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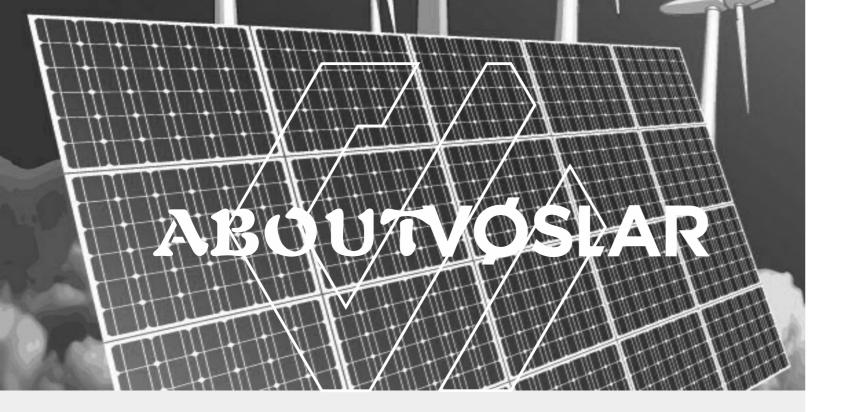




# PROFESSIONAL SOLAR MOUNTING SYSTEMS



JIANG YIN AO YIN ENERGY CO.,LTD



**Voslar** devotes our expertise and resources into the research, design, manufacturing and distribution of quality PV mounting system solutions. Our products have been installed in Europe, Australia, Asia, Middle East, America, China, and so on, since it established.

# OUR CULTIVATE PROFESSIONALISM

Voslar cultivates professionalism and Innovation on product research and development to provide high quality standard assurance to customers with our professionism, and create more value with our innovation.

# OUR MANAGEMENT

Voslar is a multinational organisation formed by highly experienced professionals within the solar photovoltaic manufacturing and installation industry. We apply stringent international manufacturing and management standards including but not limited to ISO9001: 2012, FMEA, MSA. International quality manage systems in all phases of R&D, manufacturing, marketing and after-sales-service.

# OUR SERVICE NETWORKS

With our reliable products and short response time in our customer services, Voslar won trust from solar system integrators, installers and distributors world wide. Since our establishment, we have formed alliance with distribution partners world wide, and developed a highly professional sales and customer service team to offer our customer a global and efficient service network.



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# VØSLAR

# **RAILS**

Item No.	Description
VS-DR-Length	VS Standard Rail
VS-DR1-Length	VS 1# Rail
VS-DR2-Length	VS 2# Rail
VS-DR3-Length	VS 3# Rail
VS-DRL-Length	VS Light Rail
VS-DRLB-Length	VS Black Light Rail

Note:The standard length is 2560mm,3405mm, 4200mm,4400mm,4600mm. The other must be customized. Material:Anodized Al6005-T5

Color: Natural silver or black anodized



VS-DR



VS-DR1



VS-DR2



VS-DR3



VS-DRL



VS-DRLB

# **RAIL SPLICE KIT**

Item No.	Description
VS-DR-SP	VS Rail Splice Kit
VS-DR2-SP	VS 2# Rail Splice Kit
VS-DR3-SP	VS 3# Rail Splice Kit

Material: Anodized Al6005-T5 and A2-70 Hexagon Socket Head Cap Screw Color: Natural silver or black anodized



VS-DR-SP



VS-DR2-SP



VS-DR3-SP

# **FRAMED MODULE CLAMP**

# Inter Clamp Kit Item No. Description VS-IC-F30/35 VS Inter Clamp Kit 30~35mm VS-IC-F35/40 VS Inter Clamp Kit 35~40mm VS-IC-F45/50 VS Inter Clamp Kit 45~50mm VS-IC-F57/60 VS Inter Clamp Kit 57~60mm



End Clamp Kit	
Item No.	Description
VS-EC-F30	VS End Clamp Kit 30mm
VS-EC-F35	VS End Clamp Kit 35mm
VS-EC-A30/35	VS Adjustable End Clamp Kit 30/35
VS-EC-A35/40	VS Adjustable End Clamp Kit 35/40
VS-EC-F40	VS End Clamp Kit 40mm
VS-EC-F46	VS End Clamp Kit 46mm
VS-EC-F50	VS End Clamp Kit 50mm
VS-EC-F57	VS End Clamp Kit 57mm



VS-EC-F57	VS End Clamp Kit 57mm
Adjustable	End Clamp Kit
Item No.	Description
VS-EC-A01	VS Adjustable End Clamp Kit 1#

VS-EC-A02



VS-EC-A02

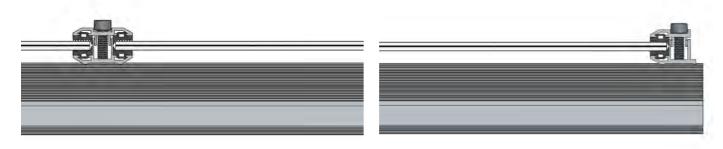
VS Adjustable End Clamp Kit 2#







# FRAMELESS MODULE CLAMP



Item No.	Description
VS-IC-L60/80/120	Thin Film Module Inter Clamp
VS-EC-L60/80/120	Thin Film Module End Clamp



VS-IC-L80



VS-EC-L80





# **ROMAN TILE ROOF HOOK**

Item No.	Description
VS-IK-01	Stainless Steel Hook 1# Kit
VS-IK-03	Stainless Steel Hook 3# Kit
VS-IK-06	Stainless Steel Hook 6# Kit
VS-IK-08	Stainless Steel Hook 8# Kit
VS-IK-12	Stainless Steel Hook 12# Kit
VS-IK-14	Stainless Steel Hook 14# Kit
VS-IK-15	Stainless Steel Hook 15# Kit
VS-IK-16	Stainless Steel Hook 16# Kit
VS-IK-HP	Height Adjust Plate for Roof Hook

Material:Stainless Steel SUS304 and A2-70 Hexagon Socket Head Cap Screw







# **FLAT TILE ROOF HOOK**

Item No.	Description
VS-IK-02	Stainless Steel Hook 2#
VS-IK-02-A	Stainless Steel Hook 2# A type
VS-IK-02-B	Stainless Steel Hook 2# B type

Material: Stainless Steel SUS304 and A2-70 Hexagon Socket Head Cap Screw



# **SHINGLE TILE ROOF HOOK**

Item No.	Description
VS-IK-04	Stainless Steel Hook 4#
VS-IK-04-A	Stainless Steel Hook 4# A type
VS-IK-04-B	Stainless Steel Hook 4# B type
VS-IK-13	Stainless Steel Hook 13#

Material: Stainless Steel SUS304 and A2-70 Hexagon Socket Head Cap Screw



# **TIN ROOF HOOK**

Item No.	Description	Accessories
VS-IK-05	Aluminum Tin Interface Kit 5#	Wood Screw M6.3×80
VS-IK-H01	Hanger Bolt Hook 1#	Hanger Bolt M10×200
VS-IK-H04	Hanger Bolt Hook 4#	Hanger Bolt M10×200 & L Feet
VS-IK-H05	Hanger Bolt Hook 5#	Hanger Bolt M10×200

Material: Anodized Al6005-T5 and A2-70 Hexagon Socket Head Cap Screw









VS-IK-H04

VS-IK-H05



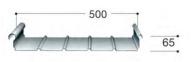


# **STANDING SEAM ROOF HOOK**

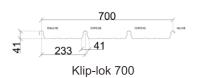
Item No.	Description	Roof Type
VS-IK-S01	Standing Seam Roof Hook 1#	Butler Roof
VS-IK-S02	Standing Seam Roof Hook 2#	KalZip-Bemo-roofs
VS-IK-SK7	Standing Seam Roof Hook K7	Klip-Lok 406
VS-IK-S07	Standing Seam Roof Hook 7#	Klip-Lok 700 Hi-Strength
VS-IK-S05	Standing Seam Roof Hook 5#	
VS-IK-S06	Standing Seam Roof Hook 6#	

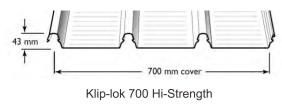


Butler-roof



KalZip-roof







VS-IK-S01



VS-IK-S02



VS-IK-S07



VS-IK-SK7



VS-IK-S05



VS-IK-S06

# **ACCESSORIES**

Item No.	Description
VS-DM-25	Bolts & Nuts
VS-A-DM	D-Module
VS-SSCC-01	SS Cable Clip 1#
VS-SSCC-02	SS Cable Clip 2#
VS-G-GC	Grounding Clip
VS-G-GL	Grounding Lug
VS-G-BJ	Bonding Jumper

















# PITCHED ROOF RACKING SYSTEM

# VØSLAR

## Introduction

VS Pitched Roof Racking System is designed with great flexibility for both commercial and residential roof solar system. It is suitable for installing framed and frameless modules fixed to pitched roofs. VS product series have the innovated design of VS Rail and D module to make the installation easier and faster. Our highly customizable preassembled solutions can significantly reduce your installation time and cost.

# **Tile Roof System**









## Benefits

#### Easy Installation

D-module can be installed onto our VS Rail from any position. Systems can be pre-assembled at our factory to save your installtime on-site.

#### Flexibility and Compatible

VS Rail and its accessories can be installed with most type of solar panels under different conditions.

#### Safety and Reliability

The racking systems can withstand various weather conditions and are complied with the A1S/NZS 170 and other international structure load standards. The main support components have also been tested to guarantee its structural stability and weight and wind load capacities.

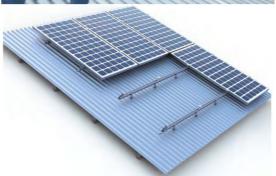
Technical Information	
Install Site	Pitched Roof
Tilt Angle	Flushed with the roof,up to 60deg
<b>Building Height</b>	up to 20m
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m²
Standards	AS/NZS 1170 & DIN 1055 & Other
Material	Aluminum alloy & Stainless Steel
Color	Natural
Anti-corrosive	Anodized
Warranty	10 years warranty
Duration	More than 20 years

# Introduction

VS Pitched Roof Racking System is designed with great flexibility for both commercial and residential roof solar system. It is suitable for installing framed and frameless modules fixed to pitched roofs. VS product series have the innovated design of VS Rail and D module to make the installation easier and faster. Our highly customizable preassembled solutions can significantly reduce your installation time and cost.

# **Tin Roof System**





#### Benefits

#### Easy Installation

D-module can be installed onto our VS Rail from any position. Systems can be pre-assembled at our factory to save your installtime on-site.

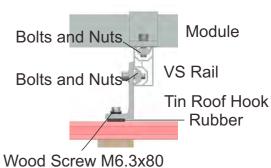
#### Flexibility and Compatible

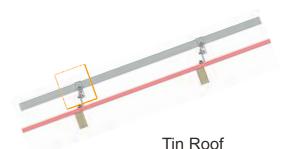
VS Rail and its accessories can be installed with most type of solar panels under different conditions.

#### Safety and Reliability

The racking systems can withstand various weather conditions and are complied with the A1S/NZS 170 and other international structure load standards. The main support components have also been tested to guarantee its structural stability and weight and wind load capacities.

#### End Clamp





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Install Site	Pitched Roof
Tilt Angle	Flushed with the roof,up to 60deg
<b>Building Height</b>	up to 20m
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m²
Standards	AS/NZS 1170 & DIN 1055 & Other
Material	Aluminum alloy & Stainless Steel
Color	Natural
Anti-corrosive	Anodized
Warranty	10 years warranty
Duration	More than 20 years





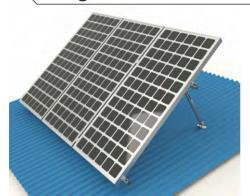


# VØSLAR

## Introduction

VS Flat Roof Racking system is developed to mount solar module in a certain tilt angle on a flat roof or ground. You can have the fixed or adjustable angle solution of 10-15deg, 15-30deg and 30-60deg according to your project requirement.VS series product have the innovative aluminum rail,D-module,clamps and legs which can be preassembled to make the installation easy and quick for significant savings of labor cost.Besides,the customized length of rail will not require onsite welding and cutting to maintain the appearance entirety, structural strength and ensure anti-corrosive performance.

# **Adjustable Tilt System**





Item No.	Description
VS-AD-FL	AD Front Leg
VS-AD-RL10/15	AD Rear Leg 10/15 deg
VS-AD-RL15/30	AD Rear Leg 15/30 deg
VS-AD-RL30/60	AD Rear Leg 30/60 deg



VS-AD-FL VS-AD-RL

#### **Benefits**

#### Easy Installation

D-module can be installed onto our VS Rail from any position. Systems can be pre-assembled at our factory to save your installtime on-site.

#### Flexibility and Compatible

VS Rail and its accessories can be installed with most type of solar panels under different conditions.

#### Safety and Reliability

The racking systems can withstand various weather conditions and are complied with the A1S/NZS 170 and other international structure load standards. The main support components have also been tested to guarantee its structural stability and weight and wind load capacities.

### Technical Information

Install Site	Low profile roof or open field
Tilt Angle	10deg ~ 60deg
Building Height	up to 20m
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m²
Standards	AS/NZS 1170 & DIN 1055 & Other
Material	Aluminum alloy & Stainless steel
Color	Natural
Anti-corrosive	Anodized
Warranty	10 years warranty
Duration	More than 20 years

## Introduction

VS Flat Roof Racking system is developed to mount solar module in a certain tilt angle on a flat roof or ground. You can have the fixed or adjustable angle solution of 10-15deg, 15-30deg and 30-60deg according to your project requirement.VS series product have the innovative aluminum rail,D-module,clamps and legs which can be preassembled to make the installation easy and quick for significant savings of labor cost.Besides,the customized length of rail will not require onsite welding and cutting to maintain the appearance entirety, structural strength and ensure anti-corrosive performance.

# **Fold Tri-Bracket System**





Fixed System

Adjustable System

#### Benefits

#### Easy Installation

D-module can be installed onto our VS Rail from any position. Systems can be pre-assembled at our factory to save your installtime on-site.

#### Flexibility and Compatible

VS Rail and its accessories can be installed with most type of solar panels under different conditions.

#### Safety and Reliability

The racking systems can withstand various weather conditions and are complied with the A1S/NZS 170 and other international structure load standards. The main support components have also been tested to guarantee its structural stability and weight and wind load capacities.

Technical	Information
Install Site	Low profile roof or open field
Tilt Angle	10deg ~ 60deg
<b>Building Height</b>	up to 20m
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m²
Standards	AS/NZS 1170 & DIN 1055 & Other
Material	Aluminum alloy & Stainless steel
Color	Natural
Anti-corrosive	Anodized
Warranty	10 years warranty
Duration	More than 20 years



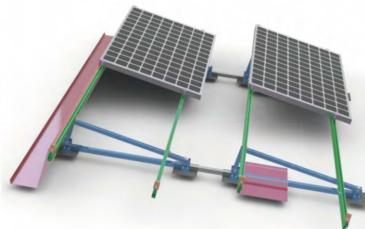


# BALLASTED MOUNTING SYSTEM

## Introduction

VS Ballasted Mounting System is a highly engineered solution that secures the array without damaging the flat roof. It is compatible with the usual framed modules and typically does not require roof penetration. Made of light weight and strong aluminum construction, the VS ballasted solution components are pre-assembled and trimmed to prevent corrosion and save your installation time and labor cost.





### Benefits

#### Easy Installation

D-module can be installed onto our VS Rail from any position. Systems can be pre-assembled at our factory to save your installtime on-site.

#### Flexibility and Compatible

VS Rail and its accessories can be installed with most type of solar panels under different conditions.

#### Safety and Reliability

The racking systems can withstand various weather conditions and are complied with the A1S/NZS 170 and other international structure load standards. The main support components have also been tested to guarantee its structural stability and weight and wind load capacities.

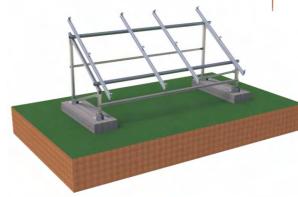
Technical	Information
Install Site	Low profile roof or open field
Tilt Angle	10deg, 15deg, 20deg
<b>Building Height</b>	up to 20m
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m²
Standards	AS/NZS 1170 & DIN 1055 & Other
Material	Aluminum Alloy & StainlessSteel
Color	Natural
Anti-corrosive	Anodized
Warranty	10 years warranty
Duration	More than 20 years



## Introduction

VS AL-Ground Mounting System is made of 100% aluminum for mounting on concrete strip foundations or ground screws. It is featured with light weight, strong structure, and recyclable material. With VS AL-Ground Mounting System, Beam, legs and rails are manufactured and pre-assembled in the factory avoid welding and cutting onsite to save installation cost. Our mission is to simplify your installation and ensure the structure safety.







#### Benefits

#### Easy Installation

Parts have been pre-assembled at factory to save your installation time.

#### Safety and Reliability

The structure is designed and tested strictly against the extreme weather simulations.

#### Flexibility and Adjustable

Smart design reduces the difficulty of the installation on most condition.

#### 10 Years Warranty

Titanergy provides a 10-years warranty for the material and structure.

Technical	Information
	O F: 1.1

Install Site	Open Field
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m²
Module Type	Framed or Frameless
Module Orientation	Portrait
Main Material	Anodized Aluminum
Fasten Material	Stainless Steel
Foundation	Concrete With Pre-Buried Bolts
	Ground Screw







# Introduction

VS C-Steel Mounting System is applicable for solar photovoltaic systems on open fields. The steadiness and safety of this system is compilable with the international structural mechanics and construction standards. The system can be modified to suit different foundation solutions, such as concrete with pre-buried bolt, direct buried and ground screws.Material used include hot galvanized steel and anodized aluminum alloy, with anti-corrosive coating suitable for outdoor application. As per practical requirements, the system is able to be planned and customized at the factory to avoid welding and cutting onsite.



#### Benefits

#### Easy Installation

Engineered and assembled at the factory to save your time and cost.

#### Steady and Safety

Our systems are designed in accordance to the international structural mechanics and construction standards.

#### **Excellent Duration**

All raw materials are coated with high quality anticorrosion protection.

#### **Great Flexibility**

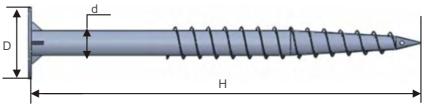
With our mounting system, ground mount solar arrays can be planned on a per kilowatt or magawatt cluster basis.

Technical Information		
Install Site	Open Field	
Tilt Angle	10deg ~ 60deg	
<b>Building Height</b>	up to 20m	
Max Wind Speed	up to 60m/s	
Snow Load	up to 1.4KN/m²	
Standards	AS/NZS 1170 & DIN 1055 & Other	
Main Material	Galvanized Steel	
Color	Natural	
Anti-corrosive	Hot Galvanized	
Warranty	10 years warranty	
Duration	More than 20 years	

# GROUND SCREW

### Ground Screw with Flange Plate

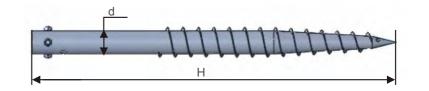
Item No.	D(mm)	d(mm)	H(mm)
VS-GS-F-1200	220	76	1200
VS-GS-F-1600	220	76	1600
VS-GS-F-2000	220	76	2000
VS-GS-F-2400	220	76	2400





### Ground Screw without Flange Plate

Item No.	d(mm)	H(mm)
VS-GS-1200	76	1200
VS-GS-1600	76	1600
VS-GS-F-2000	76	2000
VS-GS-F-2400	76	2400



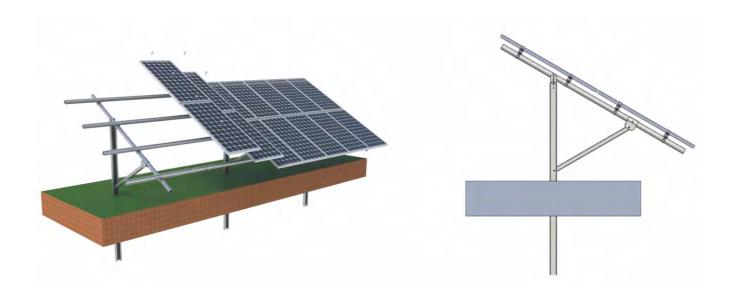




# PILE-GROUND MOUNTING SYSTEM

# Introduction

VS Pile Ground System is designed for large scale commercial and utility PV systems on non-soil ground, suitable for both framed and frameless module installation. Open Post can be pile into the ground 1-2 meters by piling machine quickly, then Al-Beam structure and B-Rail with clamps can be easily mounted onto the system. Our mission is to simplify your installation and ensure the structure safety.



#### Benefits

#### Easy Installation

Parts have been pre-assembled at factory to save your installation time.

#### Safety and Reliability

The structure is designed and tested strictly against the extreme weather simulations.

#### Flexibility and Adjustable

Smart design reduces the difficulty of the installation in most conditions.

#### 10 Years Warranty

Voslar provides a 10-years warranty for the material and structure.

Technical	Information
Install Site	Open Field
Max Wind Speed	up to 60m/s
Snow Load	up to 1.4KN/m²
Module Type	Framed or Frameless
Module Orientation	Portrait
Rail Material	Anodized Aluminum
Post Material	Hot-dip Galvanized Steel
	Post Height Deviation: 10mm
Adjustability	Post Angle Deviation: 2°
	Post Verticality Deviation: 2°
	Pile Driving Depth: 1000~2000mm
Soil Condition	Non-Sandy



# Introduction

VS Pole Mount System is designed to install solar panels on a single pole. According to different conditions, several kinds of solutions are available. VS Pole Mount System takes the importance of safety and duration. The systems have been engineered and tested to comply with the structural mechanics standards. Material used include hot galvanized steel and anodized aluminum alloy, with high qualityanti-corrosive coating suitable for outdoor applications.





#### Benefits

#### Easy Installation

Integrated Design with the support pole to minimize time and cost of installation.

#### Steady and Safety

Designed and tested in according to the structural mechanics and construction standards.

#### **Excellence Duration**

All the material selected have high quality anticorrosion protection.

#### **Great Flexibility**

Tilt angle can be adjusted according to the actual criteria quality for the projects.

Technical Information	
Install	Open Field
Tilt Angle	10deg~60deg
Building Height	20 meters
Max Wind Speed	Up to 60m/s
Max Snow Load	up to 1.4KN/m²
Standard	AS/NZS1170 and other
Post Material	Galvanized Steel
Rail Steel	Anodized Aluminum
Warranty10	10 Years Warranty









