



Description

Aks 04

Simulation - Aks 04






Study name:Static 1
Analysis type:Static








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Assumptions

Model Information








<L_MdInf_SldBd_Nm/>	Treated As	Volumetric Properties
<p>Girinti3</p> 	Solid Body	<p>Mass:0.301913 kg Volume:0.000215653 m³ Density:1399.99 kg/m³ Weight:2.95874 N</p>
<p>Girinti2</p> 	Solid Body	<p>Mass:0.297385 kg Volume:0.000212418 m³ Density:1400 kg/m³ Weight:2.91437 N</p>
<p>Girinti2</p> 	Solid Body	<p>Mass:0.295603 kg Volume:0.000211145 m³ Density:1400 kg/m³ Weight:2.89691 N</p>
<p>Girinti3</p> 	Solid Body	<p>Mass:0.303797 kg Volume:0.000216999 m³ Density:1399.99 kg/m³ Weight:2.97721 N</p>
<p>Girinti3</p> 	Solid Body	<p>Mass:0.309785 kg Volume:0.000221282 m³ Density:1399.96 kg/m³ Weight:3.03589 N</p>

<p>Girinti4</p> 	Solid Body	<p>Mass:0.297385 kg Volume:0.000212418 m³ Density:1400 kg/m³ Weight:2.91437 N</p>
<p>Girinti2</p> 	Solid Body	<p>Mass:0.295858 kg Volume:0.000211334 m³ Density:1399.95 kg/m³ Weight:2.89941 N</p>
<p>Girinti3</p> 	Solid Body	<p>Mass:0.297791 kg Volume:0.000212709 m³ Density:1399.99 kg/m³ Weight:2.91835 N</p>
<p>Girinti2</p> 	Solid Body	<p>Mass:0.291596 kg Volume:0.000208278 m³ Density:1400.03 kg/m³ Weight:2.85764 N</p>
<p>Girinti2</p> 	Solid Body	<p>Mass:0.297605 kg Volume:0.000212582 m³ Density:1399.96 kg/m³ Weight:2.91653 N</p>
<p>Girinti4</p> 	Solid Body	<p>Mass:30.1673 kg Volume:0.0038676 m³ Density:7800 kg/m³ Weight:295.639 N</p>
<p>Girinti2</p> 	Solid Body	<p>Mass:27.0154 kg Volume:0.00346352 m³ Density:7800 kg/m³ Weight:264.751 N</p>





<p>Girinti2</p> 	<p>Solid Body</p>	<p>Mass:27.0262 kg Volume:0.0034649 m³ Density:7800 kg/m³ Weight:264.857 N</p>
<p>Girinti2</p> 	<p>Solid Body</p>	<p>Mass:27.0258 kg Volume:0.00346484 m³ Density:7800 kg/m³ Weight:264.853 N</p>
<p>Girinti2</p> 	<p>Solid Body</p>	<p>Mass:27.0143 kg Volume:0.00346337 m³ Density:7800 kg/m³ Weight:264.74 N</p>
<p>Girinti3</p> 	<p>Solid Body</p>	<p>Mass:18.7016 kg Volume:0.0133583 m³ Density:1400 kg/m³ Weight:183.276 N</p>
<p>Girinti2</p> 	<p>Solid Body</p>	<p>Mass:18.9796 kg Volume:0.0135568 m³ Density:1400 kg/m³ Weight:186 N</p>
<p>Girinti2</p> 	<p>Solid Body</p>	<p>Mass:19.0511 kg Volume:0.0136079 m³ Density:1400 kg/m³ Weight:186.7 N</p>
<p>Girinti2</p> 	<p>Solid Body</p>	<p>Mass:18.4185 kg Volume:0.0131561 m³ Density:1400 kg/m³ Weight:180.501 N</p>



<p>Girinti4</p> 	<p>Solid Body</p>	<p>Mass:25.6601 kg Volume:0.0183286 m³ Density:1400 kg/m³ Weight:251.469 N</p>
<p>Girinti3</p> 	<p>Solid Body</p>	<p>Mass:0.303364 kg Volume:0.000216695 m³ Density:1399.96 kg/m³ Weight:2.97296 N</p>
<p>Girinti3</p> 	<p>Solid Body</p>	<p>Mass:0.309472 kg Volume:0.000221053 m³ Density:1399.99 kg/m³ Weight:3.03283 N</p>
<p>Yükseklik-Ekstrüzyon1</p> 	<p>Solid Body</p>	<p>Mass:0.698244 kg Volume:8.95185e-005 m³ Density:7800 kg/m³ Weight:6.84279 N</p>
<p>Yükseklik-Ekstrüzyon1</p> 	<p>Solid Body</p>	<p>Mass:0.686124 kg Volume:8.79646e-005 m³ Density:7800 kg/m³ Weight:6.72401 N</p>
<p>Yükseklik-Ekstrüzyon1</p> 	<p>Solid Body</p>	<p>Mass:0.686124 kg Volume:8.79646e-005 m³ Density:7800 kg/m³ Weight:6.72401 N</p>
<p>Yükseklik-Ekstrüzyon1</p> 	<p>Solid Body</p>	<p>Mass:0.686124 kg Volume:8.79646e-005 m³ Density:7800 kg/m³ Weight:6.72401 N</p>



	Solid Body	Mass:0.686124 kg Volume:8.79646e-005 m³ Density:7800 kg/m³ Weight:6.72401 N
	Solid Body	Mass:0.686124 kg Volume:8.79646e-005 m³ Density:7800 kg/m³ Weight:6.72401 N

Study Properties

Study name	Static 1
Analysis type	Static
Mesh type	Solid 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

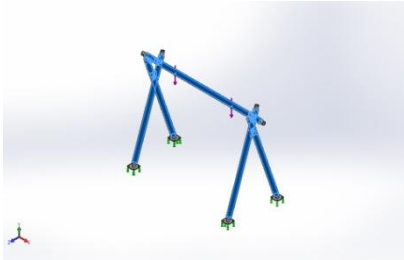



Units

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



Material Properties

Model Reference	Properties	Components
	<p> Name: Nylon 6/10 Model type: Linear Elastic Isotropic Default failure criterion: Max von Mises Stress Yield strength: 1.39043e+008 N/m² Tensile strength: 1.42559e+008 N/m² Elastic modulus: 8.3e+009 N/m² Poisson's ratio: 0.28 Mass density: 1400 kg/m³ Shear modulus: 3.2e+009 N/m² Thermal expansion coefficient: 3e-005 /Kelvin </p>	<p> SolidBody 1(Girinti3)(Adaptor 1-15), SolidBody 1(Girinti2)(Adaptor 10-1), SolidBody 1(Girinti2)(Adaptor 11-1), SolidBody 1(Girinti3)(Adaptor 2-1), SolidBody 1(Girinti3)(Adaptor 3-1), SolidBody 1(Girinti4)(Adaptor 4-1), SolidBody 1(Girinti2)(Adaptor 5-1), SolidBody 1(Girinti3)(Adaptor 6-1), SolidBody 1(Girinti2)(Adaptor 8-1), SolidBody 1(Girinti2)(Adaptor 9-1), SolidBody 1(Girinti3)(Girinti122-1), SolidBody 1(Girinti2)(Girinti124-1), SolidBody 1(Girinti2)(Girinti126-1), SolidBody 1(Girinti2)(Girinti128-1), SolidBody 1(Girinti4)(Girinti131-1), SolidBody 1(Girinti3)(Kopya Adaptor 12^AKS 04 Last Assemblyperspektif değiştirilmiş-1), SolidBody 1(Girinti3)(Kopya Adaptor 7^AKS 04 Last Assemblyperspektif değiştirilmiş-1) </p>
Curve Data:N/A		
	<p> Name: 1.0037 (S235JR) Model type: Linear Elastic Isotropic Default failure criterion: Max von Mises Stress Yield strength: 2.35e+008 N/m² Tensile strength: 3.6e+008 N/m² Elastic modulus: 2.1e+011 N/m² Poisson's ratio: 0.28 Mass density: 7800 kg/m³ Shear modulus: 7.9e+010 N/m² </p>	<p> SolidBody 1(Girinti4)(Birleştire24-1), SolidBody 1(Girinti2)(Birleştire26-1), SolidBody 1(Girinti2)(Birleştire27-1), SolidBody 1(Girinti2)(Birleştire28-1), SolidBody 1(Girinti2)(Birleştire29-1), </p>

	Thermal expansion coefficient: 1.1e-005 / Kelvin	SolidBody 1(Yükseklik-Ekstrüzyon1)(Yükseklik-Ekstrüzyon1-1), SolidBody 1(Yükseklik-Ekstrüzyon1)(Yükseklik-Ekstrüzyon2-1), SolidBody 1(Yükseklik-Ekstrüzyon1)(Yükseklik-Ekstrüzyon3-1), SolidBody 1(Yükseklik-Ekstrüzyon1)(Yükseklik-Ekstrüzyon4-1), SolidBody 1(Yükseklik-Ekstrüzyon1)(Yükseklik-Ekstrüzyon5-1), SolidBody 1(Yükseklik-Ekstrüzyon1)(Yükseklik-Ekstrüzyon6-1)
Curve Data:N/A		

Loads and Fixtures

Fixture name	Fixture Image	Fixture Details
Sabitlenmiş-1		Entities: 4 face(s) Type: Fixed Geometry

Resultant Forces

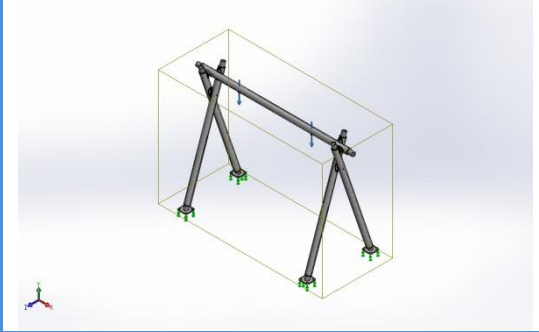
Components	X	Y	Z	Resultant
Reaction force(N)	0.173091	3000.04	-0.163201	3000.04
Reaction Moment(N.m)	0	0	0	0

Load name	Load Image	Load Details
Kuvvet-1		Entities: 2 face(s) Reference: Face< 1 > Type: Apply force Values: ---, ---, -1500 N

Connector Definitions

No Data

Contact Information

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



Mesh Information

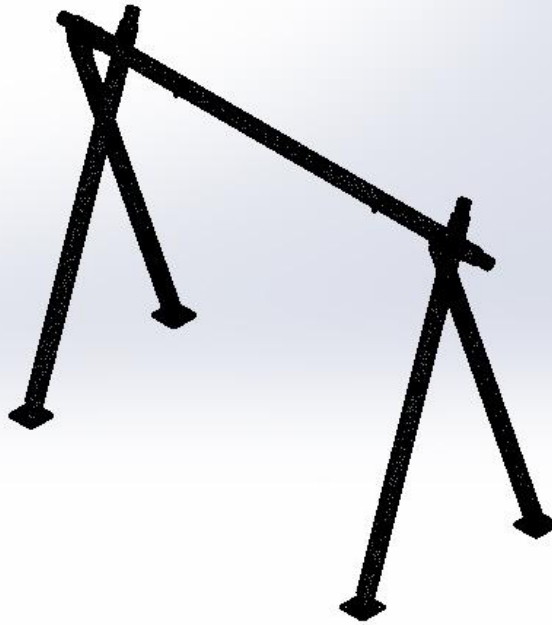
Mesh type	Solid Mesh
Mesher Used:	Curvature based mesh
Jacobian points	4 Points
Maximum element size	21.6194 mm
Minimum element size	4.32388 mm
Mesh Quality	High
Remesh failed parts with incompatible mesh	Off

Mesh Information - Details

Total Nodes	576466
Total Elements	359512
Maximum Aspect Ratio	100.07
% of elements with Aspect Ratio < 3	76.6
% of elements with Aspect Ratio > 10	0.788
% of distorted elements(Jacobian)	0
Time to complete mesh(hh:mm:ss):	00:01:33
Information	The results are not conclusive. It varies by knitting quality.








Model name: AKS 04 Last Assemblyperspektif deęiřtirilmif
 Study name: Static1(-Default-)
 Mesh type: Solid mesh













Mesh Control Information:




Mesh Control Name	Mesh Control Image	Mesh Control Details
Kontrol-13	<p>Model name: AKS 04 Last Assemblyperspektif deęiřtirilmif Study name: Static1(-Default-) Mesh type: Solid mesh</p>	Entities: 1 component(s) Units: mm Size: 15.7022 Ratio: 1.5
Kontrol-14	<p>Model name: AKS 04 Last Assemblyperspektif deęiřtirilmif Study name: Static1(-Default-) Mesh type: Solid mesh</p>	Entities: 1 component(s) Units: mm Size: 15.1343 Ratio: 1.5



<p>Kontrol-15</p>		<p>Entities: 1 component(s) Units: mm Size: 15.1363 Ratio: 1.5</p>
<p>Kontrol-16</p>		<p>Entities: 1 component(s) Units: mm Size: 15.1362 Ratio: 1.5</p>
<p>Kontrol-17</p>		<p>Entities: 1 component(s) Units: mm Size: 15.1341 Ratio: 1.5</p>
<p>Kontrol-18</p>		<p>Entities: 1 component(s) Units: mm Size: 21.7057 Ratio: 1.5</p>
<p>Kontrol-19</p>		<p>Entities: 1 component(s) Units: mm Size: 21.7057 Ratio: 1.5</p>

<p>Kontrol-20</p>		<p>Entities: 1 component(s) Units: mm Size: 21.7057 Ratio: 1.5</p>
<p>Kontrol-21</p>		<p>Entities: 1 component(s) Units: mm Size: 21.7057 Ratio: 1.5</p>
<p>Kontrol-22</p>		<p>Entities: 1 component(s) Units: mm Size: 21.7057 Ratio: 1.5</p>
<p>Kontrol-29</p>		<p>Entities: 1 component(s) Units: mm Size: 4.56 Ratio: 1.5</p>
<p>Kontrol-30</p>		<p>Entities: 1 component(s) Units: mm Size: 4.56 Ratio: 1.5</p>

<p>Kontrol-31</p>		<p>Entities: 1 component(s) Units: mm Size: 4.56 Ratio: 1.5</p>
<p>Kontrol-32</p>		<p>Entities: 1 component(s) Units: mm Size: 4.56 Ratio: 1.5</p>
<p>Kontrol-33</p>		<p>Entities: 1 component(s) Units: mm Size: 4.56 Ratio: 1.5</p>
<p>Kontrol-34</p>		<p>Entities: 1 component(s) Units: mm Size: 4.56 Ratio: 1.5</p>
<p>Kontrol-35</p>		<p>Entities: 1 component(s) Units: mm Size: 7.197 Ratio: 1.6</p>

<p>Kontrol-36</p>		<p>Entities: 1 component(s) Units: mm Size: 31.4792 Ratio: 1.6</p>
<p>Kontrol-37</p>		<p>Entities: 1 component(s) Units: mm Size: 7.197 Ratio: 1.6</p>
<p>Kontrol-38</p>		<p>Entities: 1 component(s) Units: mm Size: 7.197 Ratio: 1.6</p>

Sensor Details

No Data

Resultant Forces

Reaction Forces

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N	0.173091	3000.04	-0.163201	3000.04

Reaction Moments

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N.m	0	0	0	0

Beams
No Data



Study Results

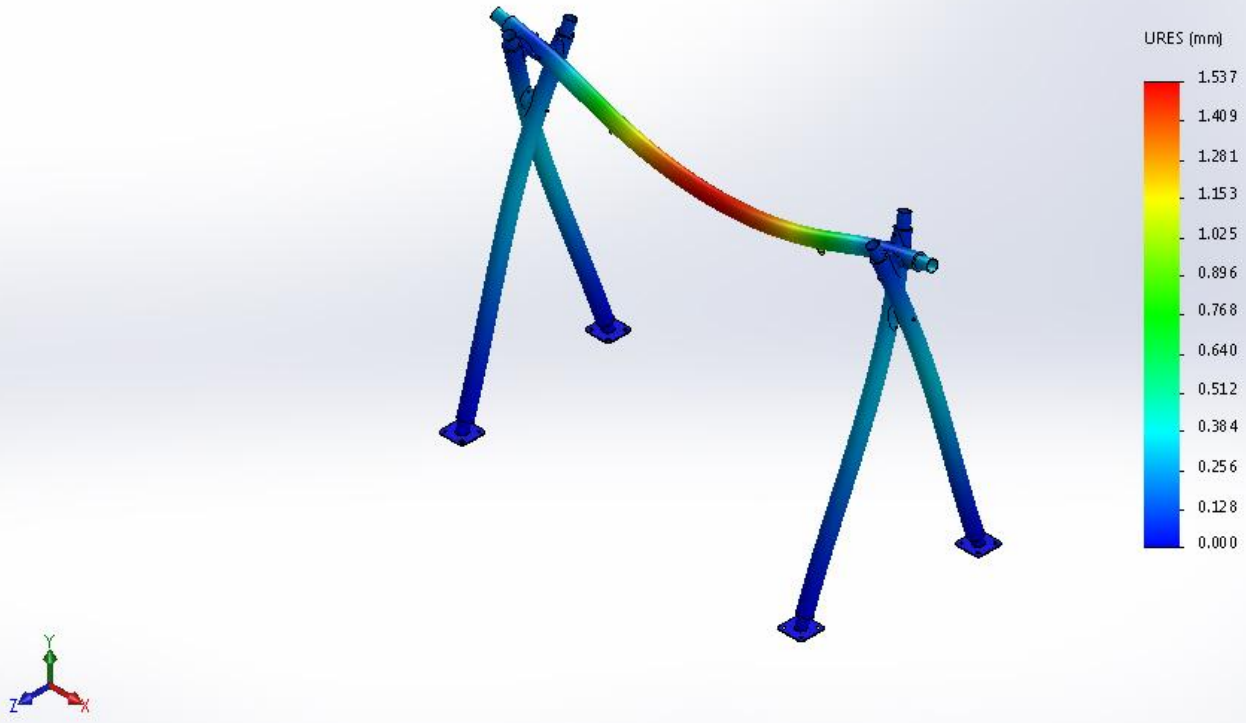
Name	Type	Min	Max
Stres1	VON: von Mises Stress	1.50154e-005 N/mm ² (MPa) Node: 195893	20.2109 N/mm ² (MPa) Node: 159499

Model name: AKS 04 Last Ass emblyperspektif deđiřtirilmiř
 Study name: Static 1(-Default-)
 Plot type: Static nodal stress Stres1
 Deformation scale: 253.16



Name	Type	Min	Max
Yer deđiřtirme1	URES: Resultant Displacement	0 mm Node: 173514	1.53683 mm Node: 452027

Model name: AKS 04 Last Assemblyperspektif deęiřtirilmiř
Study name: Static 1(-Default-)
Plot type: Static displacement Yer deęiřtirme1
Deformation scale: 253.16



AKS 04 Last Assemblyperspektif deęiřtirilmiř-Static 1-Displacement-Yer deęiřtirme1

Name	Type	Min	Max
Gerinim1	ESTRN: Equivalent Strain	8.73e-011 Element: 161234	0.00132782 Element: 57914

Model name: AKS 04 Last Assemblyperspektif deęiřtirilmiř
Study name: Static1(-Default-)
Plot type: Static strain Gerinim1
Deformation scale: 253.16



AKS 04 Last Assemblyperspektif deęiřtirilmiř-Static 1-Strain-Gerinim1

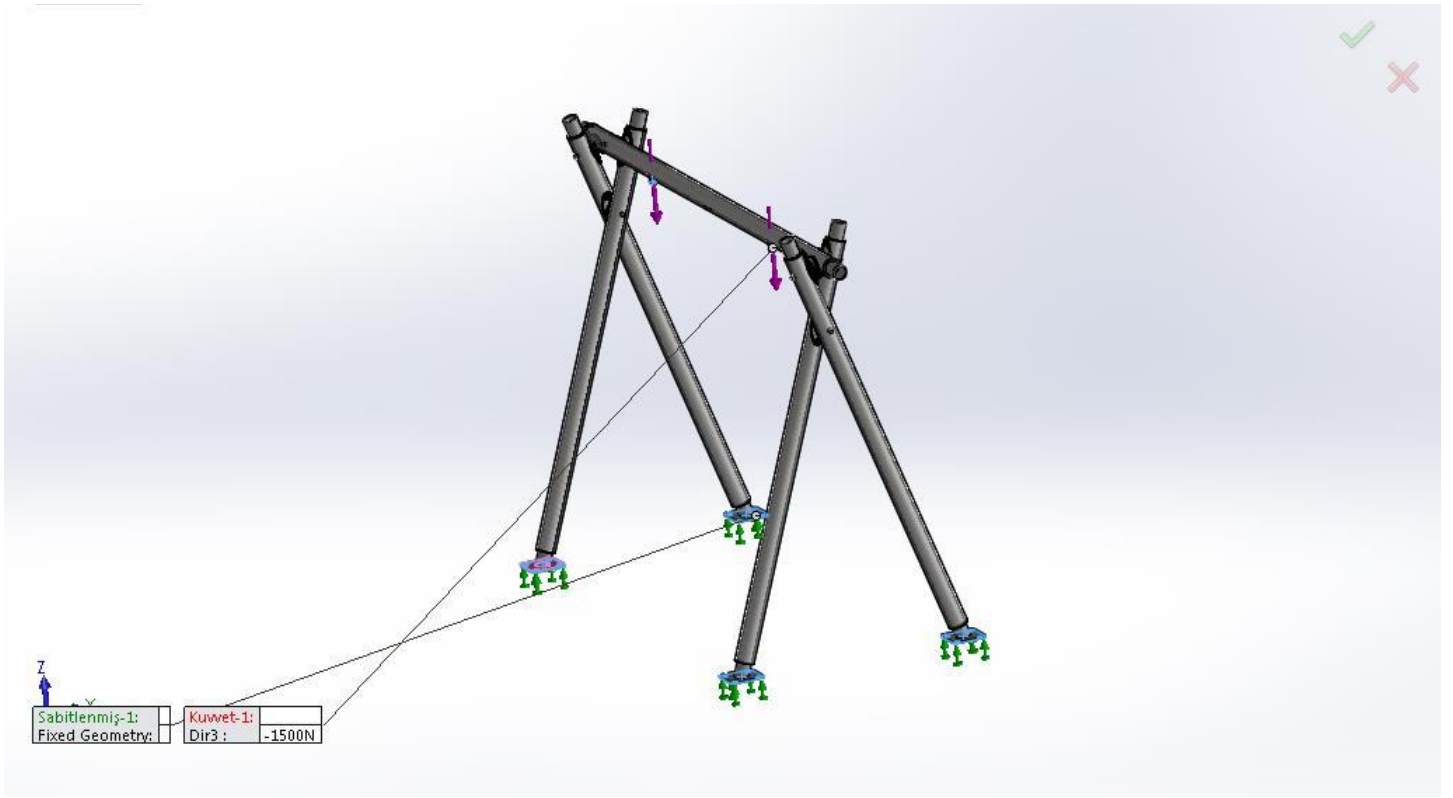


Image-1

Conclusion