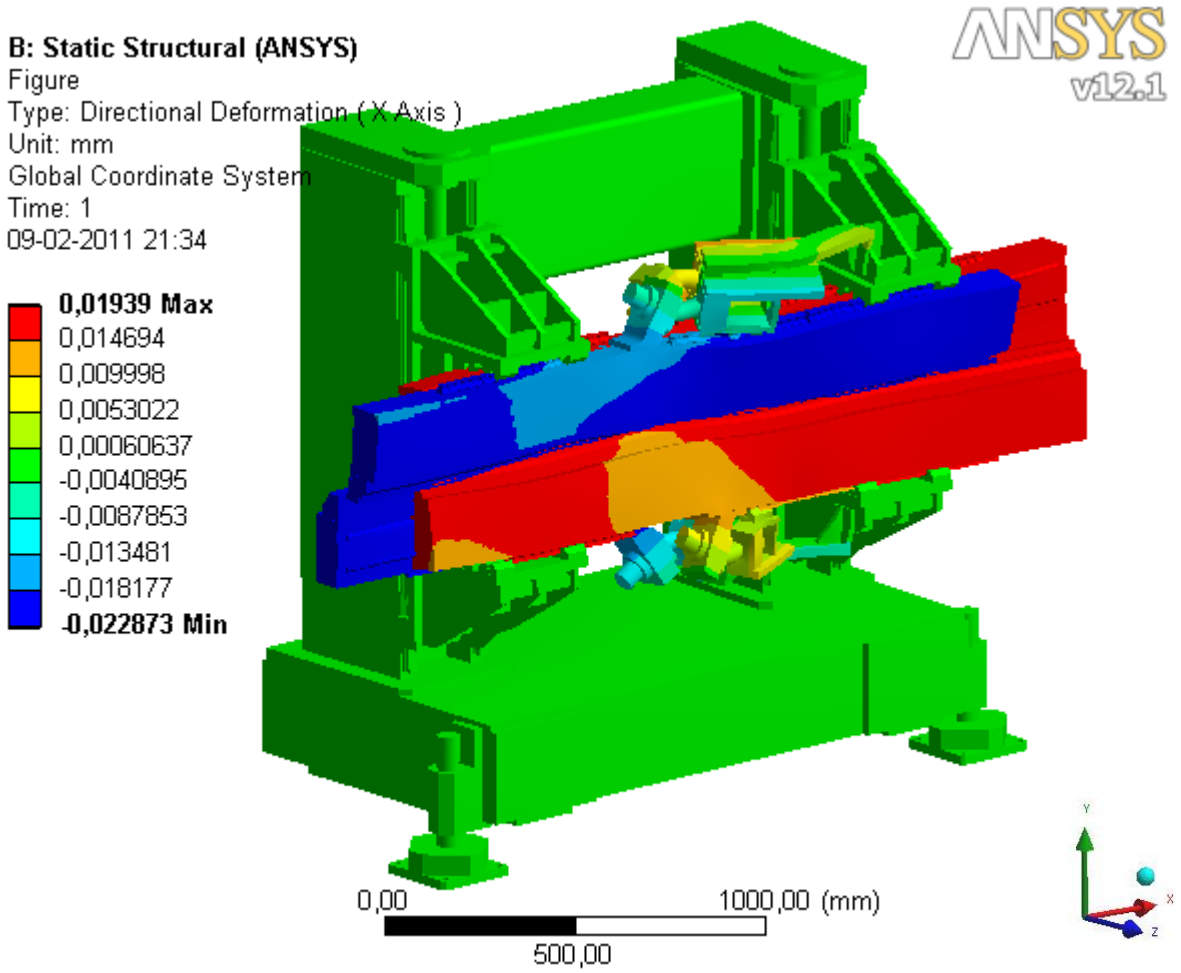
Total deformation (mm):



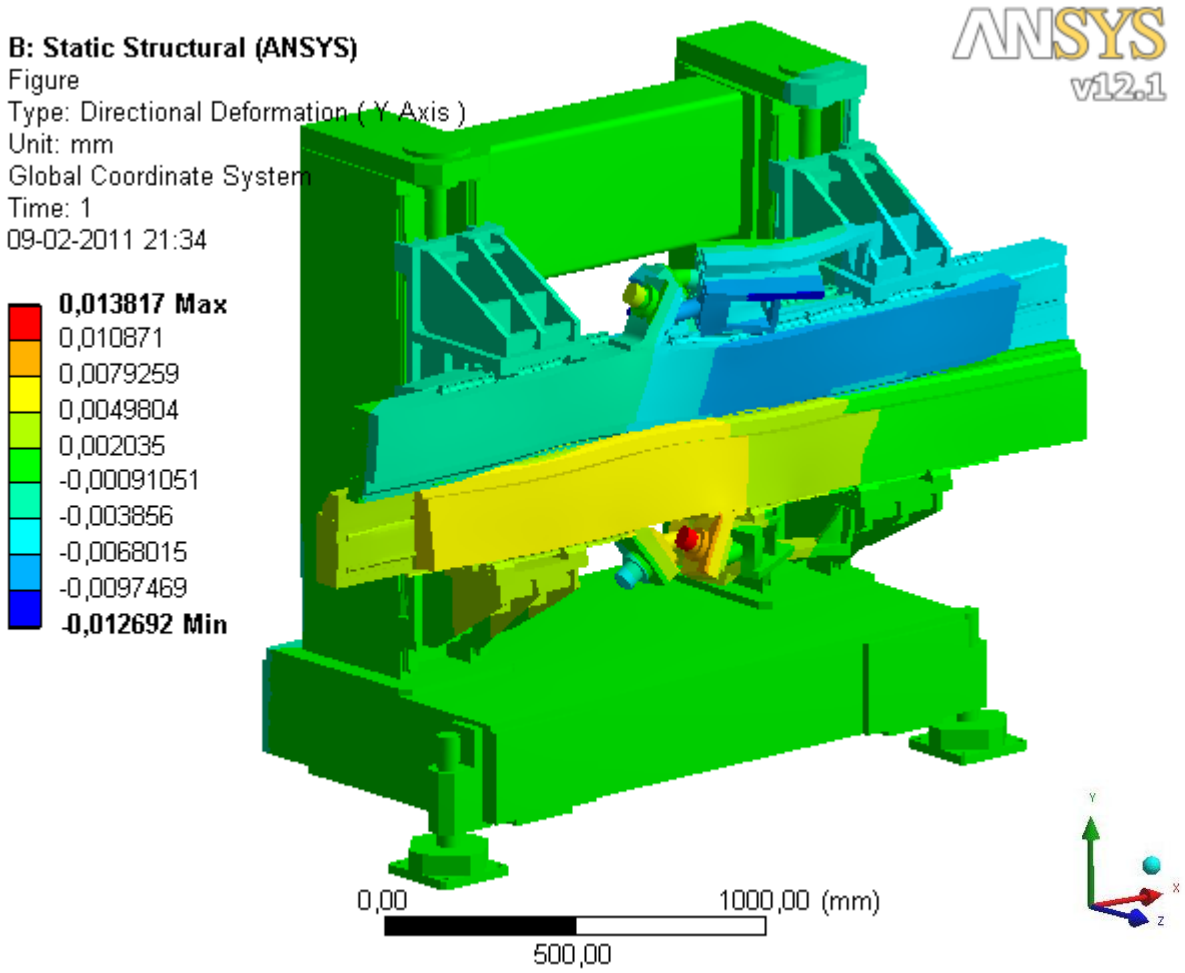
Equivalent stress (MPa):



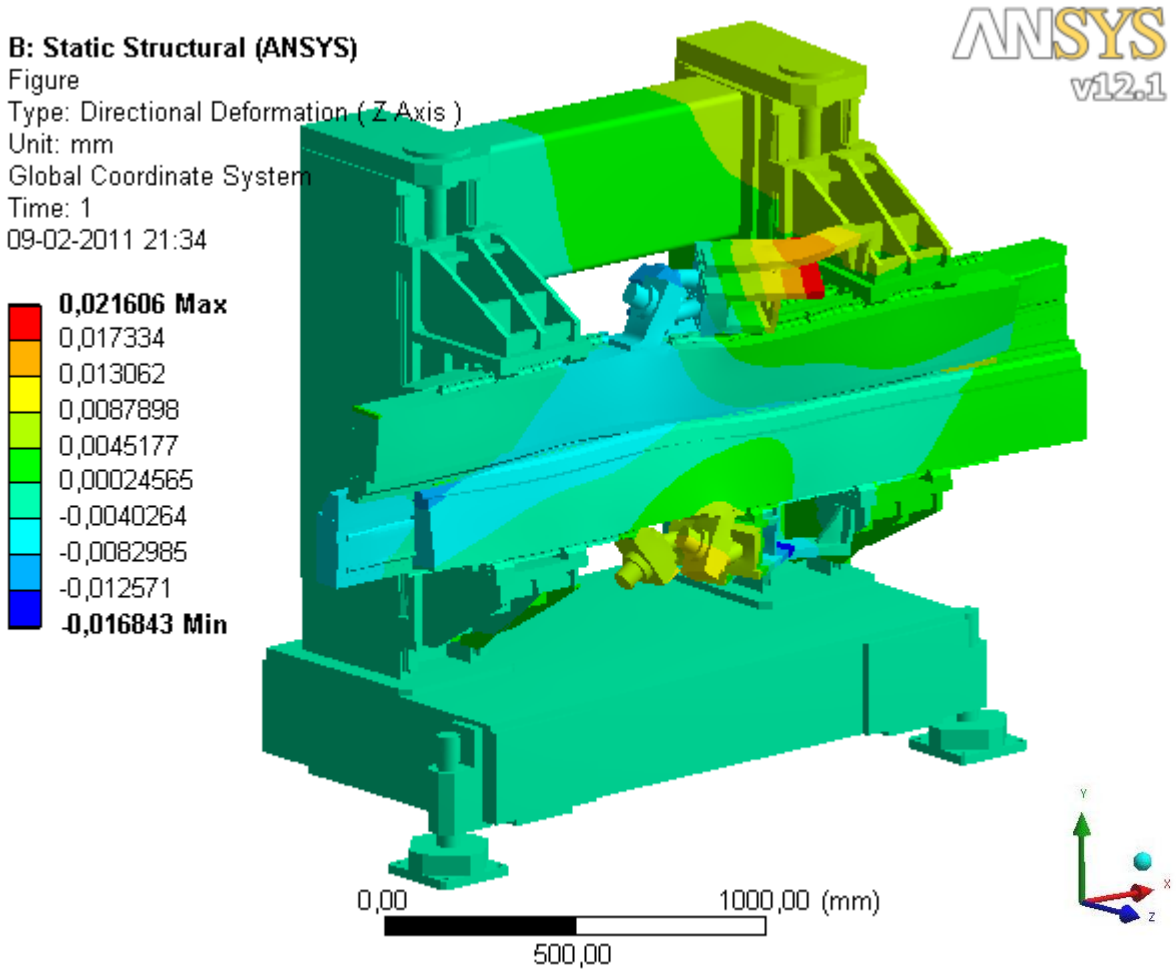
Deformation in X (mm):



Deformation in Y (mm):

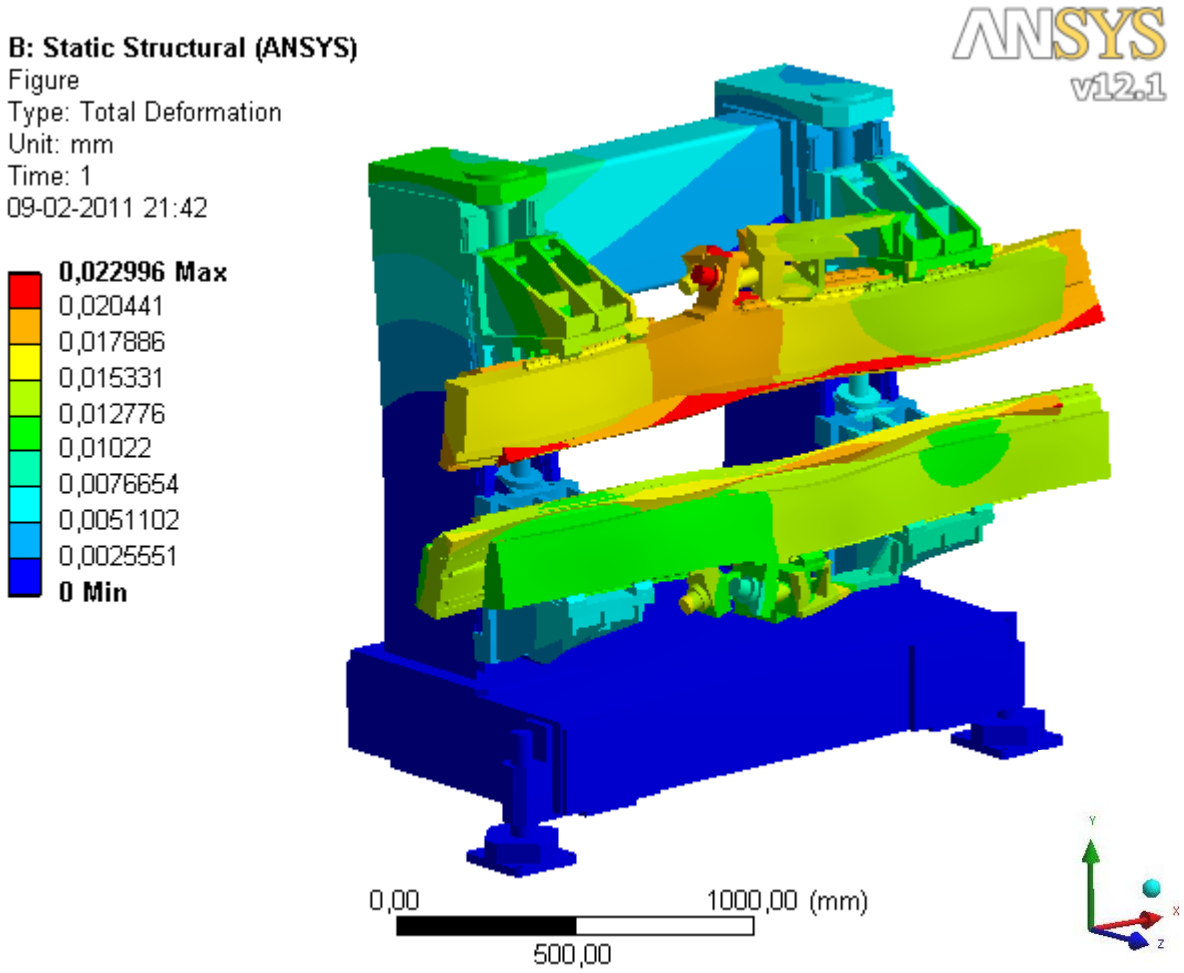


Deformation in Z (mm):

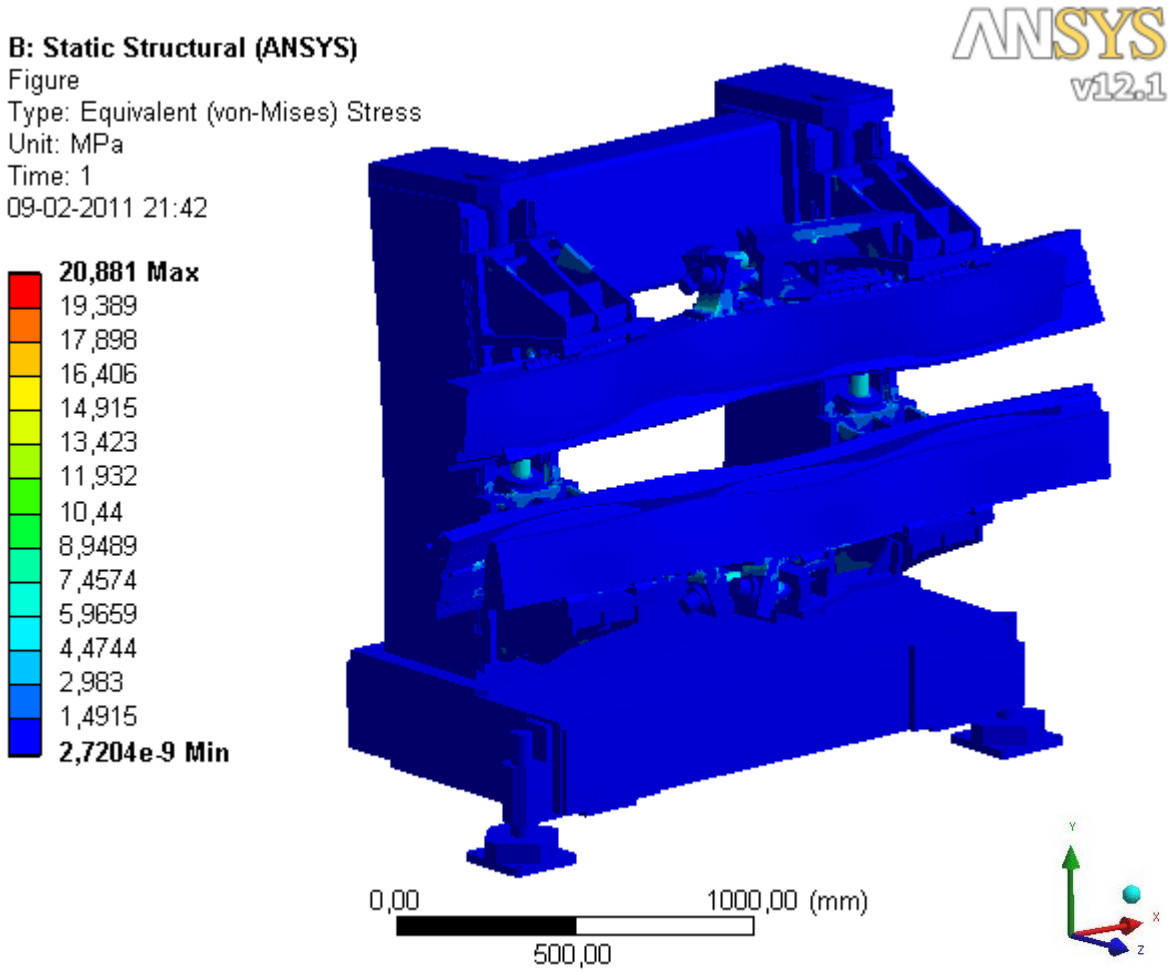


5.2.4 Load case 4

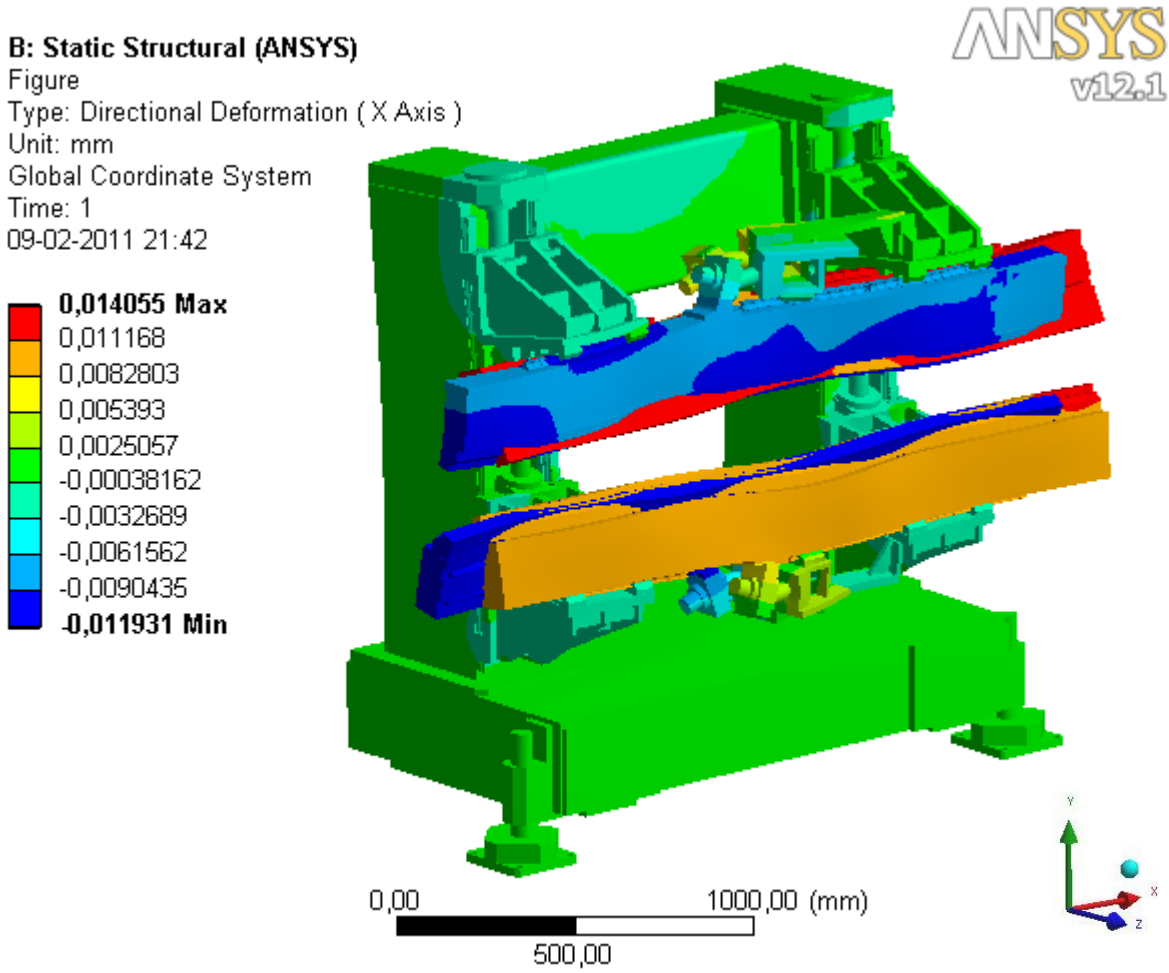
Total deformation (mm):



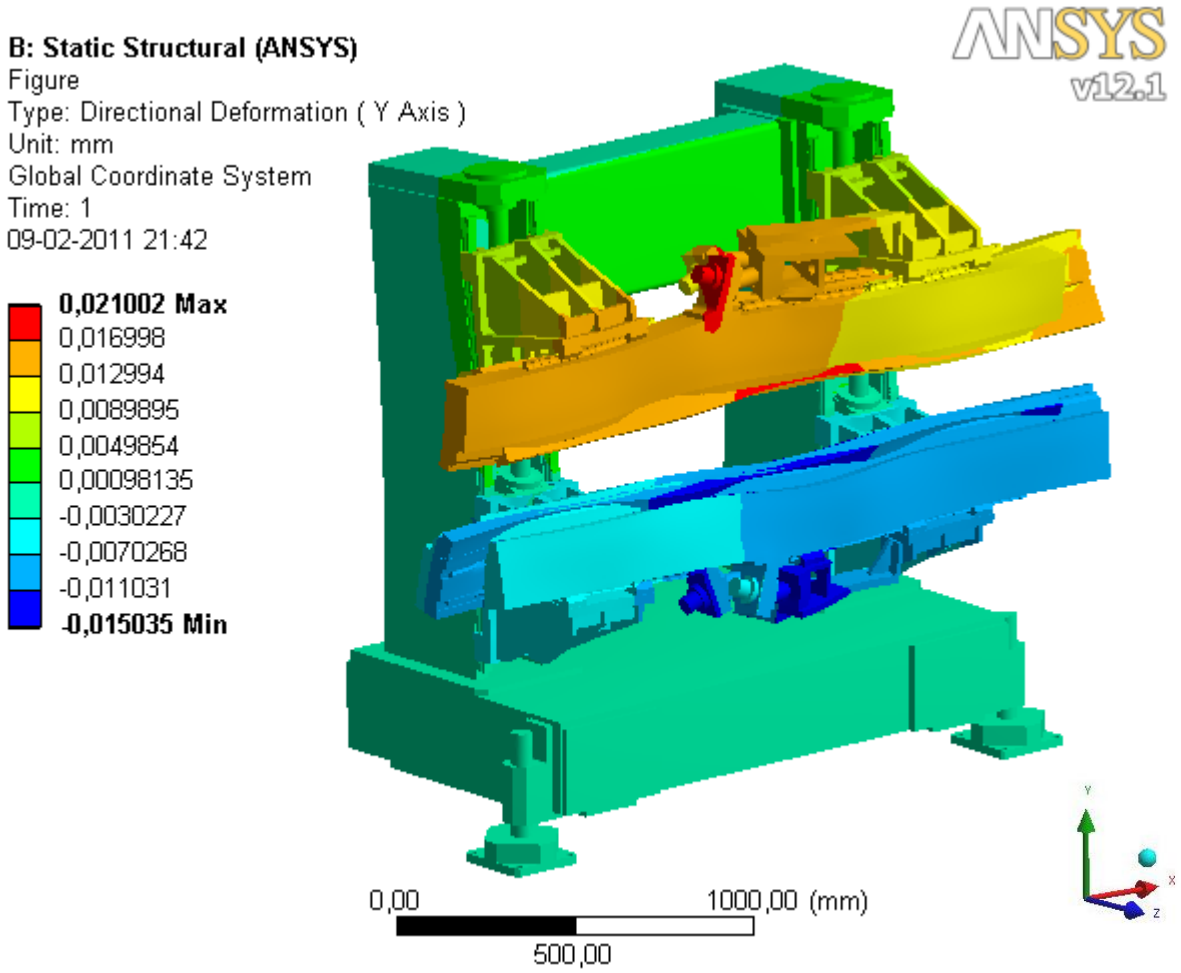
Equivalent stress (MPa):



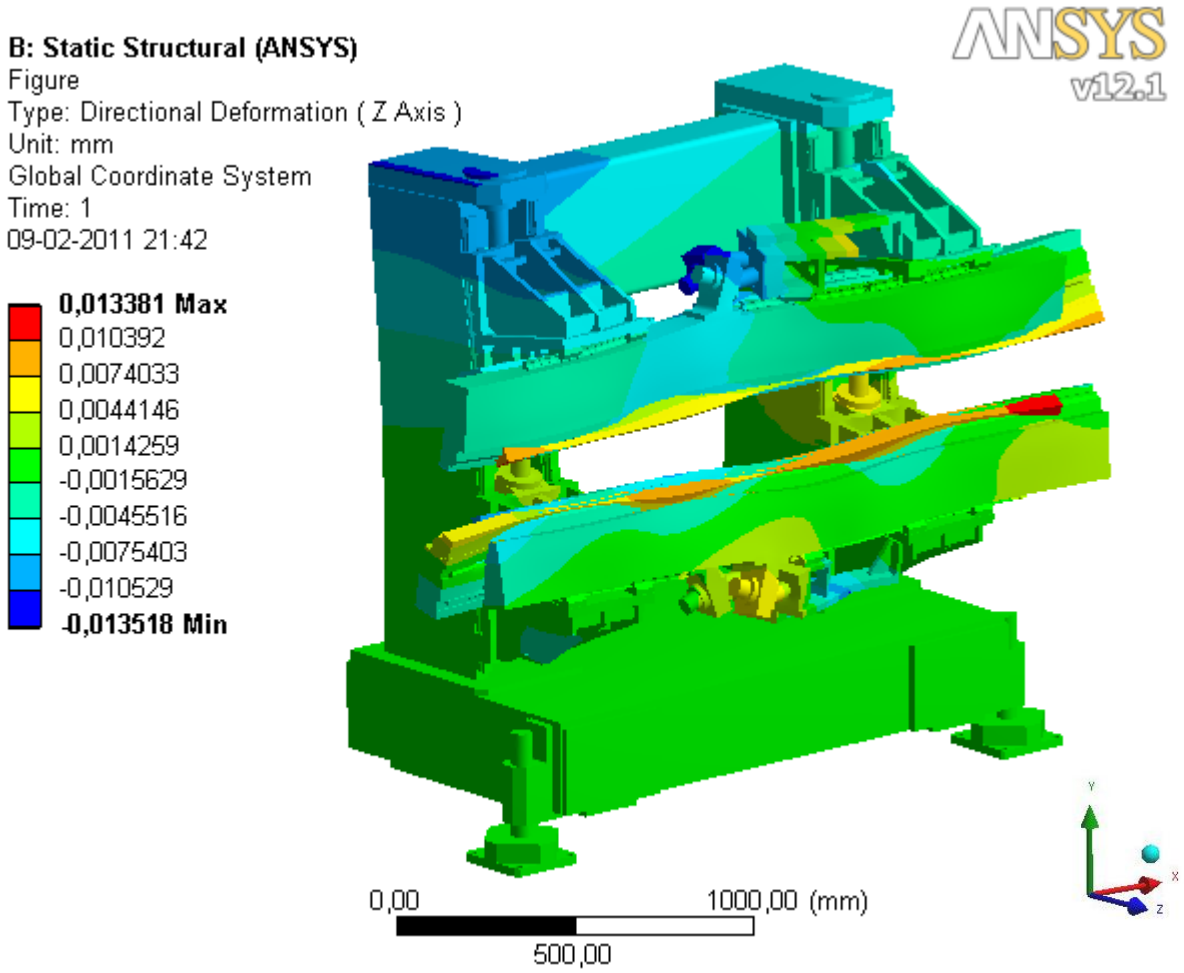
Deformation in X (mm):



Deformation in Y (mm):

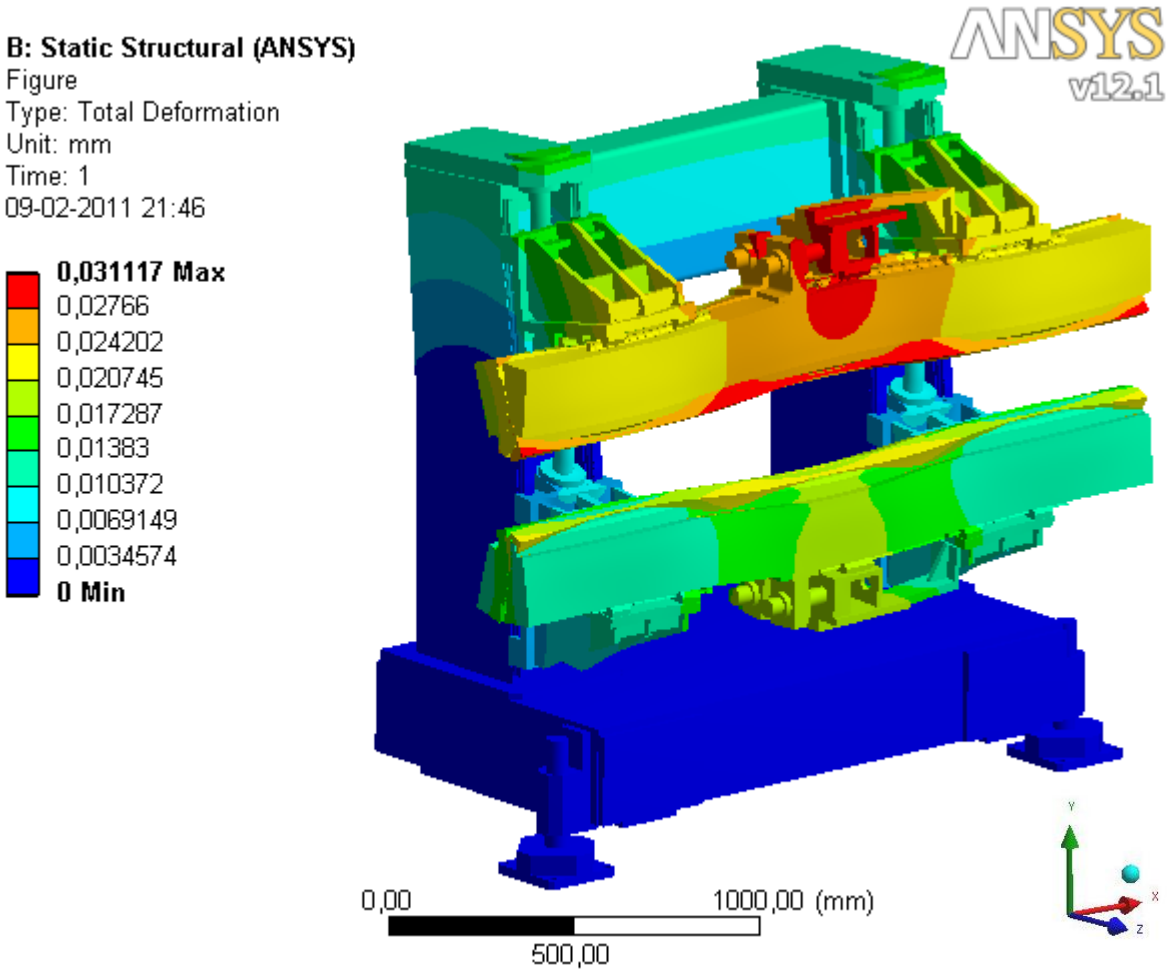


Deformation in Z (mm):

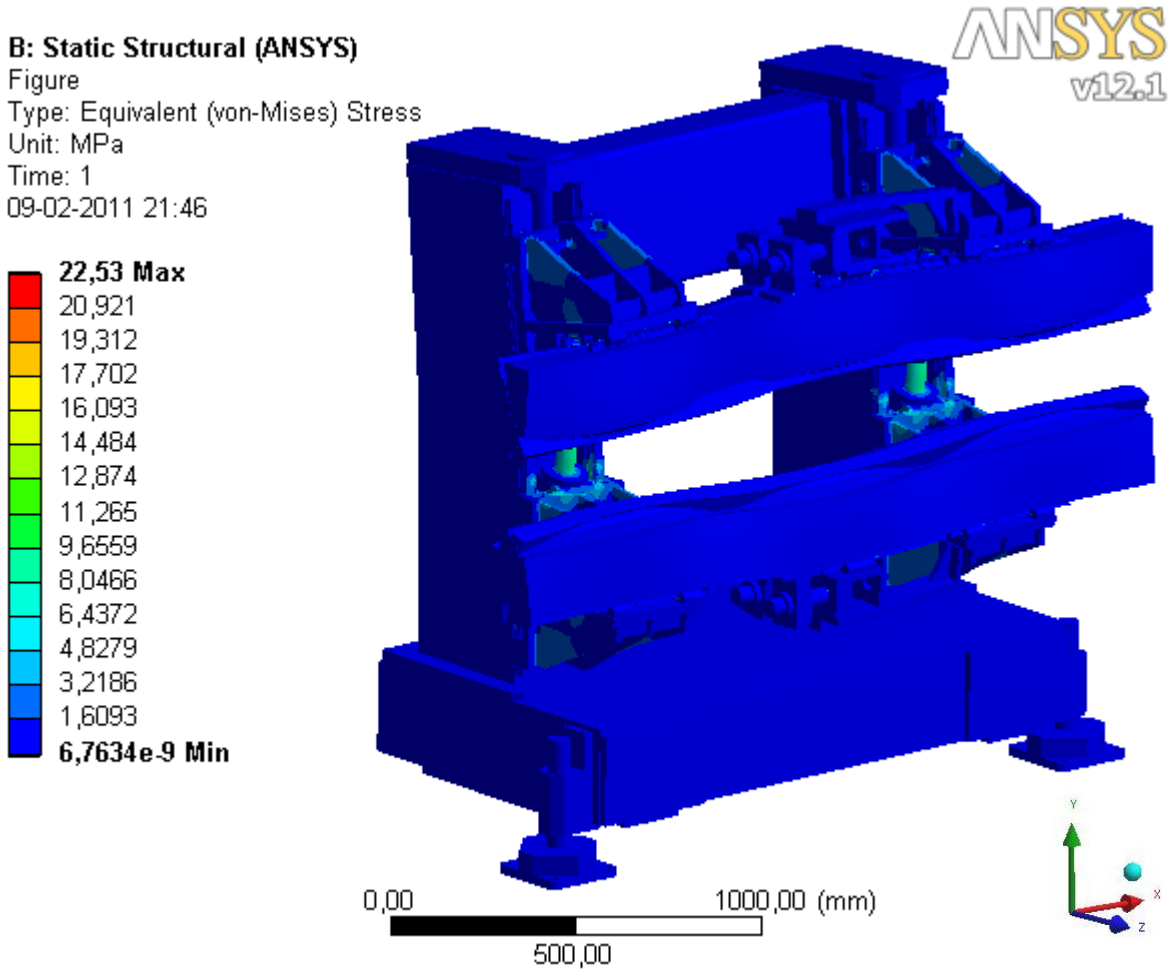


5.2.5 Load case 5

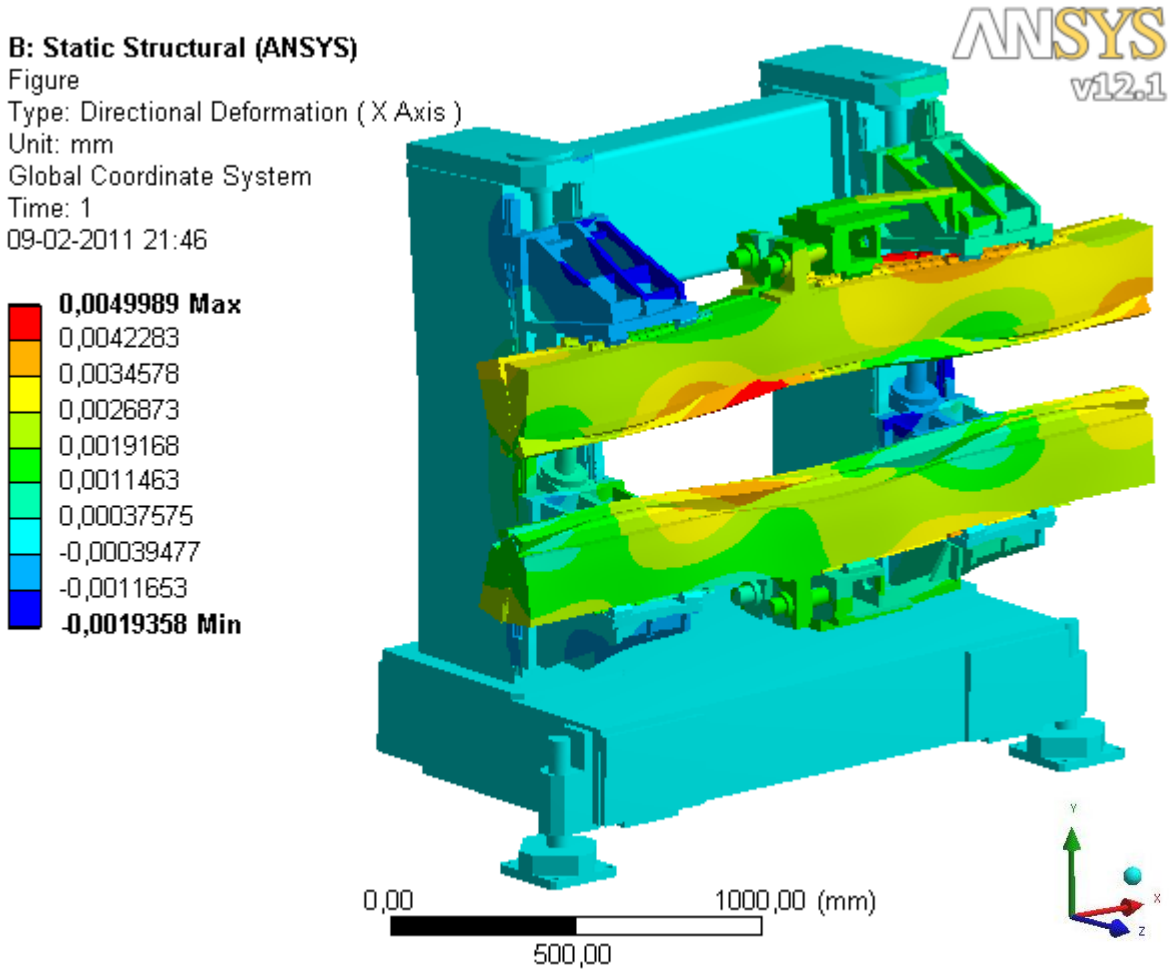
Total deformation (mm):



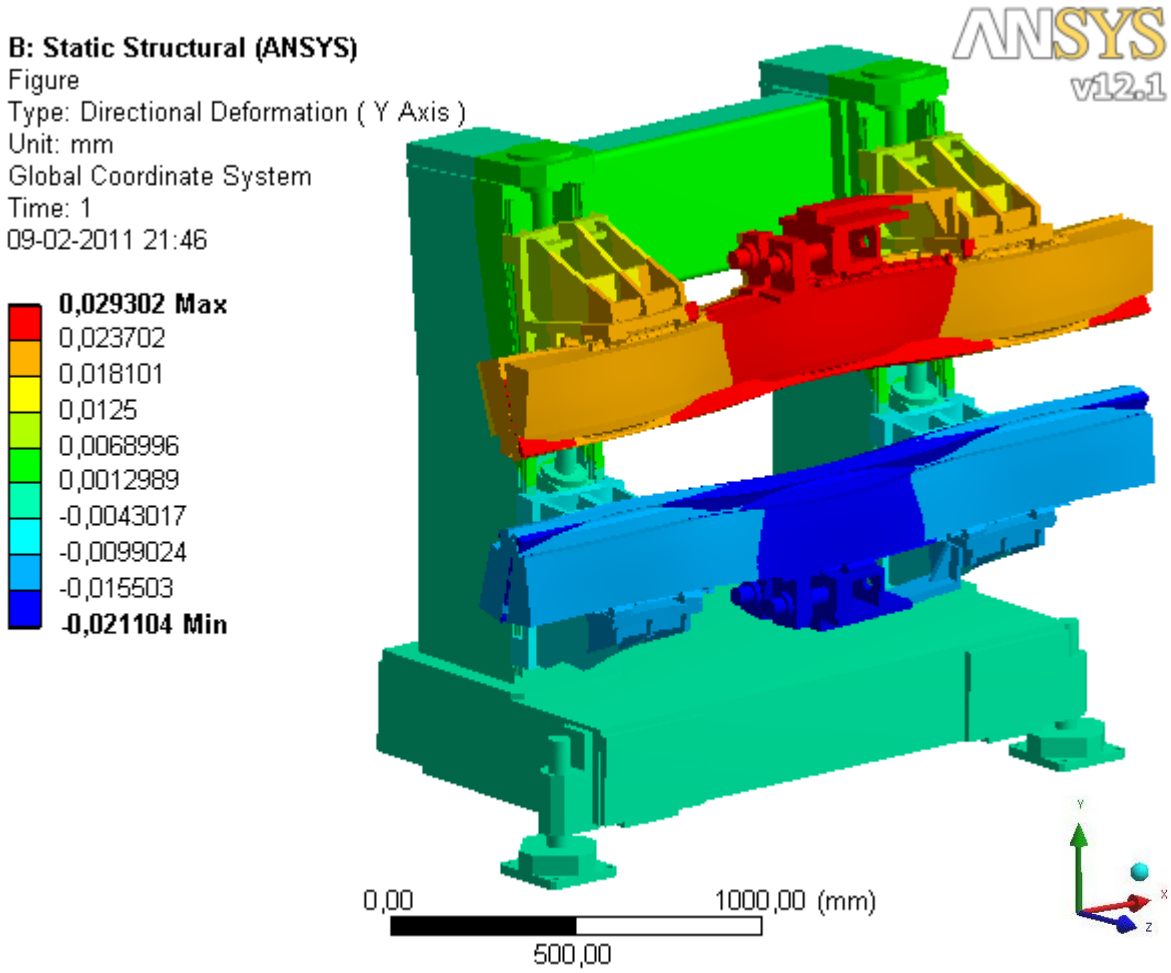
Equivalent stress (MPa):



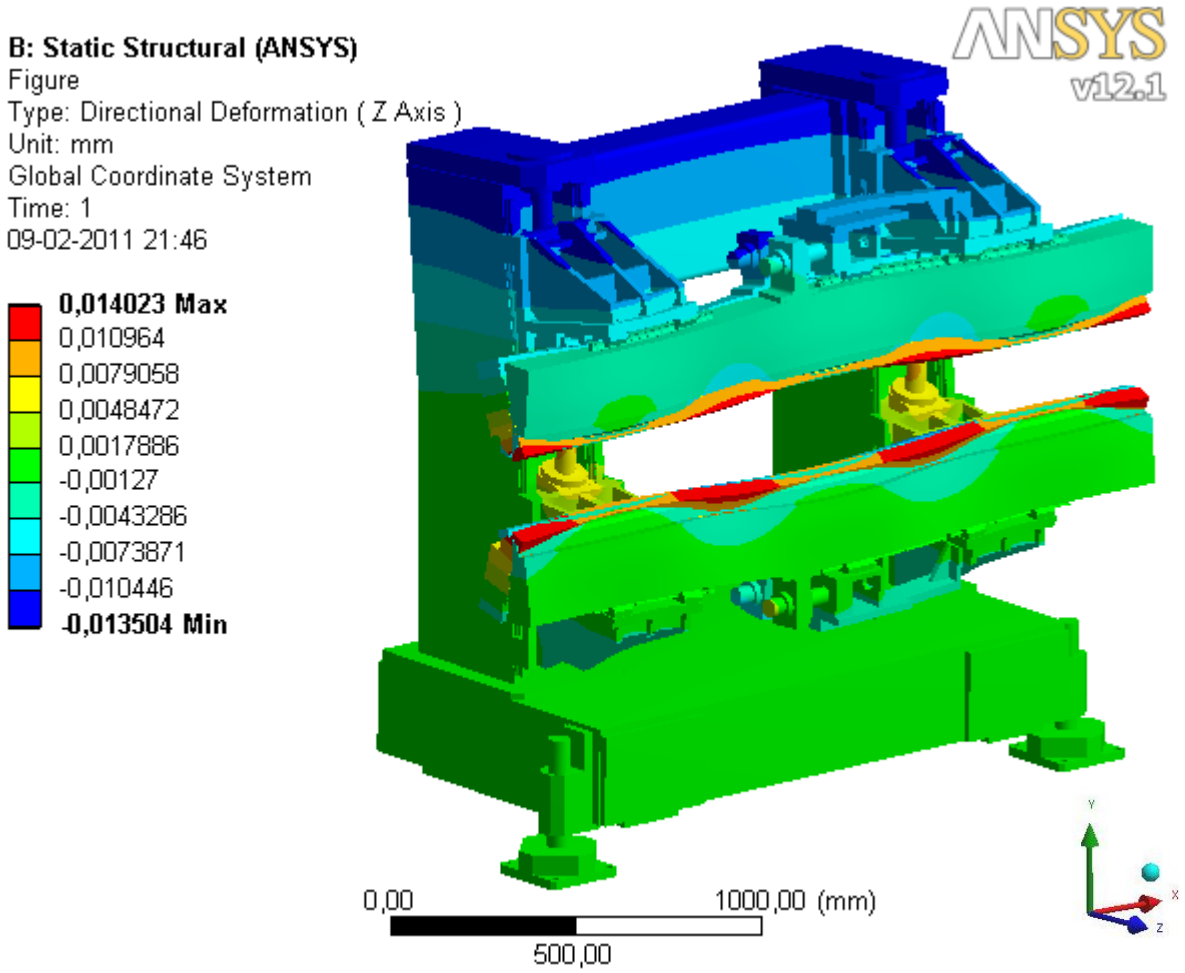
Deformation in X (mm):



Deformation in Y (mm):

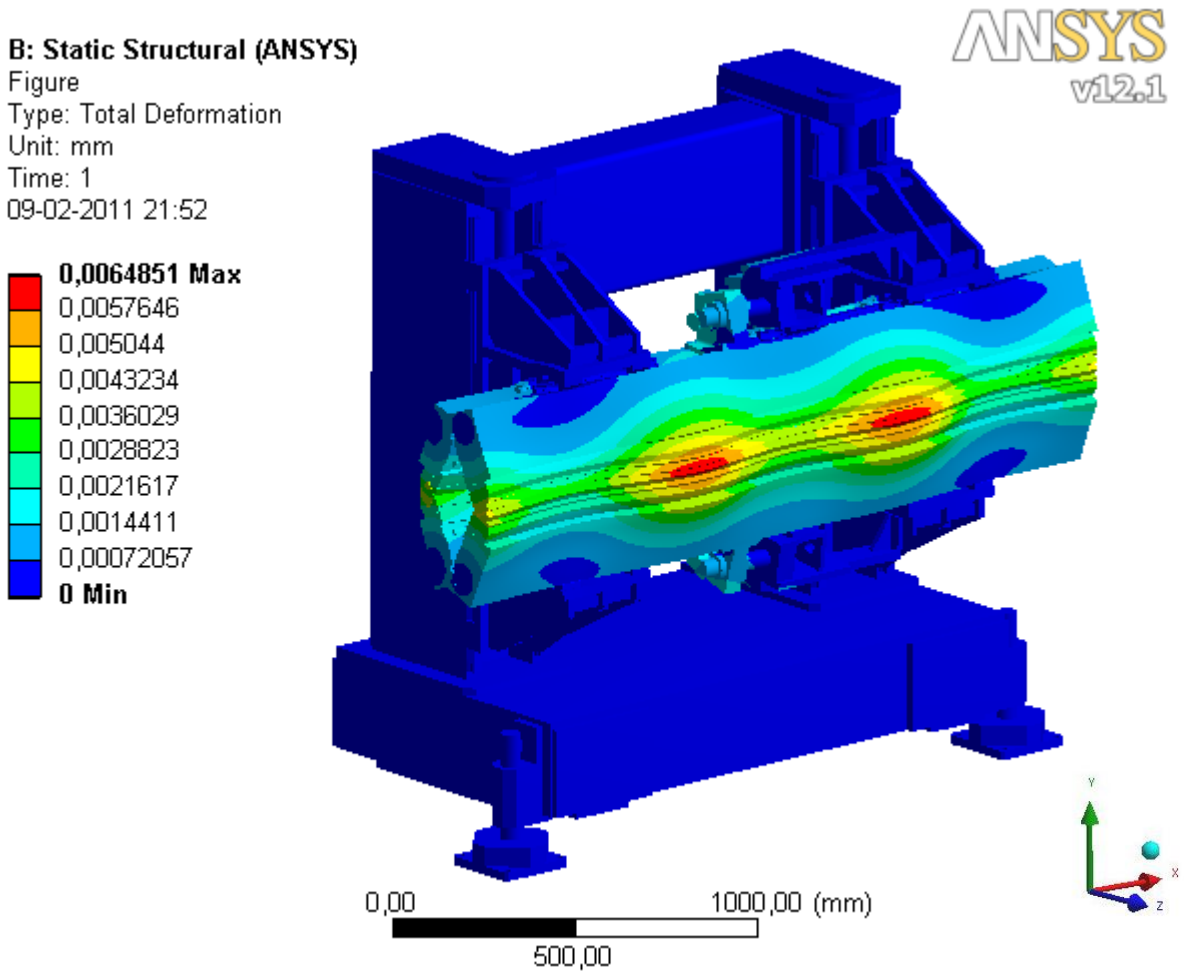


Deformation in Z (mm):

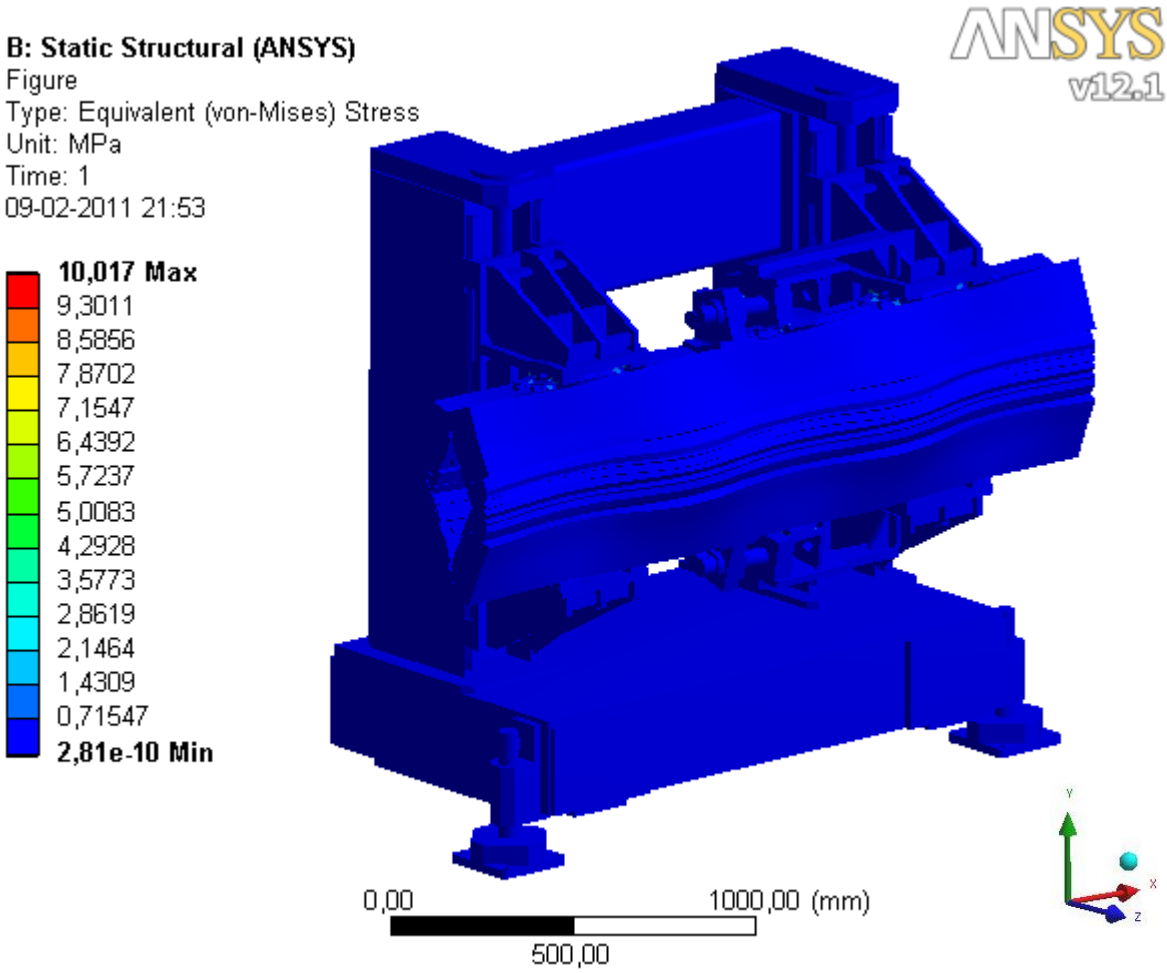


5.2.6 Load case 6

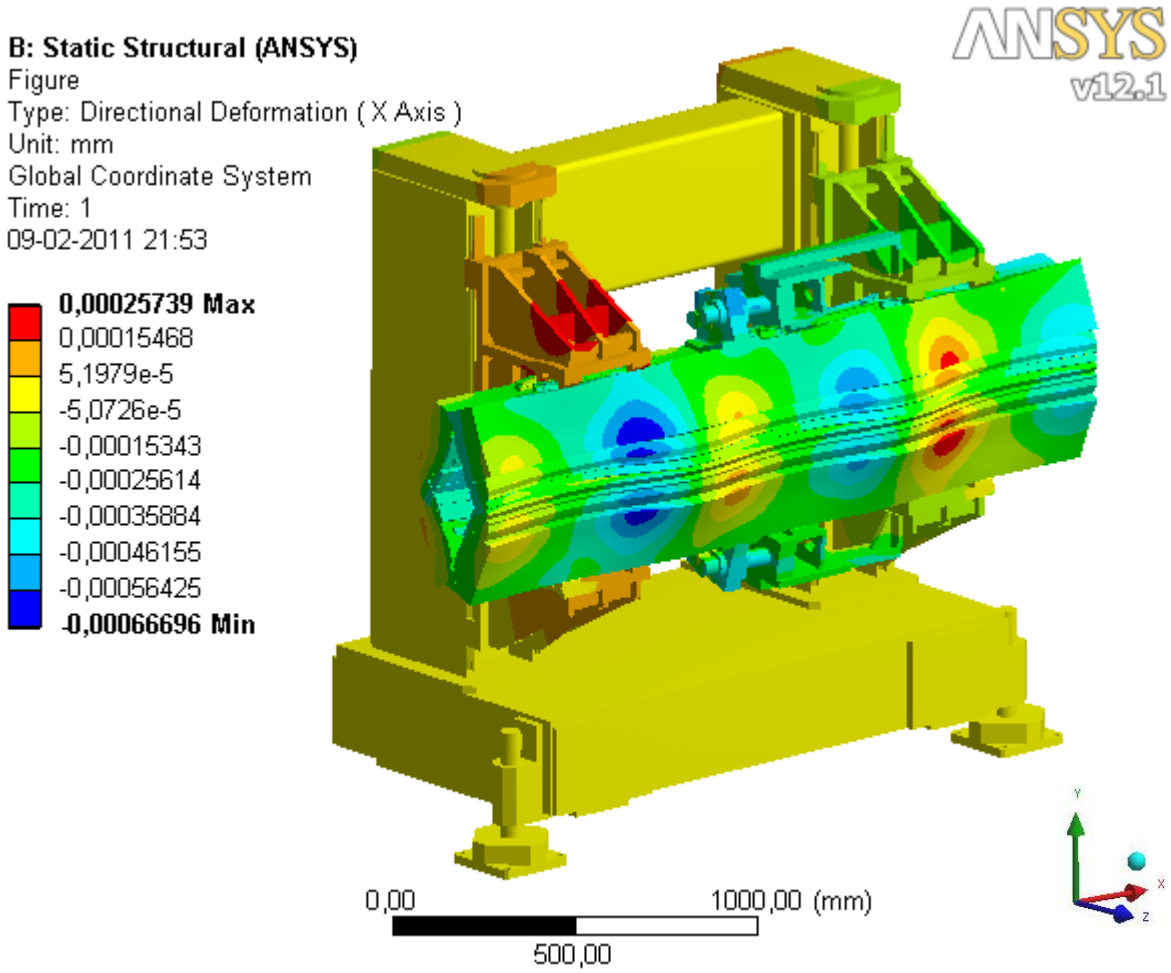
Total deformation (mm):



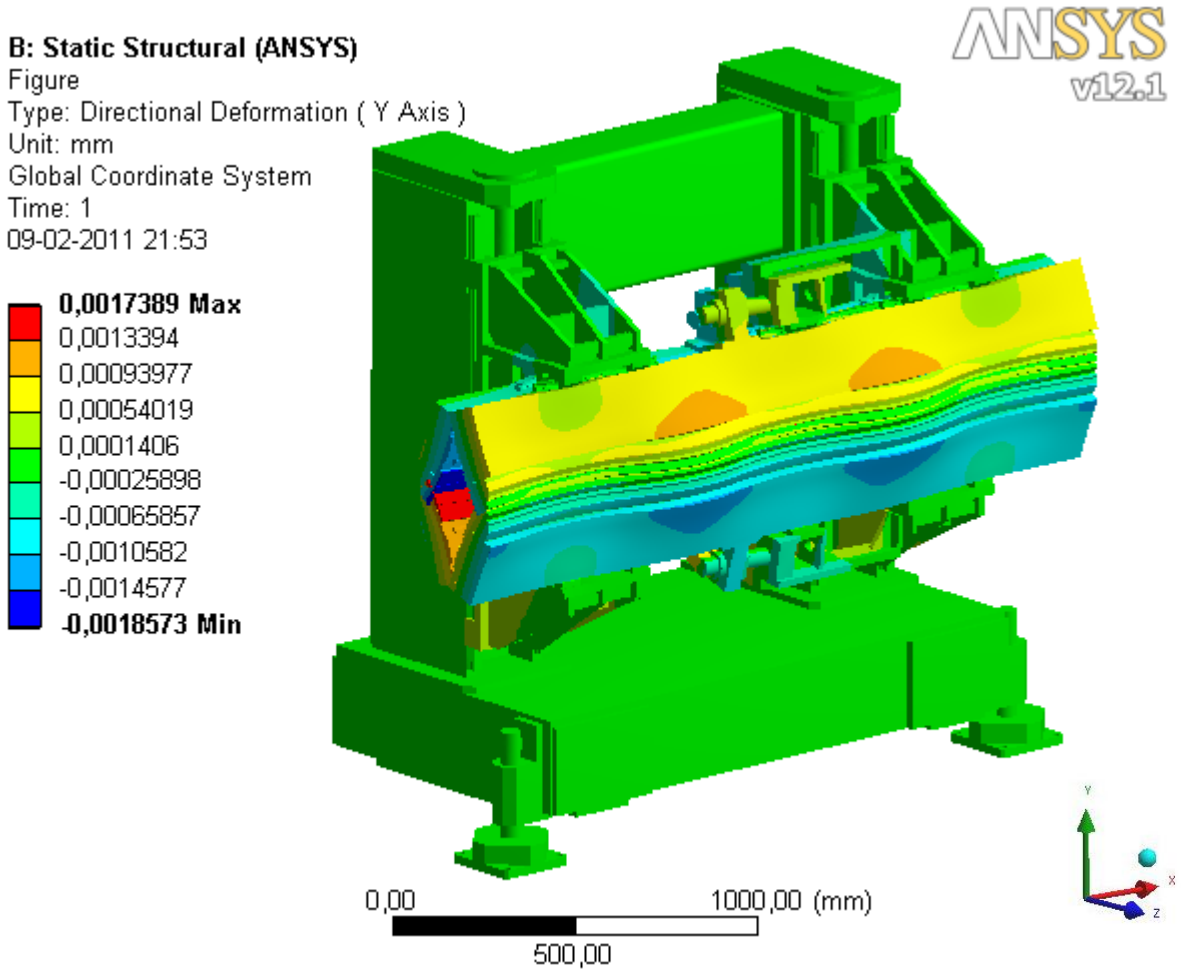
Equivalent stress (MPa):



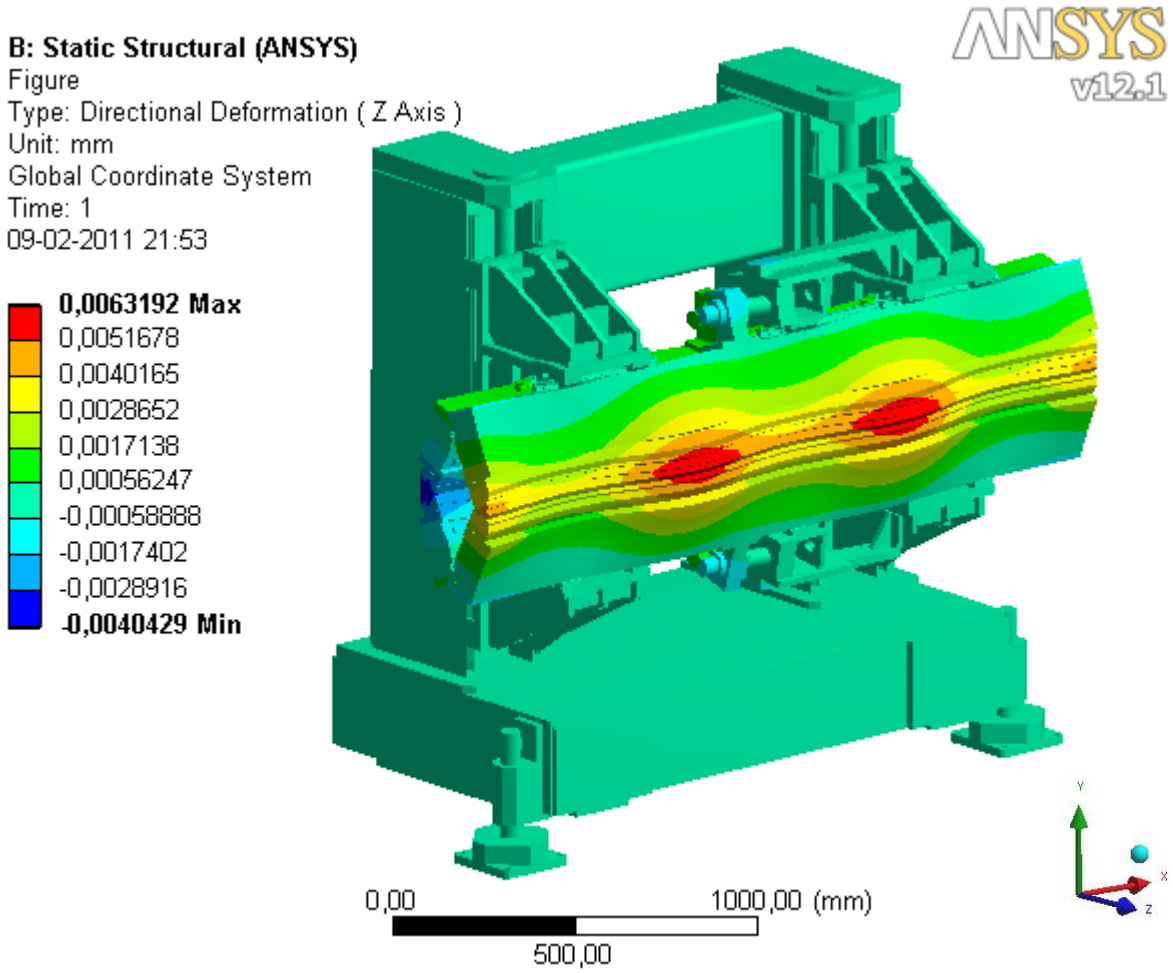
Deformation in X (mm):



Deformation in Y (mm):



Deformation in Z (mm):



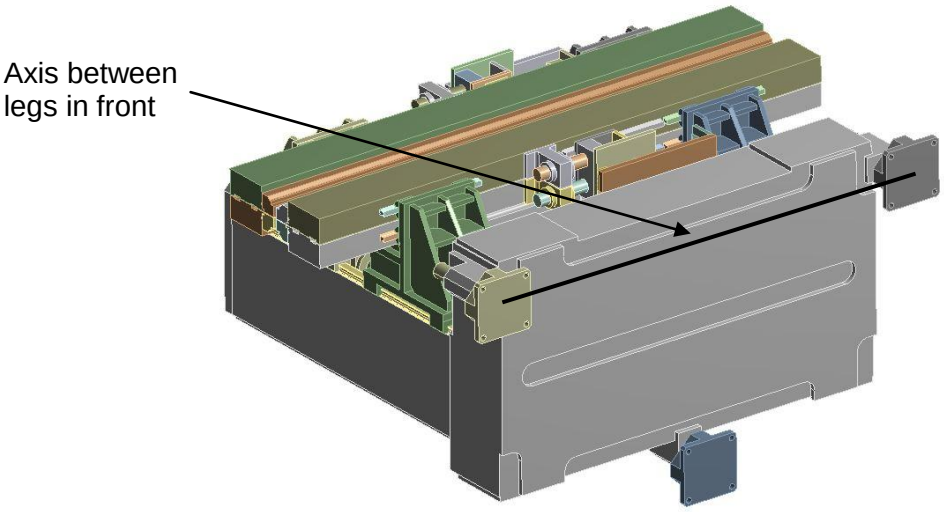
Deformation along the outer and center edge on all the magnetic beams has been withdrawn for every 100mm.

Results can be found in appendix 1.

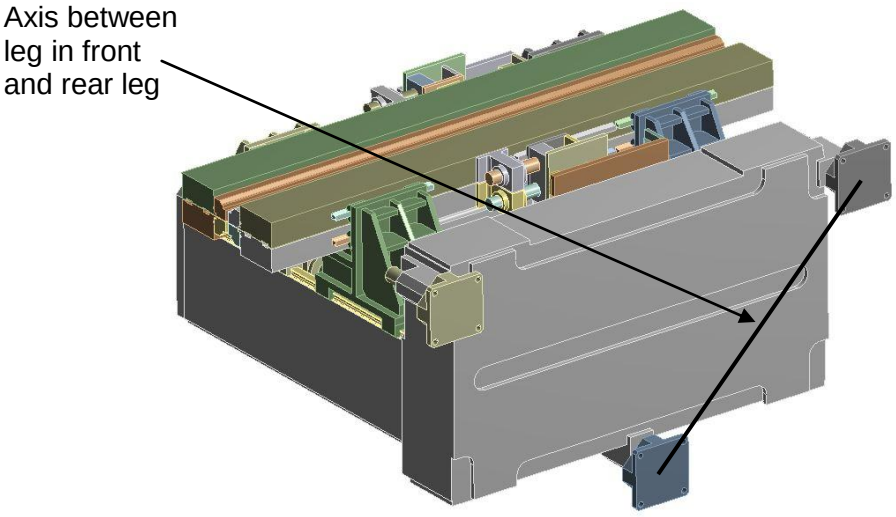
6 Simulation of earthquake

Three situations have been examined.

- Double gravity.
- 0,6 times gravity action perpendicular to the axis going between the two legs on the front side of the Undulator.

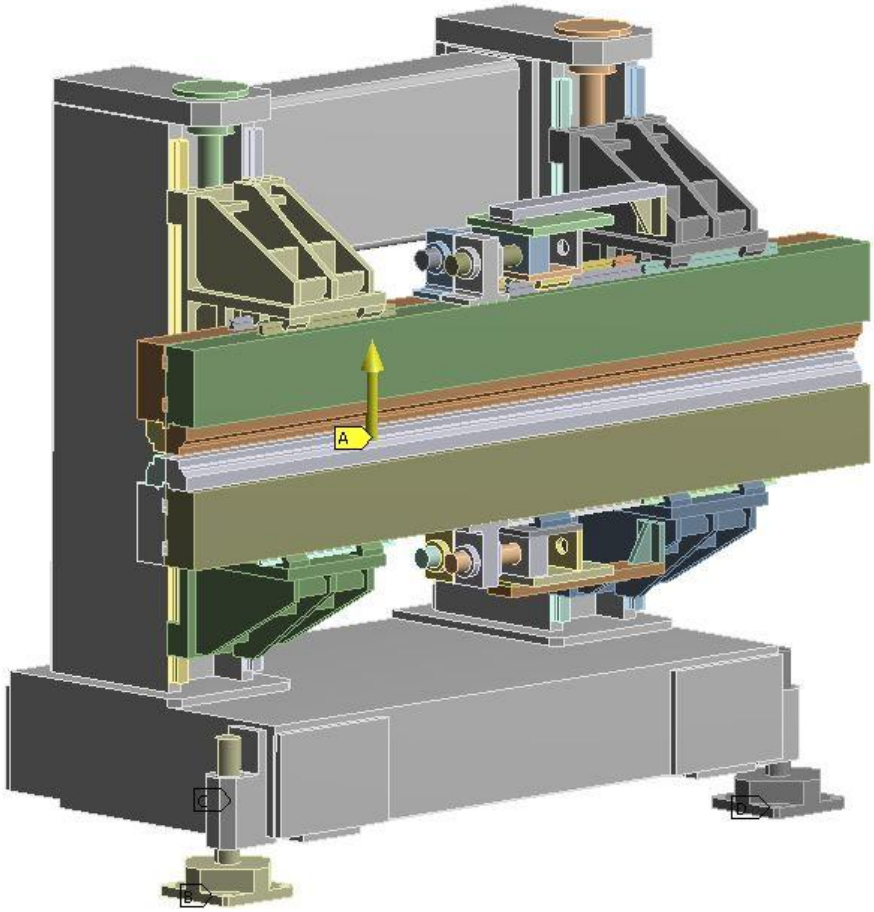


- 0,6 times gravity action perpendicular to the axis going from one leg on the front side of the Undulator to the leg on the rear side.



6.1 Double gravity

6.1.1 Boundary conditions



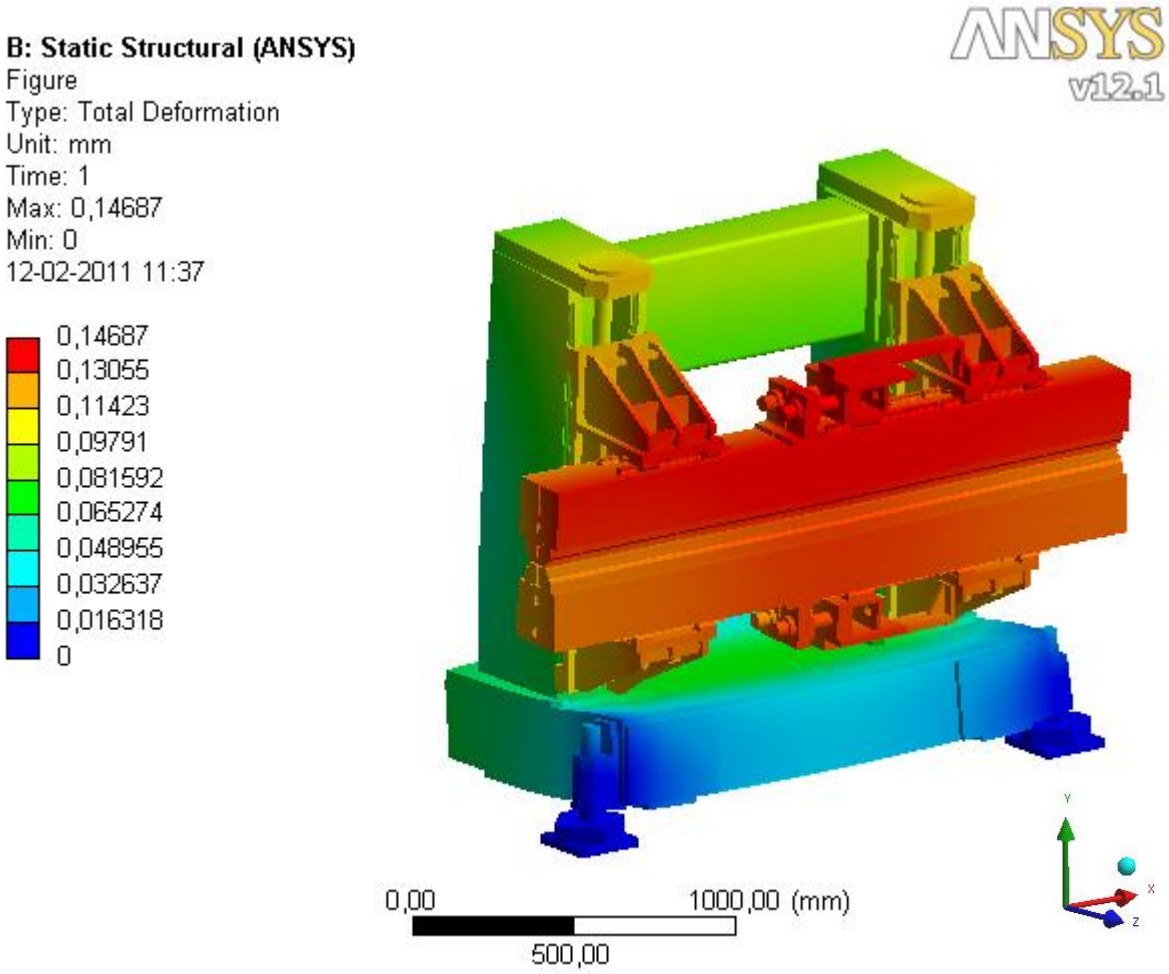
A: 2 x earth gravity

Acceleration is 2,5G to take into account that the simplified model weighs 3400kg and not 4200kg like the real Undulator.

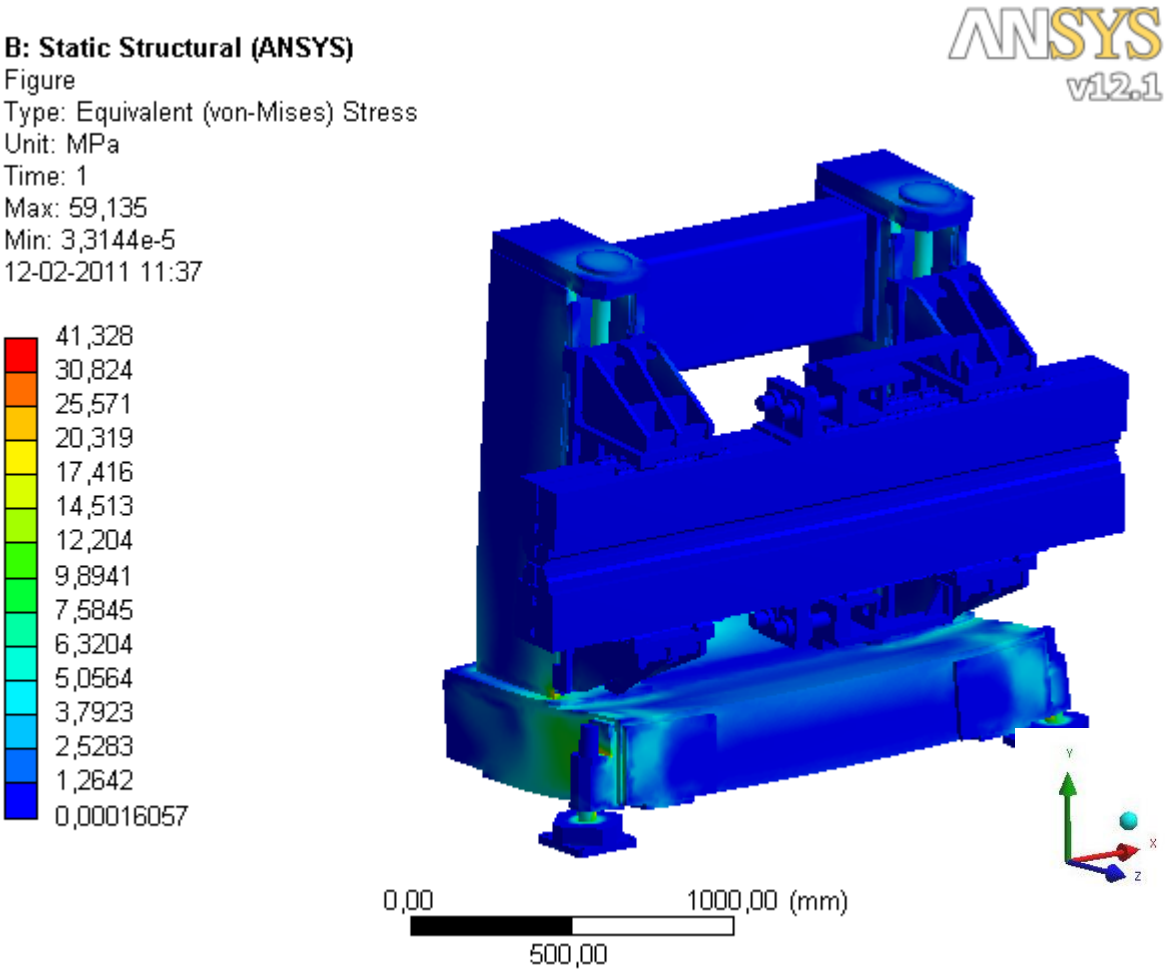
B, C and D: The feets are fully constrained

6.1.2 Results

Total Deformation (mm):

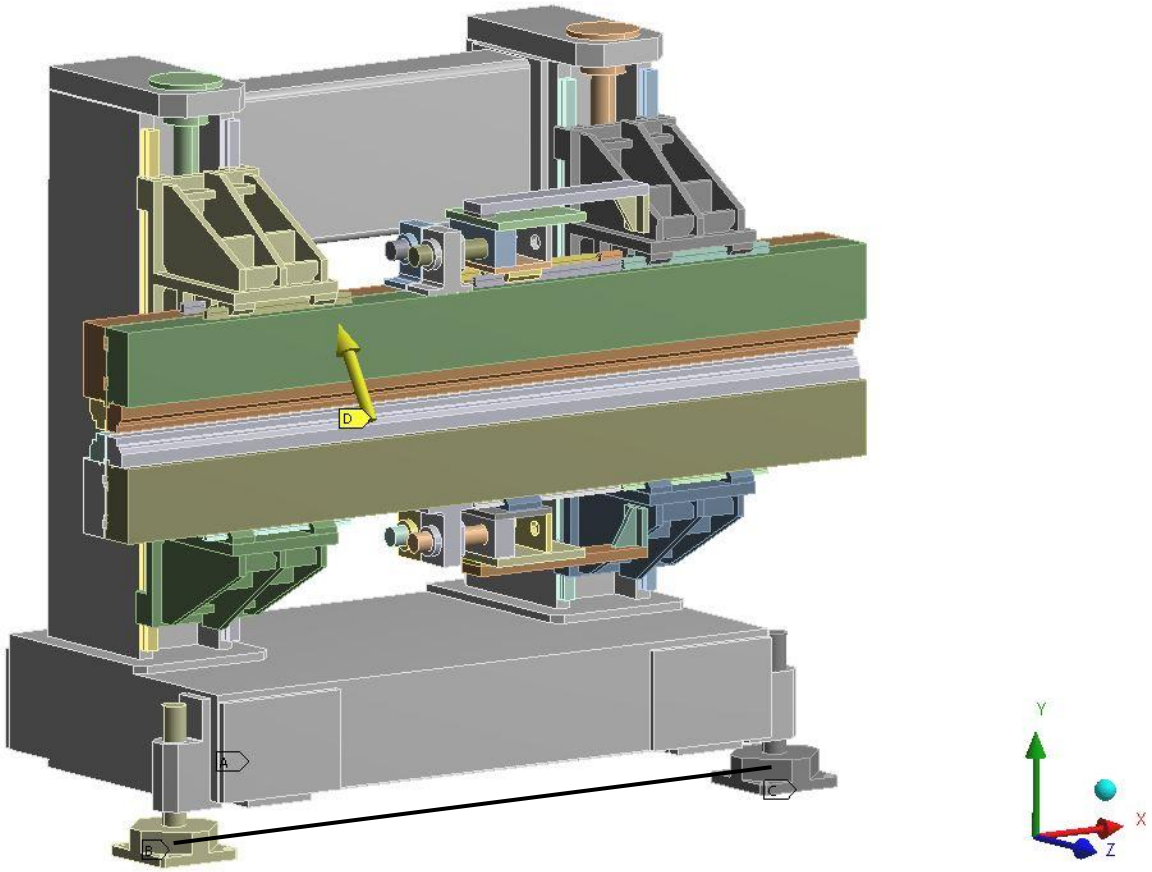


Equivalent stress (MPa):



6.2 0,6 times gravity perpendicular to axis between legs in front

6.2.1 Boundary conditions



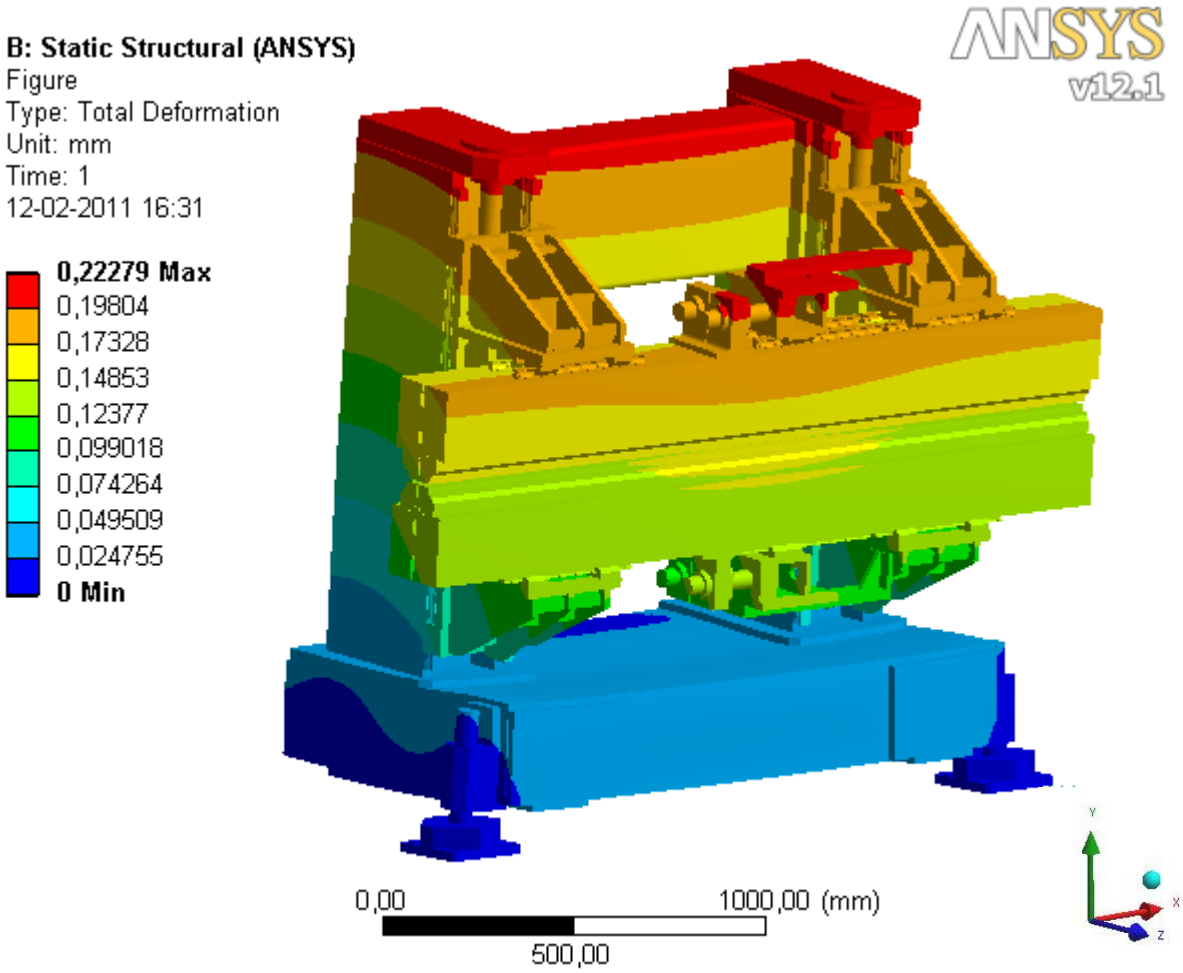
A, B, C: The feets are fully constrained

D: Earth gravity + 0,6 times earth gravity acting perpendicular to the axis going between the two legs on the front side of the Undulator.

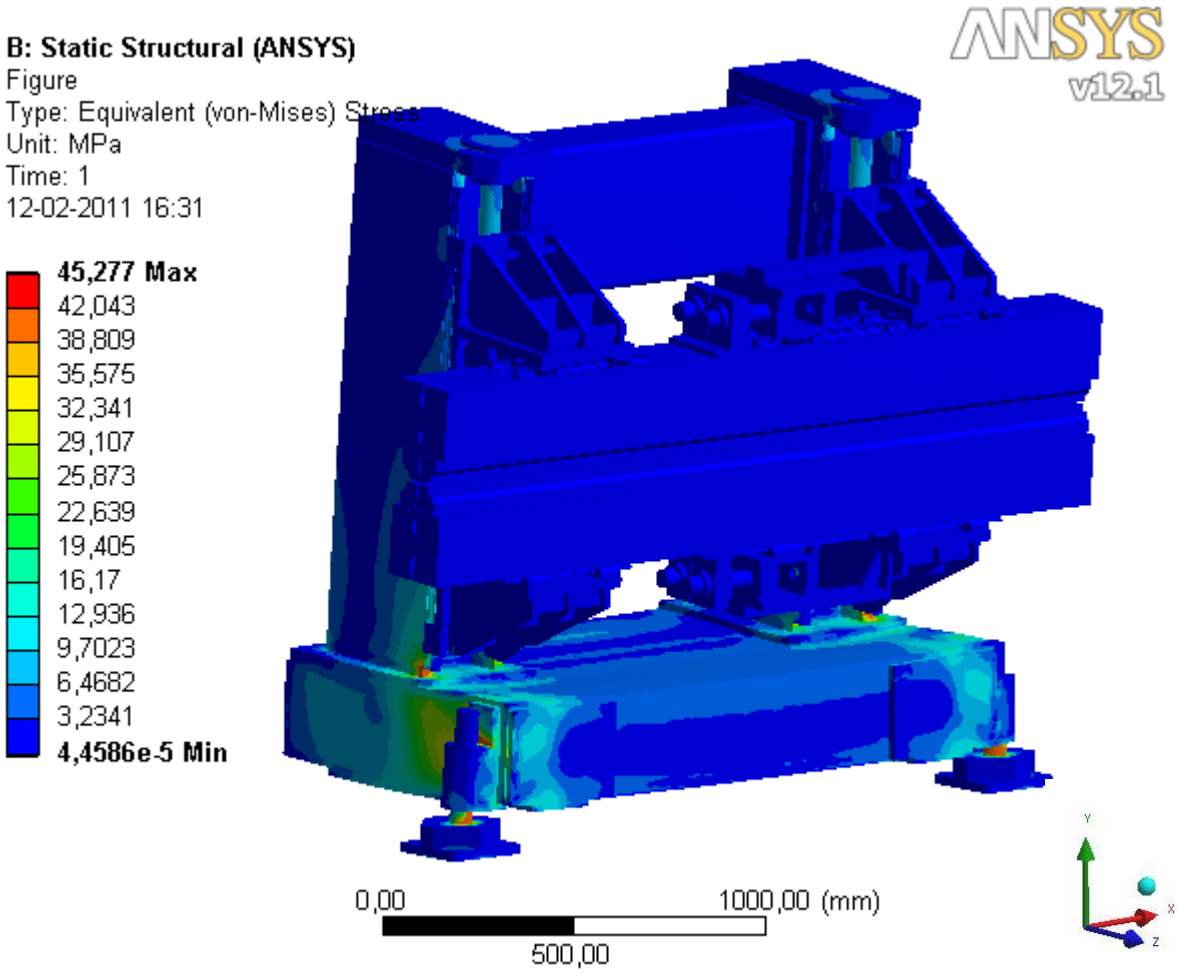
X: 0
Y: 9.81 x 4200/3400 = 12 m/s^2
Z: 12x0.6 = 7.2 m/s^2

6.2.2 Results

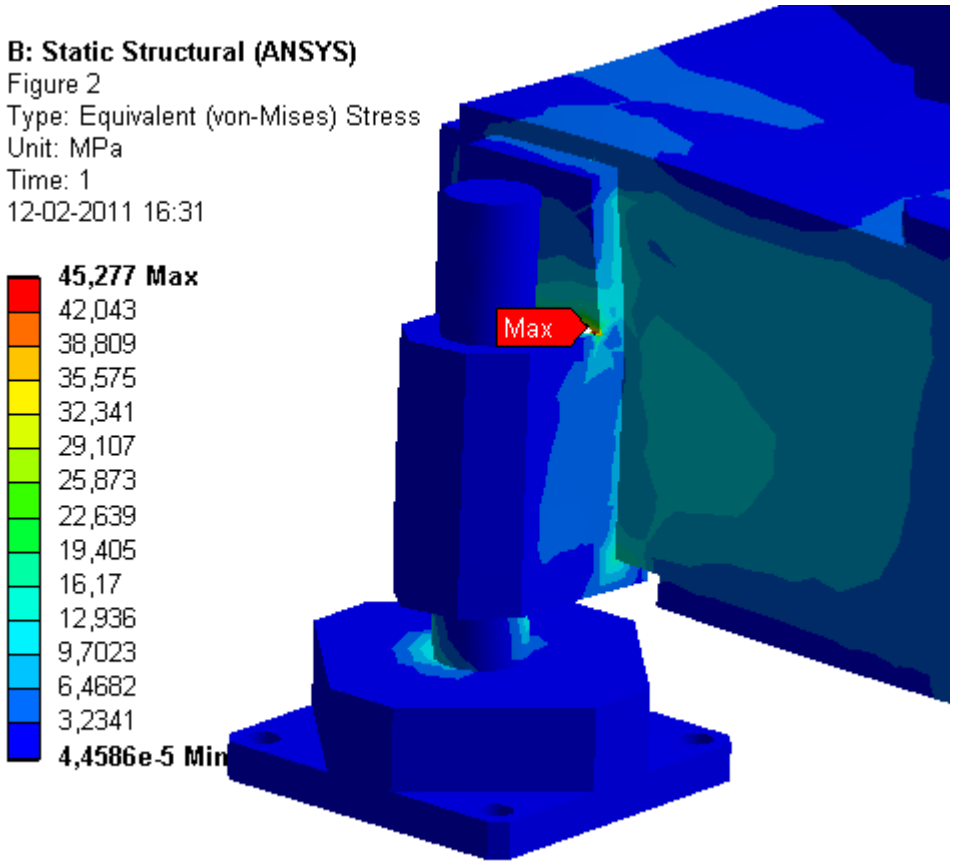
Total Deformation (mm):



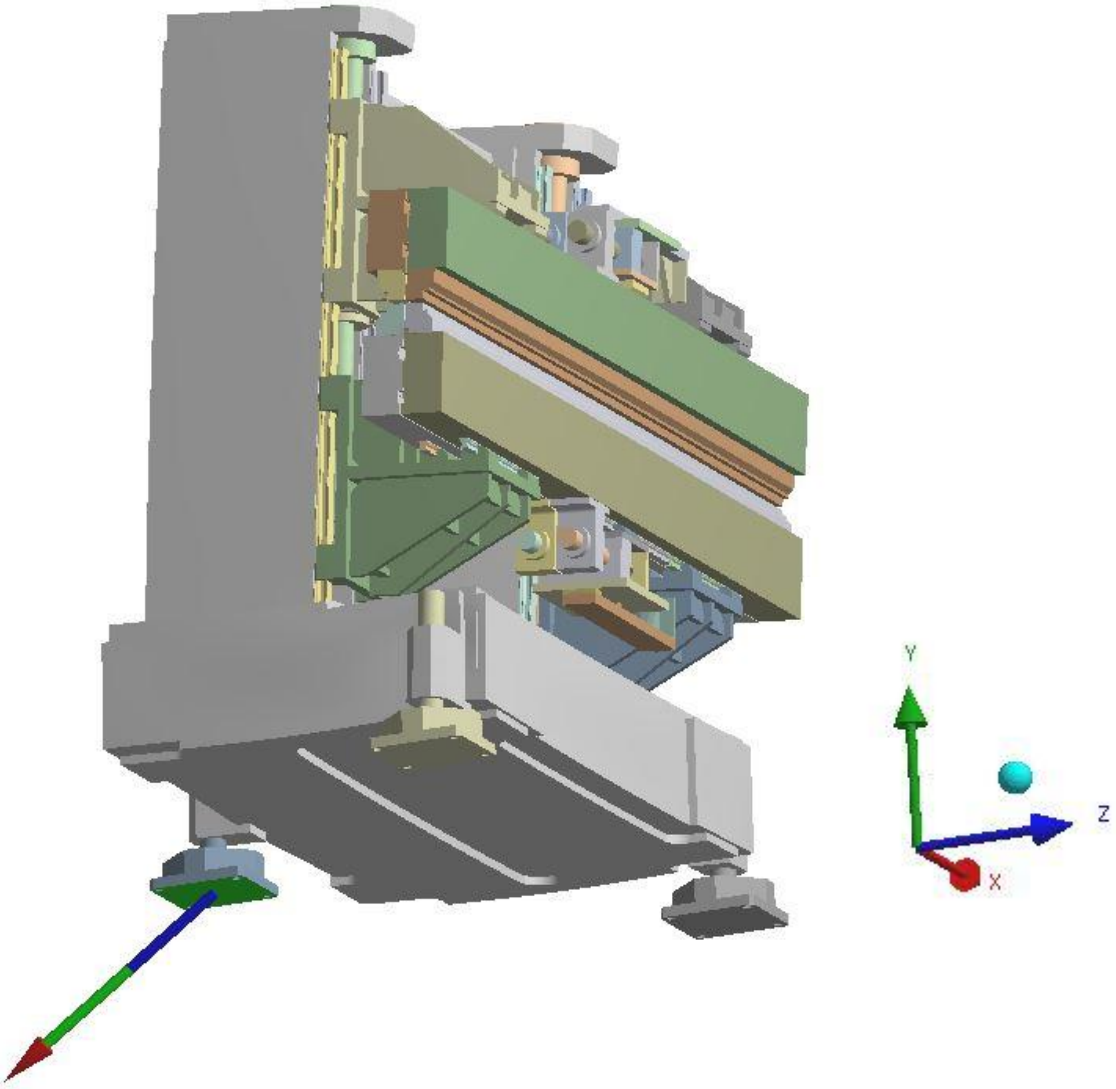
Equivalent stress (MPa):



Equivalent stress (MPa):

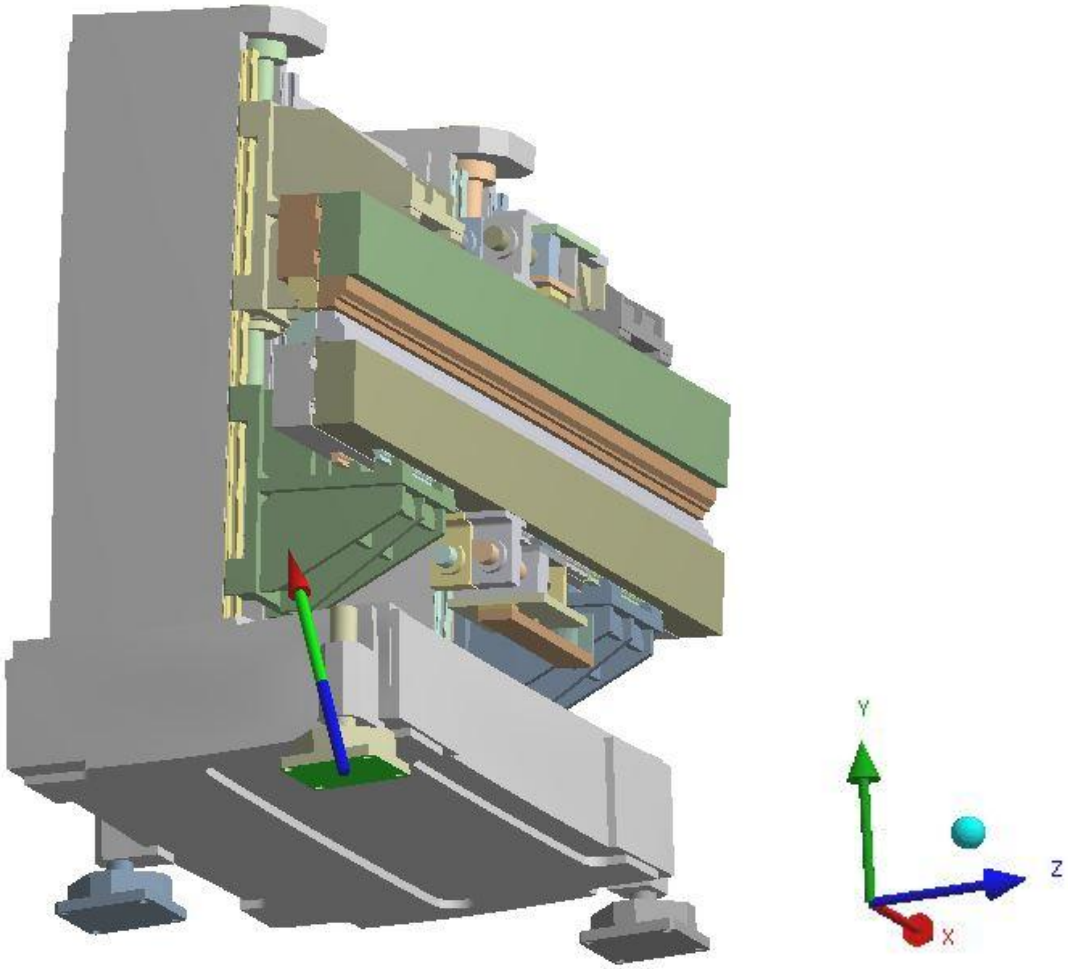


Reaction force A:



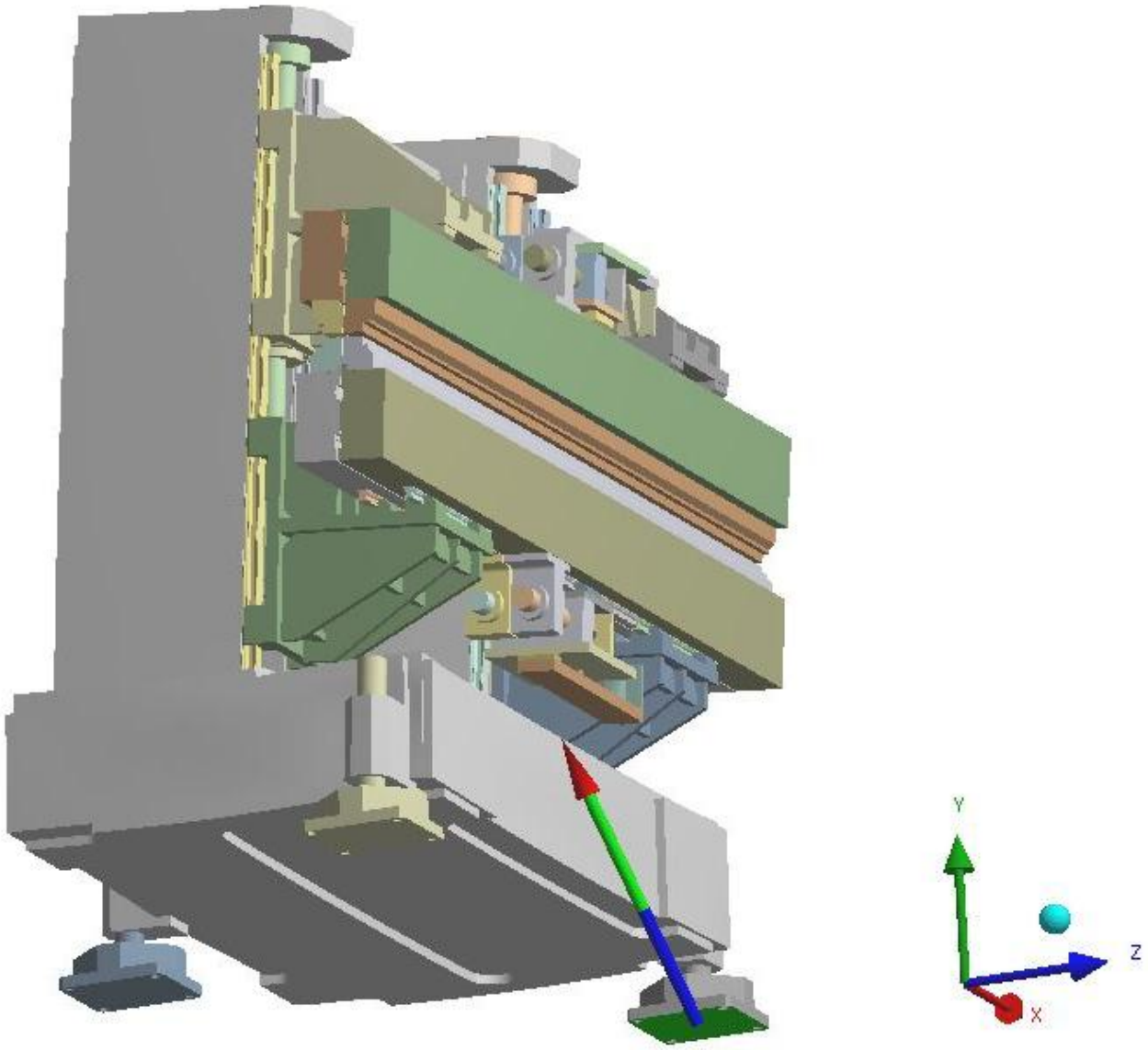
$F_{A,x}$ =	-42 N
$F_{A,y}$ =	-7143 N
$F_{A,z}$ =	10494 N
$F_{A,tot}$ =	12694 N

Reaction force B:



$F_{B,x}$ =	8658 N
$F_{B,y}$ =	23947 N
$F_{B,z}$ =	-7500 N
$F_{B,tot}$ =	26545 N

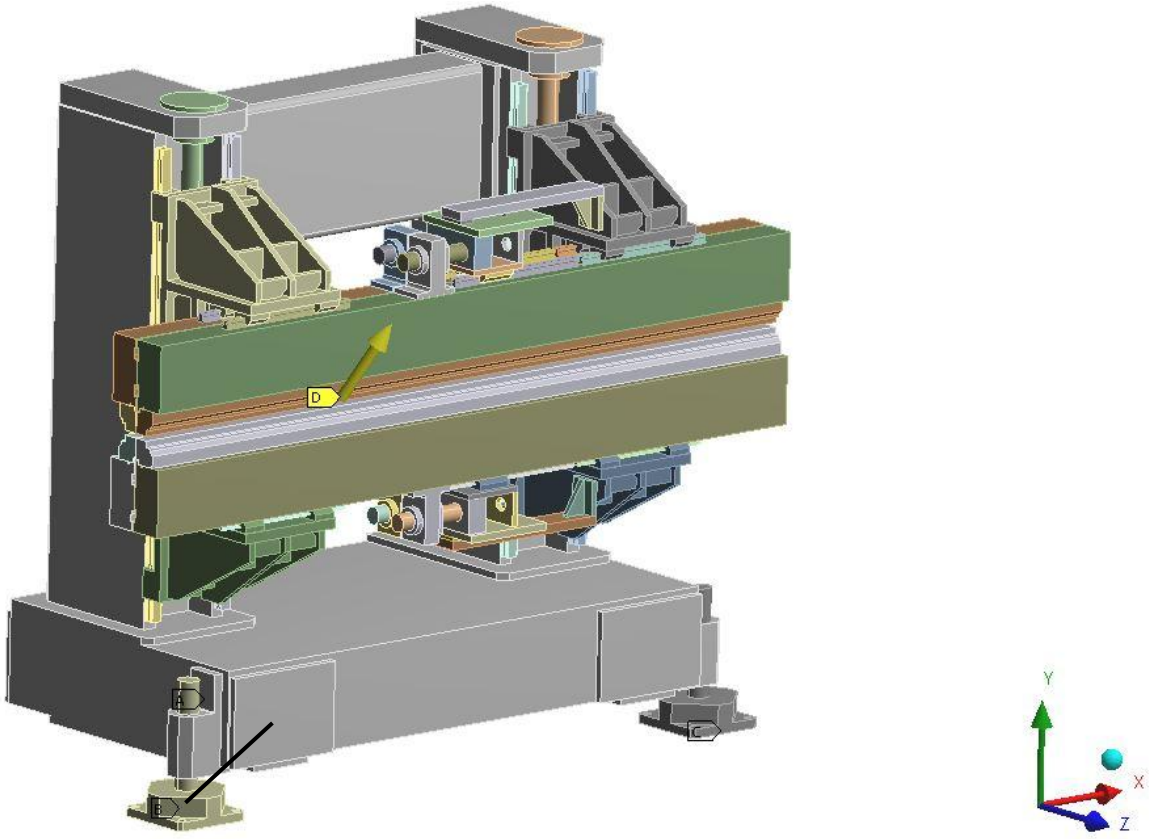
Reaction force C:



$F_{C,x}$ =	-8615 N
$F_{C,y}$ =	23988 N
$F_{C,z}$ =	7502 N
$F_{C,tot}$ =	26570 N

6.3 0,6 times gravity perpendicular to axis between leg in front and rear leg

6.3.1 Boundary conditions



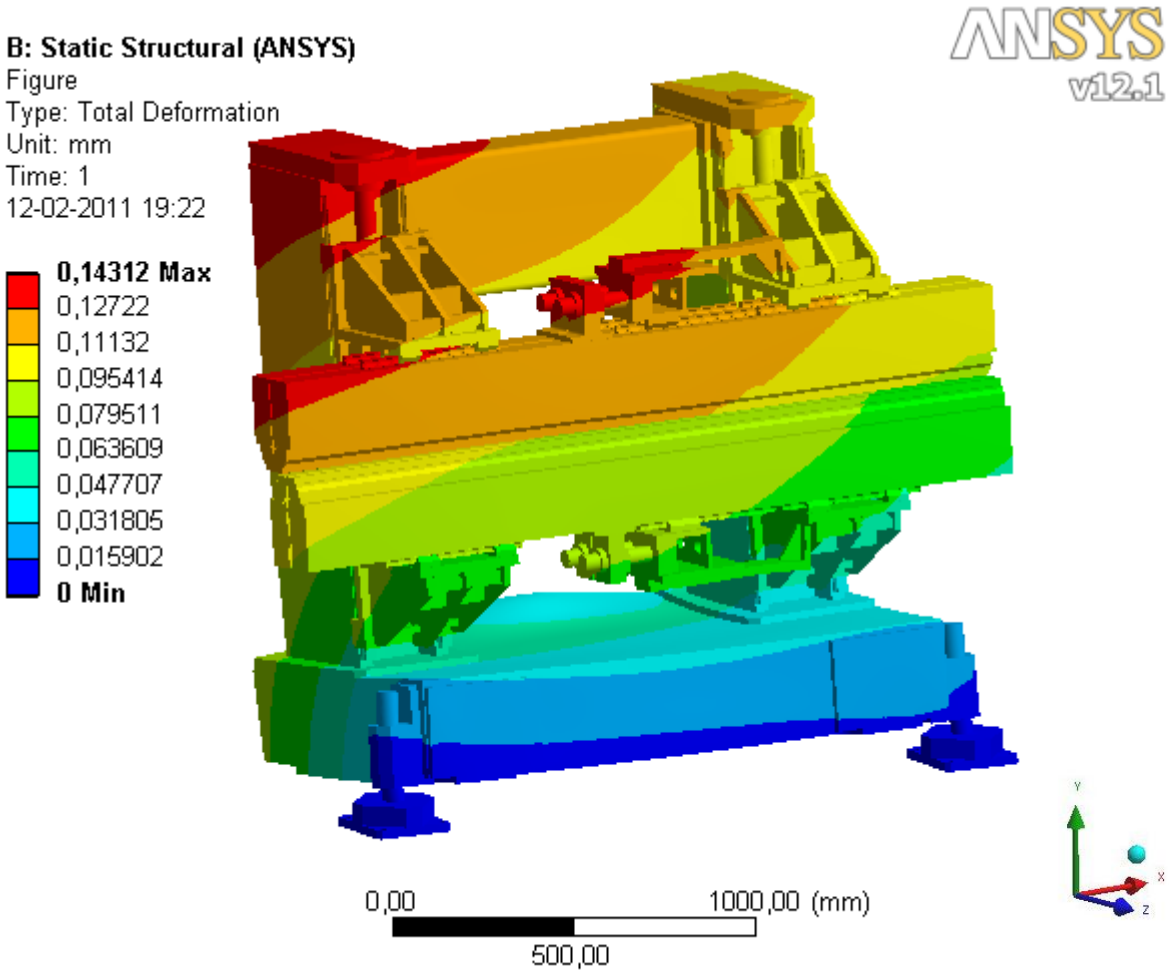
A, B, C: The feets are fully constrained

D: Earth gravity + 0,6 times earth gravity acting perpendicular to the axis going between one front leg and the rear leg.

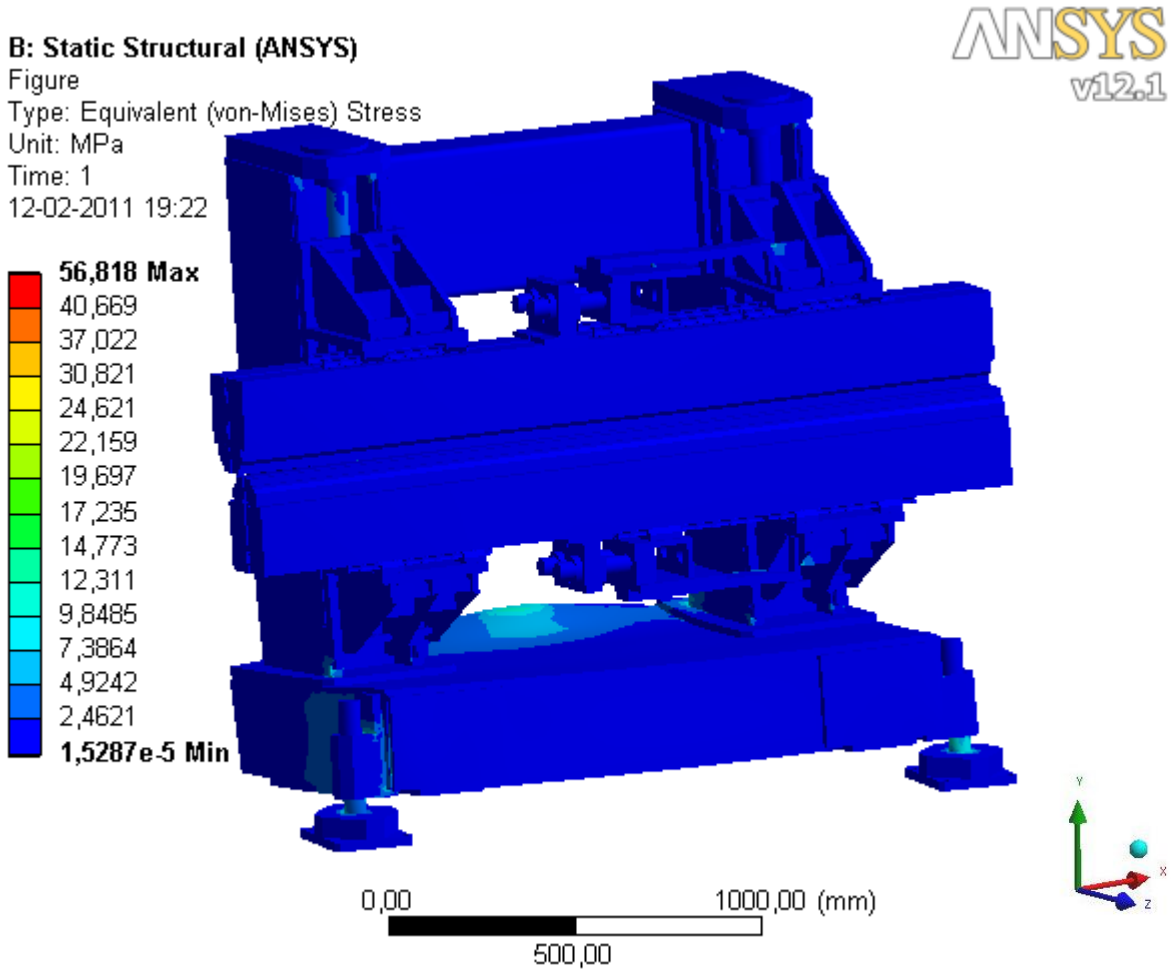
X: 12 cos(45) = 5.1 m/s^2
Y: 9.81 x 4200/3400 = 12 m/s^2
Z: 12 sin(45) = 5.1 m/s^2

6.3.2 Results

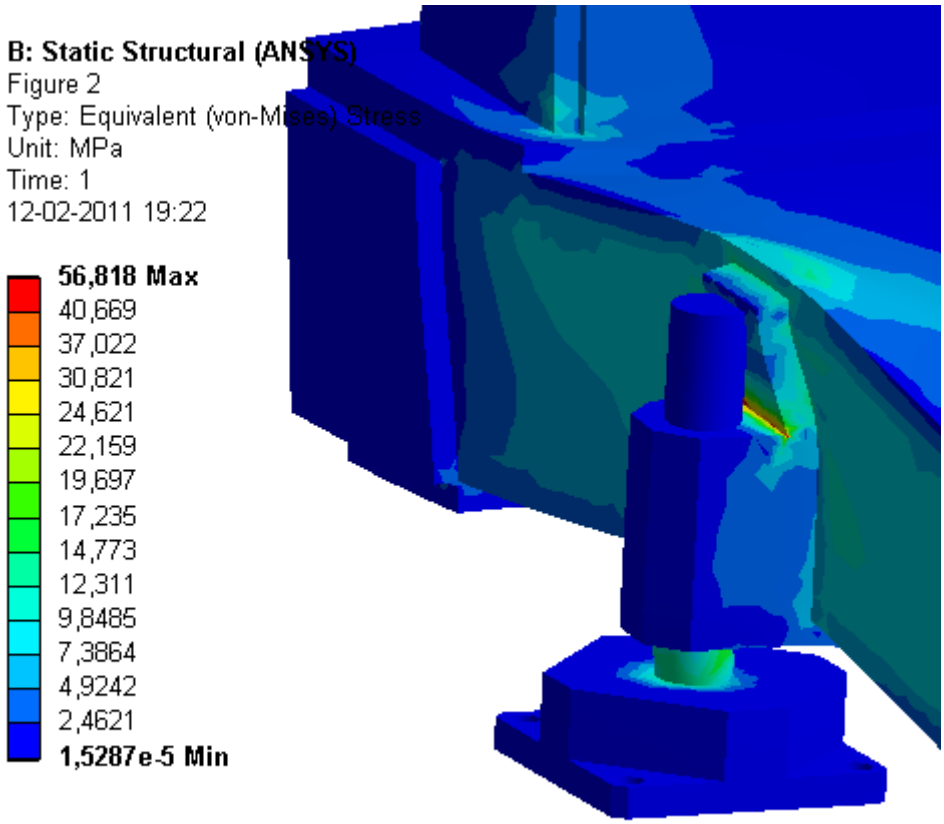
Total Deformation (mm):



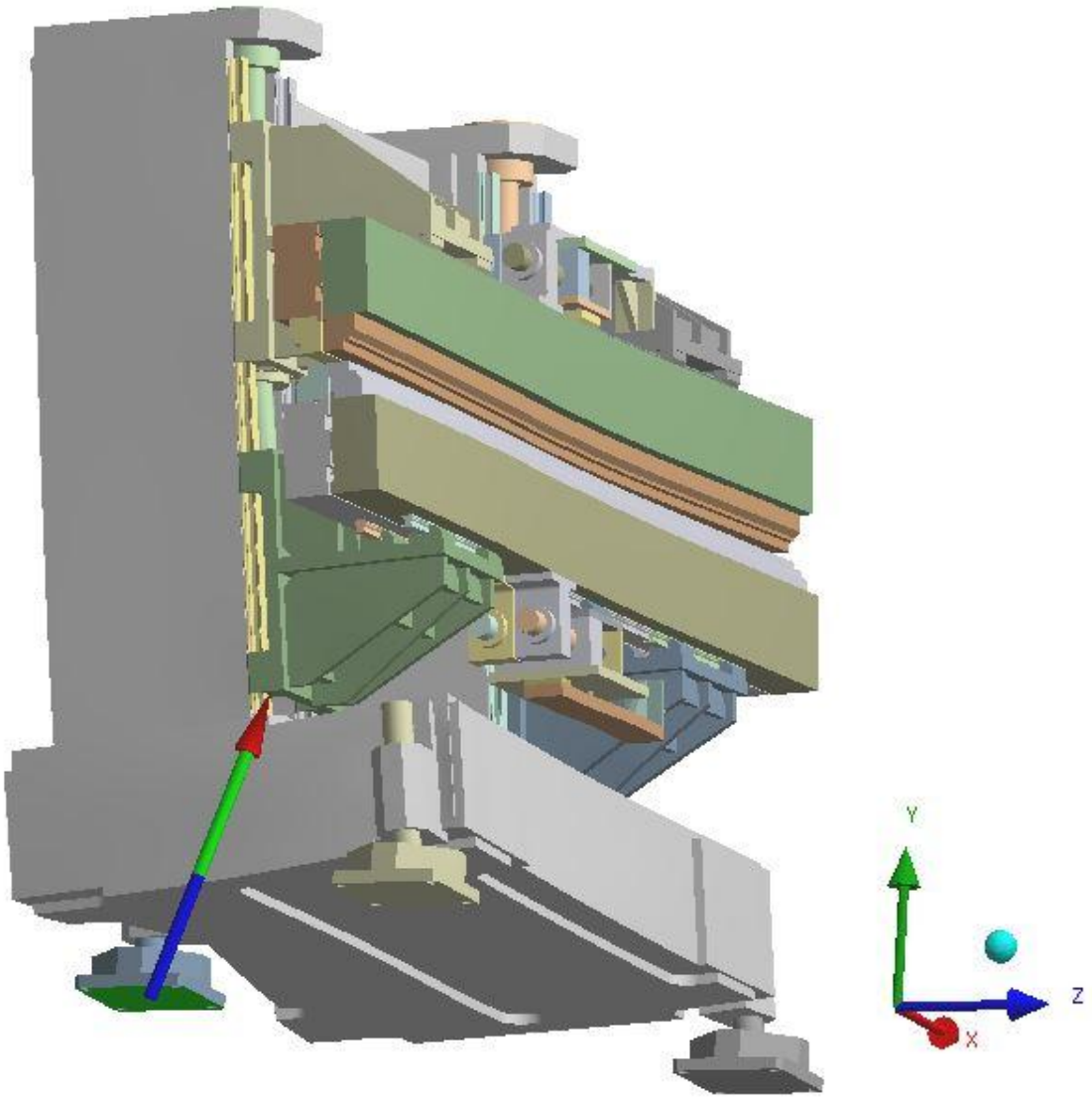
Equivalent stress (MPa):



Equivalent stress (MPa):

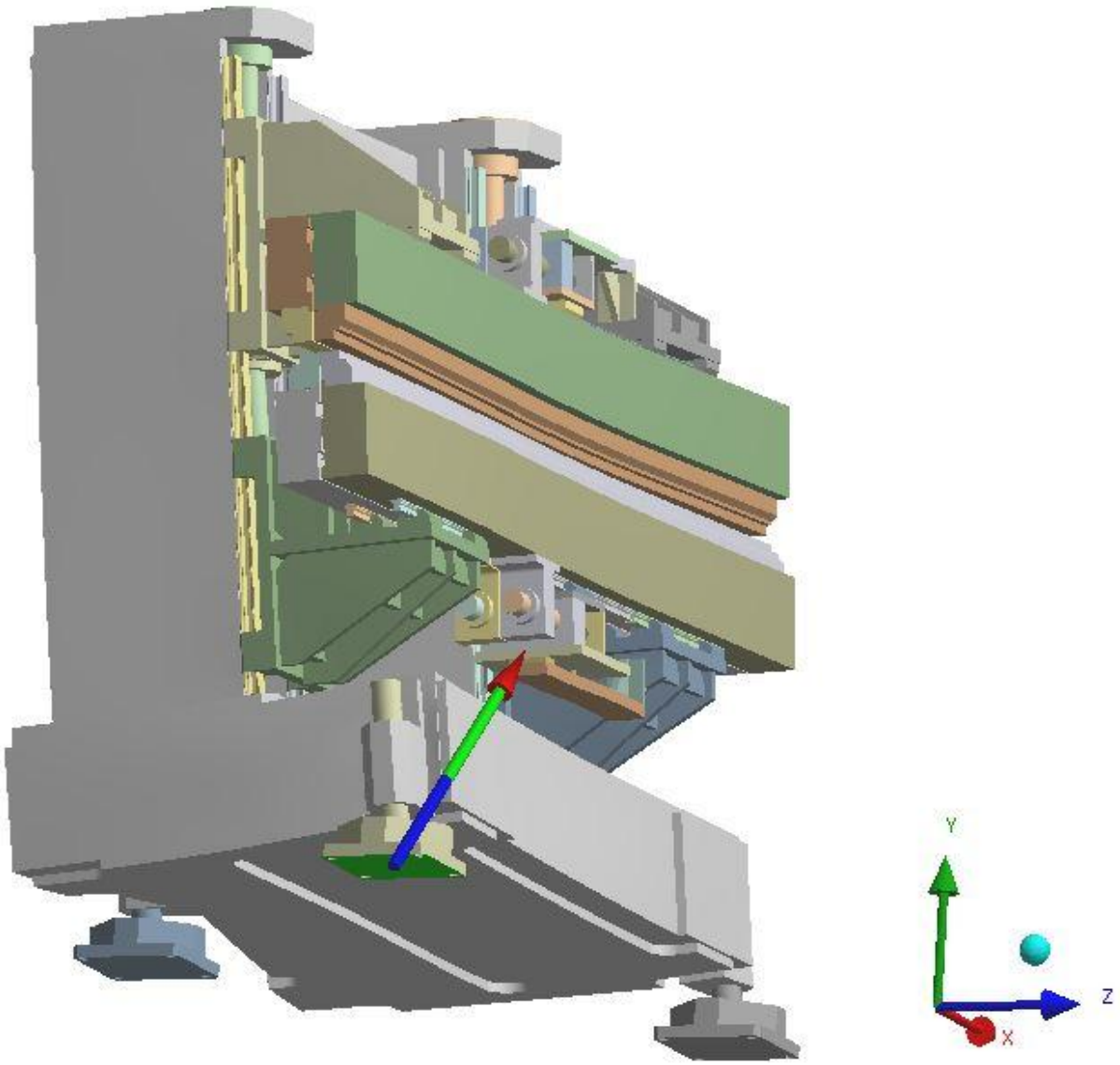


Reaction force A:



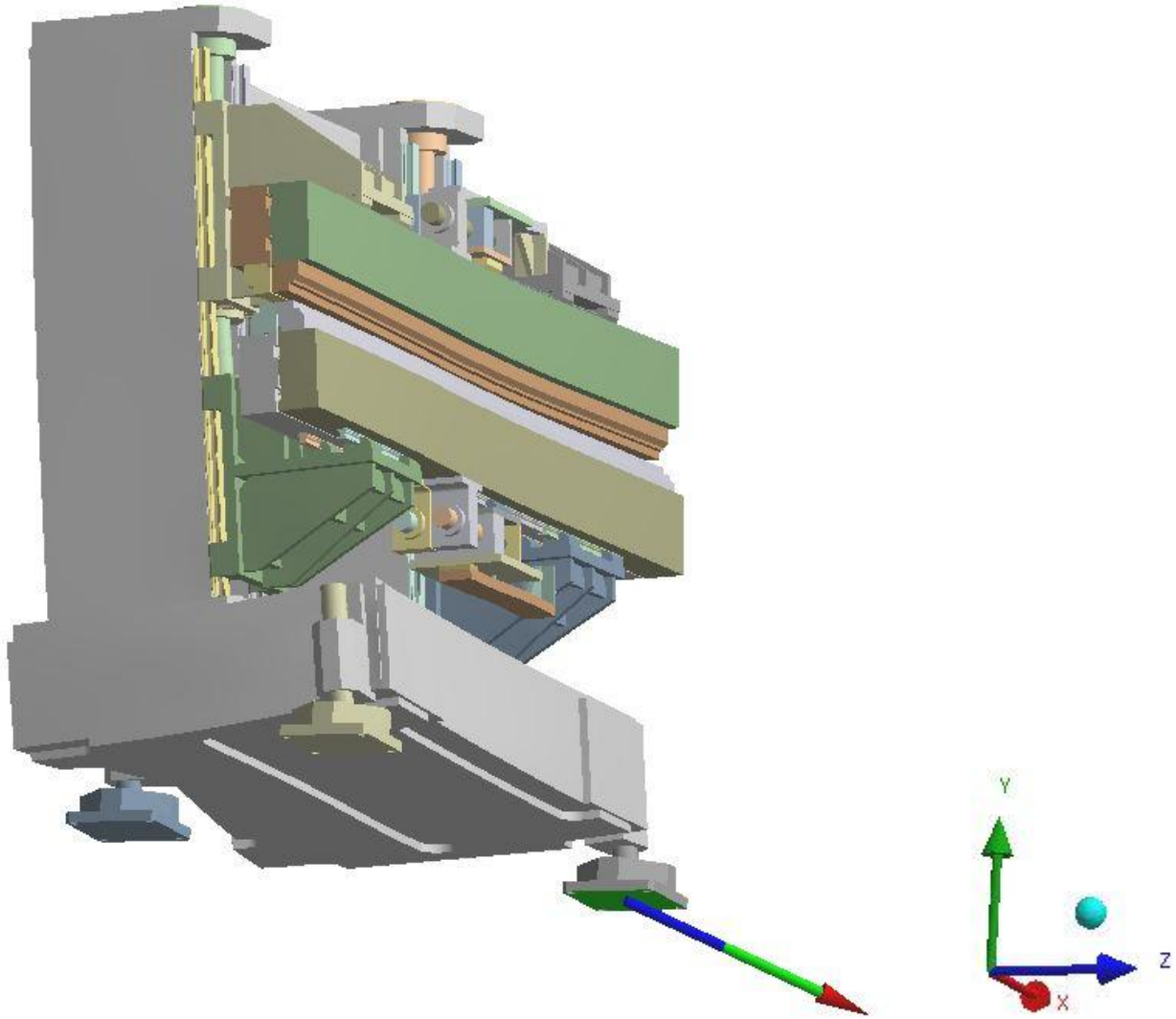
$F_{A,x}$ =	3330 N
$F_{A,y}$ =	30275 N
$F_{A,z}$ =	9302 N
$F_{A,tot}$ =	31846 N

Reaction force B:



$F_{B,x}$ =	9411 N
$F_{B,y}$ =	13117 N
$F_{B,z}$ =	2674 N
$F_{B,tot}$ =	16364 N

Reaction force C:



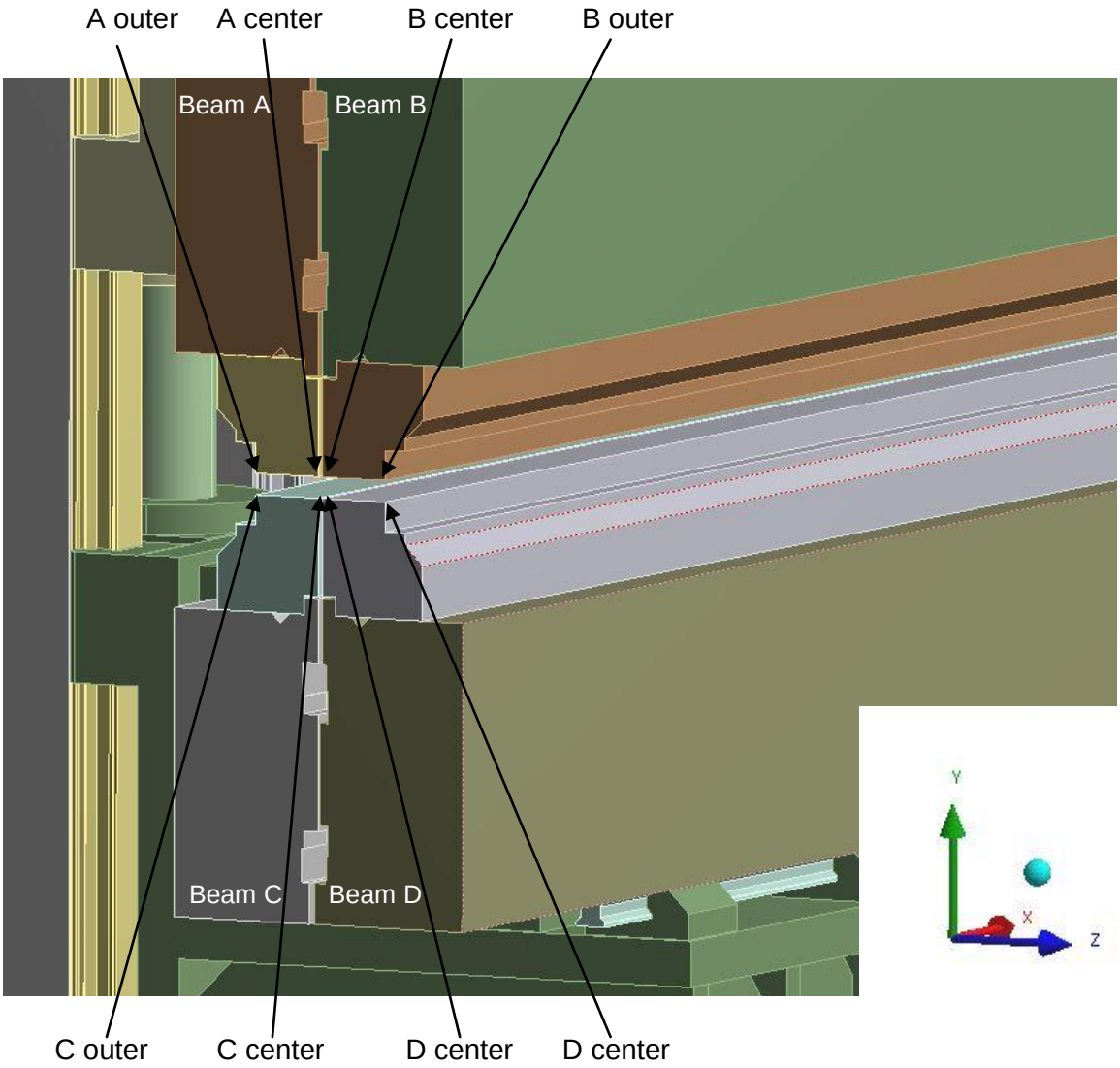
$F_{C,x}$ =	5275 N
$F_{C,y}$ =	-2599 N
$F_{C,z}$ =	6040 N
$F_{C,tot}$ =	8430 N

Appendix 1 - Deformation of edges on magnetic beams

1. Definition and description of edges

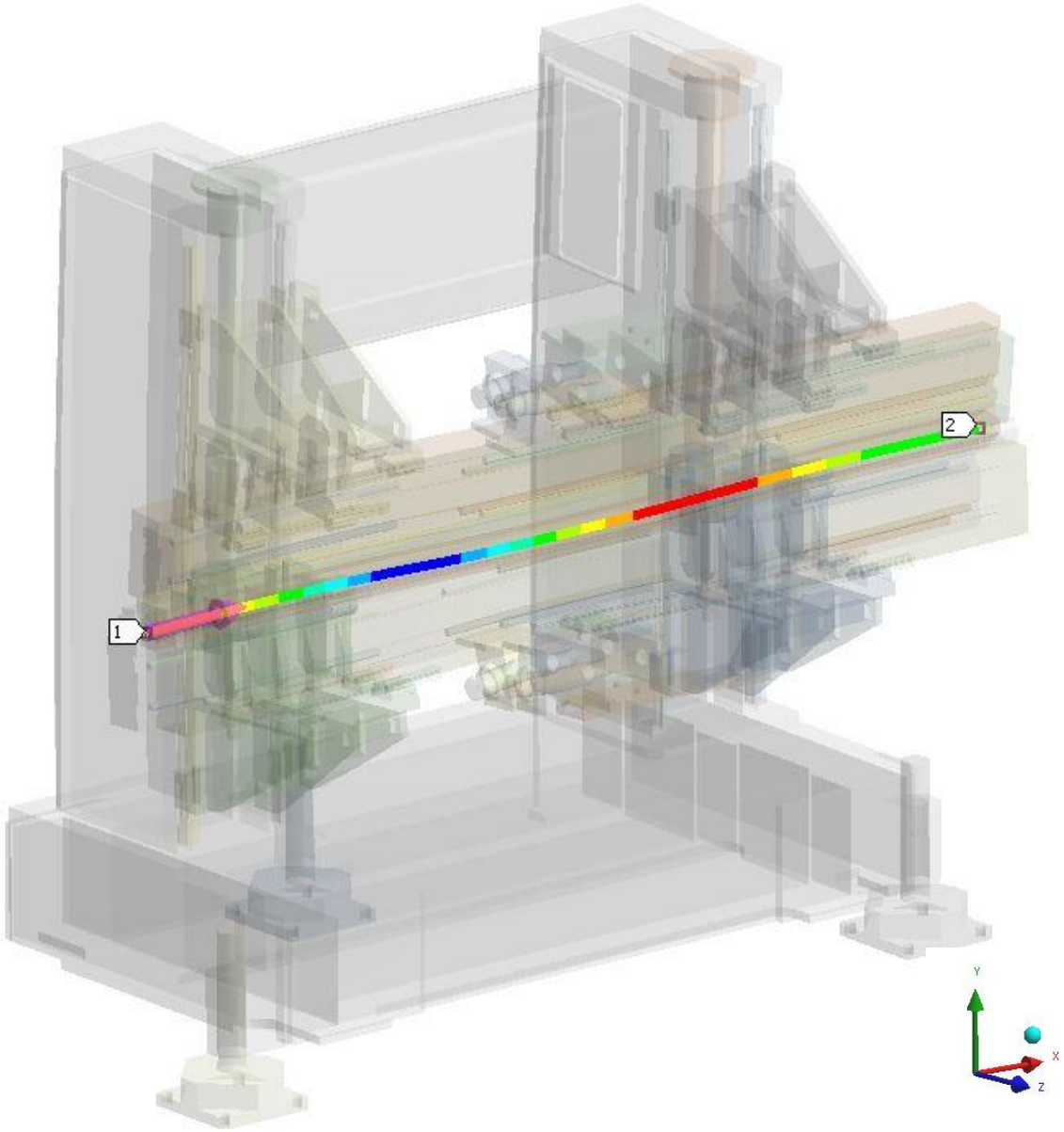
Deformation along the outer and center edge on all the magnetic beams has been withdrawn for every 100mm.

1.1 Description of edges names



The deformation of each edge is shown in the X, Y and Z direction. Axis orientation like in the picture.

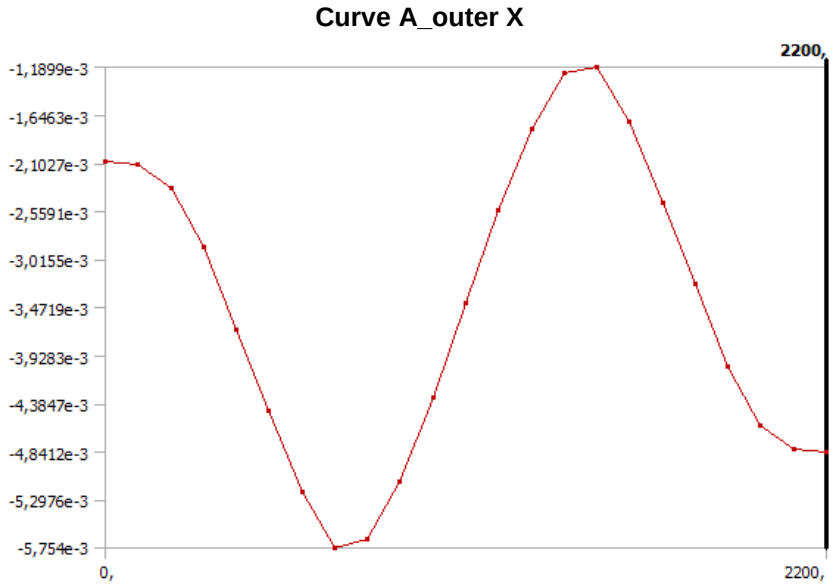
1.2 Illustration of edge



Curves have been placed on the edges with a measure point for every 100mm, starting from point 1 going against point 2.

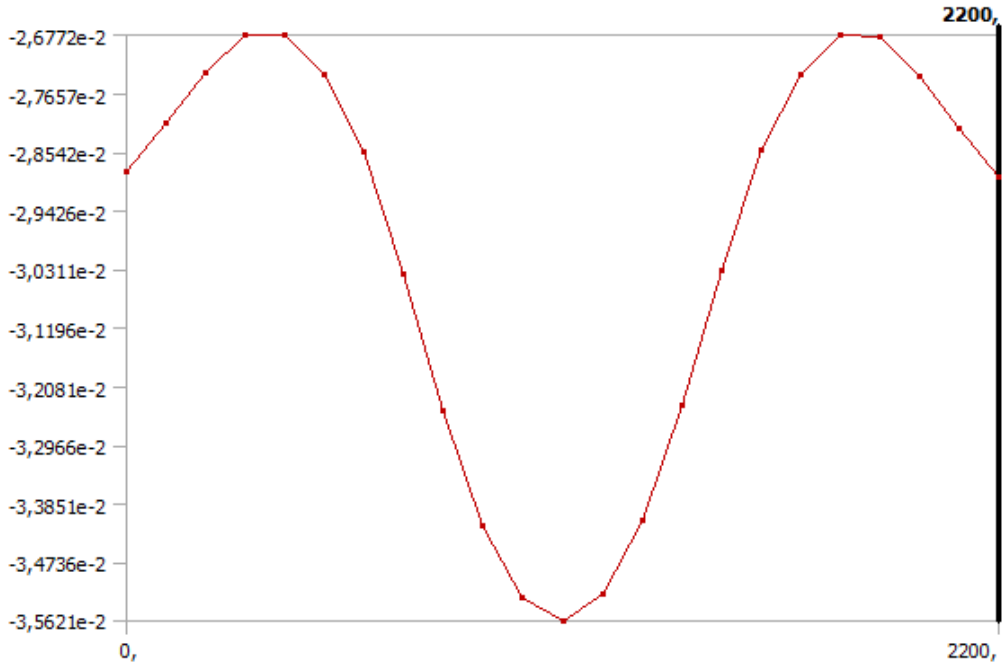
2 Results

2.1 Load case 1



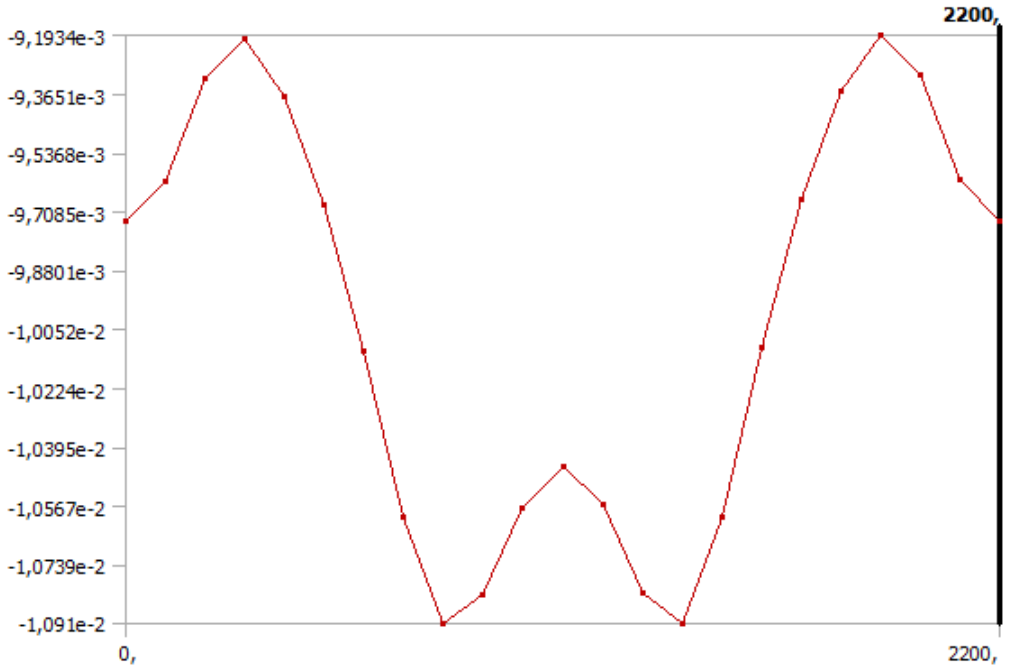
Length [mm]	Value [mm]
0,	-2,0842e-003
100,	-2,1199e-003
200,	-2,3431e-003
300,	-2,8947e-003
400,	-3,6821e-003
500,	-4,4479e-003
600,	-5,2244e-003
700,	-5,754e-003
800,	-5,6764e-003
900,	-5,1178e-003
1000,	-4,3205e-003
1100,	-3,4323e-003
1200,	-2,5546e-003
1300,	-1,7769e-003
1400,	-1,25e-003
1500,	-1,1899e-003
1600,	-1,7142e-003
1700,	-2,4835e-003
1800,	-3,2493e-003
1900,	-4,0386e-003
2000,	-4,5913e-003
2100,	-4,8145e-003
2200,	-4,8501e-003

Curve A_outer Y



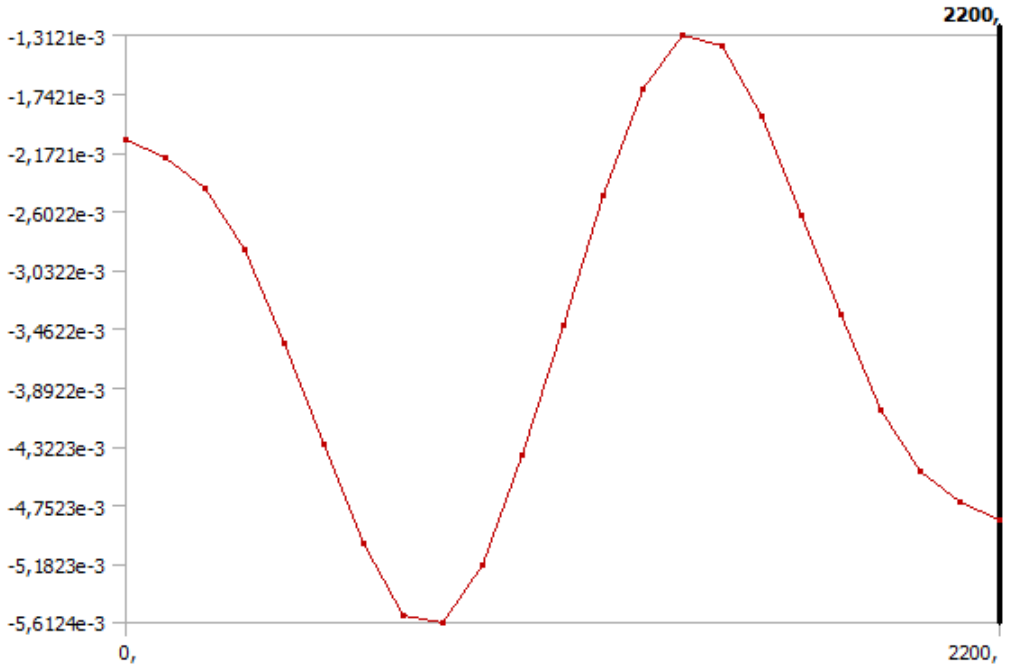
Length [mm]	Value [mm]
0,	-2,8837e-002
100,	-2,8113e-002
200,	-2,7354e-002
300,	-2,6784e-002
400,	-2,6772e-002
500,	-2,7376e-002
600,	-2,8528e-002
700,	-3,0386e-002
800,	-3,2456e-002
900,	-3,4179e-002
1000,	-3,5267e-002
1100,	-3,5621e-002
1200,	-3,5218e-002
1300,	-3,4094e-002
1400,	-3,2362e-002
1500,	-3,0323e-002
1600,	-2,8498e-002
1700,	-2,7365e-002
1800,	-2,6776e-002
1900,	-2,6807e-002
2000,	-2,7399e-002
2100,	-2,8179e-002
2200,	-2,8924e-002

Curve A_outer Z



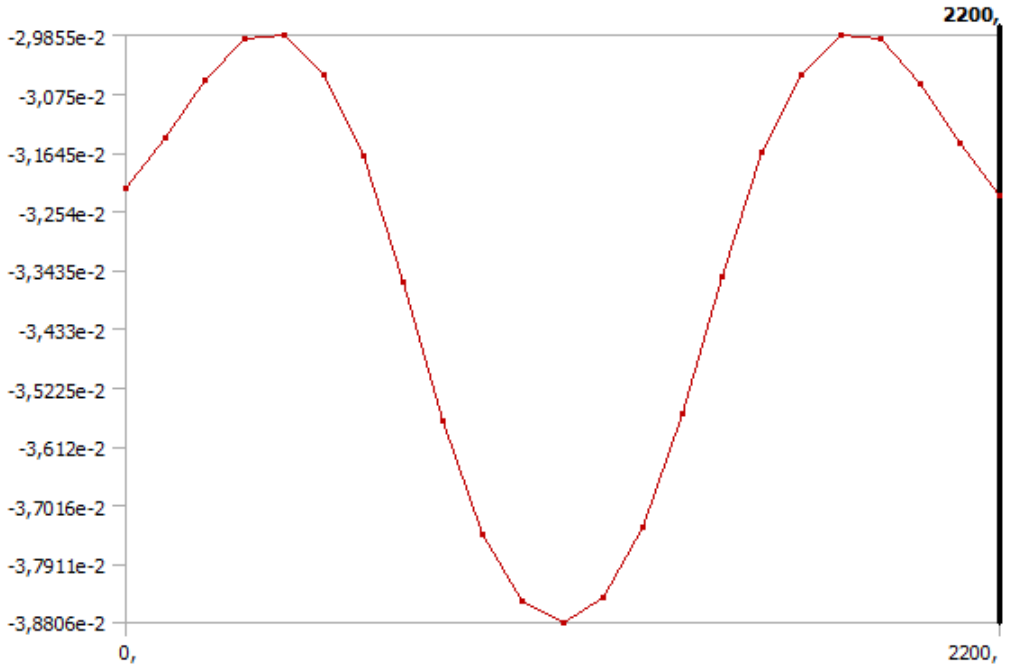
Length [mm]	Value [mm]
0,	-9,7365e-003
100,	-9,6182e-003
200,	-9,3175e-003
300,	-9,2064e-003
400,	-9,3721e-003
500,	-9,6896e-003
600,	-1,0113e-002
700,	-1,06e-002
800,	-1,0909e-002
900,	-1,0826e-002
1000,	-1,0574e-002
1100,	-1,0454e-002
1200,	-1,0563e-002
1300,	-1,082e-002
1400,	-1,091e-002
1500,	-1,0601e-002
1600,	-1,0105e-002
1700,	-9,6728e-003
1800,	-9,3545e-003
1900,	-9,1934e-003
2000,	-9,3089e-003
2100,	-9,613e-003
2200,	-9,7338e-003

Curve A_center X



Length [mm]	Value [mm]
0,	-2,0767e-003
100,	-2,2107e-003
200,	-2,429e-003
300,	-2,8761e-003
400,	-3,5693e-003
500,	-4,3019e-003
600,	-5,0314e-003
700,	-5,5554e-003
800,	-5,6124e-003
900,	-5,1862e-003
1000,	-4,3892e-003
1100,	-3,435e-003
1200,	-2,4867e-003
1300,	-1,7058e-003
1400,	-1,3121e-003
1500,	-1,3897e-003
1600,	-1,9112e-003
1700,	-2,6322e-003
1800,	-3,3613e-003
1900,	-4,0555e-003
2000,	-4,5039e-003
2100,	-4,7226e-003
2200,	-4,8566e-003

Curve A_center Y



Length [mm]	Value [mm]
0,	-3,22e-002
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200,	-3,0551e-002
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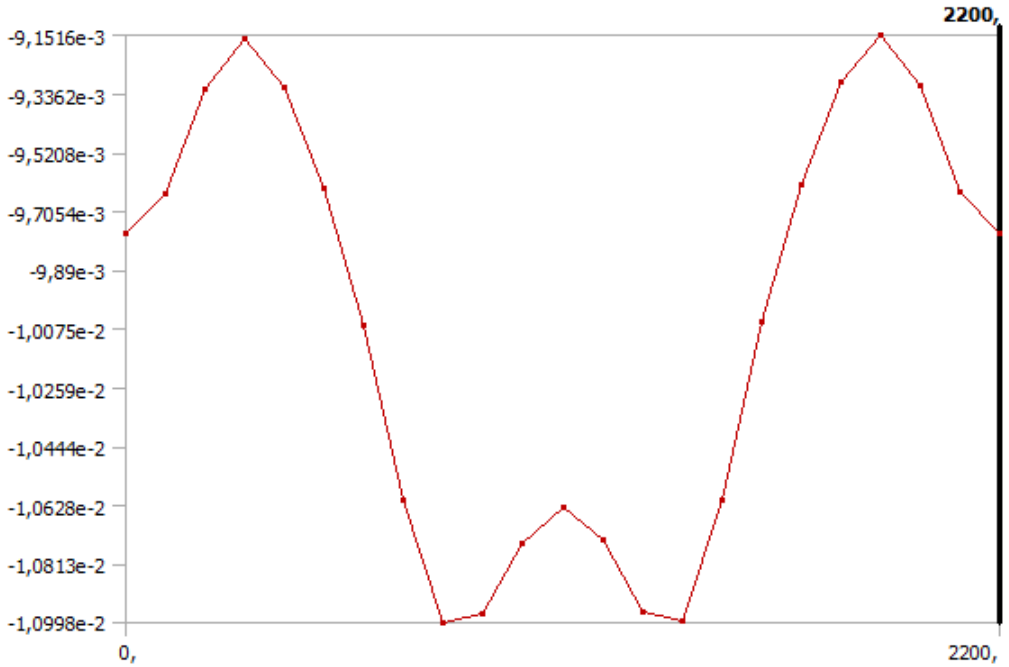
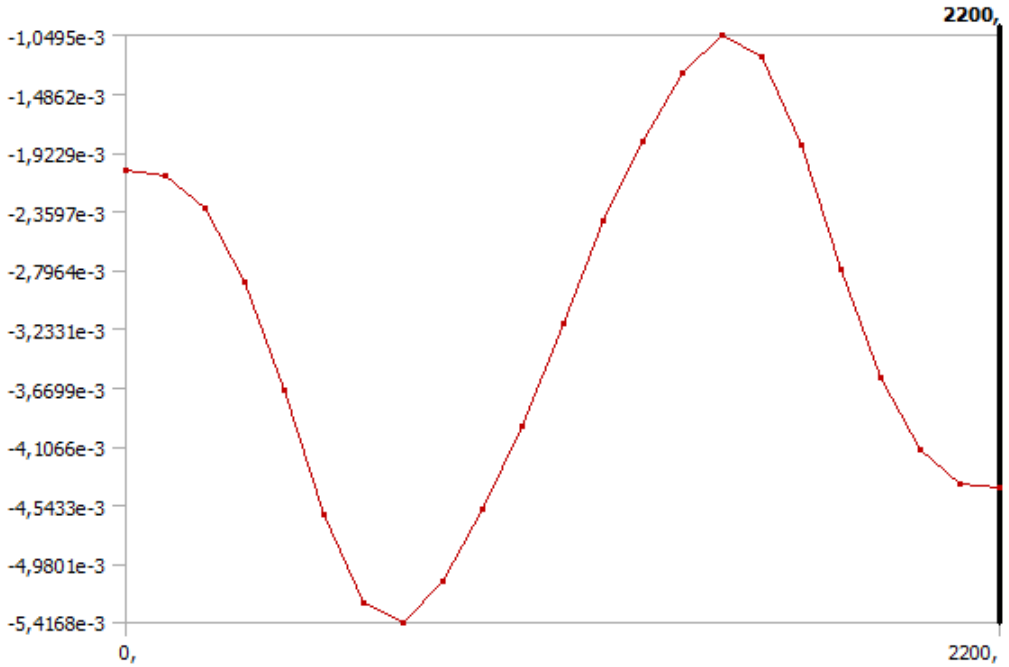
500,	-3,0471e-002
600,	-3,1683e-002
700,	-3,3606e-002
800,	-3,5729e-002
900,	-3,745e-002
1000,	-3,8486e-002
1100,	-3,8806e-002
1200,	-3,8432e-002
1300,	-3,7358e-002
1400,	-3,563e-002
1500,	-3,3539e-002
1600,	-3,1649e-002
1700,	-3,0455e-002
1800,	-2,9856e-002
1900,	-2,9918e-002
2000,	-3,0595e-002
2100,	-3,1492e-002
2200,	-3,2288e-002

Curve A_center Z



Length [mm]	Value [mm]
0,	-9,7751e-003
100,	-9,6509e-003
200,	-9,3198e-003
300,	-9,1649e-003
400,	-9,3139e-003
500,	-9,6358e-003
600,	-1,0061e-002
700,	-1,0612e-002
800,	-1,0998e-002
900,	-1,0971e-002
1000,	-1,0748e-002
1100,	-1,0636e-002
1200,	-1,0736e-002
1300,	-1,0962e-002
1400,	-1,0995e-002
1500,	-1,0612e-002
1600,	-1,0055e-002
1700,	-9,6197e-003
1800,	-9,2962e-003
1900,	-9,1516e-003
2000,	-9,3111e-003
2100,	-9,6456e-003
2200,	-9,7723e-003

Curve B_outer X



Length [mm]	Value [mm]
0,	-2,058e-003
100,	-2,0902e-003
200,	-2,3382e-003
300,	-2,8831e-003
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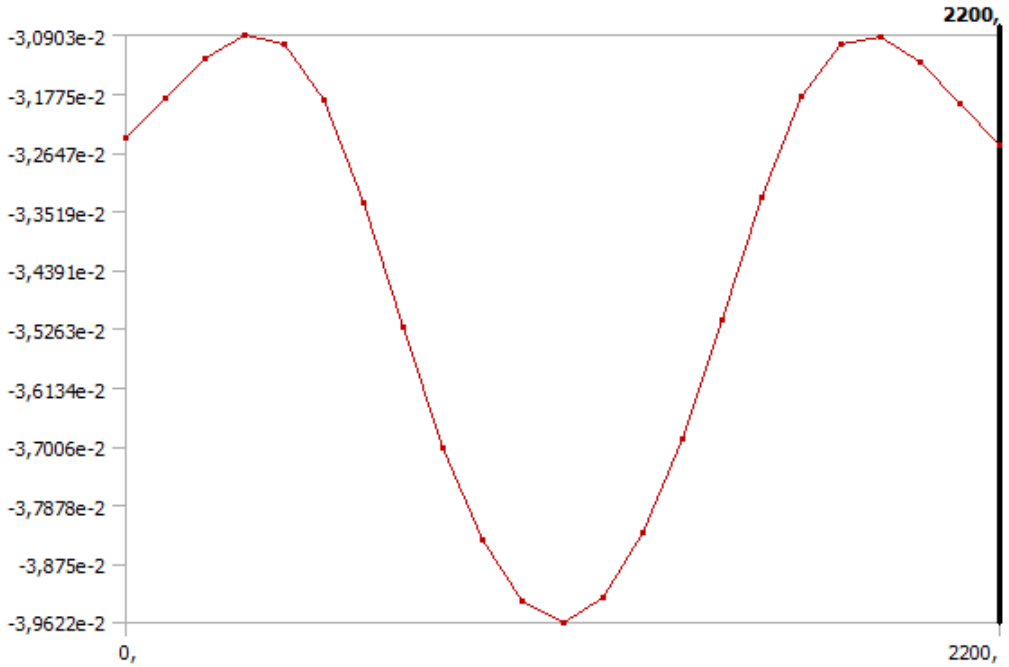
500,	-4,6099e-003
600,	-5,2681e-003
700,	-5,4168e-003
800,	-5,1101e-003
900,	-4,5665e-003
1000,	-3,9589e-003
1100,	-3,1903e-003
1200,	-2,4285e-003
1300,	-1,8346e-003
1400,	-1,3248e-003
1500,	-1,0495e-003
1600,	-1,2112e-003
1700,	-1,8697e-003
1800,	-2,7859e-003
1900,	-3,5888e-003
2000,	-4,1333e-003
2100,	-4,382e-003
2200,	-4,4144e-003

Curve B_outer Y



Length [mm]	Value [mm]
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300,	-3,0903e-002
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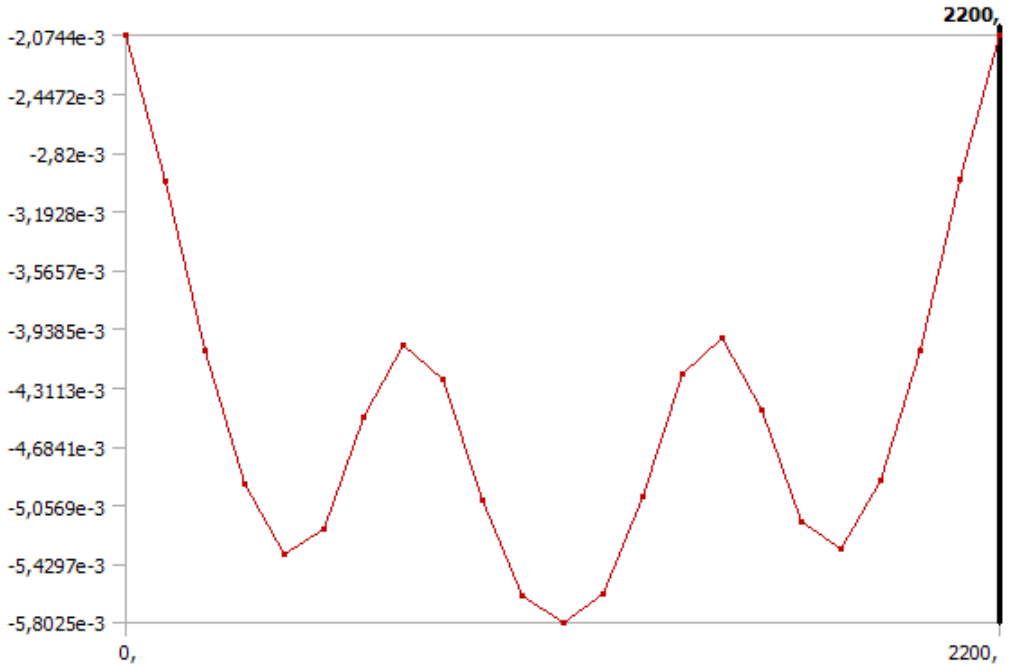
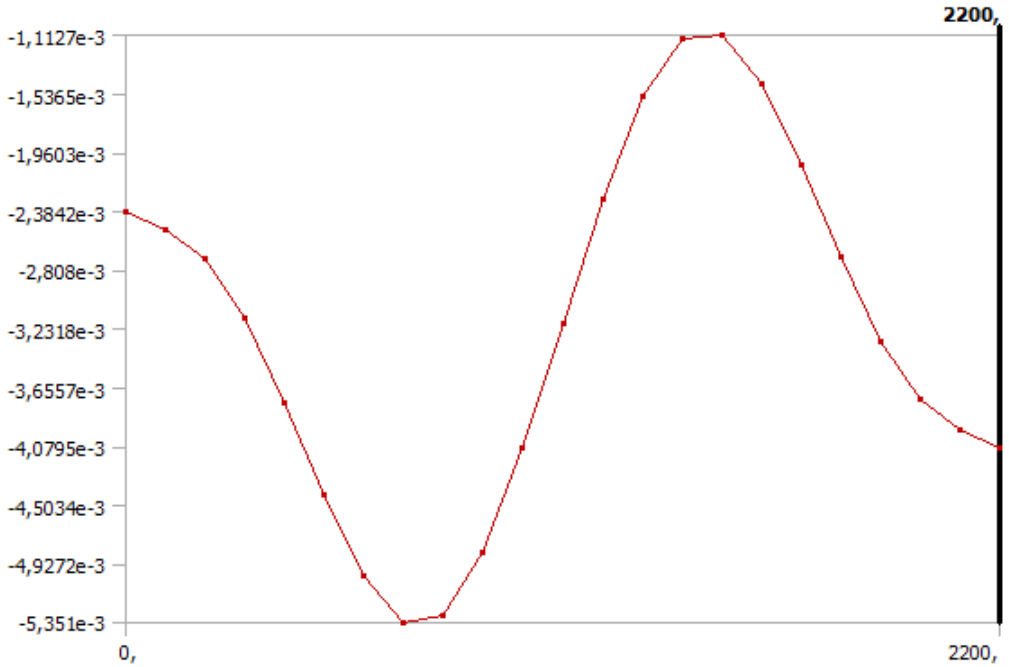
500,	-3,1863e-002
600,	-3,3385e-002
700,	-3,5243e-002
800,	-3,7027e-002
900,	-3,84e-002
1000,	-3,9303e-002
1100,	-3,9622e-002
1200,	-3,9248e-002
1300,	-3,8293e-002
1400,	-3,6891e-002
1500,	-3,5122e-002
1600,	-3,33e-002
1700,	-3,1818e-002
1800,	-3,1027e-002
1900,	-3,0921e-002
2000,	-3,1309e-002
2100,	-3,1921e-002
2200,	-3,2529e-002

Curve B_outer Z



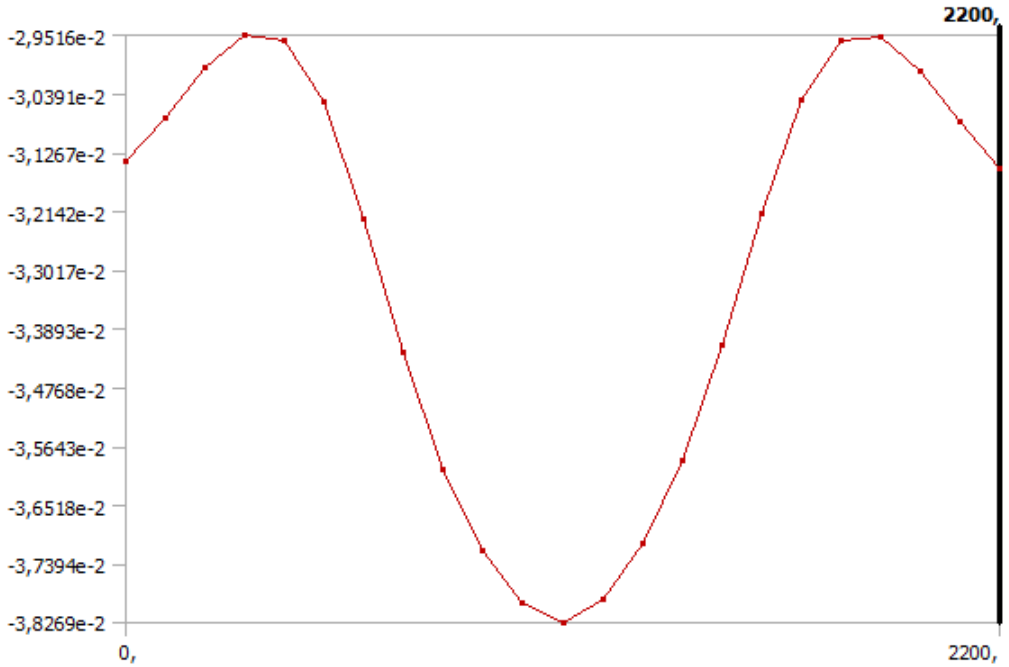
Length [mm]	Value [mm]
0,	-2,0752e-003
100,	-2,9962e-003
200,	-4,0807e-003
300,	-4,9193e-003
400,	-5,3641e-003
500,	-5,2045e-003
600,	-4,5036e-003
700,	-4,0412e-003
800,	-4,2616e-003
900,	-5,021e-003
1000,	-5,6277e-003
1100,	-5,8025e-003
1200,	-5,6247e-003
1300,	-5,0022e-003
1400,	-4,2278e-003
1500,	-3,9986e-003
1600,	-4,4565e-003
1700,	-5,1593e-003
1800,	-5,3303e-003
1900,	-4,8995e-003
2000,	-4,0711e-003
2100,	-2,9923e-003
2200,	-2,0744e-003

Curve B_center X



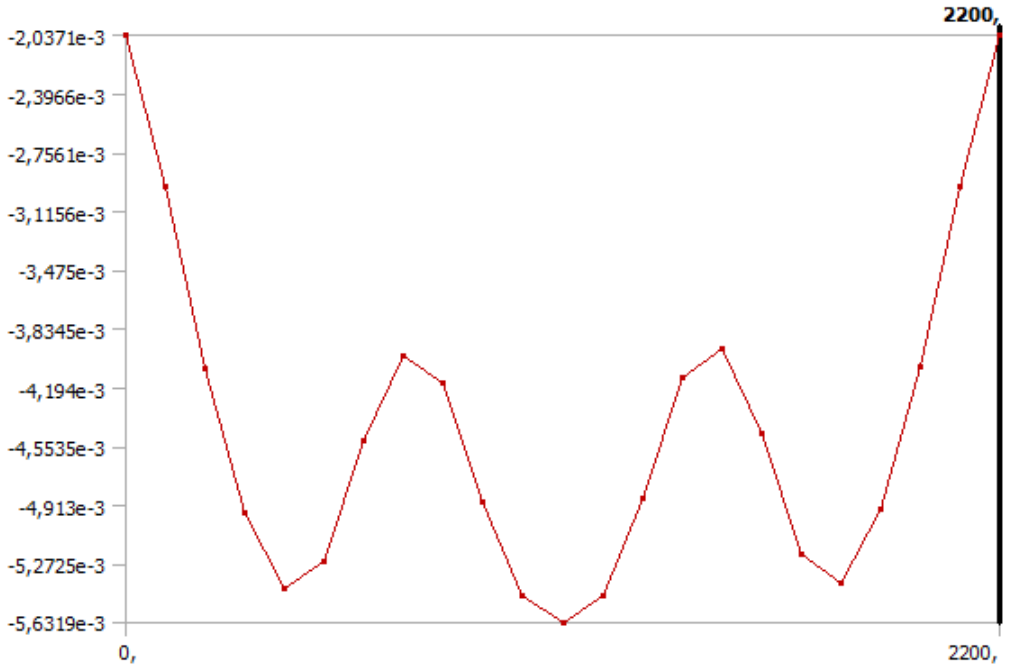
Length [mm]	Value [mm]
0,	-2,3825e-003
100,	-2,5166e-003
200,	-2,7299e-003
300,	-3,1484e-003
400,	-3,7695e-003
500,	-4,4339e-003
600,	-5,0141e-003
700,	-5,351e-003
800,	-5,2985e-003
900,	-4,8446e-003
1000,	-4,0904e-003
1100,	-3,1898e-003
1200,	-2,2923e-003
1300,	-1,551e-003
1400,	-1,1323e-003
1500,	-1,1127e-003
1600,	-1,4648e-003
1700,	-2,0484e-003
1800,	-2,7102e-003
1900,	-3,328e-003
2000,	-3,7445e-003
2100,	-3,9571e-003
2200,	-4,091e-003

Curve B_center Y



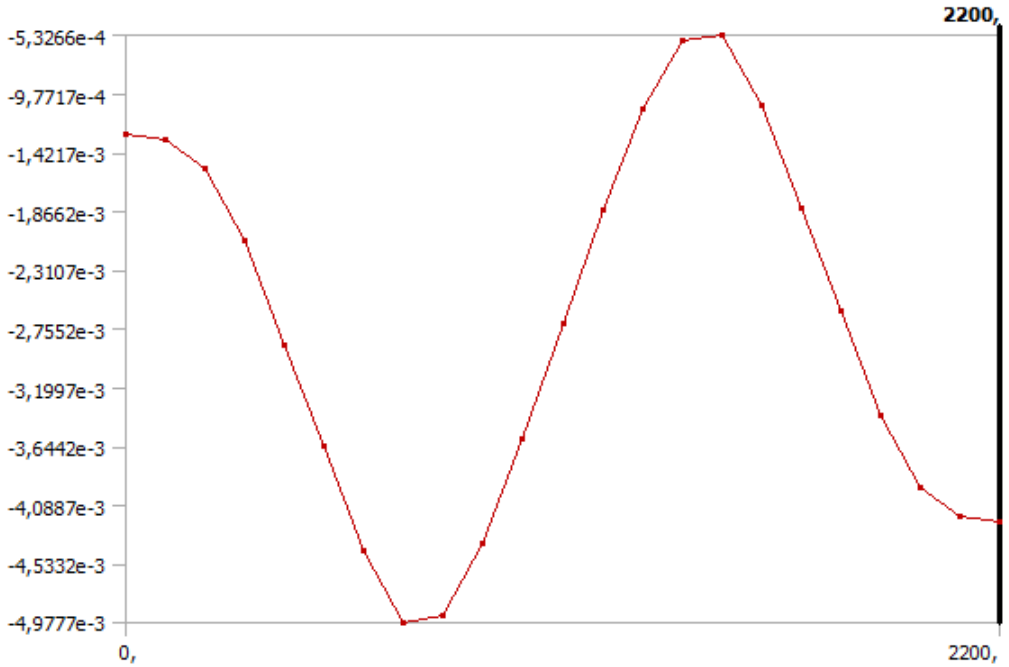
Length [mm]	Value [mm]
0,	-3,1394e-002
100,	-3,0743e-002
200,	-3,0006e-002
300,	-2,9516e-002
400,	-2,96e-002
500,	-3,051e-002
600,	-3,2244e-002
700,	-3,424e-002
800,	-3,5991e-002
900,	-3,7206e-002
1000,	-3,7986e-002
1100,	-3,8269e-002
1200,	-3,7926e-002
1300,	-3,7095e-002
1400,	-3,5854e-002
1500,	-3,4122e-002
1600,	-3,2166e-002
1700,	-3,0474e-002
1800,	-2,9595e-002
1900,	-2,9537e-002
2000,	-3,0051e-002
2100,	-3,0815e-002
2200,	-3,1495e-002

Curve B_center Z



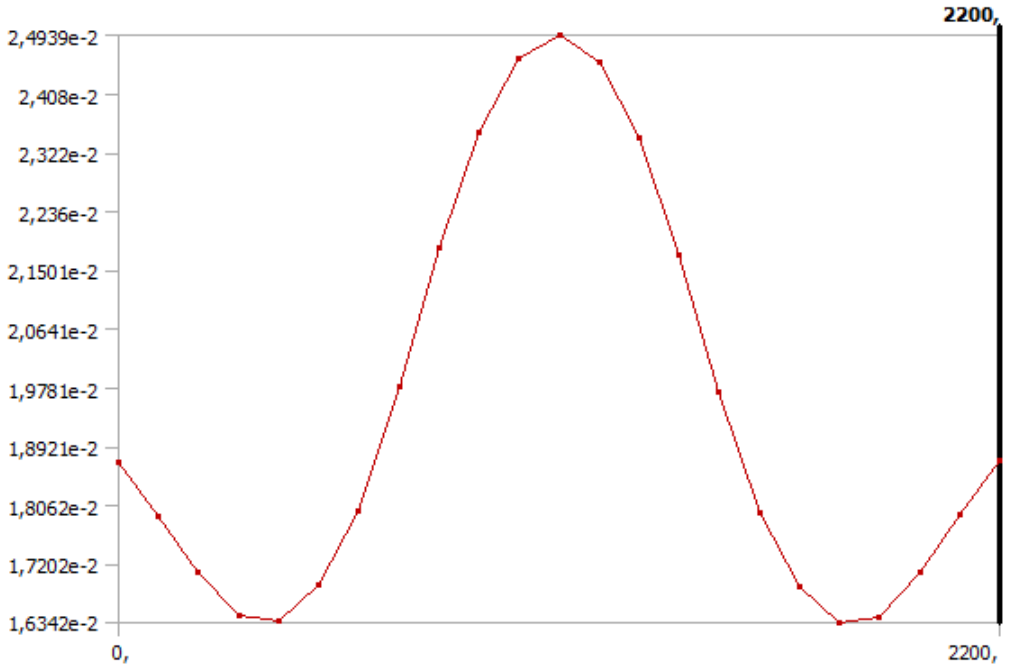
Length [mm]	Value [mm]
0,	-2,0379e-003
100,	-2,9652e-003
200,	-4,0801e-003
300,	-4,9566e-003
400,	-5,4246e-003
500,	-5,2619e-003
600,	-4,5176e-003
700,	-3,997e-003
800,	-4,1609e-003
900,	-4,8882e-003
1000,	-5,4696e-003
1100,	-5,6319e-003
1200,	-5,4676e-003
1300,	-4,8728e-003
1400,	-4,1327e-003
1500,	-3,9575e-003
1600,	-4,4715e-003
1700,	-5,2163e-003
1800,	-5,3903e-003
1900,	-4,9365e-003
2000,	-4,0704e-003
2100,	-2,9613e-003
2200,	-2,0371e-003

Curve C_outer X



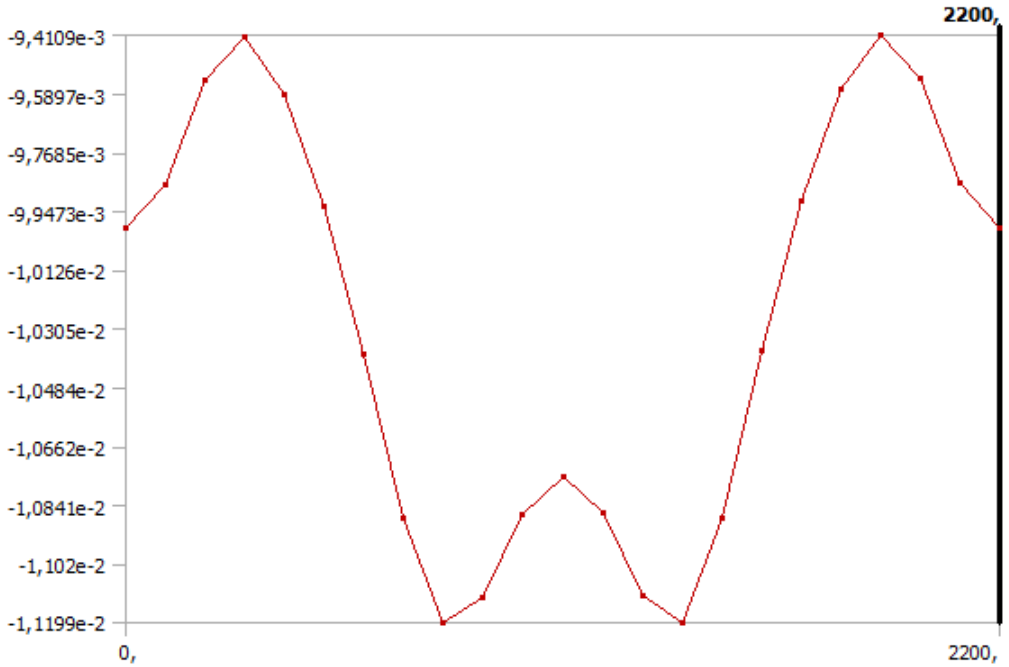
Length [mm]	Value [mm]
0,	-1,2822e-003
100,	-1,3175e-003
200,	-1,5403e-003
300,	-2,0904e-003
400,	-2,877e-003
500,	-3,6466e-003
600,	-4,433e-003
700,	-4,9777e-003
800,	-4,9169e-003
900,	-4,3743e-003
1000,	-3,5917e-003
1100,	-2,7182e-003
1200,	-1,8551e-003
1300,	-1,0915e-003
1400,	-5,7868e-004
1500,	-5,3266e-004
1600,	-1,0697e-003
1700,	-1,8476e-003
1800,	-2,6167e-003
1900,	-3,405e-003
2000,	-3,9564e-003
2100,	-4,1791e-003
2200,	-4,2143e-003

Curve C_outer Y



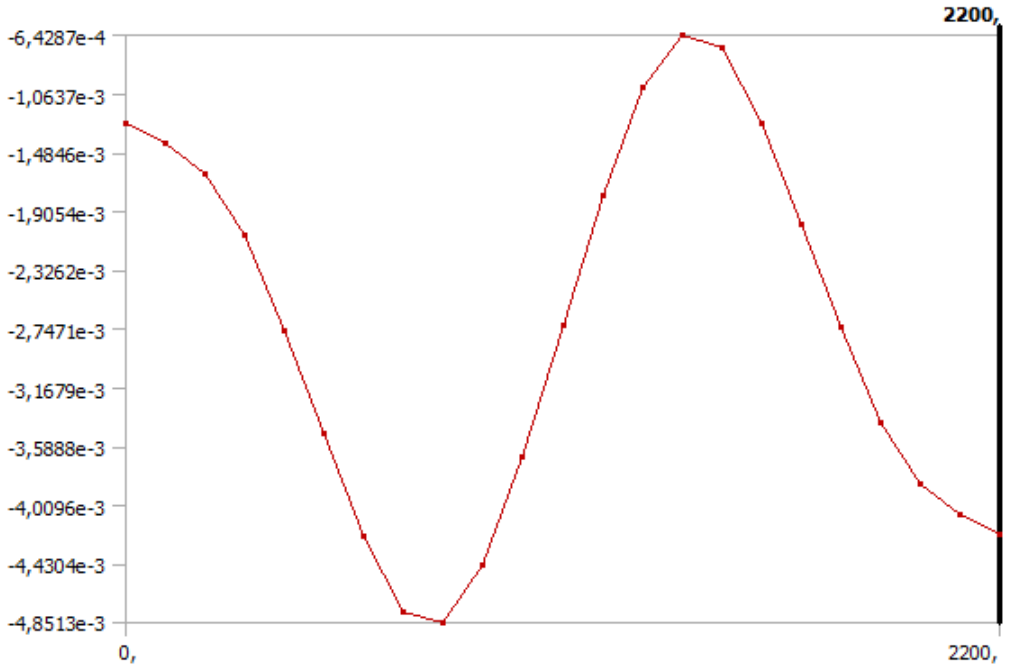
Length [mm]	Value [mm]
0,	1,8683e-002
100,	1,7896e-002
200,	1,7076e-002
300,	1,6444e-002
400,	1,6364e-002
500,	1,6898e-002
600,	1,7985e-002
700,	1,9789e-002
800,	2,1821e-002
900,	2,3518e-002
1000,	2,4591e-002
1100,	2,4939e-002
1200,	2,4541e-002
1300,	2,3432e-002
1400,	2,1726e-002
1500,	1,9722e-002
1600,	1,7944e-002
1700,	1,6869e-002
1800,	1,6342e-002
1900,	1,6433e-002
2000,	1,7079e-002
2100,	1,7913e-002
2200,	1,8713e-002

Curve C_outer Z



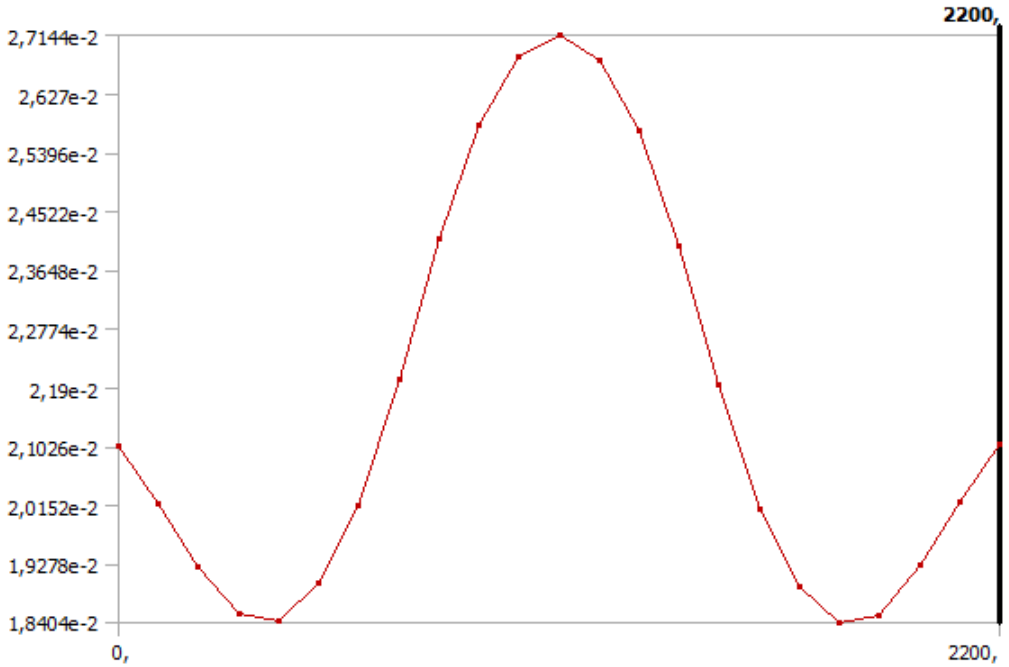
Length [mm]	Value [mm]
0,	-1,e-002
100,	-9,8648e-003
200,	-9,5454e-003
300,	-9,4191e-003
400,	-9,5899e-003
500,	-9,9322e-003
600,	-1,038e-002
700,	-1,0882e-002
800,	-1,1198e-002
900,	-1,112e-002
1000,	-1,0872e-002
1100,	-1,0753e-002
1200,	-1,0862e-002
1300,	-1,1115e-002
1400,	-1,1199e-002
1500,	-1,088e-002
1600,	-1,0369e-002
1700,	-9,9153e-003
1800,	-9,5758e-003
1900,	-9,4109e-003
2000,	-9,5409e-003
2100,	-9,8626e-003
2200,	-9,9989e-003

Curve C_center X



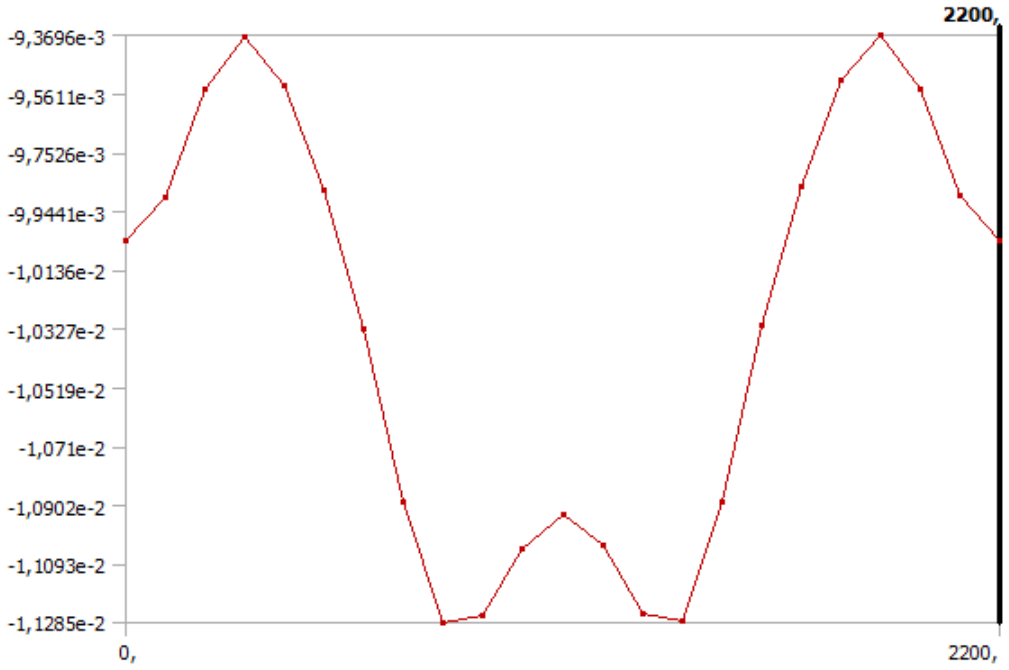
Length [mm]	Value [mm]
0,	-1,2815e-003
100,	-1,4156e-003
200,	-1,6336e-003
300,	-2,0755e-003
400,	-2,7597e-003
500,	-3,4928e-003
600,	-4,2343e-003
700,	-4,7767e-003
800,	-4,8513e-003
900,	-4,4415e-003
1000,	-3,6597e-003
1100,	-2,7207e-003
1200,	-1,7876e-003
1300,	-1,0218e-003
1400,	-6,4287e-004
1500,	-7,3548e-004
1600,	-1,2721e-003
1700,	-2,003e-003
1800,	-2,7323e-003
1900,	-3,4183e-003
2000,	-3,862e-003
2100,	-4,0804e-003
2200,	-4,2145e-003

Curve C_center Y



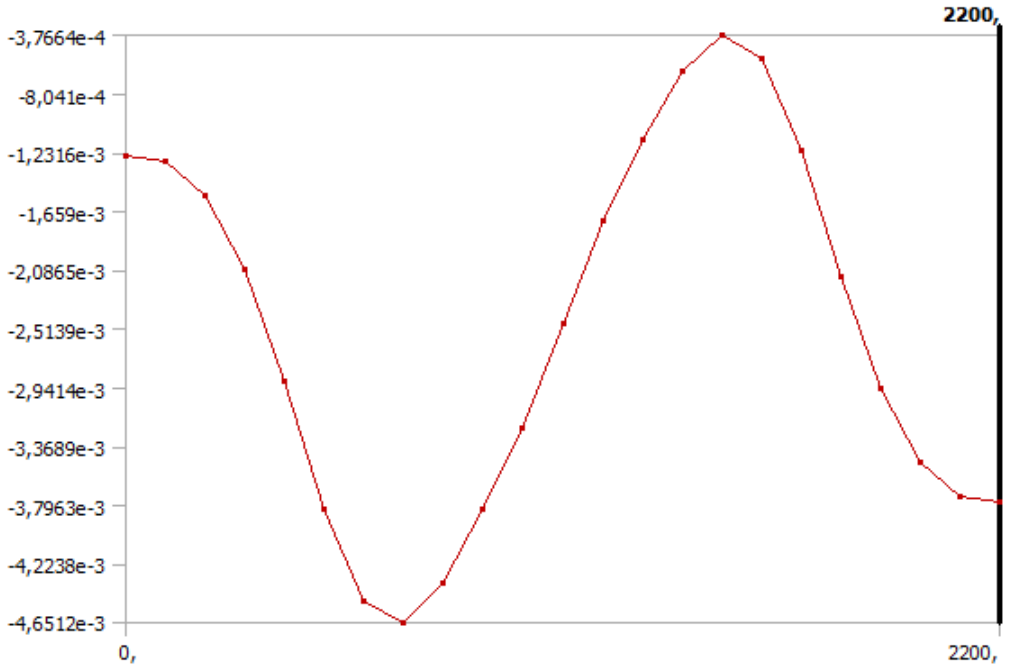
Length [mm]	Value [mm]
0,	2,1023e-002
100,	2,0185e-002
200,	1,9248e-002
300,	1,8532e-002
400,	1,8429e-002
500,	1,8985e-002
600,	2,0142e-002
700,	2,202e-002
800,	2,4108e-002
900,	2,5806e-002
1000,	2,6829e-002
1100,	2,7144e-002
1200,	2,6775e-002
1300,	2,5714e-002
1400,	2,4008e-002
1500,	2,1947e-002
1600,	2,0096e-002
1700,	1,8951e-002
1800,	1,8404e-002
1900,	1,852e-002
2000,	1,9251e-002
2100,	2,0203e-002
2200,	2,1055e-002

Curve C_center Z



Length [mm]	Value [mm]
0,	-1,0038e-002
100,	-9,8972e-003
200,	-9,5475e-003
300,	-9,378e-003
400,	-9,5318e-003
500,	-9,8772e-003
600,	-1,0327e-002
700,	-1,0891e-002
800,	-1,1285e-002
900,	-1,1264e-002
1000,	-1,1044e-002
1100,	-1,0933e-002
1200,	-1,1032e-002
1300,	-1,1254e-002
1400,	-1,1281e-002
1500,	-1,0889e-002
1600,	-1,0317e-002
1700,	-9,8611e-003
1800,	-9,5176e-003
1900,	-9,3696e-003
2000,	-9,5429e-003
2100,	-9,895e-003
2200,	-1,0037e-002

Curve D_outer X



Length [mm]	Value [mm]
0,	-1,2607e-003
100,	-1,2929e-003
200,	-1,5404e-003
300,	-2,086e-003
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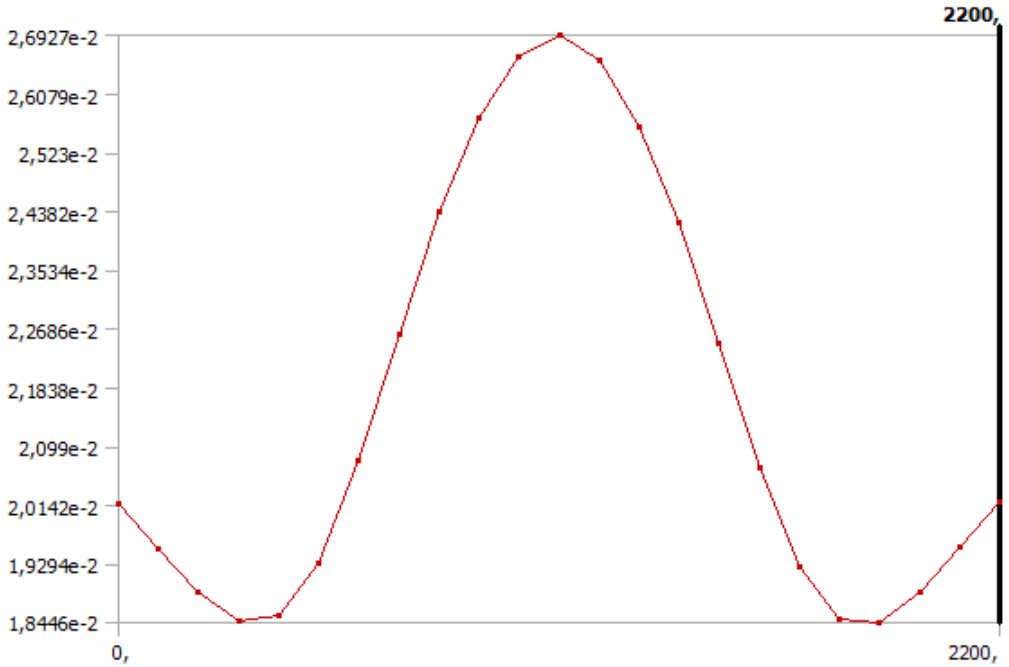
600,	-4,491e-003
700,	-4,6512e-003
800,	-4,3569e-003
900,	-3,8255e-003
1000,	-3,2299e-003
1100,	-2,4729e-003
1200,	-1,7223e-003
1300,	-1,1396e-003
1400,	-6,4065e-004
1500,	-3,7664e-004
1600,	-5,4933e-004
1700,	-1,2166e-003
1800,	-2,1387e-003
1900,	-2,9445e-003
2000,	-3,4897e-003
2100,	-3,738e-003
2200,	-3,7705e-003

Curve D_outer Y



Length [mm]	Value [mm]
0,	2,0153e-002
100,	1,9519e-002
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300,	1,8462e-002
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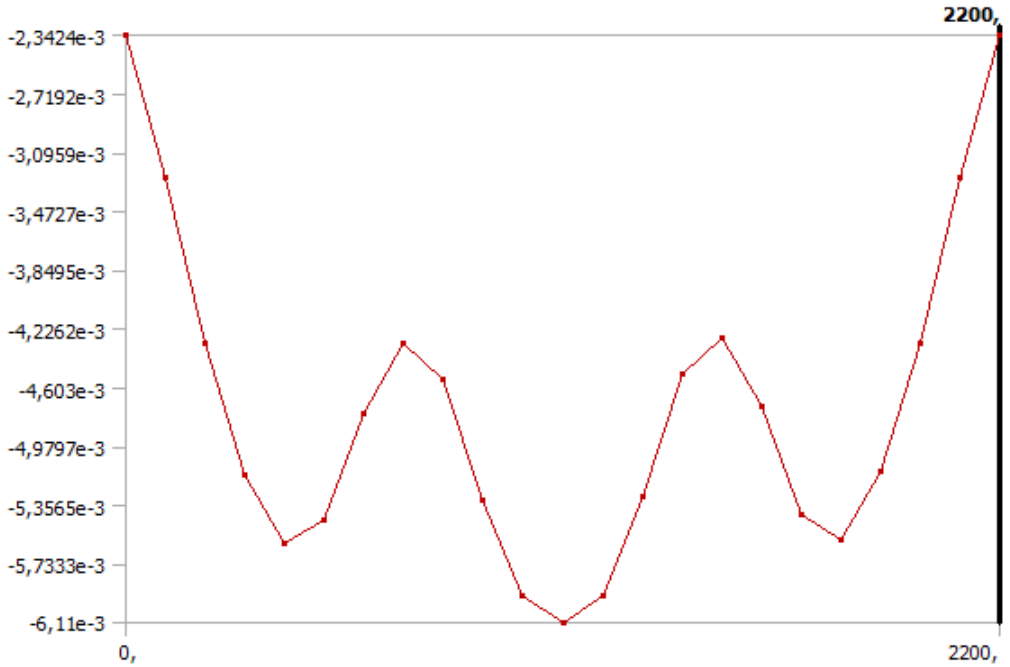
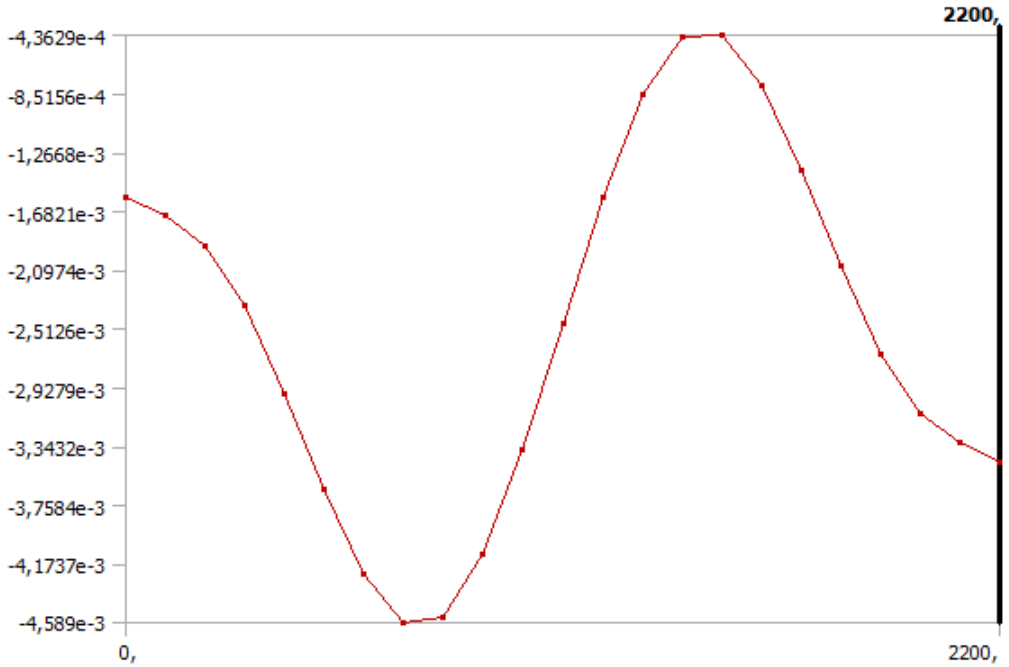
500,	1,9315e-002
600,	2,0792e-002
700,	2,2613e-002
800,	2,4368e-002
900,	2,5721e-002
1000,	2,6612e-002
1100,	2,6927e-002
1200,	2,6556e-002
1300,	2,5611e-002
1400,	2,4226e-002
1500,	2,2481e-002
1600,	2,0692e-002
1700,	1,925e-002
1800,	1,8504e-002
1900,	1,8446e-002
2000,	1,8884e-002
2100,	1,9545e-002
2200,	2,0201e-002

Curve D_outer Z



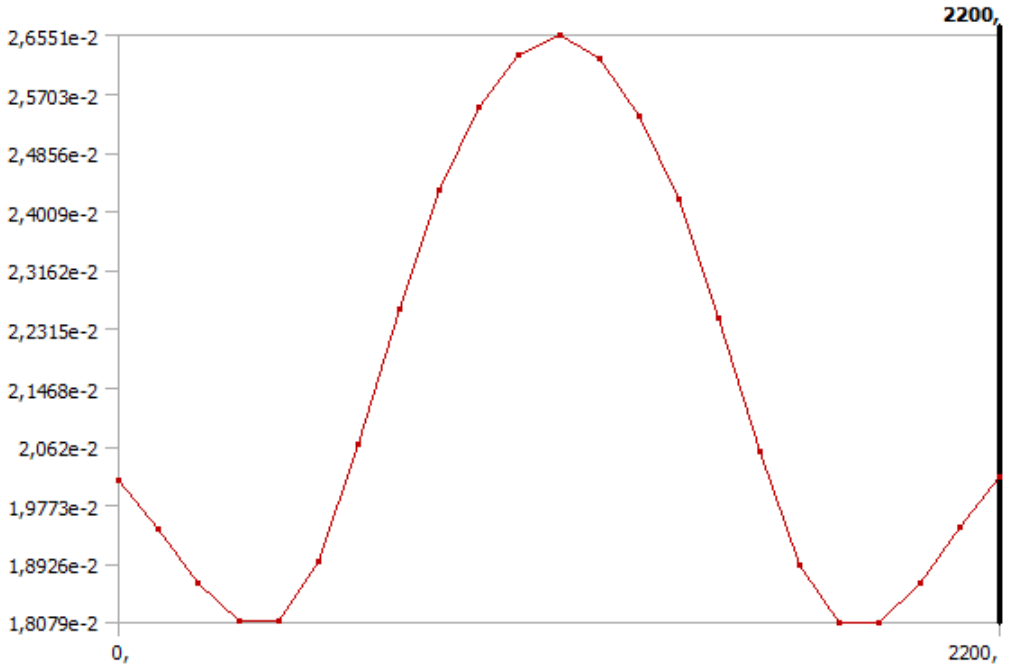
Length [mm]	Value [mm]
0,	-2,3424e-003
100,	-3,2506e-003
200,	-4,3236e-003
300,	-5,1568e-003
400,	-5,605e-003
500,	-5,456e-003
600,	-4,7676e-003
700,	-4,3177e-003
800,	-4,5497e-003
900,	-5,3192e-003
1000,	-5,9326e-003
1100,	-6,11e-003
1200,	-5,9311e-003
1300,	-5,3034e-003
1400,	-4,5206e-003
1500,	-4,2803e-003
1600,	-4,7248e-003
1700,	-5,4136e-003
1800,	-5,5742e-003
1900,	-5,1409e-003
2000,	-4,3184e-003
2100,	-3,2508e-003
2200,	-2,3448e-003

Curve D_center X



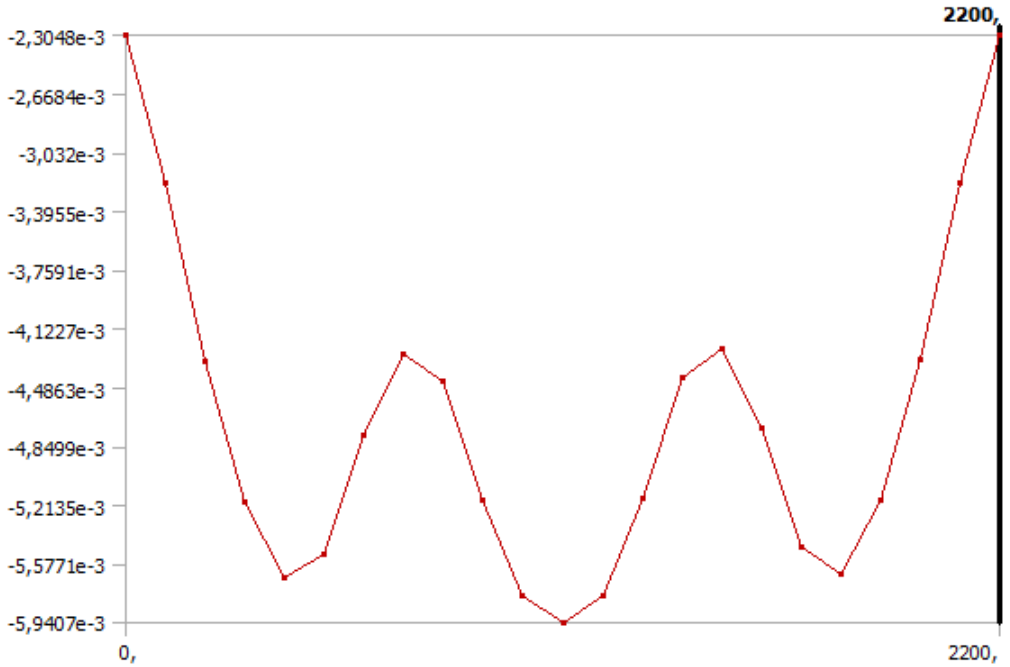
Length [mm]	Value [mm]
0,	-1,5799e-003
100,	-1,7139e-003
200,	-1,9279e-003
300,	-2,3499e-003
400,	-2,9773e-003
500,	-3,6501e-003
600,	-4,2404e-003
700,	-4,589e-003
800,	-4,5485e-003
900,	-4,1062e-003
1000,	-3,3629e-003
1100,	-2,4728e-003
1200,	-1,5854e-003
1300,	-8,5402e-004
1400,	-4,454e-004
1500,	-4,3629e-004
1600,	-7,9886e-004
1700,	-1,3918e-003
1800,	-2,0616e-003
1900,	-2,6854e-003
2000,	-3,105e-003
2100,	-3,3182e-003
2200,	-3,4521e-003

Curve D_center Y



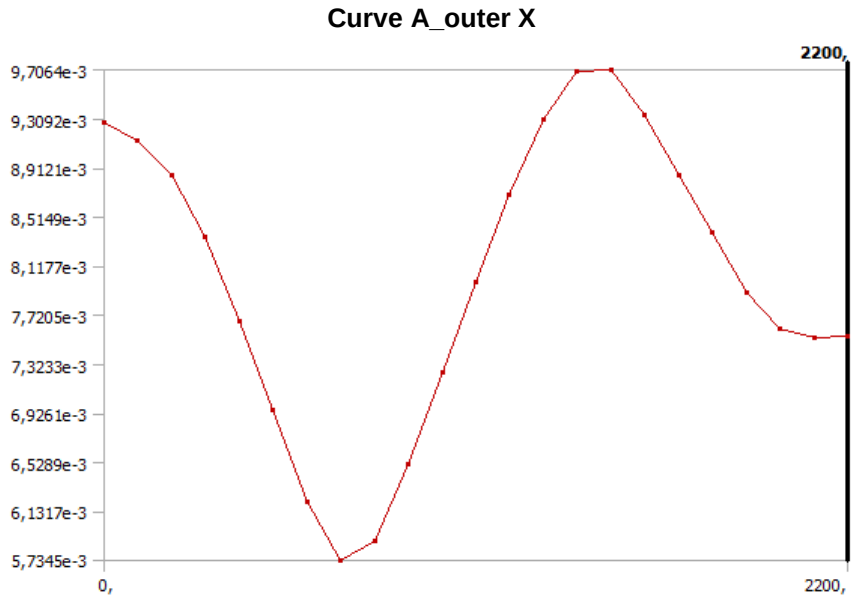
Length [mm]	Value [mm]
0,	2,014e-002
100,	1,9434e-002
200,	1,8641e-002
300,	1,8092e-002
400,	1,8116e-002
500,	1,8967e-002
600,	2,0648e-002
700,	2,26e-002
800,	2,4316e-002
900,	2,5507e-002
1000,	2,6272e-002
1100,	2,6551e-002
1200,	2,6211e-002
1300,	2,5394e-002
1400,	2,4174e-002
1500,	2,2472e-002
1600,	2,0556e-002
1700,	1,8911e-002
1800,	1,8084e-002
1900,	1,8079e-002
2000,	1,8645e-002
2100,	1,9459e-002
2200,	2,0187e-002

Curve D_center Z



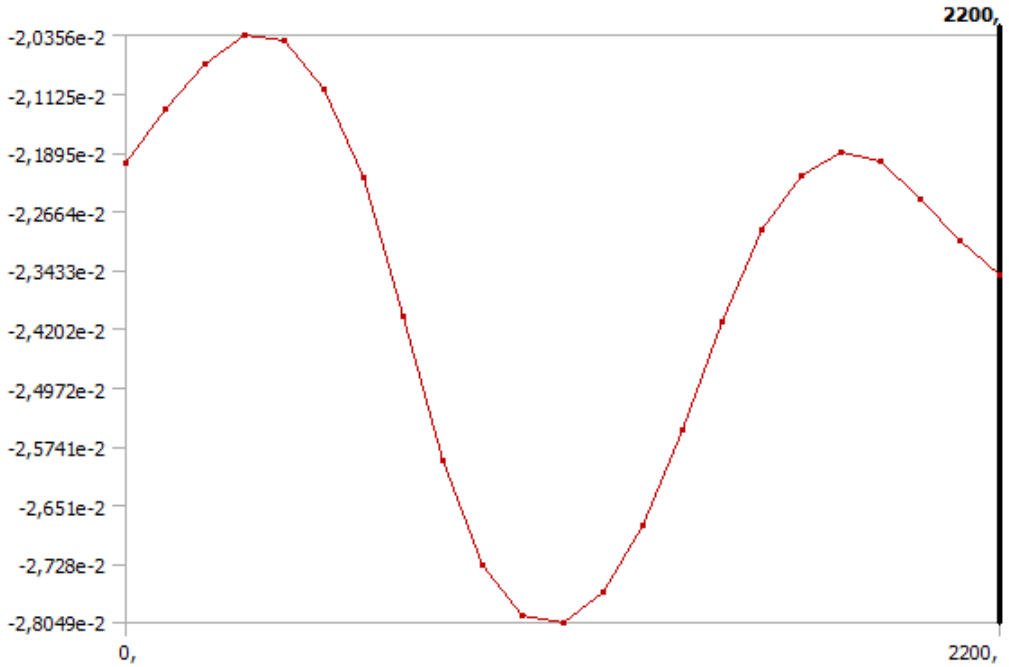
Length [mm]	Value [mm]
0,	-2,3048e-003
100,	-3,2193e-003
200,	-4,3229e-003
300,	-5,1942e-003
400,	-5,666e-003
500,	-5,5143e-003
600,	-4,7827e-003
700,	-4,2748e-003
800,	-4,4505e-003
900,	-5,1878e-003
1000,	-5,7758e-003
1100,	-5,9407e-003
1200,	-5,7752e-003
1300,	-5,1752e-003
1400,	-4,4267e-003
1500,	-4,2405e-003
1600,	-4,7408e-003
1700,	-5,4714e-003
1800,	-5,6347e-003
1900,	-5,178e-003
2000,	-4,3176e-003
2100,	-3,2195e-003
2200,	-2,3072e-003

2.2 Load case 2



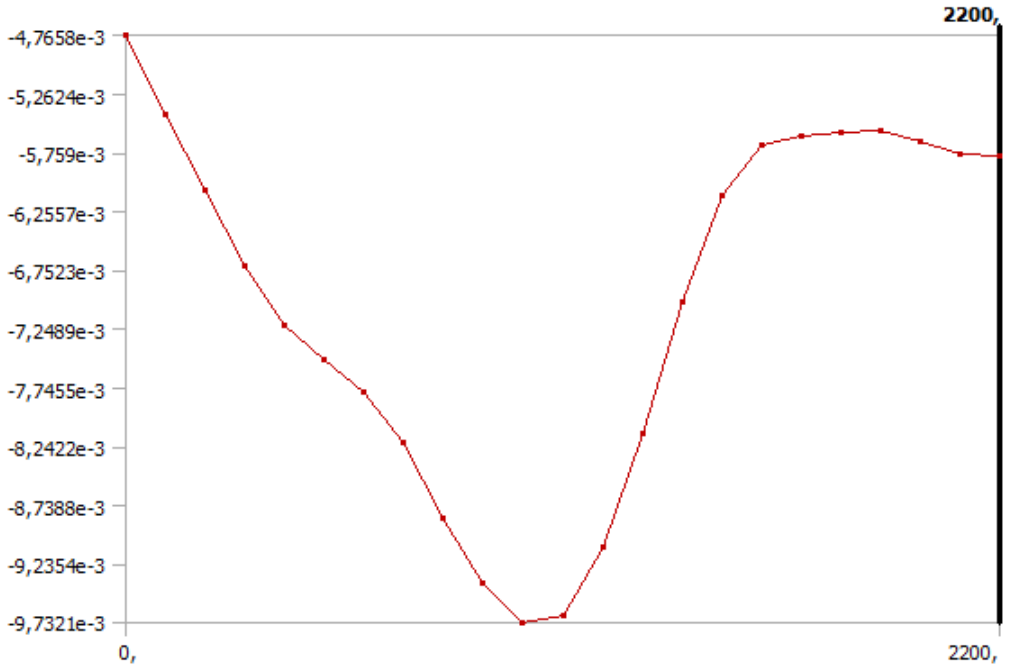
Length [mm]	Value [mm]
0,	9,2776e-003
100,	9,1317e-003
200,	8,8531e-003
300,	8,3537e-003
400,	7,6714e-003
500,	6,9515e-003
600,	6,2083e-003
700,	5,7345e-003
800,	5,888e-003
900,	6,5173e-003
1000,	7,253e-003
1100,	7,9866e-003
1200,	8,6971e-003
1300,	9,3098e-003
1400,	9,6896e-003
1500,	9,7064e-003
1600,	9,34e-003
1700,	8,8533e-003
1800,	8,3889e-003
1900,	7,9052e-003
2000,	7,6071e-003
2100,	7,5344e-003
2200,	7,5513e-003

Curve A_outer Y



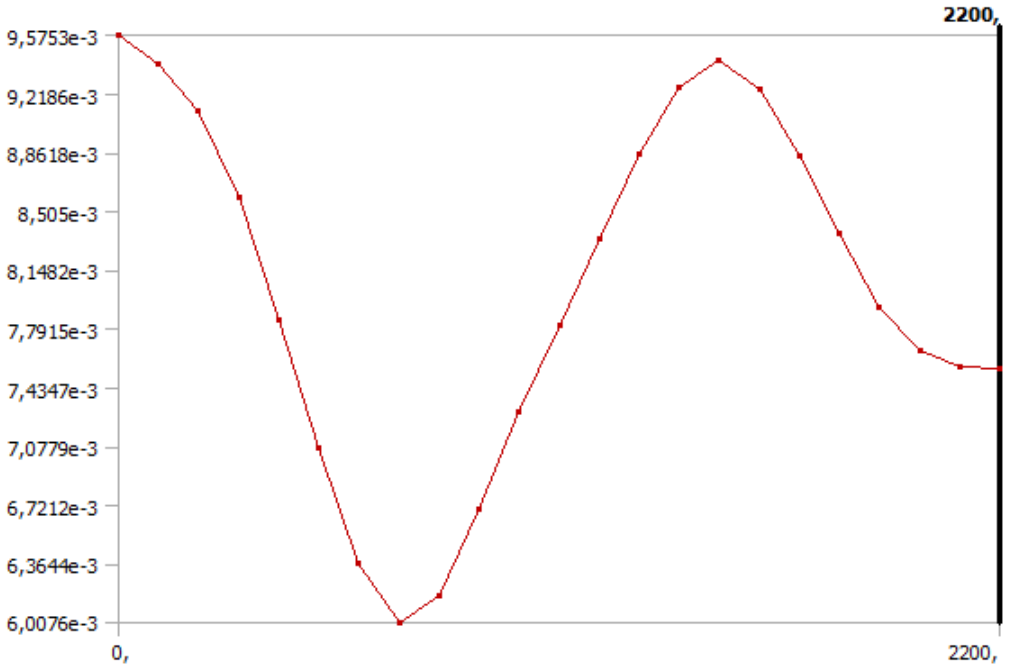
Length [mm]	Value [mm]
0,	-2,2028e-002
100,	-2,1335e-002
200,	-2,0743e-002
300,	-2,0356e-002
400,	-2,0434e-002
500,	-2,1053e-002
600,	-2,2217e-002
700,	-2,4032e-002
800,	-2,5935e-002
900,	-2,7294e-002
1000,	-2,7952e-002
1100,	-2,8049e-002
1200,	-2,7644e-002
1300,	-2,6766e-002
1400,	-2,5513e-002
1500,	-2,4103e-002
1600,	-2,2898e-002
1700,	-2,2206e-002
1800,	-2,1894e-002
1900,	-2,2011e-002
2000,	-2,2499e-002
2100,	-2,3056e-002
2200,	-2,3486e-002

Curve A_outer Z



Length [mm]	Value [mm]
0,	-4,7658e-003
100,	-5,4323e-003
200,	-6,0735e-003
300,	-6,7172e-003
400,	-7,2137e-003
500,	-7,5041e-003
600,	-7,784e-003
700,	-8,2154e-003
800,	-8,844e-003
900,	-9,4034e-003
1000,	-9,7321e-003
1100,	-9,6649e-003
1200,	-9,0954e-003
1300,	-8,1301e-003
1400,	-7,0181e-003
1500,	-6,1199e-003
1600,	-5,6998e-003
1700,	-5,6139e-003
1800,	-5,5845e-003
1900,	-5,5773e-003
2000,	-5,6688e-003
2100,	-5,7694e-003
2200,	-5,7793e-003

Curve A_center X



Length [mm]	Value [mm]
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400,	7,8412e-003
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600,	6,374e-003
700,	6,0076e-003
800,	6,175e-003
900,	6,6996e-003
1000,	7,2842e-003
1100,	7,814e-003
1200,	8,3405e-003
1300,	8,8526e-003
1400,	9,2535e-003
1500,	9,4223e-003
1600,	9,2511e-003
1700,	8,8412e-003
1800,	8,3685e-003
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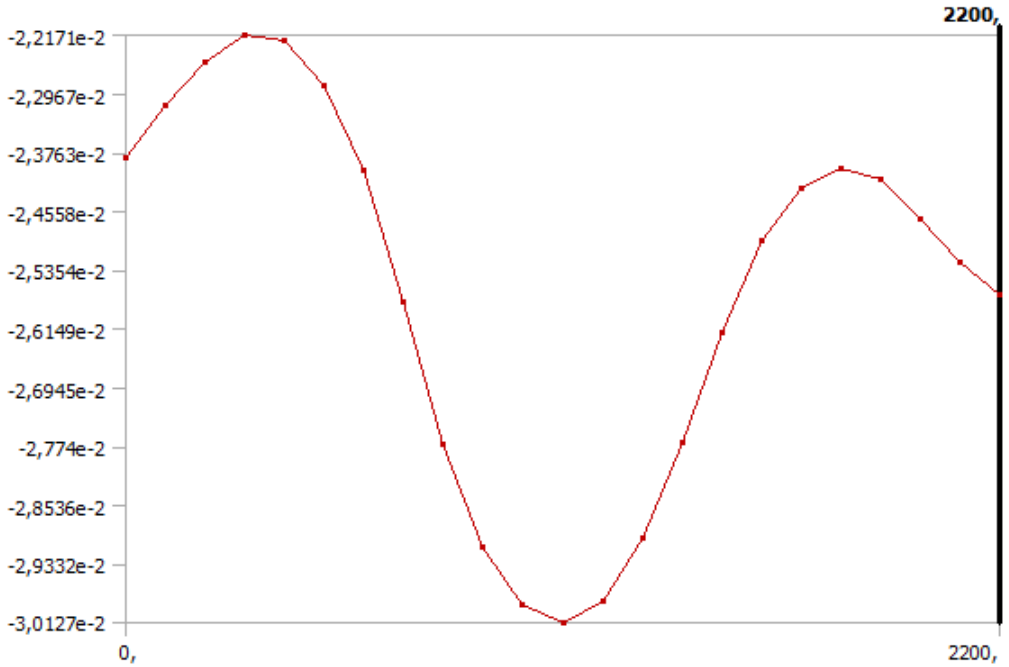
2000,	7,6571e-003
2100,	7,5581e-003
2200,	7,55e-003

Curve A_center Y



Length [mm]	Value [mm]
0,	-2,3828e-002
100,	-2,3121e-002
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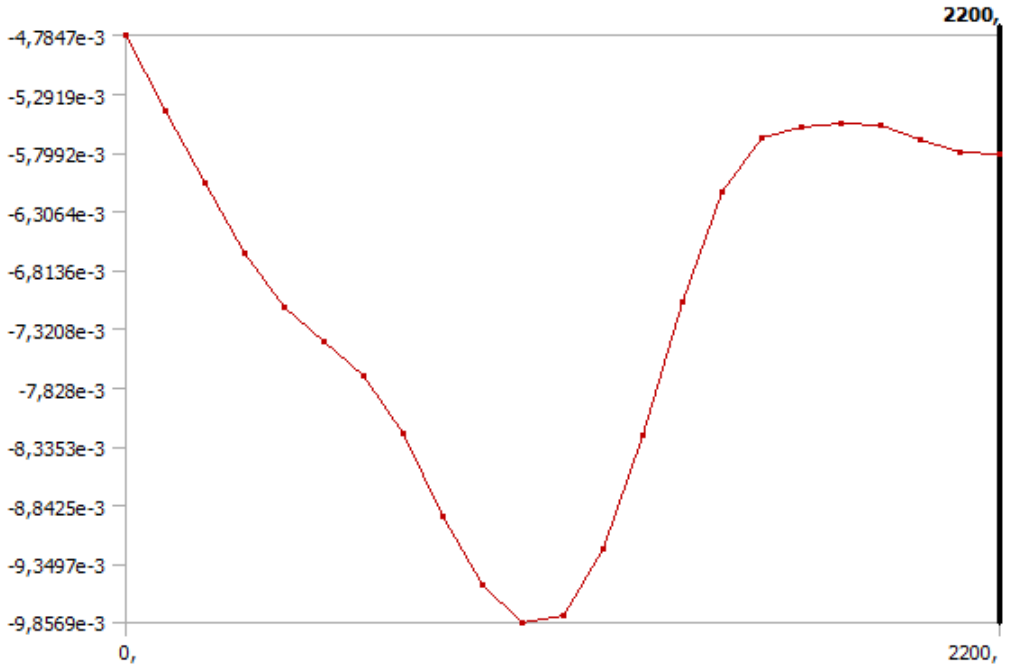
700,	-2,5794e-002
800,	-2,77e-002
900,	-2,9104e-002
1000,	-2,9875e-002
1100,	-3,0127e-002
1200,	-2,9842e-002
1300,	-2,8992e-002
1400,	-2,7675e-002
1500,	-2,6189e-002
1600,	-2,4955e-002
1700,	-2,4251e-002
1800,	-2,3968e-002
1900,	-2,4122e-002
2000,	-2,4652e-002
2100,	-2,5256e-002
2200,	-2,5694e-002

Curve A_center Z



Length [mm]	Value [mm]
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300,	-6,6618e-003
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600,	-7,727e-003
700,	-8,231e-003
800,	-8,9382e-003
900,	-9,5312e-003
1000,	-9,8569e-003
1100,	-9,787e-003
1200,	-9,2145e-003
1300,	-8,2345e-003
1400,	-7,0893e-003
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1700,	-5,5844e-003
1800,	-5,5506e-003
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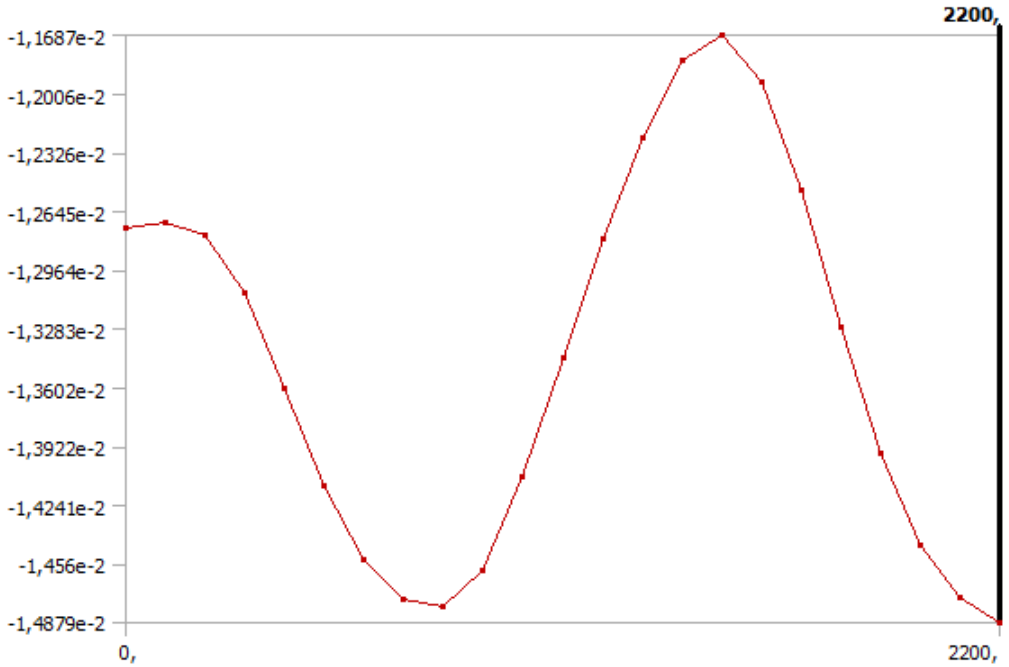
2000,	-5,6794e-003
2100,	-5,801e-003
2200,	-5,81e-003

Curve B_outer X



Length [mm]	Value [mm]
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300,	-1,3091e-002
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600,	-1,4538e-002
700,	-1,4756e-002
800,	-1,4787e-002
900,	-1,4597e-002
1000,	-1,409e-002
1100,	-1,3441e-002
1200,	-1,2796e-002
1300,	-1,2242e-002
1400,	-1,1821e-002
1500,	-1,1687e-002
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1700,	-1,2527e-002
1800,	-1,327e-002
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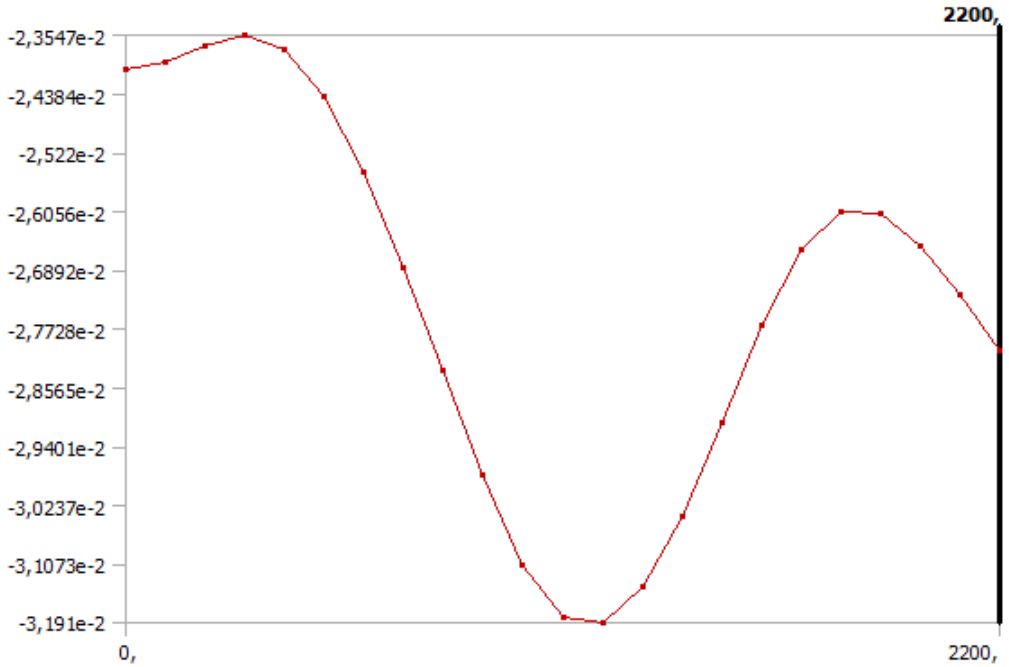
2000,	-1,4459e-002
2100,	-1,4739e-002
2200,	-1,4879e-002

Curve B_outer Y



Length [mm]	Value [mm]
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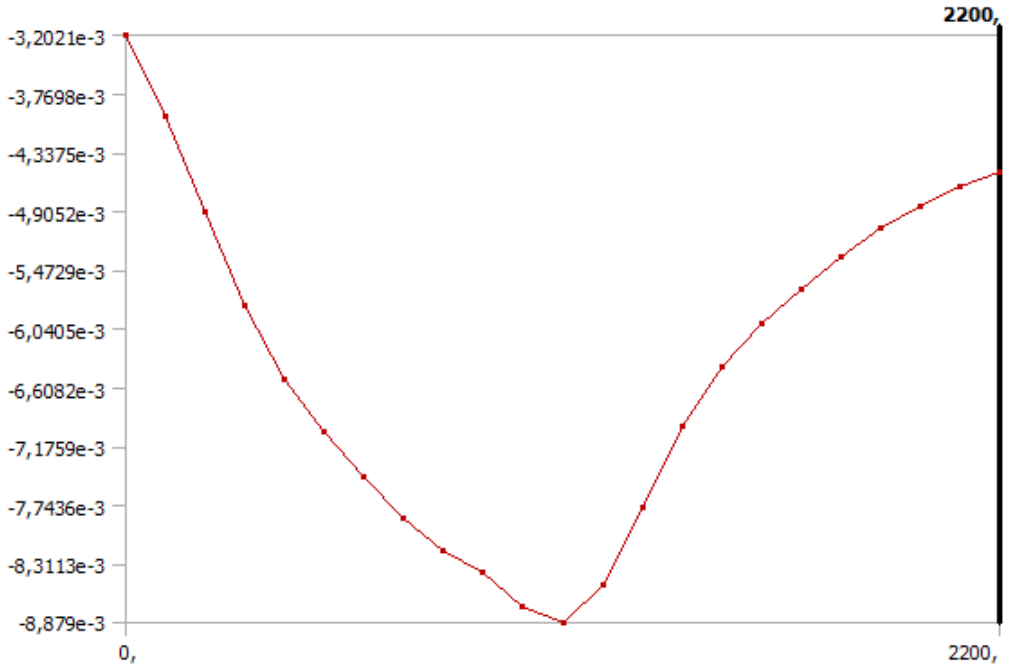
300,	-2,3547e-002
400,	-2,3754e-002
500,	-2,4428e-002
600,	-2,5509e-002
700,	-2,6859e-002
800,	-2,8328e-002
900,	-2,9818e-002
1000,	-3,1092e-002
1100,	-3,183e-002
1200,	-3,191e-002
1300,	-3,14e-002
1400,	-3,0399e-002
1500,	-2,9052e-002
1600,	-2,767e-002
1700,	-2,6593e-002
1800,	-2,605e-002
1900,	-2,6077e-002
2000,	-2,6546e-002
2100,	-2,7245e-002
2200,	-2,8047e-002

Curve B_outer Z



Length [mm]	Value [mm]
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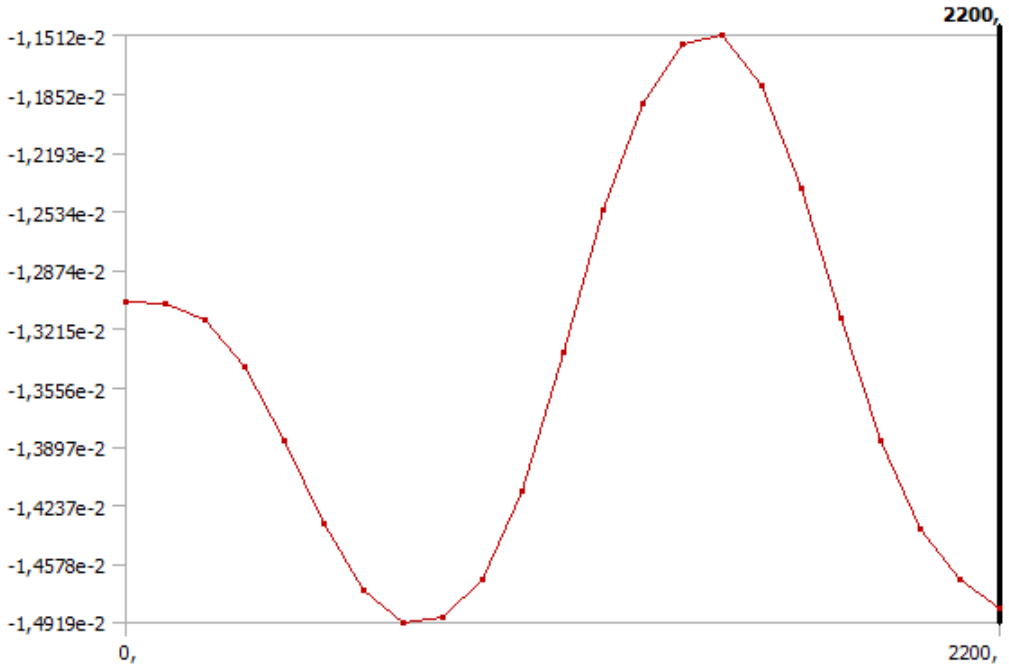
500,	-7,0354e-003
600,	-7,4701e-003
700,	-7,8771e-003
800,	-8,1833e-003
900,	-8,3973e-003
1000,	-8,7169e-003
1100,	-8,879e-003
1200,	-8,517e-003
1300,	-7,7582e-003
1400,	-6,9757e-003
1500,	-6,4018e-003
1600,	-5,9867e-003
1700,	-5,6573e-003
1800,	-5,3401e-003
1900,	-5,0656e-003
2000,	-4,8576e-003
2100,	-4,6689e-003
2200,	-4,5309e-003

Curve B_center X



Length [mm]	Value [mm]
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300,	-1,3434e-002
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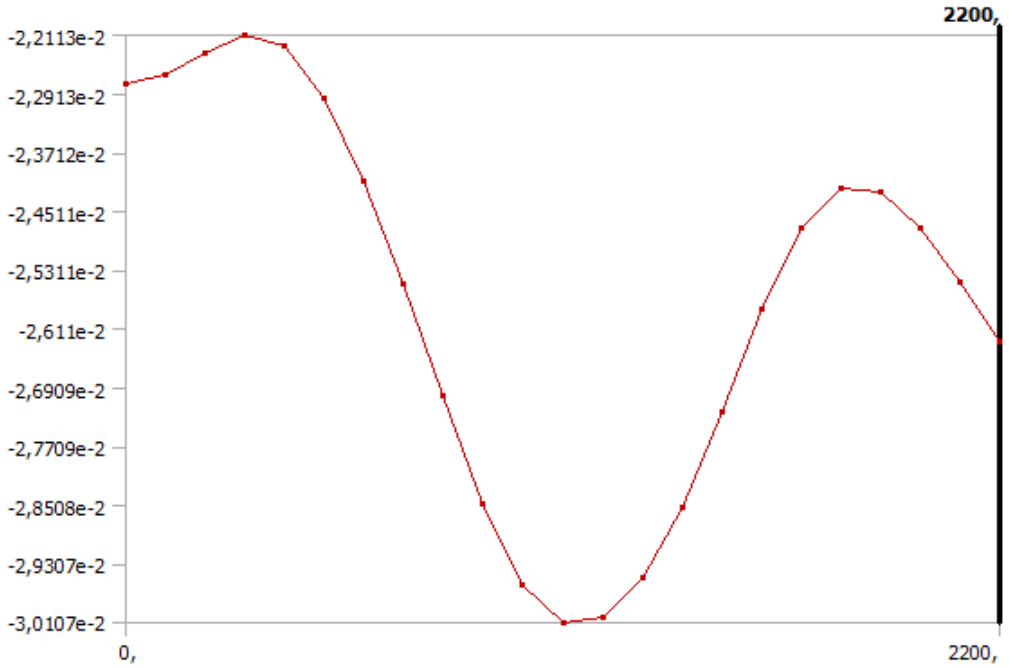
700,	-1,4919e-002
800,	-1,489e-002
900,	-1,467e-002
1000,	-1,4159e-002
1100,	-1,3351e-002
1200,	-1,2525e-002
1300,	-1,1913e-002
1400,	-1,1564e-002
1500,	-1,1512e-002
1600,	-1,1803e-002
1700,	-1,24e-002
1800,	-1,3148e-002
1900,	-1,3859e-002
2000,	-1,4376e-002
2100,	-1,4669e-002
2200,	-1,4839e-002

Curve B_center Y



Length [mm]	Value [mm]
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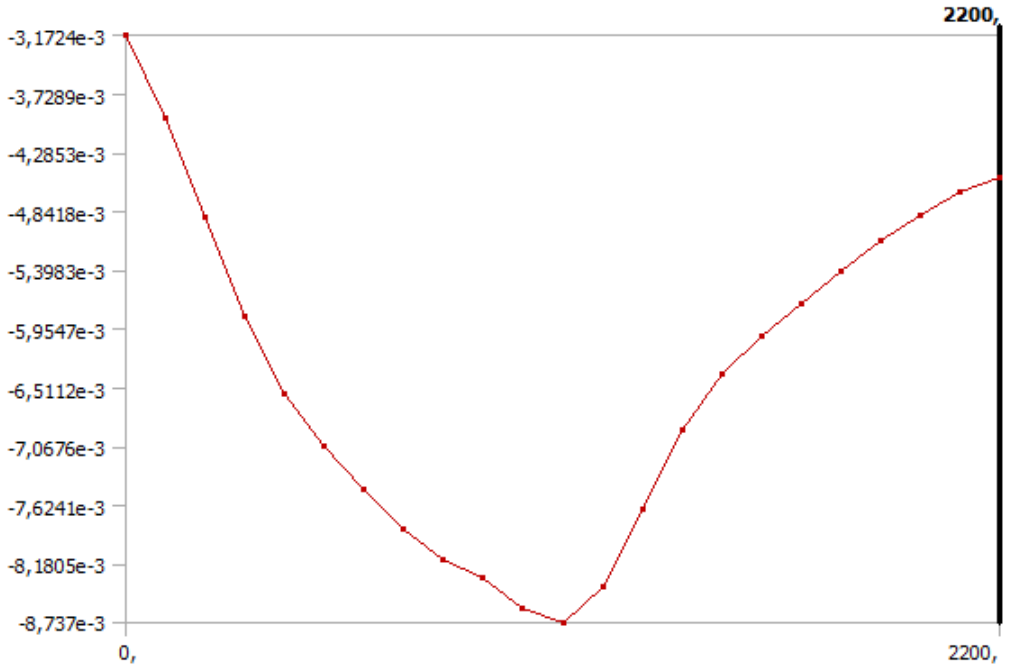
300,	-2,2113e-002
400,	-2,2272e-002
500,	-2,296e-002
600,	-2,4099e-002
700,	-2,5504e-002
800,	-2,7008e-002
900,	-2,8481e-002
1000,	-2,9599e-002
1100,	-3,0107e-002
1200,	-3,0027e-002
1300,	-2,9486e-002
1400,	-2,8535e-002
1500,	-2,7229e-002
1600,	-2,5851e-002
1700,	-2,4747e-002
1800,	-2,4207e-002
1900,	-2,4254e-002
2000,	-2,4742e-002
2100,	-2,5465e-002
2200,	-2,6289e-002

Curve B_center Z



Length [mm]	Value [mm]
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600,	-7,4799e-003
700,	-7,8574e-003
800,	-8,1373e-003
900,	-8,3154e-003
1000,	-8,5926e-003
1100,	-8,737e-003
1200,	-8,3885e-003
1300,	-7,6556e-003
1400,	-6,9062e-003
1500,	-6,3807e-003
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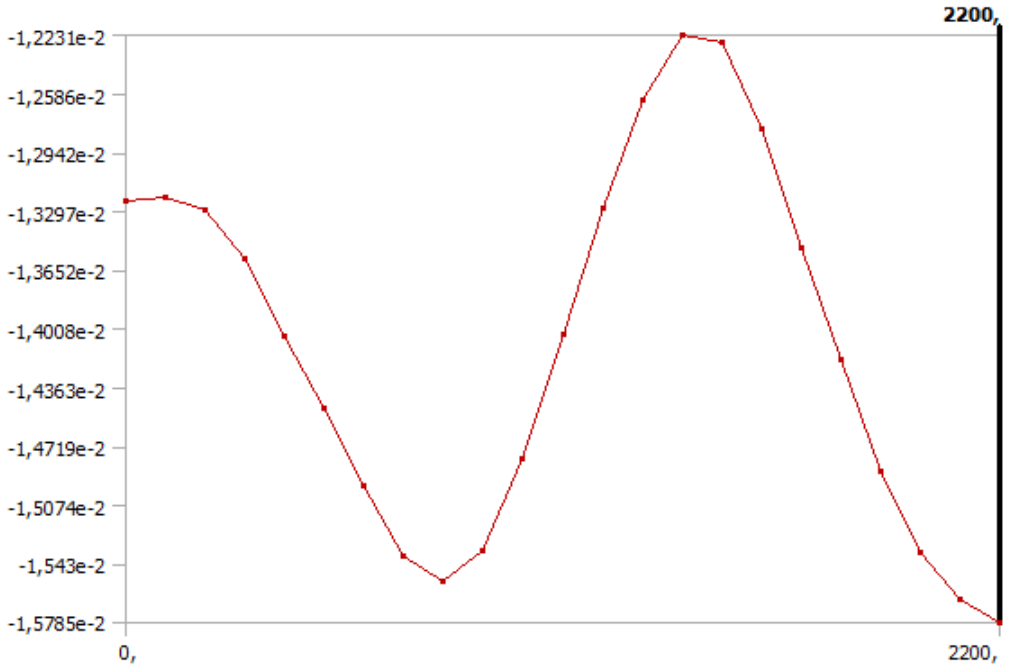
1700,	-5,723e-003
1800,	-5,4123e-003
1900,	-5,1196e-003
2000,	-4,8792e-003
2100,	-4,6626e-003
2200,	-4,5129e-003

Curve C_outer X



Length [mm]	Value [mm]
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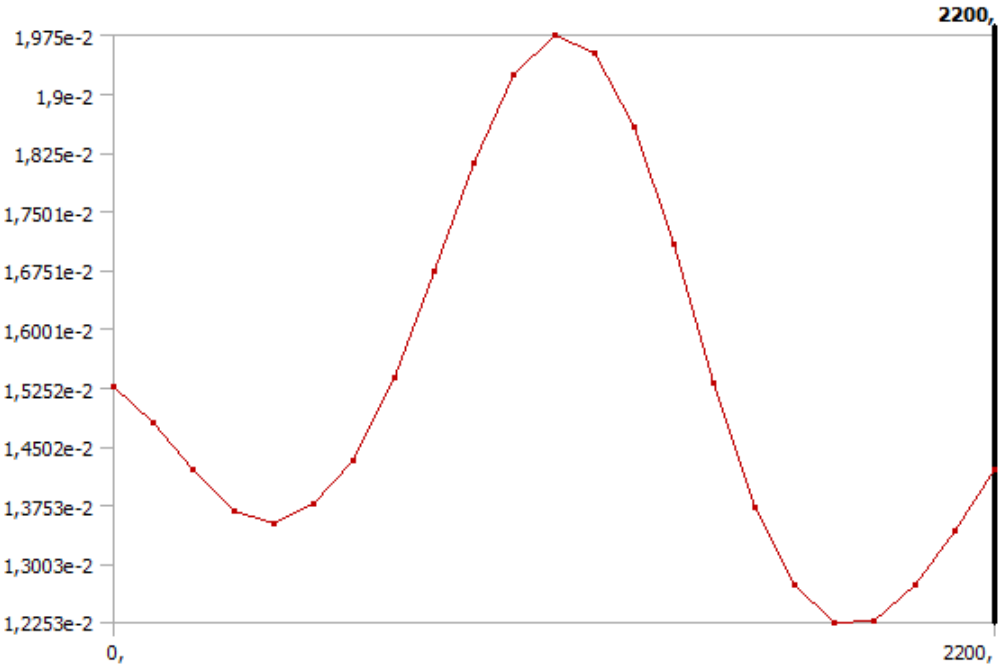
300,	-1,3579e-002
400,	-1,4051e-002
500,	-1,4486e-002
600,	-1,4957e-002
700,	-1,5383e-002
800,	-1,5533e-002
900,	-1,5346e-002
1000,	-1,4795e-002
1100,	-1,4043e-002
1200,	-1,3277e-002
1300,	-1,2623e-002
1400,	-1,2231e-002
1500,	-1,2272e-002
1600,	-1,28e-002
1700,	-1,3515e-002
1800,	-1,4198e-002
1900,	-1,4864e-002
2000,	-1,5359e-002
2100,	-1,5639e-002
2200,	-1,5785e-002

Curve C_outer Y



Length [mm]	Value [mm]
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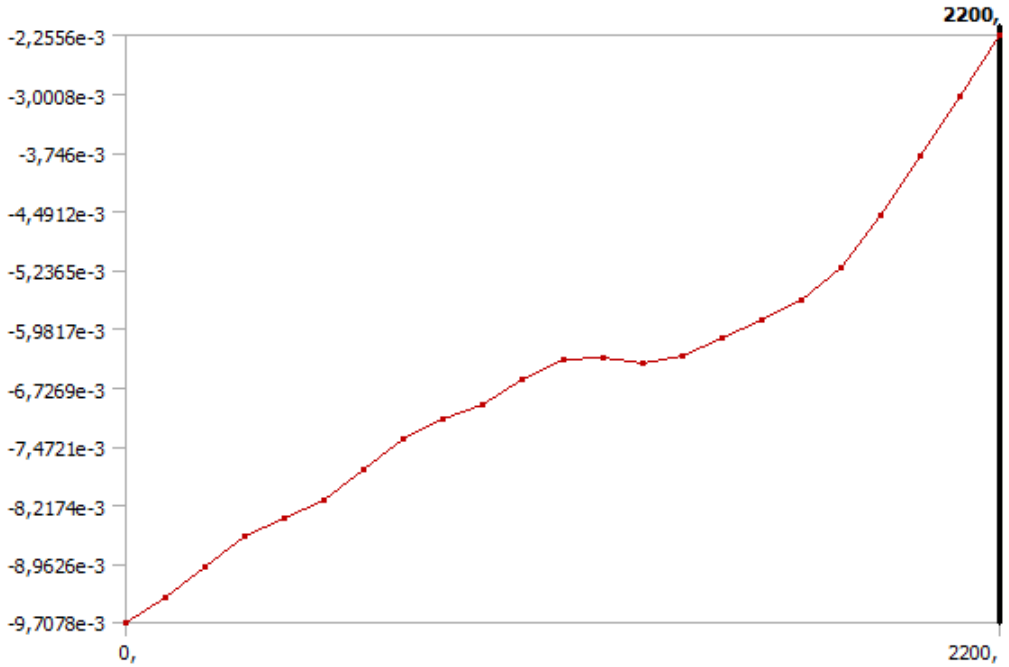
700,	1,538e-002
800,	1,673e-002
900,	1,8121e-002
1000,	1,9244e-002
1100,	1,975e-002
1200,	1,951e-002
1300,	1,8578e-002
1400,	1,7091e-002
1500,	1,5316e-002
1600,	1,3724e-002
1700,	1,2746e-002
1800,	1,2253e-002
1900,	1,2268e-002
2000,	1,274e-002
2100,	1,3418e-002
2200,	1,4201e-002

Curve C_outer Z



Length [mm]	Value [mm]
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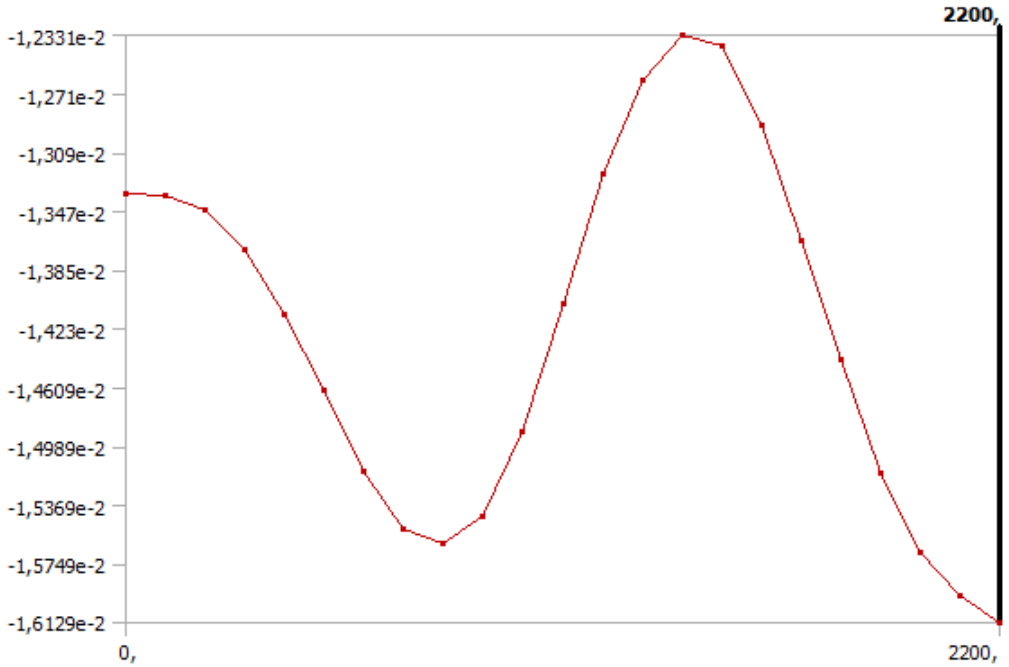
600,	-7,7559e-003
700,	-7,3651e-003
800,	-7,1354e-003
900,	-6,9424e-003
1000,	-6,6213e-003
1100,	-6,3618e-003
1200,	-6,3547e-003
1300,	-6,4242e-003
1400,	-6,329e-003
1500,	-6,089e-003
1600,	-5,8756e-003
1700,	-5,6131e-003
1800,	-5,196e-003
1900,	-4,5486e-003
2000,	-3,7827e-003
2100,	-3,0302e-003
2200,	-2,2556e-003

Curve C_center X



Length [mm]	Value [mm]
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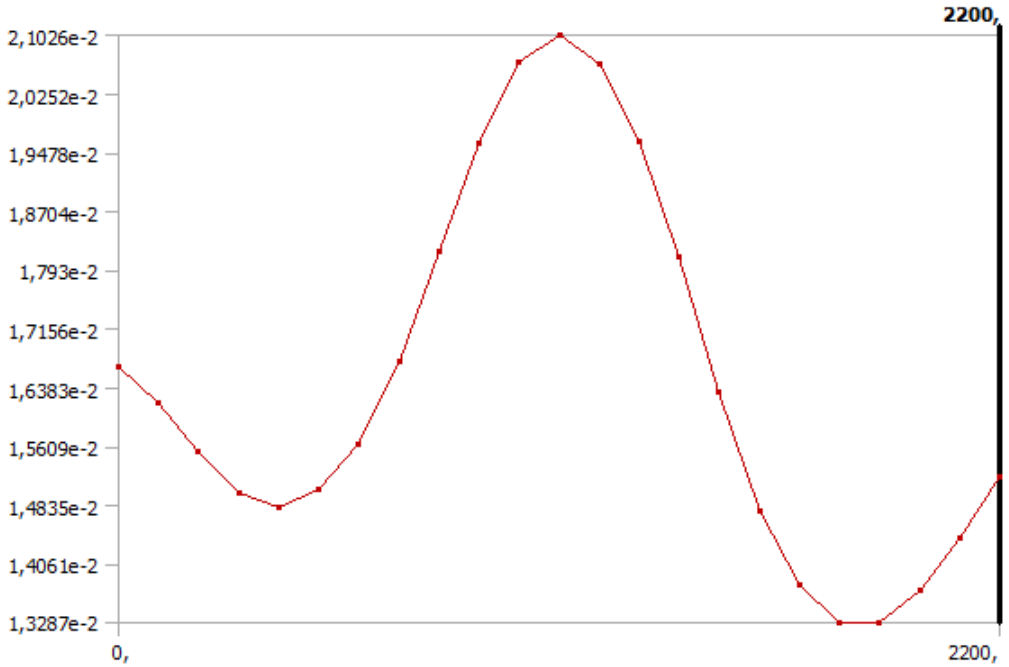
300,	-1,3718e-002
400,	-1,4136e-002
500,	-1,4631e-002
600,	-1,5147e-002
700,	-1,5523e-002
800,	-1,5621e-002
900,	-1,544e-002
1000,	-1,4897e-002
1100,	-1,4062e-002
1200,	-1,3229e-002
1300,	-1,2624e-002
1400,	-1,2331e-002
1500,	-1,2404e-002
1600,	-1,291e-002
1700,	-1,3656e-002
1800,	-1,4428e-002
1900,	-1,5161e-002
2000,	-1,5673e-002
2100,	-1,5959e-002
2200,	-1,6129e-002

Curve C_center Y



Length [mm]	Value [mm]
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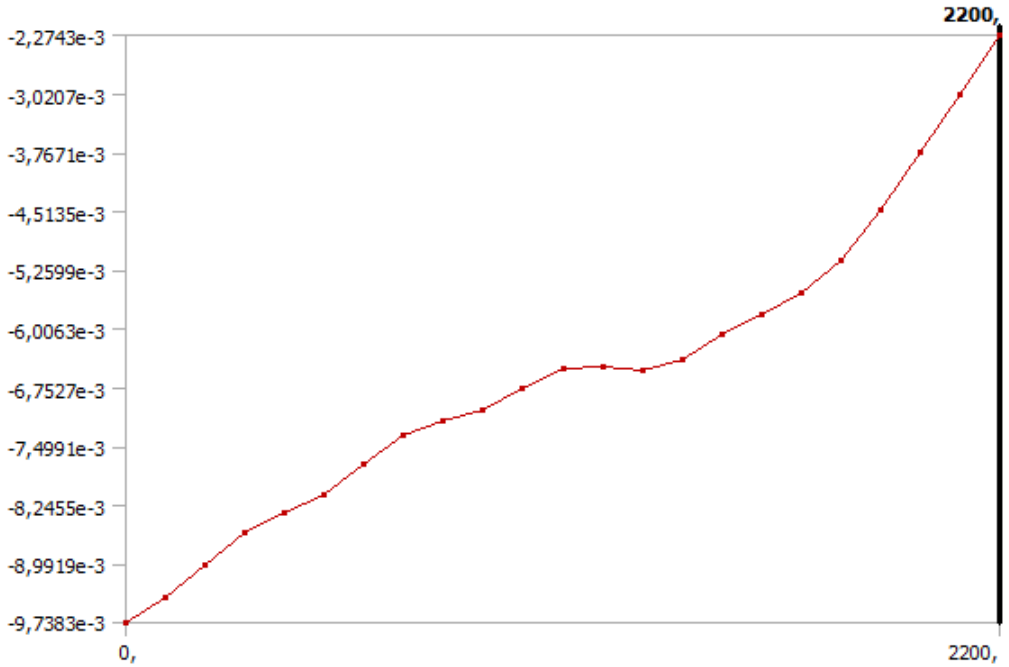
700,	1,6739e-002
800,	1,8167e-002
900,	1,9609e-002
1000,	2,0667e-002
1100,	2,1026e-002
1200,	2,065e-002
1300,	1,9635e-002
1400,	1,811e-002
1500,	1,6331e-002
1600,	1,4762e-002
1700,	1,3775e-002
1800,	1,3289e-002
1900,	1,3287e-002
2000,	1,3725e-002
2100,	1,4402e-002
2200,	1,52e-002

Curve C_center Z



Length [mm]	Value [mm]
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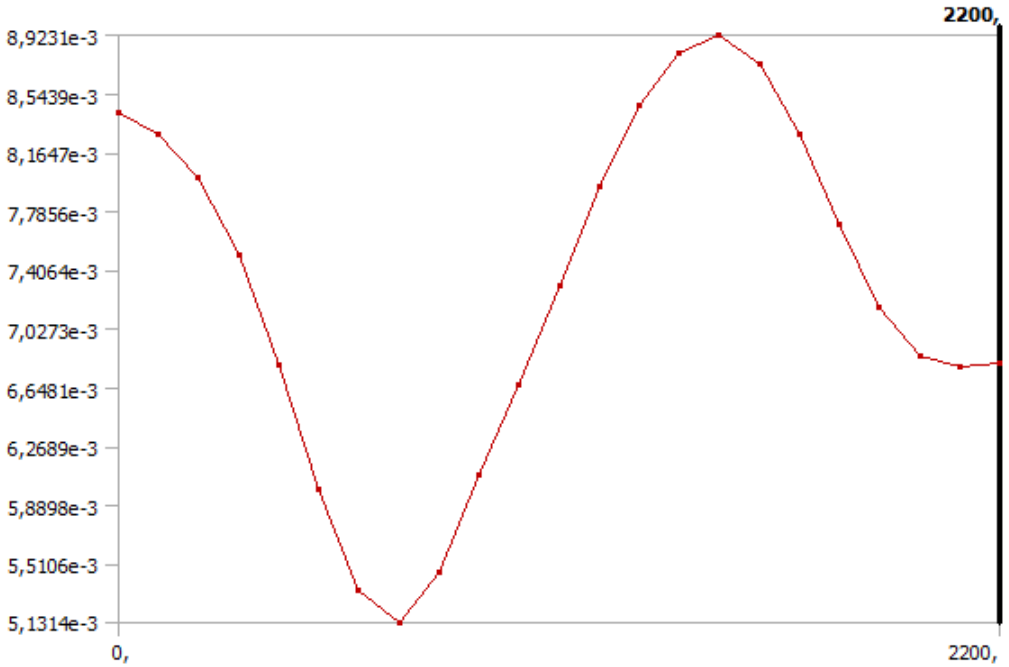
300,	-8,5915e-003
400,	-8,3475e-003
500,	-8,1144e-003
600,	-7,7204e-003
700,	-7,3615e-003
800,	-7,1726e-003
900,	-7,0274e-003
1000,	-6,7546e-003
1100,	-6,5137e-003
1200,	-6,4924e-003
1300,	-6,5293e-003
1400,	-6,386e-003
1500,	-6,0821e-003
1600,	-5,8122e-003
1700,	-5,5449e-003
1800,	-5,1269e-003
1900,	-4,4949e-003
2000,	-3,7632e-003
2100,	-3,037e-003
2200,	-2,2743e-003

Curve D_outer X



Length [mm]	Value [mm]
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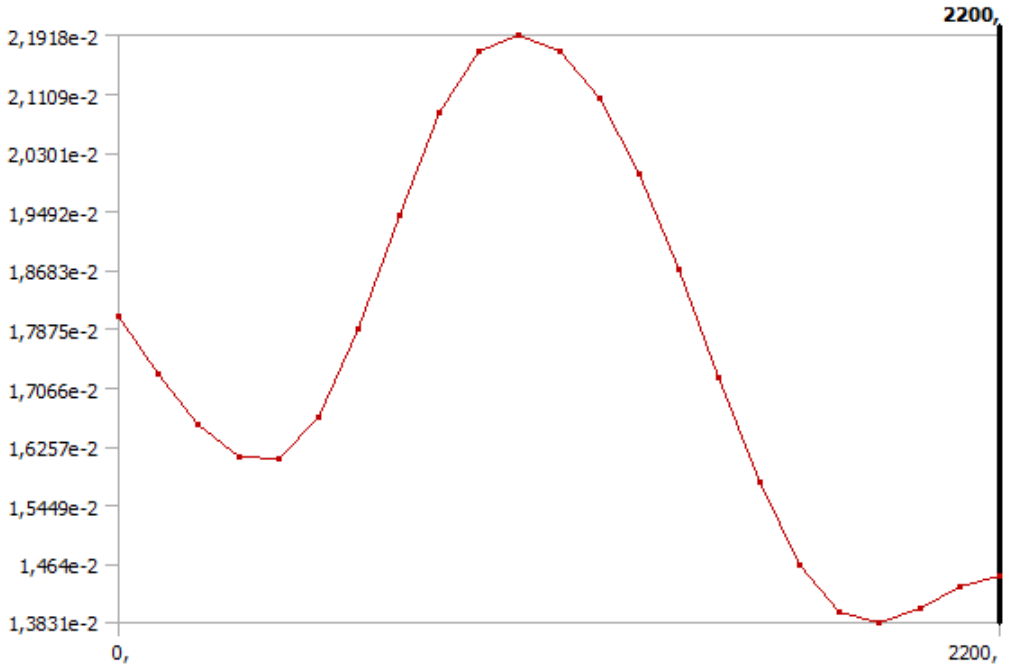
700,	5,1314e-003
800,	5,4551e-003
900,	6,081e-003
1000,	6,6638e-003
1100,	7,3073e-003
1200,	7,9468e-003
1300,	8,4655e-003
1400,	8,8093e-003
1500,	8,9231e-003
1600,	8,7371e-003
1700,	8,2851e-003
1800,	7,7003e-003
1900,	7,1658e-003
2000,	6,8509e-003
2100,	6,7868e-003
2200,	6,809e-003

Curve D_outer Y



Length [mm]	Value [mm]
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300,	1,6102e-002
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700,	1,9433e-002
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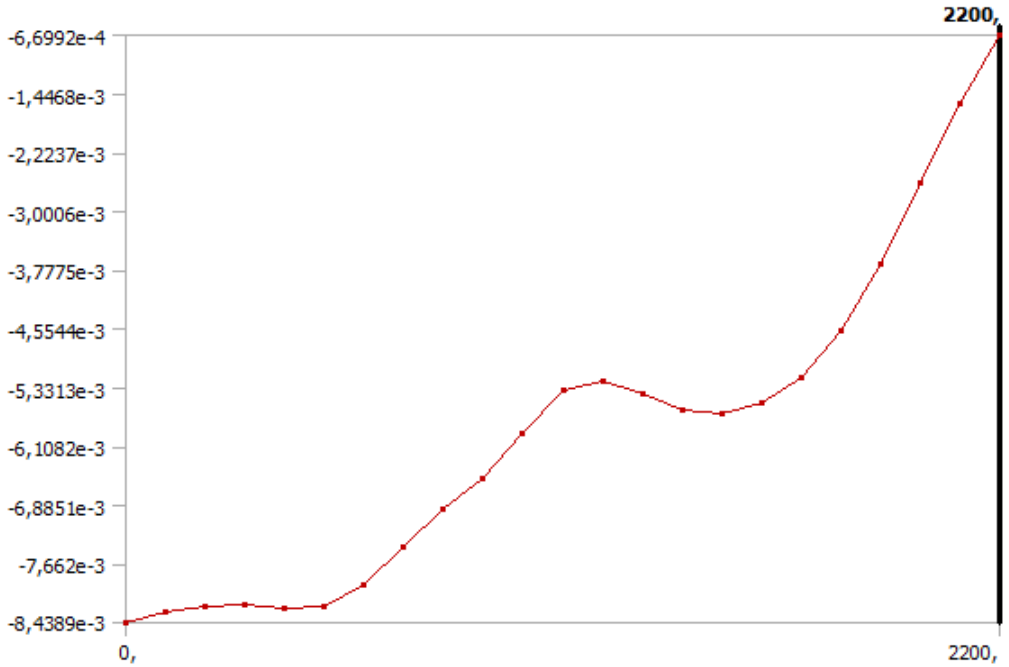
900,	2,1687e-002
1000,	2,1918e-002
1100,	2,1704e-002
1200,	2,105e-002
1300,	2,0011e-002
1400,	1,8688e-002
1500,	1,7201e-002
1600,	1,5765e-002
1700,	1,4637e-002
1800,	1,3985e-002
1900,	1,3831e-002
2000,	1,4035e-002
2100,	1,4319e-002
2200,	1,4476e-002

Curve D_outer Z



Length [mm]	Value [mm]
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300,	-8,1913e-003
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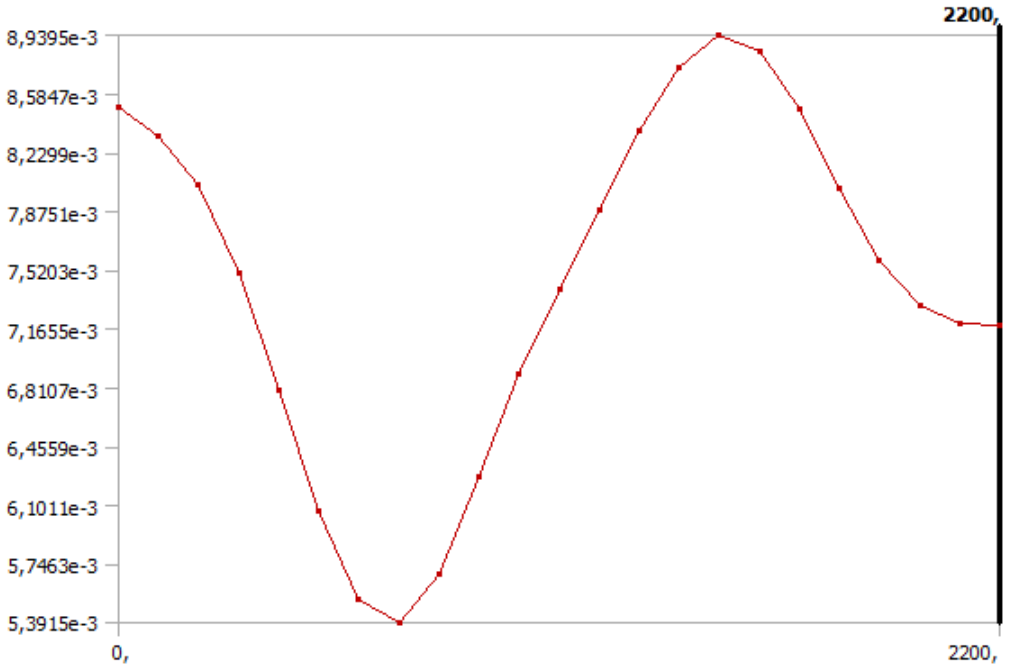
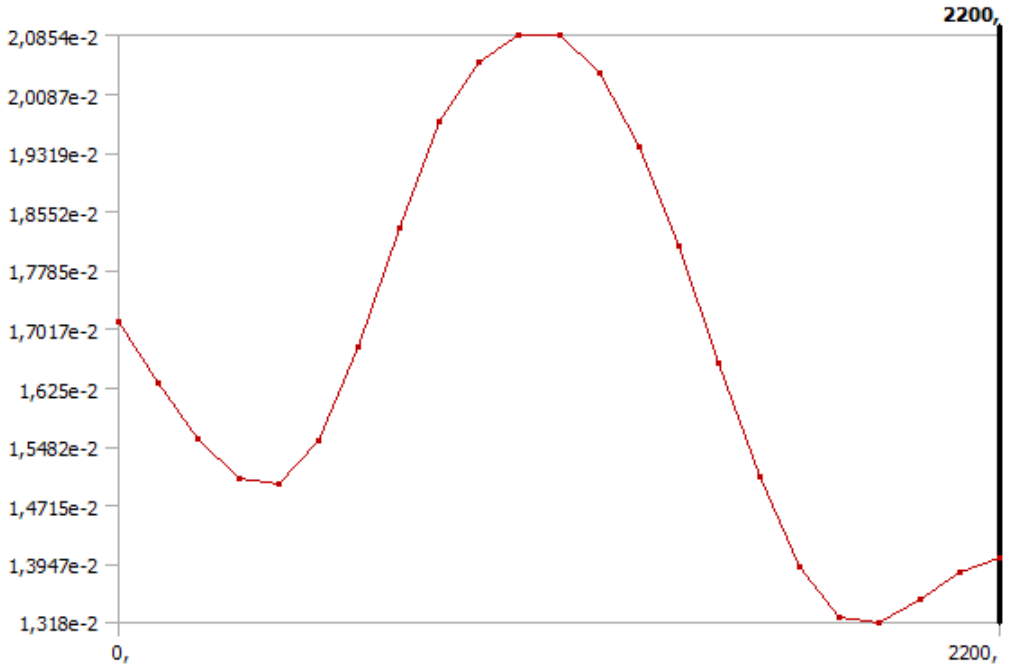
600,	-7,9373e-003
700,	-7,4431e-003
800,	-6,94e-003
900,	-6,5281e-003
1000,	-5,9338e-003
1100,	-5,3721e-003
1200,	-5,2419e-003
1300,	-5,4225e-003
1400,	-5,6183e-003
1500,	-5,6727e-003
1600,	-5,5417e-003
1700,	-5,202e-003
1800,	-4,5884e-003
1900,	-3,7005e-003
2000,	-2,6295e-003
2100,	-1,5791e-003
2200,	-6,6992e-004

Curve D_center X



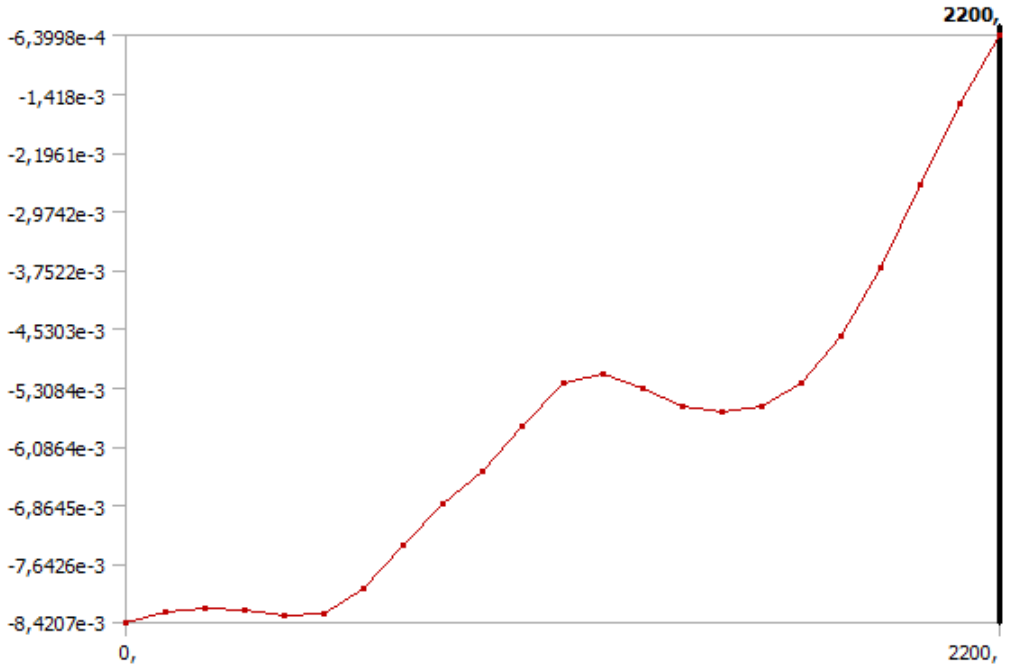
Length [mm]	Value [mm]
0,	8,5038e-003
100,	8,3326e-003
200,	8,0349e-003
300,	7,5075e-003
400,	6,7906e-003
500,	6,064e-003
600,	5,5383e-003
700,	5,3915e-003
800,	5,6813e-003
900,	6,2784e-003
1000,	6,893e-003
1100,	7,4062e-003
1200,	7,8871e-003
1300,	8,3588e-003
1400,	8,7488e-003
1500,	8,9395e-003
1600,	8,8429e-003
1700,	8,4903e-003
1800,	8,0162e-003
1900,	7,5784e-003
2000,	7,3019e-003
2100,	7,1969e-003
2200,	7,1858e-003

Curve D_center Y



Length [mm]	Value [mm]
0,	1,7117e-002
100,	1,6301e-002
200,	1,5575e-002
300,	1,507e-002
400,	1,5e-002
500,	1,5558e-002
600,	1,6789e-002
700,	1,834e-002
800,	1,9717e-002
900,	2,0498e-002
1000,	2,0844e-002
1100,	2,0854e-002
1200,	2,037e-002
1300,	1,9406e-002
1400,	1,8092e-002
1500,	1,6577e-002
1600,	1,5088e-002
1700,	1,3906e-002
1800,	1,3262e-002
1900,	1,318e-002
2000,	1,3487e-002
2100,	1,385e-002
2200,	1,402e-002

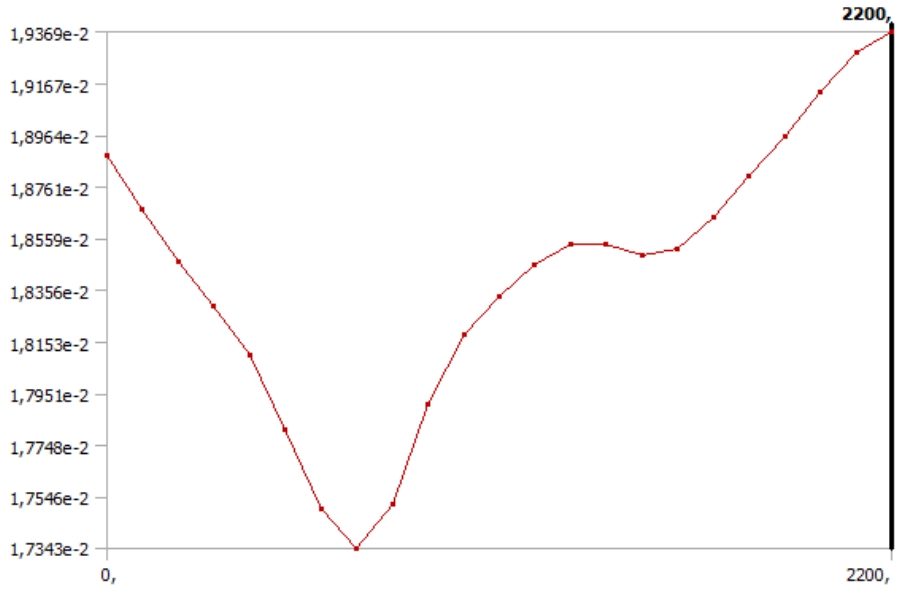
Curve D_center Z



Length [mm]	Value [mm]
0,	-8,4207e-003
100,	-8,2867e-003
200,	-8,2374e-003
300,	-8,2464e-003
400,	-8,3207e-003
500,	-8,3004e-003
600,	-7,9613e-003
700,	-7,4002e-003
800,	-6,8337e-003
900,	-6,405e-003
1000,	-5,8183e-003
1100,	-5,2582e-003
1200,	-5,1332e-003
1300,	-5,3268e-003
1400,	-5,5456e-003
1500,	-5,6375e-003
1600,	-5,5484e-003
1700,	-5,2378e-003
1800,	-4,6297e-003
1900,	-3,7242e-003
2000,	-2,6207e-003
2100,	-1,548e-003
2200,	-6,3998e-004

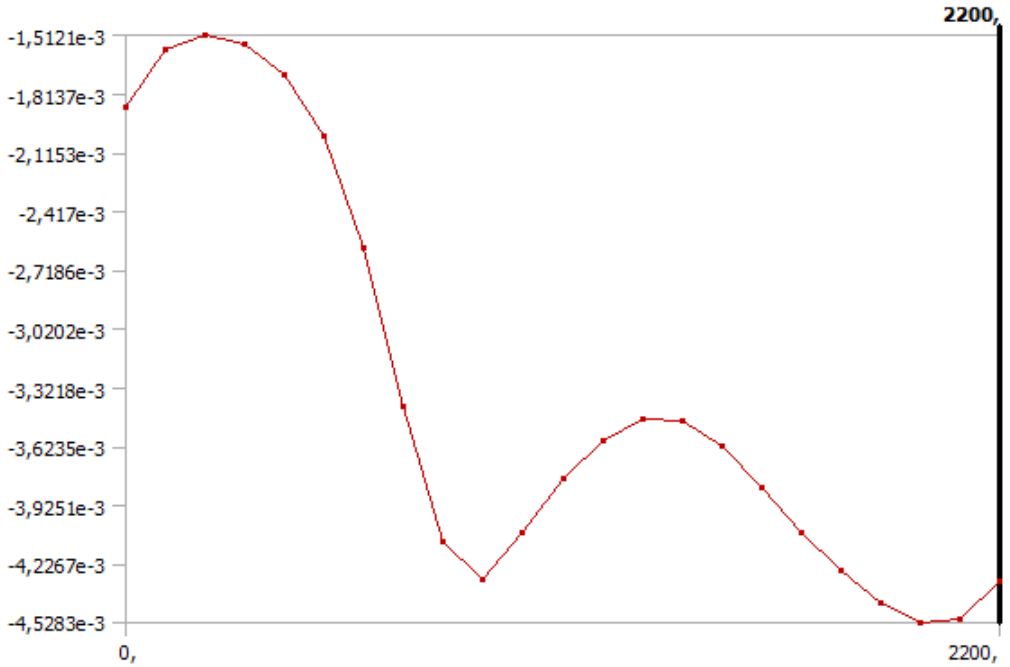
2.3 Load case 3

Curve A_outer X



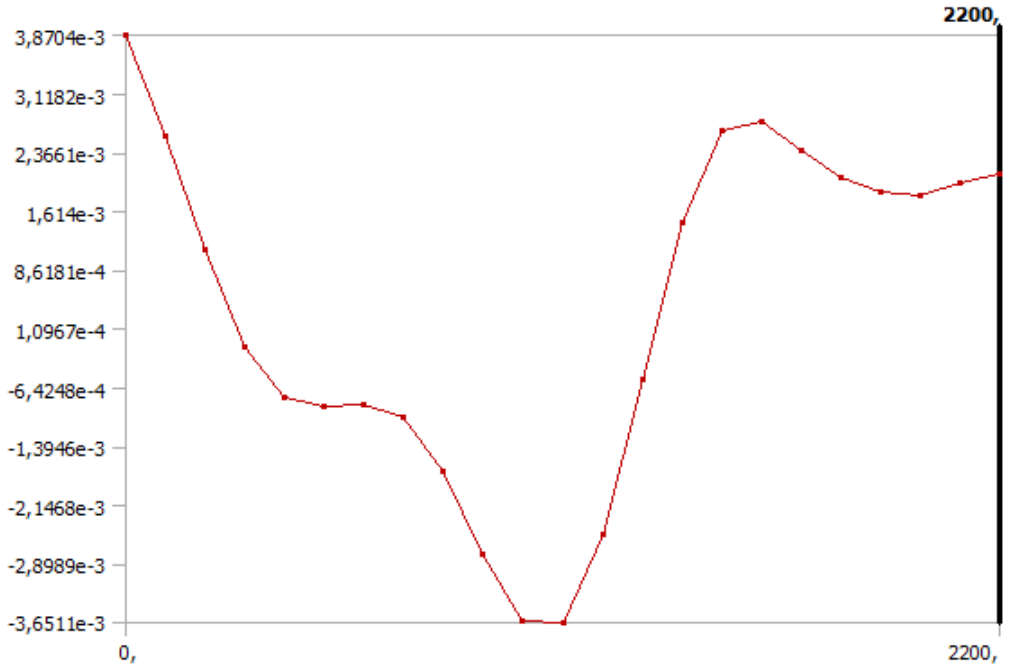
Length [mm]	Value [mm]
0,	1,8882e-002
100,	1,8675e-002
200,	1,8471e-002
300,	1,8295e-002
400,	1,8099e-002
500,	1,781e-002
600,	1,7496e-002
700,	1,7343e-002
800,	1,7517e-002
900,	1,791e-002
1000,	1,8182e-002
1100,	1,8333e-002
1200,	1,8456e-002
1300,	1,8537e-002
1400,	1,8534e-002
1500,	1,8491e-002
1600,	1,8519e-002
1700,	1,8644e-002
1800,	1,8803e-002
1900,	1,8957e-002
2000,	1,9135e-002
2100,	1,9291e-002
2200,	1,9369e-002

Curve A_outer Y



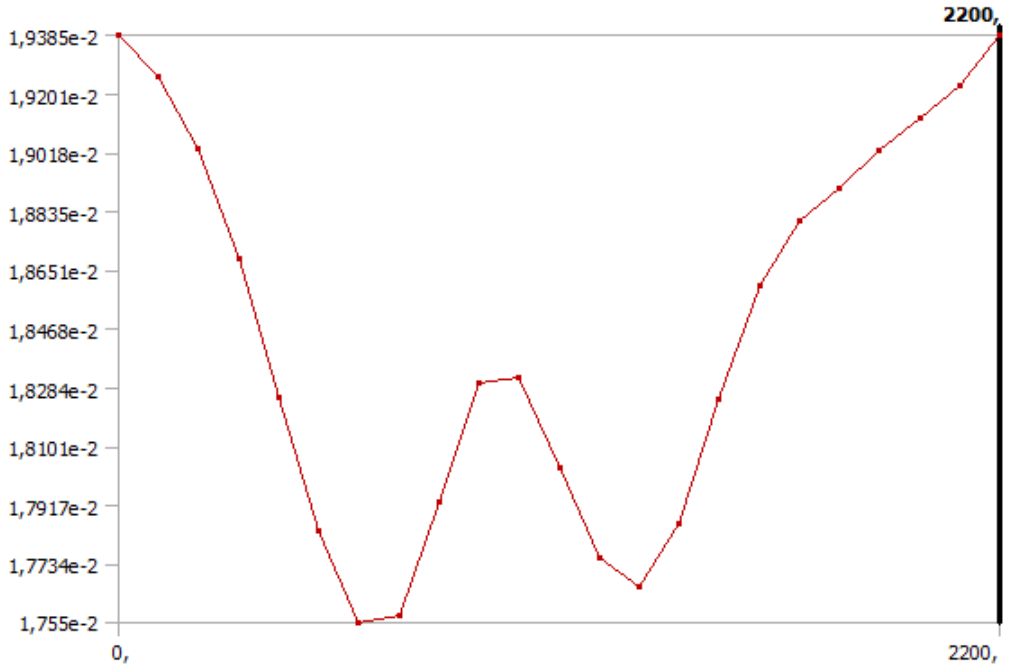
Length [mm]	Value [mm]
0,	-1,8777e-003
100,	-1,5853e-003
200,	-1,5121e-003
300,	-1,5585e-003
400,	-1,7127e-003
500,	-2,0282e-003
600,	-2,6023e-003
700,	-3,4176e-003
800,	-4,1166e-003
900,	-4,302e-003
1000,	-4,0665e-003
1100,	-3,7851e-003
1200,	-3,5896e-003
1300,	-3,4867e-003
1400,	-3,4965e-003
1500,	-3,6234e-003
1600,	-3,8331e-003
1700,	-4,0611e-003
1800,	-4,2608e-003
1900,	-4,4253e-003
2000,	-4,5283e-003
2100,	-4,5123e-003
2200,	-4,319e-003

Curve A_outer Z



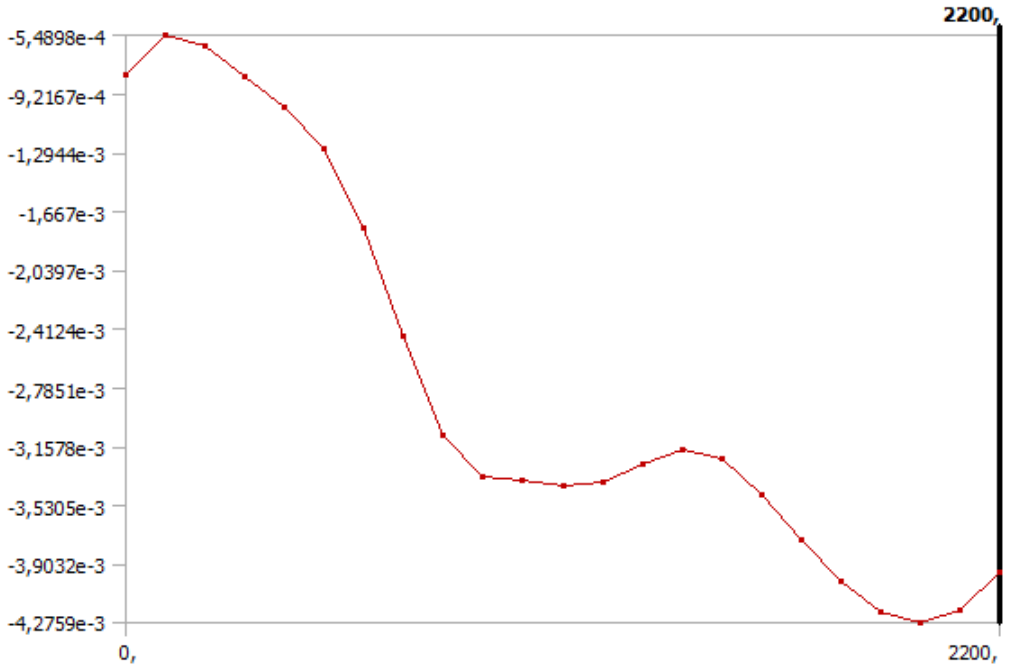
Length [mm]	Value [mm]
0,	3,8704e-003
100,	2,5833e-003
200,	1,1159e-003
300,	-1,2611e-004
400,	-7,7706e-004
500,	-8,9337e-004
600,	-8,6901e-004
700,	-1,0224e-003
800,	-1,7193e-003
900,	-2,7671e-003
1000,	-3,6287e-003
1100,	-3,6511e-003
1200,	-2,5276e-003
1300,	-5,4668e-004
1400,	1,4769e-003
1500,	2,6445e-003
1600,	2,7677e-003
1700,	2,3931e-003
1800,	2,0516e-003
1900,	1,8522e-003
2000,	1,8131e-003
2100,	1,9866e-003
2200,	2,093e-003

Curve A_center X



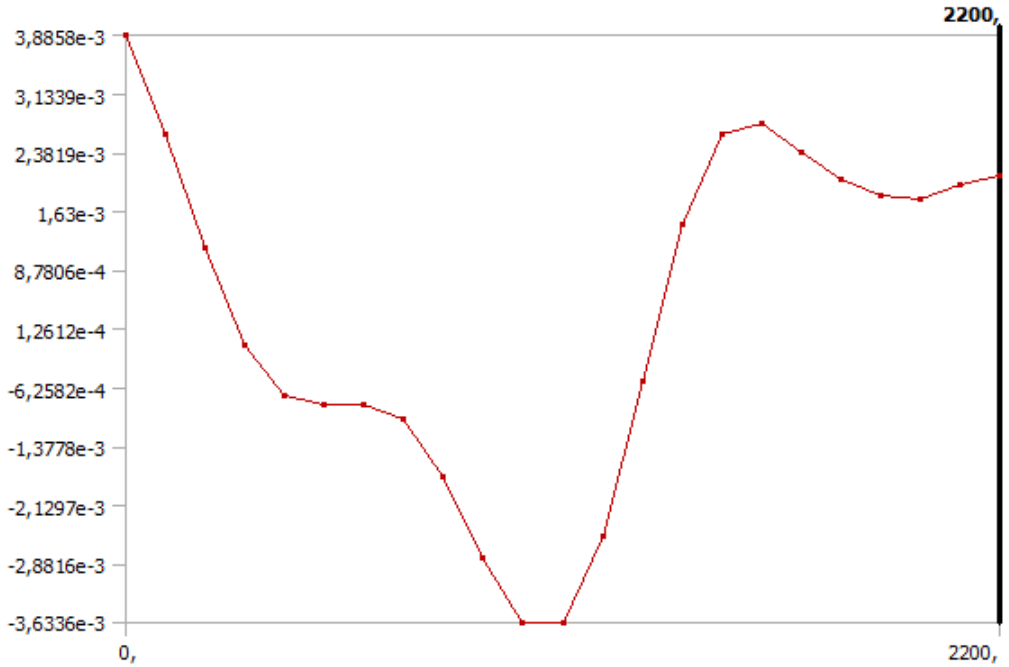
Length [mm]	Value [mm]
0,	1,9383e-002
100,	1,9255e-002
200,	1,9031e-002
300,	1,8688e-002
400,	1,8253e-002
500,	1,784e-002
600,	1,755e-002
700,	1,757e-002
800,	1,7927e-002
900,	1,8301e-002
1000,	1,8315e-002
1100,	1,8034e-002
1200,	1,7755e-002
1300,	1,7662e-002
1400,	1,786e-002
1500,	1,8246e-002
1600,	1,8604e-002
1700,	1,8805e-002
1800,	1,8909e-002
1900,	1,9023e-002
2000,	1,9124e-002
2100,	1,923e-002
2200,	1,9385e-002

Curve A_center Y



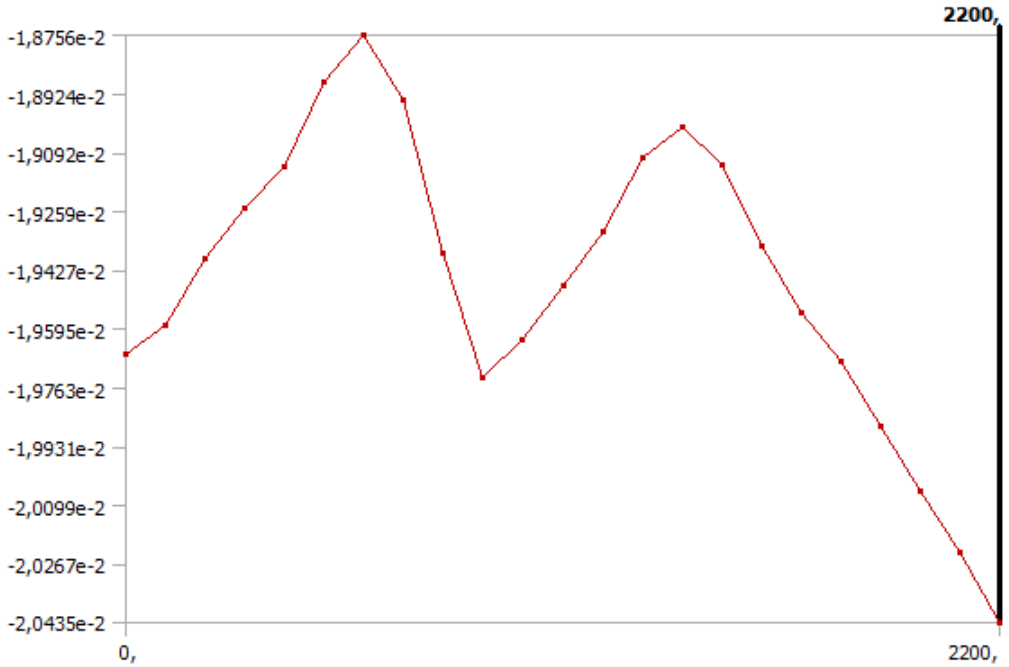
Length [mm]	Value [mm]
0,	-8,0459e-004
100,	-5,4898e-004
200,	-6,1874e-004
300,	-8,1739e-004
400,	-1,0111e-003
500,	-1,2708e-003
600,	-1,7685e-003
700,	-2,4538e-003
800,	-3,0905e-003
900,	-3,3541e-003
1000,	-3,3781e-003
1100,	-3,4081e-003
1200,	-3,3881e-003
1300,	-3,273e-003
1400,	-3,1729e-003
1500,	-3,2306e-003
1600,	-3,4694e-003
1700,	-3,75e-003
1800,	-4,0124e-003
1900,	-4,204e-003
2000,	-4,2759e-003
2100,	-4,2001e-003
2200,	-3,9578e-003

Curve A_center Z



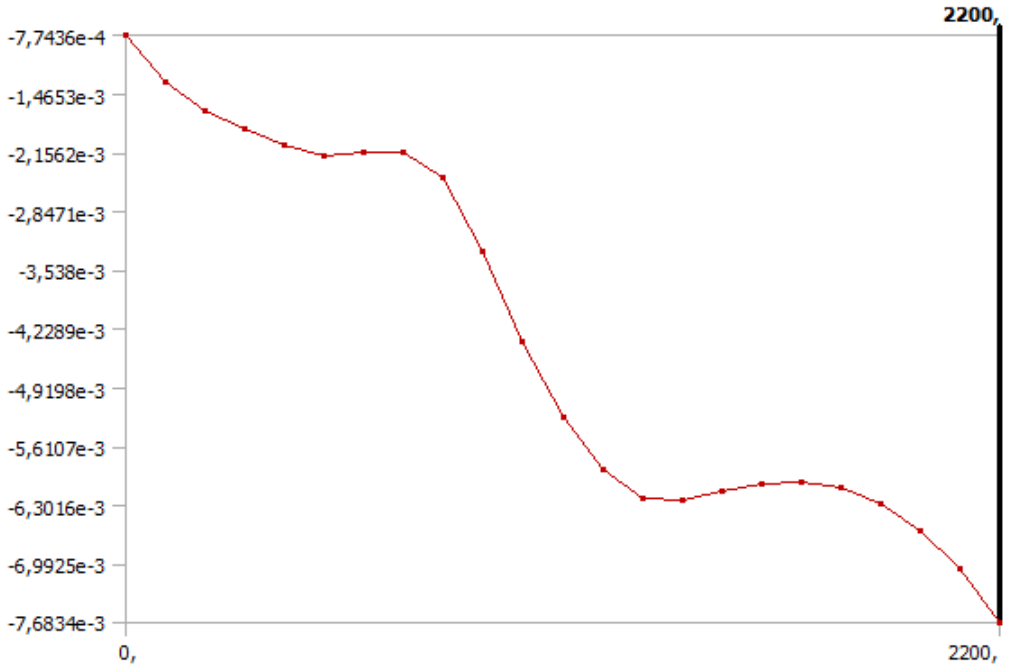
Length [mm]	Value [mm]
0,	3,8858e-003
100,	2,6119e-003
200,	1,1525e-003
300,	-8,231e-005
400,	-7,2593e-004
500,	-8,4068e-004
600,	-8,3473e-004
700,	-1,0347e-003
800,	-1,7714e-003
900,	-2,8063e-003
1000,	-3,6262e-003
1100,	-3,6336e-003
1200,	-2,5172e-003
1300,	-5,4949e-004
1400,	1,4595e-003
1500,	2,6201e-003
1600,	2,7446e-003
1700,	2,3767e-003
1800,	2,0365e-003
1900,	1,836e-003
2000,	1,7969e-003
2100,	1,9725e-003
2200,	2,0879e-003

Curve B_outer X



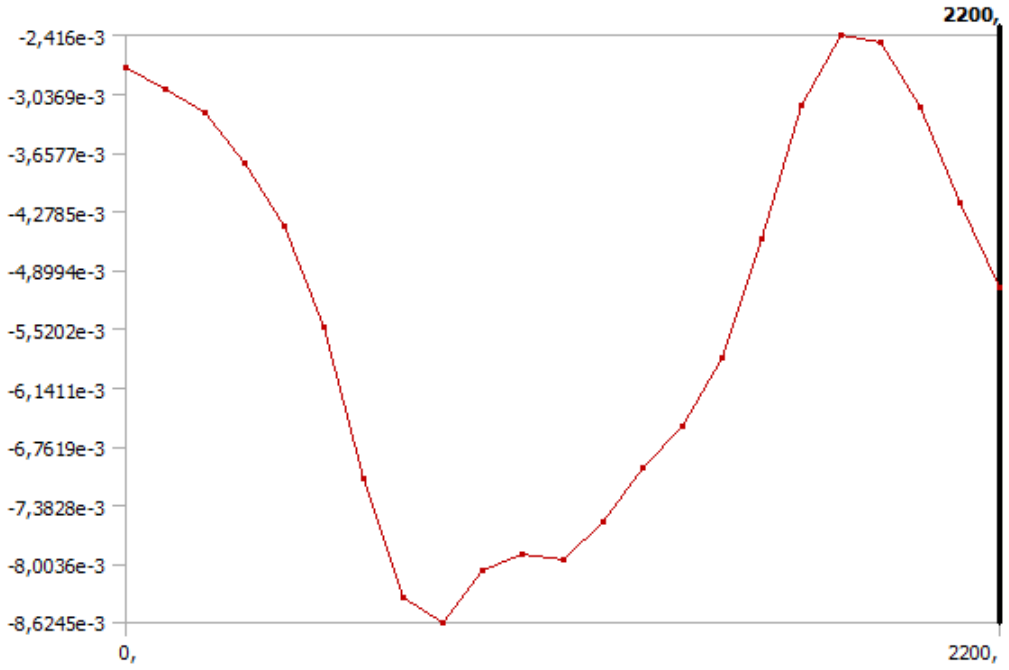
Length [mm]	Value [mm]
0,	-1,9667e-002
100,	-1,9587e-002
200,	-1,9392e-002
300,	-1,925e-002
400,	-1,913e-002
500,	-1,8892e-002
600,	-1,8756e-002
700,	-1,8942e-002
800,	-1,9379e-002
900,	-1,9736e-002
1000,	-1,9628e-002
1100,	-1,9473e-002
1200,	-1,9316e-002
1300,	-1,9108e-002
1400,	-1,9018e-002
1500,	-1,9127e-002
1600,	-1,936e-002
1700,	-1,9547e-002
1800,	-1,9687e-002
1900,	-1,9873e-002
2000,	-2,0057e-002
2100,	-2,0233e-002
2200,	-2,0435e-002

Curve B_outer Y



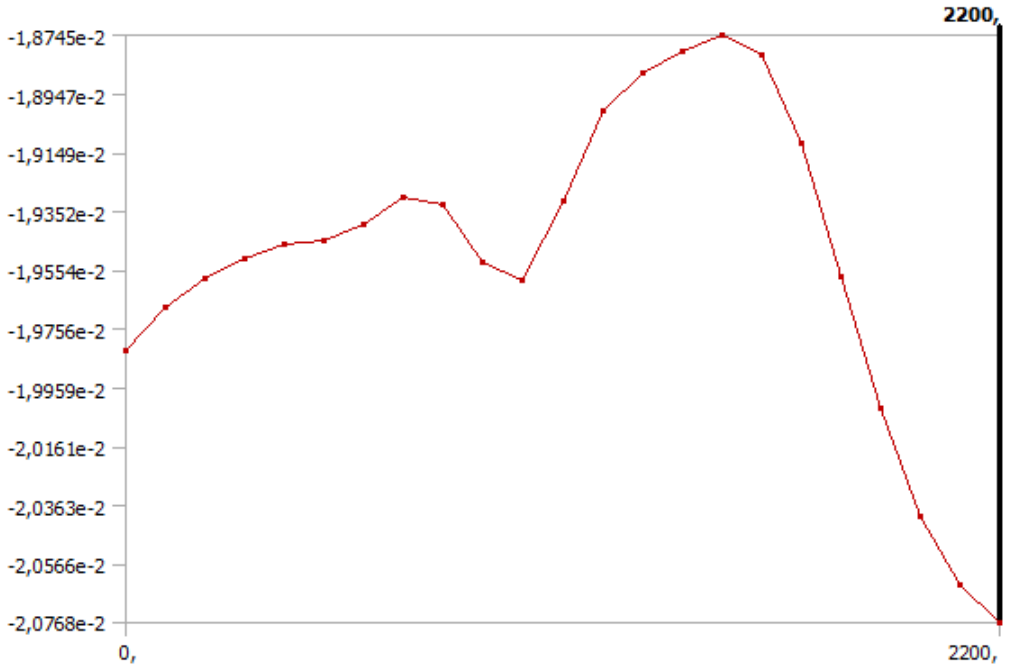
Length [mm]	Value [mm]
0,	-7,7436e-004
100,	-1,3258e-003
200,	-1,6669e-003
300,	-1,8732e-003
400,	-2,0625e-003
500,	-2,1937e-003
600,	-2,1536e-003
700,	-2,1551e-003
800,	-2,454e-003
900,	-3,309e-003
1000,	-4,3877e-003
1100,	-5,2726e-003
1200,	-5,8881e-003
1300,	-6,2136e-003
1400,	-6,2501e-003
1500,	-6,1457e-003
1600,	-6,043e-003
1700,	-6,0391e-003
1800,	-6,095e-003
1900,	-6,2777e-003
2000,	-6,6054e-003
2100,	-7,0508e-003
2200,	-7,6834e-003

Curve B_outer Z



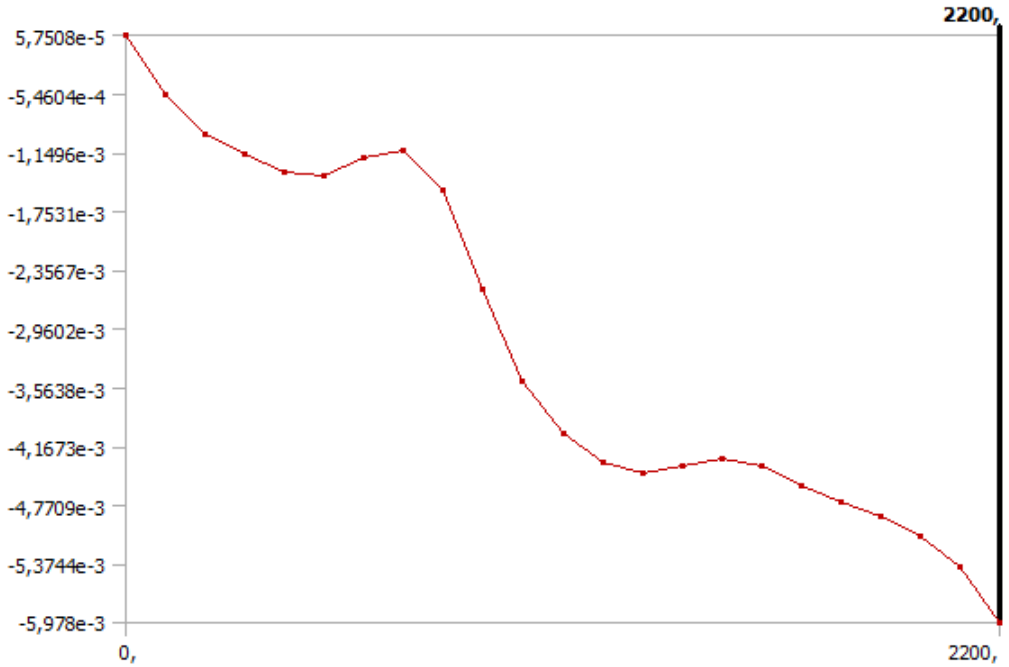
Length [mm]	Value [mm]
0,	-2,7611e-003
100,	-2,9904e-003
200,	-3,2379e-003
300,	-3,771e-003
400,	-4,4438e-003
500,	-5,5047e-003
600,	-7,0971e-003
700,	-8,3601e-003
800,	-8,6245e-003
900,	-8,0745e-003
1000,	-7,8954e-003
1100,	-7,9663e-003
1200,	-7,5496e-003
1300,	-6,9794e-003
1400,	-6,5526e-003
1500,	-5,831e-003
1600,	-4,5601e-003
1700,	-3,1503e-003
1800,	-2,416e-003
1900,	-2,4938e-003
2000,	-3,173e-003
2100,	-4,187e-003
2200,	-5,0876e-003

Curve B_center X



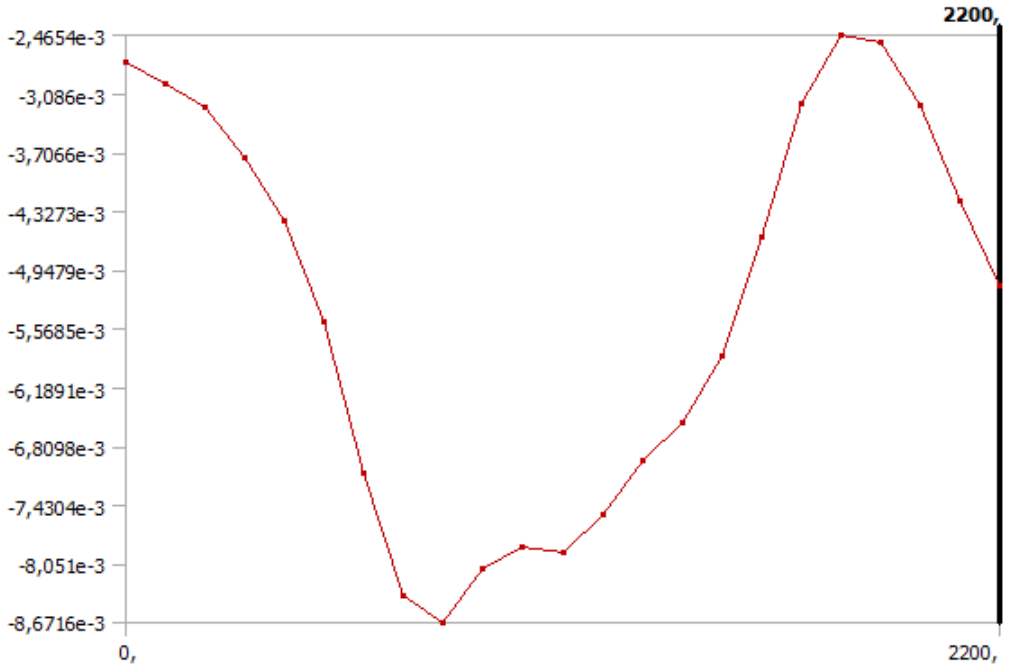
Length [mm]	Value [mm]
0,	-1,9831e-002
100,	-1,968e-002
200,	-1,9584e-002
300,	-1,9514e-002
400,	-1,9467e-002
500,	-1,9453e-002
600,	-1,9396e-002
700,	-1,9305e-002
800,	-1,933e-002
900,	-1,9527e-002
1000,	-1,9588e-002
1100,	-1,9315e-002
1200,	-1,9008e-002
1300,	-1,8876e-002
1400,	-1,8802e-002
1500,	-1,8745e-002
1600,	-1,8815e-002
1700,	-1,9117e-002
1800,	-1,9577e-002
1900,	-2,0029e-002
2000,	-2,0399e-002
2100,	-2,0639e-002
2200,	-2,0768e-002

Curve B_center Y



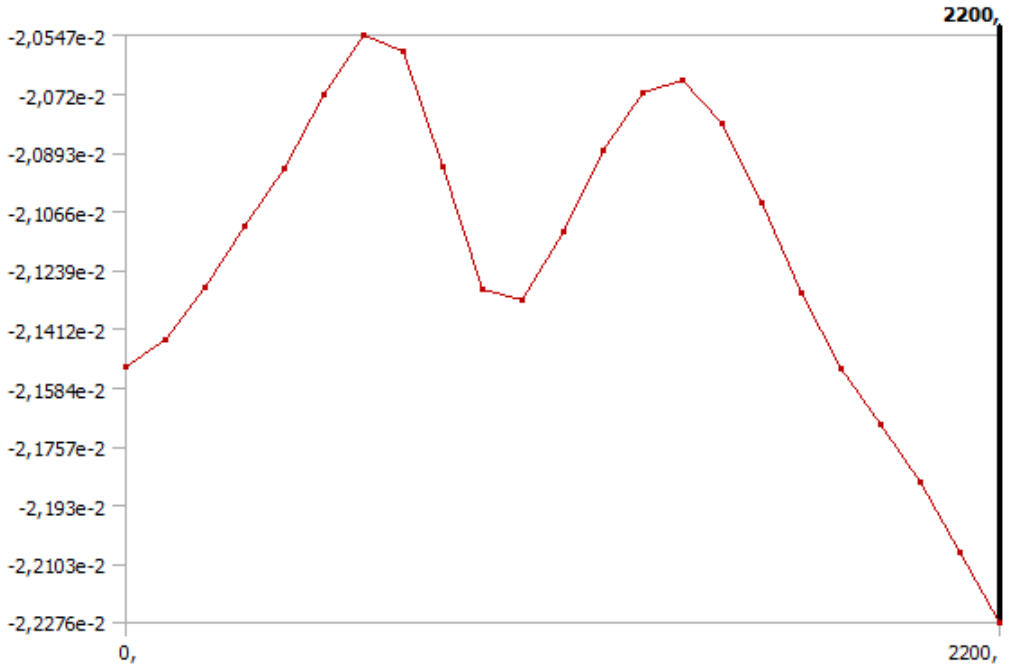
Length [mm]	Value [mm]
0,	5,7508e-005
100,	-5,6019e-004
200,	-9,6182e-004
300,	-1,1717e-003
400,	-1,3421e-003
500,	-1,3951e-003
600,	-1,1971e-003
700,	-1,1255e-003
800,	-1,526e-003
900,	-2,5441e-003
1000,	-3,5004e-003
1100,	-4,027e-003
1200,	-4,3257e-003
1300,	-4,444e-003
1400,	-4,3727e-003
1500,	-4,295e-003
1600,	-4,3631e-003
1700,	-4,5692e-003
1800,	-4,7346e-003
1900,	-4,8921e-003
2000,	-5,094e-003
2100,	-5,3955e-003
2200,	-5,978e-003

Curve B_center Z



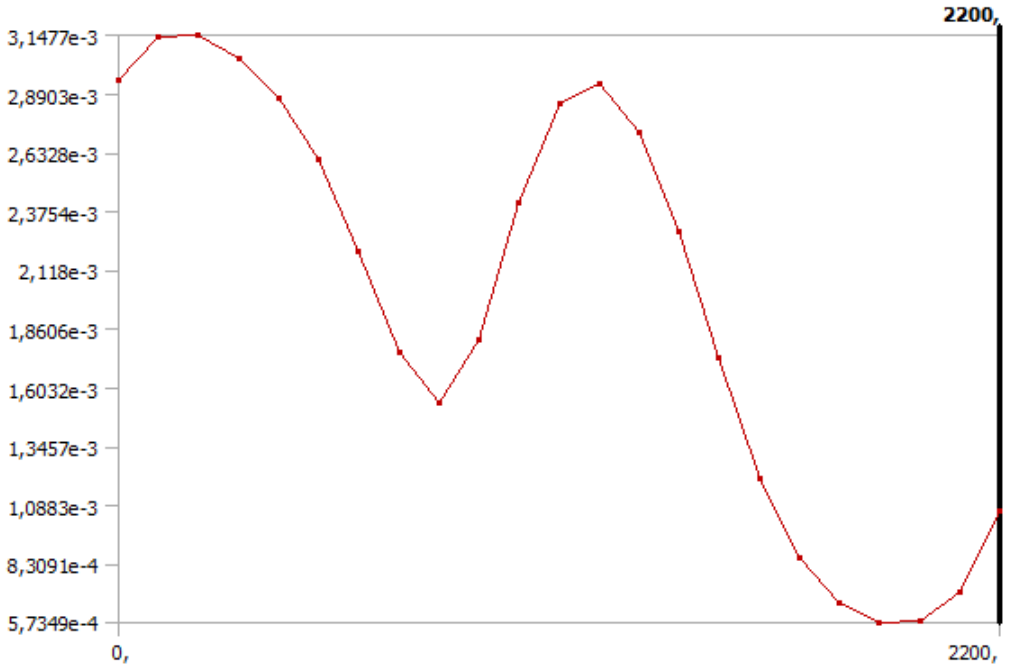
Length [mm]	Value [mm]
0,	-2,7561e-003
100,	-2,9755e-003
200,	-3,2226e-003
300,	-3,7625e-003
400,	-4,4339e-003
500,	-5,4882e-003
600,	-7,0959e-003
700,	-8,3815e-003
800,	-8,6716e-003
900,	-8,0999e-003
1000,	-7,8786e-003
1100,	-7,9342e-003
1200,	-7,5241e-003
1300,	-6,9642e-003
1400,	-6,5517e-003
1500,	-5,8461e-003
1600,	-4,5933e-003
1700,	-3,1924e-003
1800,	-2,4654e-003
1900,	-2,5405e-003
2000,	-3,2111e-003
2100,	-4,2148e-003
2200,	-5,1031e-003

Curve C_outer X



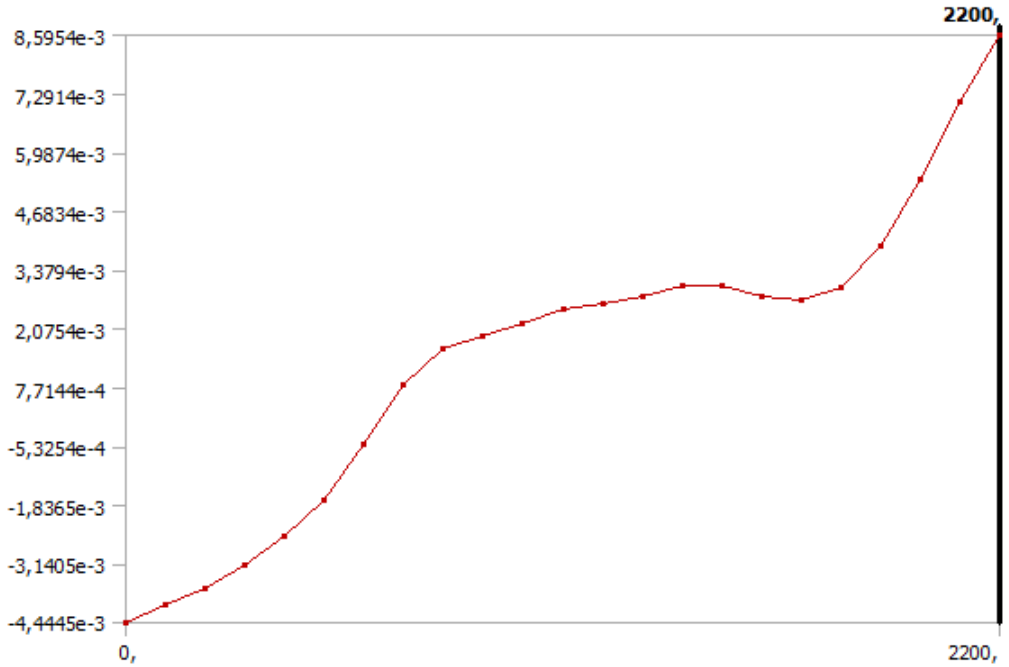
Length [mm]	Value [mm]
0,	-2,1522e-002
100,	-2,1445e-002
200,	-2,129e-002
300,	-2,1108e-002
400,	-2,0937e-002
500,	-2,0721e-002
600,	-2,0547e-002
700,	-2,0598e-002
800,	-2,0933e-002
900,	-2,1293e-002
1000,	-2,1327e-002
1100,	-2,1125e-002
1200,	-2,0886e-002
1300,	-2,0715e-002
1400,	-2,0679e-002
1500,	-2,0805e-002
1600,	-2,1043e-002
1700,	-2,1306e-002
1800,	-2,1526e-002
1900,	-2,1694e-002
2000,	-2,1862e-002
2100,	-2,2067e-002
2200,	-2,2276e-002

Curve C_outer Y



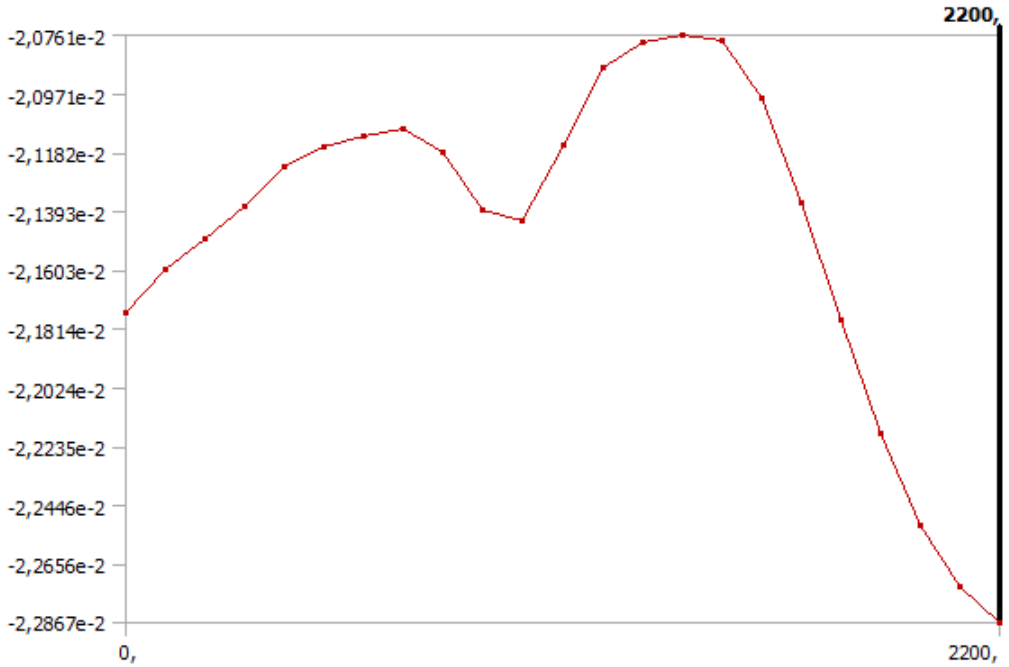
Length [mm]	Value [mm]
0,	2,9525e-003
100,	3,1365e-003
200,	3,1477e-003
300,	3,0444e-003
400,	2,8678e-003
500,	2,602e-003
600,	2,2035e-003
700,	1,7581e-003
800,	1,5366e-003
900,	1,8121e-003
1000,	2,4099e-003
1100,	2,85e-003
1200,	2,9372e-003
1300,	2,7192e-003
1400,	2,2883e-003
1500,	1,7305e-003
1600,	1,2043e-003
1700,	8,5762e-004
1800,	6,631e-004
1900,	5,7349e-004
2000,	5,7824e-004
2100,	7,0722e-004
2200,	1,0606e-003

Curve C_outer Z



Length [mm]	Value [mm]
0,	-4,4445e-003
100,	-4,0354e-003
200,	-3,6988e-003
300,	-3,1698e-003
400,	-2,5403e-003
500,	-1,708e-003
600,	-4,7904e-004
700,	8,2484e-004
800,	1,6398e-003
900,	1,9153e-003
1000,	2,1952e-003
1100,	2,5112e-003
1200,	2,6494e-003
1300,	2,8146e-003
1400,	3,0506e-003
1500,	3,0546e-003
1600,	2,7974e-003
1700,	2,7032e-003
1800,	3,013e-003
1900,	3,9287e-003
2000,	5,4082e-003
2100,	7,0966e-003
2200,	8,5954e-003

Curve C_center X



Length [mm]	Value [mm]
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100,	-2,1602e-002
200,	-2,1493e-002
300,	-2,1376e-002
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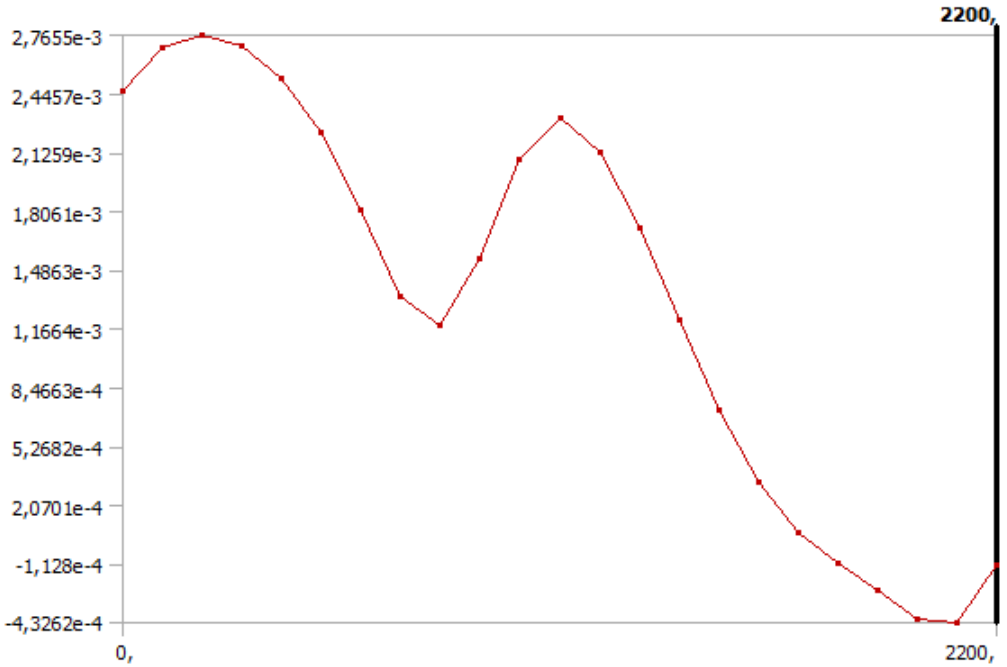
600,	-2,1122e-002
700,	-2,1096e-002
800,	-2,1181e-002
900,	-2,1387e-002
1000,	-2,1428e-002
1100,	-2,1155e-002
1200,	-2,0879e-002
1300,	-2,0789e-002
1400,	-2,0761e-002
1500,	-2,078e-002
1600,	-2,0988e-002
1700,	-2,1363e-002
1800,	-2,1782e-002
1900,	-2,219e-002
2000,	-2,2517e-002
2100,	-2,2739e-002
2200,	-2,2867e-002

Curve C_center Y



Length [mm]	Value [mm]
0,	2,4595e-003
100,	2,6927e-003
200,	2,7655e-003
300,	2,703e-003
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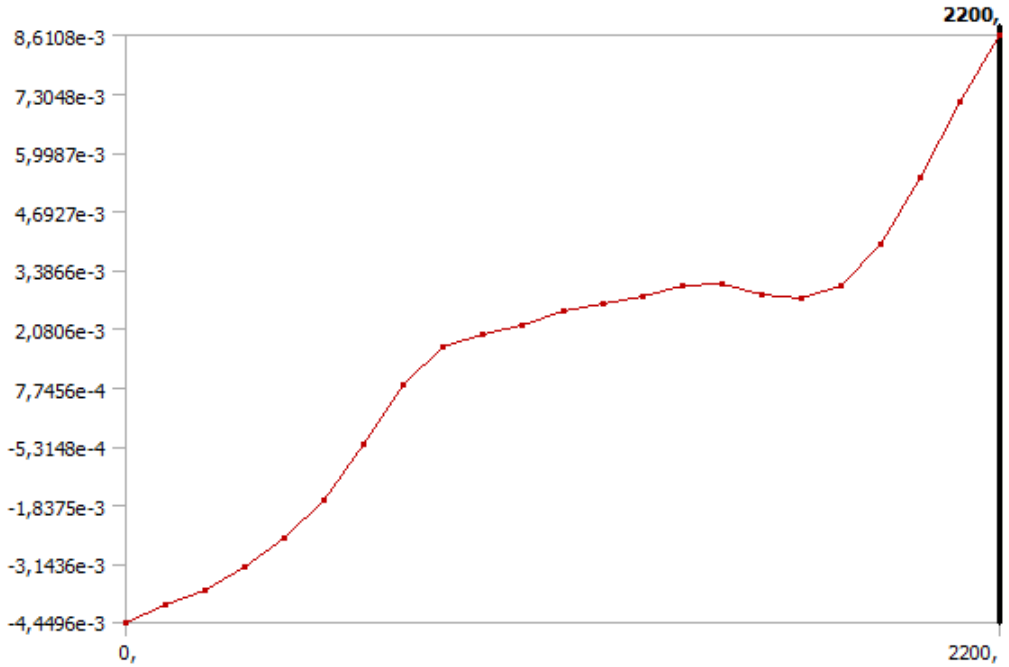
500,	2,2392e-003
600,	1,8105e-003
700,	1,3472e-003
800,	1,1899e-003
900,	1,5495e-003
1000,	2,0925e-003
1100,	2,3159e-003
1200,	2,1316e-003
1300,	1,7124e-003
1400,	1,2199e-003
1500,	7,2646e-004
1600,	3,2854e-004
1700,	5,3331e-005
1800,	-1,069e-004
1900,	-2,5718e-004
2000,	-4,149e-004
2100,	-4,3262e-004
2200,	-1,1663e-004

Curve C_center Z



Length [mm]	Value [mm]
0,	-4,4496e-003
100,	-4,0494e-003
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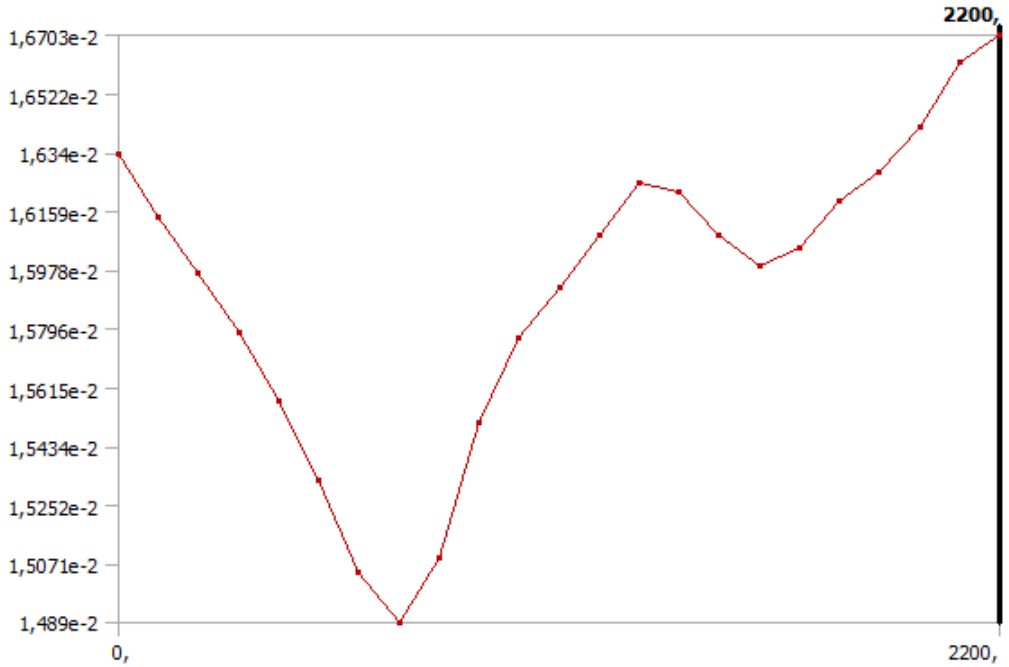
300,	-3,1886e-003
400,	-2,5588e-003
500,	-1,7232e-003
600,	-4,8554e-004
700,	8,4267e-004
800,	1,6841e-003
900,	1,9481e-003
1000,	2,1798e-003
1100,	2,4735e-003
1200,	2,6242e-003
1300,	2,8076e-003
1400,	3,055e-003
1500,	3,0777e-003
1600,	2,8417e-003
1700,	2,753e-003
1800,	3,0593e-003
1900,	3,9697e-003
2000,	5,4444e-003
2100,	7,1253e-003
2200,	8,6108e-003

Curve D_outer X



Length [mm]	Value [mm]
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300,	1,5788e-002
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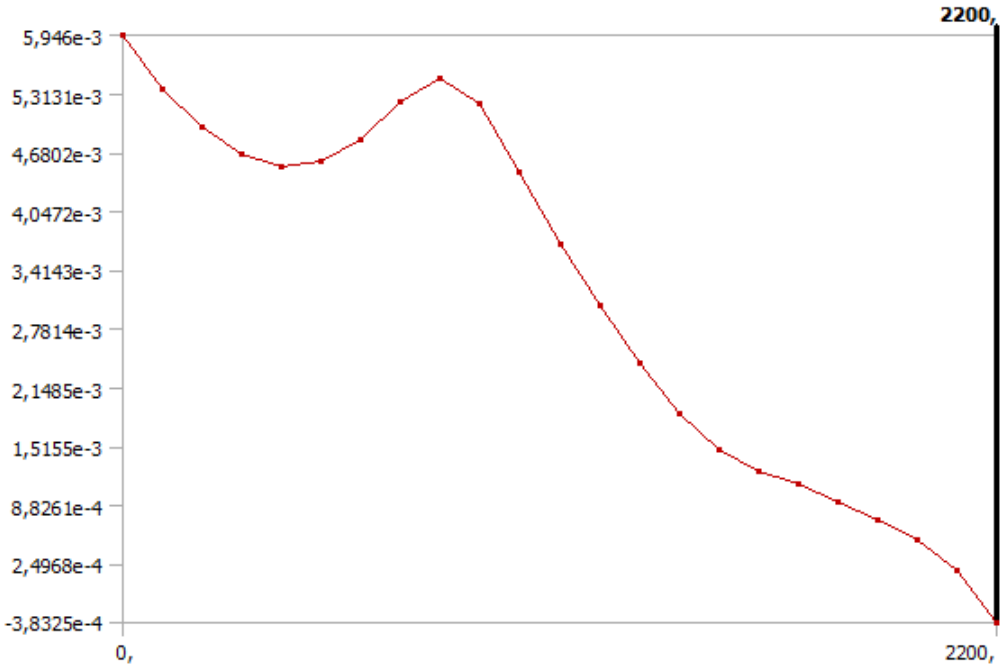
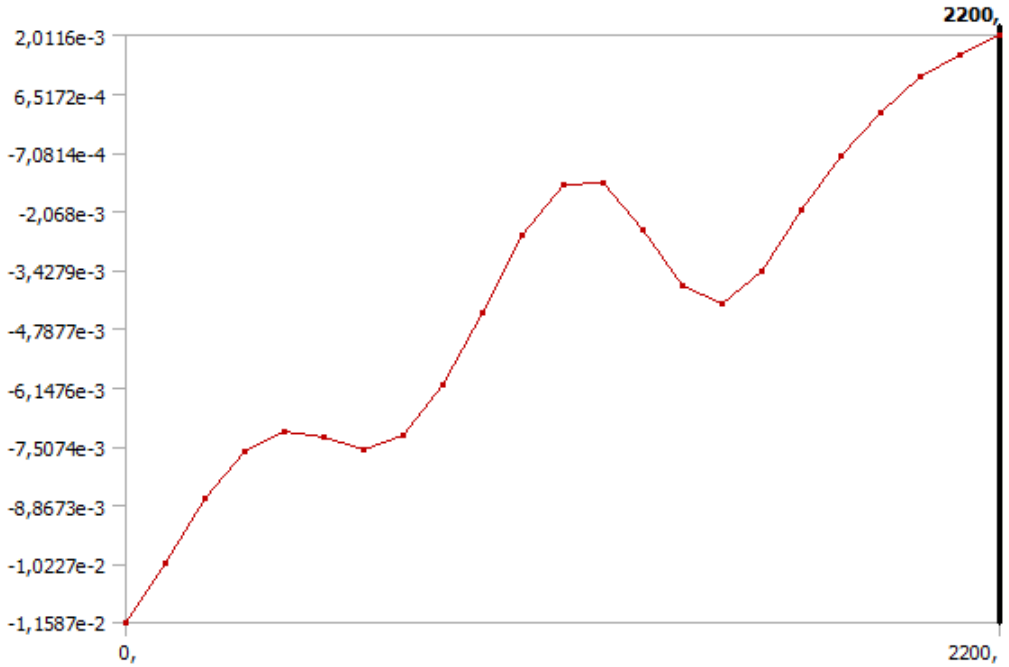
500,	1,5331e-002
600,	1,5047e-002
700,	1,489e-002
800,	1,5089e-002
900,	1,551e-002
1000,	1,5767e-002
1100,	1,5926e-002
1200,	1,6087e-002
1300,	1,6248e-002
1400,	1,6217e-002
1500,	1,6088e-002
1600,	1,5989e-002
1700,	1,6046e-002
1800,	1,6191e-002
1900,	1,6278e-002
2000,	1,6419e-002
2100,	1,662e-002
2200,	1,6703e-002

Curve D_outer Y



Length [mm]	Value [mm]
0,	5,946e-003
100,	5,3618e-003
200,	4,9604e-003
300,	4,6719e-003
400,	4,5358e-003
500,	4,5812e-003
600,	4,8212e-003
700,	5,2262e-003
800,	5,4861e-003
900,	5,2084e-003
1000,	4,4774e-003
1100,	3,7029e-003
1200,	3,0304e-003
1300,	2,4167e-003
1400,	1,8686e-003
1500,	1,487e-003
1600,	1,2493e-003
1700,	1,1048e-003
1800,	9,1277e-004
1900,	7,1789e-004
2000,	5,1617e-004
2100,	1,7429e-004
2200,	-3,8325e-004

Curve D_outer Z



Length [mm]	Value [mm]
0,	-1,1587e-002
100,	-1,0202e-002
200,	-8,7293e-003
300,	-7,6369e-003
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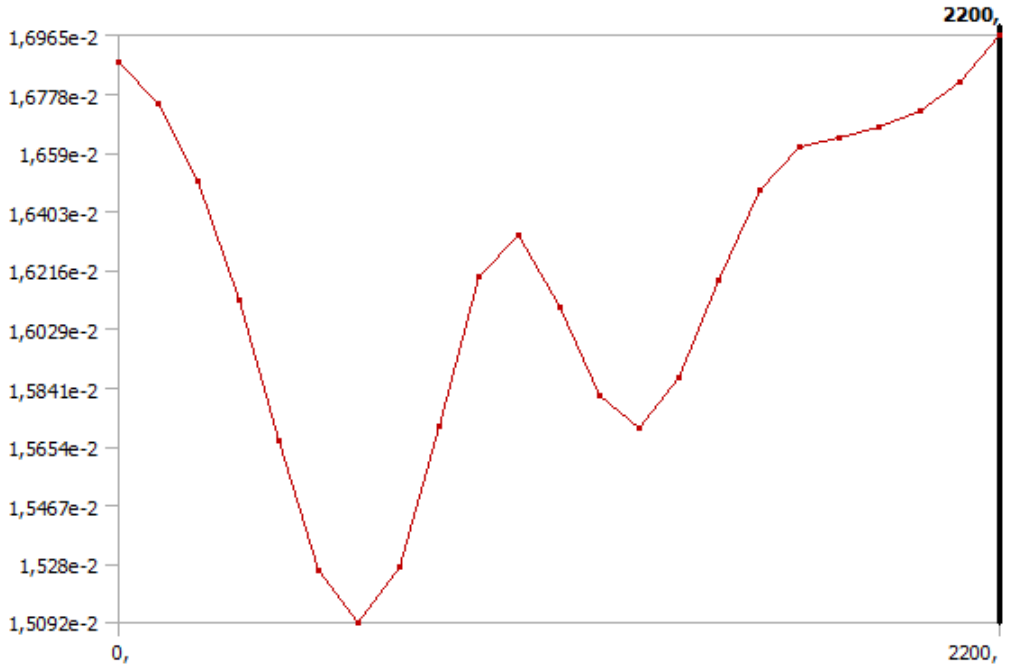
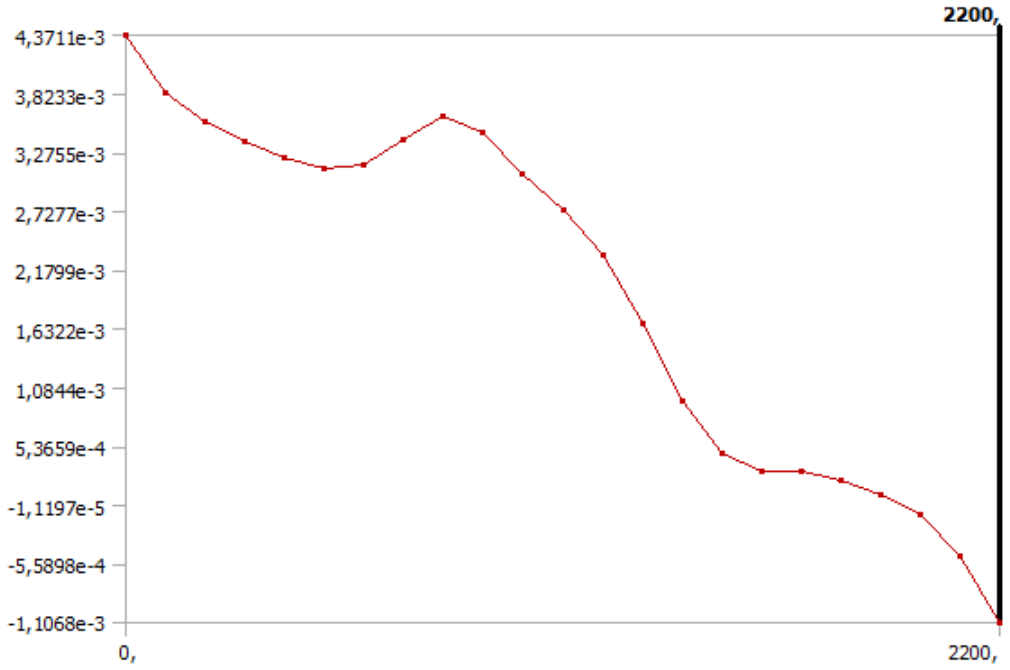
500,	-7,2787e-003
600,	-7,5785e-003
700,	-7,2482e-003
800,	-6,0812e-003
900,	-4,4231e-003
1000,	-2,6362e-003
1100,	-1,4372e-003
1200,	-1,4275e-003
1300,	-2,5078e-003
1400,	-3,8038e-003
1500,	-4,196e-003
1600,	-3,4399e-003
1700,	-2,0299e-003
1800,	-7,9056e-004
1900,	2,018e-004
2000,	1,0401e-003
2100,	1,5478e-003
2200,	2,0116e-003

Curve D_center X



Length [mm]	Value [mm]
0,	1,6879e-002
100,	1,6748e-002
200,	1,6502e-002
300,	1,6121e-002
400,	1,5671e-002
500,	1,5261e-002
600,	1,5092e-002
700,	1,5271e-002
800,	1,5718e-002
900,	1,6196e-002
1000,	1,6329e-002
1100,	1,6099e-002
1200,	1,5816e-002
1300,	1,5715e-002
1400,	1,5874e-002
1500,	1,6186e-002
1600,	1,6471e-002
1700,	1,6608e-002
1800,	1,6637e-002
1900,	1,667e-002
2000,	1,6725e-002
2100,	1,6815e-002
2200,	1,6965e-002

Curve D_center Y



Length [mm]	Value [mm]
0,	4,3711e-003
100,	3,8356e-003
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300,	3,3797e-003
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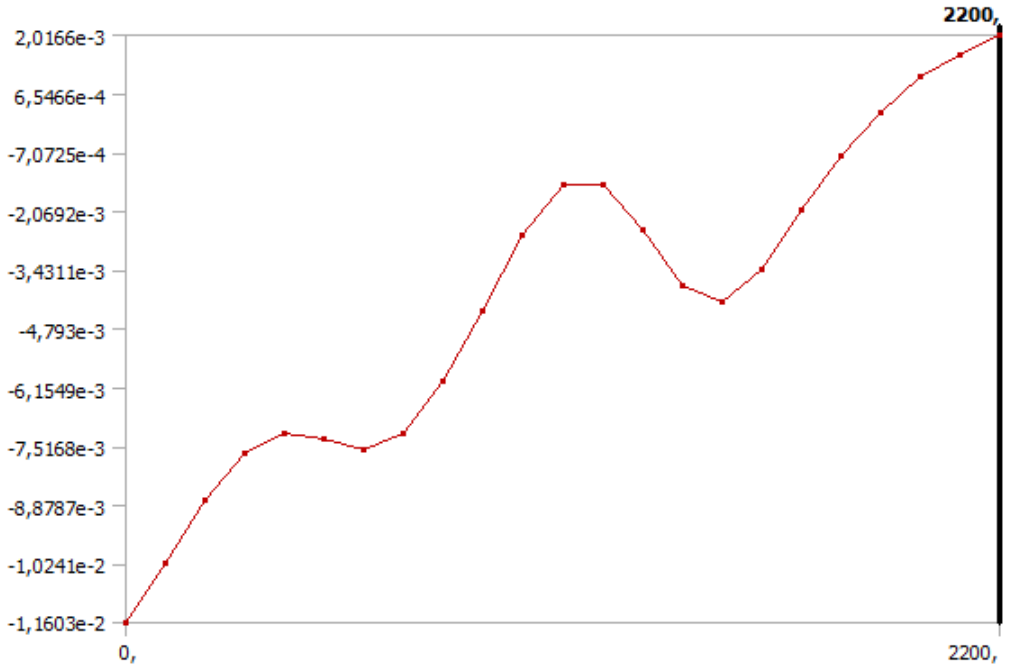
500,	3,1268e-003
600,	3,1562e-003
700,	3,3957e-003
800,	3,6174e-003
900,	3,4572e-003
1000,	3,0802e-003
1100,	2,7426e-003
1200,	2,3283e-003
1300,	1,6899e-003
1400,	9,5644e-004
1500,	4,7367e-004
1600,	2,9774e-004
1700,	3,072e-004
1800,	2,2511e-004
1900,	8,7953e-005
2000,	-9,2215e-005
2100,	-4,8446e-004
2200,	-1,1068e-003

Curve D_center Z



Length [mm]	Value [mm]
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100,	-1,023e-002
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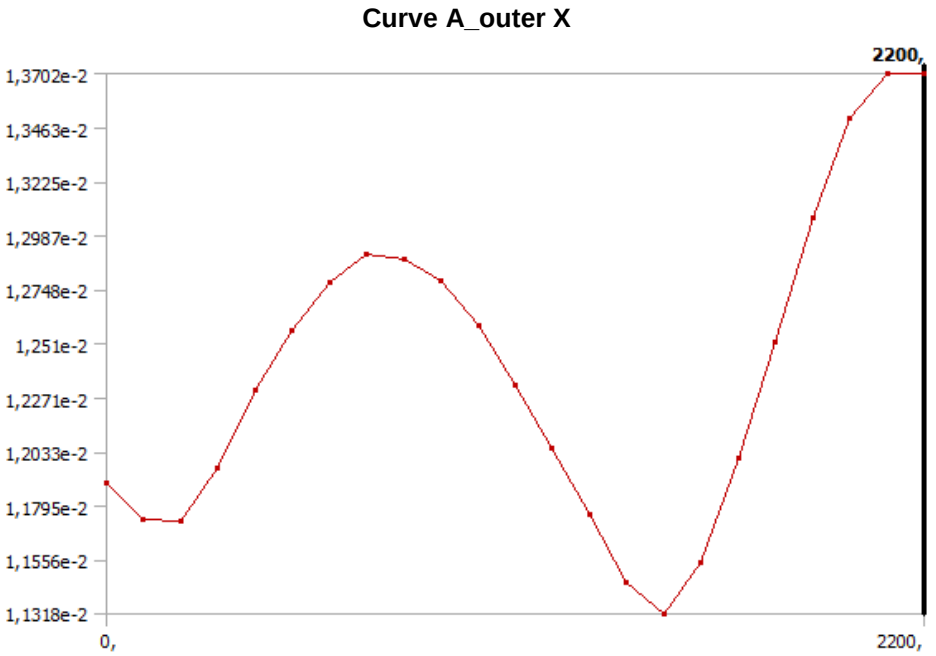
300,	-7,6849e-003
400,	-7,2045e-003
500,	-7,3238e-003
600,	-7,6007e-003
700,	-7,2273e-003
800,	-6,0212e-003
900,	-4,3747e-003
1000,	-2,633e-003
1100,	-1,4528e-003
1200,	-1,4351e-003
1300,	-2,5033e-003
1400,	-3,7958e-003
1500,	-4,1848e-003
1600,	-3,4305e-003
1700,	-2,0187e-003
1800,	-7,8518e-004
1900,	2,0824e-004
2000,	1,055e-003
2100,	1,563e-003
2200,	2,0166e-003

2.4 Load case 4



Length [mm]	Value [mm]
0,	1,1899e-002
100,	1,1738e-002
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300,	1,1962e-002
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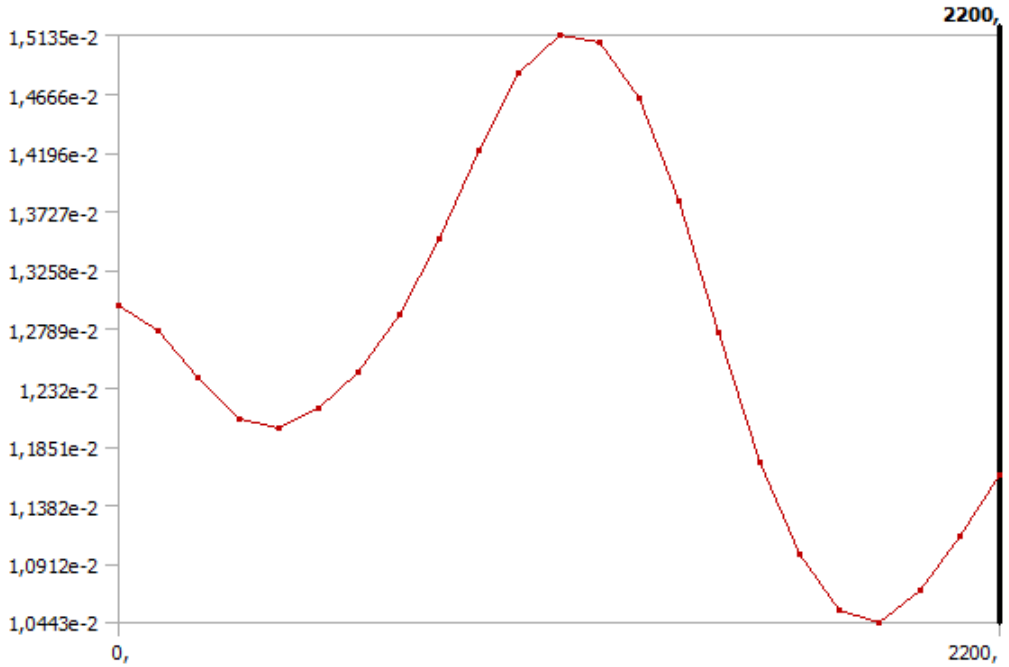
600,	1,2781e-002
700,	1,2907e-002
800,	1,2881e-002
900,	1,2791e-002
1000,	1,2593e-002
1100,	1,2326e-002
1200,	1,2052e-002
1300,	1,1758e-002
1400,	1,1459e-002
1500,	1,1318e-002
1600,	1,1545e-002
1700,	1,2007e-002
1800,	1,252e-002
1900,	1,3067e-002
2000,	1,3502e-002
2100,	1,37e-002
2200,	1,3702e-002

Curve A_outer Y



Length [mm]	Value [mm]
0,	1,297e-002
100,	1,2769e-002
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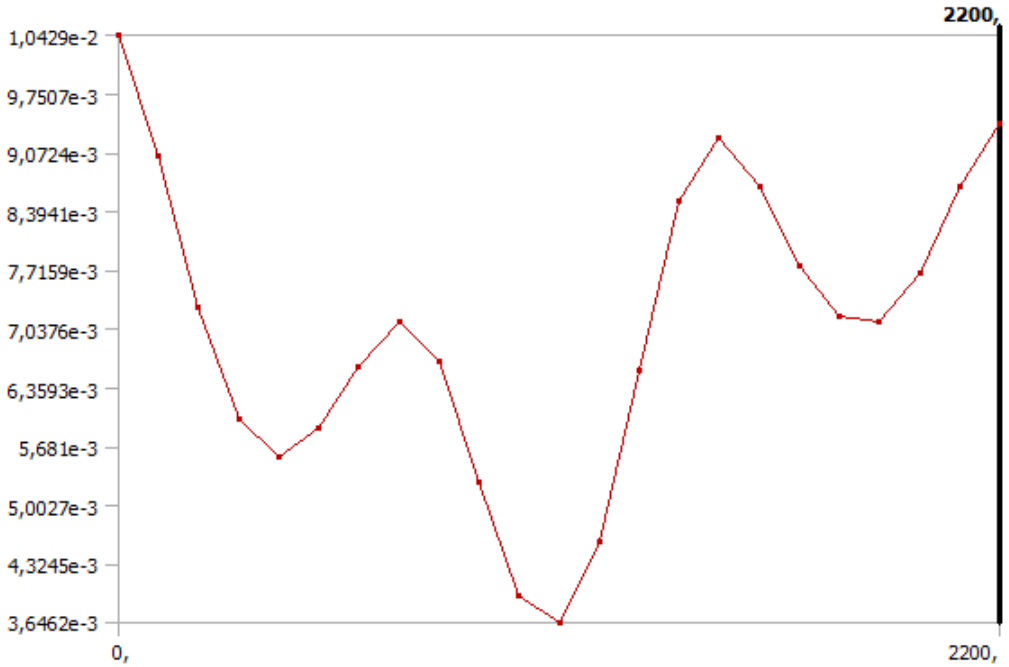
300,	1,207e-002
400,	1,1995e-002
500,	1,2159e-002
600,	1,2441e-002
700,	1,2908e-002
800,	1,3513e-002
900,	1,4215e-002
1000,	1,4829e-002
1100,	1,5135e-002
1200,	1,5072e-002
1300,	1,4632e-002
1400,	1,3815e-002
1500,	1,2755e-002
1600,	1,172e-002
1700,	1,0991e-002
1800,	1,054e-002
1900,	1,0443e-002
2000,	1,0698e-002
2100,	1,113e-002
2200,	1,162e-002

Curve A_outer Z



Length [mm]	Value [mm]
0,	1,0429e-002
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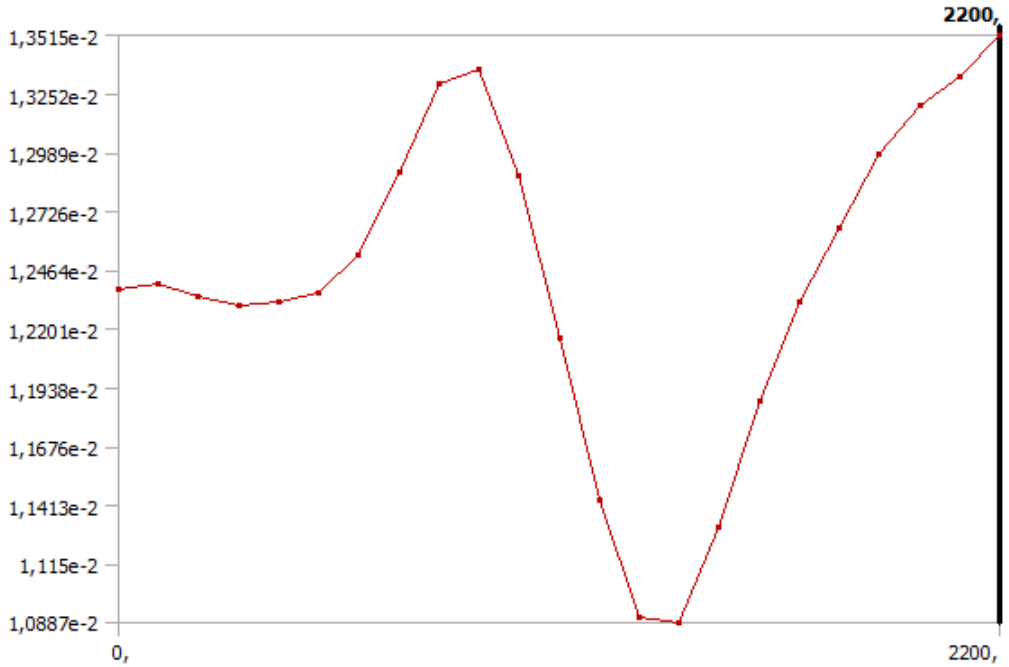
200,	7,2939e-003
300,	6,0059e-003
400,	5,5695e-003
500,	5,8941e-003
600,	6,5983e-003
700,	7,1263e-003
800,	6,6596e-003
900,	5,2744e-003
1000,	3,9687e-003
1100,	3,6462e-003
1200,	4,5898e-003
1300,	6,5493e-003
1400,	8,5056e-003
1500,	9,2378e-003
1600,	8,6789e-003
1700,	7,7639e-003
1800,	7,1751e-003
1900,	7,1283e-003
2000,	7,6877e-003
2100,	8,6876e-003
2200,	9,4146e-003

Curve A_center X



Length [mm]	Value [mm]
0,	1,238e-002
100,	1,24e-002
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300,	1,2304e-002
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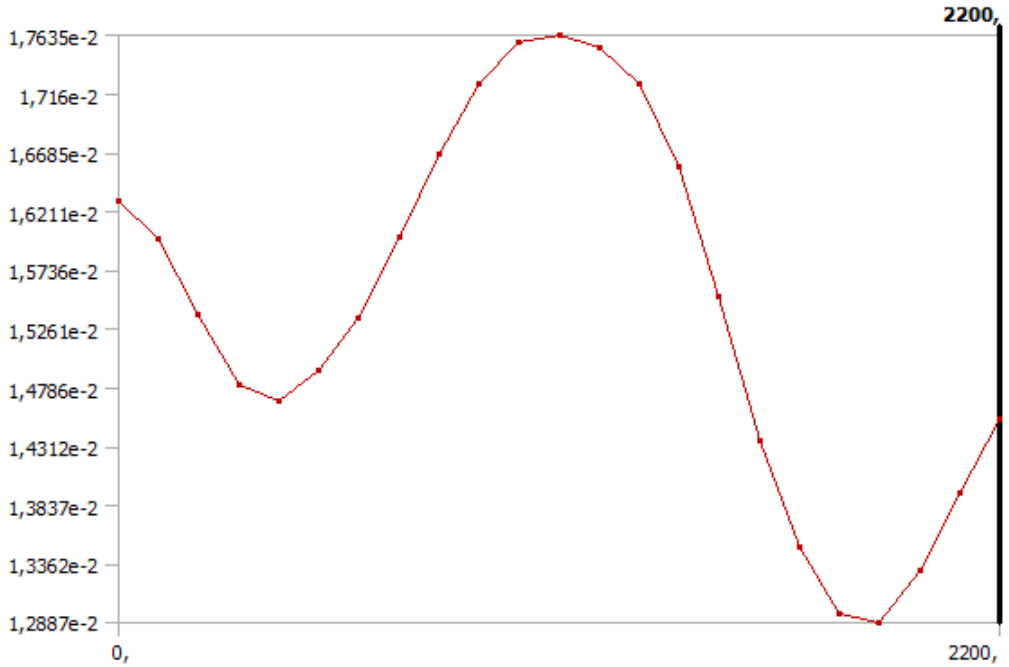
600,	1,2529e-002
700,	1,2903e-002
800,	1,3299e-002
900,	1,3358e-002
1000,	1,2887e-002
1100,	1,2158e-002
1200,	1,1432e-002
1300,	1,0908e-002
1400,	1,0887e-002
1500,	1,1315e-002
1600,	1,1882e-002
1700,	1,2322e-002
1800,	1,2653e-002
1900,	1,2986e-002
2000,	1,3199e-002
2100,	1,3333e-002
2200,	1,3515e-002

Curve A_center Y



Length [mm]	Value [mm]
0,	1,6291e-002
100,	1,5996e-002
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300,	1,4812e-002
400,	1,4678e-002
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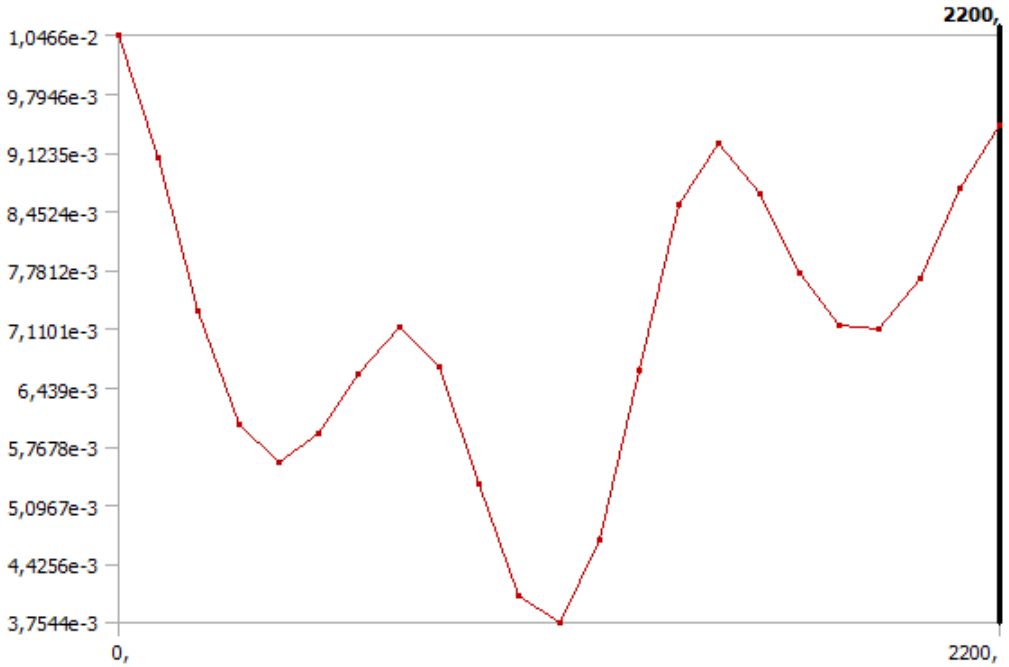
600,	1,5343e-002
700,	1,5998e-002
800,	1,6669e-002
900,	1,7241e-002
1000,	1,7574e-002
1100,	1,7635e-002
1200,	1,7537e-002
1300,	1,7238e-002
1400,	1,6569e-002
1500,	1,5518e-002
1600,	1,4352e-002
1700,	1,35e-002
1800,	1,2963e-002
1900,	1,2887e-002
2000,	1,3306e-002
2100,	1,3943e-002
2200,	1,4534e-002

Curve A_center Z



Length [mm]	Value [mm]
0,	1,0466e-002
100,	9,073e-003
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300,	6,0185e-003
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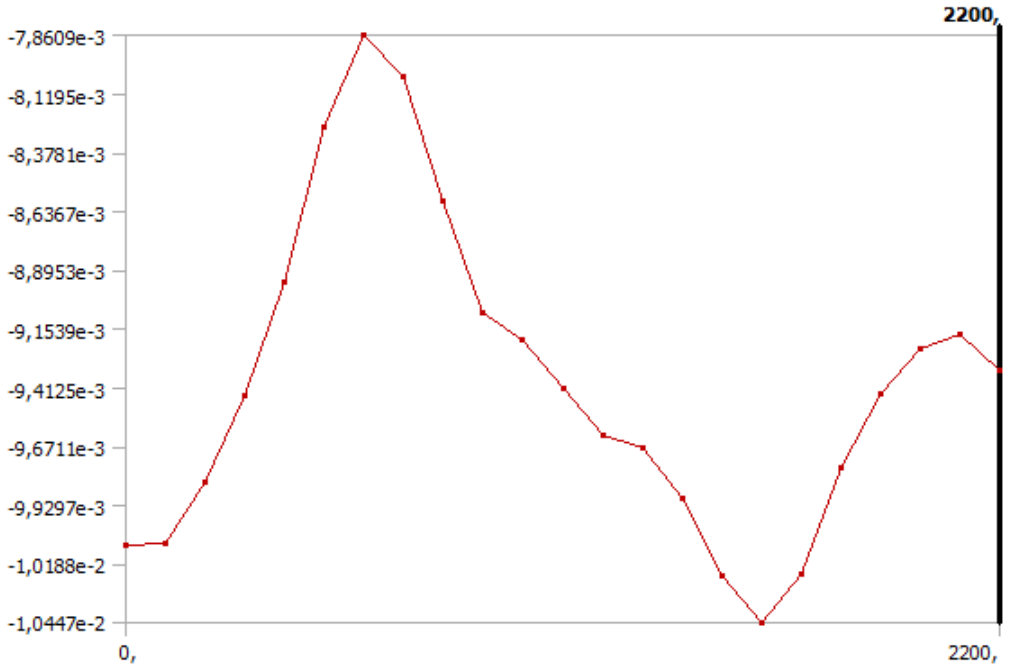
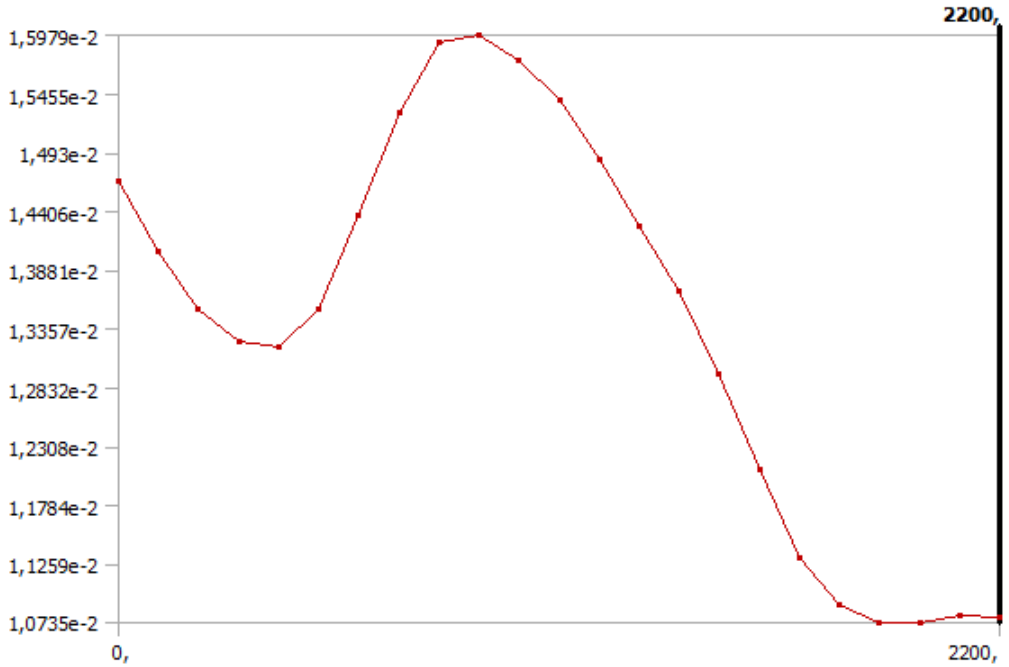
500,	5,9095e-003
600,	6,5992e-003
700,	7,1272e-003
800,	6,6772e-003
900,	5,3344e-003
1000,	4,0669e-003
1100,	3,7544e-003
1200,	4,6914e-003
1300,	6,6279e-003
1400,	8,5405e-003
1500,	9,2312e-003
1600,	8,6478e-003
1700,	7,7403e-003
1800,	7,1475e-003
1900,	7,1065e-003
2000,	7,6895e-003
2100,	8,7062e-003
2200,	9,4397e-003

Curve B_outer X



Length [mm]	Value [mm]
0,	-1,0108e-002
100,	-1,0101e-002
200,	-9,8305e-003
300,	-9,4451e-003
400,	-8,946e-003
500,	-8,2621e-003
600,	-7,8609e-003
700,	-8,0431e-003
800,	-8,5889e-003
900,	-9,0814e-003
1000,	-9,2009e-003
1100,	-9,4139e-003
1200,	-9,6212e-003
1300,	-9,6745e-003
1400,	-9,898e-003
1500,	-1,0244e-002
1600,	-1,0447e-002
1700,	-1,0229e-002
1800,	-9,7618e-003
1900,	-9,4388e-003
2000,	-9,2398e-003
2100,	-9,1804e-003
2200,	-9,3349e-003

Curve B_outer Y



Length [mm]	Value [mm]
0,	1,468e-002
100,	1,4042e-002
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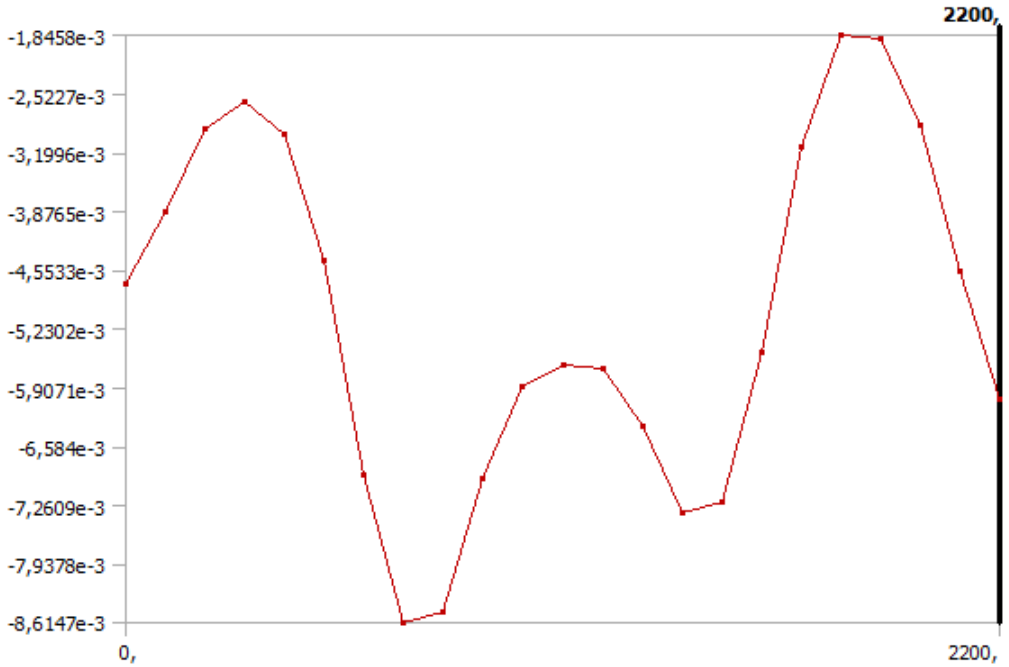
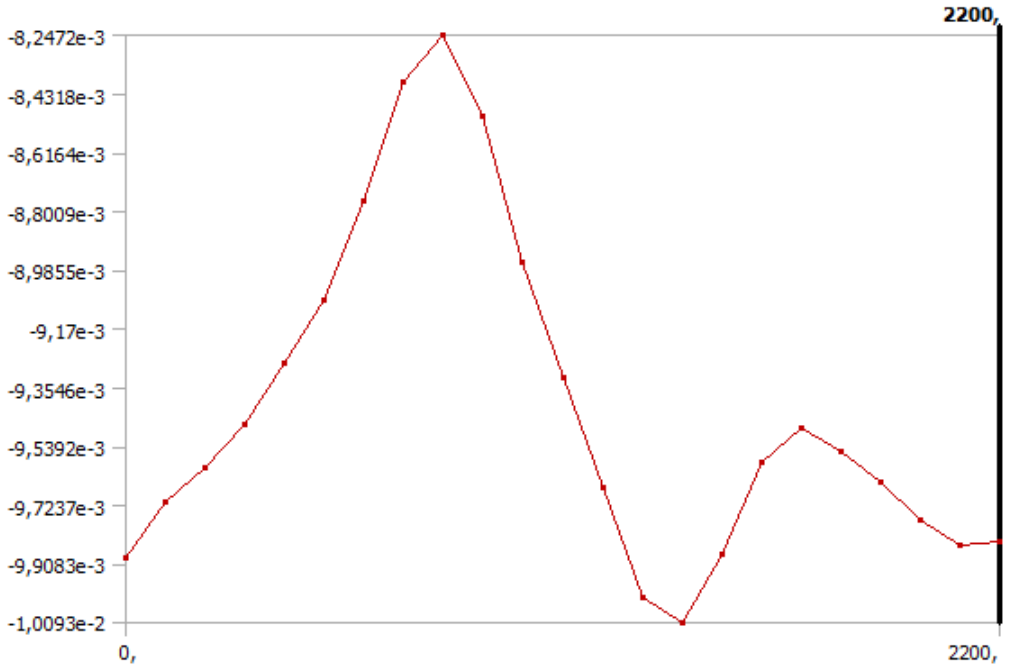
300,	1,325e-002
400,	1,3201e-002
500,	1,3535e-002
600,	1,4372e-002
700,	1,5287e-002
800,	1,5918e-002
900,	1,5979e-002
1000,	1,5748e-002
1100,	1,5395e-002
1200,	1,4867e-002
1300,	1,4273e-002
1400,	1,3689e-002
1500,	1,2953e-002
1600,	1,211e-002
1700,	1,1315e-002
1800,	1,0891e-002
1900,	1,0741e-002
2000,	1,0735e-002
2100,	1,0806e-002
2200,	1,0781e-002

Curve B_outer Z



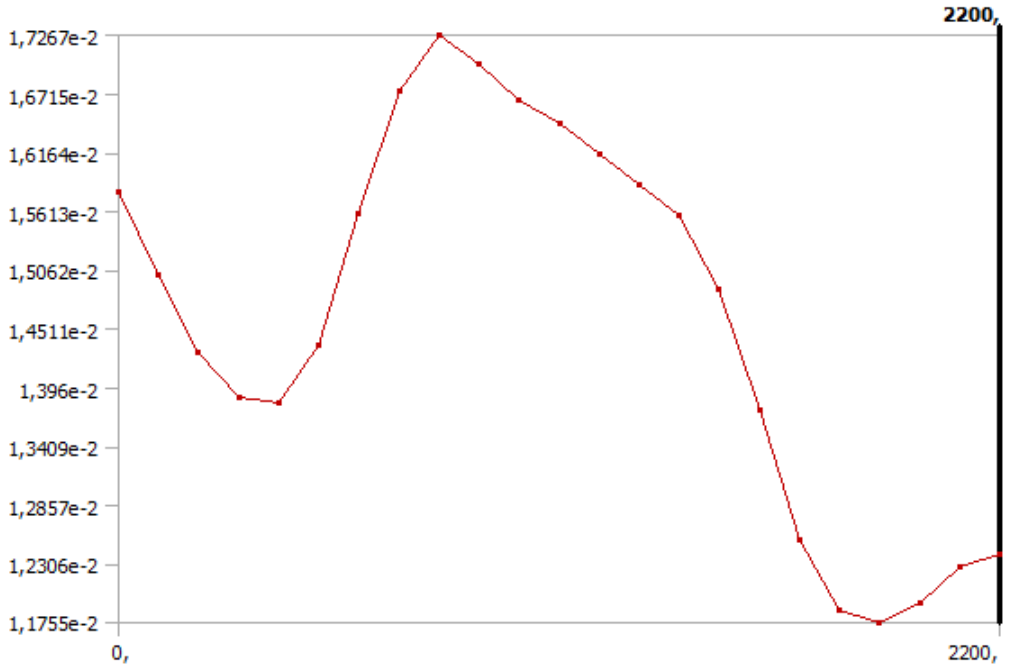
Length [mm]	Value [mm]
0,	-4,7026e-003
100,	-3,8747e-003
200,	-2,9257e-003
300,	-2,6147e-003
400,	-2,9879e-003
500,	-4,4471e-003
600,	-6,911e-003
700,	-8,6147e-003
800,	-8,4805e-003
900,	-6,9567e-003
1000,	-5,8865e-003
1100,	-5,6463e-003
1200,	-5,6858e-003
1300,	-6,3523e-003
1400,	-7,3436e-003
1500,	-7,2198e-003
1600,	-5,5007e-003
1700,	-3,1283e-003
1800,	-1,8458e-003
1900,	-1,8944e-003
2000,	-2,8931e-003
2100,	-4,5593e-003
2200,	-6,0304e-003

Curve B_center X



Length [mm]	Value [mm]
0,	-9,8901e-003
100,	-9,714e-003
200,	-9,6059e-003
300,	-9,4712e-003
400,	-9,2771e-003
500,	-9,0773e-003
600,	-8,7671e-003
700,	-8,3957e-003
800,	-8,2472e-003
900,	-8,5035e-003
1000,	-8,9609e-003
1100,	-9,3241e-003
1200,	-9,6684e-003
1300,	-1,0011e-002
1400,	-1,0093e-002
1500,	-9,8772e-003
1600,	-9,5891e-003
1700,	-9,4834e-003
1800,	-9,5571e-003
1900,	-9,65e-003
2000,	-9,7676e-003
2100,	-9,8521e-003
2200,	-9,836e-003

Curve B_center Y



Length [mm]	Value [mm]
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200,	1,4287e-002
300,	1,3872e-002
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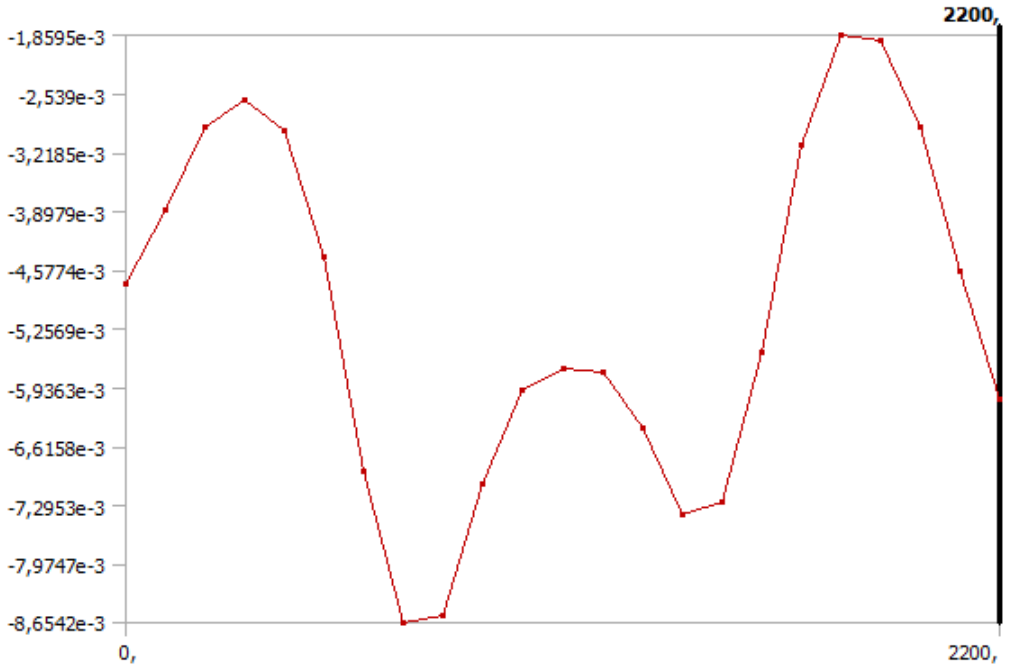
500,	1,4359e-002
600,	1,5592e-002
700,	1,6747e-002
800,	1,7267e-002
900,	1,7001e-002
1000,	1,6652e-002
1100,	1,6444e-002
1200,	1,6144e-002
1300,	1,5857e-002
1400,	1,5574e-002
1500,	1,488e-002
1600,	1,3745e-002
1700,	1,2526e-002
1800,	1,1878e-002
1900,	1,1755e-002
2000,	1,1948e-002
2100,	1,2287e-002
2200,	1,239e-002

Curve B_center Z



Length [mm]	Value [mm]
0,	-4,7272e-003
100,	-3,8908e-003
200,	-2,9287e-003
300,	-2,6073e-003
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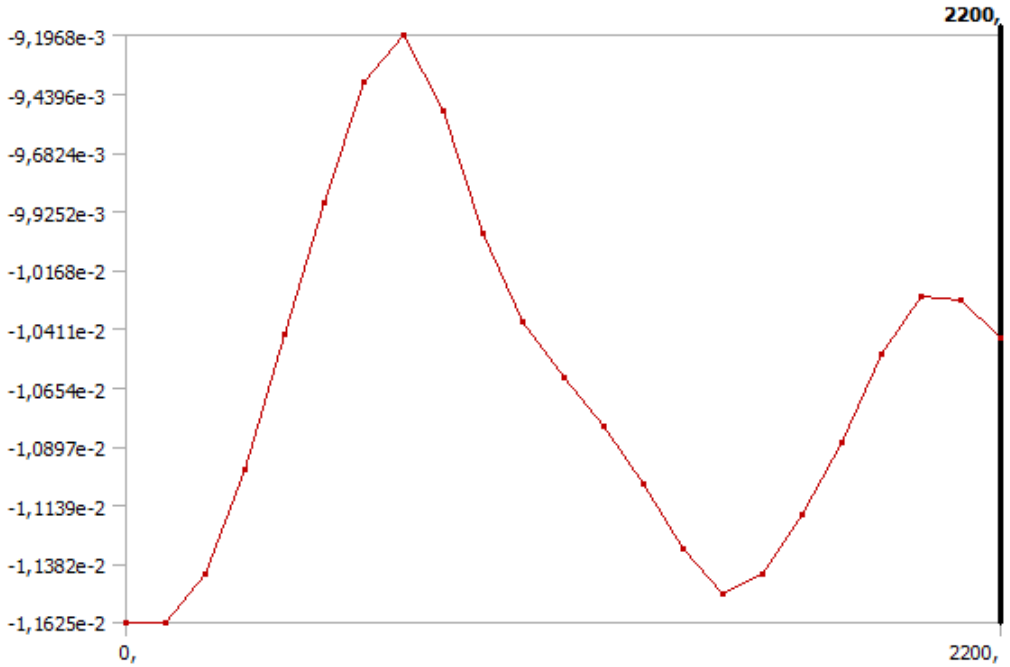
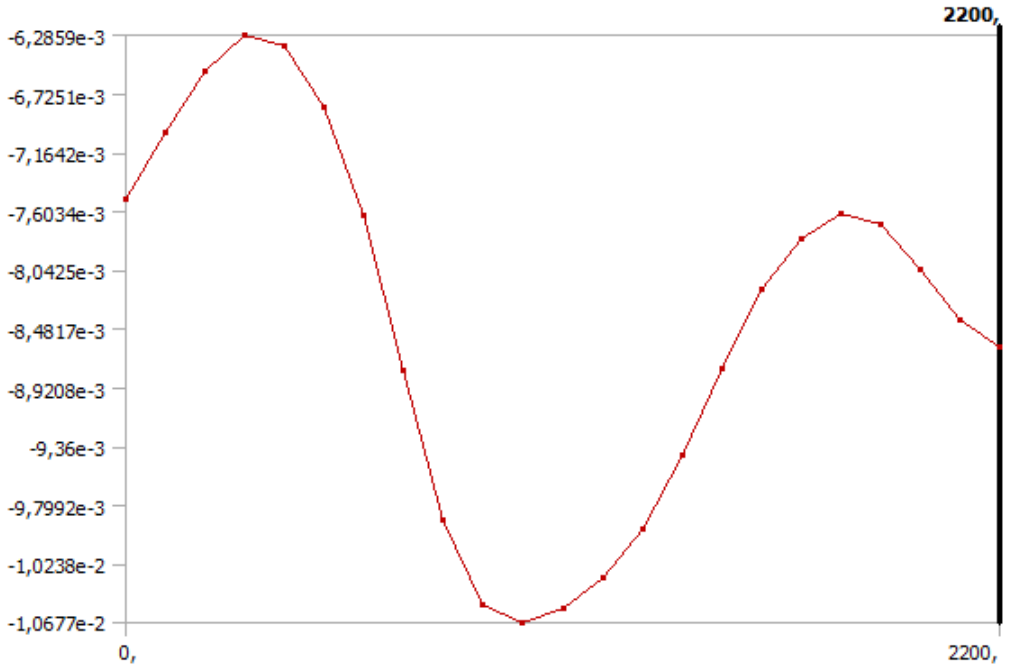
500,	-4,4182e-003
600,	-6,913e-003
700,	-8,6542e-003
800,	-8,5617e-003
900,	-7,0395e-003
1000,	-5,9615e-003
1100,	-5,7214e-003
1200,	-5,7555e-003
1300,	-6,4103e-003
1400,	-7,3946e-003
1500,	-7,2541e-003
1600,	-5,5219e-003
1700,	-3,1331e-003
1800,	-1,8595e-003
1900,	-1,9187e-003
2000,	-2,9266e-003
2100,	-4,5999e-003
2200,	-6,0667e-003

Curve C_outer X



Length [mm]	Value [mm]
0,	-1,1625e-002
100,	-1,1624e-002
200,	-1,1427e-002
300,	-1,0992e-002
400,	-1,0435e-002
500,	-9,887e-003
600,	-9,3891e-003
700,	-9,1968e-003
800,	-9,5061e-003
900,	-1,0018e-002
1000,	-1,0384e-002
1100,	-1,0615e-002
1200,	-1,0815e-002
1300,	-1,1051e-002
1400,	-1,132e-002
1500,	-1,1502e-002
1600,	-1,1421e-002
1700,	-1,1177e-002
1800,	-1,0879e-002
1900,	-1,0515e-002
2000,	-1,028e-002
2100,	-1,0289e-002
2200,	-1,0451e-002

Curve C_outer Y



Length [mm]	Value [mm]
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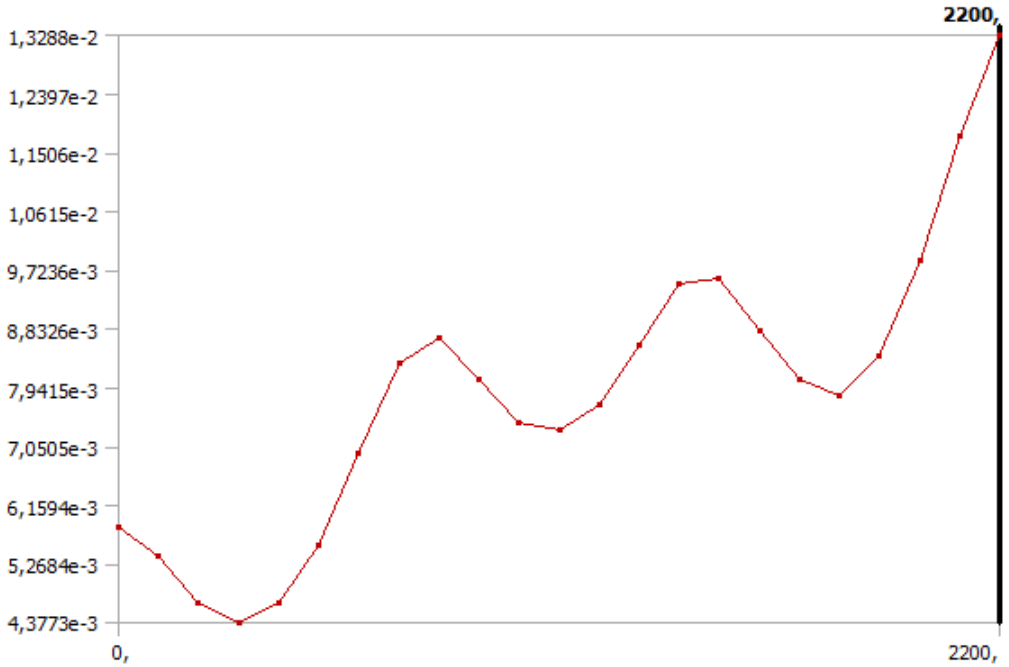
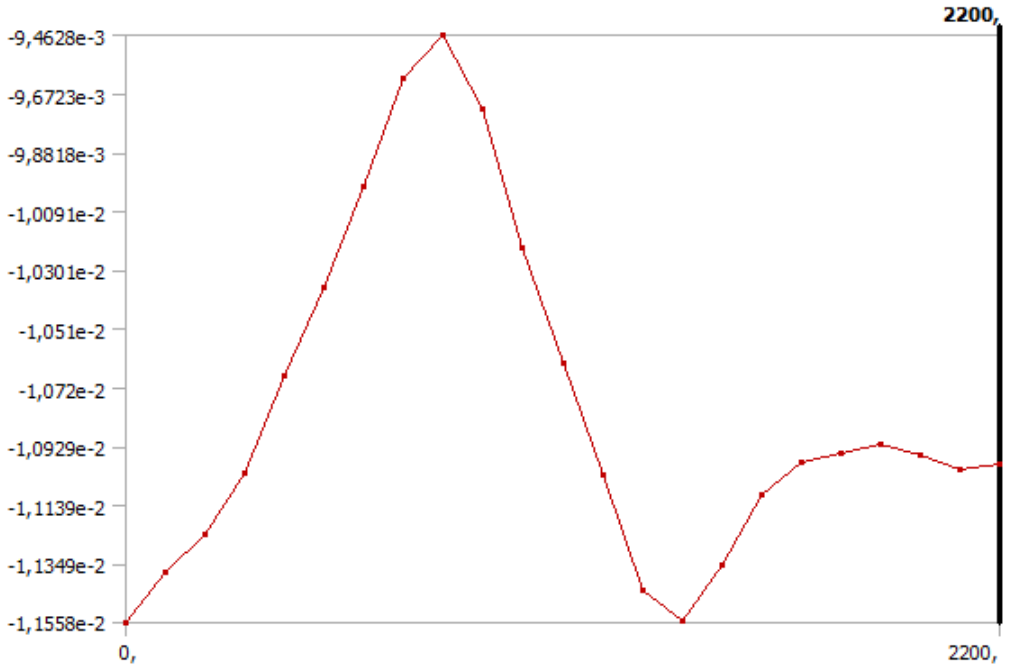
100,	-7,0074e-003
200,	-6,5592e-003
300,	-6,2859e-003
400,	-6,3668e-003
500,	-6,829e-003
600,	-7,6343e-003
700,	-8,7962e-003
800,	-9,9092e-003
900,	-1,0546e-002
1000,	-1,0677e-002
1100,	-1,0568e-002
1200,	-1,0347e-002
1300,	-9,9795e-003
1400,	-9,4269e-003
1500,	-8,7747e-003
1600,	-8,184e-003
1700,	-7,8117e-003
1800,	-7,6172e-003
1900,	-7,6946e-003
2000,	-8,0317e-003
2100,	-8,4076e-003
2200,	-8,6119e-003

Curve C_outer Z



Length [mm]	Value [mm]
0,	5,8337e-003
100,	5,3888e-003
200,	4,6674e-003
300,	4,3773e-003
400,	4,6691e-003
500,	5,5427e-003
600,	6,9424e-003
700,	8,3053e-003
800,	8,7021e-003
900,	8,0729e-003
1000,	7,4196e-003
1100,	7,291e-003
1200,	7,672e-003
1300,	8,594e-003
1400,	9,5284e-003
1500,	9,5952e-003
1600,	8,8167e-003
1700,	8,0557e-003
1800,	7,8337e-003
1900,	8,4281e-003
2000,	9,8691e-003
2100,	1,175e-002
2200,	1,3288e-002

Curve C_center X



Length [mm]	Value [mm]
0,	-1,1558e-002
100,	-1,1376e-002
200,	-1,1241e-002
300,	-1,1022e-002
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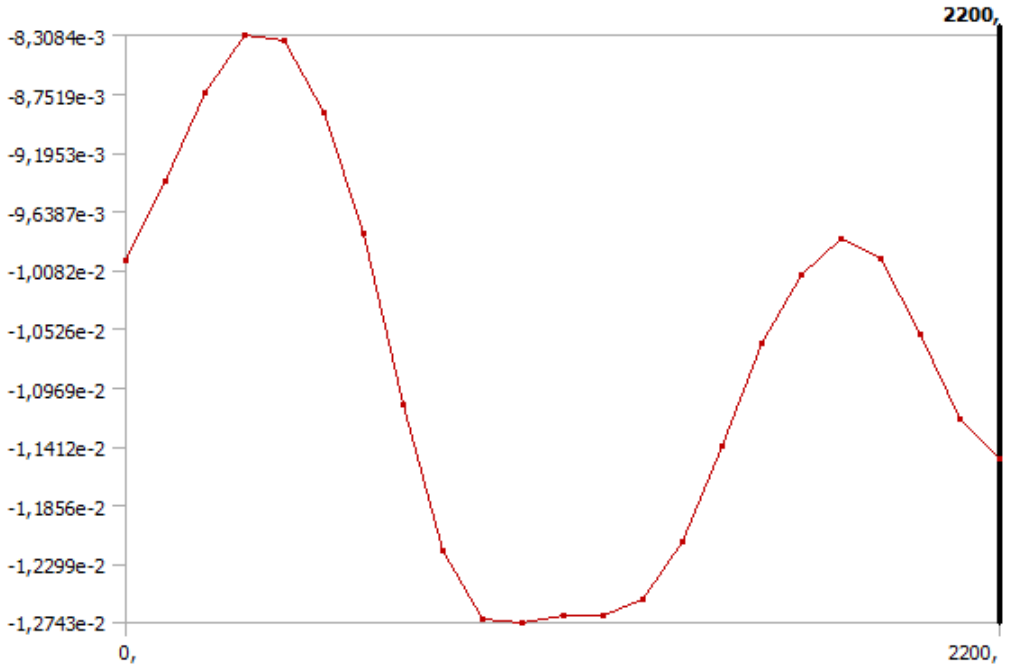
500,	-1,0362e-002
600,	-1,0001e-002
700,	-9,6149e-003
800,	-9,4628e-003
900,	-9,7286e-003
1000,	-1,0224e-002
1100,	-1,063e-002
1200,	-1,1031e-002
1300,	-1,1444e-002
1400,	-1,1555e-002
1500,	-1,1352e-002
1600,	-1,1102e-002
1700,	-1,0985e-002
1800,	-1,0953e-002
1900,	-1,0923e-002
2000,	-1,0957e-002
2100,	-1,1011e-002
2200,	-1,0991e-002

Curve C_center Y



Length [mm]	Value [mm]
0,	-1,001e-002
100,	-9,4048e-003
200,	-8,7504e-003
300,	-8,3084e-003
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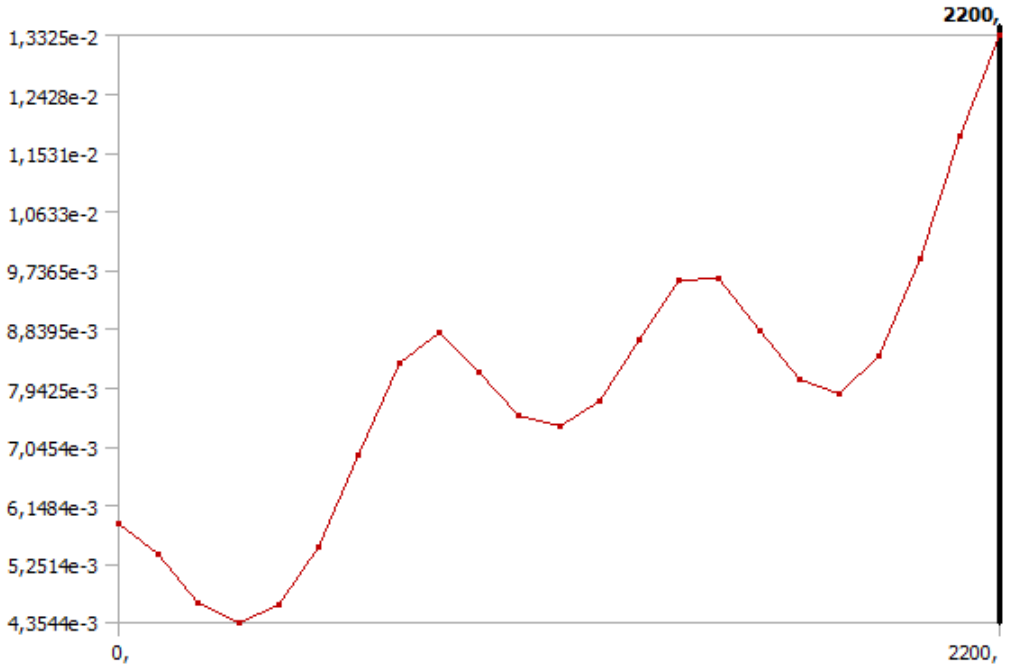
500,	-8,8872e-003
600,	-9,8082e-003
700,	-1,1098e-002
800,	-1,2205e-002
900,	-1,2713e-002
1000,	-1,2743e-002
1100,	-1,269e-002
1200,	-1,2689e-002
1300,	-1,257e-002
1400,	-1,2135e-002
1500,	-1,1414e-002
1600,	-1,0632e-002
1700,	-1,012e-002
1800,	-9,8504e-003
1900,	-9,9959e-003
2000,	-1,0572e-002
2100,	-1,1203e-002
2200,	-1,1502e-002

Curve C_center Z



Length [mm]	Value [mm]
0,	5,8587e-003
100,	5,4073e-003
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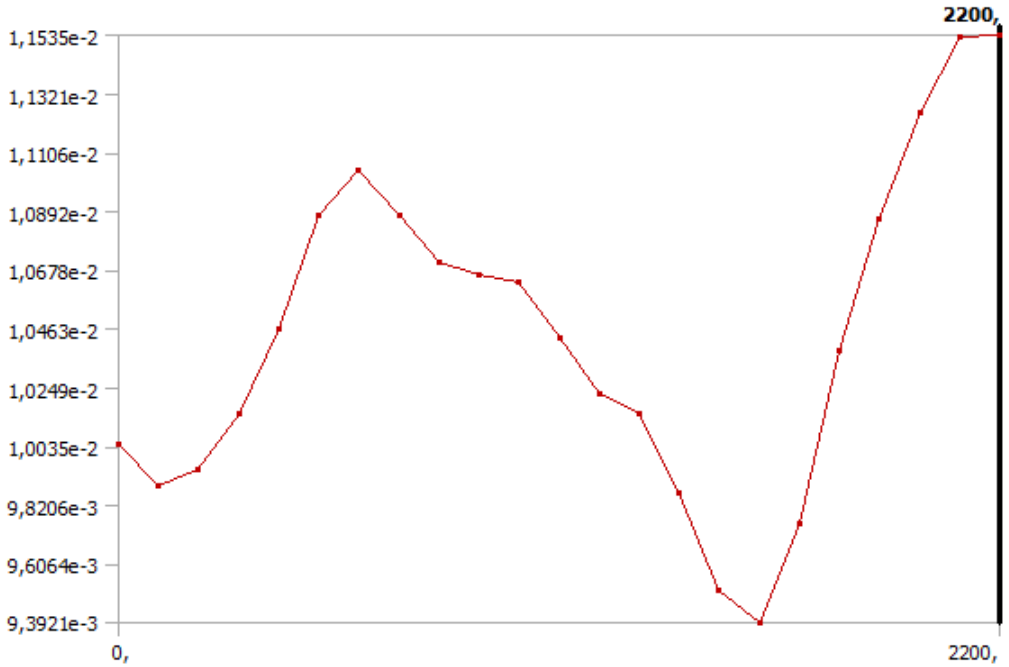
300,	4,3544e-003
400,	4,6397e-003
500,	5,5187e-003
600,	6,9189e-003
700,	8,3221e-003
800,	8,7736e-003
900,	8,1728e-003
1000,	7,5065e-003
1100,	7,3665e-003
1200,	7,7521e-003
1300,	8,6691e-003
1400,	9,5746e-003
1500,	9,6146e-003
1600,	8,8231e-003
1700,	8,0694e-003
1800,	7,8413e-003
1900,	8,4393e-003
2000,	9,9008e-003
2100,	1,1793e-002
2200,	1,3325e-002

Curve D_outer X



Length [mm]	Value [mm]
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300,	1,0152e-002
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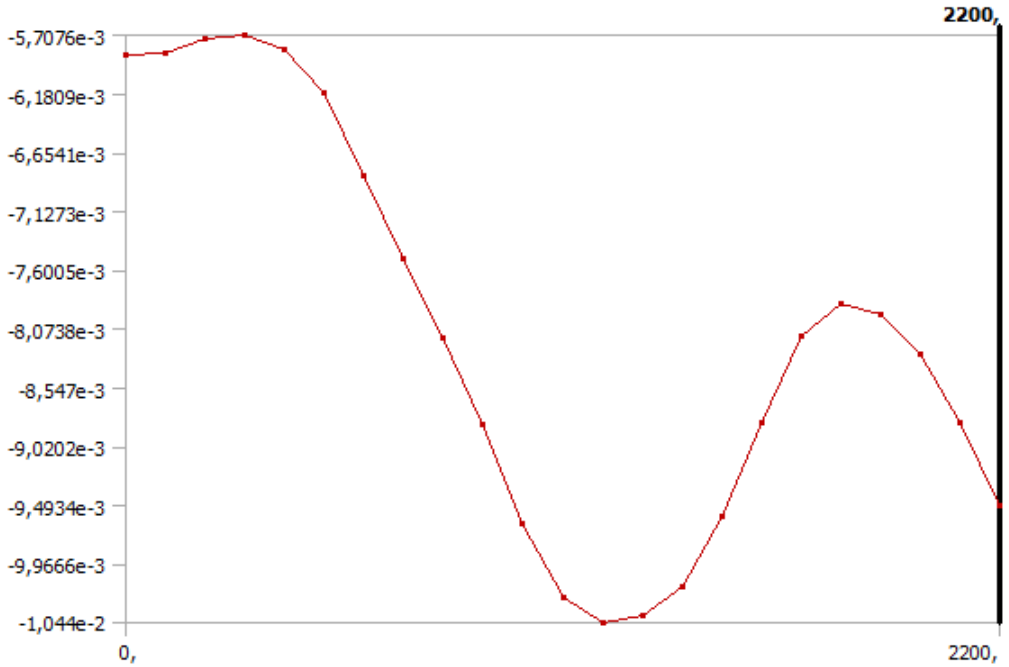
500,	1,0875e-002
600,	1,104e-002
700,	1,088e-002
800,	1,0703e-002
900,	1,0661e-002
1000,	1,0633e-002
1100,	1,0428e-002
1200,	1,0229e-002
1300,	1,0154e-002
1400,	9,8656e-003
1500,	9,5134e-003
1600,	9,3921e-003
1700,	9,7538e-003
1800,	1,0386e-002
1900,	1,0867e-002
2000,	1,1252e-002
2100,	1,1527e-002
2200,	1,1535e-002

Curve D_outer Y



Length [mm]	Value [mm]
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100,	-5,8461e-003
200,	-5,7373e-003
300,	-5,7076e-003
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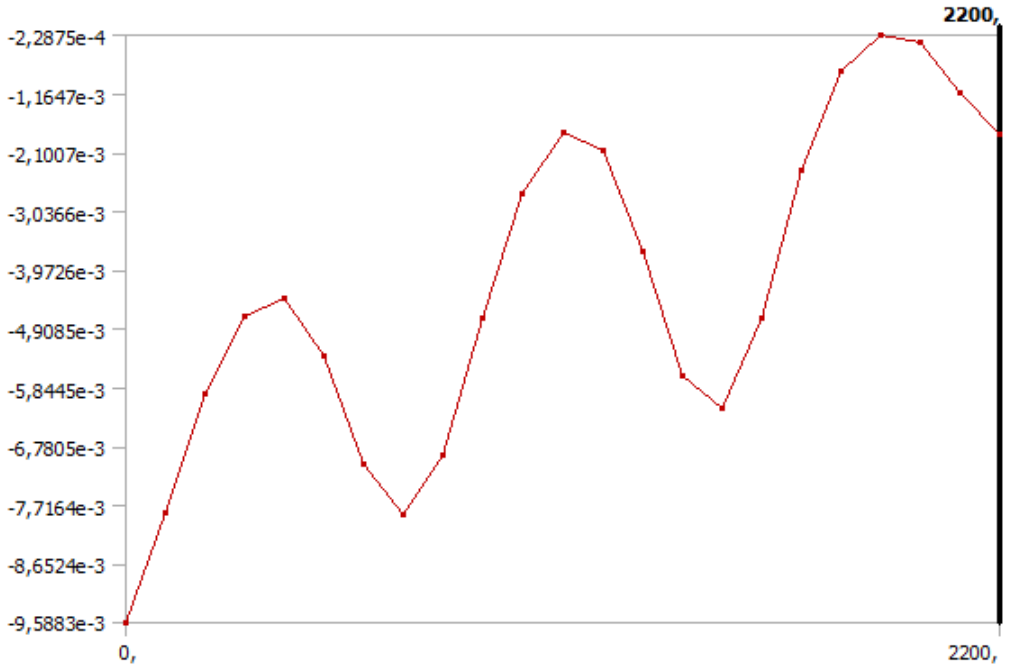
500,	-6,1783e-003
600,	-6,8341e-003
700,	-7,5015e-003
800,	-8,1405e-003
900,	-8,8397e-003
1000,	-9,6364e-003
1100,	-1,023e-002
1200,	-1,044e-002
1300,	-1,0388e-002
1400,	-1,0146e-002
1500,	-9,5802e-003
1600,	-8,8301e-003
1700,	-8,1345e-003
1800,	-7,8727e-003
1900,	-7,9612e-003
2000,	-8,2813e-003
2100,	-8,8255e-003
2200,	-9,5036e-003

Curve D_outer Z



Length [mm]	Value [mm]
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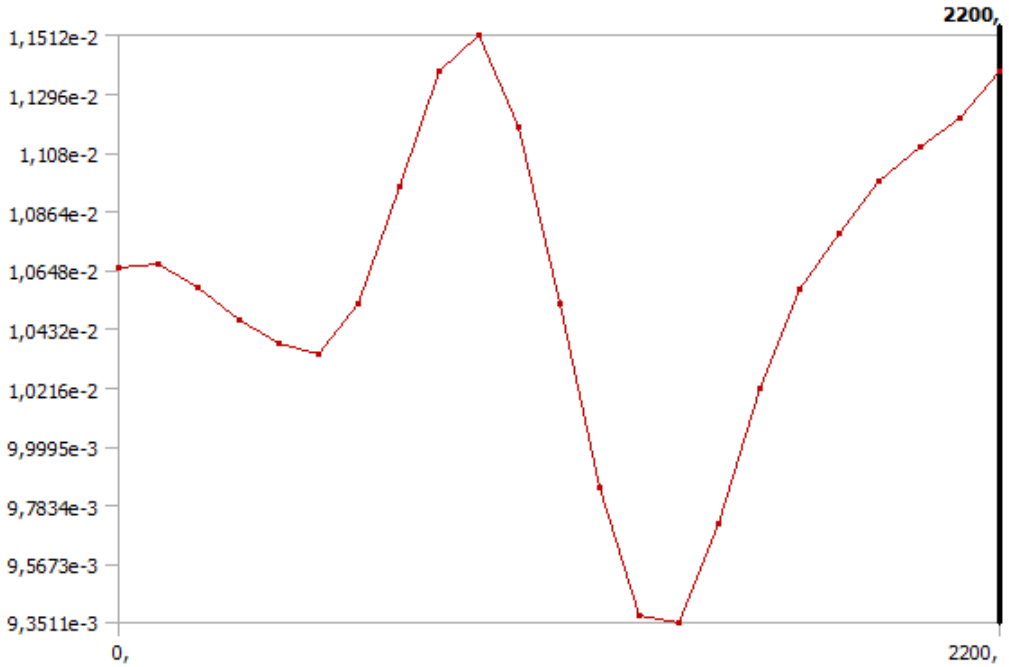
100,	-7,8512e-003
200,	-5,9315e-003
300,	-4,7007e-003
400,	-4,4169e-003
500,	-5,343e-003
600,	-7,068e-003
700,	-7,8601e-003
800,	-6,906e-003
900,	-4,7463e-003
1000,	-2,7552e-003
1100,	-1,788e-003
1200,	-2,0595e-003
1300,	-3,6702e-003
1400,	-5,648e-003
1500,	-6,1628e-003
1600,	-4,7398e-003
1700,	-2,3685e-003
1800,	-7,965e-004
1900,	-2,2875e-004
2000,	-3,5086e-004
2100,	-1,1353e-003
2200,	-1,8138e-003

Curve D_center X



Length [mm]	Value [mm]
0,	1,0657e-002
100,	1,0672e-002
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300,	1,0464e-002
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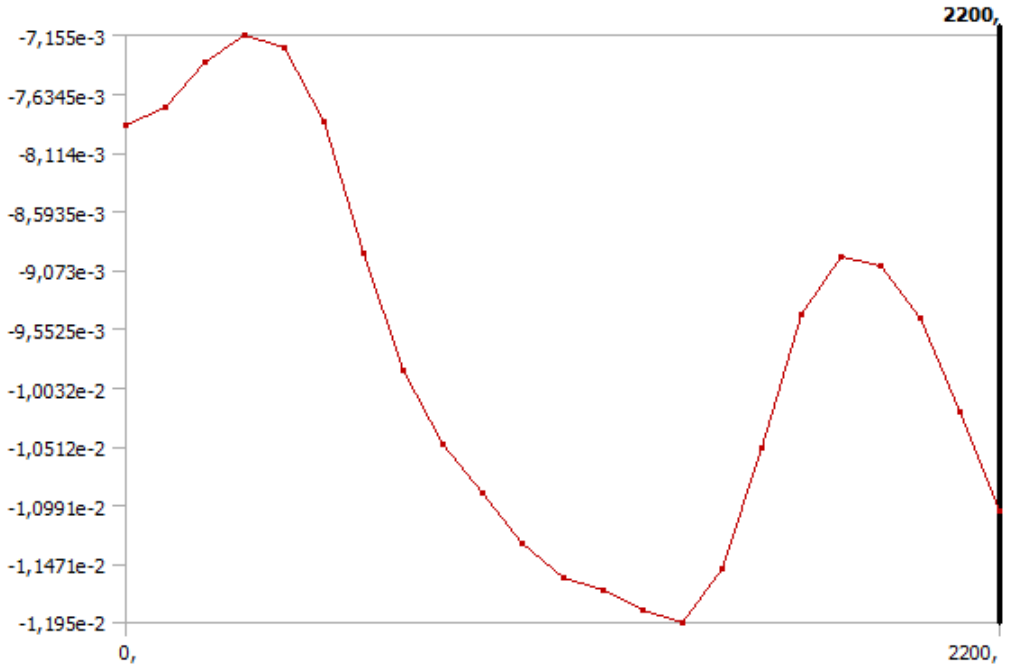
500,	1,0339e-002
600,	1,0525e-002
700,	1,0952e-002
800,	1,1377e-002
900,	1,1512e-002
1000,	1,1172e-002
1100,	1,0527e-002
1200,	9,8507e-003
1300,	9,3789e-003
1400,	9,3511e-003
1500,	9,718e-003
1600,	1,0214e-002
1700,	1,0575e-002
1800,	1,0785e-002
1900,	1,0973e-002
2000,	1,11e-002
2100,	1,1204e-002
2200,	1,1379e-002

Curve D_center Y



Length [mm]	Value [mm]
0,	-7,8851e-003
100,	-7,743e-003
200,	-7,3709e-003
300,	-7,155e-003
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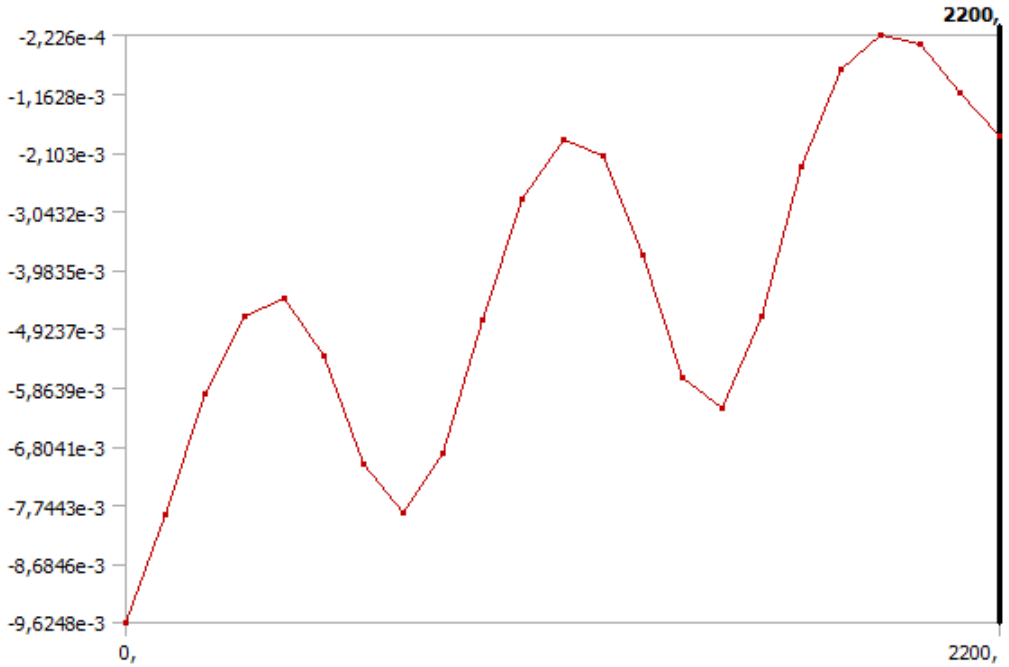
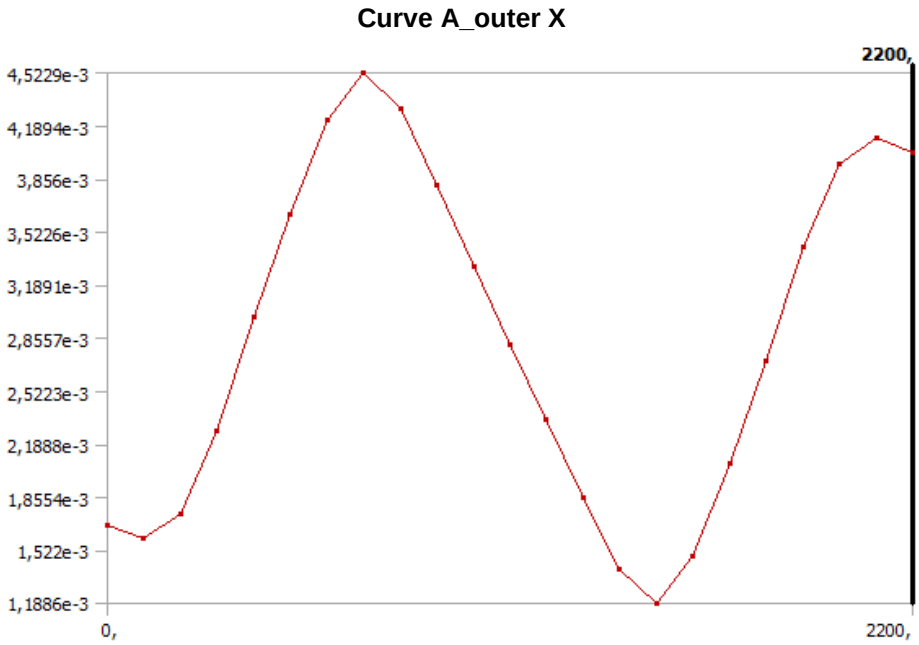
500,	-7,858e-003
600,	-8,9364e-003
700,	-9,8927e-003
800,	-1,0498e-002
900,	-1,0894e-002
1000,	-1,1299e-002
1100,	-1,1583e-002
1200,	-1,1692e-002
1300,	-1,1844e-002
1400,	-1,195e-002
1500,	-1,1503e-002
1600,	-1,0526e-002
1700,	-9,4419e-003
1800,	-8,9606e-003
1900,	-9,0313e-003
2000,	-9,4673e-003
2100,	-1,0226e-002
2200,	-1,1041e-002

Curve D_center Z



Length [mm]	Value [mm]
0,	-9,6248e-003
100,	-7,8919e-003
200,	-5,9652e-003
300,	-4,7255e-003
400,	-4,4317e-003
500,	-5,3488e-003
600,	-7,0828e-003
700,	-7,8748e-003
800,	-6,9253e-003
900,	-4,7863e-003
1000,	-2,8374e-003
1100,	-1,8897e-003
1200,	-2,1476e-003
1300,	-3,7337e-003
1400,	-5,6944e-003
1500,	-6,1814e-003
1600,	-4,7361e-003
1700,	-2,3424e-003
1800,	-7,7872e-004
1900,	-2,226e-004
2000,	-3,5422e-004
2100,	-1,1515e-003
2200,	-1,8385e-003

2.5 Load case 5



Length [mm]	Value [mm]
0,	1,6841e-003
100,	1,5944e-003
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300,	2,275e-003
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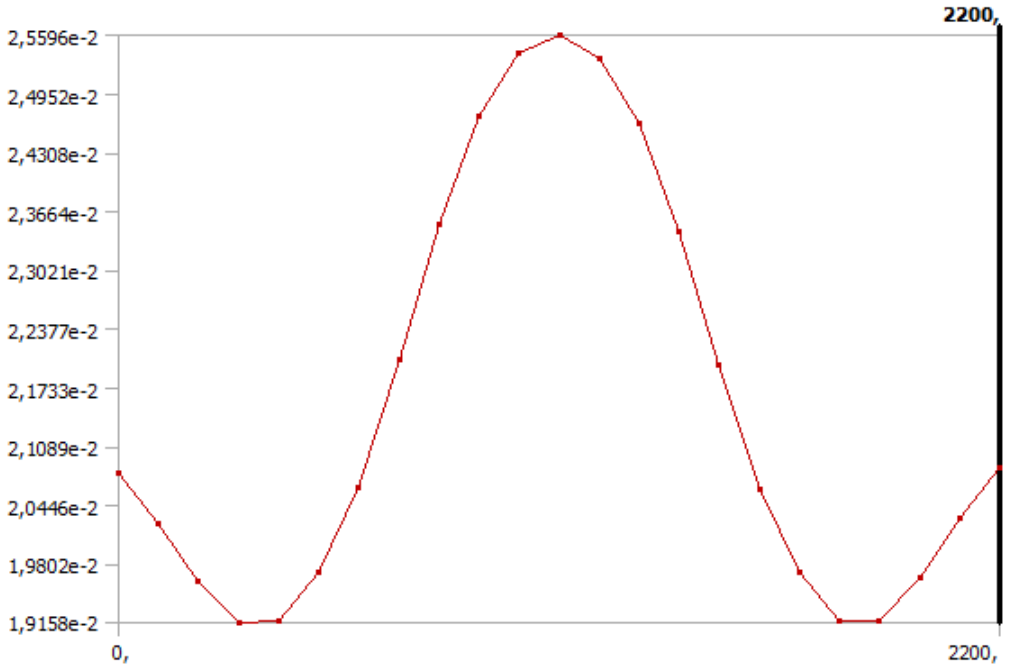
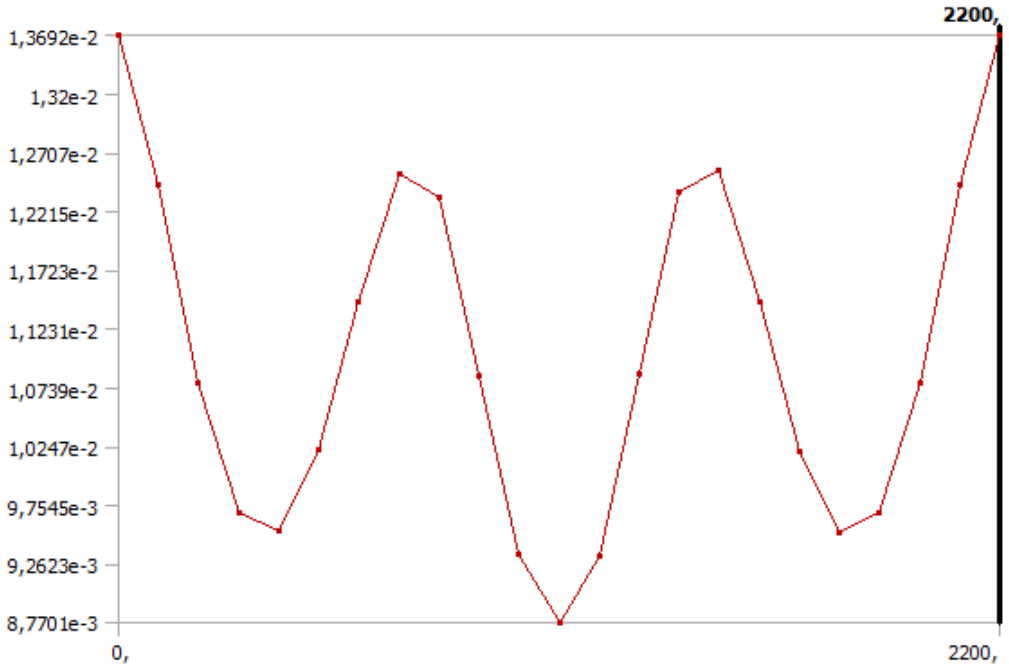
600,	4,2262e-003
700,	4,5229e-003
800,	4,2979e-003
900,	3,8148e-003
1000,	3,3058e-003
1100,	2,8177e-003
1200,	2,3445e-003
1300,	1,8575e-003
1400,	1,4e-003
1500,	1,1886e-003
1600,	1,4816e-003
1700,	2,0662e-003
1800,	2,714e-003
1900,	3,4276e-003
2000,	3,9479e-003
2100,	4,1087e-003
2200,	4,0189e-003

Curve A_outer Y



Length [mm]	Value [mm]
0,	2,0798e-002
100,	2,0246e-002
200,	1,9617e-002
300,	1,9158e-002
400,	1,9185e-002
500,	1,9718e-002
600,	2,0642e-002
700,	2,2036e-002
800,	2,3523e-002
900,	2,4704e-002
1000,	2,5393e-002
1100,	2,5596e-002
1200,	2,5348e-002
1300,	2,4629e-002
1400,	2,3442e-002
1500,	2,1981e-002
1600,	2,0615e-002
1700,	1,9708e-002
1800,	1,9188e-002
1900,	1,9175e-002
2000,	1,9651e-002
2100,	2,0296e-002
2200,	2,0866e-002

Curve A_outer Z



Length [mm]	Value [mm]
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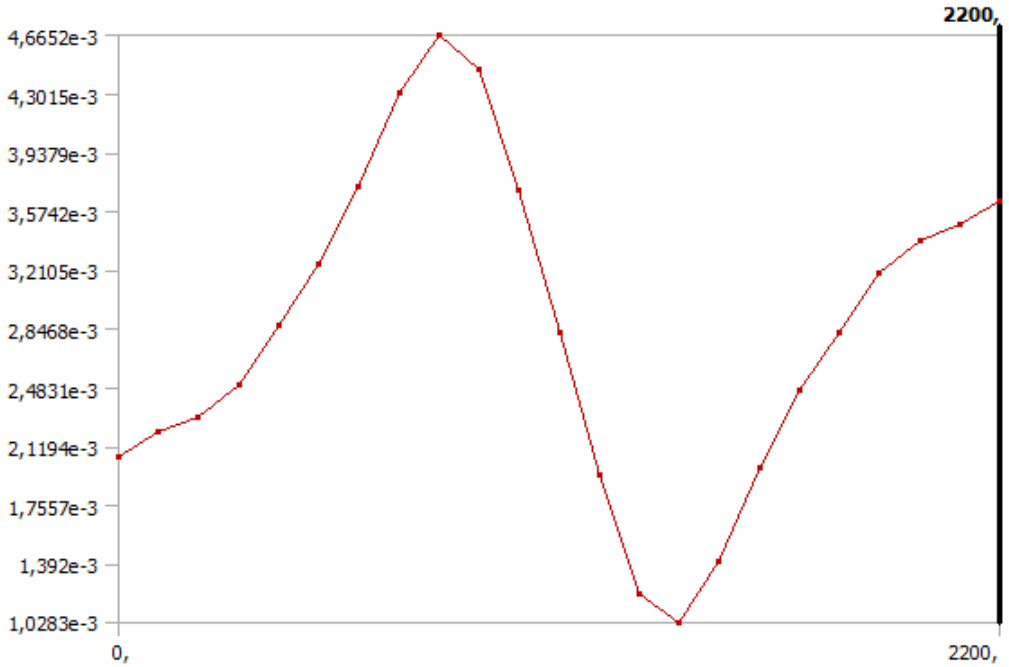
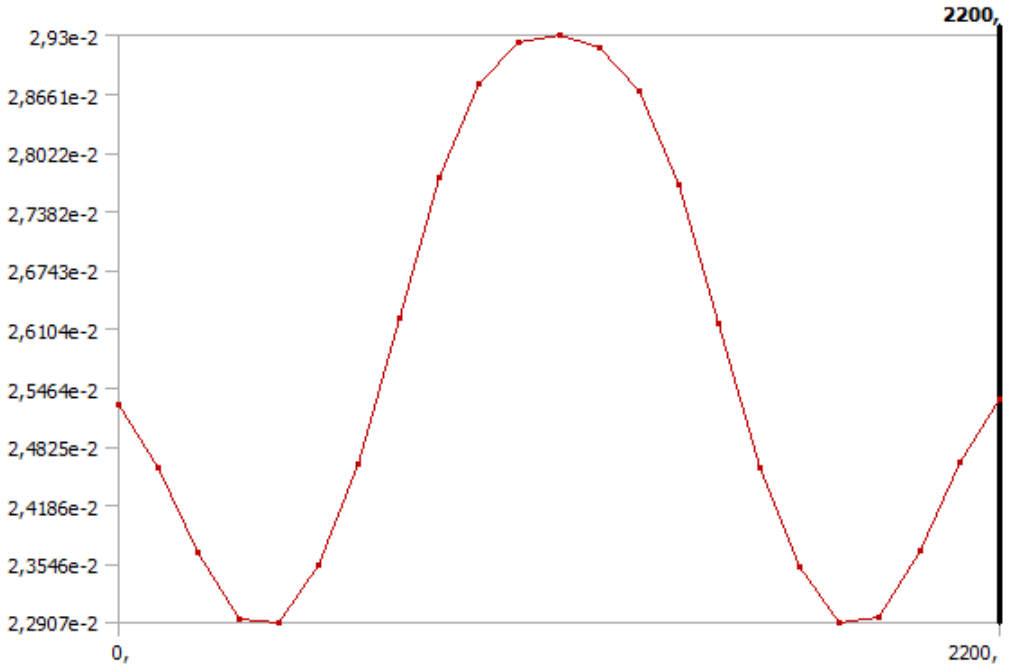
100,	1,2442e-002
200,	1,0784e-002
300,	9,6983e-003
400,	9,5393e-003
500,	1,0222e-002
600,	1,1456e-002
700,	1,2533e-002
800,	1,2336e-002
900,	1,0845e-002
1000,	9,3386e-003
1100,	8,7701e-003
1200,	9,3254e-003
1300,	1,0858e-002
1400,	1,2373e-002
1500,	1,2564e-002
1600,	1,1462e-002
1700,	1,021e-002
1800,	9,5224e-003
1900,	9,6855e-003
2000,	1,0777e-002
2100,	1,244e-002
2200,	1,3692e-002

Curve A_center X



Length [mm]	Value [mm]
0,	2,0596e-003
100,	2,2095e-003
200,	2,3033e-003
300,	2,5051e-003
400,	2,8717e-003
500,	3,2434e-003
600,	3,7252e-003
700,	4,3083e-003
800,	4,6652e-003
900,	4,4583e-003
1000,	3,7093e-003
1100,	2,8223e-003
1200,	1,9381e-003
1300,	1,2017e-003
1400,	1,0283e-003
1500,	1,4096e-003
1600,	1,992e-003
1700,	2,464e-003
1800,	2,8297e-003
1900,	3,1953e-003
2000,	3,3975e-003
2100,	3,4915e-003
2200,	3,6414e-003

Curve A_center Y



Length [mm]	Value [mm]
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600,	2,4624e-002
700,	2,6222e-002
800,	2,7754e-002
900,	2,8775e-002
1000,	2,922e-002
1100,	2,93e-002
1200,	2,917e-002
1300,	2,8699e-002
1400,	2,7673e-002
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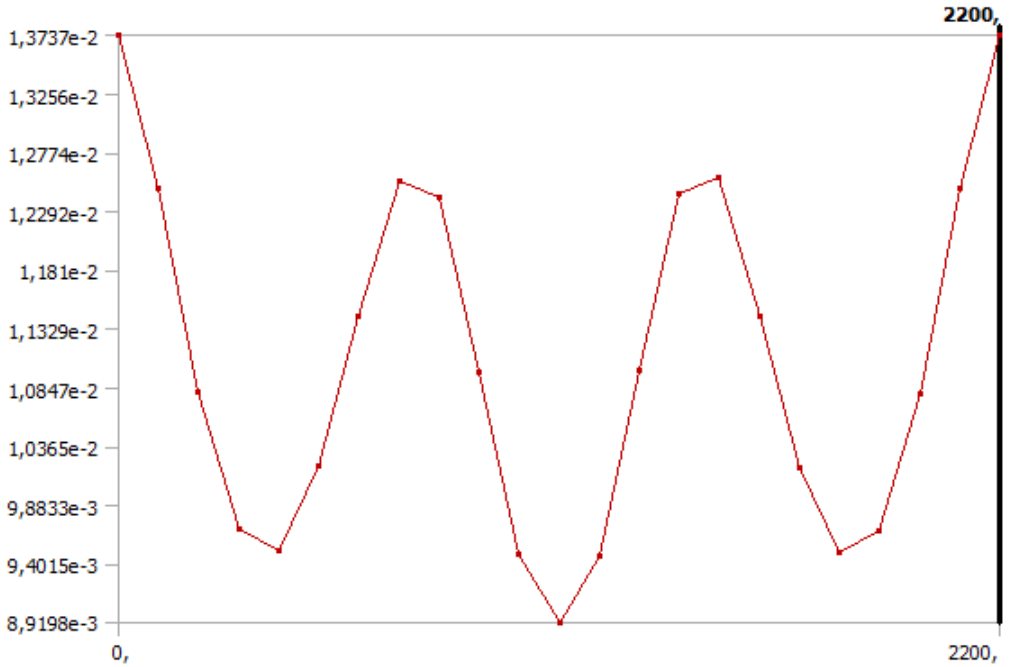
1600,	2,4595e-002
1700,	2,3521e-002
1800,	2,2907e-002
1900,	2,2958e-002
2000,	2,3695e-002
2100,	2,4644e-002
2200,	2,5342e-002

Curve A_center Z



Length [mm]	Value [mm]
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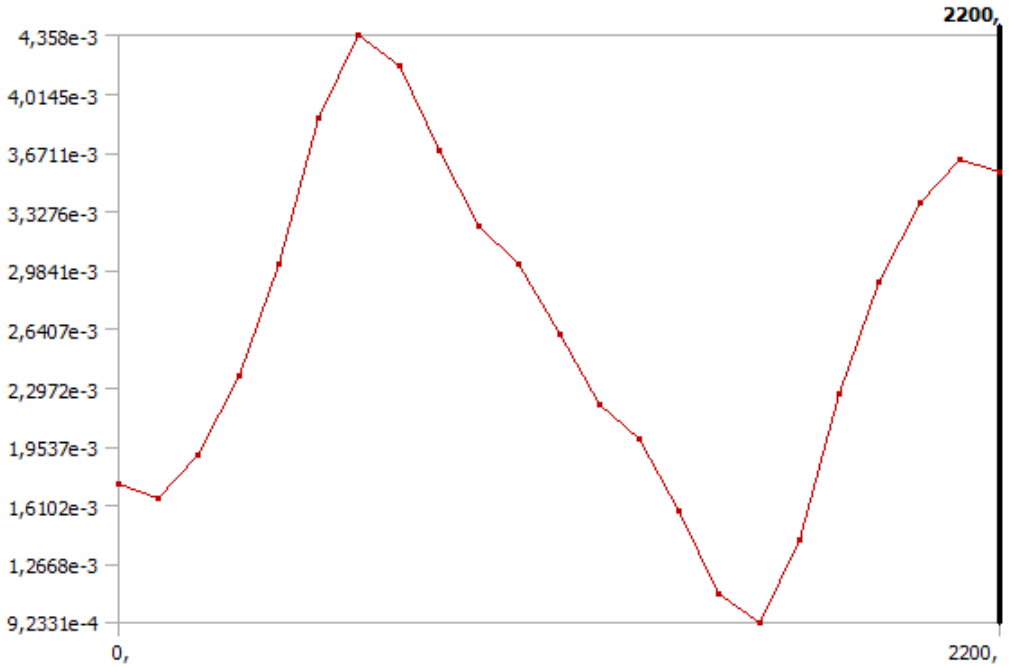
500,	1,0205e-002
600,	1,1431e-002
700,	1,2546e-002
800,	1,2408e-002
900,	1,0972e-002
1000,	9,4872e-003
1100,	8,9198e-003
1200,	9,4721e-003
1300,	1,0982e-002
1400,	1,2441e-002
1500,	1,2575e-002
1600,	1,1439e-002
1700,	1,0194e-002
1800,	9,4986e-003
1900,	9,6704e-003
2000,	1,0798e-002
2100,	1,2484e-002
2200,	1,3737e-002

Curve B_outer X



Length [mm]	Value [mm]
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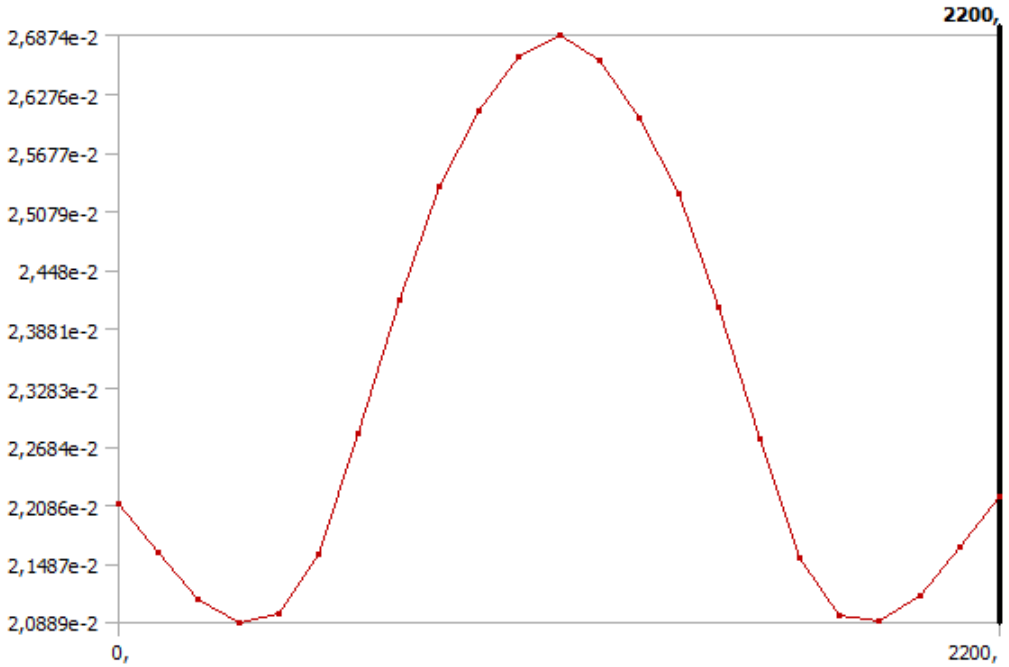
600,	4,358e-003
700,	4,1807e-003
800,	3,6786e-003
900,	3,2403e-003
1000,	3,0226e-003
1100,	2,6072e-003
1200,	2,2003e-003
1300,	1,9968e-003
1400,	1,577e-003
1500,	1,092e-003
1600,	9,2331e-004
1700,	1,4063e-003
1800,	2,2605e-003
1900,	2,9139e-003
2000,	3,3804e-003
2100,	3,6348e-003
2200,	3,5525e-003

Curve B_outer Y



Length [mm]	Value [mm]
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300,	2,0889e-002
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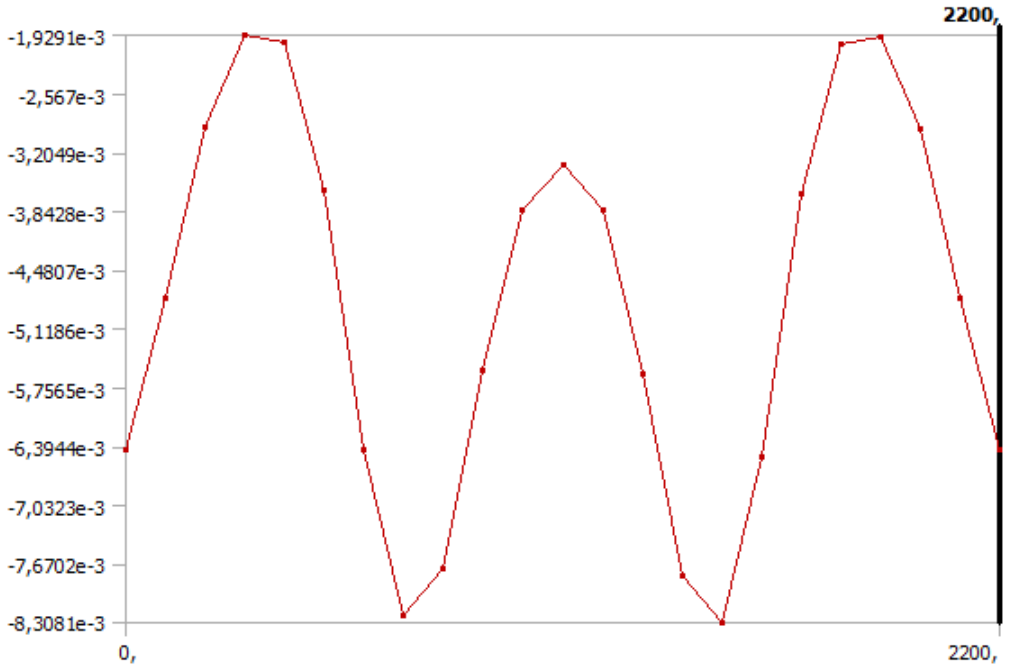
500,	2,1583e-002
600,	2,282e-002
700,	2,4183e-002
800,	2,534e-002
900,	2,6103e-002
1000,	2,6648e-002
1100,	2,6874e-002
1200,	2,6615e-002
1300,	2,6037e-002
1400,	2,5254e-002
1500,	2,4104e-002
1600,	2,2763e-002
1700,	2,155e-002
1800,	2,0965e-002
1900,	2,09e-002
2000,	2,1165e-002
2100,	2,1659e-002
2200,	2,2175e-002

Curve B_outer Z



Length [mm]	Value [mm]
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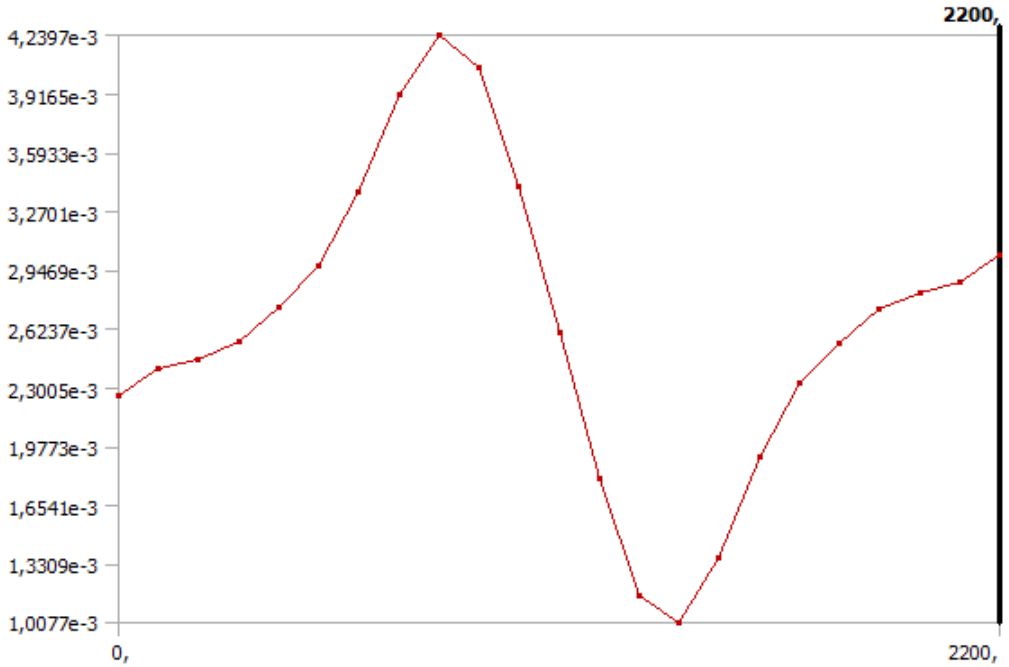
900,	-5,5621e-003
1000,	-3,8348e-003
1100,	-3,3336e-003
1200,	-3,8283e-003
1300,	-5,599e-003
1400,	-7,8035e-003
1500,	-8,3081e-003
1600,	-6,5012e-003
1700,	-3,6456e-003
1800,	-2,0268e-003
1900,	-1,9432e-003
2000,	-2,9379e-003
2100,	-4,7928e-003
2200,	-6,432e-003

Curve B_center X



Length [mm]	Value [mm]
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300,	2,5511e-003
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800,	4,2397e-003
900,	4,0607e-003
1000,	3,4109e-003
1100,	2,6073e-003
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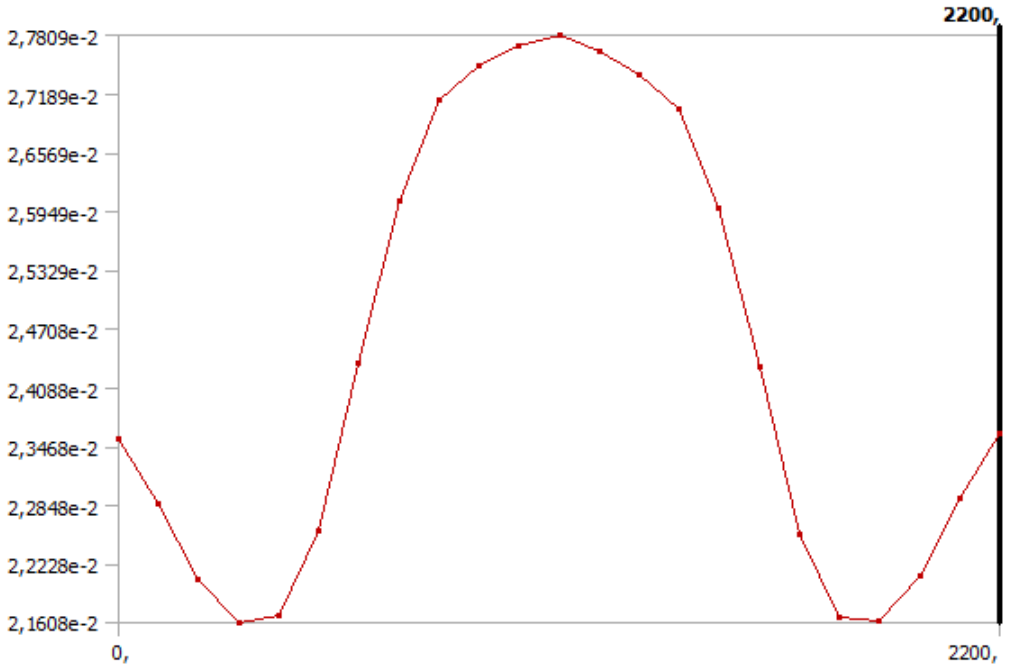
1300,	1,1559e-003
1400,	1,0077e-003
1500,	1,3628e-003
1600,	1,9173e-003
1700,	2,3267e-003
1800,	2,5492e-003
1900,	2,7349e-003
2000,	2,8263e-003
2100,	2,882e-003
2200,	3,0257e-003

Curve B_center Y



Length [mm]	Value [mm]
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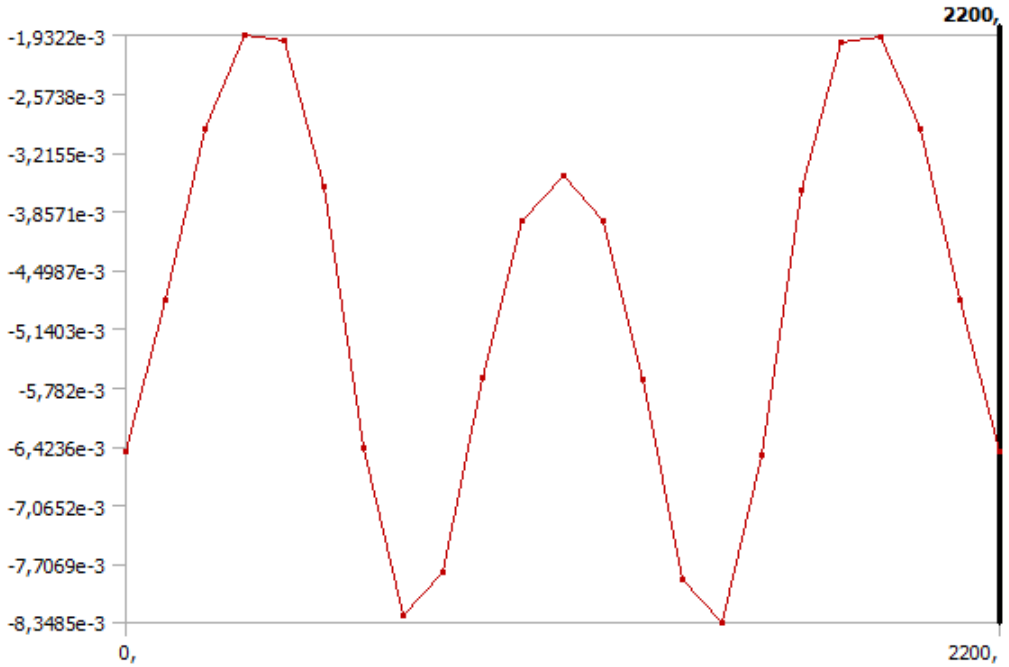
500,	2,2576e-002
600,	2,4356e-002
700,	2,6068e-002
800,	2,713e-002
900,	2,7479e-002
1000,	2,769e-002
1100,	2,7809e-002
1200,	2,7634e-002
1300,	2,739e-002
1400,	2,7032e-002
1500,	2,5986e-002
1600,	2,43e-002
1700,	2,2547e-002
1800,	2,1673e-002
1900,	2,1622e-002
2000,	2,2103e-002
2100,	2,2922e-002
2200,	2,3613e-002

Curve B_center Z



Length [mm]	Value [mm]
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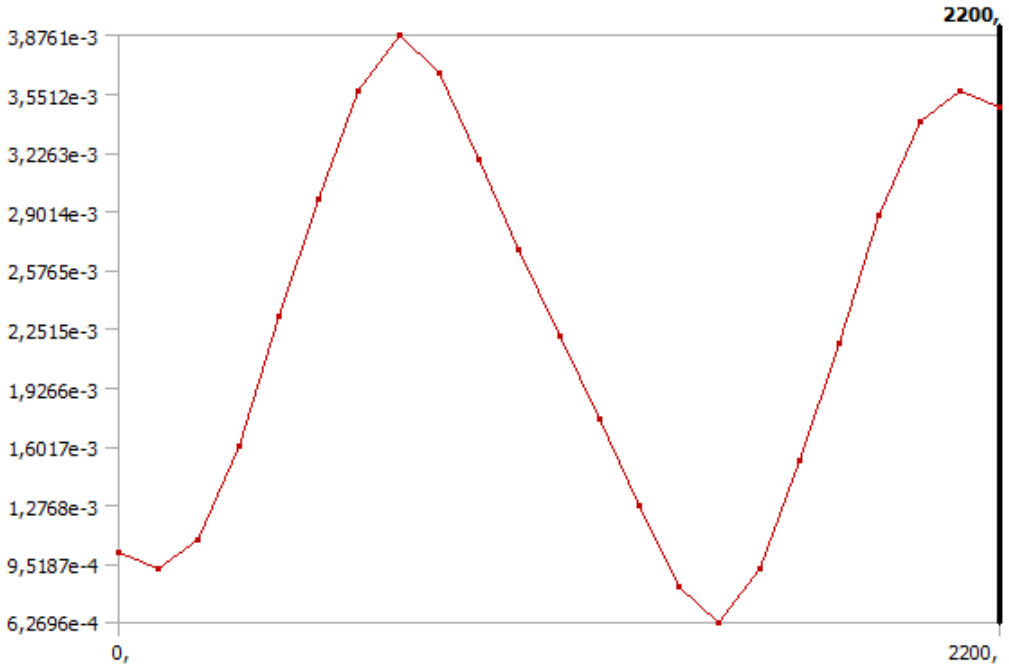
900,	-5,6648e-003
1000,	-3,9635e-003
1100,	-3,4765e-003
1200,	-3,9565e-003
1300,	-5,6994e-003
1400,	-7,882e-003
1500,	-8,3485e-003
1600,	-6,5085e-003
1700,	-3,6207e-003
1800,	-2,0119e-003
1900,	-1,9465e-003
2000,	-2,9603e-003
2100,	-4,8336e-003
2200,	-6,4767e-003

Curve C_outer X



Length [mm]	Value [mm]
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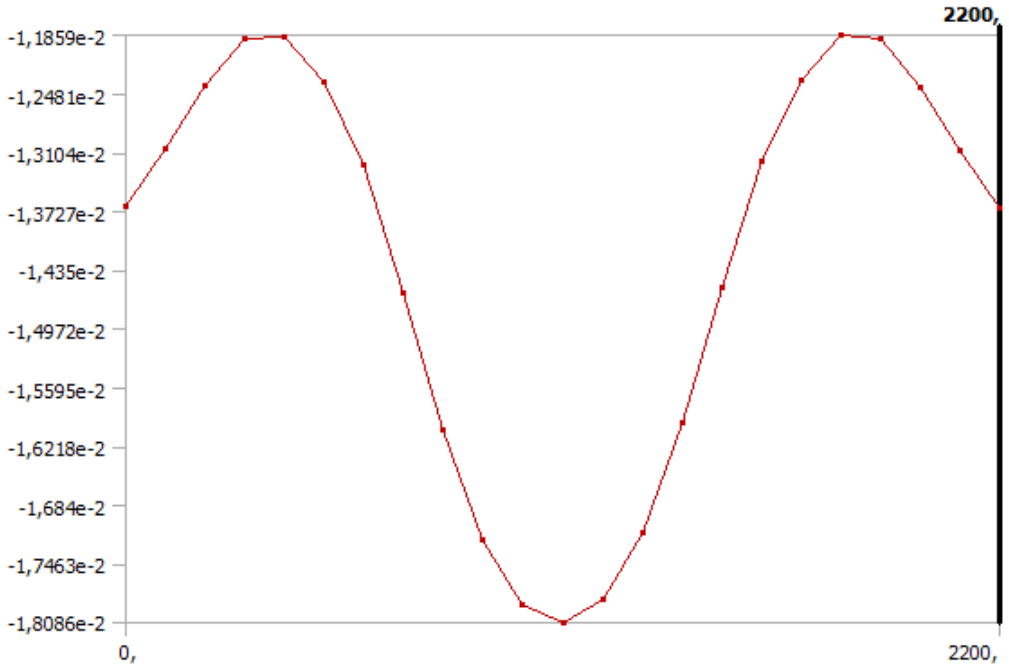
800,	3,6634e-003
900,	3,1917e-003
1000,	2,6929e-003
1100,	2,215e-003
1200,	1,752e-003
1300,	1,2752e-003
1400,	8,279e-004
1500,	6,2696e-004
1600,	9,294e-004
1700,	1,5201e-003
1800,	2,1701e-003
1900,	2,8828e-003
2000,	3,4021e-003
2100,	3,5626e-003
2200,	3,4726e-003

Curve C_outer Y



Length [mm]	Value [mm]
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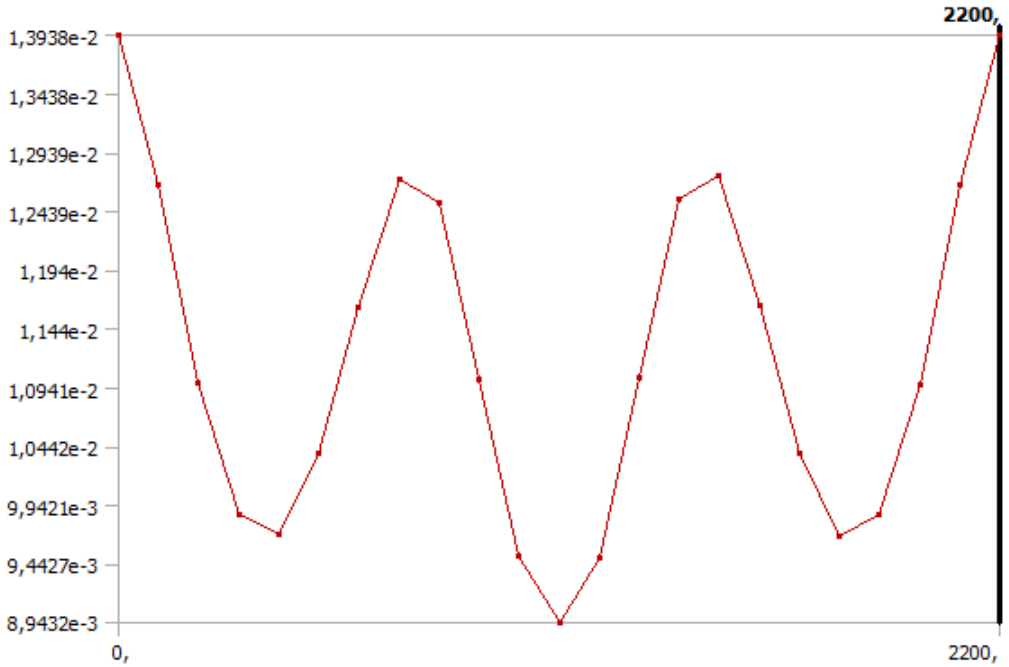
1000,	-1,7887e-002
1100,	-1,8086e-002
1200,	-1,7842e-002
1300,	-1,7134e-002
1400,	-1,5965e-002
1500,	-1,4529e-002
1600,	-1,3198e-002
1700,	-1,2333e-002
1800,	-1,1859e-002
1900,	-1,1889e-002
2000,	-1,2404e-002
2100,	-1,3089e-002
2200,	-1,3698e-002

Curve C_outer Z



Length [mm]	Value [mm]
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300,	9,8653e-003
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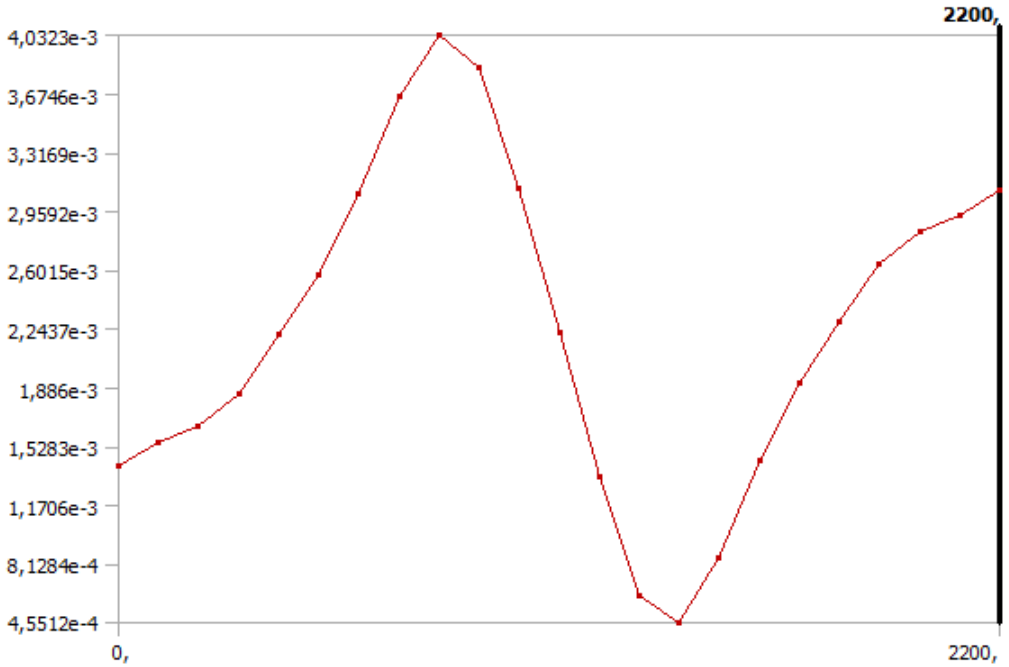
600,	1,1632e-002
700,	1,271e-002
800,	1,251e-002
900,	1,1018e-002
1000,	9,5111e-003
1100,	8,9432e-003
1200,	9,4996e-003
1300,	1,1033e-002
1400,	1,2549e-002
1500,	1,274e-002
1600,	1,1638e-002
1700,	1,0378e-002
1800,	9,6849e-003
1900,	9,8565e-003
2000,	1,0971e-002
2100,	1,2661e-002
2200,	1,3938e-002

Curve C_center X



Length [mm]	Value [mm]
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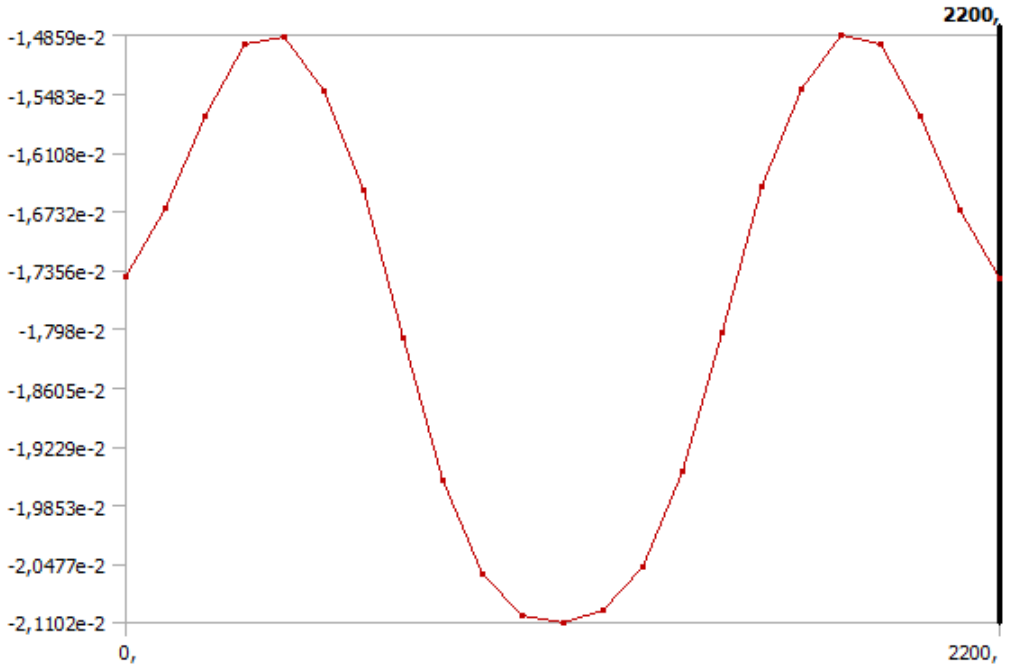
500,	2,577e-003
600,	3,0674e-003
700,	3,6635e-003
800,	4,0323e-003
900,	3,836e-003
1000,	3,0965e-003
1100,	2,2191e-003
1200,	1,3449e-003
1300,	6,1854e-004
1400,	4,5512e-004
1500,	8,4652e-004
1600,	1,4396e-003
1700,	1,9185e-003
1800,	2,2838e-003
1900,	2,6426e-003
2000,	2,8409e-003
2100,	2,9346e-003
2200,	3,0846e-003

Curve C_center Y



Length [mm]	Value [mm]
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300,	-1,4954e-002
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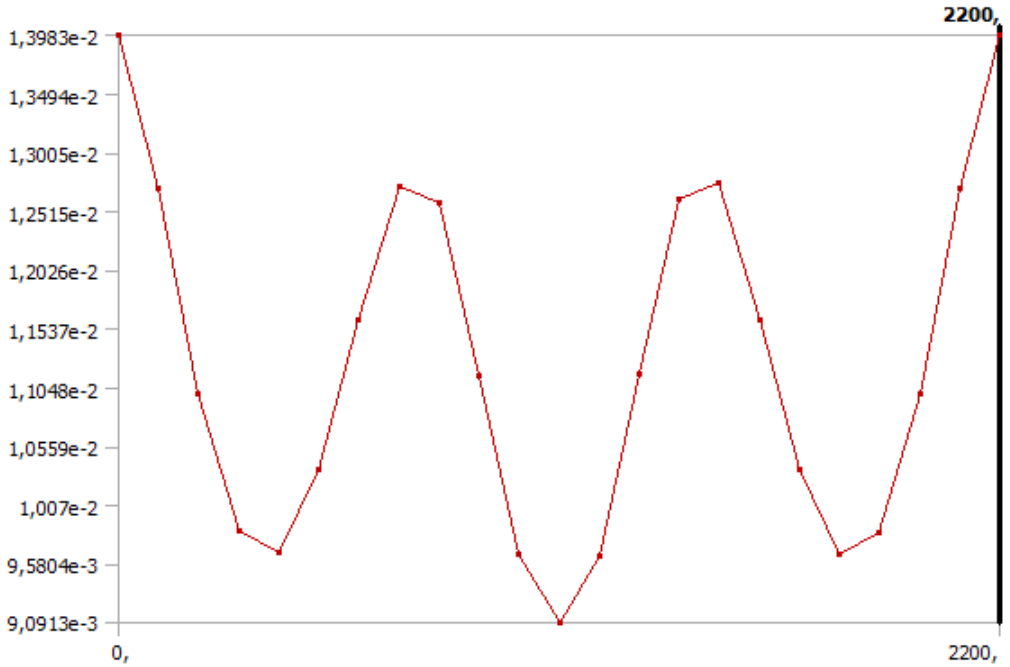
500,	-1,546e-002
600,	-1,651e-002
700,	-1,8076e-002
800,	-1,9583e-002
900,	-2,0589e-002
1000,	-2,1024e-002
1100,	-2,1102e-002
1200,	-2,0975e-002
1300,	-2,0513e-002
1400,	-1,9503e-002
1500,	-1,8018e-002
1600,	-1,6475e-002
1700,	-1,5436e-002
1800,	-1,4859e-002
1900,	-1,4949e-002
2000,	-1,5725e-002
2100,	-1,6713e-002
2200,	-1,7451e-002

Curve C_center Z



Length [mm]	Value [mm]
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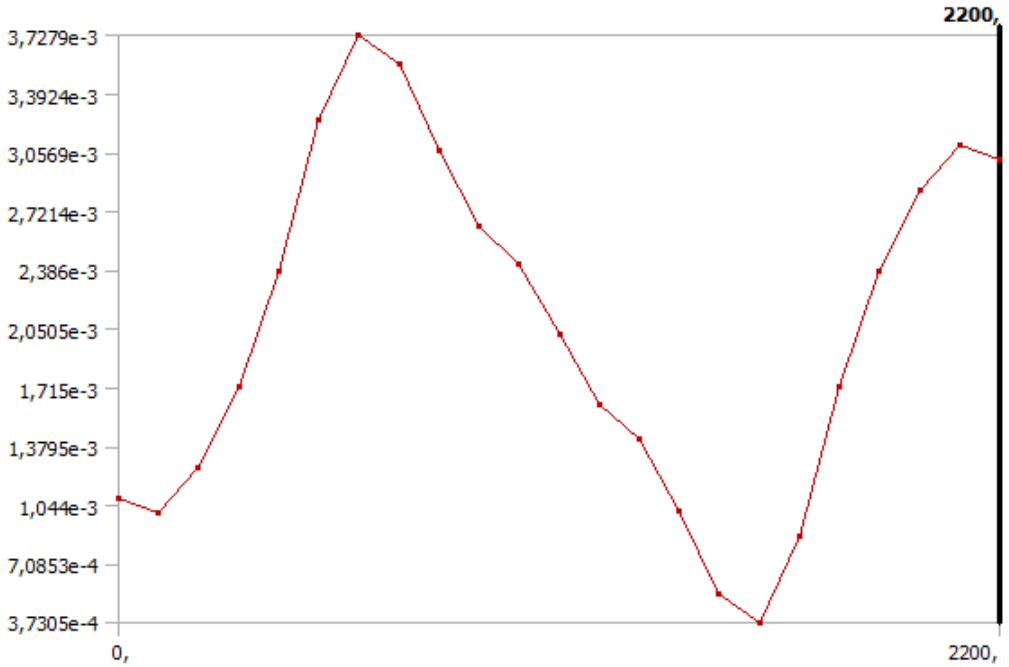
400,	9,6748e-003
500,	1,0372e-002
600,	1,1605e-002
700,	1,272e-002
800,	1,258e-002
900,	1,1143e-002
1000,	9,658e-003
1100,	9,0913e-003
1200,	9,6446e-003
1300,	1,1155e-002
1400,	1,2615e-002
1500,	1,275e-002
1600,	1,1613e-002
1700,	1,0361e-002
1800,	9,6612e-003
1900,	9,8417e-003
2000,	1,0992e-002
2100,	1,2704e-002
2200,	1,3983e-002

Curve D_outer X



Length [mm]	Value [mm]
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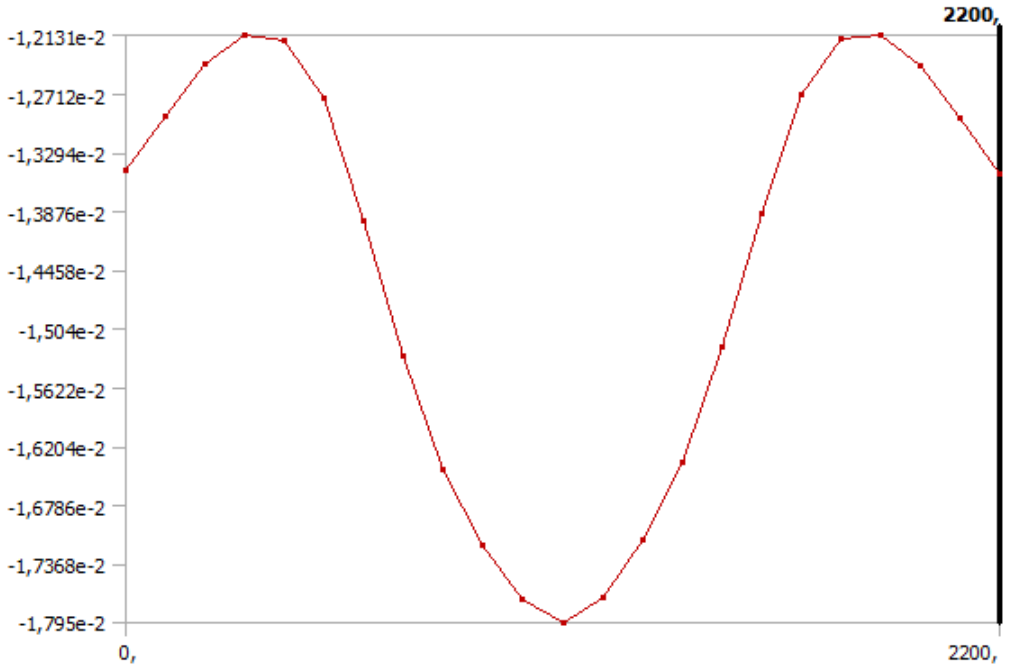
700,	3,5582e-003
800,	3,0645e-003
900,	2,6348e-003
1000,	2,4259e-003
1100,	2,0189e-003
1200,	1,62e-003
1300,	1,4245e-003
1400,	1,0122e-003
1500,	5,3459e-004
1600,	3,7305e-004
1700,	8,6206e-004
1800,	1,7205e-003
1900,	2,3762e-003
2000,	2,8433e-003
2100,	3,0972e-003
2200,	3,015e-003

Curve D_outer Y



Length [mm]	Value [mm]
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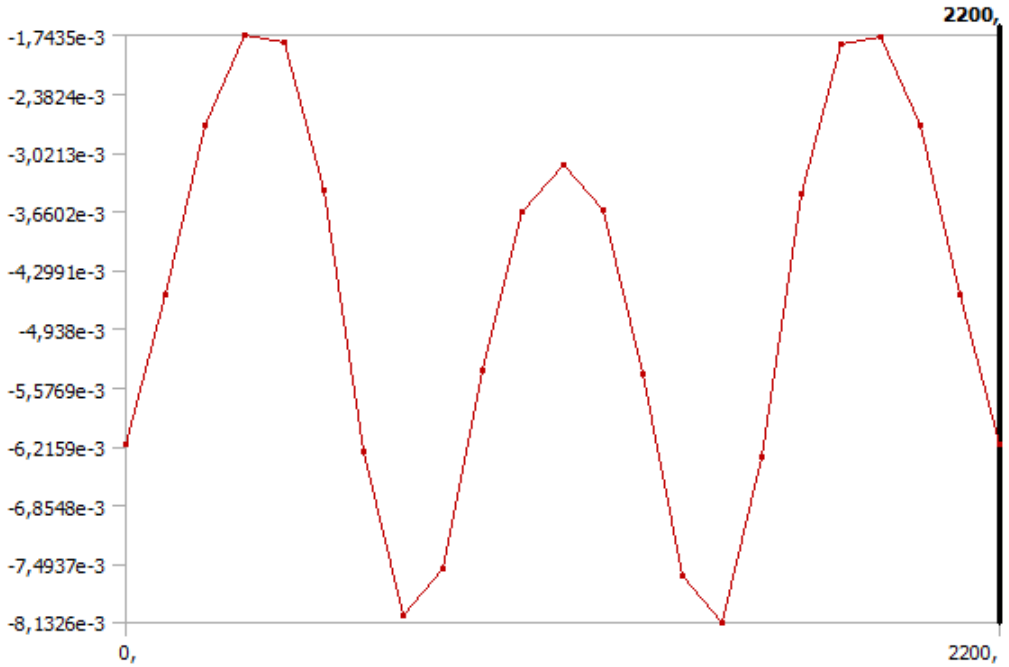
500,	-1,276e-002
600,	-1,3967e-002
700,	-1,5303e-002
800,	-1,644e-002
900,	-1,7189e-002
1000,	-1,7726e-002
1100,	-1,795e-002
1200,	-1,7693e-002
1300,	-1,7123e-002
1400,	-1,6353e-002
1500,	-1,522e-002
1600,	-1,3901e-002
1700,	-1,2716e-002
1800,	-1,2162e-002
1900,	-1,2131e-002
2000,	-1,243e-002
2100,	-1,2959e-002
2200,	-1,3508e-002

Curve D_outer Z



Length [mm]	Value [mm]
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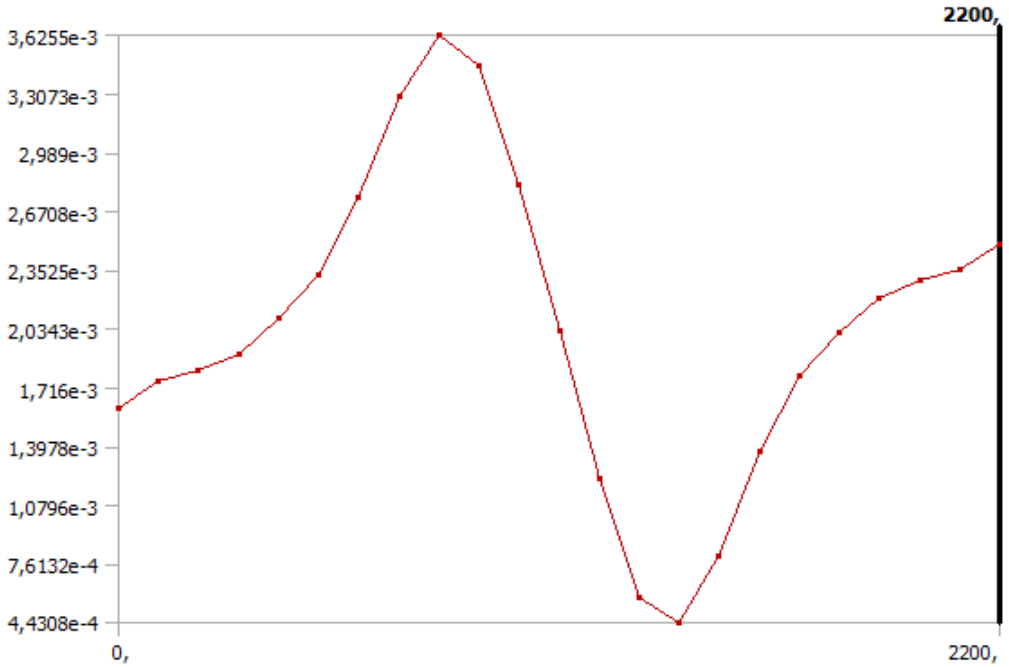
700,	-8,0509e-003
800,	-7,5492e-003
900,	-5,388e-003
1000,	-3,6579e-003
1100,	-3,1546e-003
1200,	-3,6481e-003
1300,	-5,4197e-003
1400,	-7,6262e-003
1500,	-8,1326e-003
1600,	-6,3265e-003
1700,	-3,4703e-003
1800,	-1,8477e-003
1900,	-1,7541e-003
2000,	-2,7322e-003
2100,	-4,5659e-003
2200,	-6,1828e-003

Curve D_center X



Length [mm]	Value [mm]
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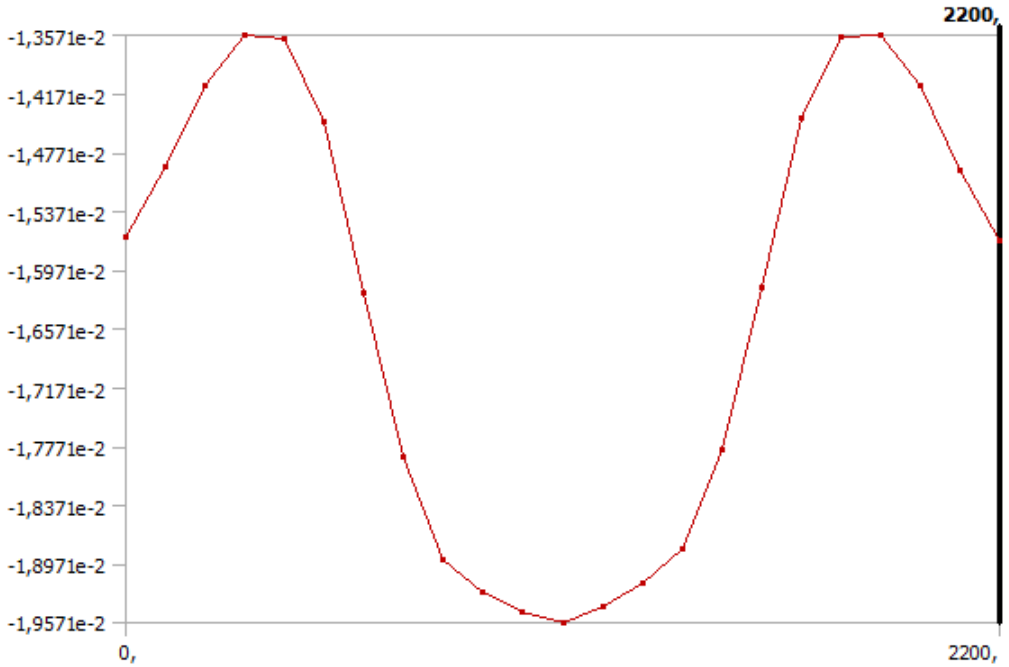
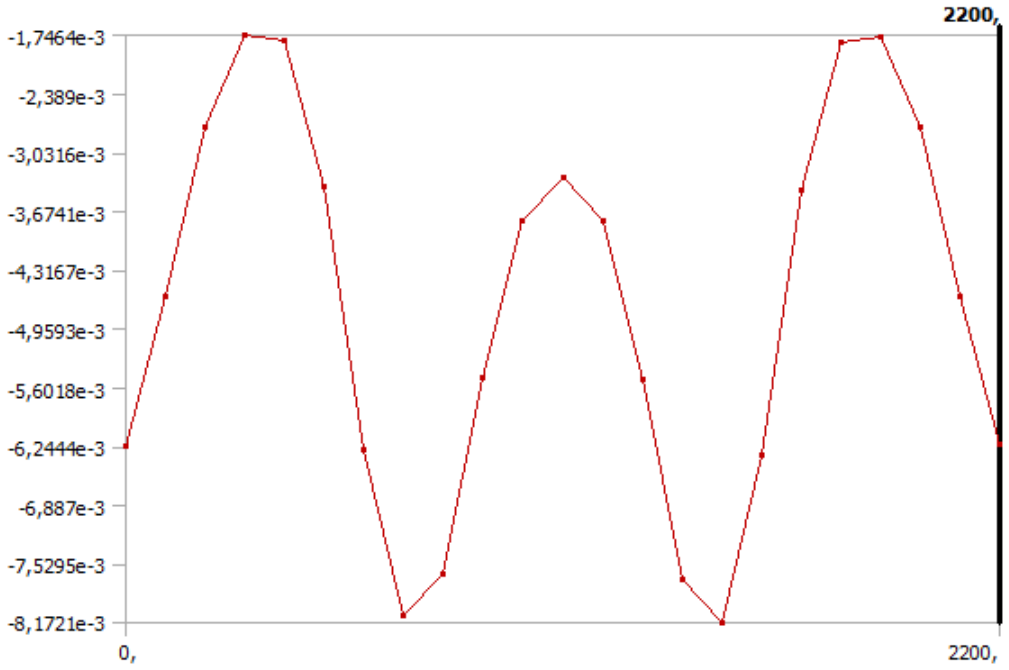
1100,	2,0197e-003
1200,	1,2213e-003
1300,	5,8362e-004
1400,	4,4308e-004
1500,	8,0612e-004
1600,	1,3684e-003
1700,	1,7849e-003
1800,	2,0134e-003
1900,	2,2037e-003
2000,	2,2976e-003
2100,	2,3539e-003
2200,	2,4976e-003

Curve D_center Y



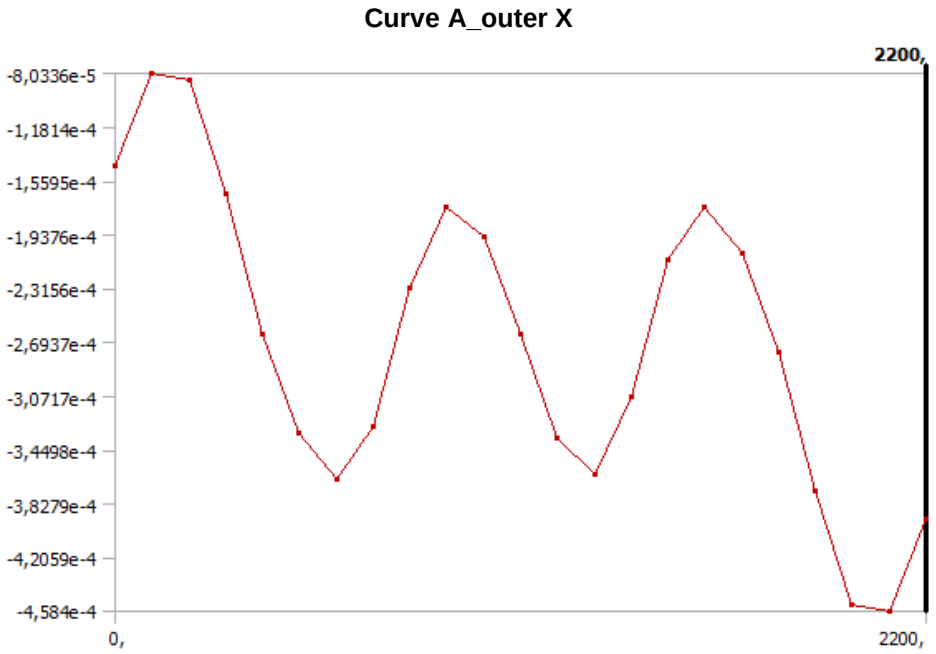
Length [mm]	Value [mm]
0,	-1,5628e-002
100,	-1,4919e-002
200,	-1,4081e-002
300,	-1,3577e-002
400,	-1,3606e-002
500,	-1,4462e-002
600,	-1,6205e-002
700,	-1,7886e-002
800,	-1,8924e-002
900,	-1,9255e-002
1000,	-1,9456e-002
1100,	-1,9571e-002
1200,	-1,94e-002
1300,	-1,9165e-002
1400,	-1,8824e-002
1500,	-1,7799e-002
1600,	-1,6141e-002
1700,	-1,4422e-002
1800,	-1,3584e-002
1900,	-1,3571e-002
2000,	-1,4089e-002
2100,	-1,4942e-002
2200,	-1,5667e-002

Curve D_center Z



Length [mm]	Value [mm]
0,	-6,2346e-003
100,	-4,6099e-003
200,	-2,7521e-003
300,	-1,7464e-003
400,	-1,8098e-003
500,	-3,4059e-003
600,	-6,2725e-003
700,	-8,0928e-003
800,	-7,6308e-003
900,	-5,4898e-003
1000,	-3,7857e-003
1100,	-3,2966e-003
1200,	-3,7755e-003
1300,	-5,5192e-003
1400,	-7,704e-003
1500,	-8,1721e-003
1600,	-6,3331e-003
1700,	-3,4448e-003
1800,	-1,8323e-003
1900,	-1,7573e-003
2000,	-2,7547e-003
2100,	-4,607e-003
2200,	-6,2277e-003

2.6 Load case 6



Length [mm]	Value [mm]
0,	-1,4493e-004
100,	-8,0336e-005
200,	-8,4857e-005
300,	-1,6506e-004
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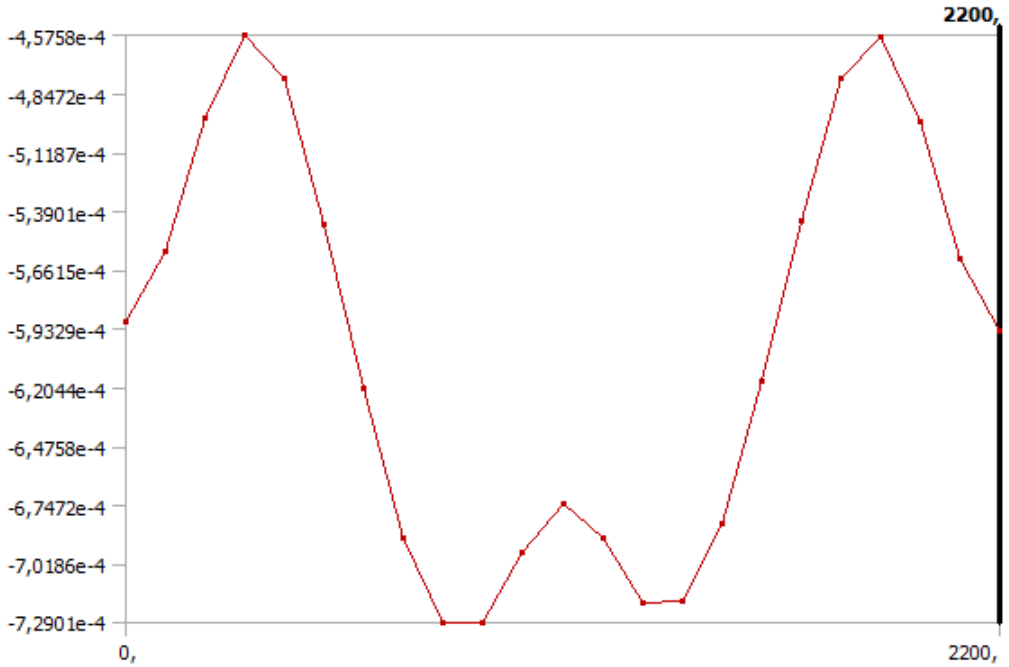
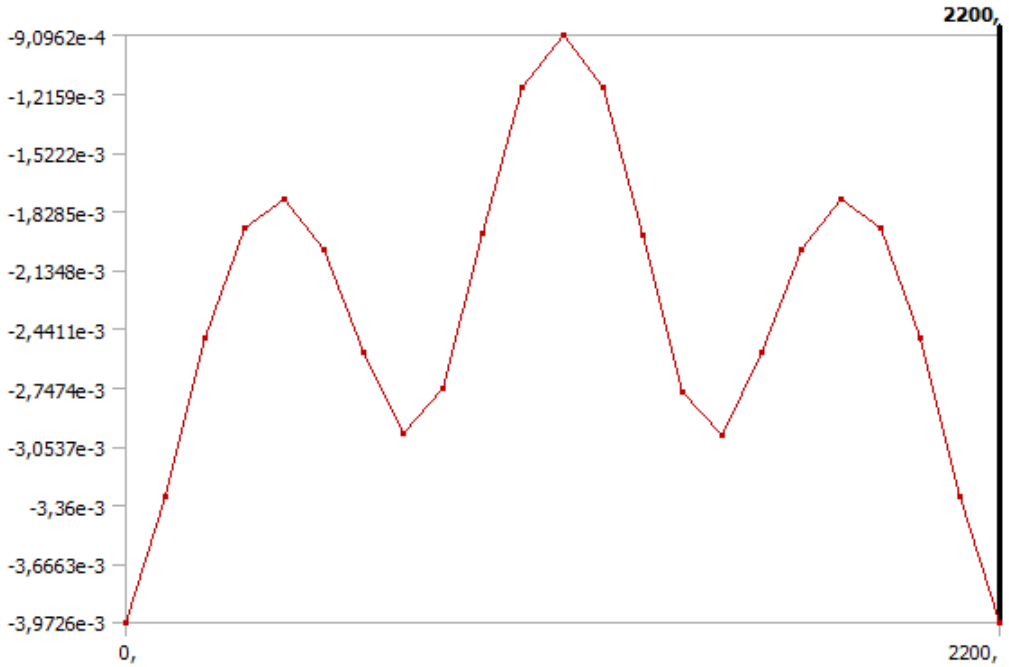
500,	-3,3309e-004
600,	-3,6599e-004
700,	-3,2858e-004
800,	-2,3137e-004
900,	-1,7461e-004
1000,	-1,9567e-004
1100,	-2,6376e-004
1200,	-3,3618e-004
1300,	-3,6212e-004
1400,	-3,0748e-004
1500,	-2,112e-004
1600,	-1,738e-004
1700,	-2,0633e-004
1800,	-2,7603e-004
1900,	-3,7377e-004
2000,	-4,5388e-004
2100,	-4,584e-004
2200,	-3,9381e-004

Curve A_outer Y



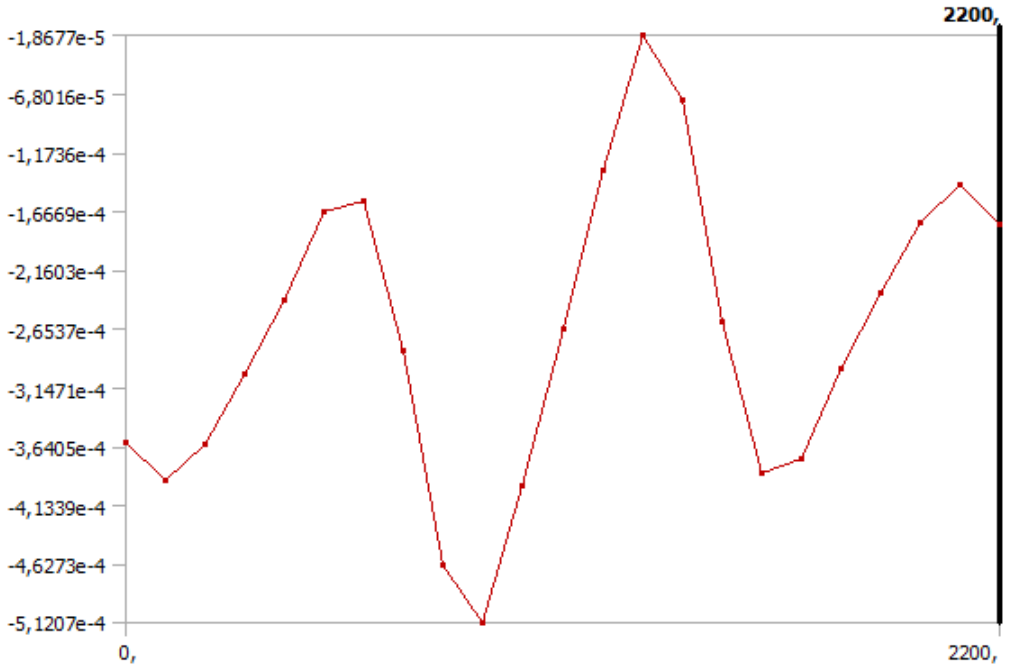
Length [mm]	Value [mm]
0,	-5,8957e-004
100,	-5,5773e-004
200,	-4,961e-004
300,	-4,5758e-004
400,	-4,7772e-004
500,	-5,4491e-004
600,	-6,2115e-004
700,	-6,8967e-004
800,	-7,2862e-004
900,	-7,2901e-004
1000,	-6,9686e-004
1100,	-6,7427e-004
1200,	-6,9026e-004
1300,	-7,1981e-004
1400,	-7,192e-004
1500,	-6,8287e-004
1600,	-6,1747e-004
1700,	-5,433e-004
1800,	-4,7735e-004
1900,	-4,5829e-004
2000,	-4,9792e-004
2100,	-5,6074e-004
2200,	-5,9382e-004

Curve A_outer Z



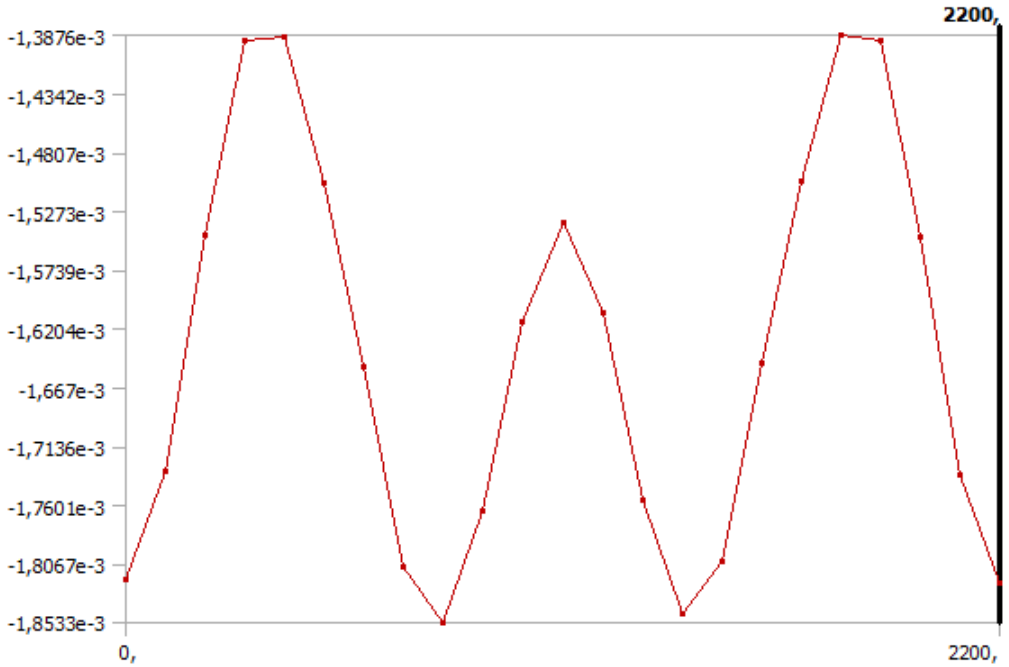
Length [mm]	Value [mm]
0,	-3,9698e-003
100,	-3,3102e-003
200,	-2,4891e-003
300,	-1,9181e-003
400,	-1,764e-003
500,	-2,027e-003
600,	-2,5611e-003
700,	-2,9814e-003
800,	-2,7503e-003
900,	-1,9393e-003
1000,	-1,1848e-003
1100,	-9,0962e-004
1200,	-1,1813e-003
1300,	-1,9489e-003
1400,	-2,7708e-003
1500,	-2,9985e-003
1600,	-2,5679e-003
1700,	-2,0267e-003
1800,	-1,7613e-003
1900,	-1,9159e-003
2000,	-2,4884e-003
2100,	-3,3113e-003
2200,	-3,9726e-003

Curve A_center X



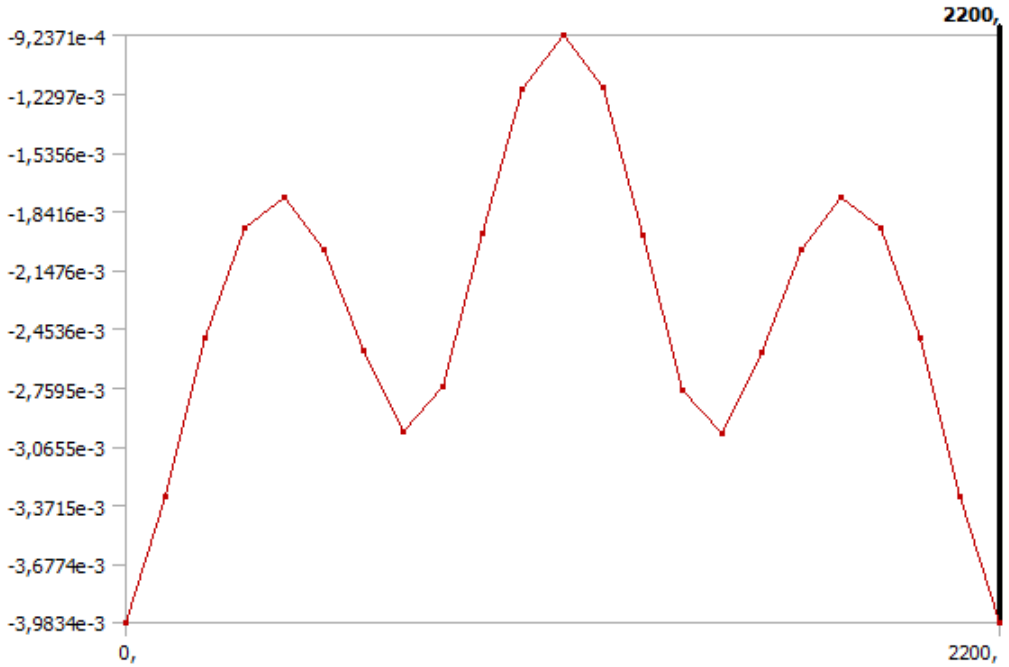
Length [mm]	Value [mm]
0,	-3,6023e-004
100,	-3,9311e-004
200,	-3,6158e-004
300,	-3,0249e-004
400,	-2,4119e-004
500,	-1,6755e-004
600,	-1,574e-004
700,	-2,8414e-004
800,	-4,6398e-004
900,	-5,1207e-004
1000,	-3,9728e-004
1100,	-2,6531e-004
1200,	-1,326e-004
1300,	-1,8677e-005
1400,	-7,3222e-005
1500,	-2,5882e-004
1600,	-3,8615e-004
1700,	-3,7372e-004
1800,	-2,9805e-004
1900,	-2,3585e-004
2000,	-1,7647e-004
2100,	-1,4488e-004
2200,	-1,7776e-004

Curve A_center Y



Length [mm]	Value [mm]
0,	-1,8187e-003
100,	-1,7337e-003
200,	-1,5461e-003
300,	-1,3924e-003
400,	-1,3884e-003
500,	-1,5044e-003
600,	-1,6507e-003
700,	-1,8094e-003
800,	-1,8533e-003
900,	-1,7642e-003
1000,	-1,614e-003
1100,	-1,5357e-003
1200,	-1,6069e-003
1300,	-1,7564e-003
1400,	-1,846e-003
1500,	-1,8041e-003
1600,	-1,6475e-003
1700,	-1,5027e-003
1800,	-1,3876e-003
1900,	-1,3925e-003
2000,	-1,5472e-003
2100,	-1,736e-003
2200,	-1,8223e-003

Curve A_center Z



Length [mm]	Value [mm]
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100,	-3,3225e-003
200,	-2,5e-003
300,	-1,9257e-003
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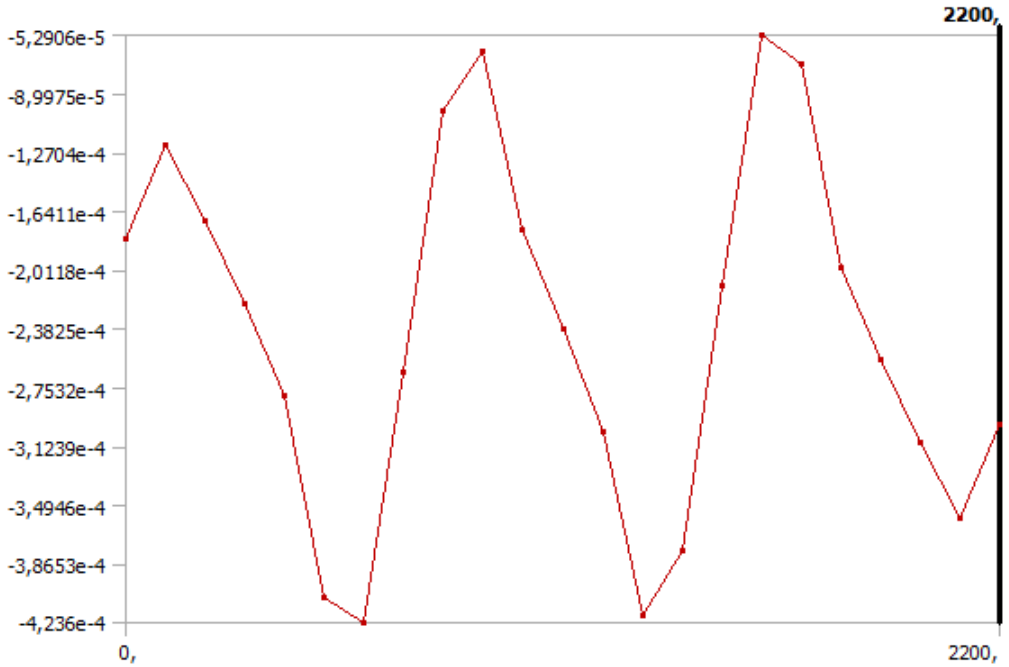
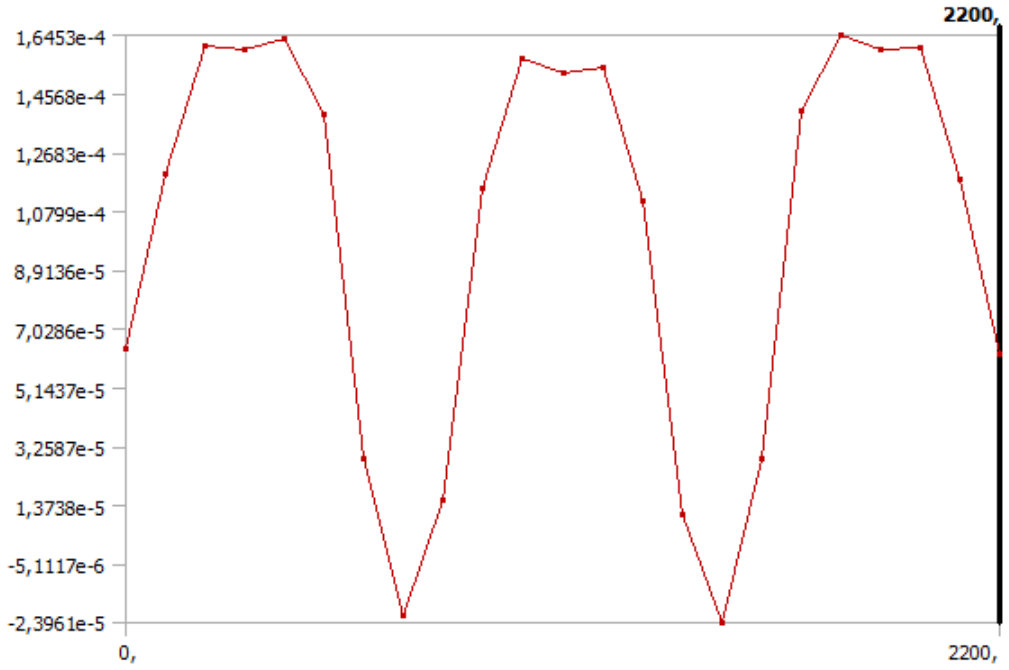
600,	-2,5669e-003
700,	-2,9839e-003
800,	-2,7567e-003
900,	-1,9547e-003
1000,	-1,2013e-003
1100,	-9,2371e-004
1200,	-1,1974e-003
1300,	-1,9638e-003
1400,	-2,7766e-003
1500,	-3,0008e-003
1600,	-2,5739e-003
1700,	-2,0382e-003
1800,	-1,7704e-003
1900,	-1,9235e-003
2000,	-2,4993e-003
2100,	-3,3235e-003
2200,	-3,9834e-003

Curve B_outer X



Length [mm]	Value [mm]
0,	-1,8105e-004
100,	-1,2199e-004
200,	-1,6959e-004
300,	-2,2255e-004
400,	-2,8068e-004
500,	-4,072e-004
600,	-4,236e-004
700,	-2,6568e-004
800,	-1,0051e-004
900,	-6,3254e-005
1000,	-1,7557e-004
1100,	-2,3846e-004
1200,	-3,0348e-004
1300,	-4,1853e-004
1400,	-3,7865e-004
1500,	-2,1099e-004
1600,	-5,2906e-005
1700,	-7,0974e-005
1800,	-1,9903e-004
1900,	-2,5751e-004
2000,	-3,1041e-004
2100,	-3,579e-004
2200,	-2,9882e-004

Curve B_outer Y



Length [mm]	Value [mm]
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300,	1,5994e-004
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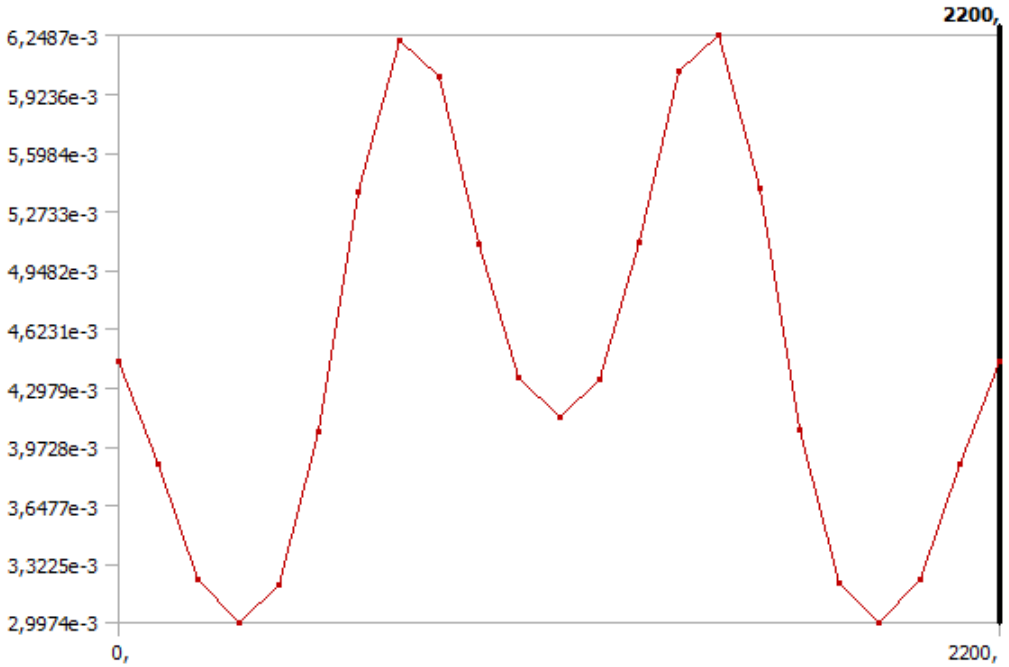
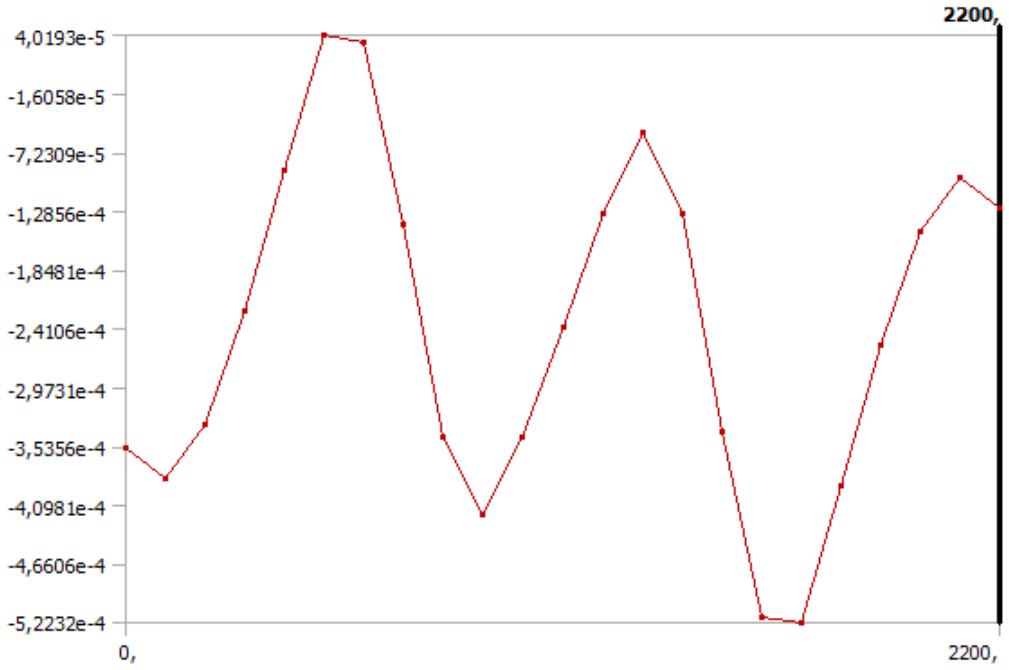
500,	1,3909e-004
600,	2,8882e-005
700,	-2,1717e-005
800,	1,5166e-005
900,	1,1555e-004
1000,	1,5687e-004
1100,	1,5265e-004
1200,	1,5438e-004
1300,	1,1156e-004
1400,	1,0936e-005
1500,	-2,3961e-005
1600,	2,8705e-005
1700,	1,402e-004
1800,	1,6453e-004
1900,	1,6009e-004
2000,	1,6062e-004
2100,	1,1855e-004
2200,	6,2204e-005

Curve B_outer Z



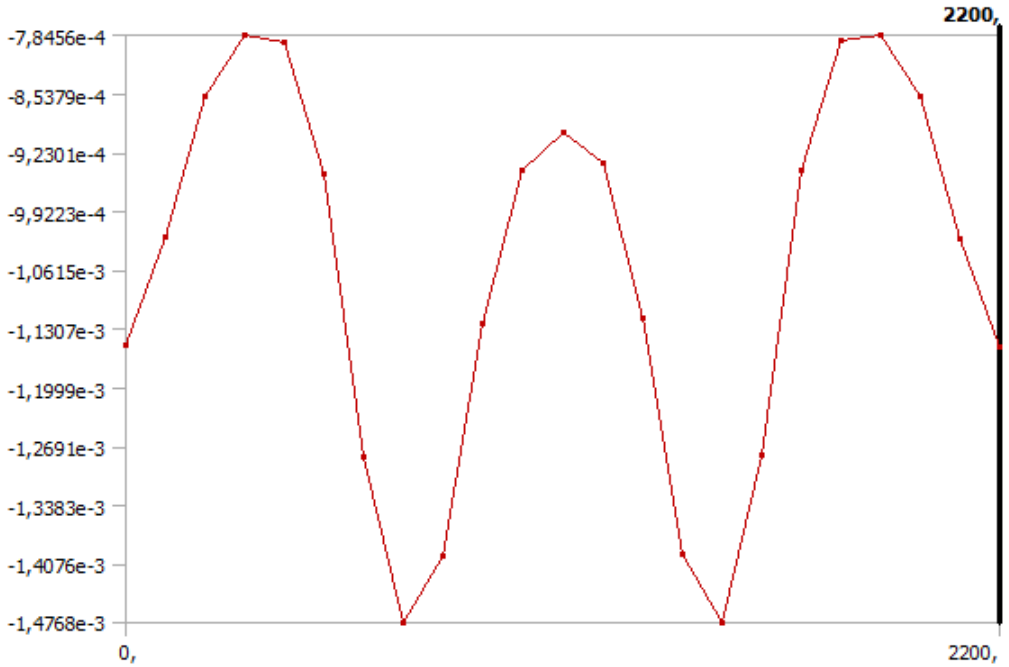
Length [mm]	Value [mm]
0,	4,4441e-003
100,	3,8714e-003
200,	3,2393e-003
300,	2,9974e-003
400,	3,211e-003
500,	4,0554e-003
600,	5,3852e-003
700,	6,2158e-003
800,	6,0182e-003
900,	5,0917e-003
1000,	4,3498e-003
1100,	4,1341e-003
1200,	4,345e-003
1300,	5,1053e-003
1400,	6,0521e-003
1500,	6,2487e-003
1600,	5,4041e-003
1700,	4,0612e-003
1800,	3,2119e-003
1900,	2,9977e-003
2000,	3,2393e-003
2100,	3,8705e-003
2200,	4,4419e-003

Curve B_center X



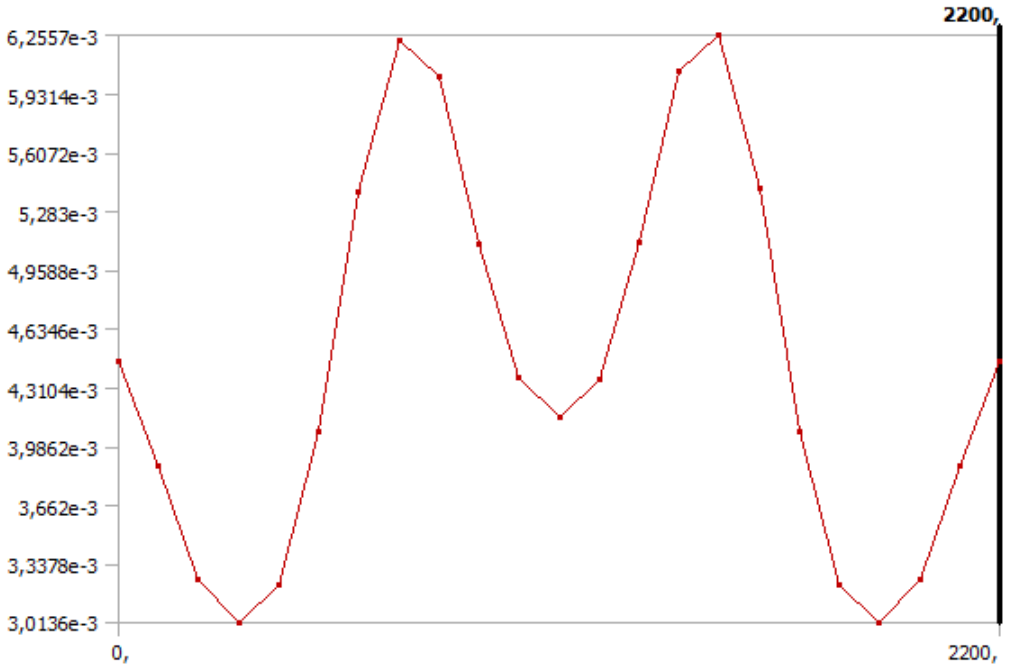
Length [mm]	Value [mm]
0,	-3,5425e-004
100,	-3,8363e-004
200,	-3,3273e-004
300,	-2,2295e-004
400,	-8,9039e-005
500,	4,0193e-005
600,	3,3686e-005
700,	-1,4165e-004
800,	-3,449e-004
900,	-4,1957e-004
1000,	-3,4424e-004
1100,	-2,387e-004
1200,	-1,3045e-004
1300,	-5,2814e-005
1400,	-1,3124e-004
1500,	-3,3967e-004
1600,	-5,1683e-004
1700,	-5,2232e-004
1800,	-3,9172e-004
1900,	-2,5734e-004
2000,	-1,4759e-004
2100,	-9,675e-005
2200,	-1,2615e-004

Curve B_center Y



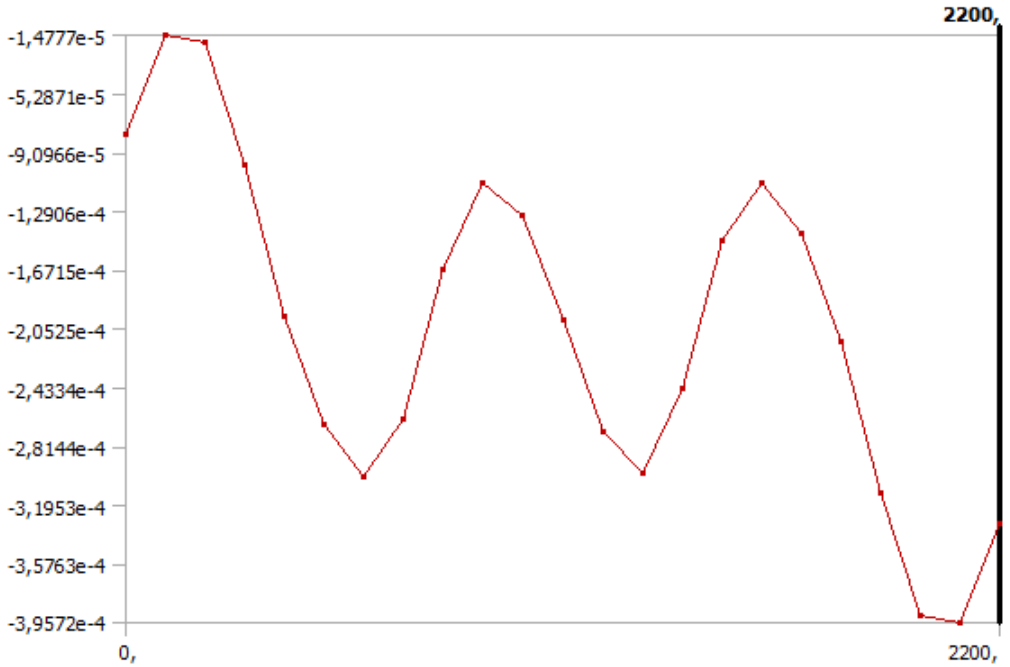
Length [mm]	Value [mm]
0,	-1,1495e-003
100,	-1,0224e-003
200,	-8,5632e-004
300,	-7,8459e-004
400,	-7,9221e-004
500,	-9,4709e-004
600,	-1,2817e-003
700,	-1,4768e-003
800,	-1,3991e-003
900,	-1,1253e-003
1000,	-9,4277e-004
1100,	-9,0019e-004
1200,	-9,3427e-004
1300,	-1,1181e-003
1400,	-1,3969e-003
1500,	-1,476e-003
1600,	-1,2802e-003
1700,	-9,4484e-004
1800,	-7,9085e-004
1900,	-7,8456e-004
2000,	-8,5738e-004
2100,	-1,0243e-003
2200,	-1,152e-003

Curve B_center Z



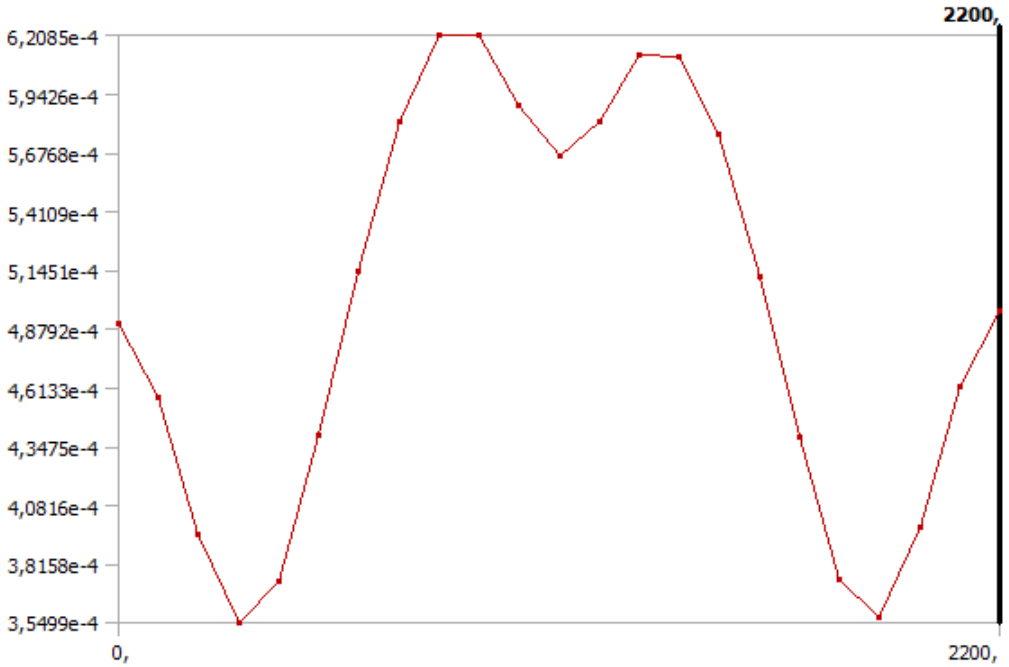
Length [mm]	Value [mm]
0,	4,4549e-003
100,	3,8825e-003
200,	3,2518e-003
300,	3,0136e-003
400,	3,2257e-003
500,	4,0634e-003
600,	5,3952e-003
700,	6,2229e-003
800,	6,026e-003
900,	5,0984e-003
1000,	4,3614e-003
1100,	4,1488e-003
1200,	4,3566e-003
1300,	5,1119e-003
1400,	6,0597e-003
1500,	6,2557e-003
1600,	5,4141e-003
1700,	4,0692e-003
1800,	3,2267e-003
1900,	3,0139e-003
2000,	3,2517e-003
2100,	3,8815e-003
2200,	4,4527e-003

Curve C_outer X



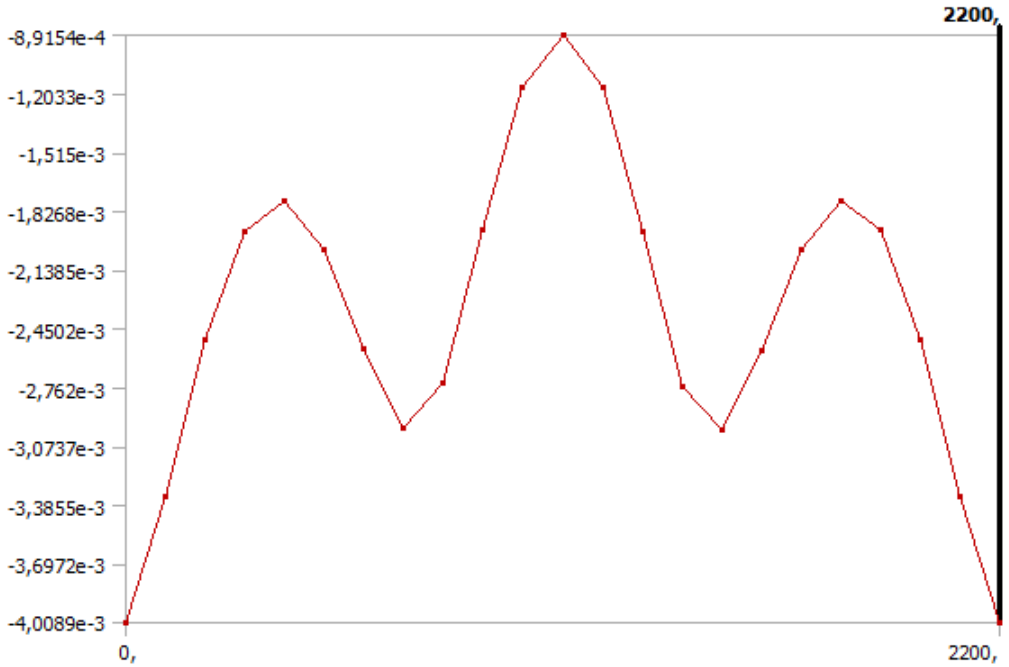
Length [mm]	Value [mm]
0,	-7,9358e-005
100,	-1,4777e-005
200,	-1,9312e-005
300,	-9,9458e-005
400,	-1,9733e-004
500,	-2,6742e-004
600,	-3,0054e-004
700,	-2,6356e-004
800,	-1,6678e-004
900,	-1,1026e-004
1000,	-1,3137e-004
1100,	-1,9952e-004
1200,	-2,7212e-004
1300,	-2,9832e-004
1400,	-2,4405e-004
1500,	-1,4822e-004
1600,	-1,1117e-004
1700,	-1,4383e-004
1800,	-2,135e-004
1900,	-3,1114e-004
2000,	-3,9119e-004
2100,	-3,9572e-004
2200,	-3,3115e-004

Curve C_outer Y



Length [mm]	Value [mm]
0,	4,903e-004
100,	4,5731e-004
200,	3,9459e-004
300,	3,5499e-004
400,	3,738e-004
500,	4,3946e-004
600,	5,1429e-004
700,	5,8193e-004
800,	6,2053e-004
900,	6,2085e-004
1000,	5,8866e-004
1100,	5,6595e-004
1200,	5,819e-004
1300,	6,116e-004
1400,	6,1139e-004
1500,	5,7579e-004
1600,	5,1156e-004
1700,	4,3903e-004
1800,	3,7479e-004
1900,	3,5718e-004
2000,	3,98e-004
2100,	4,6203e-004
2200,	4,9639e-004

Curve C_outer Z



Length [mm]	Value [mm]
0,	-4,0054e-003
100,	-3,3378e-003
200,	-2,5087e-003
300,	-1,9302e-003
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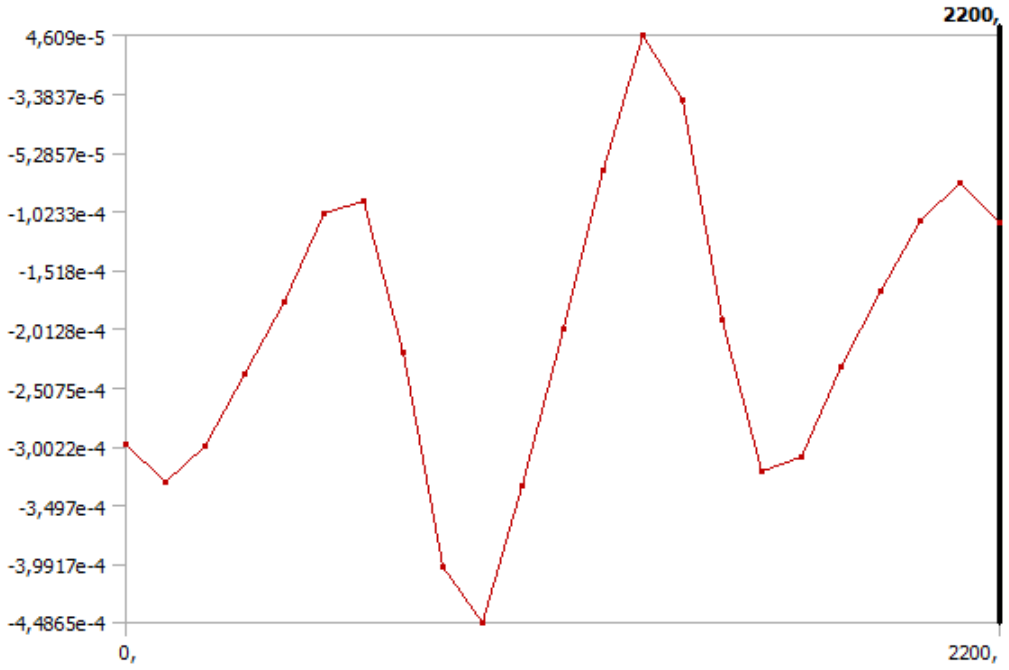
500,	-2,0277e-003
600,	-2,5568e-003
700,	-2,972e-003
800,	-2,7367e-003
900,	-1,9228e-003
1000,	-1,1669e-003
1100,	-8,9154e-004
1200,	-1,1642e-003
1300,	-1,9335e-003
1400,	-2,7583e-003
1500,	-2,9901e-003
1600,	-2,5644e-003
1700,	-2,0279e-003
1800,	-1,7674e-003
1900,	-1,9283e-003
2000,	-2,5084e-003
2100,	-3,3394e-003
2200,	-4,0089e-003

Curve C_center X



Length [mm]	Value [mm]
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100,	-3,3096e-004
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300,	-2,3995e-004
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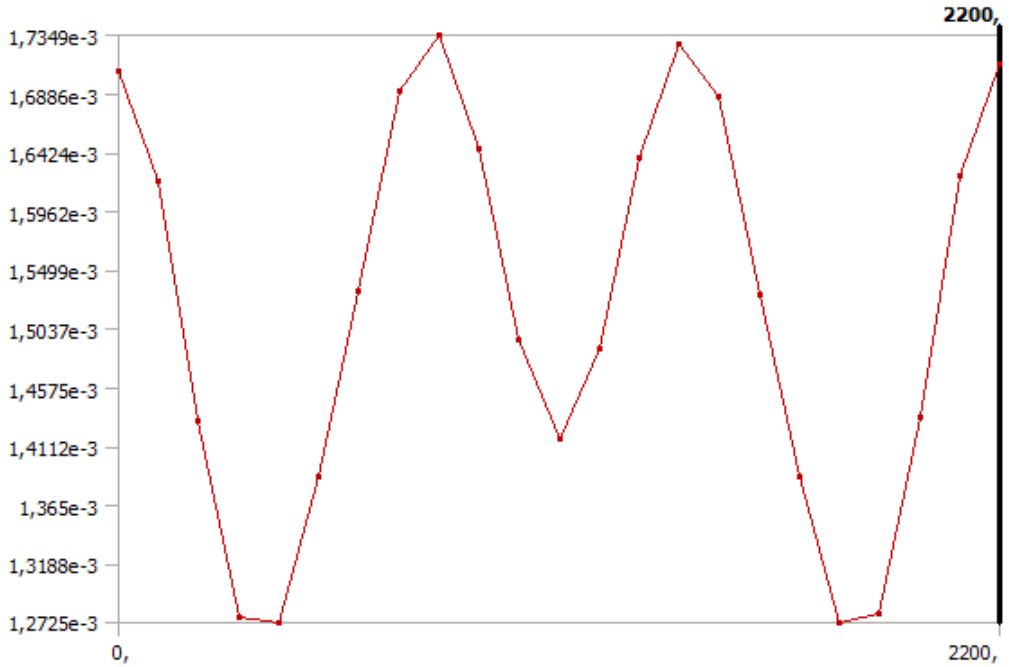
500,	-1,0418e-004
600,	-9,4204e-005
700,	-2,2119e-004
800,	-4,0092e-004
900,	-4,4865e-004
1000,	-3,3333e-004
1100,	-2,0093e-004
1200,	-6,7982e-005
1300,	4,609e-005
1400,	-8,3103e-006
1500,	-1,9382e-004
1600,	-3,2133e-004
1700,	-3,0899e-004
1800,	-2,3297e-004
1900,	-1,7012e-004
2000,	-1,1038e-004
2100,	-7,8726e-005
2200,	-1,116e-004

Curve C_center Y



Length [mm]	Value [mm]
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300,	1,2773e-003
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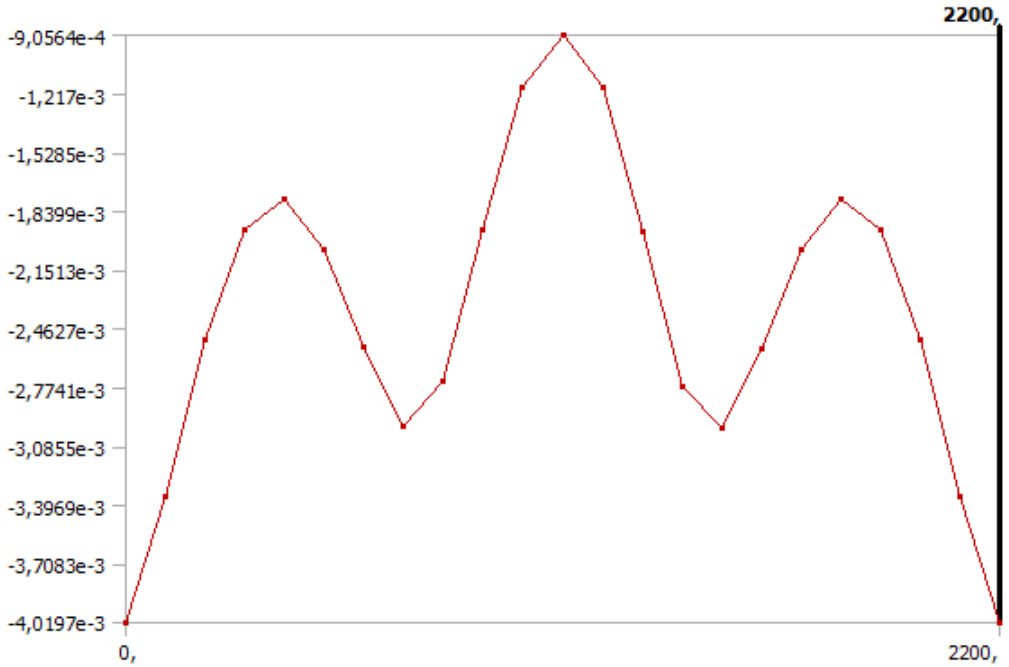
500,	1,3877e-003
600,	1,5331e-003
700,	1,6913e-003
800,	1,7349e-003
900,	1,6458e-003
1000,	1,4956e-003
1100,	1,4173e-003
1200,	1,4886e-003
1300,	1,6383e-003
1400,	1,7282e-003
1500,	1,687e-003
1600,	1,5313e-003
1700,	1,3875e-003
1800,	1,2732e-003
1900,	1,279e-003
2000,	1,4347e-003
2100,	1,6247e-003
2200,	1,7122e-003

Curve C_center Z



Length [mm]	Value [mm]
0,	-4,0162e-003
100,	-3,35e-003
200,	-2,5196e-003
300,	-1,9378e-003
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500,	-2,039e-003
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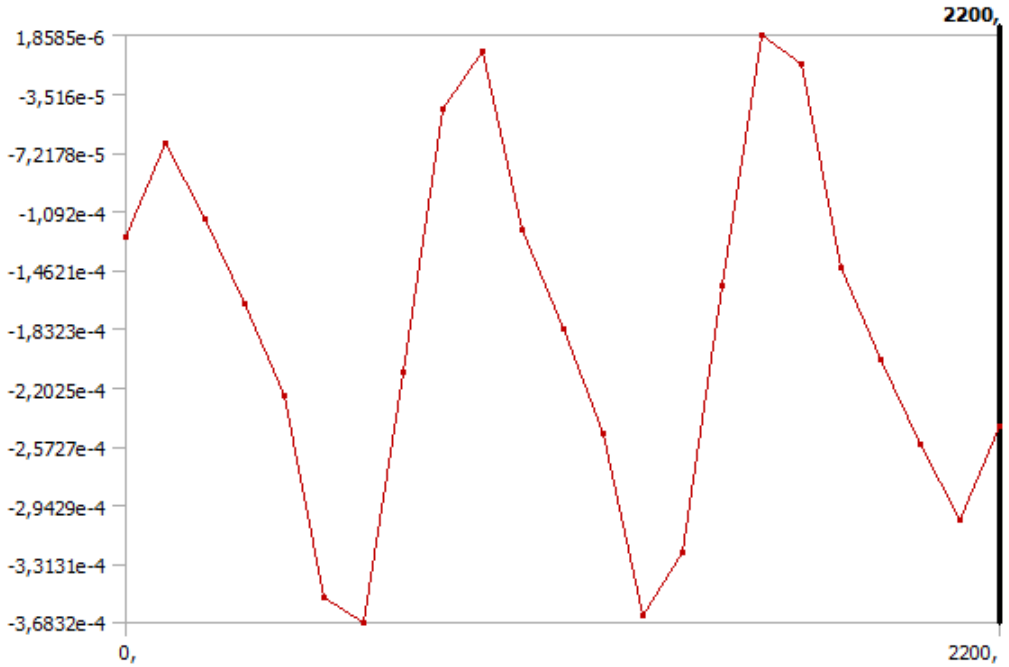
700,	-2,9745e-003
800,	-2,743e-003
900,	-1,9382e-003
1000,	-1,1834e-003
1100,	-9,0564e-004
1200,	-1,1803e-003
1300,	-1,9484e-003
1400,	-2,7641e-003
1500,	-2,9924e-003
1600,	-2,5704e-003
1700,	-2,0394e-003
1800,	-1,7766e-003
1900,	-1,936e-003
2000,	-2,5193e-003
2100,	-3,3517e-003
2200,	-4,0197e-003

Curve D_outer X



Length [mm]	Value [mm]
0,	-1,2541e-004
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300,	-1,6686e-004
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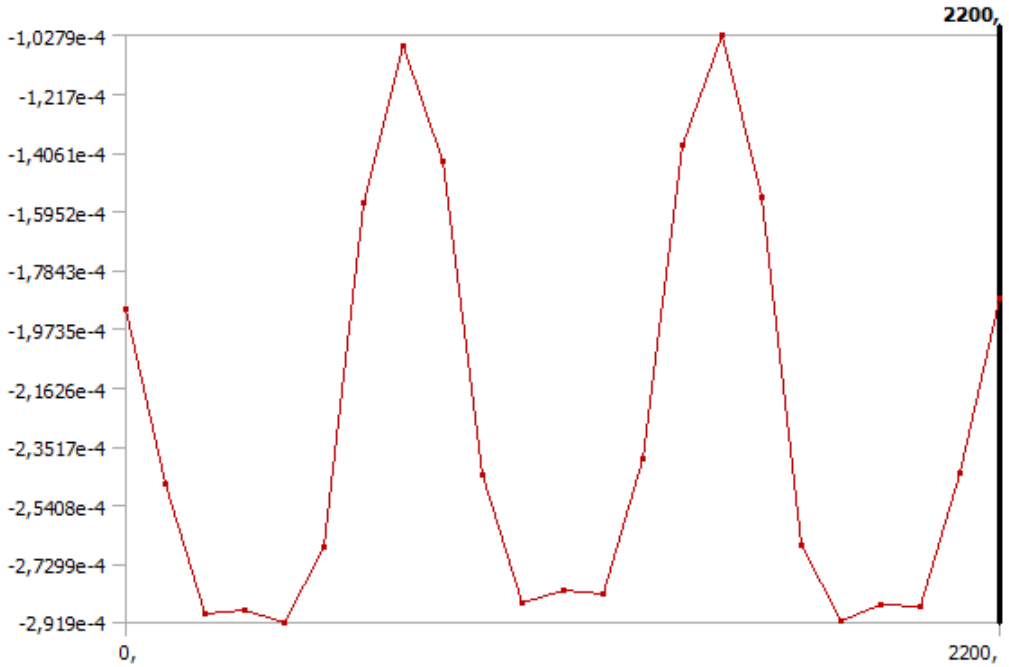
700,	-2,1025e-004
800,	-4,5027e-005
900,	-7,9192e-006
1000,	-1,2055e-004
1100,	-1,837e-004
1200,	-2,4892e-004
1300,	-3,6414e-004
1400,	-3,2425e-004
1500,	-1,5643e-004
1600,	1,8585e-006
1700,	-1,6171e-005
1800,	-1,4439e-004
1900,	-2,0303e-004
2000,	-2,5597e-004
2100,	-3,0339e-004
2200,	-2,4428e-004

Curve D_outer Y



Length [mm]	Value [mm]
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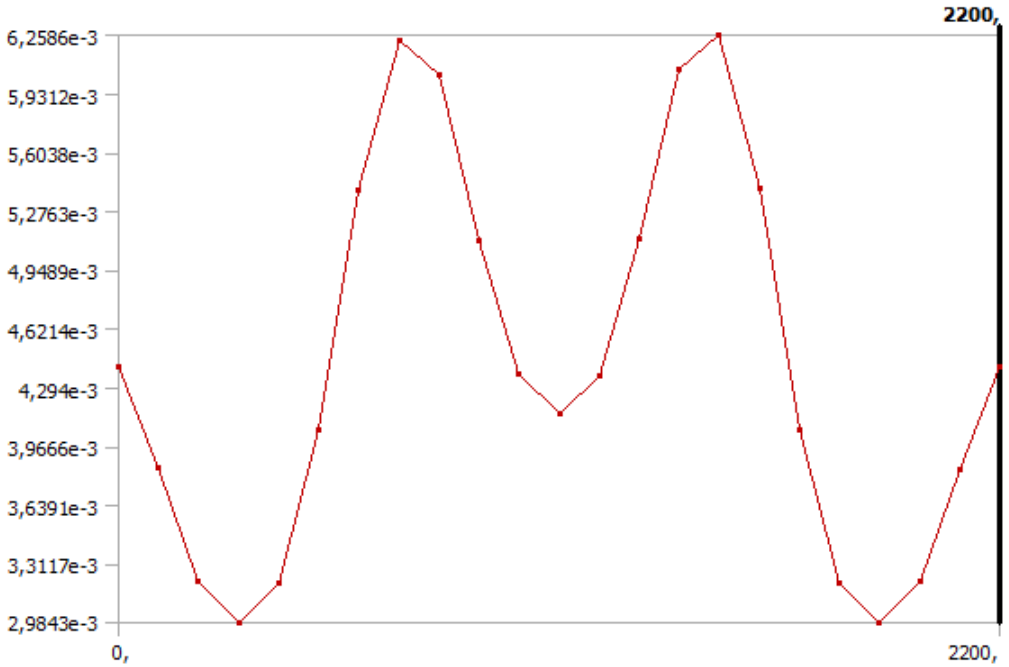
300,	-2,8797e-004
400,	-2,919e-004
500,	-2,6729e-004
600,	-1,5696e-004
700,	-1,0647e-004
800,	-1,4365e-004
900,	-2,4434e-004
1000,	-2,8572e-004
1100,	-2,8125e-004
1200,	-2,8256e-004
1300,	-2,3926e-004
1400,	-1,381e-004
1500,	-1,0279e-004
1600,	-1,5526e-004
1700,	-2,6676e-004
1800,	-2,9105e-004
1900,	-2,8636e-004
2000,	-2,8648e-004
2100,	-2,4402e-004
2200,	-1,8735e-004

Curve D_outer Z



Length [mm]	Value [mm]
0,	4,4088e-003
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300,	2,9844e-003
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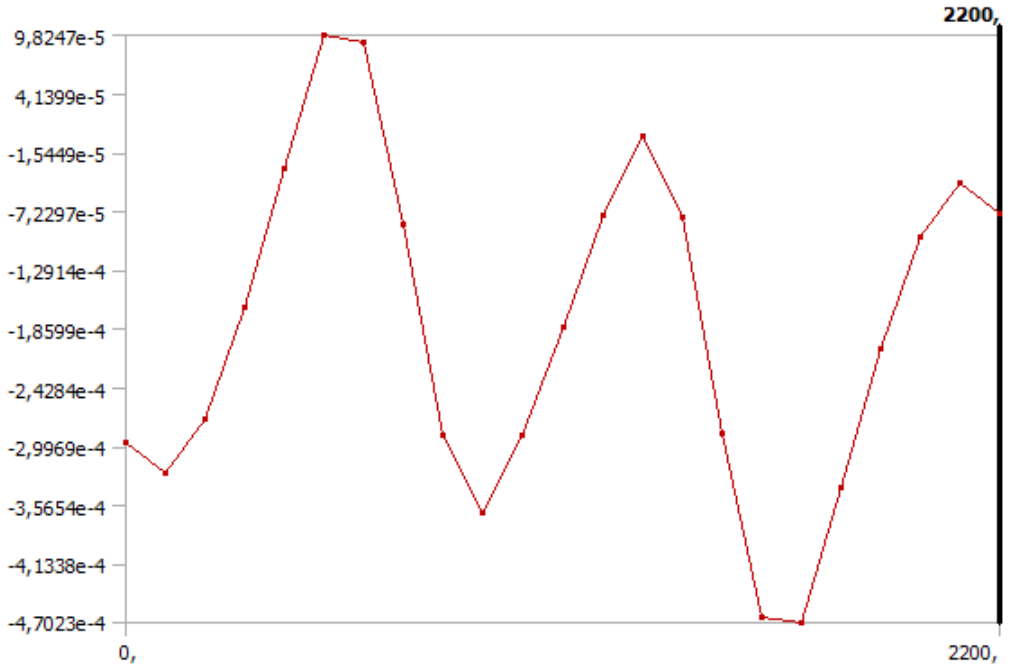
600,	5,3912e-003
700,	6,2269e-003
800,	6,0331e-003
900,	5,1088e-003
1000,	4,3679e-003
1100,	4,152e-003
1200,	4,3618e-003
1300,	5,1206e-003
1400,	6,0653e-003
1500,	6,2586e-003
1600,	5,4093e-003
1700,	4,0607e-003
1800,	3,2051e-003
1900,	2,9843e-003
2000,	3,2188e-003
2100,	3,8423e-003
2200,	4,4058e-003

Curve D_center X



Length [mm]	Value [mm]
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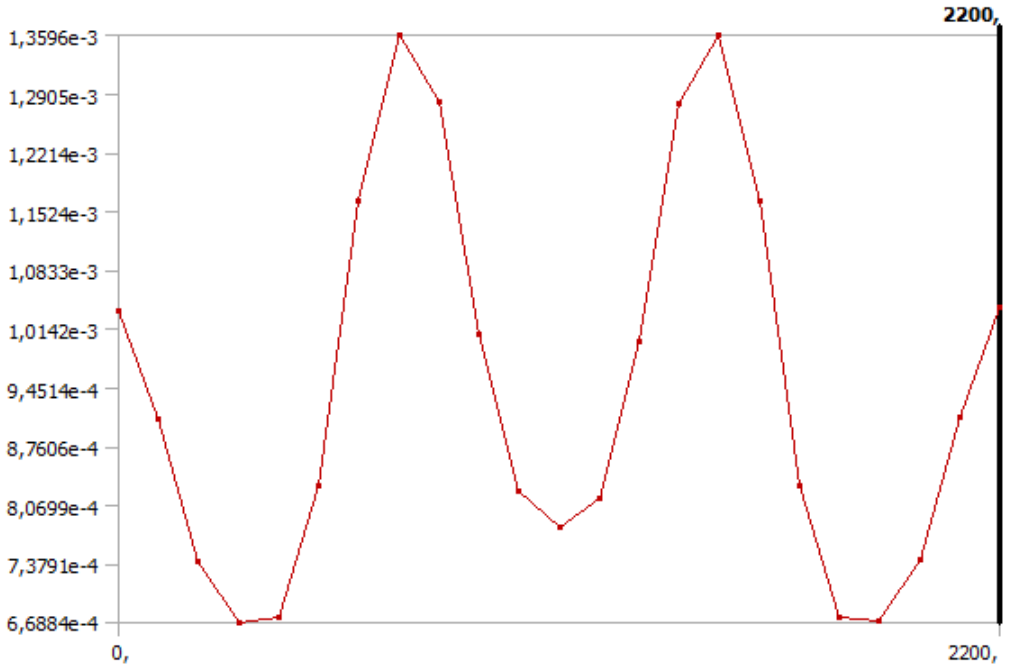
300,	-1,6429e-004
400,	-3,0695e-005
500,	9,8247e-005
600,	9,1465e-005
700,	-8,4278e-005
800,	-2,8812e-004
900,	-3,6352e-004
1000,	-2,89e-004
1100,	-1,8419e-004
1200,	-7,6425e-005
1300,	8,2176e-007
1400,	-7,8026e-005
1500,	-2,869e-004
1600,	-4,6443e-004
1700,	-4,7023e-004
1800,	-3,3994e-004
1900,	-2,0588e-004
2000,	-9,6355e-005
2100,	-4,5606e-005
2200,	-7,5024e-005

Curve D_center Y



Length [mm]	Value [mm]
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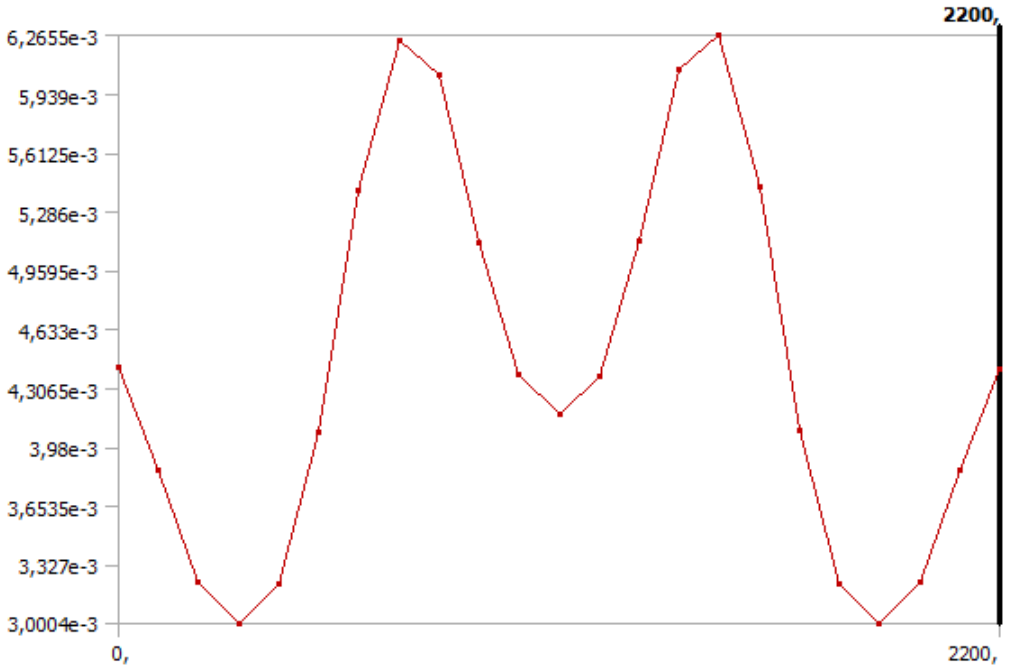
500,	8,3023e-004
600,	1,1646e-003
700,	1,3593e-003
800,	1,2812e-003
900,	1,007e-003
1000,	8,2415e-004
1100,	7,8163e-004
1200,	8,1595e-004
1300,	1,0003e-003
1400,	1,2798e-003
1500,	1,3596e-003
1600,	1,1643e-003
1700,	8,2939e-004
1800,	6,7598e-004
1900,	6,7044e-004
2000,	7,4399e-004
2100,	9,1141e-004
2200,	1,0395e-003

Curve D_center Z



Length [mm]	Value [mm]
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300,	3,0006e-003
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700,	6,234e-003
800,	6,0407e-003
900,	5,1154e-003
1000,	4,3794e-003
1100,	4,1666e-003
1200,	4,3734e-003
1300,	5,1272e-003
1400,	6,0729e-003
1500,	6,2655e-003
1600,	5,4193e-003
1700,	4,0686e-003
1800,	3,2199e-003
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2100,	3,8534e-003
2200,	4,4166e-003