



## **User manual**



# ValkPVplanner

www.valkpvplanner.com

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## 1. Adding a new product

To add a new product (module), navigate to the **Products** section and click the blue "**Add Product**" button located at the top right corner.



This will open the product input screen.



#### 1.1 Product information

• Product name:

The name of the product as it will appear in the product list.

• Article number:

Internal reference code for identifying the product.

• Distributor reference:

Code used by the supplier or distributor for this product.

• Product sheet:

URL linking to the technical datasheet or detailed product page.

• Product description:

A brief description of the product, typically including key specifications (e.g., capacity in watts).

• Product image:

Upload a product image (allowed formats: PNG, JPG, JPEG).

Select category:

Assign the product to a system category.

• Modules:

Photovoltaic (PV) modules, commonly referred to as solar panels.

• Inverters:

Convert dc from solar panels into AC.

• Structures (mounting systems):

Frames and fixings used to mount panels on roofs, facades, or the ground.

• Optimizers:

Devices that enhance performance of individual panels, especially under shading.

• Select manufacturer:

Choose the manufacturer from the list or add a new one.

#### 1.2 Price defenition

- Cost type:
  - Enter the fixed cost per unit.
- Unit purchase cost:
  - Specify the purchase price per unit.

**Note:** Van der Valk Solar Systems only adds solar panels with a unit cost of "0,00" to the general product database.

- Product margin:
  - Enter the desired profit margin as a percentage.
- Apply VAT:
  - Select this option if VAT should be included in the final selling price.
- Selling price (incl. VAT):
  - This value is calculated automatically based on the cost, margin and VAT settings.

Price definition		
Select cost type		
Plain cost	× w	F
Insert unit product cost *		
100,0000	<b></b>	Ē
Apply a personalized margin		
Product margin		
0,00	9	6
Apply VAT		
product VAT		
0,00	9	6
Sales price (incl. VAT)	€ 100,0	o

#### 1.3 Technical specifications for solar panels

It is recommended to have the manufacturer's datasheet available when entering specifications to ensure the accuracy of the information provided.

This section is used to input the technical specifications of a solar module.

- Module power (Wp):
  - Nominal power output of the panel in watt-peak.
- Efficiency type:
- Classification of the panel's energy conversion efficiency.
- Dimensions:
  - Physical measurements: length, width and thickness in millimeters.
- Module weight:
  - Weight of a single panel in kilograms.
- Panel color:
  - Stated color of the panel surface.
- Module type:
  - Structural format of the panel (e.g., framed, frameless).

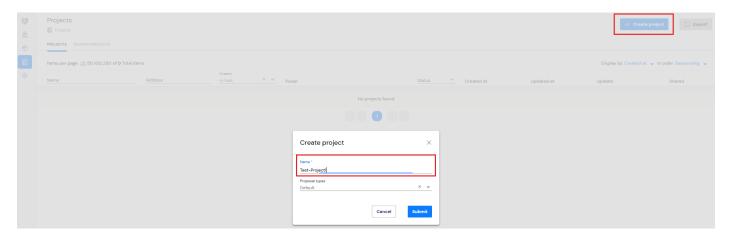
Once all required information has been entered, click 'Save product' to complete the process.

Additional information	
Module power	
300	Wp
Efficiency type	
Medium	× *
Module length	
1.722	mm
Module width	
1.134	mm
Module thickness	
30	mm
Module weight	
22,00	kg

The newly created product will now appear in the product list and can be found using the search function.

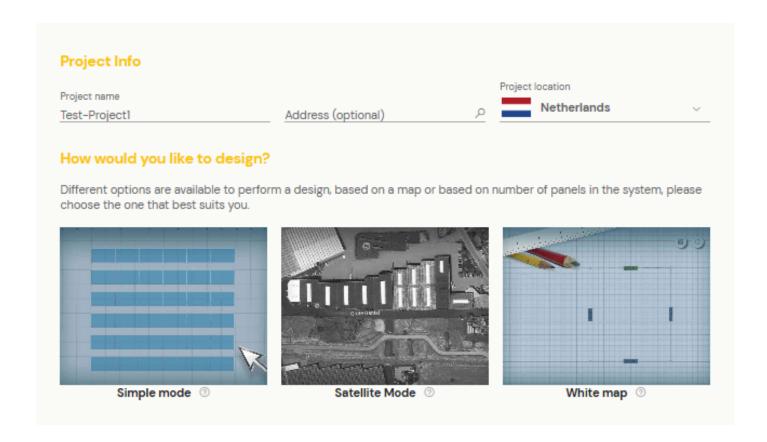
## 2. Creating a new project

To create a new project, navigate to the **Projects** section and click the blue "**Create project**" button located at the top right corner. After this create project window appear.



Enter the project name and select the proposal type "default". Click **Submit** to create the project.

Once the project is created, you will be directed to the **Project info** interface. Here, you can edit the project name and optionally add the address. Please note that Satellite Mode requires an address to function.



It offers three design modes to support different project scenarios:

#### Simple mode

A basic design mode with limited tools. Suitable for quick price estimations. Note: this mode assumes all panels are placed in the middle zone of the roof, which may not reflect accurate placement. Edge and corner zones cannot be defined in this mode and are calculated as middle zone by default.

#### Satellite map

Allows PV system design using satellite imagery. Users can trace the roof layout and place panels accordingly. An address is required to activate this mode.

#### White map

Provides a blank grid for system design, ideal for new buildings or locations without satellite imagery.

#### Configuring the project

For this example, **Satellite map** is selected. After the project is loaded, the system automatically directs you to the **Workspace** view.

In the workspace, you can begin configuring the technical aspects of the system design, including module layout, environmental settings, and other project parameters.

#### 2.1 Workspace

• Module model

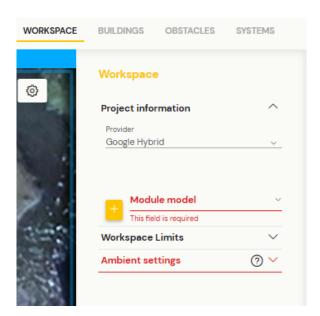
Select the solar panel model to be used in the design. The most recently added modules appear at the top of the list.

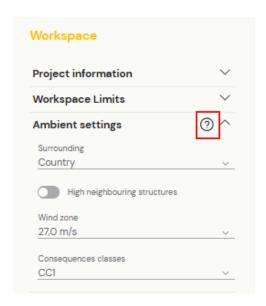
Note: The selected panel type applies to all roofs in the project. Changing the module after roof layouts have been created will reset the layout.

#### Ambient settings

Set environmental parameters relevant to wind load, terrain type, and structural risk classifications. These influence the mechanical calculations performed by the system.

The Ambient settings panel includes multiple inputs that affect wind calculations and ballast requirements. You can click the help icon next to this section for detailed help and guidance directly within the tool.





**Surrounding:** select the terrain category for the project location. The available terrain categories are country-specific. Please refer to the country's national annex of EN 1991-1-4 (wind actions) for detailed terrain category definitions. Additional information is accessible through the help ? icon.

High neighbouring structures: enable this if tall buildings or significant obstacles are located near the installation site. These can increase wind turbulence, affecting the ballast calculation. In such cases, complete your project and send the generated report to Van der Valk Solar Systems for a tailored recommendation.

Wind zone/basic wind speed: for most locations, this value is automatically pre-filled based on the project address. It represents the standard wind speed applicable to the site. It is always important to check this value and manually adjust in case of doubt.

**Consequences class:** defines the structural risk category of the installation.

- **CC1**: Low-risk classification (e.g., standard residential).
- CC2 / CC3: Higher-risk environments.

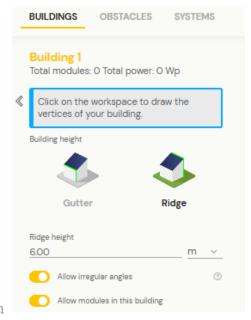
The ValkPVplanner supports calculations for **CC1**.

For **CC2** or **CC3**, a warning will be displayed, and a manual review of the report by Van der Valk Systems is required to finalize ballast recommendations.

#### 2.2 Buildings

In this section, you will draw the vertices of your building and configure building parameters.

- Drawing the building
  - Click on the workspace to define the outline of the building by selecting its corners (vertices). This forms the base for placing solar modules on the roof area.
- Building height options
  - Select either **Gutter** or **Ridge** to define the reference point for measuring the building height, as illustrated in the image. The ValkPVplanner supports height calculations up to 25 meters. If the actual height exceeds this limit, set it to 25 meters to generate the report, then contact us with the report for further assistance.
    - **Gutter:** Height from ground level to the roof edge or parapet.
    - Ridge: Height from ground level to the highest point of the building structure. This selection determines the reference point for the Ridge Height value shown in the interface.



#### Allow irregular angles

When enabled, this allows you to draw custom roof shapes with angles ranging from 0° to 360°. Disabling this feature restricts all angles to 90°, creating rectangular or square shapes only.

Allow modules in this building

Activate this setting to permit module placement on the selected building shape.

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#### **Snap options**

On the left side of the screen, **Snap Options** are available to assist with precise alignment when drawing buildings. This section includes various tools and actions, each clearly labeled with its function.



#### Roof configuration options

Once the roof has been drawn, additional configuration options will appear.



#### Roof type

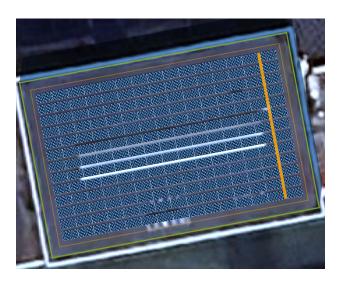
Select the type of roof from the following options: flat, pent, pyramid, pergola, hipped, gable and custom.

#### Roof specification

Choose the roofing material. It determines which mounting articles are compatible with the roof type. Available materials include: bitumen, EPDM, PVC, TPO/FPO, sedum and concrete.

#### Structure

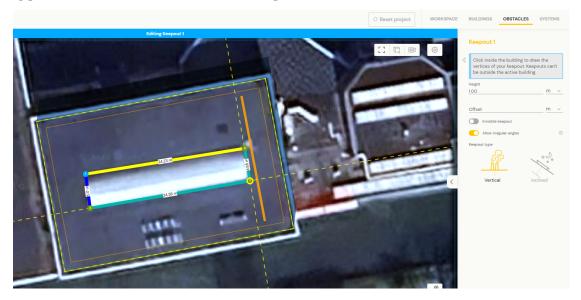
Use the **Gravel Present** toggle to indicate whether the roof has a gravel layer. The system can be installed without removing the gravel by using rubber elevation blocks.



Now you see that solar panels are automatically added and edge zone also been calculated. On right side again you find different edit option for roof settings. The panels advanced settings will be configured in **Systems** section.

#### 2.3 Obstacles

In this section, you can define obstacle zones on the roof that affect module placement. Two types of obstacles can be added: keepouts and trees.



#### Keepout

Represents any physical object or zone on the roof that must remain free of solar panels. Such as chimneys, vents, skylights, or service areas. Keepouts are added by drawing a polygon directly on the roof layout.

#### Additional settings:

- Height: specify the height of the obstacle in meters.
- Offset: define additional spacing around the keepout zone.
- Invisible keepout: if enabled, the zone won't appear visually in the layout but will still prevent module placement.
- Allow irregular angles: allows custom angles when drawing the shape.
- Keepout type: ahoose between vertical (e.g. chimney, pipe) or inclined (e.g. pitched roof areas).

#### Trees

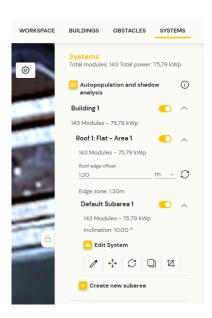
Trees can be added as shading obstacles. You can adjust their height, radius, and shape to reflect the conditions around the building using the available configuration options.

#### 2.4 Systems

In the **Systems** section, you define the layout and configuration of the solar modules on each building area. It provides a visual overview of total modules and power per building and subarea.

#### Auto-population and shadow analysis

This tool performs shadow and irradiation calculations to determine the optimal number and placement of modules. You can define a minimum irradiation threshold (%) to control which areas are considered suitable. Once configured, the auto-populate function places modules accordingly within the selected subarea.



#### Building and roof areas

Modules are organized under each building and roof area.

- Roof edge offset: sets the minimum distance from the edge of the roof.
- Edge zone: defines the restricted border zone where no modules will be placed.

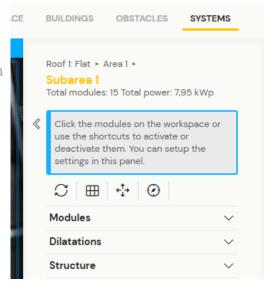
#### Subarea configuration

Each roof area can contain one or more subareas for module layout. To edit a subarea, click directly on it in the workspace. This opens the subarea editing view, where you can customize key layout, spacing, and system configuration parameters.

The subarea configuration panel includes the following sections:

#### Modules

This section defines how solar panels are arranged within the selected subarea. It includes options for orientation (such as landscape or portrait), the direction the structure faces, the inclination angle, the spacing between modules and rows, and the pitch distance, which determines the horizontal spacing of tilted modules.



#### **Dilatations**

This section allows you to enable and configure dilatation lines, which are intentional gaps between module rows or columns to allow for thermal expansion and installation flexibility. You can set spacing thresholds, offsets, and the width/height of these gaps.

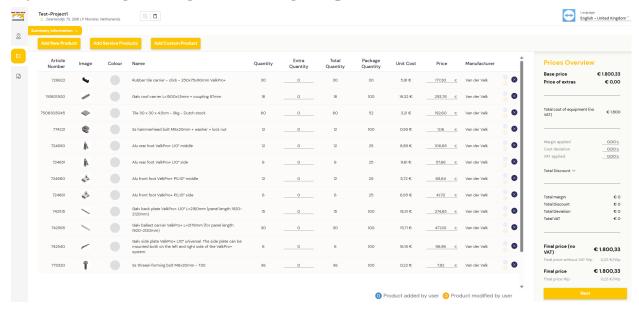
#### Structure

This section is used to configure the mounting system parameters. It includes the type of system and foundation (such as clamps or tile carriers), the color finish of the mounting system, and the option to include additional elements like micro-inverter clamps, ballast tiles, or side panels in the bill of materials.

These settings apply only to the currently selected subarea. To apply the same configuration to other subareas, each must be selected and configured separately.

#### 2.5 Product summary

After completing the system configuration, the next step is the **Product Summary** screen. This section provides an overview of all components included in the project and allows final adjustments to product quantities and pricing.



Products are listed with details such as article number, image, colour, name, quantity, unit cost, and total price. Each row corresponds to a specific item required for the installation.

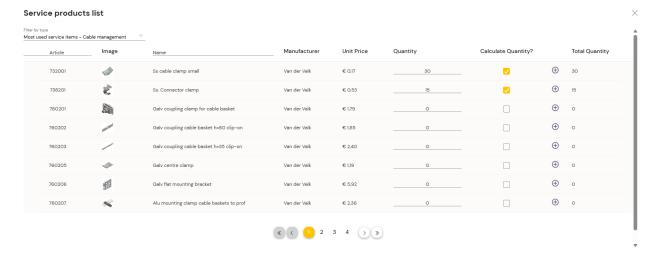
- To increase quantity, enter a positive number (e.g. 10) in the Extra Quantity column.
- To decrease quantity, enter a negative number (e.g. -10) in the same field.

In this section, you can also include additional items using the three action buttons at the top of the table:

- Add new product
  Use this option to add standard system components, such as solar panels from various manufacturers.
- Add custom product
   Enables you to manually define and add items that are not available in the standard product catalogue.
- Add service product
  Allows you to include service-related items, such as cable management products.

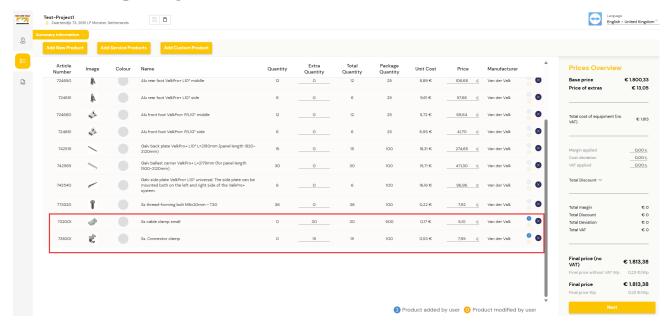
For example, when adding a service product such as Cable Management, enabling the 'Calculate Quantity?' checkbox will give a suggestion for the required quantity, based on the system configuration, as shown in the image.

Once configured, click the plus • icon to add the item to the bill of materials.



Once a product is added, it appears in the **Product Summary** table. Products that are manually added by the user are marked with a blue circle, as shown in the legend at the bottom of the screen under the label "**Product added by user**".

To remove a product, click the dark blue icon located at the far right of the corresponding row. This action allows you to manage and update the items included in the bill of materials before finalizing the report.



On the right side of the screen, a **Prices Overview** is displayed, showing the base price, any extra costs, and total value excluding VAT. This helps verify costs before finalizing the proposal or report.

#### 2.6 Reports

In the reports list section, you can generate and download documents related to your project. There are three available report types:



#### • Structural report:

This includes both the **ballast drawing** and **bill of materials** in one combined document. It is ideal when a complete overview is needed for structural or installation planning.

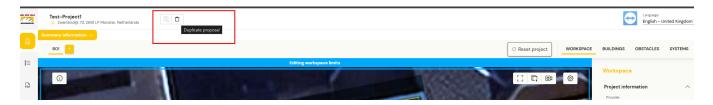
• Ballast drawing and bill of materials (separate downloads):
These can also be downloaded individually if needed. The bill of materials shows detailed pricing, which is not included in the structural report.

On the right side, under **Generate Report**, you can select the report language and choose how **ballast values** are displayed, either in tiles or kilograms, depending on your preference or project requirements.

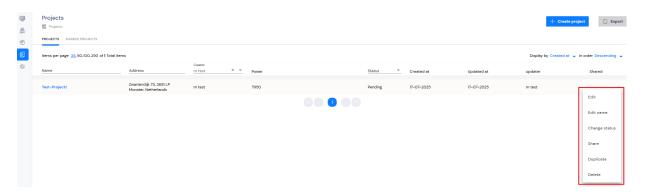
#### 2.7 Duplicating a project

Projects can be duplicated directly from the project editing view or from the main projects overview.

While editing a project, use the 'Duplicate Proposal' button at the top of the screen to create a full copy of the project, including all configurations.

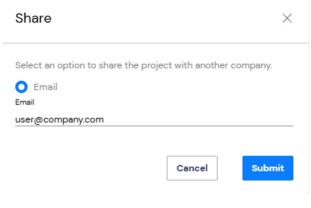


Alternatively, in the projects overview, click the three-dot menu next to the project you want to copy. Select 'Duplicate' from the dropdown menu to create a duplicate project entry.

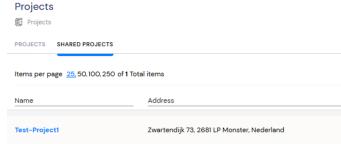


#### 2.8 Sharing a project

In the same action menu (three dots) next to a project, you can also choose 'Share'. When selected, a window will appear where you can enter the email address of the person you want to share the project with. The recipient will receive access to view the shared project.



Shared projects will appear under the 'Shared Projects' tab for the recipients you've granted access to.



## 3. General and company settings

In this section, you can configure essential information related to your organization and reporting preferences. This section is divided into two main areas: **general data** and **general settings**.

#### 3.1 General data

Here you can manage your company's basic information. This includes entering your company name, registration number (CRN), contact details (email, phone), address and time zone.

Additionally, under **Integration and Credentials**, you can configure settings related to API integrations and analytics connections if applicable.

# Settings Settings General settings Dynamic fields

#### 3.2 Logo settings

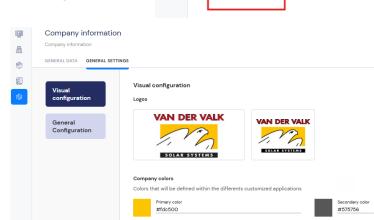
Under **General Settings**, you can adjust the appearance and formatting of your generated reports.

The Visual Configuration tab allows you to upload your company logos and define company colours, ensuring that your reports reflect your brand identity.

The **General Configuration** tab provides options to set currency formats, decimal

and thousands separators, and URLs for privacy policies and legal notices.

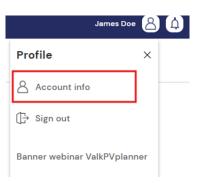
These settings allow you to customize both your company information and the appearance of your final reports.



## 4. User management

This section explains how to manage user settings, update personal information, and manage other users within your company account.

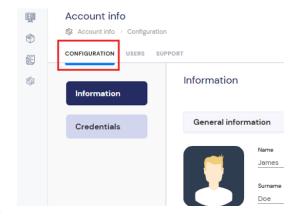
To manage users (add, delete, block) and adjust user permissions, click the profile icon at the top right of the screen and select **Account info**.



#### 4.1 Configuring your account

In the **Configuration** section under **Account info**, you can update your own user settings. These include:

- Email address
- Language preference
- Country
- Roles
- Password (under **Credentials**)





#### 4.2 Changing email and password

In the Credentials section, you can update your email address and password associated with your PVPlanner account.

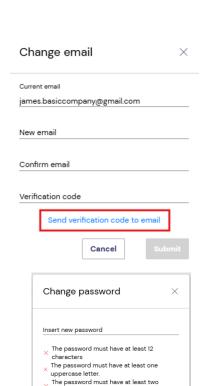
#### Changing your email address

If you wish to use a new email address, it can be updated here. To proceed, you must have access to both your current and new email addresses, as a verification code will be sent for confirmation.

Click 'Send verification code to email' to receive the code and complete the change.

#### Changing your password

Account password can also be updated in this section. A verification code will be sent to your registered email before the new password can be saved.



end verification code to email

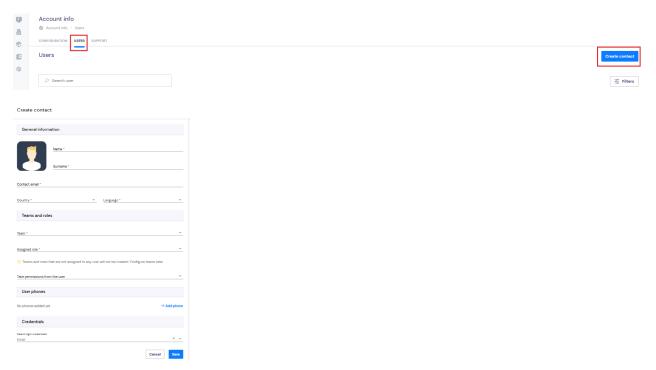
The password must have at least two symbols

Confirm new password

#### 4.3 Adding a new user

Under the **Users** tab in the **Account info** section, you can create a new user account by clicking the **Create contact** button.

The new user will be added under your company account and can be assigned the necessary roles and permissions.



#### 4.4 Managing users

Under the **Users** section, different actions can be performed for each specific user. These actions include editing user information, adjusting permissions, unblocking users, confirming accounts, and deleting users.

#### Unblocking a user

If a user has not logged in for an extended period (typically a couple of months), their account may become **blocked** for security reasons. In such cases, the user can be **unblocked** directly from the user action menu.

Simply select **Unblock User** from the available options next to the user's name.

