

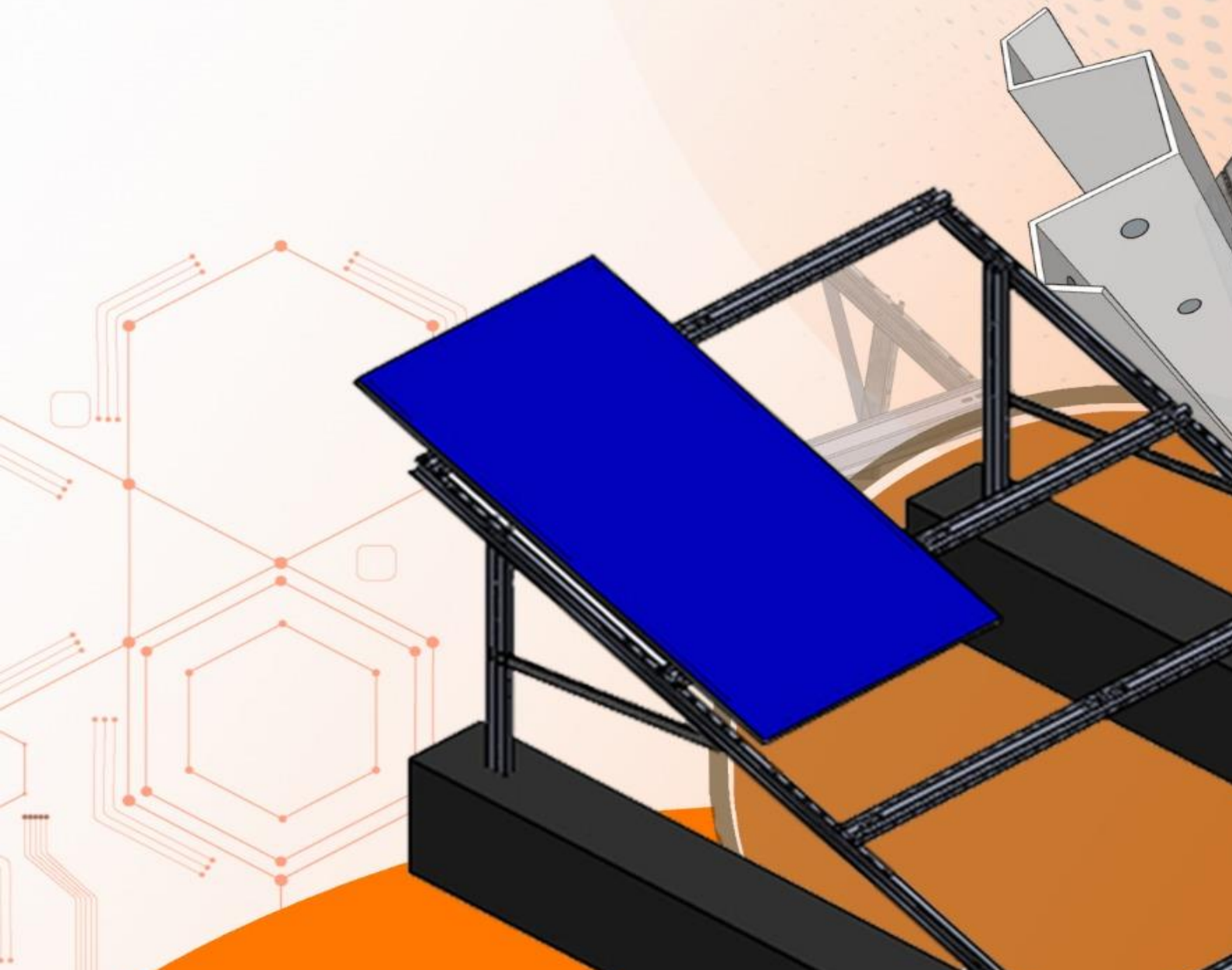
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**G -STEEL**

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**PV STEEL STRUCTURE**





## G-Steel PV Mounting

- **G-Steel** manufactures high quality solar steel mounting systems for metal corrugated roof, flat roof and ground open areas variable applications.

Whether for small or large-scale projects, standard models or tailor – made systems. G-Steel wide scope of products provides innovative mounting solutions for any PV solar application including commercial, industrial, government, utility and residential applications.

- Choosing the right kind of solar mounting system is an extremely important part of your solar design process. The condition of your roof and the space you have available also plays a part.
- Within our process, we meet with our clients to help them define their goals, evaluate their options, and make informed and confident decisions to select the optimum steel profiles which fit application requirements.
- The right mounting system will accomplish two main goals; collecting the most irradiance directly from the sun. This can be made possible by placing your panels on the correct tilt. The other goal is to reduce or eliminate the amount of shade that prohibits sun from hitting your panels.

FOR  
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G STEEL - شاسيهاٲ و تركيباٲ معدنية لمحطاٲ الطاقة الشمسية

01151560732 -01094898011 -01093301127



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## Mission & Strategy

- G-Steel is committed to principles of sustainability while exploiting innovative technology to its fullest in order to ensure the satisfaction of consumers' needs in the global market scale.
- This commitment is aimed at enhancing the quality of life for everyone now and for future generations.

## Vision

- Our vision work as a blueprint to how we would like to build and grow every part of our organization by taking into consideration each vision when conducting business, in order to achieve the highest quality of service and satisfaction both by our customers and employees.

## Policies

- service techniques insure the conformity of its service to the It is our policy in that customer satisfaction, health, safety, environmental considerations, and business objectives are mutually dependent; satisfying all requirements and needs of customers, considering that the internal implemented procedures contracted and agreed customers' requirements.
- Our policy emphasizes the need for measuring and analyzing performance in order to confirm that planning and problem solving has led to quality improvements. The continuous monitoring of systems performance is essential and performed with the use of the most powerful diagnostic tools.
- Being clear about an organization's intentions and goals is the first step toward effectiveness and results.

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## ❖ Solar PV Mounting Application

- Metal corrugated roof PV mounting systems.
- Flat roof top PV mounting systems.
- Pole PV mounting systems.
- Ground PV mounting systems.
- Carport PV mounting systems.
- Parking PV mounting systems.
- Factor's roof PV mounting systems.
- Refrigerator's roof PV mounting systems.
- Caravan PV mounting systems.

## ❖ Solar PV Mounting Types

- Fixed PV mounting system..

## ❖ Technical characteristics of G-Steel

- Galvanized (Z275)
- Nail assembly
- Equipped With Notch
- Commensurate with the middle and end clamp
- Unique structure properties.
- The best suited protection to withstand harsh environments.
- Customized designs to fit your applications.
- Compatible with all types of modules.

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## G-Steel on various lands

### ❖ Agricultural land :-



### ❖ Desert lands :-



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❖ On the surfaces :-



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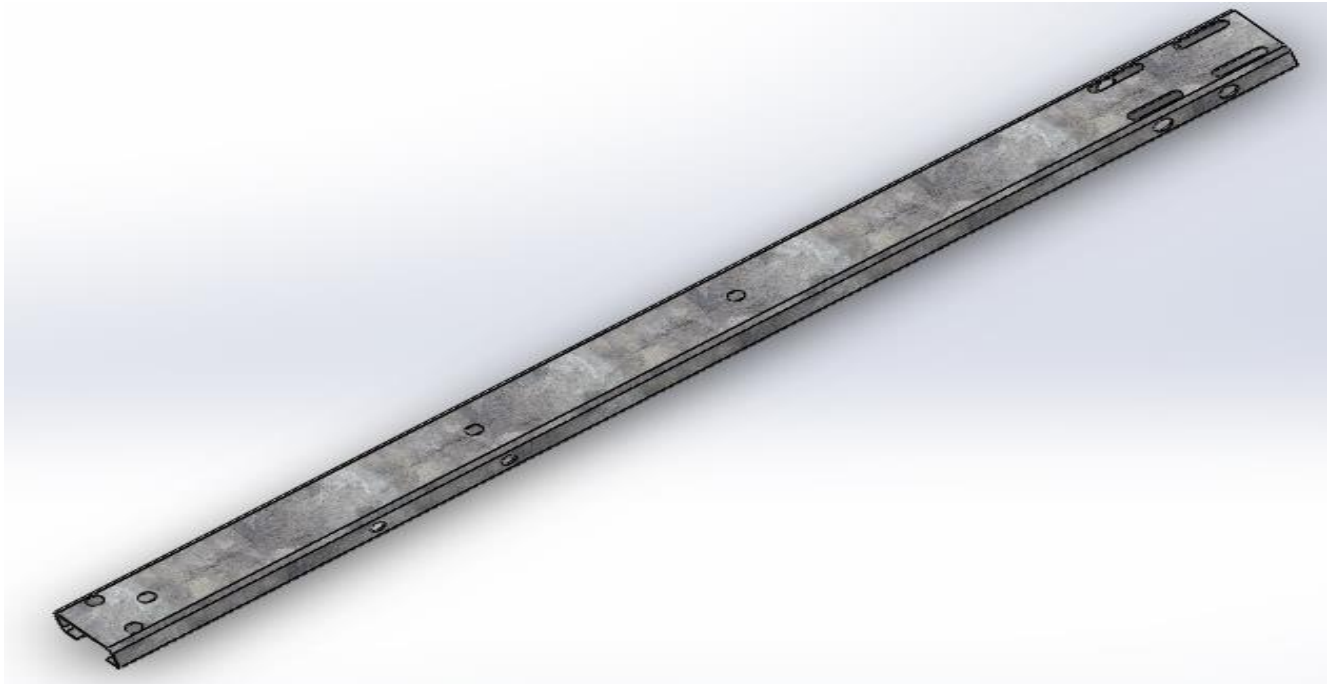
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## Technical specifications for fixed

### ➤ C60 Section:-



item	C60		
Functionality	Fixation		
Material	Carbon Steel St 52		
Surface Treatment	Cold Galvanized With Thickness 275 $\mu$		
Thickness	1.5 mm		
Length	90 Cm	190 Cm	395.6 Cm
Weight	1.462 Kg	3.087 Kg	6.428 Kg
Dimensions	6*3*1.5 Cm		

**FOR  
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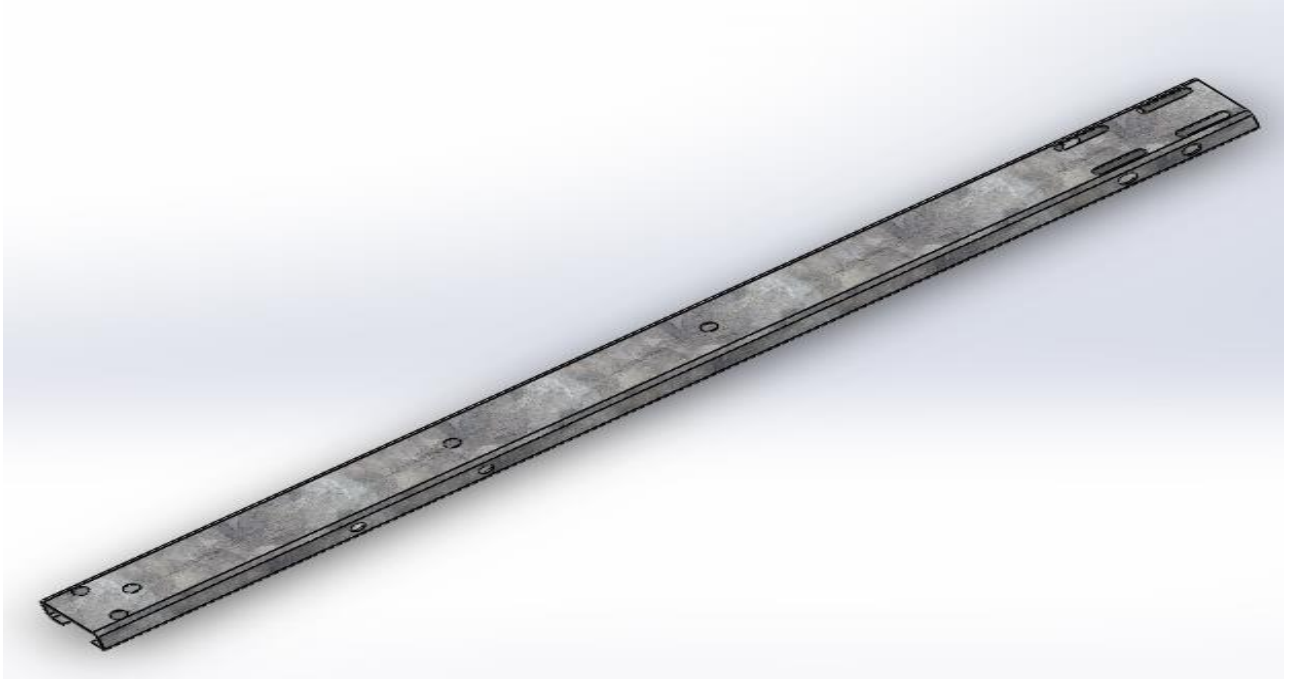
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## ➤ C70 Section:-



item	C70		
Functionality	Fixation		
Material	Carbon Steel St 52		
Surface Treatment	Cold Galvanized With Thickness 275 $\mu$		
Thickness	1.5 mm		
Length	90 Cm	190 Cm	395.6 Cm
Weight	1.568 Kg	3.311 Kg	6.894 Kg
Dimensions	7*3*1.5 Cm		

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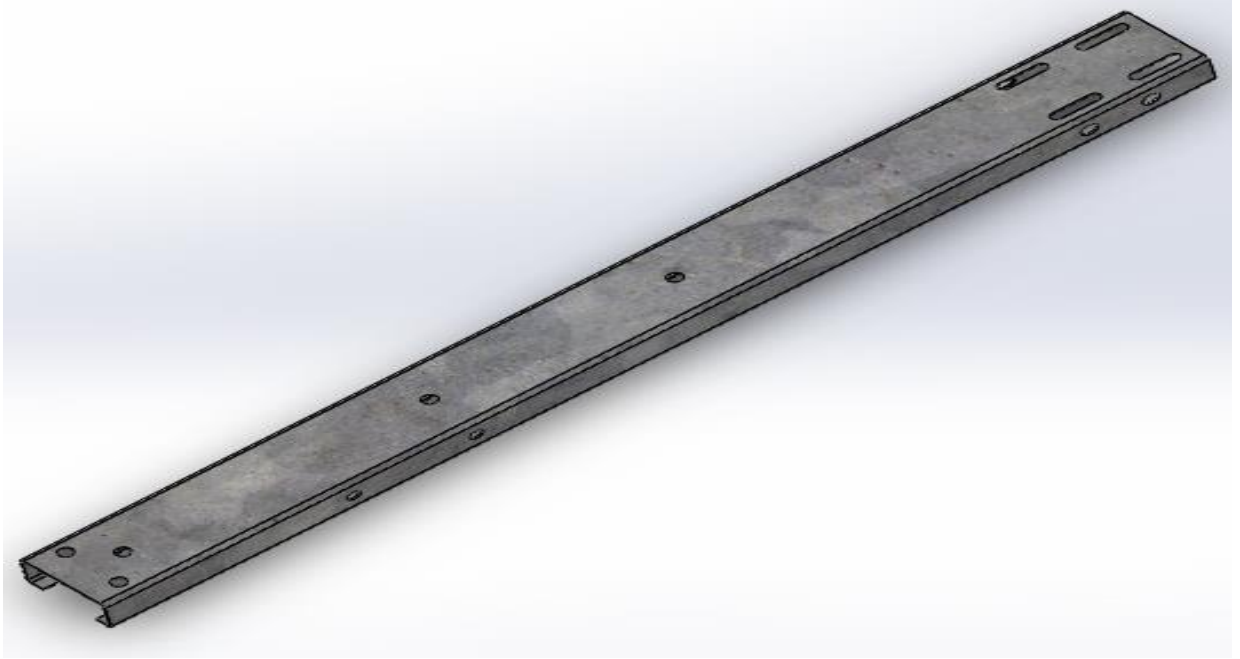
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## ➤ C80 Section:-



item	C80		
Functionality	Fixation		
Material	Carbon Steel St 52		
Surface Treatment	Cold Galvanized With Thickness 275 $\mu$		
Thickness	1.5 mm		
Length	90 Cm	190 Cm	395.6 Cm
Weight	1.674 Kg	3.535 Kg	7.36 Kg
Dimensions	8*3*1.5 Cm		

FOR  
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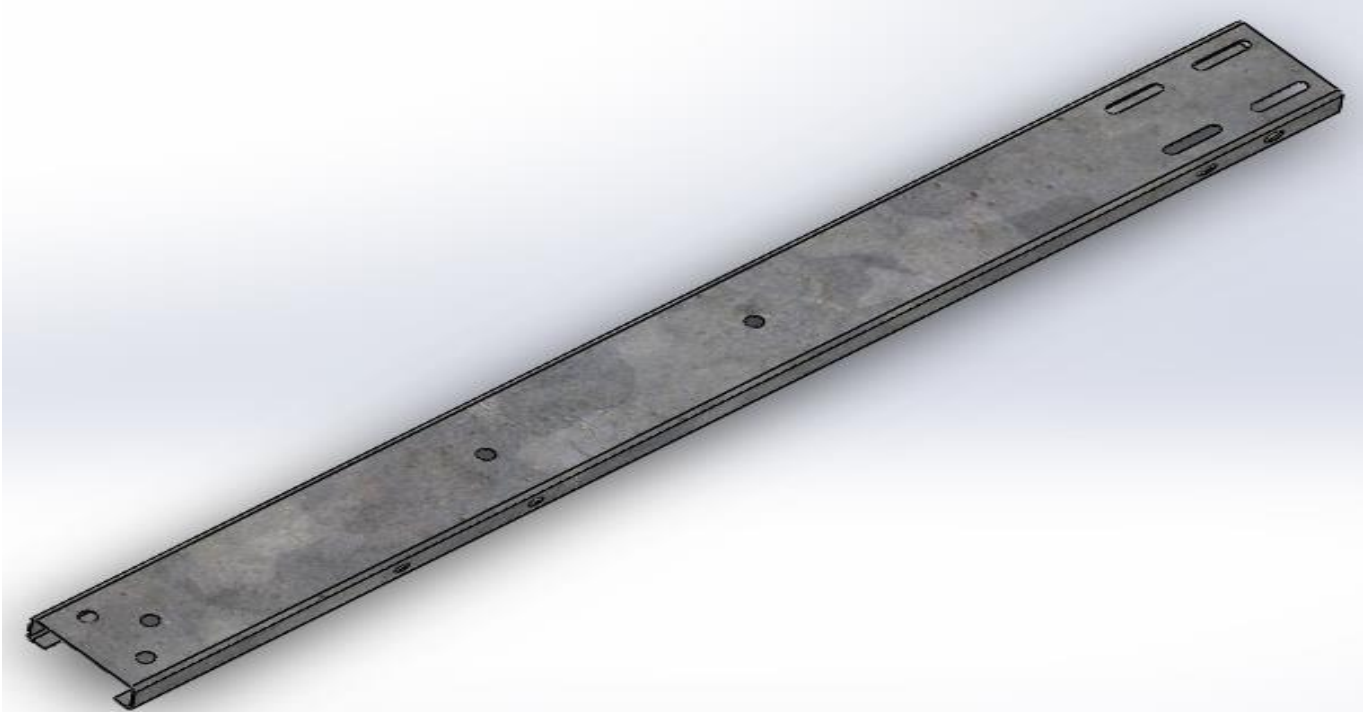
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## ➤ C90 Section:-



item	C90		
Functionality	Fixation		
Material	Carbon Steel St 52		
Surface Treatment	Cold Galvanized With Thickness 275 $\mu$		
Thickness	1.5 mm		
Length	90 Cm	190 Cm	395.6 Cm
Weight	1.992 Kg	4.206 Kg	8.757 Kg
Dimensions	9*4*1.5 Cm		

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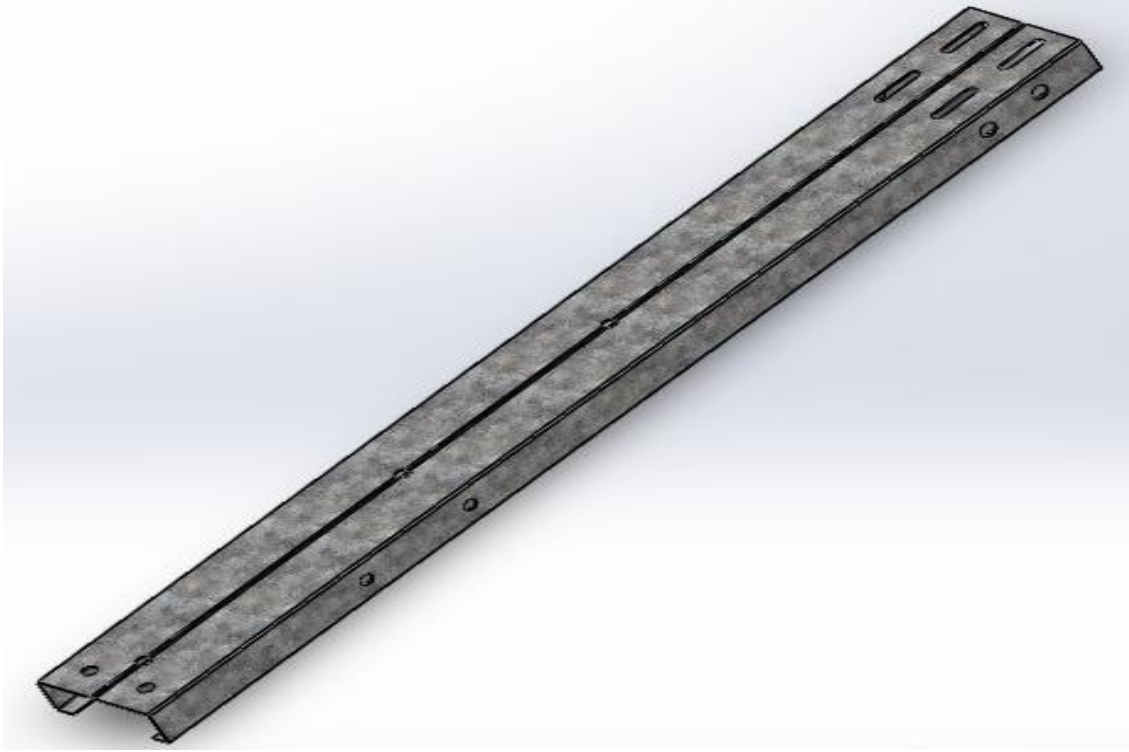
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## ➤ C100 Section:-



item	C100 With Notch		
Functionality	Fixation		
Material	Carbon Steel St 52		
Surface Treatment	Cold Galvanized With Thickness 275 $\mu$		
Thickness	1.5 mm		
Length	90 Cm	190 Cm	395.6 Cm
Weight	2.141 Kg	4.519 Kg	9.41 Kg
Dimensions	10*4*1.7 Cm		

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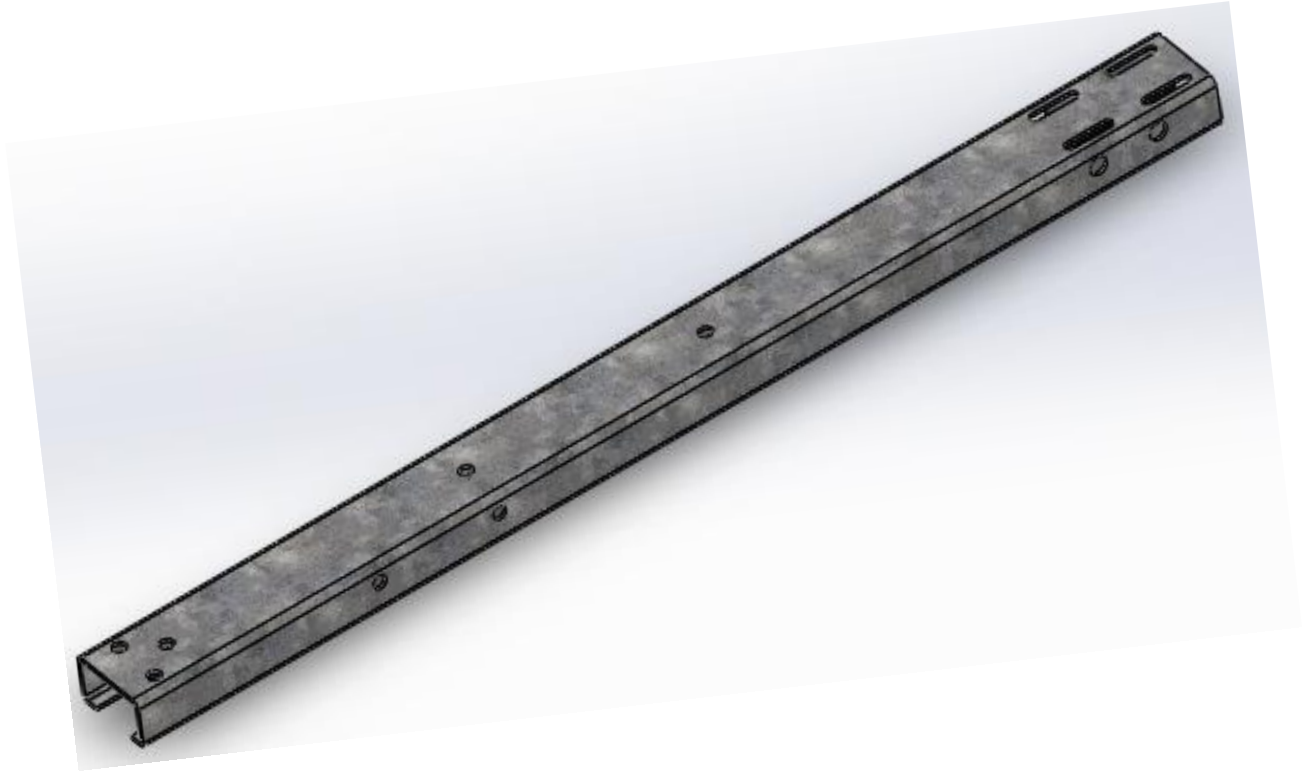
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## ➤ C70 Section:-



item	C70		
Functionality	Fixation		
Material	Carbon Steel St 52		
Surface Treatment	Cold Galvanized With Thickness 275 $\mu$		
Thickness	3 mm		
Length	90 Cm	190 Cm	395.6 Cm
Weight	3.391Kg	7.159 Kg	14.906 Kg
Dimensions	7*4*1.5 Cm		

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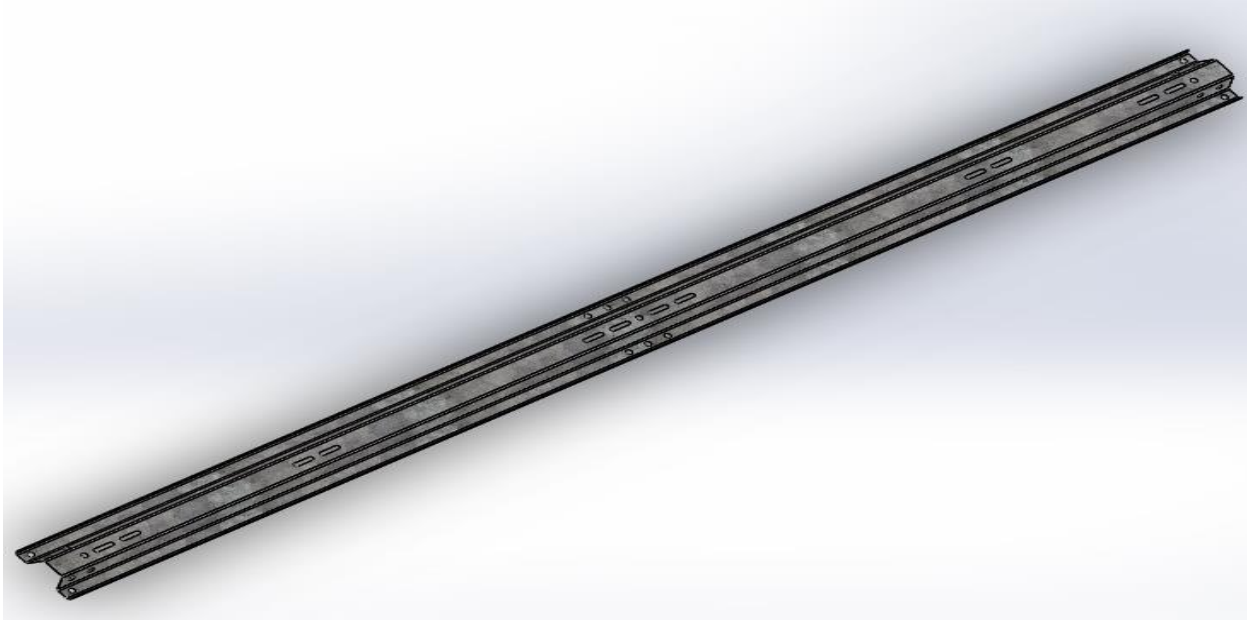
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## ➤ Omega Sector:-



item	Omega			
Functionality	Fixation			
Material	Carbon Steel St 52			
Surface Treatment	Cold Galvanized With Thickness 275 $\mu$			
Thickness	1 mm			
Length	244.1 Cm	285.3 Cm	330 Cm	358.7 Cm
Weight	3.602 Kg	4.21 Kg	4.87 Kg	5.294 Kg
Dimensions	4.4*4.4*2.2*1.7 Cm			

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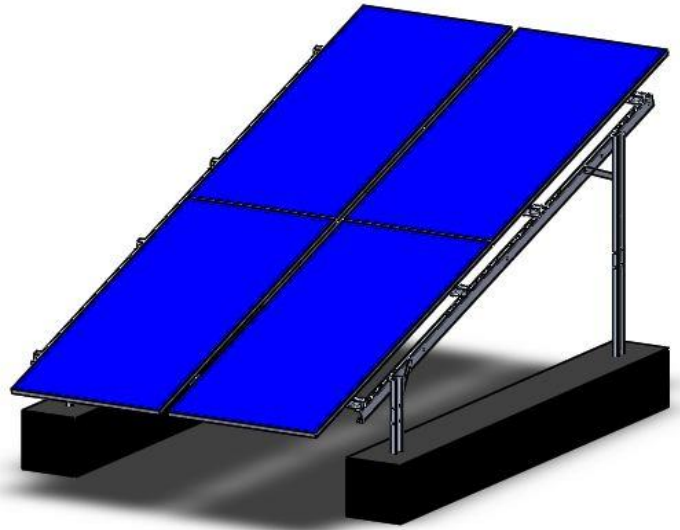
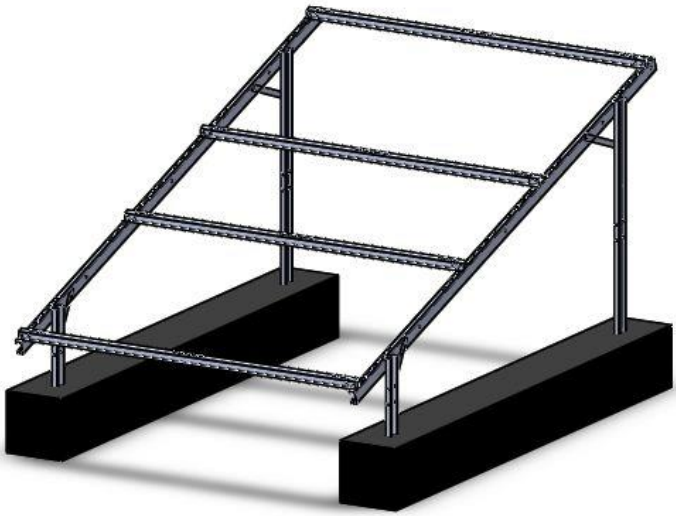
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# G-Steel Designs

## ❖ Portrait Design :-



## ❖ Land Scape Design :-



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## G-Steel Supplies



Alexandria



El-Menia

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 Assiut



 Wadi Al-Natroun

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Toshka



Al-Moghra

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Al-Buhayrah



Al-Hammam City

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G-Steel Special Order



Al-Wahat Al-Baharya

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## G-Steel out Side Egypt



**SUDAN**

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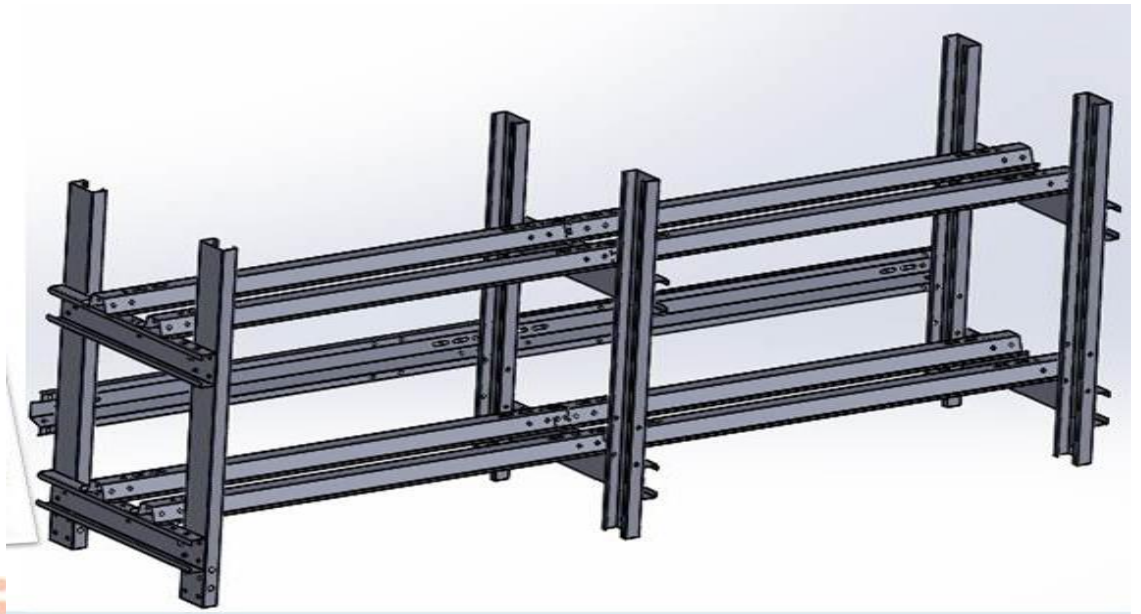
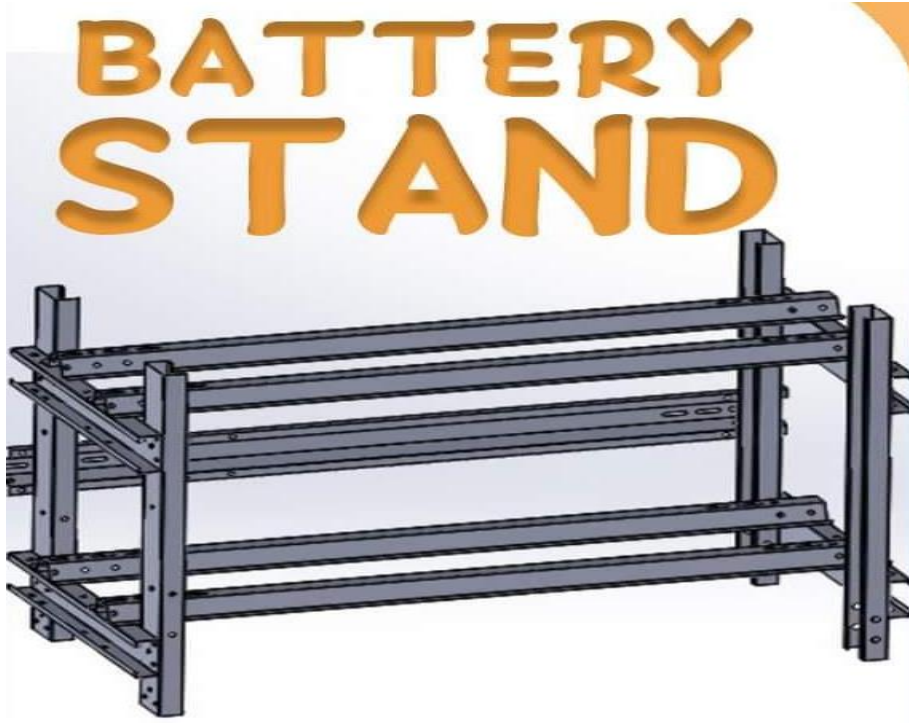
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Products from G Steel

❖ Batteries Stand :-



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❖ Sandwich Panel Connection :-



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## Galvanizing certificate



**ATAKAŞ**  
ÇELİK SANAYİ VE TİC. A.Ş.

Adres: Yenişehir Mah. Şehir Yolu Altıyol 89. No:156 Payas  
HATAY / TÜRKİYE  
E-Posta: ata@ata.com.tr / ata@ata.com.tr / ata@ata.com.tr

**TEST SERTİFİKASI**  
MILL TEST CERTIFICATE

**ORIGINAL**

MÜŞTERİ İSMİ  
CUSTOMER NAME

SERTİFİKA STANDARTI  
CERTIFICATE STANDARD

SERTİFİKA NO  
CERTIFICATE NO

TARİH  
DATE

TO WHOM IT MAY CONCERN

10204 3.1

0000015424

23.08.2019

SAYFA NO  
PAGE NO

8


ÜRÜN BİLGİSİ  
PRODUCT INFORMATION

Sıra No Item	Sipariş No Order No	Sip. Kalan Order Item	Malzeme Kodu Product Code	Malzeme İsmi Product Name	Bobin No Coil No	Dakim No Heat No	Üretim Standartı Production Standard	Kalite Quality	Kalınlık (mm)	Genişlik (mm)	Uzunluk (m)	Ağırlık (MT)	Zn Kaplılık Zn Coat. Weig. (gr/m <sup>2</sup> )
071	30010165	000030	GTP	GTP S350GD+Z B 1.50X1250	1932G00226	19115272	EN10346	S350GD+Z	2.500	1250	360.36	8.640	275
072	30010165	000030	GTP	GTP S350GD+Z B 1.50X1250	1932G00227	19115272	EN10346	S350GD+Z	2.500	1250	355.06	8.710	275
073	30010165	000030	GTP	GTP S350GD+Z B 1.50X1250	1932G00228	19225644	EN10346	S350GD+Z	2.500	1250	345.27	8.470	275
074	30010165	000030	GTP	GTP S350GD+Z B 1.50X1250	1932G00229	19225644	EN10346	S350GD+Z	2.500	1250	363.62	8.920	275
075	30010165	000030	GTP	GTP S350GD+Z B 3.00X1250	1932G00230	19225644	EN10346	S350GD+Z	2.500	1250	353.02	8.660	275
076	30010165	000040	GTP	GTP S350GD+Z B 3.00X1250	1932G00213	19115289	EN10346	S350GD+Z	3.000	1250	286.37	8.430	275
077	30010165	000040	GTP	GTP S350GD+Z B 3.00X1250	1932G00214	19115289	EN10346	S350GD+Z	3.000	1250	286.03	8.420	275
078	30010165	000040	GTP	GTP S350GD+Z B 3.00X1250	1932G00215	19115289	EN10346	S350GD+Z	3.000	1250	310.15	9.130	275
079	30010165	000040	GTP	GTP S350GD+Z B 3.00X1250	1932G00216	19115289	EN10346	S350GD+Z	3.000	1250	286.03	8.420	275
080	30010165	000040	GTP	GTP S350GD+Z B 3.00X1250	1932G00217	19115289	EN10346	S350GD+Z	3.000	1250	296.60	8.790	275

MEKANİK ÖZELLİKLER  
MECHANICAL PROPERTIES

Sıra No Item	Arma Mukavemeti Yield Strength (N/mm <sup>2</sup> )	Tensil Mukavemeti Tensile Strength (N/mm <sup>2</sup> )	Uzama Elongation (%)	r-Değeri r-Value	n-Değeri n-Value	Yüzey Sertliği Hardness (HRB)	Katama Testi Bend Test	C	SI	Mn	P	S	Al	Nb	V	Ni	Cr	Cu	Ti	N
071	394	480	20	0.66	0.66	OK	OK	0.084	0.019	0.450	0.011	0.011	0.029	0.004	0.003	0.029	0.019	0.086	0.005	0.004
072	394	480	20	0.66	0.66	OK	OK	0.084	0.019	0.450	0.011	0.011	0.029	0.004	0.003	0.029	0.019	0.086	0.005	0.004
073	361	503	21	0.61	0.61	OK	OK	0.110	0.027	0.627	0.018	0.018	0.044	0.008	0.007	0.044	0.034	0.167	0.009	0.006
074	361	503	21	0.61	0.61	OK	OK	0.110	0.027	0.627	0.018	0.018	0.044	0.008	0.007	0.044	0.034	0.167	0.009	0.006
075	361	503	21	0.61	0.61	OK	OK	0.110	0.027	0.627	0.018	0.018	0.044	0.008	0.007	0.044	0.034	0.167	0.009	0.006
076	365	480	23	0.62	0.62	OK	OK	0.118	0.029	0.686	0.020	0.020	0.049	0.010	0.008	0.049	0.039	0.194	0.010	0.007
077	365	480	23	0.62	0.62	OK	OK	0.118	0.029	0.686	0.020	0.020	0.049	0.010	0.008	0.049	0.039	0.194	0.010	0.007
078	365	480	23	0.62	0.62	OK	OK	0.118	0.029	0.686	0.020	0.020	0.049	0.010	0.008	0.049	0.039	0.194	0.010	0.007
079	360	484	17	0.72	0.72	OK	OK	0.118	0.029	0.686	0.020	0.020	0.049	0.010	0.008	0.049	0.039	0.194	0.010	0.007
080	360	484	17	0.72	0.72	OK	OK	0.118	0.029	0.686	0.020	0.020	0.049	0.010	0.008	0.049	0.039	0.194	0.010	0.007

KİMYASAL ÖZELLİKLER  
CHEMICAL PROPERTIES



**KALİTEYE**  
adana

METALLURJİ & KALİTE GÜVENÇ DEPARTMANI  
METALLURGY & ASSURANCE DEPARTMENT

DÜZENLEYEN  
EDITED BY

ONAYLAYAN  
APPROVED BY

Ömer Çenk TEMUR

Cumhuri EROL







## G STEEL – C100

Date: 05 May 2021

Designer: Eng. Ayman abdelbaset

Study name: Static 1

Analysis type: Static

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## Description

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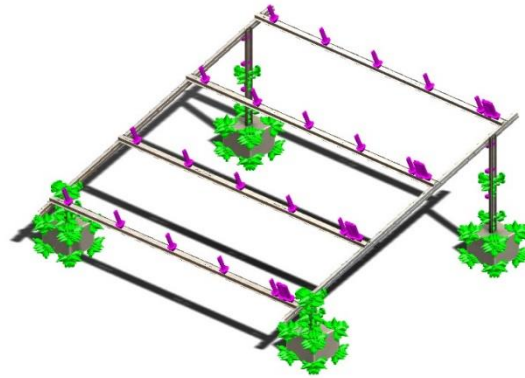


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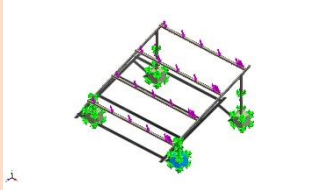
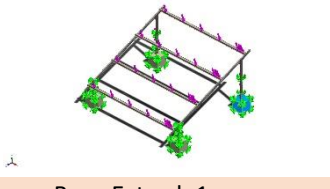
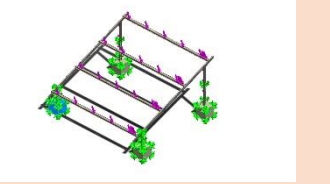
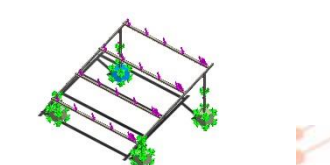


G STEEL

## 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:147.2 kg Volume:0.064 m <sup>3</sup> Density:2,300 kg/m <sup>3</sup> Weight:1,442.56 N	C:\Users\Ahmed\Desktop\G ESC SECTORS (1)\Concrete.SLDPRT May 5 11:54:05 2021
 Boss-Extrude1	Solid Body	Mass:147.2 kg Volume:0.064 m <sup>3</sup> Density:2,300 kg/m <sup>3</sup> Weight:1,442.56 N	C:\Users\Ahmed\Desktop\G ESC SECTORS (1)\Concrete.SLDPRT May 5 11:54:05 2021
 Boss-Extrude1	Solid Body	Mass:147.2 kg Volume:0.064 m <sup>3</sup> Density:2,300 kg/m <sup>3</sup> Weight:1,442.56 N	Users\Ahmed\Desktop\GESC ECTORS (1)\Concrete.SLDPRT May 5 11:54:05 2021
 Boss-Extrude1	Solid Body	Mass:147.2 kg Volume:0.064 m <sup>3</sup> Density:2,300 kg/m <sup>3</sup> Weight:1,442.56 N	Users\Ahmed\Desktop\GESC ECTORS (1)\Concrete.SLDPRT May 5 11:54:05 2021

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G STEEL

## Study Properties

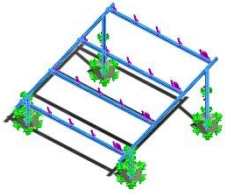
Study name	Static 1
Analysis type	Static
Mesh type	Mixed Mesh
Thermal Effect:	On
Thermal option	Include temperature loads
Zero strain temperature	298 Kelvin
Include fluid pressure effects from SOLIDWORKS Flow Simulation	On
Solver type	FFEPlus
Inplane Effect:	Off
Soft Spring:	Off
Inertial Relief:	Off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

## Units

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

## Material Properties

### Model Reference



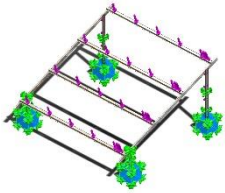
### Properties

Name:	<b>Galvanized Steel</b>
Model type:	<b>Linear Elastic Isotropic</b>
Default failure criterion:	<b>Max von Mises Stress</b>
Yield strength:	<b>2.03943e+08 N/m<sup>2</sup></b>
Tensile strength:	<b>3.56901e+08 N/m<sup>2</sup></b>
Elastic modulus:	<b>2e+11 N/m<sup>2</sup></b>
Poisson's ratio:	<b>0.29</b>
Mass density:	<b>7,870 kg/m<sup>3</sup></b>

### Components

SolidBody 1(Cut-Extrude2)(3587-1),  
 SolidBody 1(Cut-Extrude2)(3587-2),  
 SolidBody 1(Cut-Extrude2)(3587-3),  
 SolidBody 1(Cut-Extrude2)(3587-4),  
 SolidBody 1(Cut-Extrude2)(3956 (Inner 100) Notched-1),  
 SolidBody 1(Cut-Extrude2)(3956 (Inner 100) Notched-2),  
 SolidBody 1(Cut-Extrude2)(C190(100) Notched-1),  
 SolidBody 1(Cut-Extrude2)(C190(100) Notched-2),  
 SolidBody 1(Cut-Extrude2)(C90 (100 mm) Notched-1),  
 SolidBody 1(Cut-Extrude2)(C90 (100 mm) Notched-2)

Curve Data:N/A



Name: **Concrete**

Model type: **Linear Elastic Isotropic**

Default failure criterion: **Unknown**

Yield strength: **2.4e+07 N/m<sup>2</sup>**

Tensile strength: **5e+06 N/m<sup>2</sup>**

Compressive strength: **3e+07 N/m<sup>2</sup>**

Elastic modulus: **3.5e+10 N/m<sup>2</sup>**

Poisson's ratio: **0.21**

Mass density: **2,300 kg/m<sup>3</sup>**

Shear modulus: **1e+07 N/m<sup>2</sup>**

SolidBody 1(Boss-Extrude1)(Concrete-1),  
 SolidBody 1(Boss-Extrude1)(Concrete-2),  
 SolidBody 1(Boss-Extrude1)(Concrete-3),  
 SolidBody 1(Boss-Extrude1)(Concrete-4)

Curve Data:N/A

**FOR CONTACT**



**G STEEL** - شاسيهآ و تركيبآ معدنية لمحطآ الطاقة الشمسية

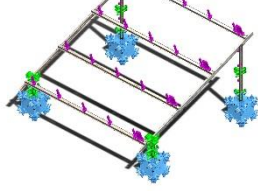


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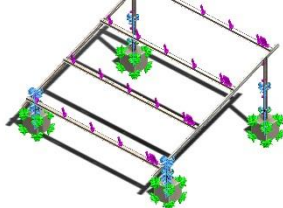
**G STEEL**

## Loads and Fixtures

Fixture name	Fixture Image	Fixture Details
Immovable-1		Entities: 24 face(s) Type: Immovable (No translation)

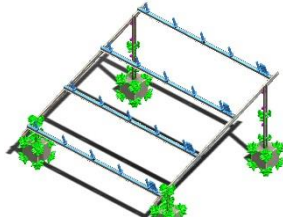
### Resultant Forces

Components	X	Y	Z	Resultant
Reaction force(N)	0	0	0	1e-33
Reaction Moment(N.m)	0	0	0	1e-33

Fixture name	Fixture Image	Fixture Details
Fixed-1		Entities: 16 face(s) Type: Fixed Geometry

### Resultant Forces

Components	X	Y	Z	Resultant
Reaction force(N)	0.52491	30.2505	10.4227	32
Reaction Moment(N.m)	0.0545625	0.0290453	0.00414554	0.0619507

Load name	Load Image	Load Details
Force-1		Entities: 4 face(s) Type: Apply normal force Value: 8 N

**FOR CONTACT**



G STEEL - شاسيهآ و تركيبآ معدنية لمحطآ الطاقة الشمسية

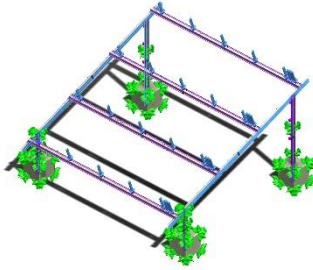


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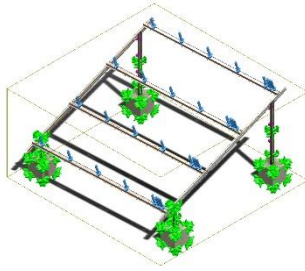
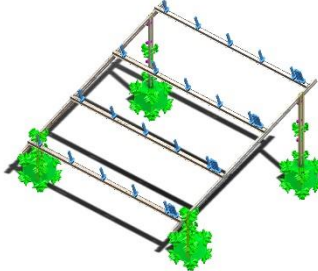
G STEEL

## Contact Information

Contact	Contact Image	Contact Properties
Contact Set-1		<p><b>Type:</b> No Penetration contact pair</p> <p><b>Entities:</b> 20 face(s)</p> <p><b>Advanced:</b> Surface to surface</p>

### Contact/Friction force

Components	X	Y	Z	Resultant
Contact Force(N)	-0.0040406	-2.8057E-07	0.0027318	0.0048774

Global Contact		<p><b>Type:</b> Bonded</p> <p><b>Components:</b> 1 component(s)</p> <p><b>Options:</b> Compatible mesh</p>
Component Contact-1		<p><b>Type:</b> No penetration (Surface to surface)</p> <p><b>Components:</b> 4 component(s), 4 Solid Body (s)</p>

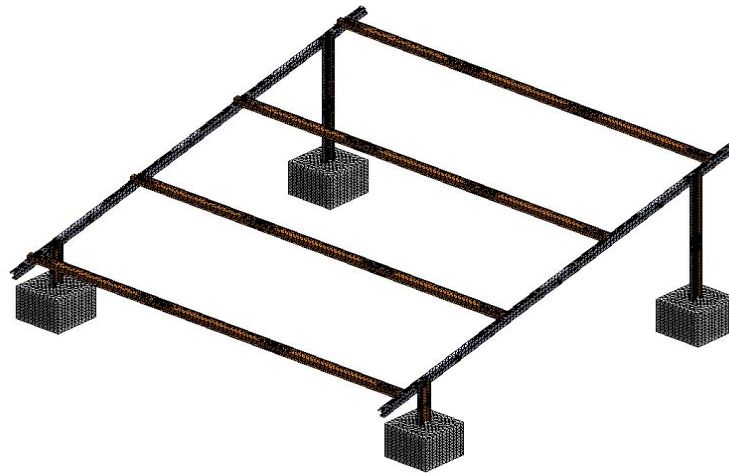
## Mesh information

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	36.5119 mm
Tolerance	1.82559 mm
Mesh Quality Plot	High
Remesh failed parts with incompatible mesh	Off

### Mesh information - Details

Total Nodes	112347
Total Elements	62336
Time to complete mesh(hh:mm:ss):	00:02:06
Computer name:	AYMAN_ABDELBASET

Model name: Assem 1  
Study name: Static 1 (-Default-)  
Mesh type: Mixed Mesh



FOR  
CONTACT



G STEEL - شاسيهاٲ و تركيباٲ معدنية لمحطاٲ الطاقة الشمسية

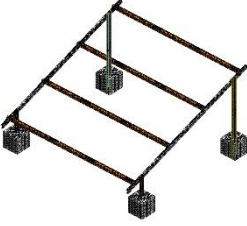
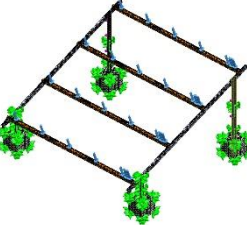


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## Mesh Control Information:

Mesh Control Name	Mesh Control Image	Mesh Control Details
Control-1		<b>Entities:</b> 2 face(s), 2 component(s) <b>Units:</b> mm <b>Size:</b> 19.8434 <b>Ratio:</b> 19.8434
Control-2		<b>Entities:</b> 2 face(s), 1 component(s) <b>Units:</b> mm <b>Size:</b> 17.8591 <b>Ratio:</b> 17.8591

## Resultant Forces

### Reaction forces

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N	0.52491	30.2505	10.4227	32

### Reaction Moments

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N.m	0.0545625	0.0290453	0.00414554	0.0619507

**FOR  
CONTACT**



**G STEEL** - شاسيهآ وٓ تركيبيات معدنية لمحطات الطاقة الشمسية

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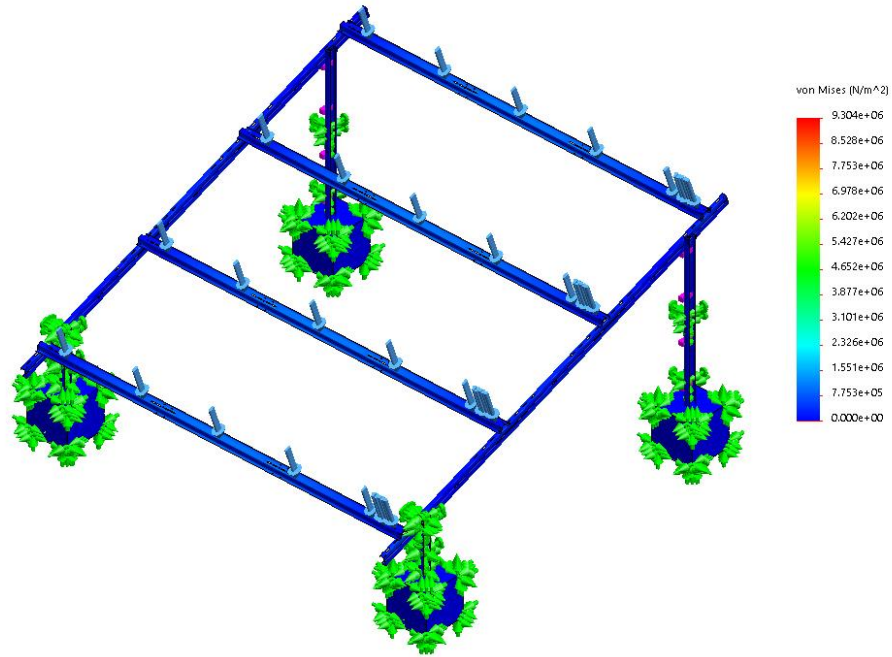
**G STEEL**



## Study Results

Name	Type	Min	Max
Stress1	VON: von Mises Stress	0.000e+00 N/m <sup>2</sup> Node: 1	9.304e+06 N/m <sup>2</sup> Node: 85445

Model name: Assem1  
 Study name: Static 1(-Default-)  
 Plot type: Static nodal stress Stress1  
 Deformation scale: 1



Assem1-Static 1-Stress-Stress1

FOR CONTACT



G STEEL - شاسيهاٲ و تركيباٲ معدنية لمحاٲا الطاقة الشمسية

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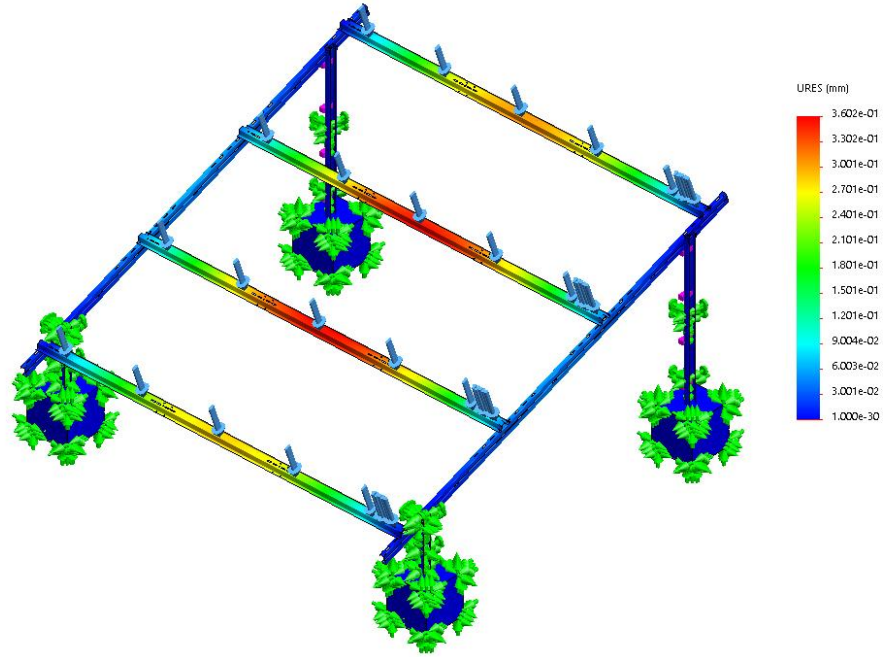
G STEEL

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Name	Type	Min	Max
Displacement1	URES: Resultant Displacement	0.000e+00 mm Node: 1	3.602e-01 mm Node: 57118

Model name: Assem1  
Study name: Static 1(-Default-)  
Plot type: Static displacement Displacement1  
Deformation scale: 1



Assem1-Static 1-Displacement-Displacement1

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G STEEL - شاسيهاٲ و تركيباٲ معدنية لمحطاٲ الطاقة الشمسية



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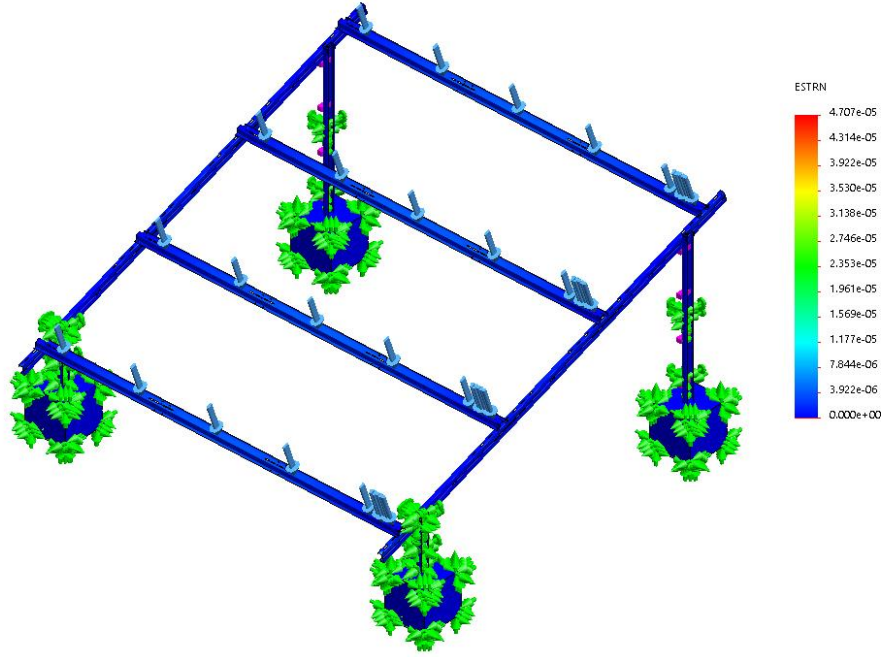
G STEEL

# SAVE YOUR BUSINESS



Name	Type	Min	Max
Strain1	ESTRN: Equivalent Strain	0.000e+00 Element: 1	4.707e-05 Element: 50453

Model name: Assem1  
Study name: Static 1(-Default-)  
Plot type: Static strain Strain1  
Deformation scale: 1



Assem1-Static 1-Strain-Strain1

FOR CONTACT



G STEEL - شاسيهاٲ و تركيباٲ معدنية لمحطاٲ الطاقة الشمسية



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G STEEL

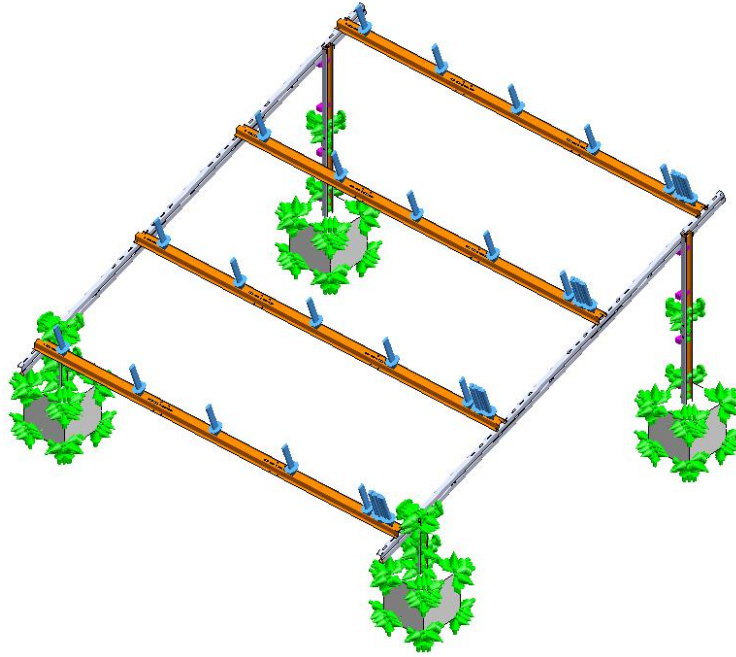
Name

Type

Displacement1{1}

Deformed shape

Model name: Assem1  
Study name: Static 1-Default-1  
Plot type: Deformed shape Displacement1{1}  
Deformation scale: 1



Assem1-Static 1-Displacement-Displacement1{1}

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TOSYALI TOYO		MILL TEST CERTIFICATE EN 10204 3.1		Certification No 150306073															
TOSYALI TOYO ÇILIK A.Ş. ORGANIZÉ SANAYI BÖLGESİ/OSMANIYE		Product Type: GCP-GALVANIZED COLD ROLLED COIL		Date 30.10.2019															
Customer Information:		Product Type: GCP-GALVANIZED COLD ROLLED COIL		Pages 1															
Aksa Steel Forming Co. (ALEFORM) Behind 10. / Feriçin Lumba 35. / El Ovası Bld. / El Duzluk Aksa Steel Eğir		Mechanical Properties:		Order Date 10.09.2019															
No	Coil/Package No	Heat No	Product Standard	Steel Grade	Order Dimensions		Net Weight (kg)	Surface		Zinc Coating		Chemical Composition							
					Thickness (mm)	Width (mm)		Length (mm)	Finish	Quality	Sample direction	R <sub>m</sub> (N/mm <sup>2</sup> )	R <sub>p0.2</sub> (N/mm <sup>2</sup> )	N	A	N	A	N	A
1	5019360201	1370004686	EN 10344:2013	S450GD+Z	1.5	1250	8475	L	A	275	0.263	1.096	0.014	0.009	0.049	0.044	0.034	0.023	0.005
2	5019360089	1370004677	EN 10344:2013	S450GD+Z	1.5	1250	7995	L	A	275	0.260	1.044	0.012	0.008	0.026	0.042	0.033	0.028	0.005
3	5019360091	1370004684	EN 10344:2013	S450GD+Z	1.5	1250	8460	L	A	275	0.267	1.096	0.014	0.009	0.049	0.044	0.034	0.023	0.005
4	5019360095	1370004688	EN 10344:2013	S450GD+Z	1.5	1250	8720	L	A	275	0.267	1.096	0.014	0.009	0.049	0.044	0.034	0.023	0.005
5	5019360099	1370004679	EN 10344:2013	S450GD+Z	1.5	1250	8470	L	A	275	0.264	1.063	0.013	0.008	0.077	0.044	0.026	0.023	0.005
6	5019360093	1370004684	EN 10344:2013	S450GD+Z	1.5	1250	8460	L	A	275	0.267	1.096	0.014	0.009	0.049	0.044	0.034	0.023	0.005
7	5019360090	1370004678	EN 10344:2013	S450GD+Z	1.5	1250	8550	L	A	275	0.270	1.096	0.014	0.008	0.049	0.044	0.033	0.023	0.005
8	5019360238	1370004677	EN 10344:2013	S450GD+Z	1.5	1250	7980	L	A	275	0.260	1.044	0.012	0.008	0.054	0.042	0.033	0.028	0.005
9	5019360092	1370004678	EN 10344:2013	S450GD+Z	1.5	1250	8445	L	A	275	0.270	1.096	0.014	0.008	0.049	0.044	0.033	0.023	0.005
10	5019360094	1370004679	EN 10344:2013	S450GD+Z	1.5	1250	8510	L	A	275	0.264	1.063	0.013	0.008	0.077	0.044	0.026	0.023	0.005
11	5019360240	1370004678	EN 10344:2013	S450GD+Z	1.5	1250	8590	L	A	275	0.272	1.044	0.011	0.008	0.054	0.047	0.037	0.033	0.005
12	5019360160	1370004679	EN 10344:2013	S450GD+Z	1.5	1250	8445	L	A	275	0.271	1.044	0.011	0.008	0.054	0.047	0.037	0.033	0.005
13	5019360285	1370004684	EN 10344:2013	S450GD+Z	1.5	1250	8355	L	A	275	0.260	1.044	0.011	0.009	0.049	0.044	0.034	0.023	0.005
14	5019360134	1370004678	EN 10344:2013	S450GD+Z	1.5	1250	8460	L	A	275	0.264	1.063	0.013	0.008	0.077	0.044	0.026	0.023	0.005
15	5019360100	1370004677	EN 10344:2013	S450GD+Z	1.5	1250	8005	L	A	275	0.260	1.044	0.012	0.008	0.054	0.042	0.033	0.028	0.005
16	5019360102	1370004678	EN 10344:2013	S450GD+Z	1.5	1250	8465	L	A	275	0.270	1.096	0.014	0.008	0.049	0.044	0.033	0.023	0.005
17	5019360096	1370004686	EN 10344:2013	S450GD+Z	1.5	1250	8410	L	A	275	0.267	1.096	0.014	0.009	0.049	0.044	0.034	0.023	0.005
18	5019360234	1370004679	EN 10344:2013	S450GD+Z	1.5	1250	8880	L	A	275	0.264	1.063	0.013	0.008	0.077	0.044	0.026	0.023	0.005

Remarks:  
Sample Direction: L-Longitudinal Surface Finish: N - Matt (Normal)  
Surface Quality: A - A SURFACE  
Preparation Type: □ Sample: M (Minimum)

We certify that products listed above in accordance with the order requirements and product standard  
This test report has been prepared by data processing system in accord with sections of EN 10204 standard, NO valid without sign

Form No: KYS/IRK.1725/Rev.No:00

تصديق الاختبار  
تاريخ الصدق  
كاروب التعداد  
رقم البينة  
رقم البينة  
مستقل وطني

19/10/2019

رقم البينة  
تاريخ الصدق  
كاروب التعداد  
تصديق الاختبار

19/10/2019

المسوحة ضوئياً بـ CamScanner



FOR CONTACT



G-Steel  
1 Gawande Hosny St, From Abou Qier St,  
Ibrahimia Alexandria Egypt  
info@gescegy.net

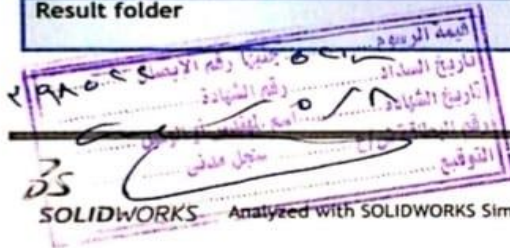
Eng. Ayman Abdelbaset

5/5/2021

	Solid Body	Mass:147.2 kg Volume:0.064 m <sup>3</sup> Density:2,300 kg/m <sup>3</sup> Weight:1,442.56 N	C:\Users\Ahmed\Desktop\ GESC SECTORS (1)\Concrete.SLDPRT May 5 11:54:05 2021
	Solid Body	Mass:147.2 kg Volume:0.064 m <sup>3</sup> Density:2,300 kg/m <sup>3</sup> Weight:1,442.56 N	C:\Users\Ahmed\Desktop\ GESC SECTORS (1)\Concrete.SLDPRT May 5 11:54:05 2021

### 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	On
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	On
Use Adaptive Method:	Off
Result folder	SOLIDWORKS document (C:\Users\Ahmed\Desktop\GESC SECTORS (1))



SOLIDWORKS Analyzed with SOLIDWORKS Simulation

Simulation of Assem1 3

الممسوحة ضوئياً بـ CamScanner

FOR CONTACT



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