# COMPACTELAT SN 2



### THE NEW FLAT ROOF RAIL SYSTEM

The flexible, rail-based modular system offers a solution for all conceivable flat roof applications and enables short-side and long-side clamping. With few components, we have created a large number of possibilities.

The COMPACTFLAT SN 2 is based on the previous system and now allows even larger pv modules to be used. The flexible, railbased modular system offers a solution for every conceivable flat roof application and enables short-side and long-side clamping. The same components are used in the south-facing system as in the east/west-facing system.

### VERSATILE. INNOVATIVE. ECONOMIC.

- + Module sizes up to 98.4 in x 51.60 in/2500 mm x 1310 mm
- + Low point loads
- + Short-side and long-side clamping
- + Suitable for high wind and snow loads
- + Flexible system with few components
- + Preassembled components, plug & play
- + One-man installation possible
- + Minimal storage
- + Optimized for pre-assembly
- + PV module positioning support
- + Wind tunnel tested
- + Developed in Austria



## THE CHALLENGE

PV modules continue to increase in size, posing unique challenges for solar mounting system manufacturers. Economical and versatile racking systems that offer high wind and heavy snow capability, designed for quick installation, are in more demand than ever.

## THE SOLUTION -

COMPACTFLAT SN 2 is the large module racking solution that boasts impressive load-bearing capacity and resilience against extreme weather events. SN 2 is designed for rapid install and high loading capability and provides multiple options for mechanically attaching the system to the roof. SN 2 can be preassembled and ballasted without modules and modules can be easily removed for O&M.



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Extruded baserail enables a highly versatile assembly of the system. The continuous threaded channel allows each bracket to be mounted at any position. All baserails are preassembled with rooftop protection pads. Maximum rail length is 6 feet 6 inch.

Cross struts are used to tie baserails together and hold ballast in place. The cross struts are telescopic and adjust to rail span and module size.

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The preassembled tilt adapter continuously adjusts so that it adapts to the correct angle depending on the module's width. Two click clamp channels allow two types of clamping, short-side and long-side clamping. They provide flexible adjustment during Assembly.

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Structural-optimized brackets allow the system to withstand even the highest snow and wind loads.



Wind deflectors can be staged on the brackets guide rail before the combination fasteners are installed.

Cost-optimized single rail anchor bracket can be adjusted in 3 directions and is used to mechanically attach the system to the roof.

The double rail anchor provides greater load distribution and higher anchor capacity. The double rail anchor is easy to locate and install prior to stringing or module placement.



Wire ballast baskets secure ballast blocks directly to baserails for a quick and cost-effective solution.



By using the wide 173 mm base rail, which has pre-installed protection mats, snow loads of up to  $3.6 \text{ kN/m}^2$  can be covered on roofs with soft insulation such as Durock (Rockwool).

# THE OPTIONS

The systems variety allows perfect adjustments for every single project. Two clamping options can be combined with three rail structure options as desired. This means all advantages are used in an optimal matter. Despite all these possibilities, only a few components are required.

1. CLAMPING OPTIONS Modules can be clamped on the lo	2. Rail structure (see below)				
clamping for high wind and show i side clamping to leverage AEROC tive racking solution.	Short	Connected			
SHORT-SIDE CLAMPING LANDSCAPE + Quick assembly + Reduced material costs		South-facing modules (SN 2)	•	•	
		East/west-facing modules (SN 2 PLUS)	•	•	
LONG-SIDE CLAMPING LANDSCAPE + High loads + Large modules		South-facing modules (SN 2)	0	•	
		East/west-facing modules (SN 2 PLUS)	0	•	
LONG-SIDE QUARTER CLAMPING PORTRAIT + High loads + Reduced material costs		East / west-facing modules (SN 2 Q PLUS)	0	•	



### 2. RAIL STRUCTURE

As there are different possibilities for the rail structure, the system can be individually configured to suit the respective application, regardless of the project's scale.

## SHORT RAIL STRUCTURE + Reduced material costs

Compact ShippingNo caterpillar effect

#### CONNECTED RAIL STRUCTURE

### + High load capacity

- + Preassembly without module
- + Compact Shipping

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MAX. 6 ft 6 in RAIL LENGTH



## INTELLIGENT CABLE MANAGEMENT SYSTEM

The COMPACTFLAT SN 2 range is extended with a high-quality cable management system. The assembly is, as usual, simple and time-saving.

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Universal cable clip enables easy management of cables and cable connectors, fixed either to the module frame or to the rails. The Universal cable clip is available for all existing flat roof systems.



The cable connection plate allows perpendicular baserails and cable trays to be utilized. Cable trays can be attached to this rail.

The rail clip is ideal for laying cables along the SN 2 rail. The cables can be laid directly on the rail or protected in a cable conduit.

## SINGLE AND DOUBLE ANCHOR SYSTEMS

Cost-optimized single rail anchor bracket can be adjusted in 3 directions and is used to mechanically attach the system to the roof.



The double rail anchor provides greater load distribution and higher anchor capacity. The double rail anchor is easy to locate and install prior to stringing or module placement.

In Partnership with PZSE Structural Engineers

## AEROTOOL ANCHOR PLANNING:

Best in class racking layout planning tool for fully automated anchoring distribution and avoids increasing ballast when seismic anchors are needed.



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