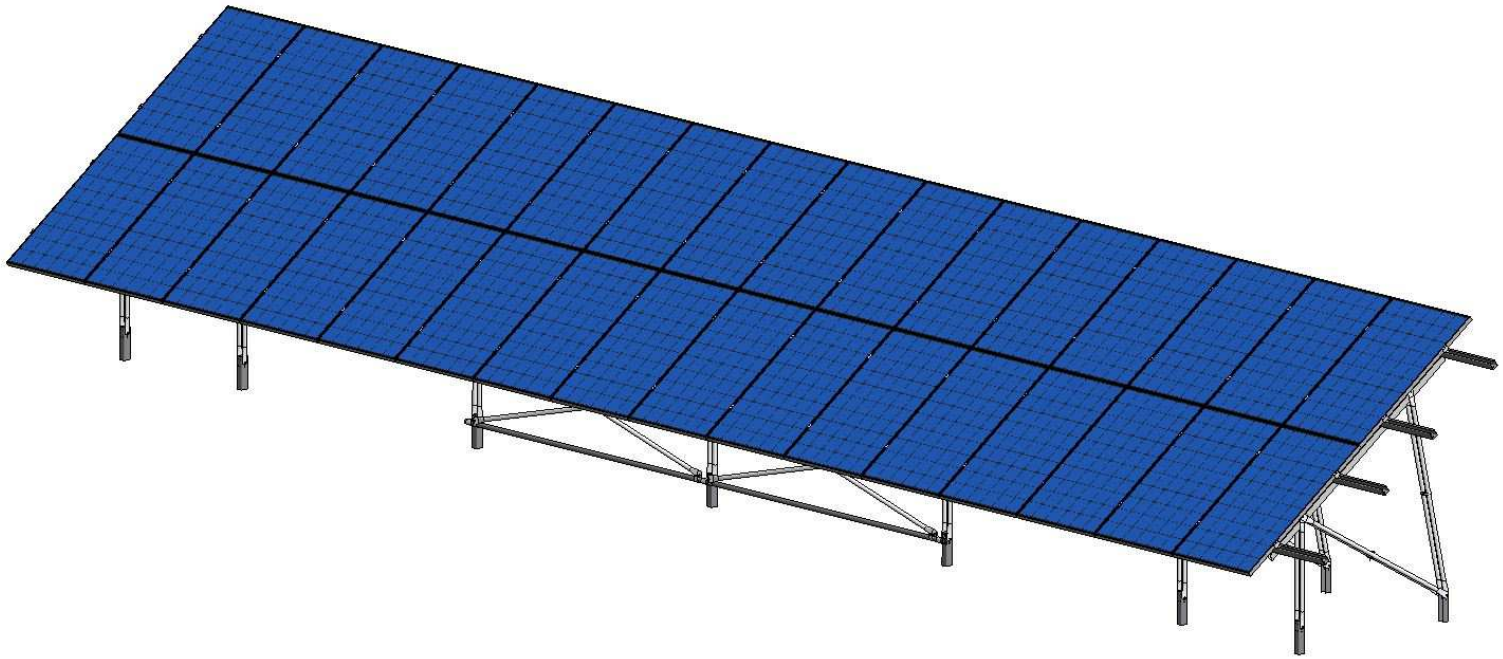
Van der Valk Solar Systems

TRACKING AND FIXED SOLAR MOUNTING SYSTEMS

Installation manual
ValkField - Double Row



Version 11

EN

General user instructions

Solar mounting systems

Congratulations on buying a Van der Valk Solar Systems mounting system and on helping the environment by deciding to install solar panels.

This document must be seen in addition to the installation manual and installation instructions.
* The general user instructions describe general installation and safety instructions.
* The installation manual shows you how to install the solar mounting system.
* The installation instruction gives you specific measures of the engineered mounting system as a result of the 1-2-3 PV Planner.

The instructions provided in these user instructions must be observed at all times. Read these instructions carefully and keep them in a safe place for future reference. Also follow the instructions stated in the manuals and instructions for the other system components that are a part of the overall PV system. All current structural, safety and building regulations must be observed.

Van der Valk Solar Systems B.V. will never be liable for any direct and/or indirect intangible or consequential loss ensuing from or connected to the failure to observe the instructions provided in these user instructions.

Safety instructions for roofs
Solar mounting systems installed on roofs will be exposed to wind and snow.
The building in question will be subject to a greater load as a result of the PV system. A design calculation must be used to establish whether or not the building in question will be able to withstand the extra load. Where necessary, modifications need to be made.

The standards applied (if applicable for specific solar mounting system)

EN 1990	Basis of structural design
EN 1991-1-3	Actions on structures / Snow loads
EN 1991-1-4	Actions on structures / Wind actions
EN 1993-1-1	Design of steel structures / General rules for buildings
EN 1993-1-3	Design of steel structures / Supplementary rules for cold formed members
EN 1997	Geotechnical design
EN 1998-1	Design of structures / General rules, seismic actions and rules for buildings
EN 1999-1-1	Design of aluminium structures
NEN 7250	Solar systems - Integration in roofs and facades - Building aspects (pending)
BS EN 1991-1-4	British Standard

Application
To calculate the needed strength, ballast and foundation of the solar mounting system, according the Eurocodes, the specific location details have to be determined, e.g. wind zone, snow zone and height of the building. These need to be entered in the 1-2-3 PV Planner.
Foundations and strength of field systems are calculated with SolarTop.

Type of solar panel
The Van der Valk Solar Systems mounting systems are universal mounting systems for solar panels. Almost any solar panel with of without an aluminium frame, possibly with mounting holes, can be mounted.

Types of roof
Type of roof covering: bitumen, EPDM, PVC, concrete and other roof coverings. For ballast calculations the exact roof covering must be known.
Before installing the solar mounting system, make sure that you carefully sweep the roof area.
The ballast calculation for flat roofs only applies for roofs with a slight pitch of up to 5°. Above this roof pitch, the system needs to be attached to the roof securely.

Ballast
Flat roof systems can be attached to the roof or need to be supported by ballast, to make sure that the system is unable to move, lift or tip over.
The components supplied do not fully include the ballast required, which will be a number of tiles with a certain measurement and weight.
The number of tiles required per position, per type of solar panel, per roof area and per building height is calculated via the 1-2-3 PV Planner and can be seen in the installation instructions and foundation adivse. The number of tiles specified per position will be vital to ensure that the mounting system can be used safely.

Position
Restrictions also apply for the position of the system on a roof. The solar panels must be installed at a certain distance from the edge of the roof. Follow the scheme in the installation manual calculated by the 1-2-3 PV Planner.

Guarantee
The guarantee provided is subject to the guarantee conditions stated in the general terms and conditions stipulated by Van der Valk Solar Systems BV. Our terms and conditions can be found on our website: www.valksolarsystems.nl.

The ValkBox® 3 mounting system is a product that has been
produced by: Van der Valk Solar Systems B.V.,
Registered with the chamber of commerce for Haaglanden
under number 27355116. Internet: www.valksolarsystems.nl

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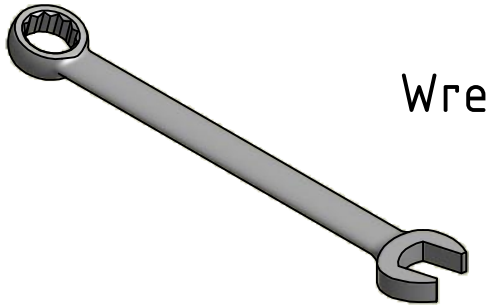
Please Note

- This manual is not project specific.
- This manual is not legally binding.
- No right may be derived from this installation manual.
- Check Datasheet Cable management for cable suggestions.
- Different types of foundation available.
- Check foundation drawing.

Table of contents

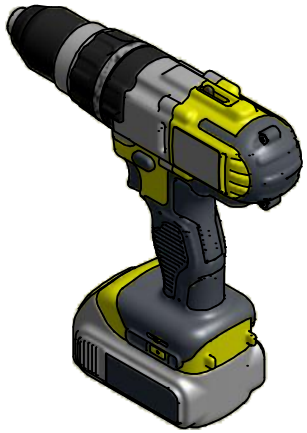
General user instructions	Page	-
Necessary tools	Page	01
Mounting of the U-profile	Page	02
Subassembly A	Page	03
Mounting subassembly A	Page	04
Mounting profiles	Page	05
Mounting supports	Page	06
Mounting of the end caps	Page	07
Mounting panel clamps	Page	08
Mounting of the end caps	Page	09

Necessary Tools For ValkField - Double Row



Wrench 10, 13 and 17

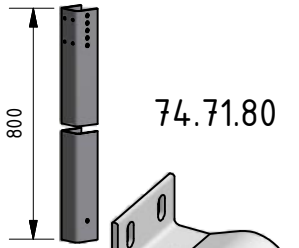
Socket 10, 13 and 17



Cordless drill
(for socket 10, 13 and 17)

Mounting of the U-profile

VAN DER VALK SOLAR SYSTEMS



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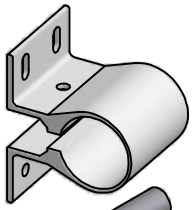

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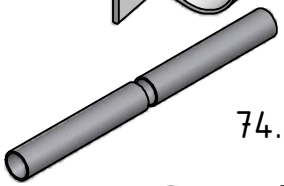

74.69.06100

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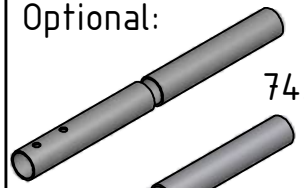
M6x45		77.30.45
M6		77.30.05
M6		77.30.07

Optional:



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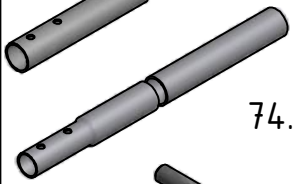

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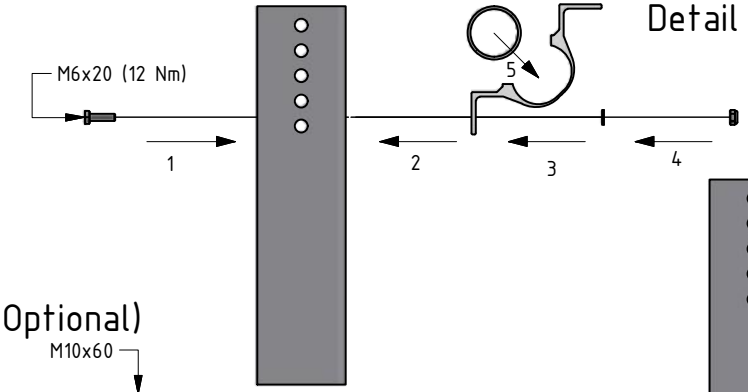
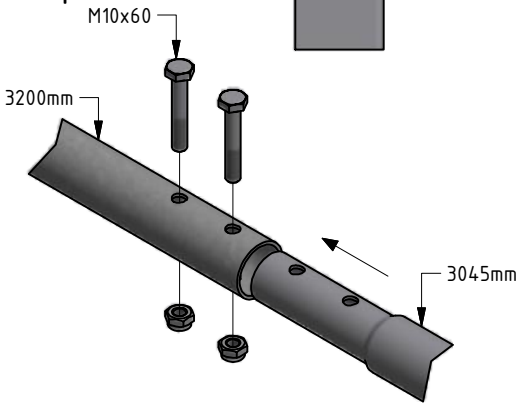
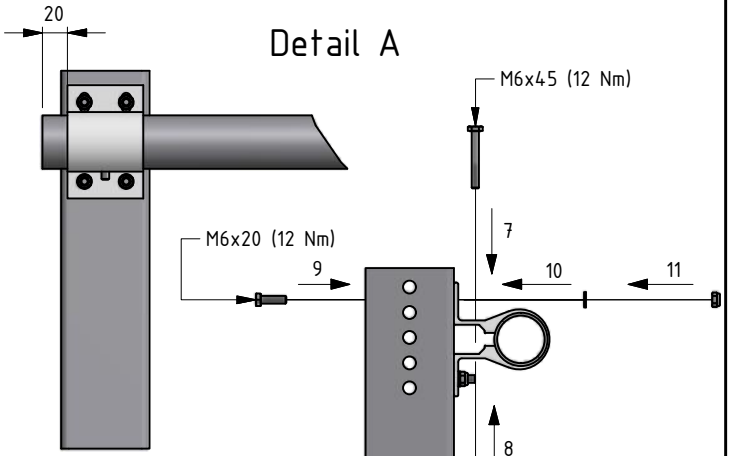
M10		77.50.05



Detail A

B (Optional)





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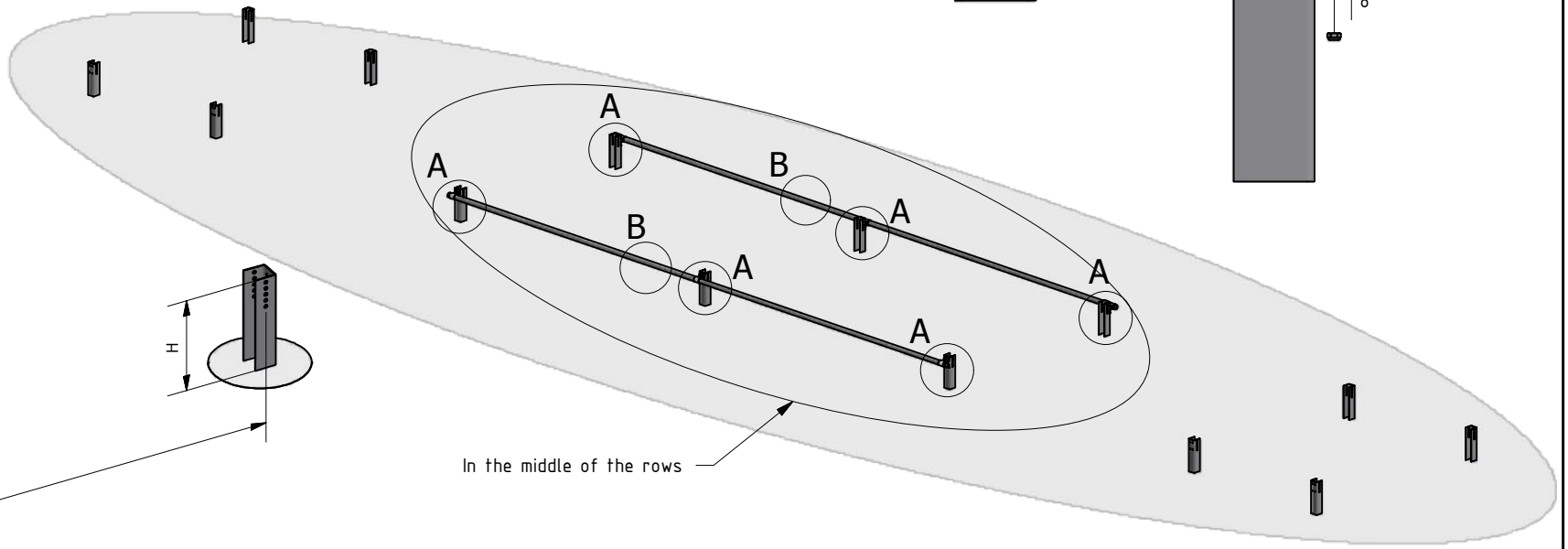
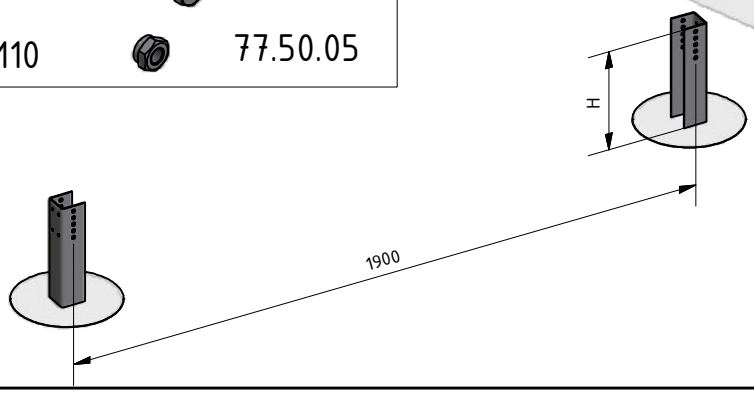
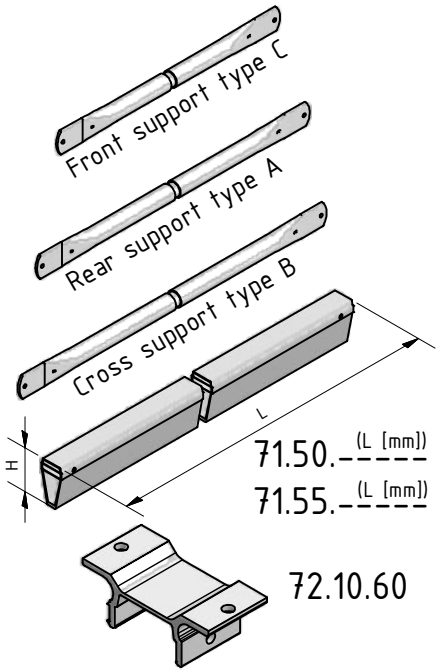




02

Subassembly A

VAN DER VALK SOLAR SYSTEMS



71.50.-----(L [mm]) H=80

71.55.-----(L [mm]) H=106

72.10.60

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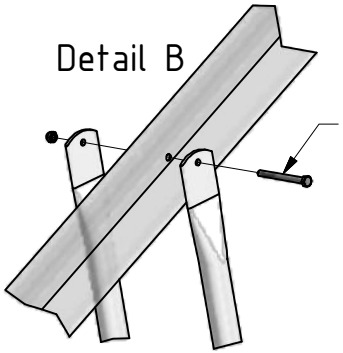
M8x90		77.40.90
M8		77.40.05

Detail B



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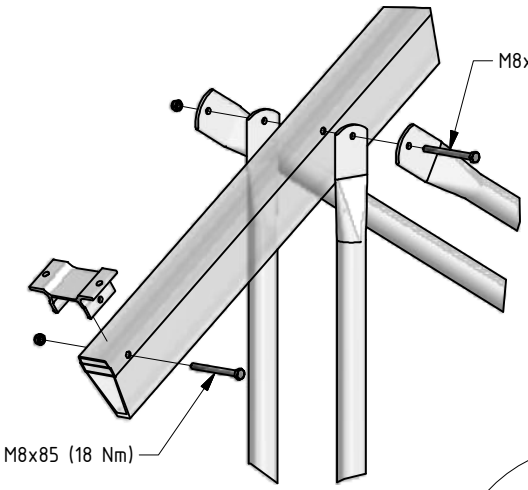
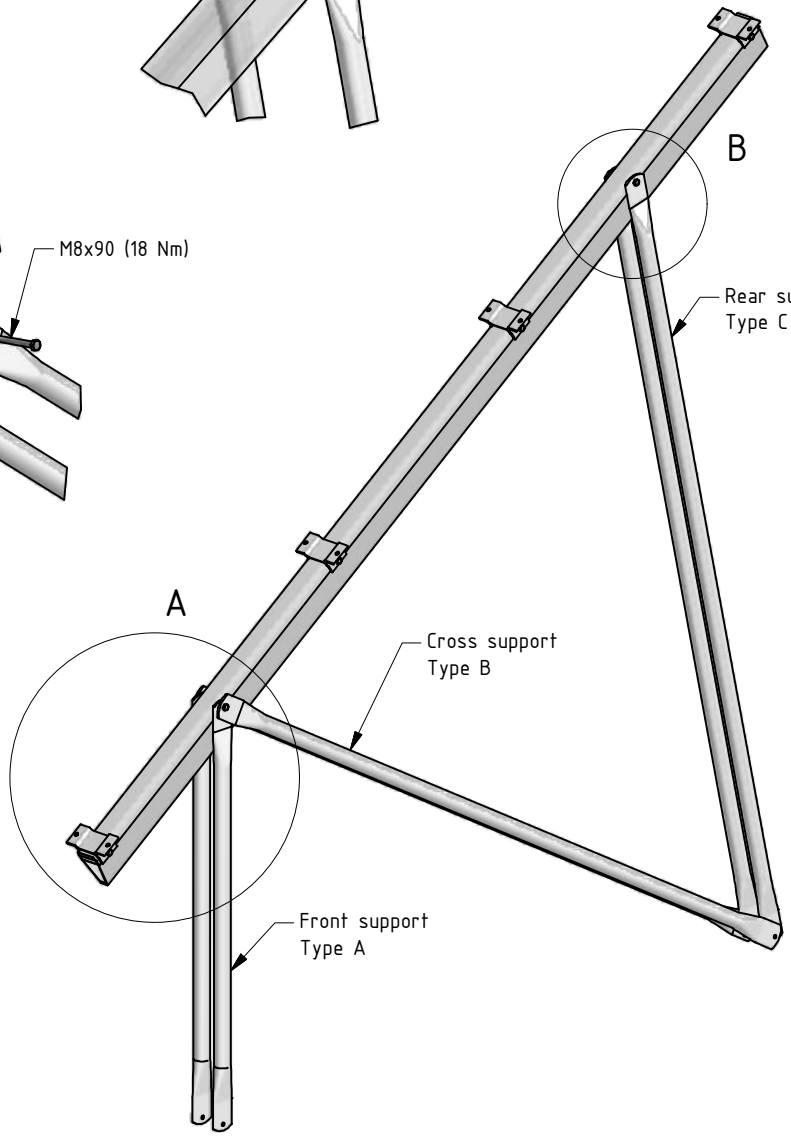
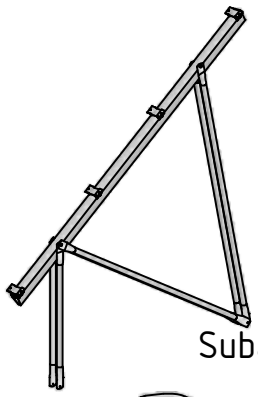


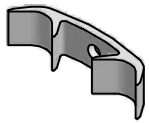


Mounting subassembly A

VAN DER VALK SOLAR SYSTEMS



Subassembly A

		72.18.60
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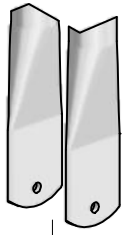
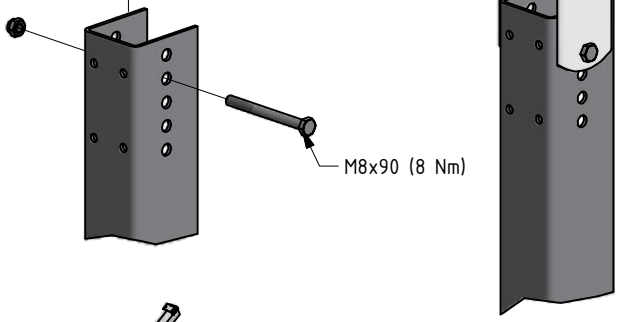
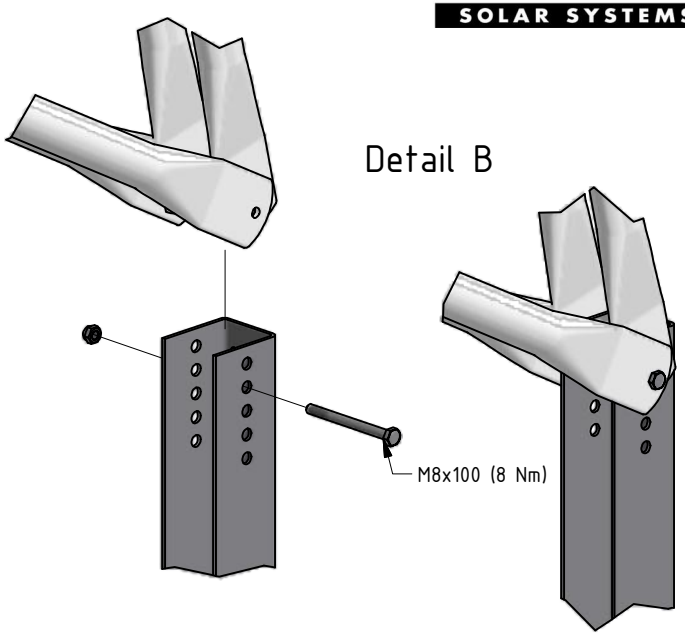
M8x90		77.40.90
M8x100		77.41.00
M8		77.40.05



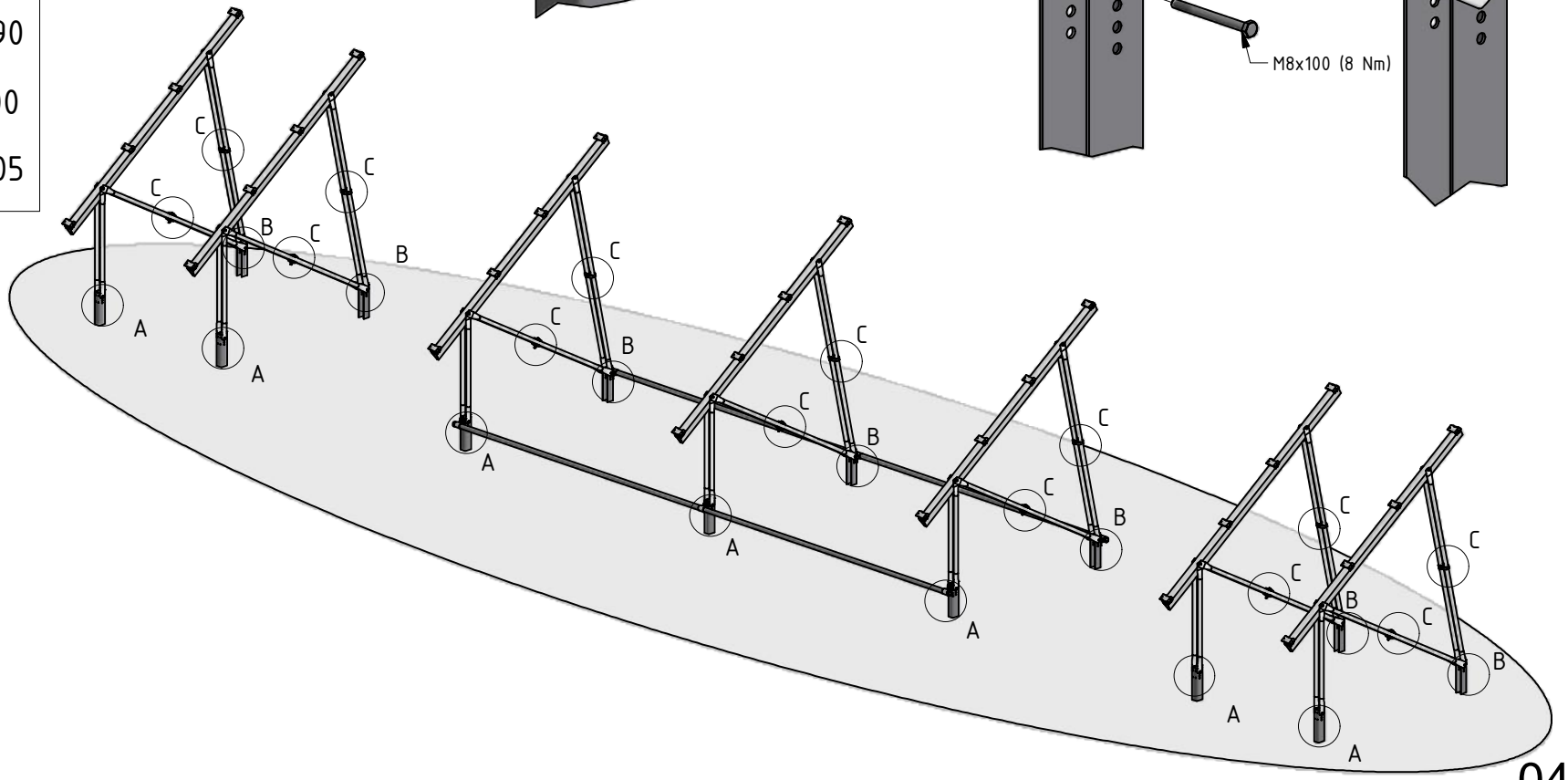
Detail A

Extra holes for perfect leveling of the installation

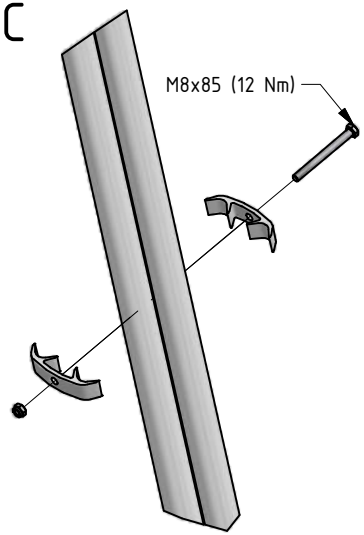




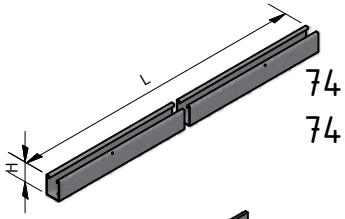
Detail B



C



Mounting profiles



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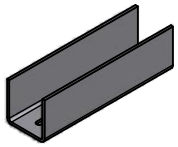
74.07.(L [mm]) H=80



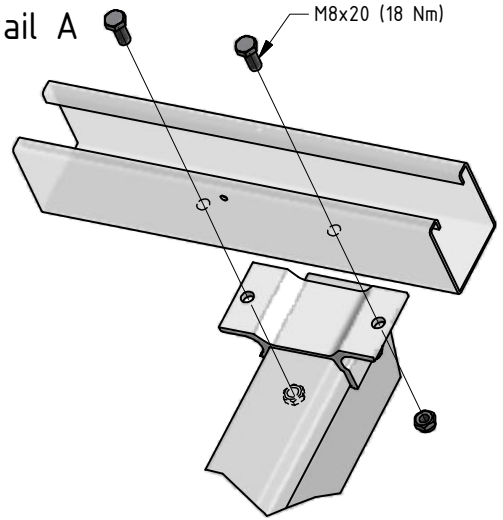
74.90.10

M8x20 77.40.20

M8 77.40.07

M8 77.40.05

Detail A



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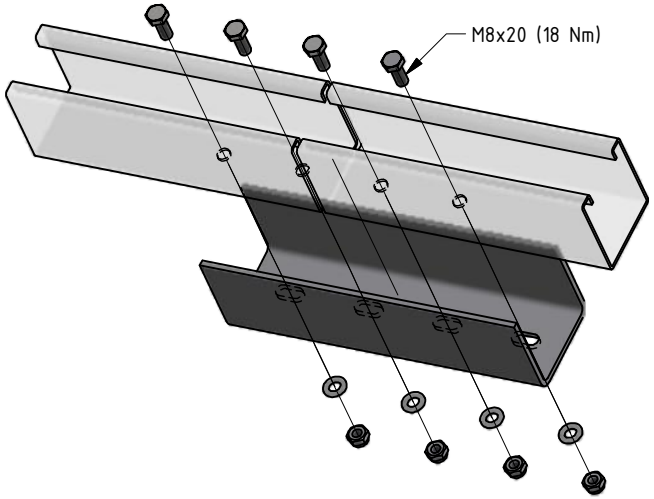

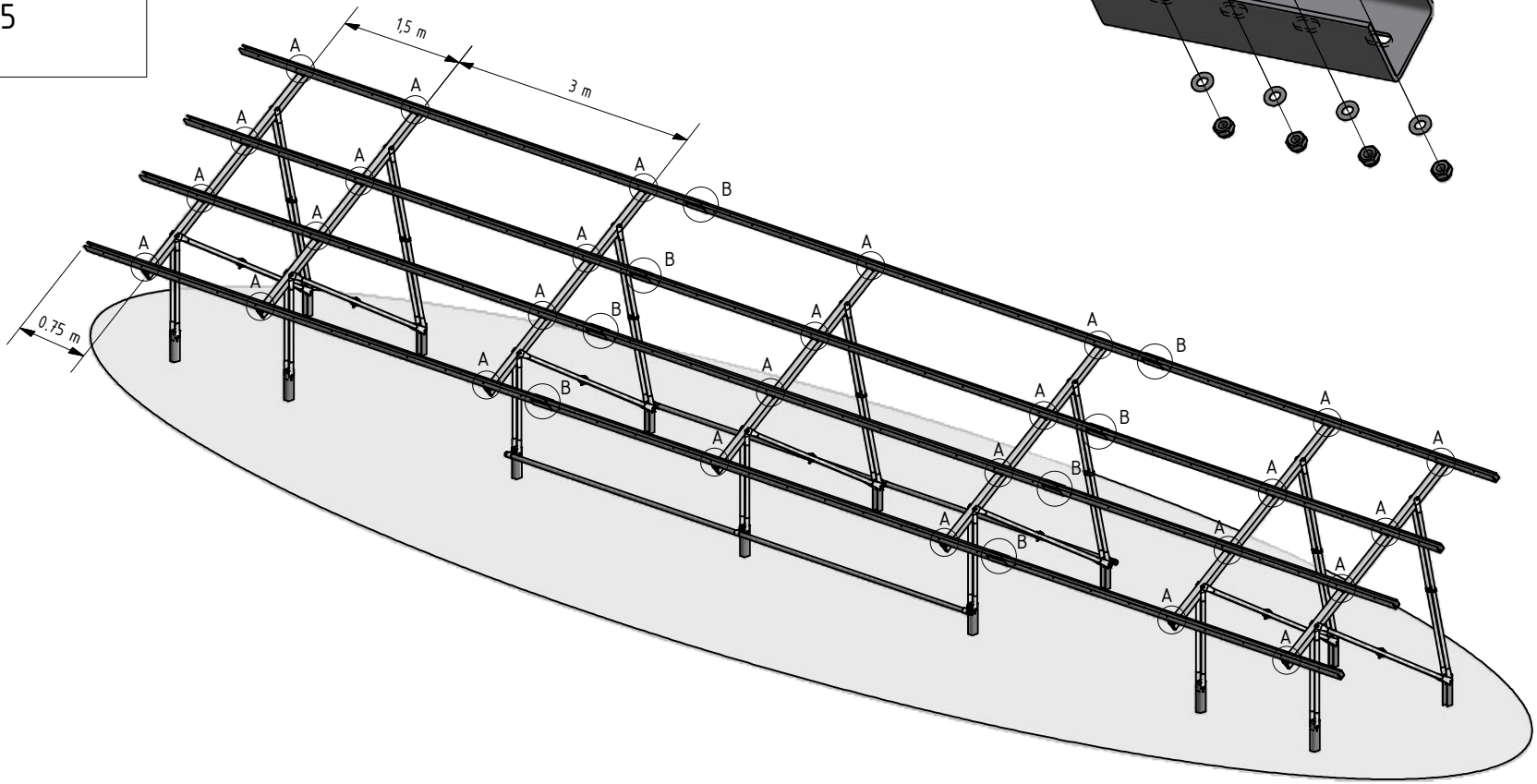

VAN DER VALK SOLAR SYSTEMS

Mounting supports

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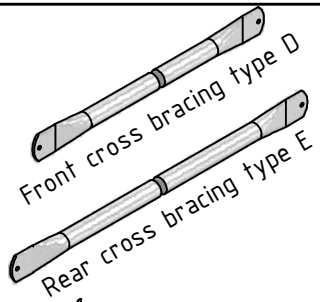

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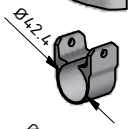

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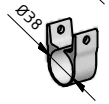

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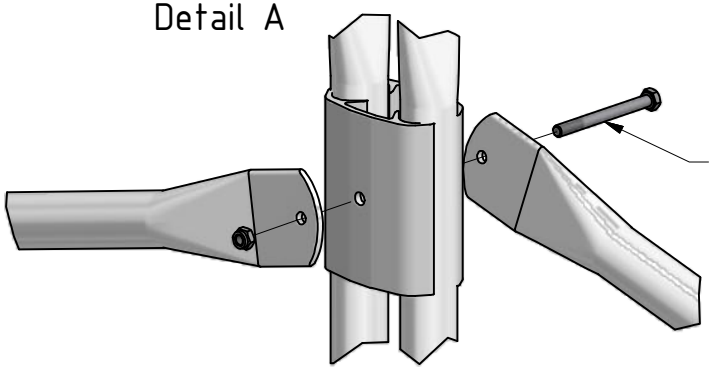
M8x100 77.41.00

M8x85 77.41.85

M8x75 77.40.75

M8 77.40.05

Detail A



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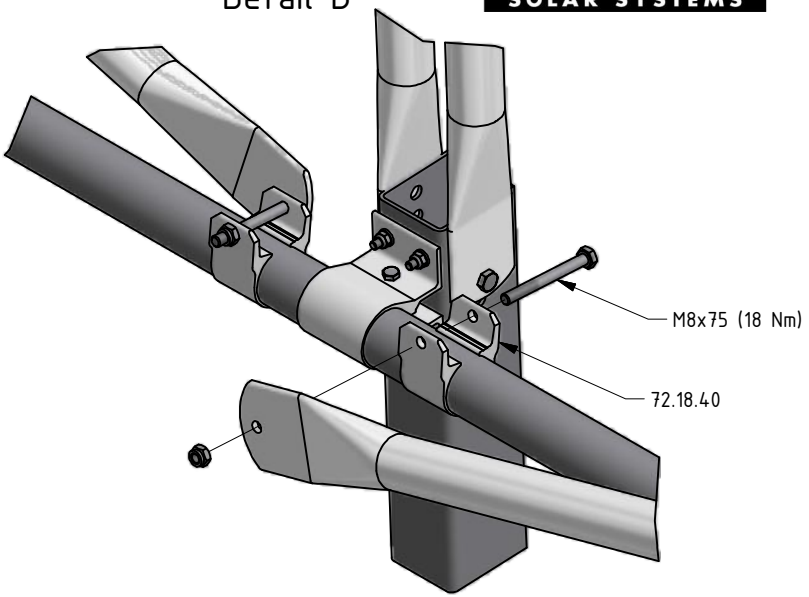

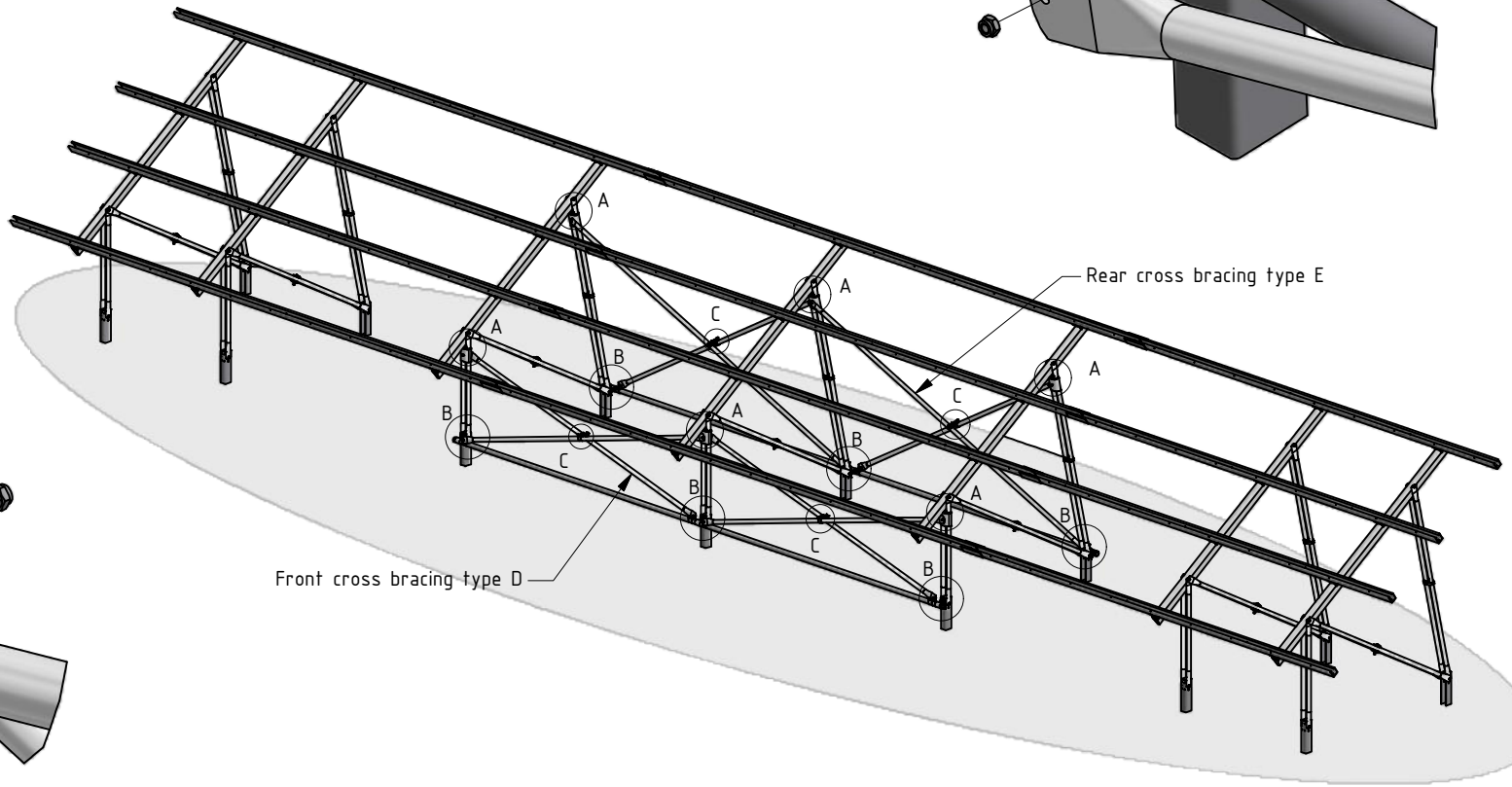

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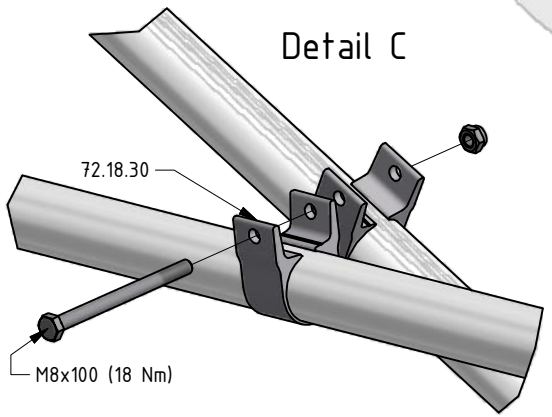
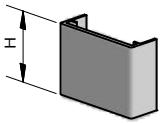


Mounting of the end caps

VAN DER VALK SOLAR SYSTEMS



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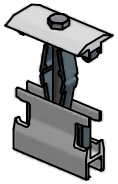
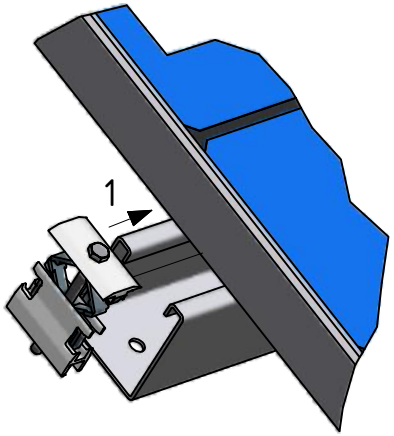


M6 72.15.65

Detail A



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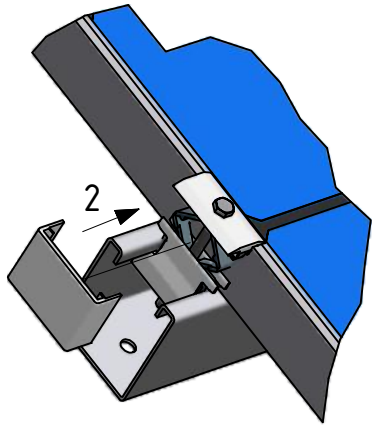

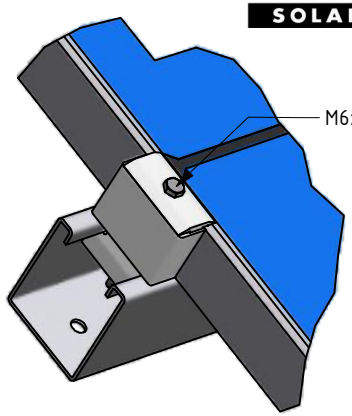

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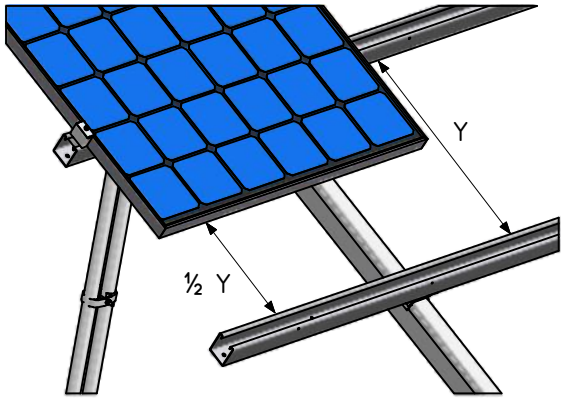
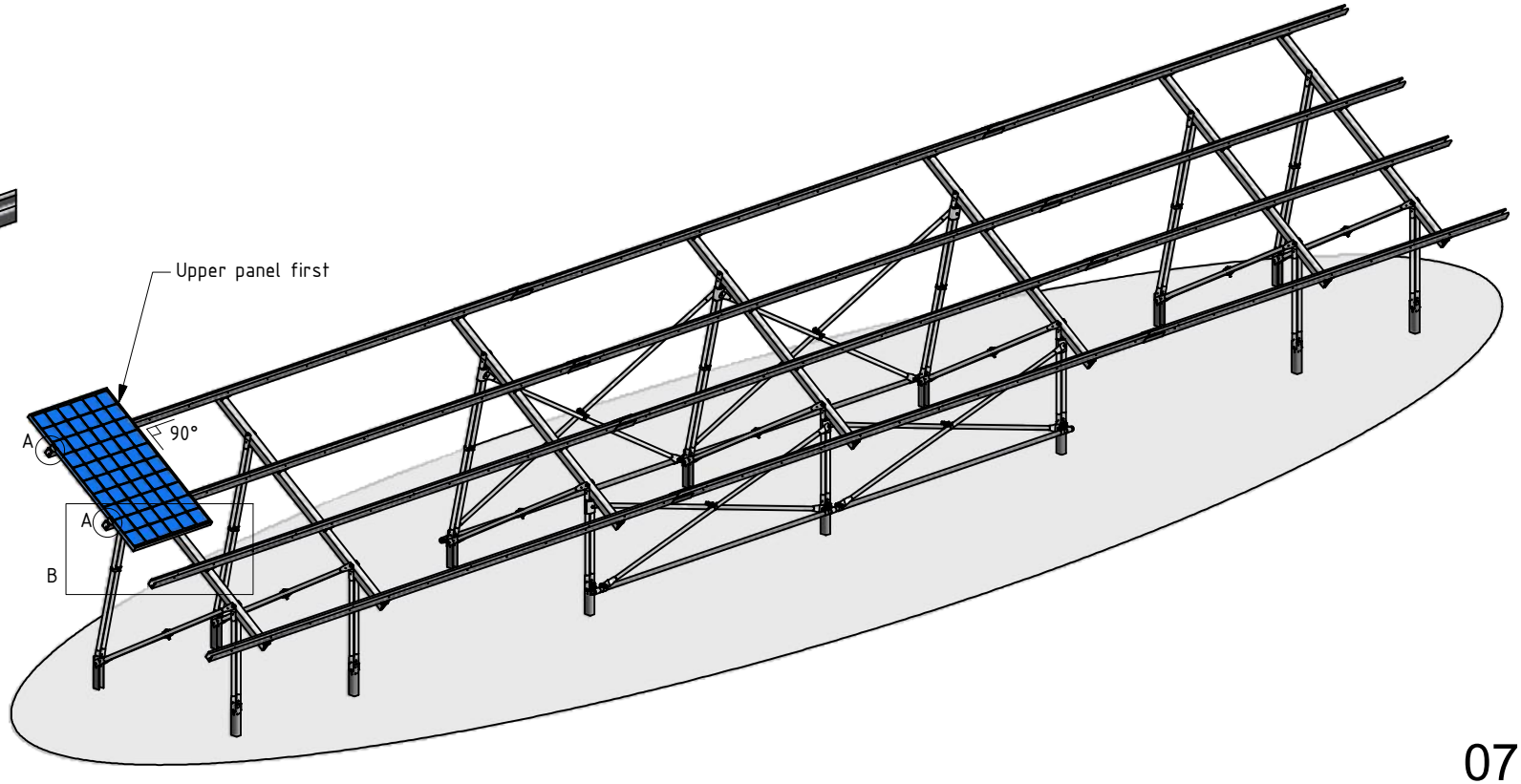
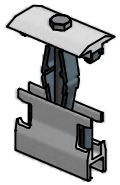




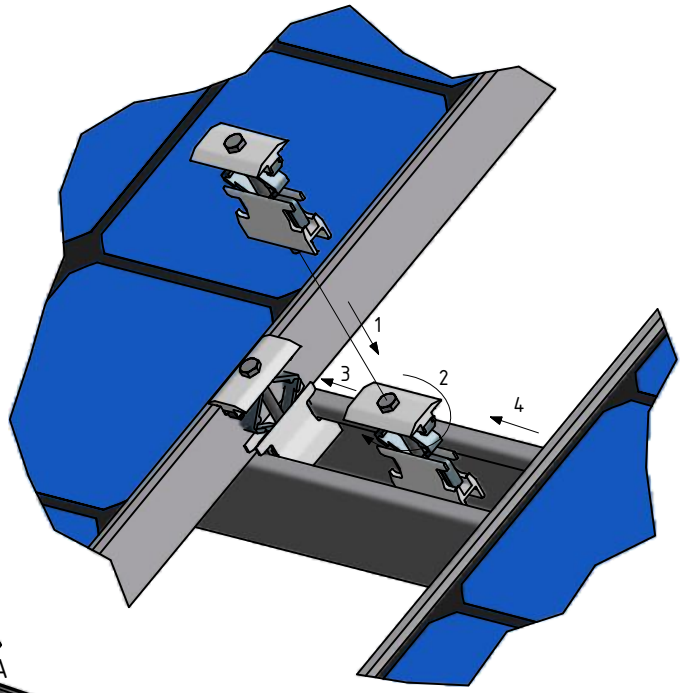
M6



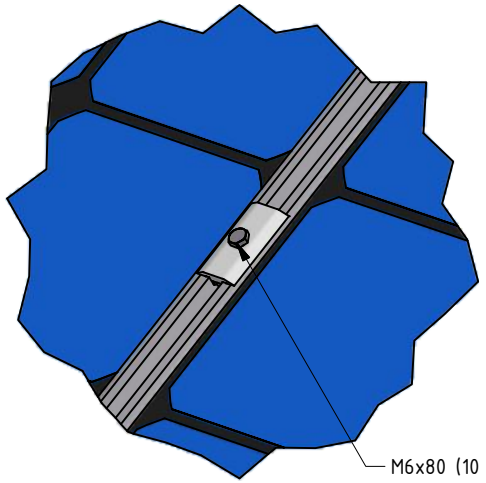
72.15.65

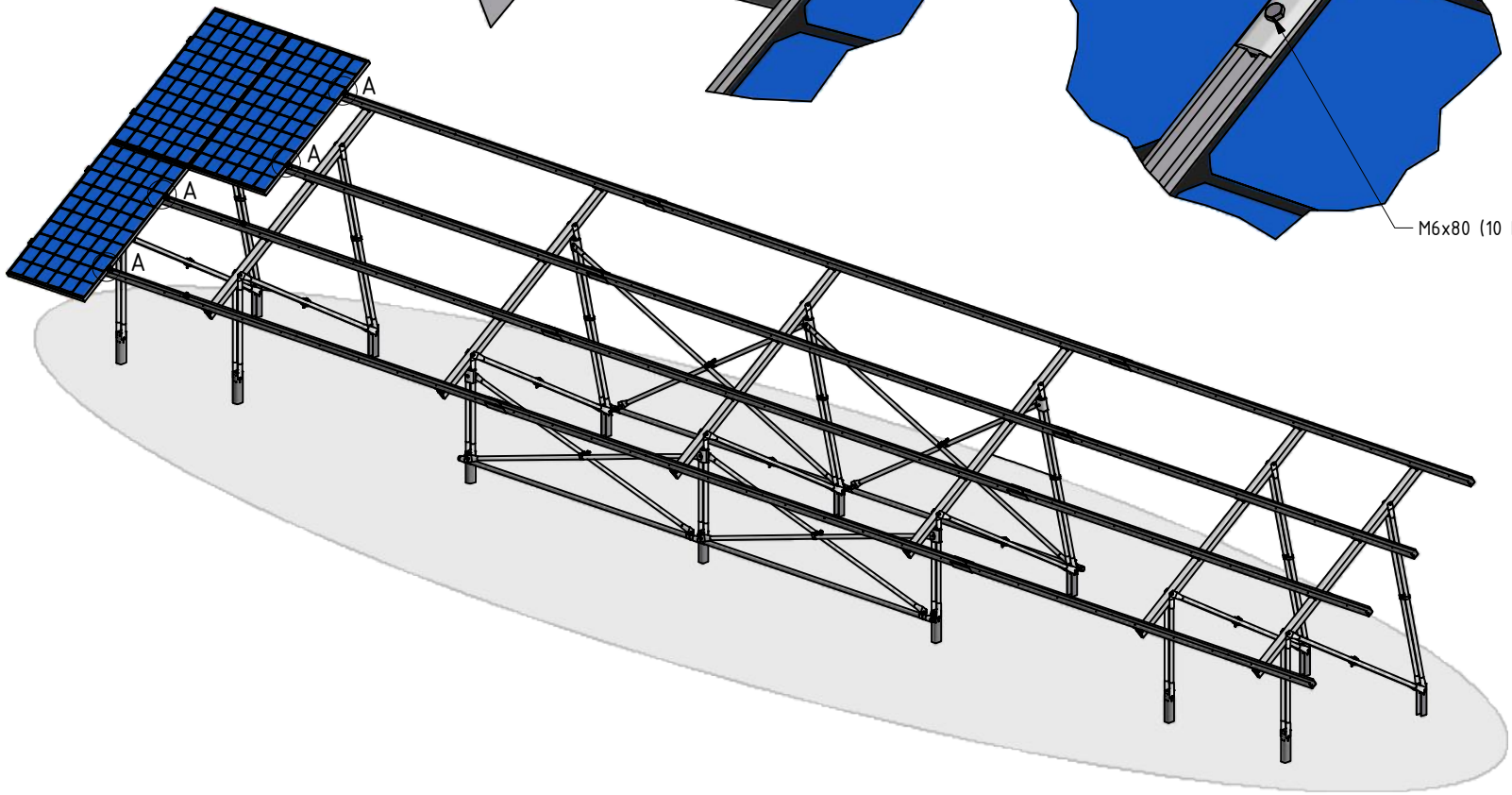
Mounting panel clamps

VAN DER VALK SOLAR SYSTEMS



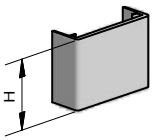
Detail A





Mounting of the end caps

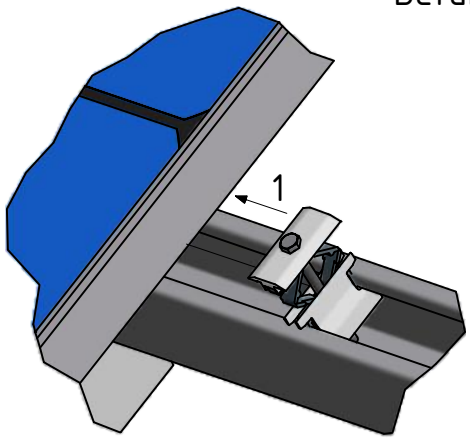
VAN DER VALK SOLAR SYSTEMS



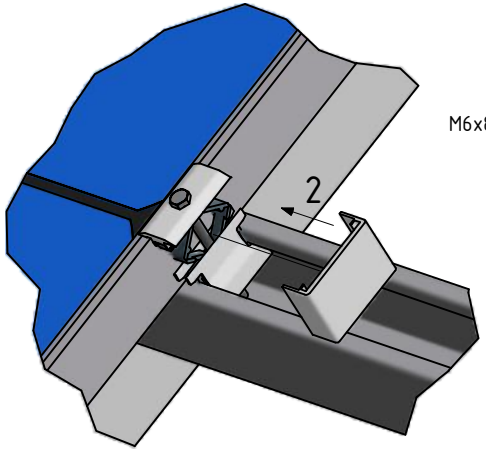
72.15.95.(H[mm])

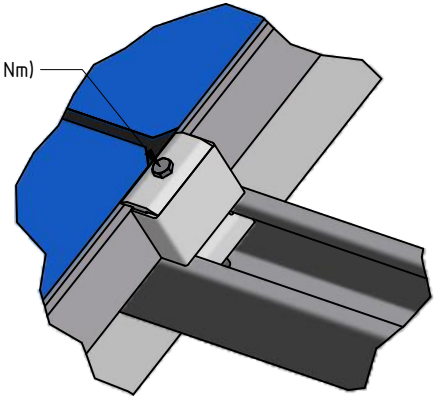
M6 72.15.65

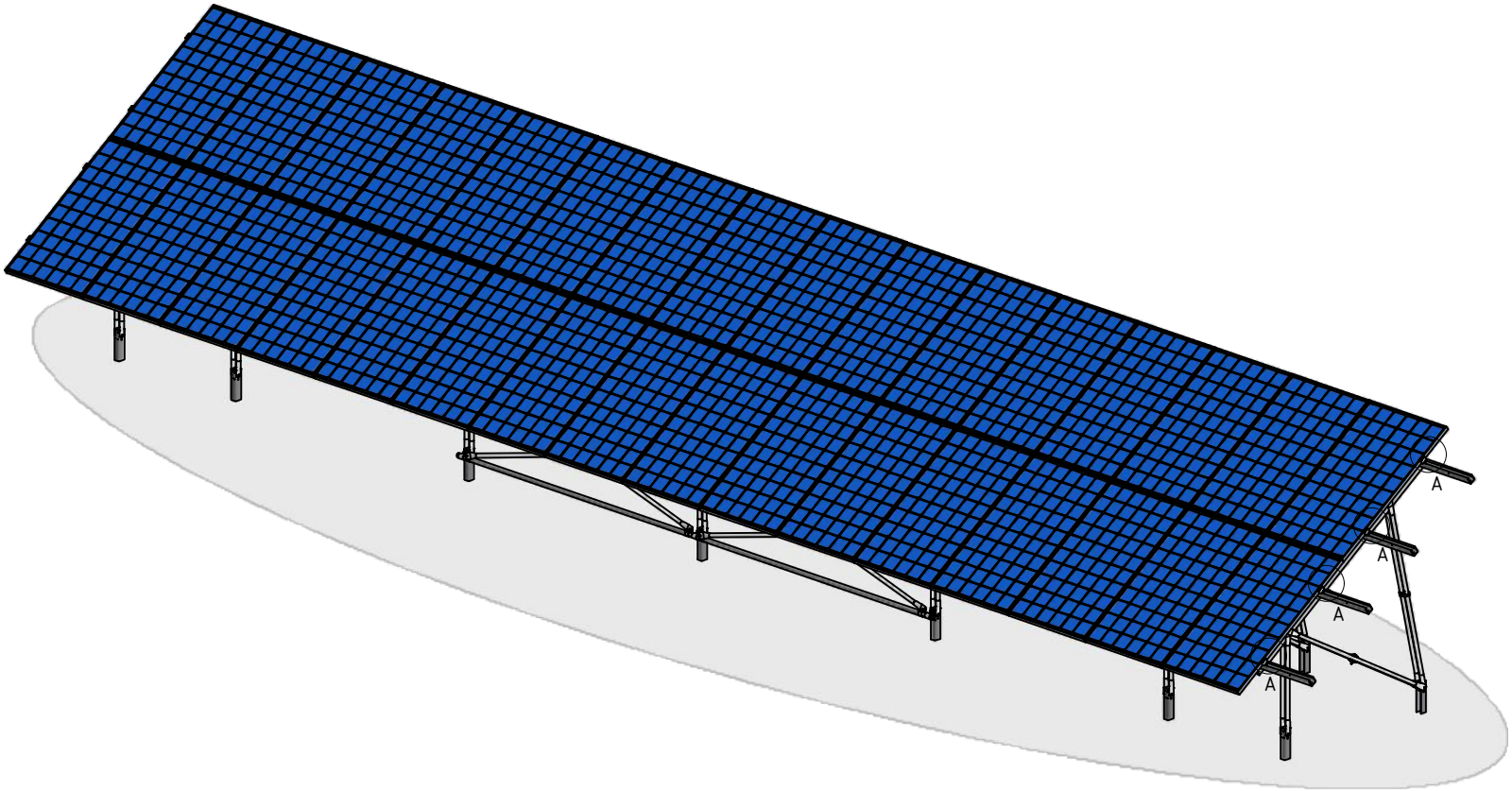
Detail A



Detail A







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 m^2 of offices and production facilities, in which modern machinery and the latest technologies facilitate development, manufacturing and testing that is fast, flexible and precise.

Developer and producer of solar mounting systems for:

Open Fields | Pitched Roofs | Flat Roofs | Greenhouses | Water Features

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