

## Simulation of EX01\_GLASS\_01

**Date:** Friday, June 08, 2018  
**Designer:** Malik  
**Study name:** SimulationXpress Study  
**Analysis type:** Static

### Table of Contents

Description.....	1
Assumptions .....	2
Model Information .....	2
Material Properties .....	3
Loads and Fixtures.....	4
Mesh information .....	5
Study Results .....	7
Conclusion .....	10

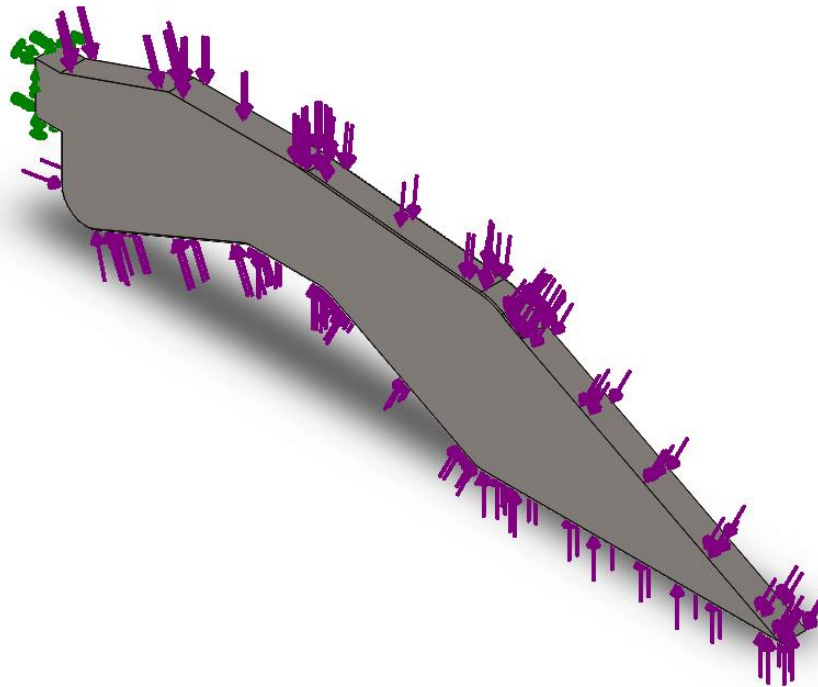
### Description

EX06 WindTurbine



## Assumptions

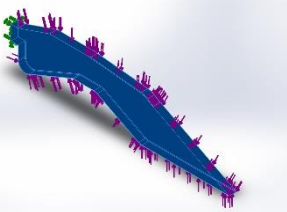
## Model Information



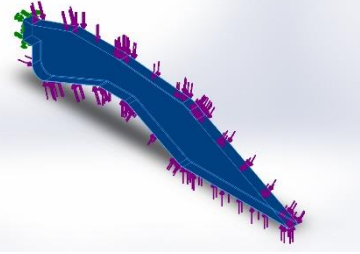
Model name: EX01\_GLASS\_01  
Current Configuration: Default

### Solid Bodies

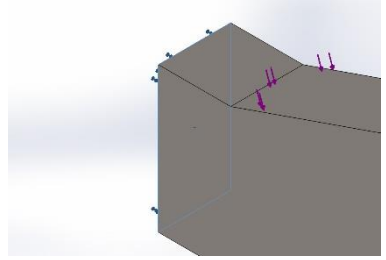
Document Name and Reference	Treated As	Volumetric Properties	Document Path/Date Modified
-----------------------------	------------	-----------------------	-----------------------------

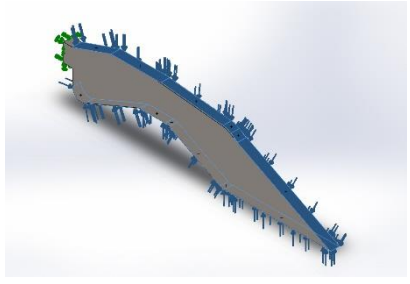
<p>Fillet7</p> 	<p>Solid Body</p>	<p>Mass:1.07756 kg Volume:0.000238927 m<sup>3</sup> Density:4510 kg/m<sup>3</sup> Weight:10.5601 N</p>	<p>F:\EX01_GLASS_01.SLDPR T Jun 04 19:15:08 2018</p>
--	-------------------	--	--

### Material Properties

Model Reference	Properties	Components
	<p><b>Name:</b> Commercially Pure CP-Ti UNS R50400 (SS) <b>Model type:</b> Linear Elastic Isotropic <b>Default failure criterion:</b> Max von Mises Stress <b>Yield strength:</b> 3.7e+008 N/m<sup>2</sup> <b>Tensile strength:</b> 3.44e+008 N/m<sup>2</sup></p>	<p>SolidBody 1(Fillet7)(EX01_GLASS_01)</p>

### Loads and Fixtures

Fixture name	Fixture Image	Fixture Details
Fixed-1		<p><b>Entities:</b> 1 face(s) <b>Type:</b> Fixed Geometry</p>

Load name	Load Image	Load Details
Force-1		<p><b>Entities:</b> 13 face(s) <b>Type:</b> Apply normal force <b>Value:</b> 10 N</p>

**Mesh information**

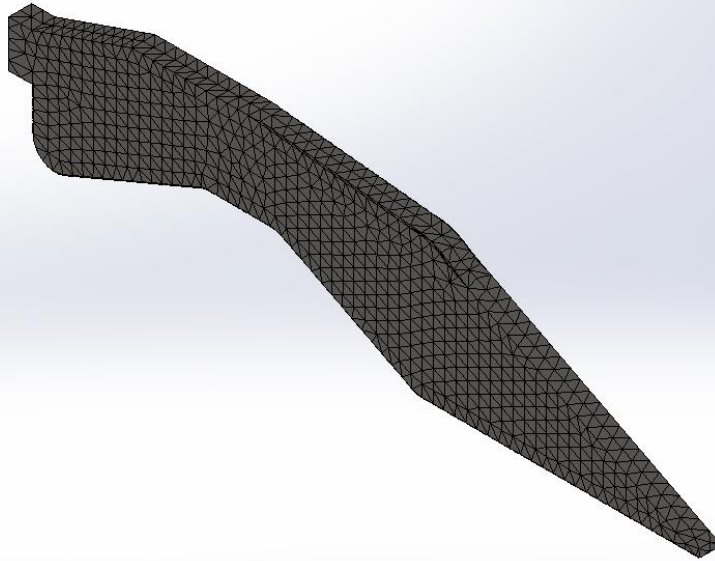
Mesh type	Solid Mesh
Mesher Used:	Standard mesh
Automatic Transition:	Off
Include Mesh Auto Loops:	Off
Jacobian points	4 Points
Element Size	0.244367 in
Tolerance	0.0122183 in
Mesh Quality Plot	High

**Mesh information - Details**

Total Nodes	14147
Total Elements	8333
Maximum Aspect Ratio	49.6
% of elements with Aspect Ratio < 3	91.6
% of elements with Aspect Ratio > 10	0.54
% of distorted elements(Jacobian)	0
Time to complete mesh(hh:mm:ss):	00:00:01
Computer name:	V511A-12



Model name: EX01\_GLASS\_01  
Study name: SimulationXpress Study (Default)  
Mesh type: Solid Mesh

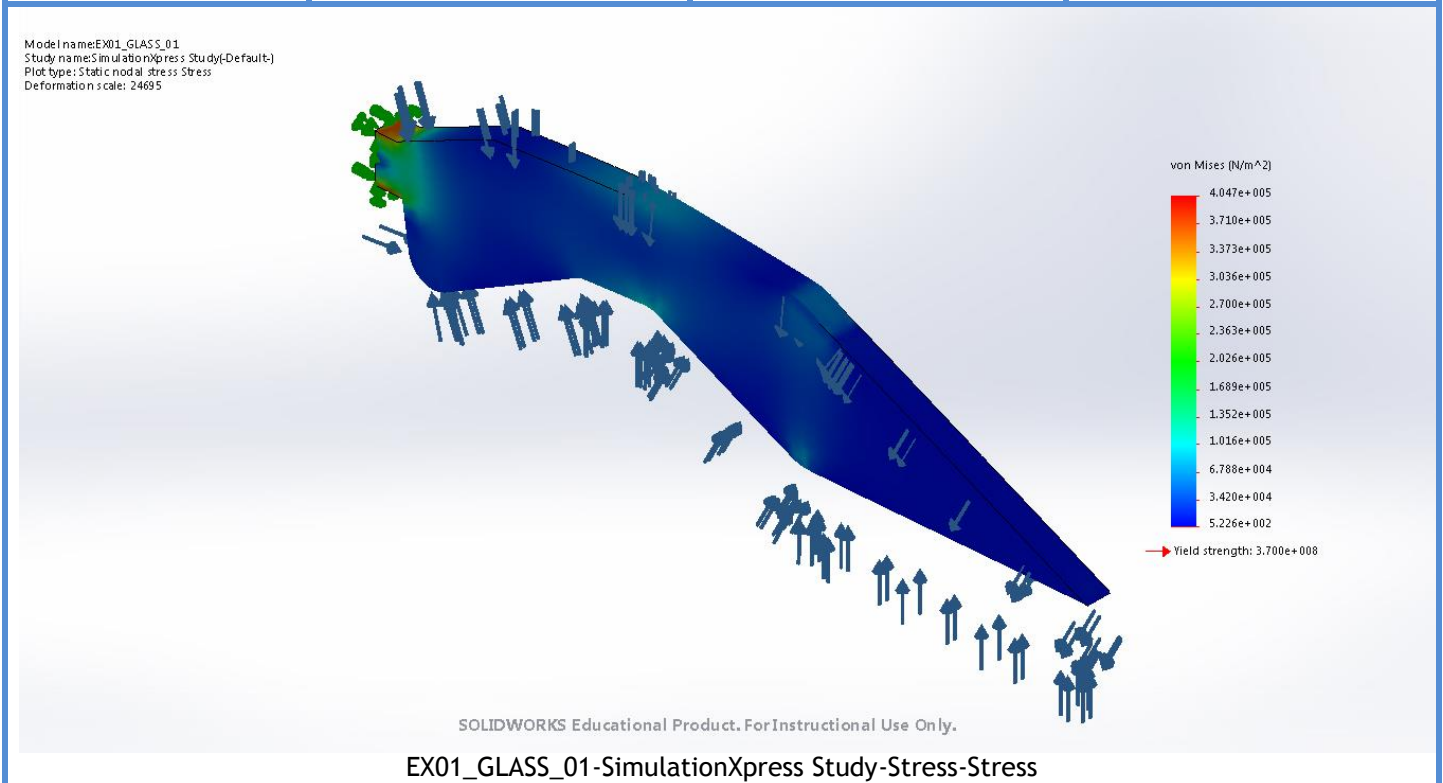


SOLIDWORKS Educational Product. For Instructional Use Only.

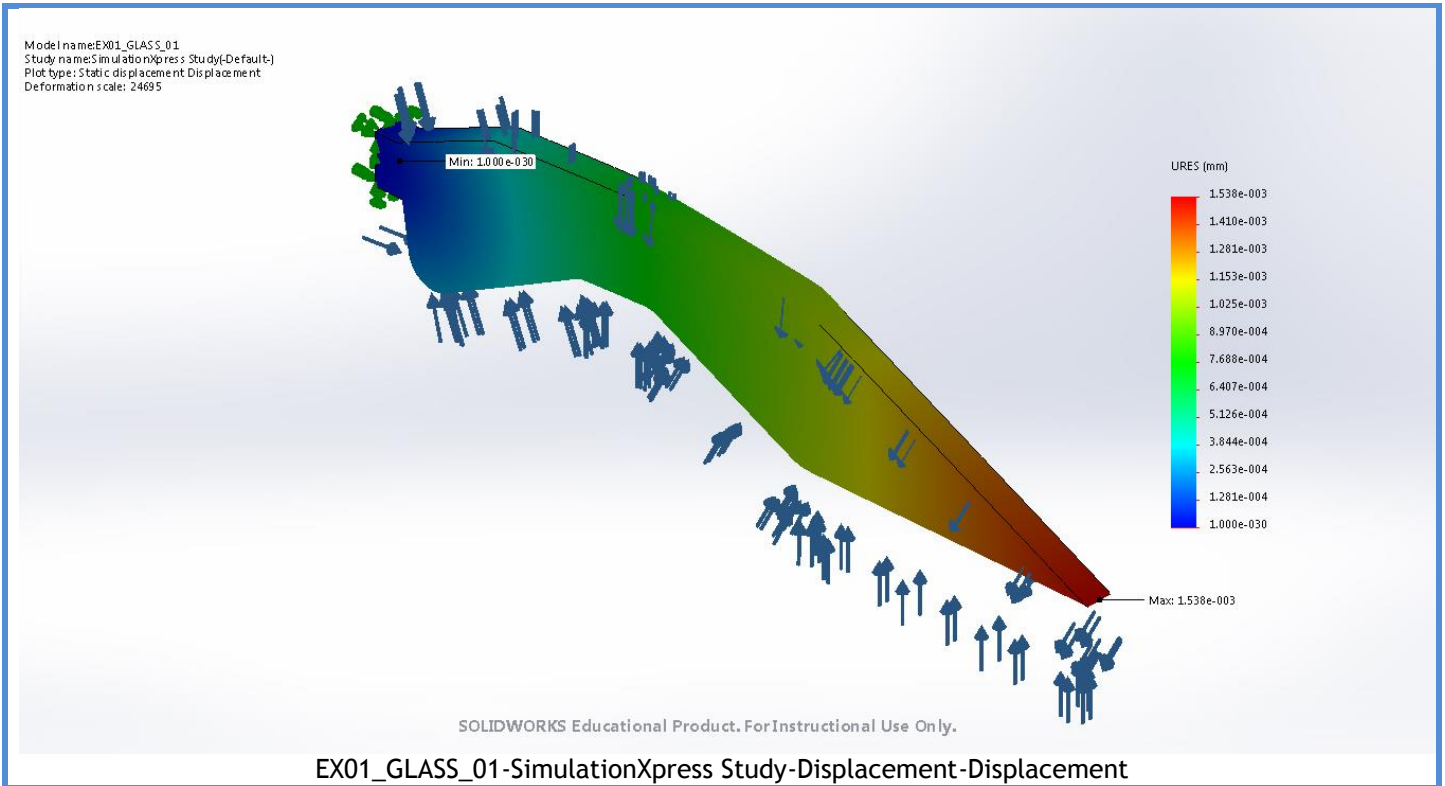


### Study Results

Name	Type	Min	Max
Stress	VON: von Mises Stress	5.226e+002N/m <sup>2</sup> Node: 13041	4.047e+005N/m <sup>2</sup> Node: 14111

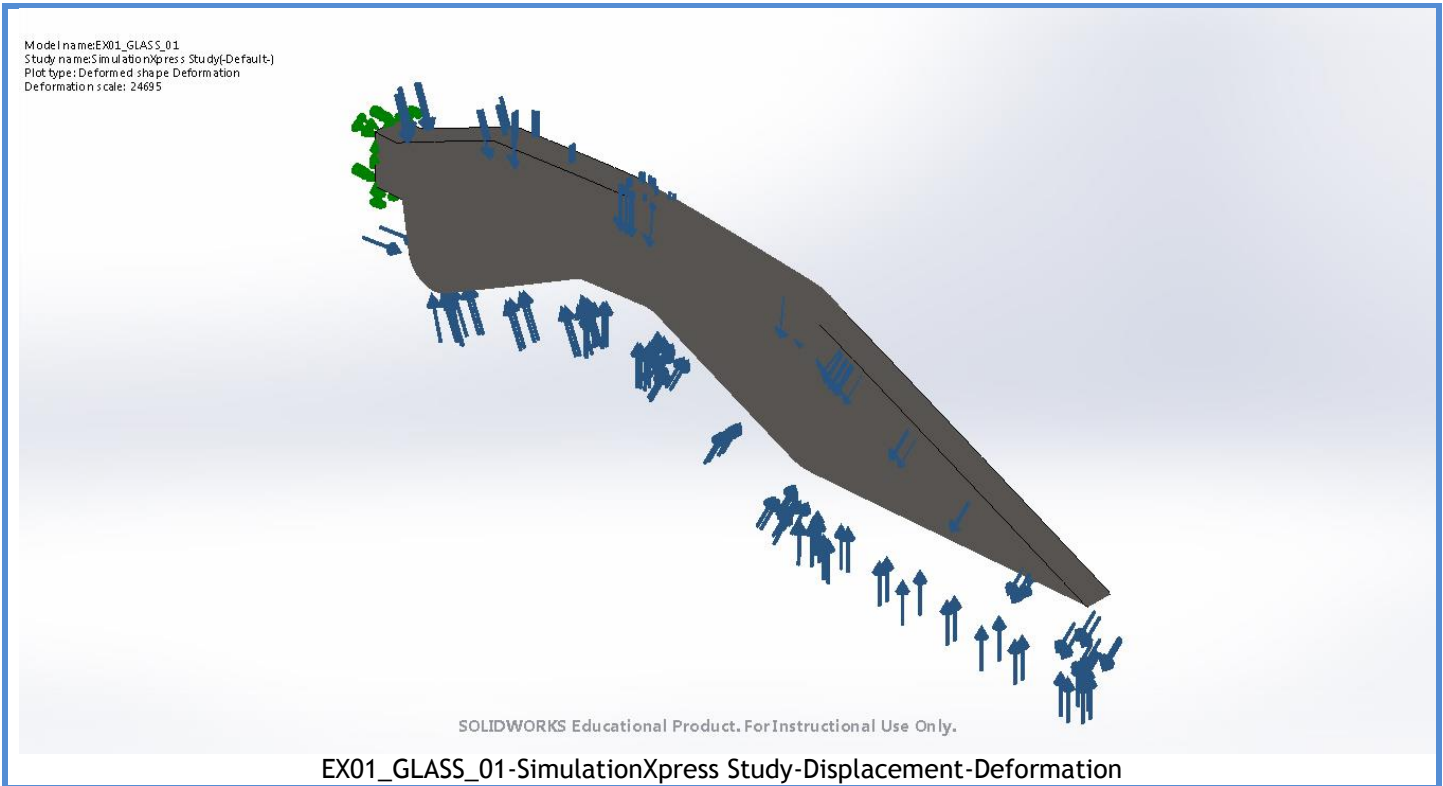


Name	Type	Min	Max
Displacement	URES: Resultant Displacement	0.000e+000mm Node: 1	1.538e-003mm Node: 171

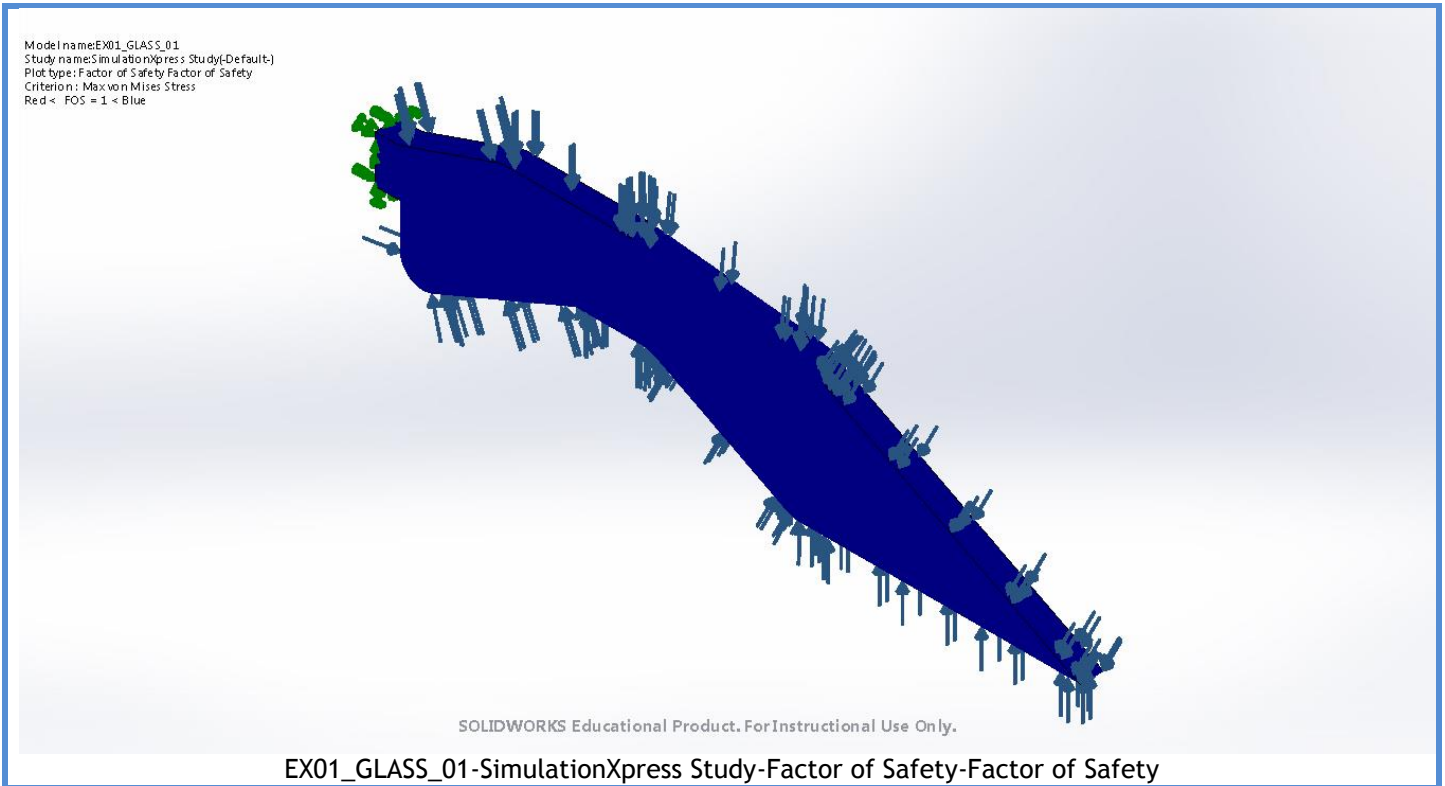


Name	Type
Deformation	Deformed shape





Name	Type	Min	Max
Factor of Safety	Max von Mises Stress	9.143e+002 Node: 14111	7.080e+005 Node: 13041



## Conclusion