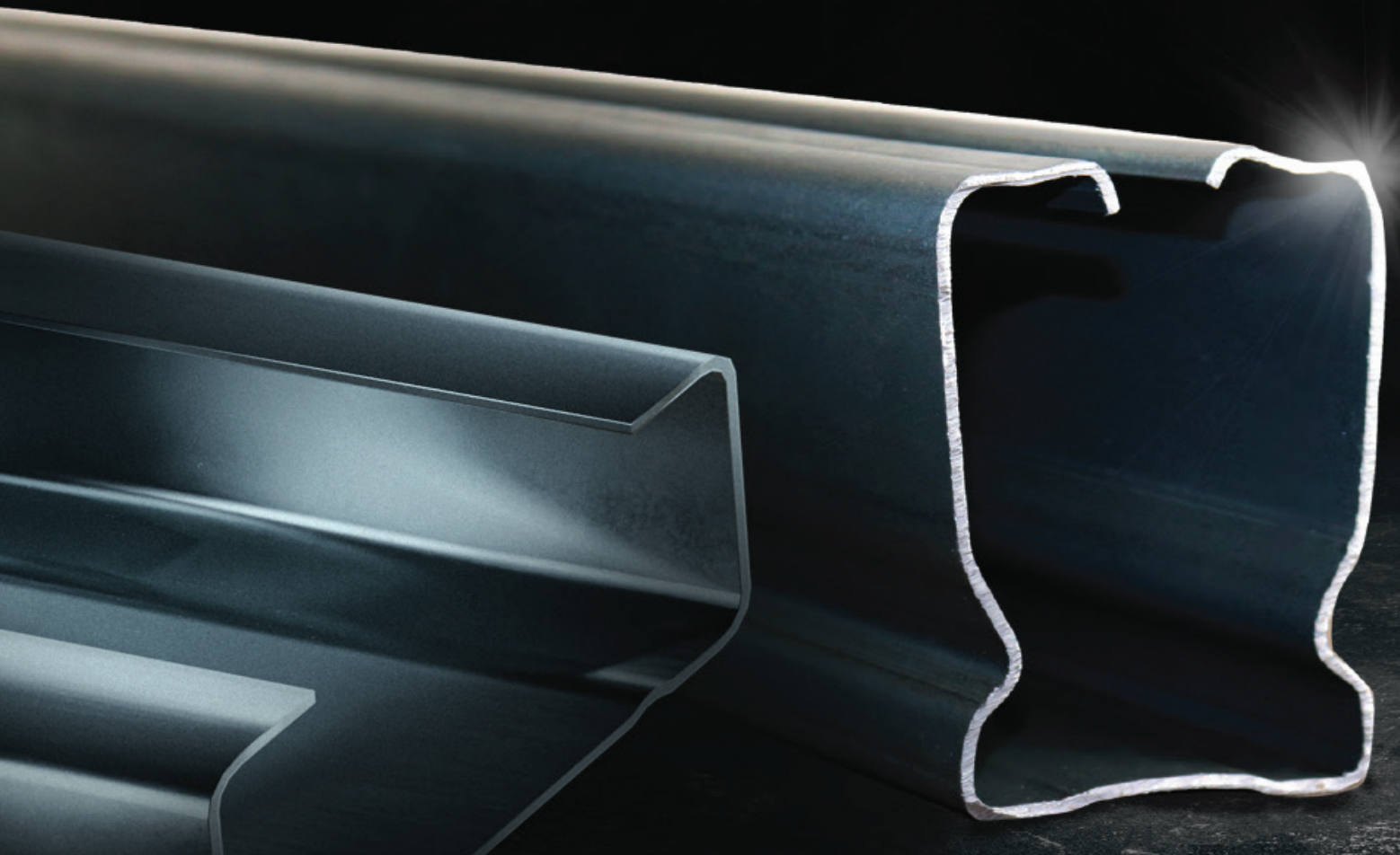


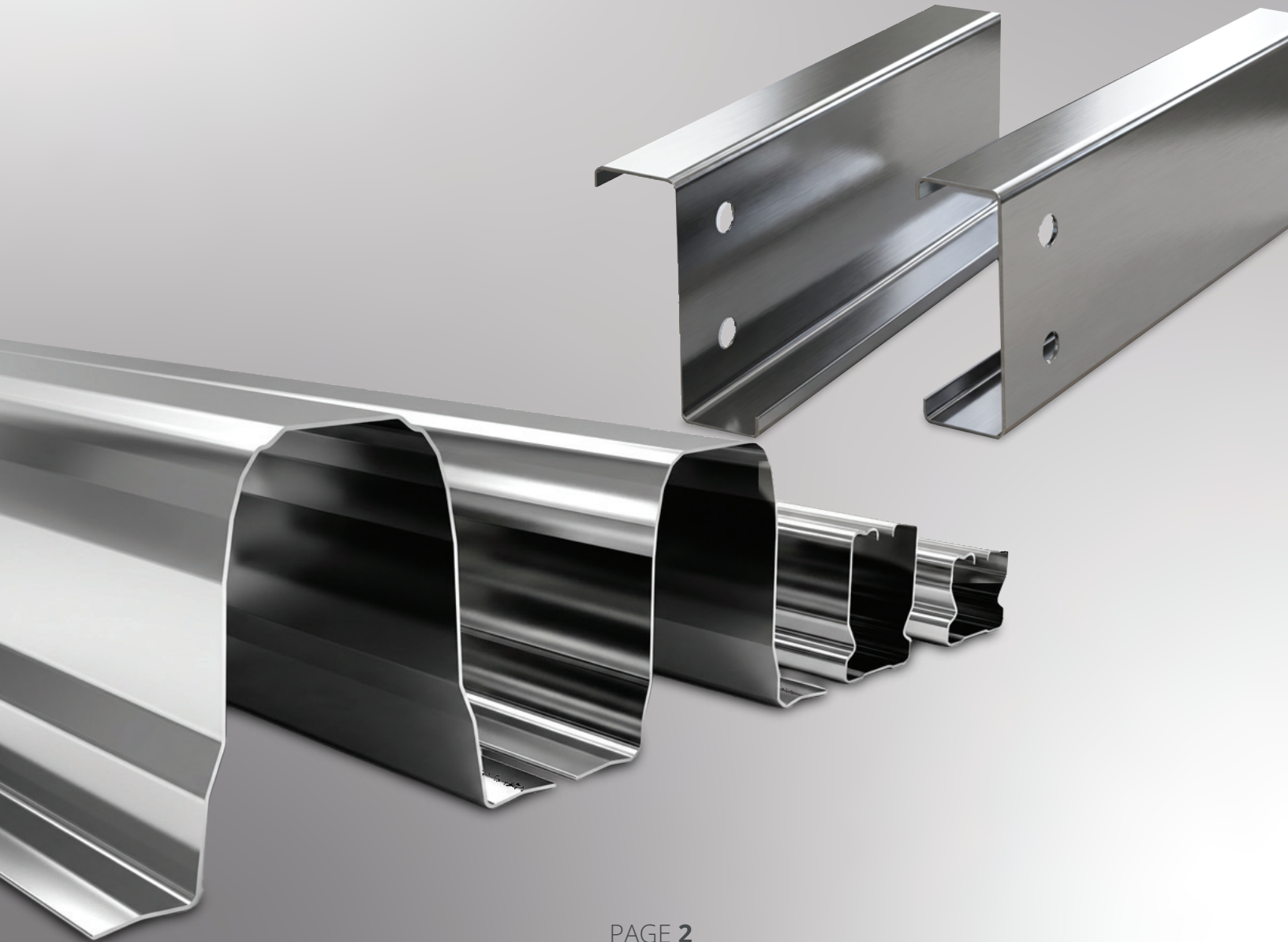
*Discover*

**PHILADELPHIA SOLAR**

**STEEL** MOUNTING STRUCTURE CATALOGUE



# BEST PARTNER FOR PHILADELPHIA **SOLAR**



## VISION

Philadelphia Solar will strive to maintain a cutting-edge technology based on green energy, and by marketing products of the highest international standards supported by outstanding technical support.

## MISSION

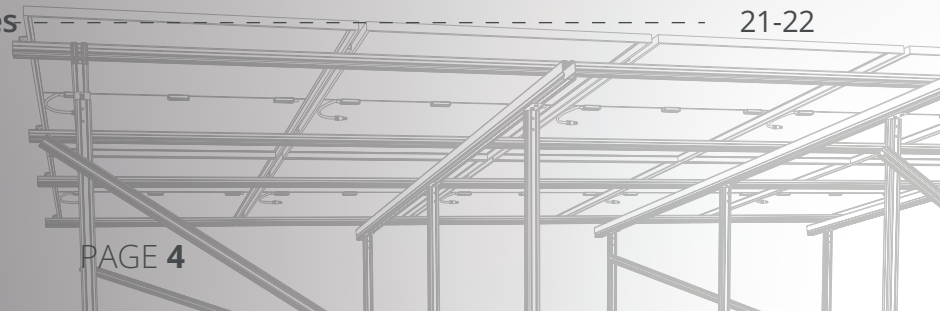
To provide our customers with state-of-the-art steel structures at competitive prices combined with an outstanding technical support and customer service.

## STRATEGY

Customer oriented by offering differentiated products and services and committed to delivering clean energy solutions to maintain a unique position in the market.

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# Who We Are ?

## STEEL PRODUCTION CAPACITY



## MOUNTING STRUCTURE EXPORTS



## BUILDUP AREA OF FACTORY



Mounting structures, our advance steel structure manufacturing line was established in - 2014 and utilizes the latest automated production equipment. With over 500 highly trained employees, including engineers, technicians, quality assurance officers, and structural designers, we ensure that our PV mounting structures meet the most strict quality standards in the industry. Our commitment to excellence is evident in every aspect of our production process, from design to delivery.



# Why Magnelis®?

**Magnelis®** is an extraordinary metallic coating that provides a breakthrough in corrosion protection. **Magnelis®** is also the best choice for a wide variety of applications especially PV mounting structure.

Due to its unique composition, **Magnelis®** provides an unprecedented level of surface and cut-edge protection, even in the most hostile environments. **Magnelis®** is produced on a classic hot-dip galvanizing line, but the molten bath has a unique chemical composition including 3.5% Magnesium, 3% Aluminum, 92.5% Zinc.

**01**

Excellent Corrosion Resistance

Magnelis® resists corrosion longer than standard galvanised products and it outperforms coatings containing less magnesium that reach up to 3 times better.

The self-healing effect of Magnelis® ensures the protection of uncoated edges, scratches and perforations

**02**

Self-healing Effect

**03**

Suited For Harsh Environments

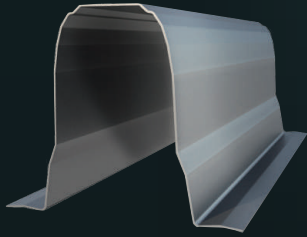
The superior corrosion resistance of Magnelis® has been demonstrated in accelerated laboratory testing and proven through outdoor tests

The application of a Magnelis® coating ensures the preservation of natural resources as it uses significantly less zinc than pure zinc coatings.

**04**

Environmentally Friendly

# Magnelis Unique Sections

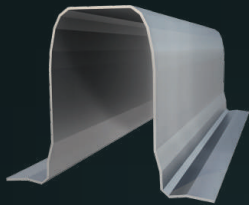


## Section Hat150

Material	S320 + ZM310
Finish	Magnelis (Mg 3.5% - Al 3% - Zn 92.5%)
Weight	4.890 kg/m
Length	Customizable (based on client request)
Dimensions	Section H: 14.5 cm W: 18 cm

## Section C45

Material	S320 + ZM310
Finish	Magnelis (Mg 3.5% - Al 3% - Zn 92.5%)
Weight	2.148 kg/m
Length	Customizable (based on client request)
Dimensions	Section H: 4.5 cm W: 5 cm

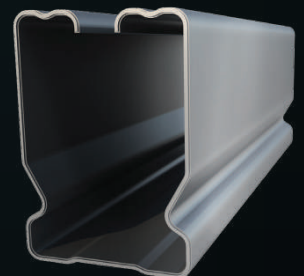


## Section Hat105

Material	S320 + ZM310
Finish	Magnelis (Mg 3.5% - Al 3% - Zn 92.5%)
Weight	3.643 kg/m
Length	Customizable (based on client request)
Dimensions	Section H: 10.5 cm W: 13 cm

## Section C70

Material	S320 + ZM310
Finish	Magnelis (Mg 3.5% - Al 3% - Zn 92.5%)
Weight	2.737 kg/m
Length	Customizable (based on client request)
Dimensions	Section H: 7 cm W: 5 cm



# PS Raw Material

## Magnelis U Form Full-Punch

2.1 mm thickness for maximum strength .

Superior Corrosion protection .

Self-healing against scratches .

Full-Punch design - fully perforated for faster installation and savings in time and cost .



# PS Raw Material

## Magnelis U Form Full-Punch

- 20-year anti-corrosion warranty – longer than anywhere else .
- Smart solutions and designs that guarantee you the best price in the market .
- Can fit your roof without the need for punching or welding processes



# PS Raw Material (G90) C & Z profile

**Variety of thicknesses to meet all customer requirements**

1.8 mm, 2 mm, 2.5 mm and 3 mm

**Material Options**

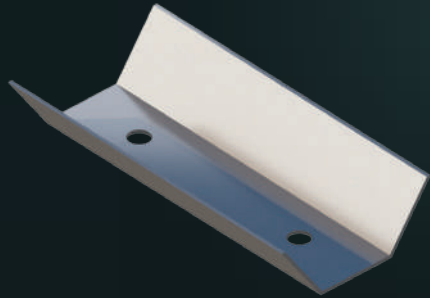
Steel (Zinc Coating)

**Free Design Service**

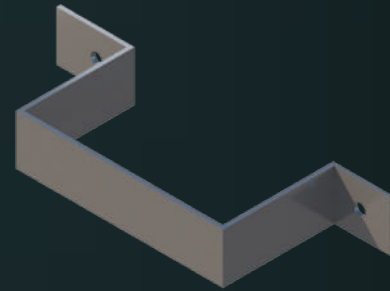
**With a commitment to the highest structural quality**



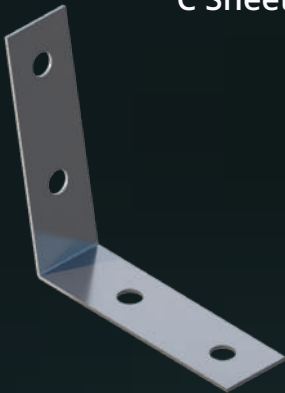
# Accessories and Fittings



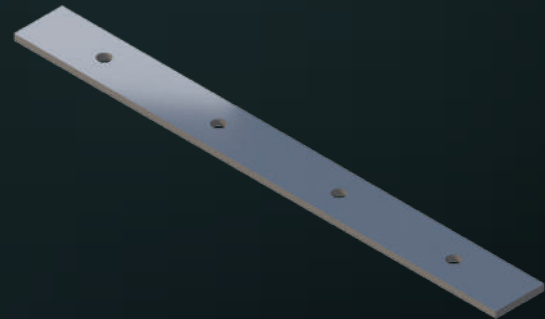
Magnelis  
C Sheet



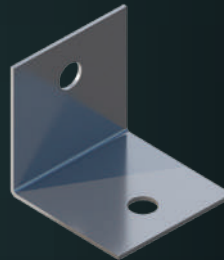
Hot Dip Galvanized  
Bracing Clamp



Stainless Steel  
Angle Connector



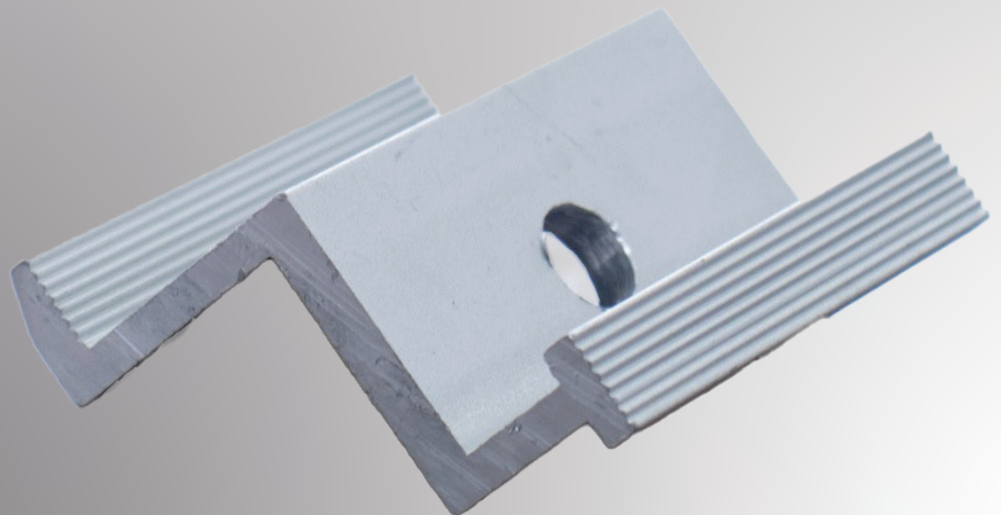
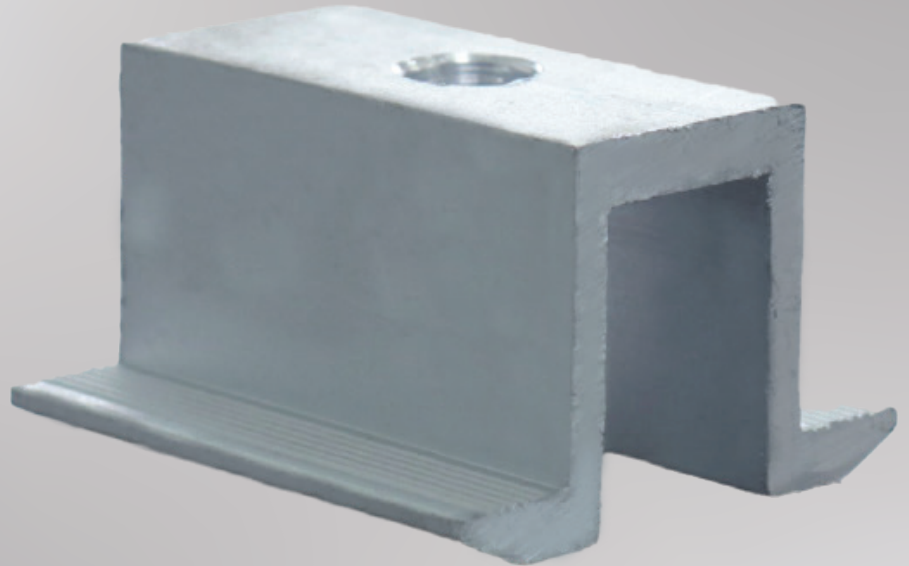
Hot Dip Galvanized  
Purlin Connector



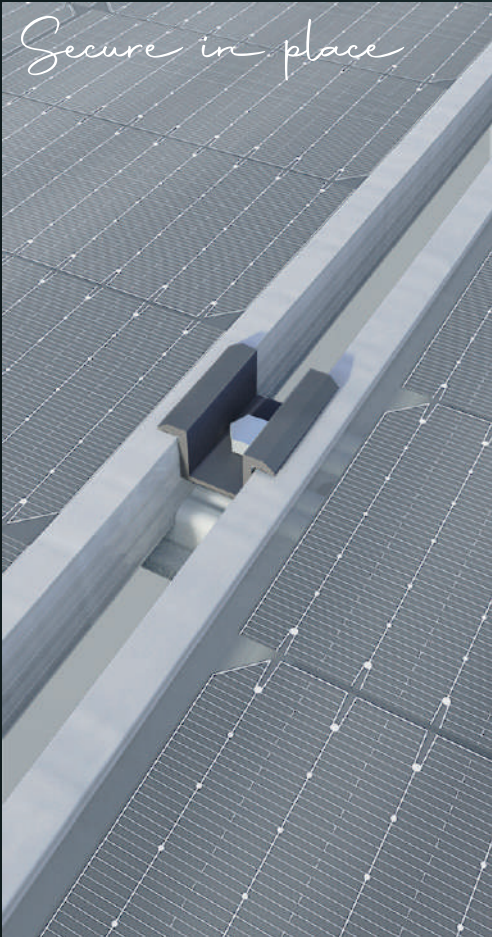
Hot Dip Galvanized

# PS Unique Clamps

Made of aluminum, our middle clamps / end clamps – with a Bolt and wingnut – are made to ensure safe and reliable mounting of solar panels on any given surface and suitable with most PV panels, depending on the number of your panels, you will need a different amount of these clamps.



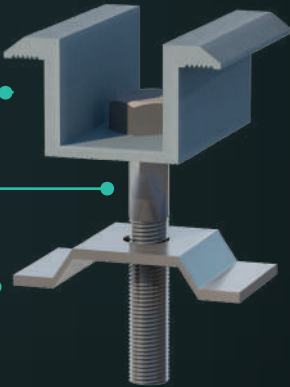
# PS Unique Clamps



Aluminum 6063 - T6 Middle Clamp

Stainless Steel Bolt M 8x50mm

Stainless Steel Wingnut



Aluminum 6063 - T6 Edge Z Clamp

Stainless Steel Wingnut

Stainless Steel Bolt M 8x50mm



# Features Applications Magnelis®



Corrosion resistance performance up to 3 times better than Hot Dip Galvanized sheet.



Customized designs to fit your solar applications.



Self repairing protection for the cut edges.



Compatible with all types of modules.



The best suited protection to withstand harsh environments.



20-Year warranty against corrosion/10-Year warranty for fitting and accessories.

## • Technical Data Of Magnelis®

- Applicable Temperature: - 50 C to 100 C.
- Structure Materials: Magnelis®.
- Basic Wind Speed: Based on clients request .
- Design Snow Pressure: According to site elevation above sea level.
- Design Standards: Jordanian loads , ASCE, AISC and AISI & BS or any relevant code .

# Application Of Mounting Structure

## Ground Mounting Structure



- Customized designs to fit your farm.

- Modules configuration based on client layout.

- Tilt angle and design wind speed based on client requirement.

- Compatible with all types of modules.

# Application Of Mounting Structure

## Flat Roof Top Mounting Structure



- Installation Site: Asphalt , Concrete roofs or grounds.
- Tilt angle: Based on client requirements .
- Applicable Temperature: - 50 C to 100 C.
- Basic Wind Speed: Based on client requirements.
- Design Snow Pressure: According to site elevation above l sea level.
- Structure height up to 2.5 m without a concrete block.

# Application Of Mounting Structure

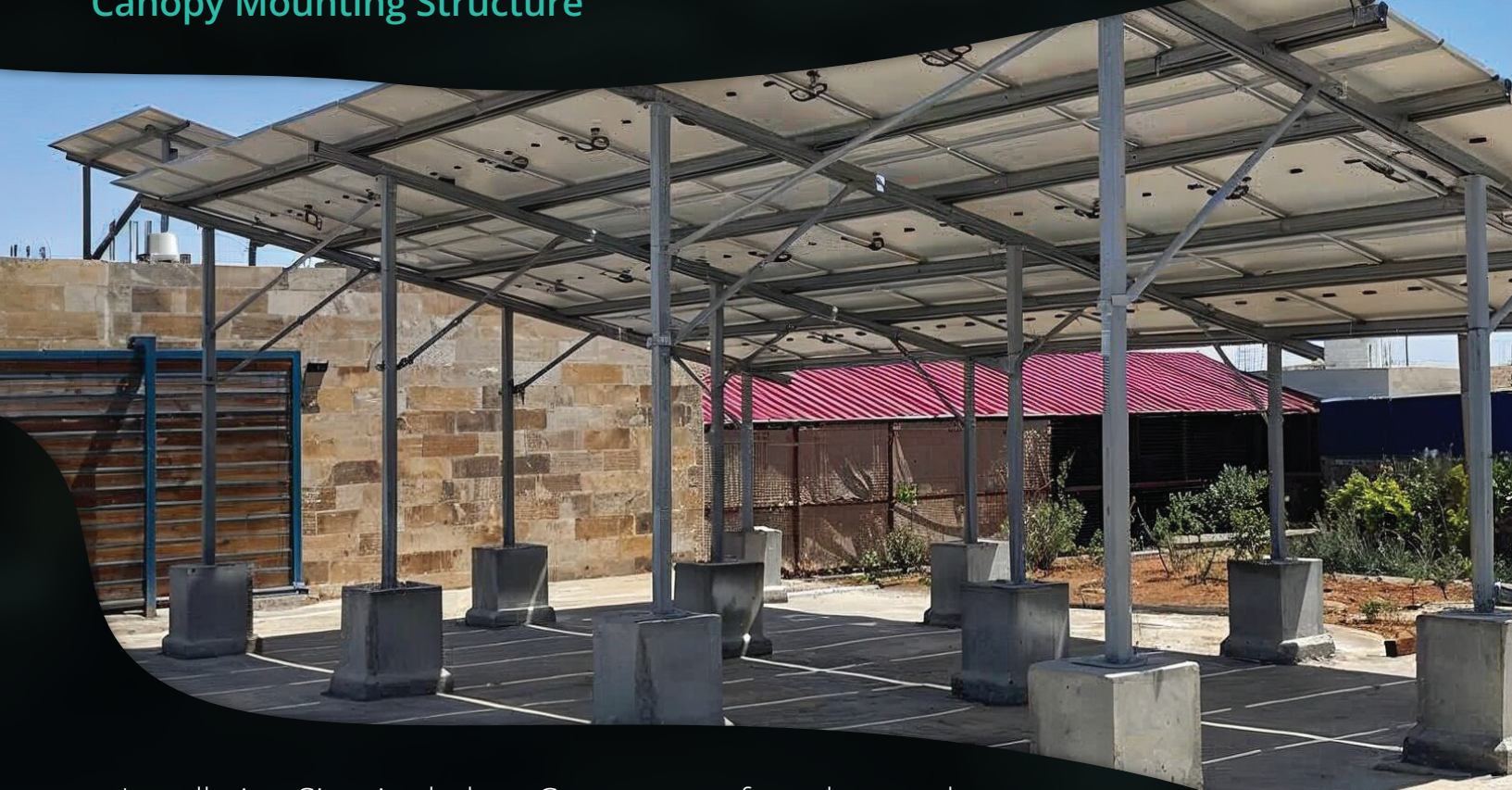
## Carpark Mounting Structure



- Tilt angle: Based on client requirements.
- Installation Site: residential and commercial car-park.
- Wind Speed: Based on client requirements.
- Max. height of column: Based on client requirements.

# Application Of Mounting Structure

## Canopy Mounting Structure



- Installation Site: Asphalt or Concrete roofs and grounds.
- Structure Height : No Limitation .
- Design service complies with client requirements
- regarding tilt angle, wind speed, and PVs layout.

# Application Of Mounting Structure

## Tin Roof System Mounting Structure



- **Mini Rail** option with 0.25m length and 105mm height

- **Two fixation methods available**

using tape Or with self-drilling screws

- Long Rail option is also available

# Comparison Between PS Hot-dip Galvanization & Classic Hot-dip Galvanization

Properties	PS Hot-dip Galvanization	Classic hot-dip galvanization
<b>Forming properties</b>		
Chloride Environment (Marine site, Swimming Pool)	⊕ ⊕ ⊕	⊕
Ammonia Environment (Farms, Greenhouse)	⊕ ⊕	⊕
SO <sub>2</sub> Environment (acid industrial environment)	⊕	⊕
Temporary protection (transport,Storage)	⊕ ⊕ ⊕	⊕
<b>Edges Anti-Punching</b>		
Edges and perforation	Self-healing Effect	-----
Corrosion of a deformed part (stamped or bent)	⊕ ⊕ ⊕	⊕
<b>Forming properties</b>		
Bending and Roll-forming	⊕	-----
Drawing	⊕	⊕
<b>Warranties</b>		
Guarantee Durability	20 Years	None
<b>Coating</b>		
Coating Thickness (µm/per side)	Zm310=25	G90 = 18
Porosity	Dense	Porous

# Some of Philadelphia Solar References

**Roof top system**



**Car park system**



**Tin roof system**



**Ground Mounting system**



# Some of Philadelphia Solar References

Al-Badyia Project **23MW**



Teeba Project **14.75MW**



Social Security **18.75MW**



UCIC **4.5 MW**



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