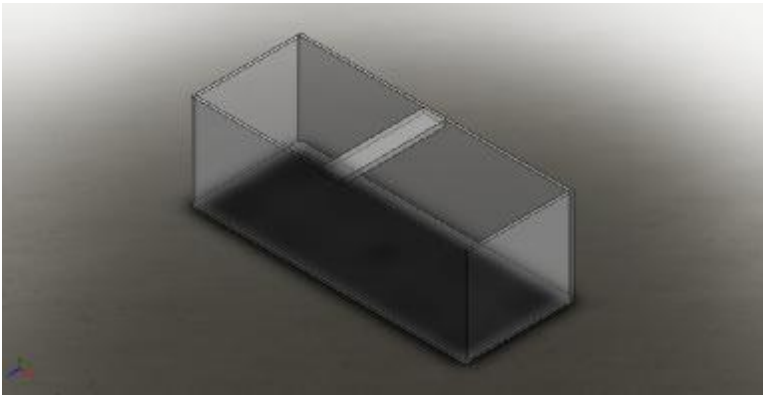




Description

No Data

Simulation of Assem1

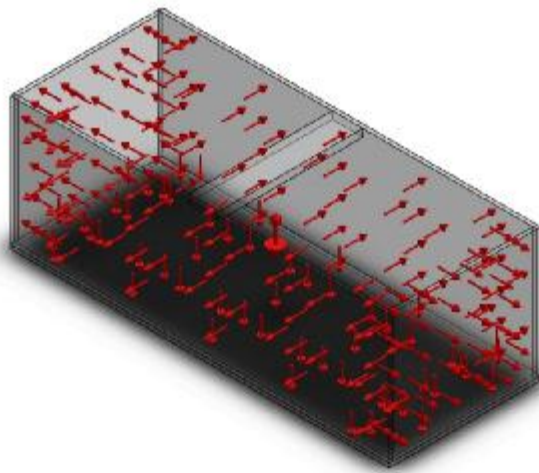
Date: Παρασκευή, 23 Ιουνίου 2017
Designer: Duffy
Study name: Static 1
Analysis type: Static

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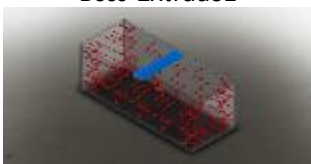
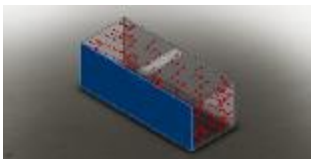
Assumptions

Model Information

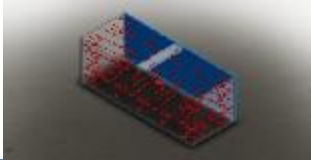
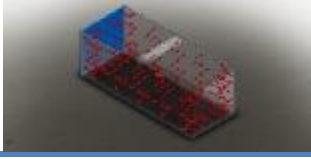
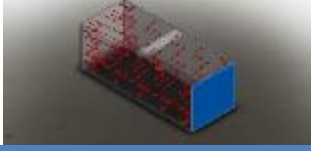


Model name: Assem1
Current Configuration: Default

Solid Bodies

Document Name and Reference	Treated As	Volumetric Properties	Document Path/Date Modified
Boss-Extrude1 	Solid Body	Mass:1.49422 kg Volume:0.000608 m ³ Density:2457.6 kg/m ³ Weight:14.6434 N	H:\Duffy Workfiles\100. VARIOUS\Aquarium\Kontr es.sldprt Jun 23 09:47:15 2017
Boss-Extrude1 	Solid Body	Mass:8.35584 kg Volume:0.0034 m ³ Density:2457.6 kg/m ³ Weight:81.8872 N	H:\Duffy Workfiles\100. VARIOUS\Aquarium\Megali Pleura.sldprt Jun 23 08:44:53 2017



	Solid Body	Mass:8.35584 kg Volume:0.0034 m ³ Density:2457.6 kg/m ³ Weight:81.8872 N	H:\Duffy Workfiles\100. VARIOUS\Aquarium\Megali Pleura.sldprt Jun 23 08:44:53 2017
	Solid Body	Mass:3.17522 kg Volume:0.001292 m ³ Density:2457.6 kg/m ³ Weight:31.1171 N	H:\Duffy Workfiles\100. VARIOUS\Aquarium\Mikri Pleura.sldprt Jun 23 08:45:48 2017
	Solid Body	Mass:3.17522 kg Volume:0.001292 m ³ Density:2457.6 kg/m ³ Weight:31.1171 N	H:\Duffy Workfiles\100. VARIOUS\Aquarium\Mikri Pleura.sldprt Jun 23 08:45:48 2017

Study Properties

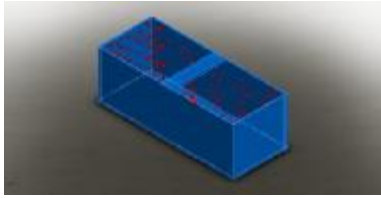
Study name	Static 1
Analysis type	Static
Mesh type	Mixed Mesh
Thermal Effect:	On
Thermal option	Include temperature loads
Zero strain temperature	298 Kelvin
Include fluid pressure effects from SOLIDWORKS Flow Simulation	Off
Solver type	FFEPlus
Inplane Effect:	Off
Soft Spring:	Off
Inertial Relief:	Off
Incompatible bonding options	Automatic
Large displacement	Off
Compute free body forces	On
Friction	Off
Use Adaptive Method:	Off
Result folder	SOLIDWORKS document (H:\Duffy Workfiles\100. VARIOUS\Aquarium)



Units

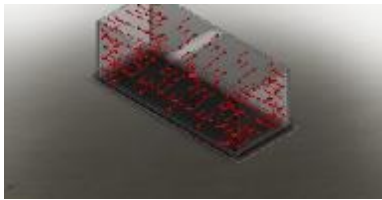
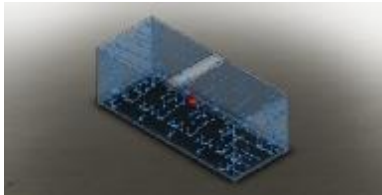
Unit system:	SI (MKS)
Length/Displacement	mm
Temperature	Kelvin
Angular velocity	Rad/sec
Pressure/Stress	N/m ²

Material Properties

Model Reference	Properties	Components
	Name: Glass Model type: Linear Elastic Isotropic Default failure criterion: Unknown Elastic modulus: 6.8935e+010 N/m² Poisson's ratio: 0.23 Mass density: 2457.6 kg/m³ Shear modulus: 2.8022e+010 N/m² Thermal expansion coefficient: 9e-006 /Kelvin	SolidBody 1(Boss-Extrude1)(Kontres-1), SolidBody 1(Boss-Extrude1)(Megali Pleura-1), SolidBody 1(Boss-Extrude1)(Megali Pleura-2), SolidBody 1(Boss-Extrude1)(Mikri Pleura-1), SolidBody 1(Boss-Extrude1)(Mikri Pleura-2), SolidBody 1(Boss-Extrude1)(Patos-1)
Curve Data:N/A		



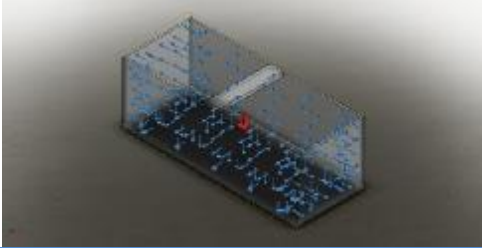
Loads and Fixtures

Load name	Load Image	Load Details
Gravity-1		Reference: Top Plane Values: 0 0 -9.81 Units: m/s ²
Pressure-1		Entities: 5 face(s) Type: Normal to selected face Value: 300 Units: N/m ² Phase Angle: 0 Units: deg

Connector Definitions

No Data

Contact Information

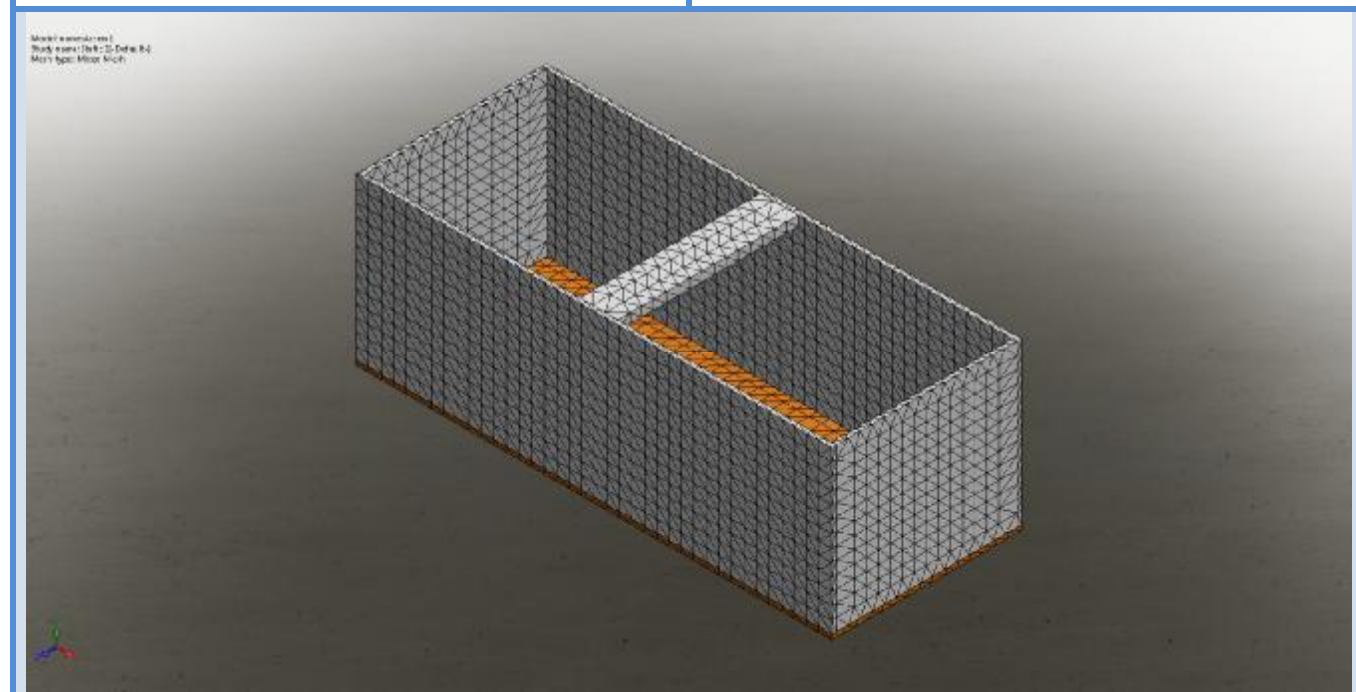
Contact	Contact Image	Contact Properties
Global Contact		Type: Bonded Components: 1 component(s) Options: Incompatible mesh

Mesh information

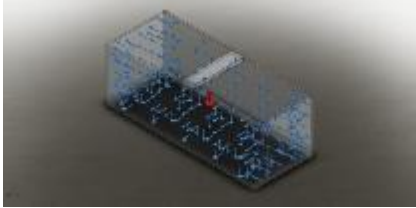
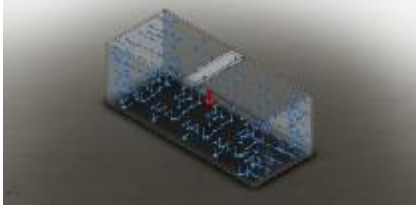
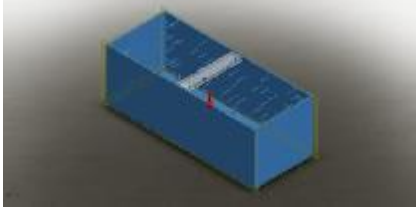
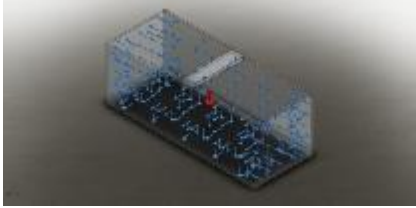
Mesh type	Mixed Mesh
Mesher Used:	Standard mesh
Automatic Transition:	Off
Include Mesh Auto Loops:	Off
Jacobian points	4 Points
Jacobian check for shell	On
Element Size	26.6655 mm
Tolerance	1.33327 mm
Mesh Quality Plot	High
Remesh failed parts with incompatible mesh	Off

Mesh information - Details

Total Nodes	24549
Total Elements	12186
Time to complete mesh(hh:mm:ss):	00:00:04
Computer name:	TMALA



Sensor Details

Sensor name	Location	Sensor Details
Sensors1		Value : 1 Entities : Result :Displacement Component :URES: Resultant Displacement Criterion :Model Max Step Criterion : Across all Steps Step No.:1 Alert Value: NA
Minimum Factor of Safety1		Value : Entities : Result :Factor of Safety Component :Automatic Criterion :Model Max Step Criterion : Across all Steps Step No.:1 Alert Value: is greater than 1.05
Sensors2		Value : 1 Entities :5 component(s) Result :Displacement Component :URES: Resultant Displacement Criterion :Max over Selected Entities Step Criterion : Across all Steps Step No.:1 Alert Value: NA
Minimum Factor of Safety2		Value : Entities : Result :Factor of Safety Component :Automatic Criterion :Model Max Step Criterion : Across all Steps Step No.:1 Alert Value: is greater than 1.05

Resultant Forces

Reaction forces

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N	-2.71201e-006	360.918	-5.52088e-006	360.918

Reaction Moments

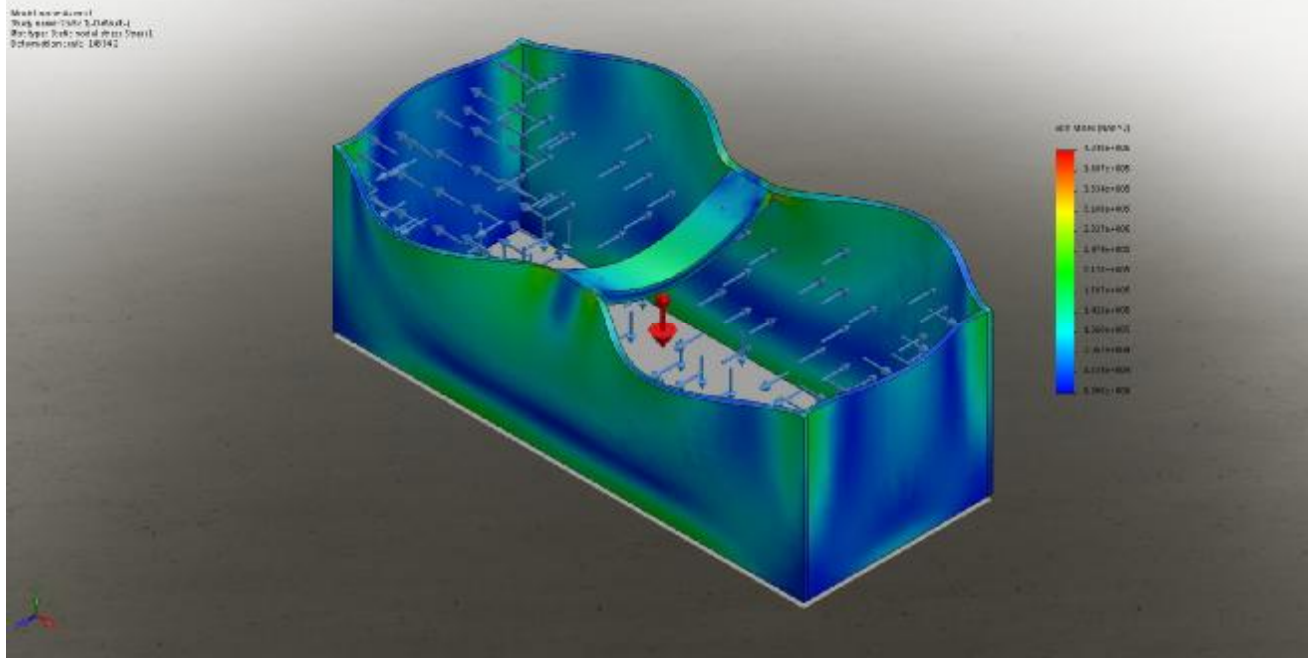
Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N.m	4.32838e-008	3.7412e-010	-1.3934e-008	4.54729e-008

Beams

No Data

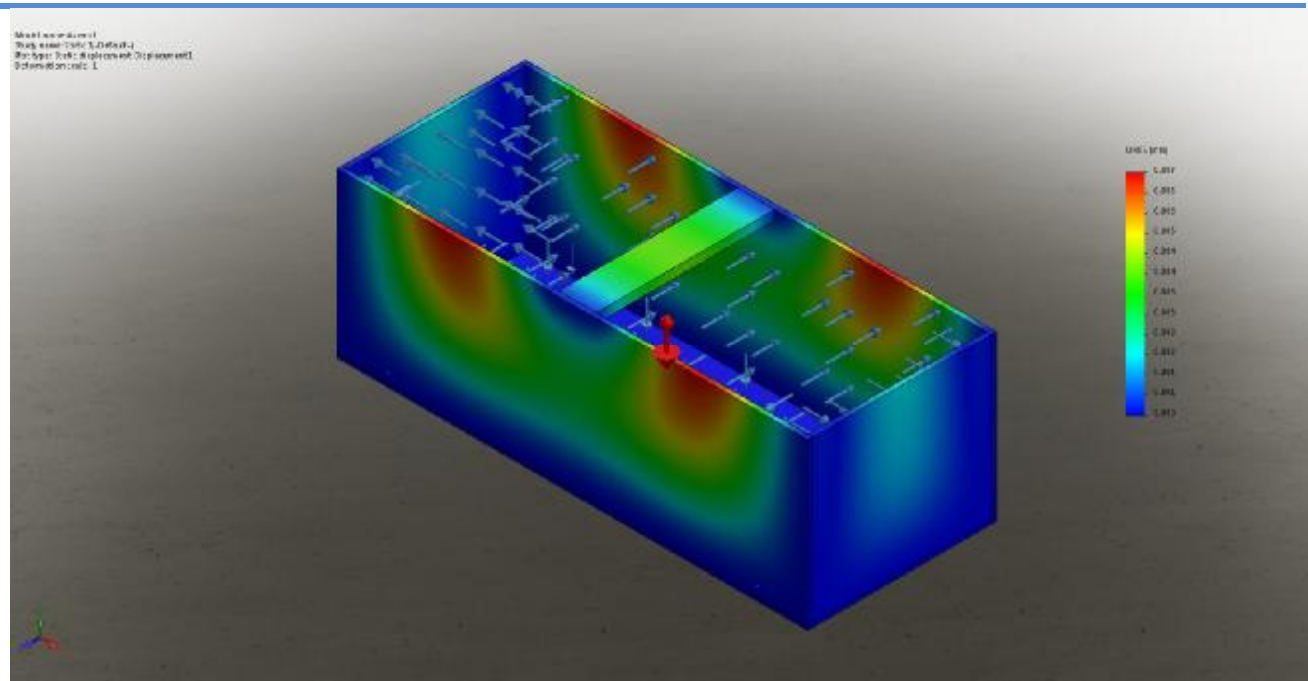
Study Results

Name	Type	Min	Max
Stress1	VON: von Mises Stress	0.000e+000N/m^2 Node: 19564	4.240e+005N/m^2 Node: 18

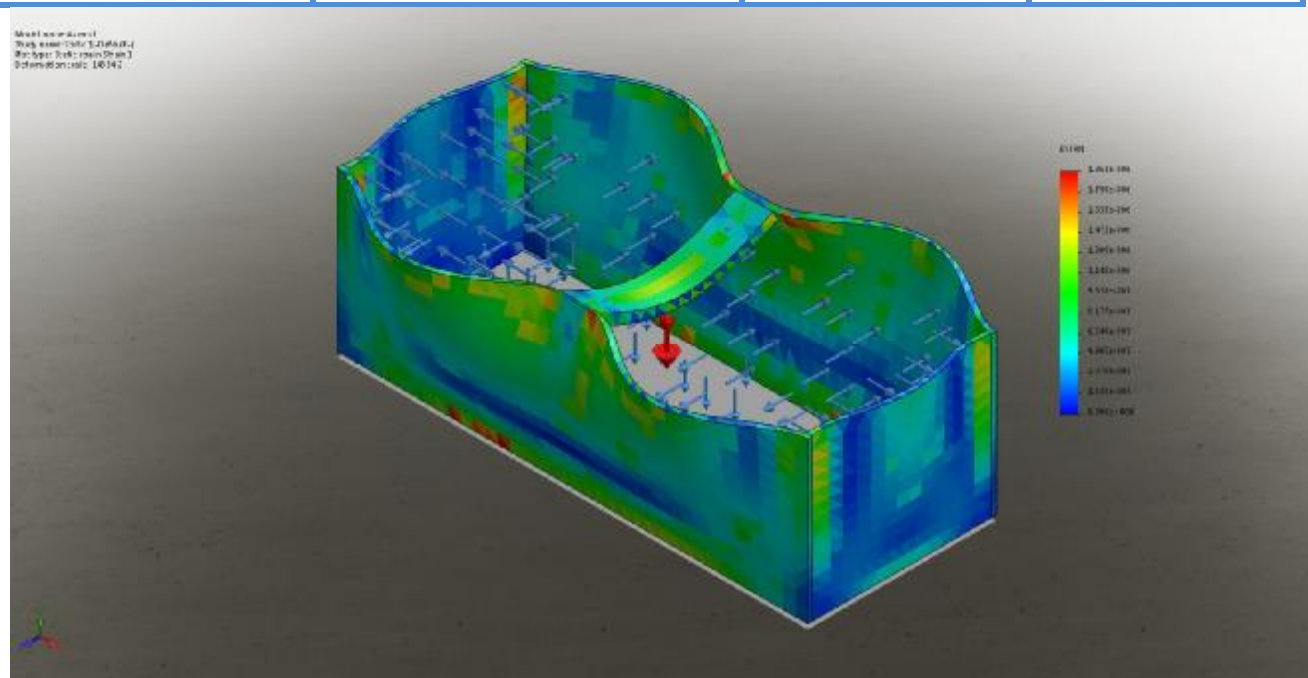


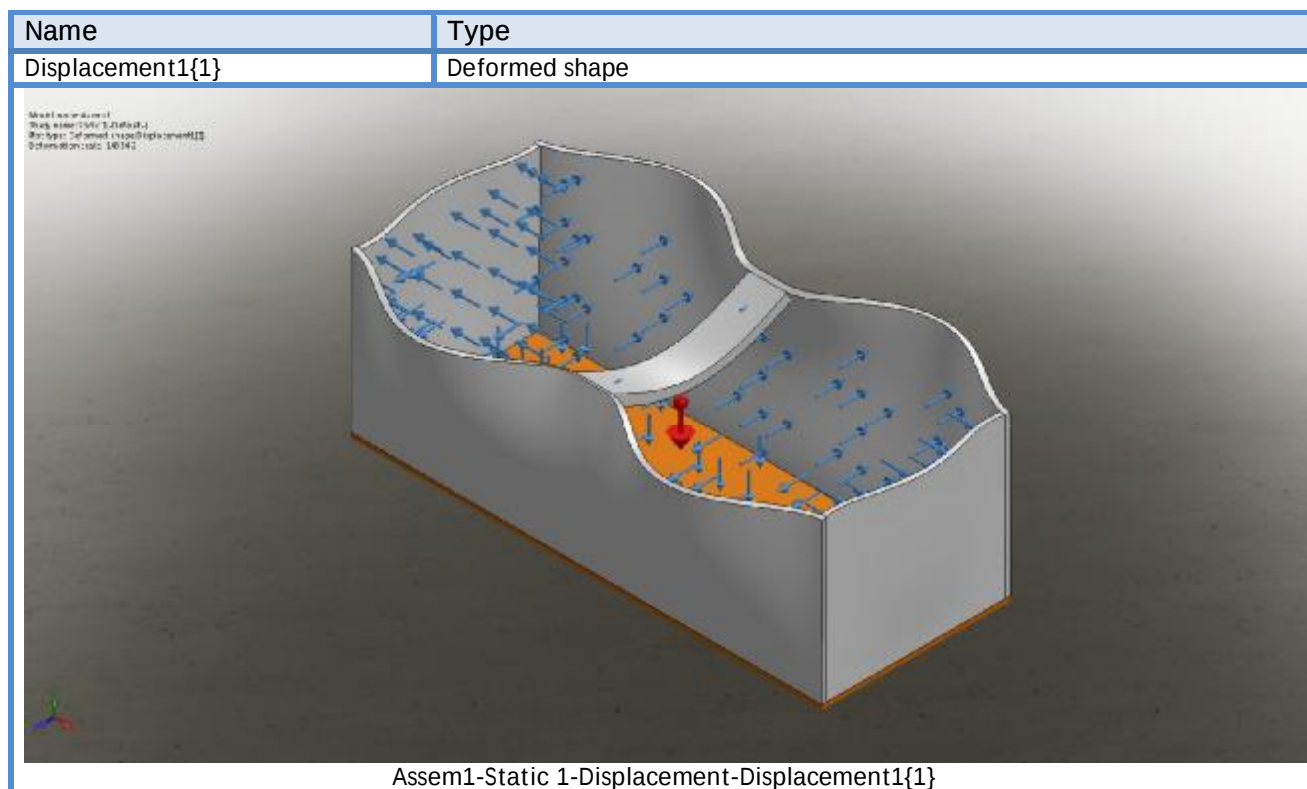
Assem1-Static 1-Stress-Stress1

Name	Type	Min	Max
Displacement1	URES: Resultant Displacement	0.000 mm Node: 19564	0.007 mm Node: 6954



Name	Type	Min	Max
Strain1	ESTRN: Equivalent Strain	0.000e+000 Element: 9695	1.962e-006 Element: 4340





Conclusion