

VAN DER VALK



Solar mounting systems for open fields



Modular design • **Rapid and simple installation**

Every required angle of inclination • Innovative, high-quality and durable

Developed in accordance with the Eurocode standard • **Reliable**

Suitable for every type of solar panel • Rapid, reliable delivery

We support your investment

Customised power station

As the efficiency of solar systems is largely dependent on the mounting system in which they are fitted, Van der Valk Solar Systems decided to specialise in mounting systems. The results are evident in systems that distinguish themselves in terms of their durability, reliability and ease of assembly, as well as their range of applications. Van der Valk Solar Systems has developed a complete range of fixed and tracking systems suitable for virtually every conceivable base, such as open fields, roofs and water features. Moreover, Van der Valk is, above all, a consultant who can carry out the calculations and prepare the drawings required to offer you the most efficient system in every unique situation – a customised power station wherever the sun shines. In this brochure we are delighted to tell you more about our fixed mounting system for applications in open fields.



Reliable and safe to operate

In collaboration with TNO (the independent research agency in the Netherlands), the SolarTop calculation programme was developed. The different variables available (geometry, maximal local wind load, type of foundation, etc.) are used to calculate all of the factors that influence the reliability of the system, such as the necessary construction strength, the optimal number of points of support and the most economic type of foundation. Our systems are extensively tested in Computational Fluid Dynamics simulations (CFD), in which they are exposed to air flows and turbulence corresponding to wind force Beaufort 12. Our mounting systems have also been tested by TÜV Rheinland.



OUR UNIQUE DESIGN TOOL MAKES EVERYTHING CLEAR IN JUST 3 SIMPLE STEPS!

Van der Valk Solar Systems developed a unique software tool, the 1-2-3 PV Planner, that enables dealers, installation companies and project organizations to carry out rapid project calculations and provide you substantiated advice on the foundation method that will be required for your specific project. This software can be used to prepare complete projects in just 3 simple steps:

Step 1

Project information

Enter the standard project information, such as the reference number, location and the discount.

Step 2

Design center

Make the drawings for the project. The drawings are then used to generate the complete calculations.

Step 3

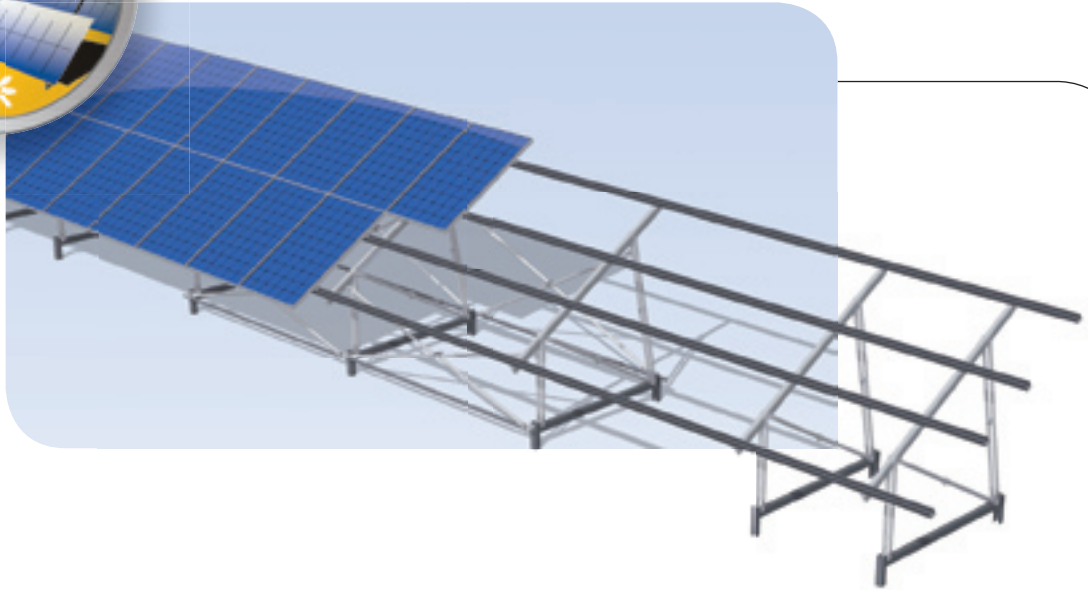
Foundation center

Determine the foundation that will be required on the basis of the location's dimensions. This calculation is based on the prevailing standards integrated in the design tool in consultation with TNO.

The installer's assembly instructions for the each project can also be printed. For certain systems the 1-2-3 PV Planner is still under construction. Please ask for the possibilities.

Van der Valk **Fixed Field**

In every situation the best obtainable energy yield



Open fields are well suited as a location for solar installations. Along with providing many square meters of surface area, they also have the space required to place the installations in the most favourable position facing the sun. The Van der Valk Fixed Field is a flexible system that can be easily adjusted to fit any space. The Van der Valk Fixed Field gets the highest energy yield and return possible.

A complete Fixed Field system is constructed of multiple sections. Depending on the wind and snow loads, the length of the sections can be extended, resulting in fewer foundation points. The maximal length of one row is app. 65 meters. Long rows are dilated to compensate for expansion and contraction. In this way, optimal use is made of the available surface area in the field. The system can be mounted on virtually any surface. The foundation can be secured with groundscrews, concrete base or ballast. The calculations for each system are done with the SolarTop calculation programme developed jointly with TNO and TÜV.

Suitable for every type of solar panel

The clever construction of the underframe makes the Van der Valk Field system suitable for all types of solar panels, including glass panels (without frame). They can be fixed with special glass clamps. Thanks to the modular construction, there is the option to mount a second row of panels above the first. According to possible height limitations the ideal system can be selected.



The distance between the foundation points depends on the wind and snow loads. Typical distances range between 3 and 4 meters.



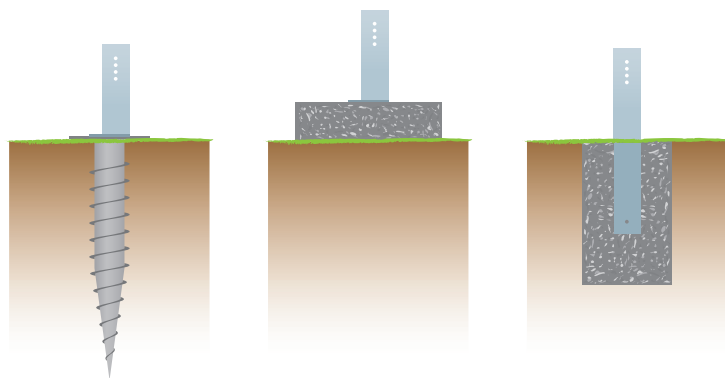
All components used, such as the unique and patented panel clamp, are calculated according to the SolarTop calculation programme developed jointly with TNO and TÜV.

Lightweight tubular frame

The underframe for the sections consists of a lightweight tubular frame that can be extended simply and almost without limit. The anodised tubes are produced on a unique machine, and each tube meets all applicable regulations and standards. As the tubes can be manufactured to exactly the correct length, it is possible to achieve any desired tilt angle. All of the other materials are also made to the exact length specified and prepunched with holes at the correct places. Sawing and drilling during installation belong to the past, and the system can only be put together in one way. Ease and speed of mounting are additional important benefits of the Van der Valk Fixed Field system. Especially because of the lightweight materials, the system can be simply put together without heavy machinery, which is reflected in its affordability.

Firm foundation

The underlying goal when developing the Van der Valk Fixed Field was making a system suitable for mounting on any surface. Whether concrete, a 'loose' or 'fixed' surface, the Van der Valk Fixed Field can always be secured and has front and back support for maximum stability. It can be secured with groundscrews, concrete base or ballast in the form of concrete blocks.



Groundscrew

Ballast system

Concrete foundation

Van der Valk Fixed Field-Single Row

The Single Row system is a field mounting system in which not two but just one solar panel is mounted 'on top of each other'. The system is eminently suitable for situations in which local permit restrictions limit the maximum height of the system. Also when the visual aspect is important (for example in the back garden), this system can offer a solution. With the low height of the Van der Valk Fixed Field-Single Row system, the wind load is minimal. This allows the use of a lighter foundation, selected from the range of previously listed foundation methods. The construction, which has even fewer components than the two-panel system, is striking because of the ease and rapidity with which it can be installed.

High flexibility

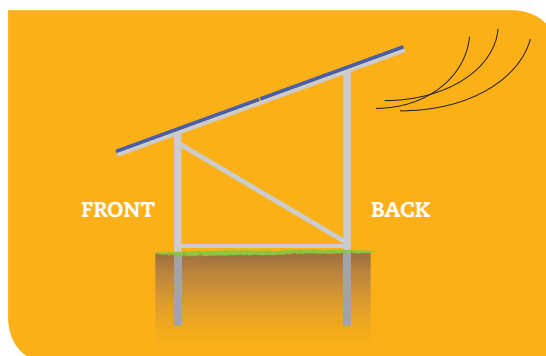
The modular construction makes the Van der Valk Fixed Field extremely flexible. For optimal use of the space and the highest energy yield, the length, width and height of the units can be closely matched to the specific conditions.

Long lifespan

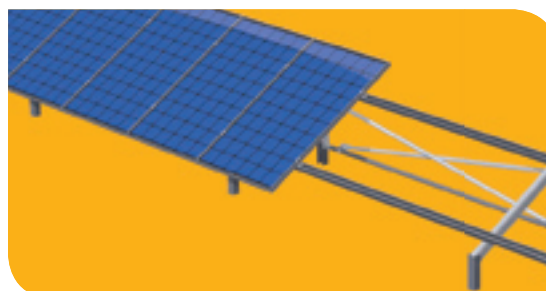
The Van der Valk Fixed Field is constructed of sustainable materials, like anodised aluminium and stainless steel fastening components. In addition, the system has a well-tested construction that strongly withstands extreme weather conditions.

Reliable

The use of high-quality materials and the simple but robust construction ensure that the Van der Valk Fixed Field system is extremely reliable.



The Van der Valk Fixed Field has front and back support and is suitable for mounting on any surface and can withstand severe gusting.

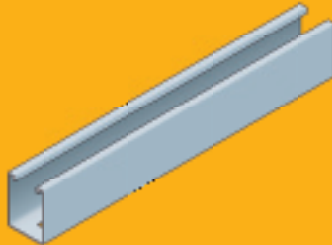


The low height of the Single Row system may offer you a solution in areas with strict local permit specifications.

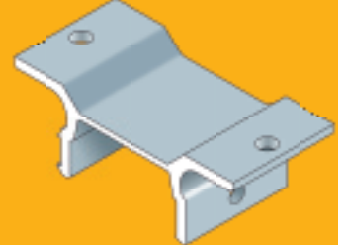
Our unique components



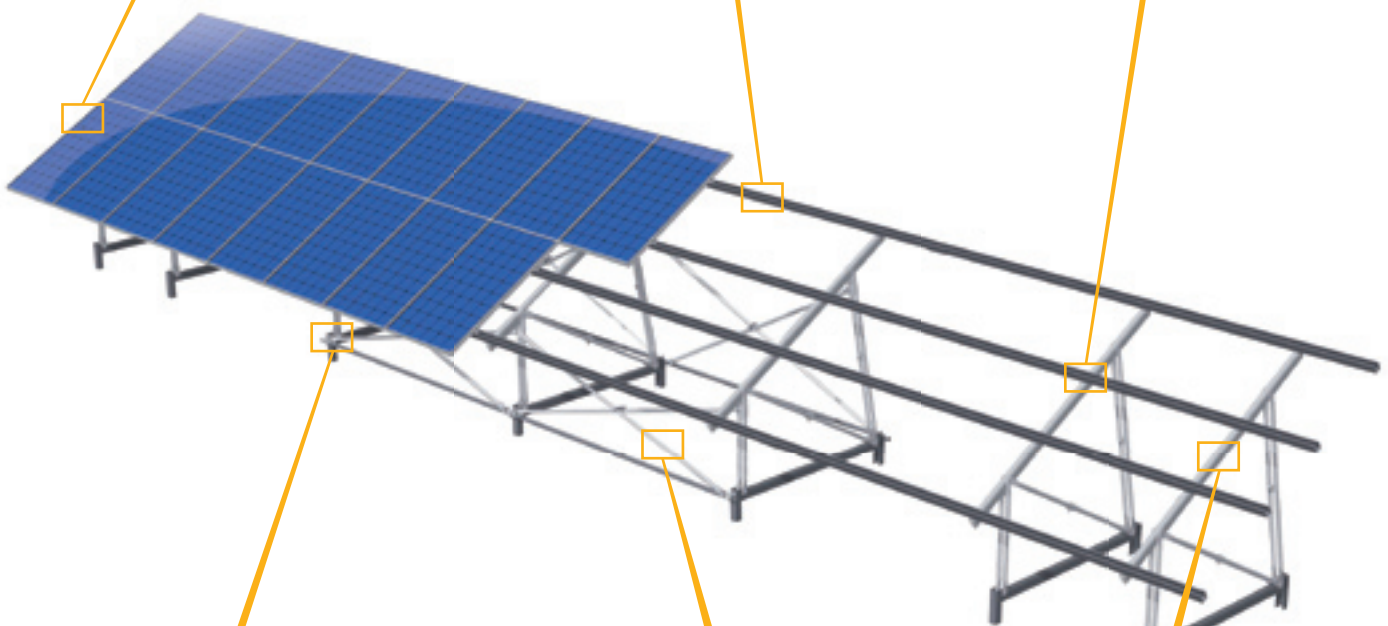
Panel clamps are delivered premounted and are independent of the panel height. There are special clamps for the outer sides.



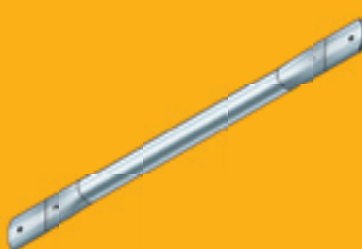
The special **C-girders** provide an extremely sustainable and firm support for the solar panels. With their special corrosion treatment, they are also suitable for installations on the coast.



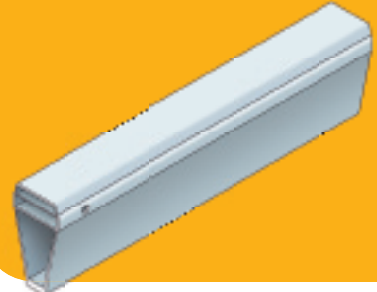
For a quick and strong connection of the C-girders and aluminium carriers, the **carrier clamp** is used.



Double clamps are used to secure the struts, making the system extremely stable in the lateral direction as well.



The underframe of the field system consists of a collection of special anodised aluminium **tubes**. Their strength is calculated to meet the latest Eurocodes.



An important component of the construction is the aluminium **carrier**. This anodised component is prepunched, allowing rapid fastening.

Van der Valk Solar Systems

Van der Valk Solar Systems is a specialist company that is fully focused on developing and producing mounting systems for use with solar panels. To this end we work in close collaboration with Van der Valk Systemen, our sister company. Van der Valk Systemen has been a well-known name in the field of moving systems and stationary components for the greenhouse horticultural sector and industry throughout the world since 1963. Van der Valk Systemen's high quality products have been individually developed from a scientific approach and produced with mathematical precision. They are made to be low-maintenance and to stand out thanks to their durability, reliability, functionality and ease of assembly. Both Van der Valk Systemen and Van der Valk Solar Systems only introduce innovative products to the market. Our shared business complex consists of 20,000 m² of offices and production facilities, in which modern machinery and the latest technologies facilitate development, manufacturing and testing that is fast, flexible and precise.



The mounting systems of Van der Valk Solar Systems are delivered and installed by an extensive network of dealers (installation companies and project organizations). We are happy to help you look for the correct point of contact in your area.

VAN DER VALK SOLAR SYSTEMS OFFERS YOU:

- **Innovative systems of European quality**
- **Rapid, reliable deliveries**
- **Maximum technical support**
- **Tracking and fixed mounting systems for:**



Open fields



Pitched roofs



Flat roofs



Greenhouses



Water features

VAN DER VALK



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PLEASE CONTACT VAN DER VALK SOLAR SYSTEMS, YOUR INSTALLATION COMPANY OR PROJECT ORGANIZATION FOR FULL INFORMATION.