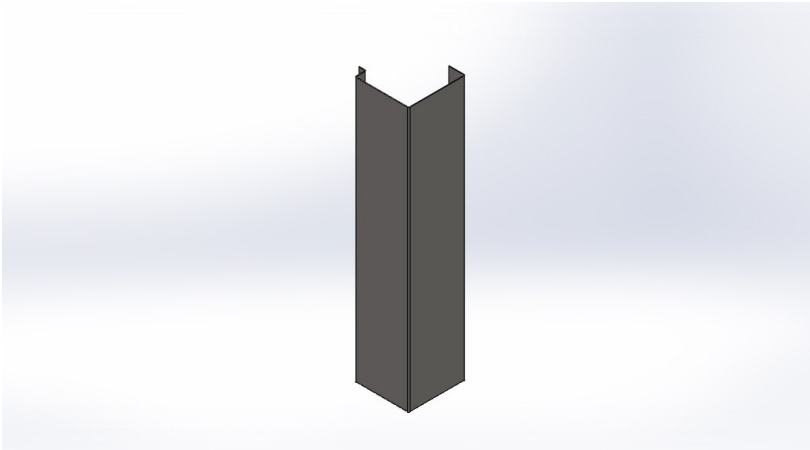




Description
No Data

Simulation of MLP-CAR-2-PARA TESTE

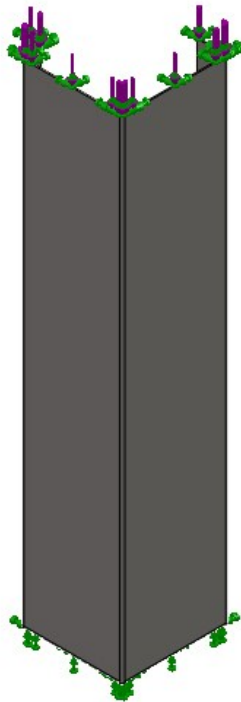
Date: terça-feira, 16 de Dezembro de 2014
Designer: Telmo Farinha
Study name: SimulationXpress Study
Analysis type: Static

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Assumptions

Model Information



Model name: MLP-CAR-2-PARA TESTE
Current Configuration: Default

Solid Bodies

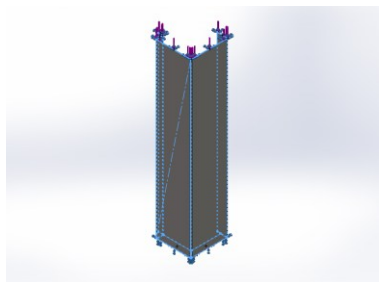
Document Name and Reference	Treated As	Volumetric Properties	Document Path/Date Modified
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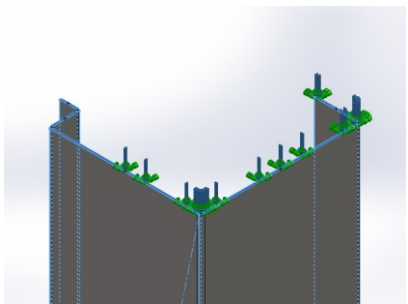
Edge-Flange11 	Solid Body	Mass:4.93536 kg Volume:0.00061692 m ³ Density:8000 kg/m ³ Weight:48.3665 N	C:\Users\Windows\Desktop\TRABALHO FINAL-TESE\NOVA MÁQUINA DE SECAR CAIXAS 2\estrutura portante\MLP-CAR-2-PARA TESTE.SLDPRT Dec 16 17:26:27 2014
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Material Properties

Model Reference	Properties	Components
	Name: AISI 304 Model type: Linear Elastic Isotropic Default failure criterion: Unknown Yield strength: 2.06807e+008 N/m ² Tensile strength: 5.17017e+008 N/m ²	SolidBody 1(Edge-Flange11)(MLP-CAR-2-PARA TESTE)

Loads and Fixtures

Fixture name	Fixture Image	Fixture Details
Fixed-1		Entities: 10 face(s) Type: Fixed Geometry

Load name	Load Image	Load Details
Force-1		Entities: 9 face(s) Type: Apply normal force Value: 985.9 N

Mesh Information

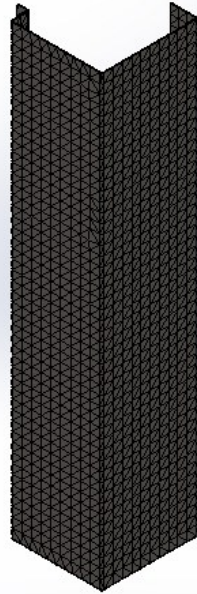
Mesh type	Solid Mesh
Mesher Used:	Standard mesh
Automatic Transition:	Off
Include Mesh Auto Loops:	Off
Jacobian points	4 Points
Element Size	15.7697 mm
Tolerance	0.788483 mm
Mesh Quality	High

Mesh Information - Details

Total Nodes	26835
Total Elements	15164
Maximum Aspect Ratio	117.96
% of elements with Aspect Ratio < 3	0.237
% of elements with Aspect Ratio > 10	42.7
% of distorted elements(Jacobian)	0
Time to complete mesh(hh:mm:ss):	00:00:11
Computer name:	TELMO-PC



Model name: MLP-CAR-2-PARA TESTE
Study name: SimulationXpress Study
Mesh type: Solid mesh



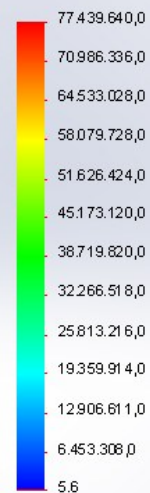
Study Results

Name	Type	Min	Max
Stress	VON: von Mises Stress	5.62815 N/m ² Node: 5552	7.74396e+007 N/m ² Node: 17334

Model name: MLP-CAR-2-PARA TESTE
Study name: SimulationXpress Study
Plot type: Static nodal stress Stress
Deformation scale: 53083.1



von Mises (N/m²)



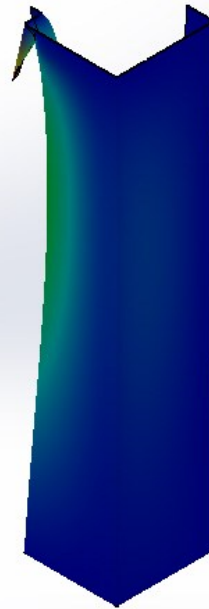
→ Yield strength: 206.807.008,0

MLP-CAR-2-PARA TESTE-SimulationXpress Study-Stress-Stress

Name	Type	Min	Max
Displacement	URES: Resultant Displacement	0 mm Node: 1	0.00144693 mm Node: 2372



Model name: MLP-CAR-2-PARA_TESTE
Study name: SimulationXpress Study
Plot type: Static displacement Displacement
Deformation scale: 53083.1



URES (mm)

1.447e-003
1.326e-003
1.206e-003
1.085e-003
9.646e-004
8.440e-004
7.235e-004
6.029e-004
4.823e-004
3.617e-004
2.412e-004
1.206e-004
1.000e-030

MLP-CAR-2-PARA_TESTE-SimulationXpress Study-Displacement-Displacement

Name	Type
Deformation	Deformed Shape

Model name: MLP-CAR-2-PARA_TESTE
Study name: SimulationXpress Study
Plot type: Deformed Shape Deformation
Deformation scale: 53083.1



MLP-CAR-2-PARA_TESTE-SimulationXpress Study-Displacement-Deformation

Name	Type	Min	Max
Factor of Safety	Max von Mises Stress	2.67056 Node: 17334	3.67451e+007 Node: 5552



Model name: MLP-CAR-2-PARA_TESTE
Study name: SimulationXpress Study
Plot type: Factor of Safety Factor of Safety
Criterion: Max von Mises Stress
Red < FOS = 2 < Blue



MLP-CAR-2-PARA_TESTE-SimulationXpress Study-Factor of Safety-Factor of Safety

Conclusion