

#### **ALUMINIUM FASTENER CLAMP FOR FIXING #R2 TO #R5A**



This product is designed to support on-grid or off-grid systems, as well as most framed solar panel sizes. To complete this system, you would also need Solar L Foot, Mid Clamps, Rail Splice, and Rails. It makes the installation of long, continuous rows of panels easy. The Rail Mount System supports any row length required for a project. The system is designed to be used on flat, rigid surfaces to ensure system stability.

Solar Clamps are suitable for the solar panel with the thickness 60mm. It can be equipped with different nuts and applicate with different length of bolt to meet different requirement.

#### **Features & Benefits**

- 1. Easy installation
- 2. High quality
- 3. Great Compatibility
- 4. Versatile Application

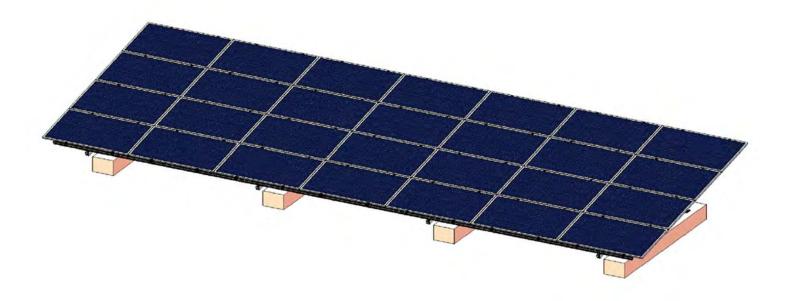
Material Specifications	
Material	Aluminium 6005 T5
Density (p)	2.7g/cm <sup>3</sup>
Coefficient of Thermal expansion $(\alpha_r)$	2.35E-05/°C
Diffusivity (λ)	200.00 W/m-°K
Modulus of Elasticity (E)	7,000 kN/cm <sup>2</sup>
Shear Modulus (G)	2,700 kN/cm <sup>2</sup>

Mechanical Properties	
Tensile Strength	26.0 kN/cm <sup>2</sup>
Tensile Yield Strength	24.0 kN/cm <sup>2</sup>
Profile Wall Thickness	t≤0.39 in/100mm





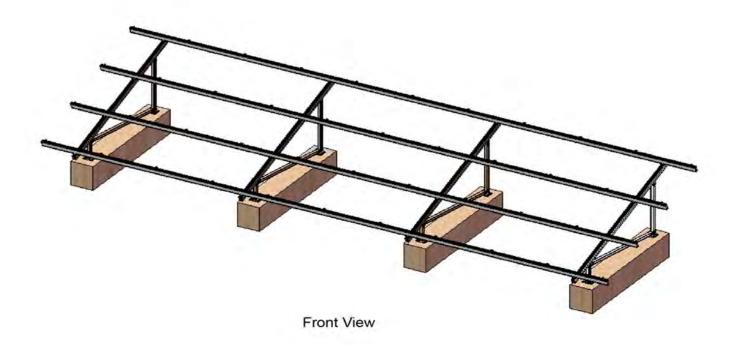
# Solar Ground Mounting Structure Installation Guide

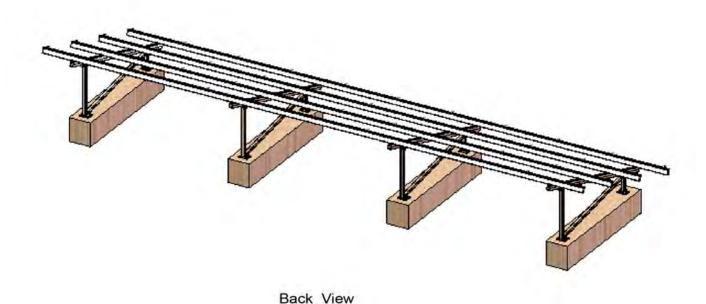






# **ST3F Overview**









# **Components Table**



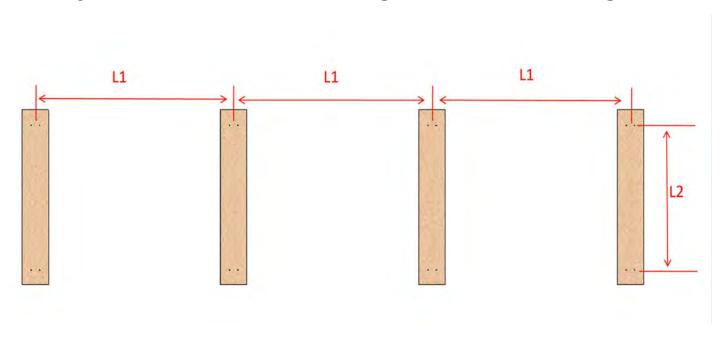




# 1. Installation steps



# 1.1. Layout concrete base according to technical drawing

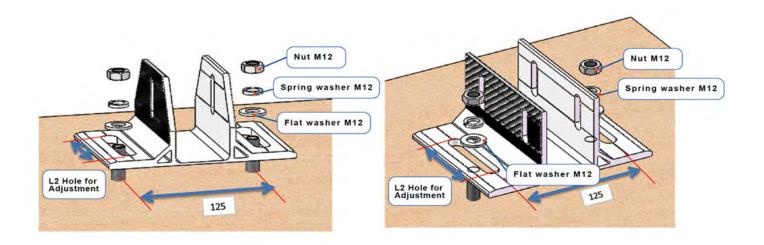


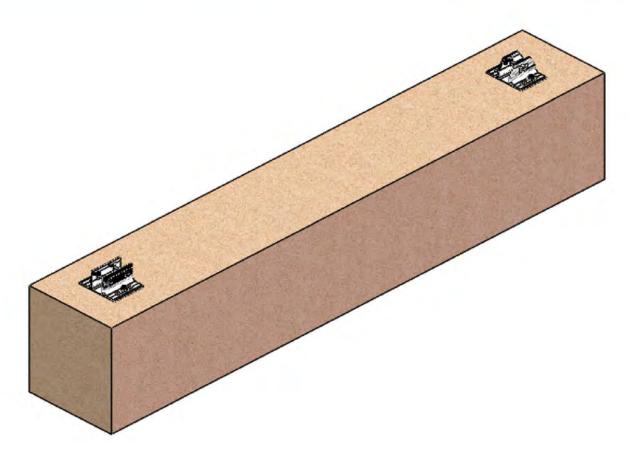




# 1.2. Install Front and Rear Leg

**NOTE:-** The position can be adjusted according to hole L2.





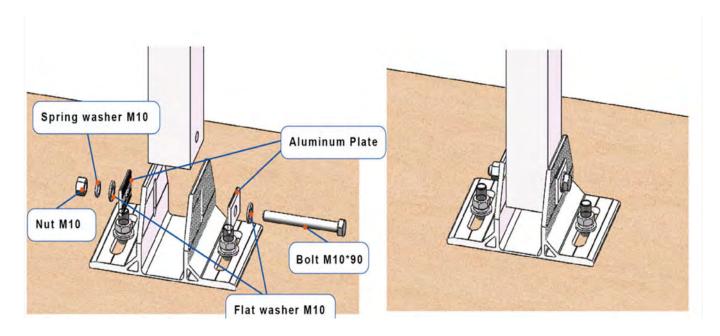




# 1.3. Front Leg Installation

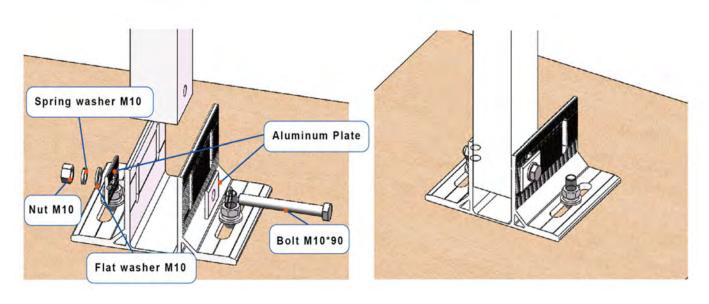
#### 1.3.1: Front Leg Installation

NOTE:- Install the front leg on front base and fix it with bolts, but do not tighten it until the height adjustment finished in 1.3.4.



#### 1.3.2: Rear Leg Installation

NOTE:- Install the rear leg on back base and fix it with bolts, but do not tighten it until the height adjustment finished in 1.3.4.

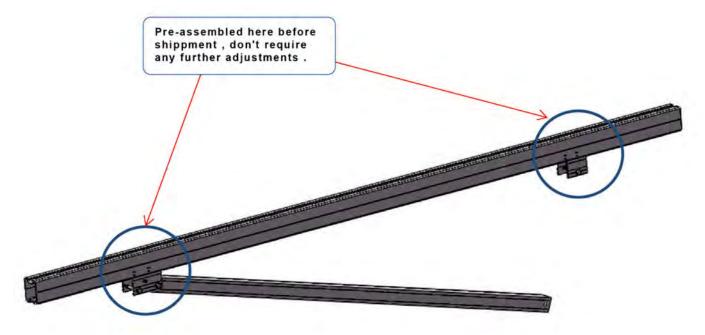




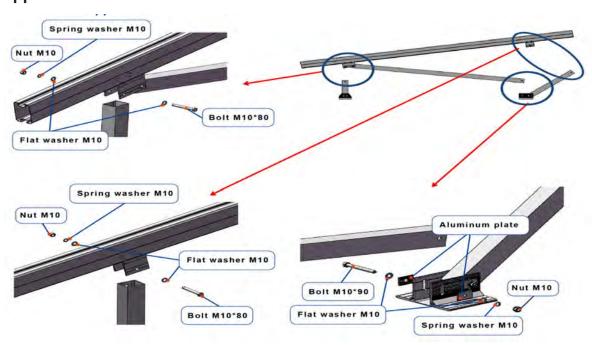


#### 1.3.3: Support Rack Installation

NOTE:- Fix the support Rack to foot base and legs, but do not tighten the support rack and rear foot base until the height adjustment of 1.3.4 finished.



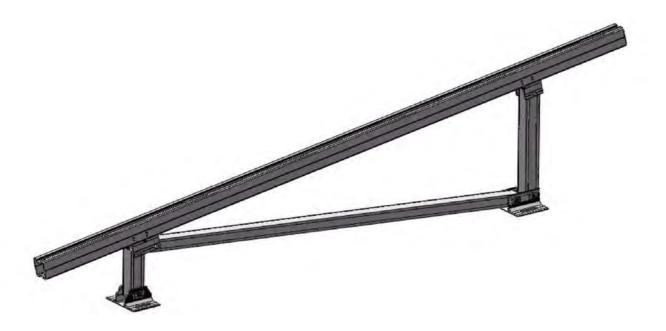
#### 1.3.3.1: Support Rack Installation





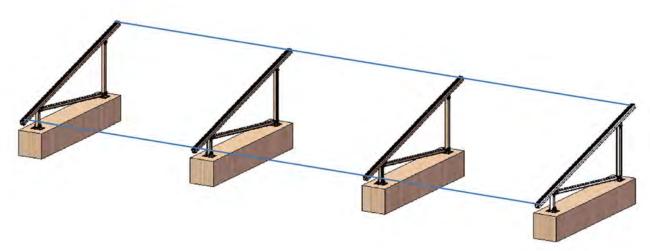


#### 1.3.3.2: Support Rack installation finished



## 1.3.4: Do the adjustment to the support rack to meet the correct tilt angle

NOTE:- Do adjust to the support rack to make it meet the correct tilt angle and keep all the rack on the same level with the slot hole on foot base and then fix all the bolts tightly



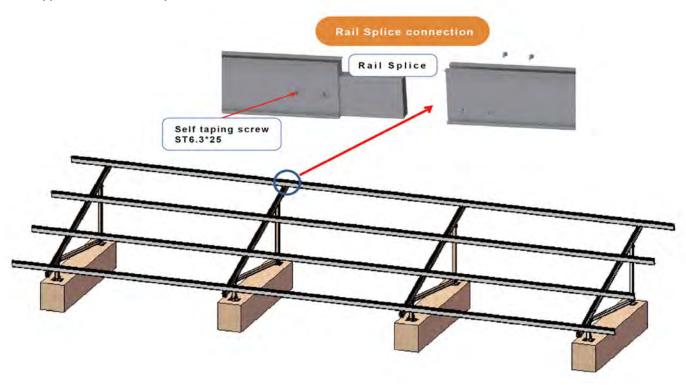
**NOTE:-** Step 1.3.3 and 1.3.4 should be done at the same time.



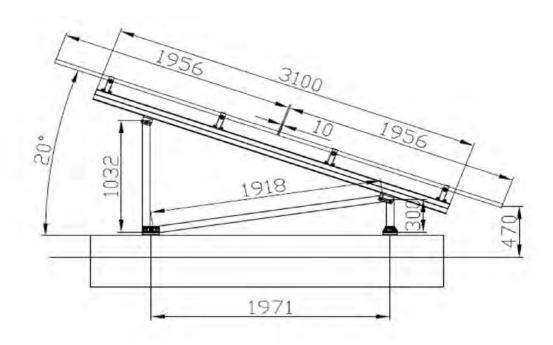


## 2. Rail Installation

Fix rails to the support rack by UI-Clamp



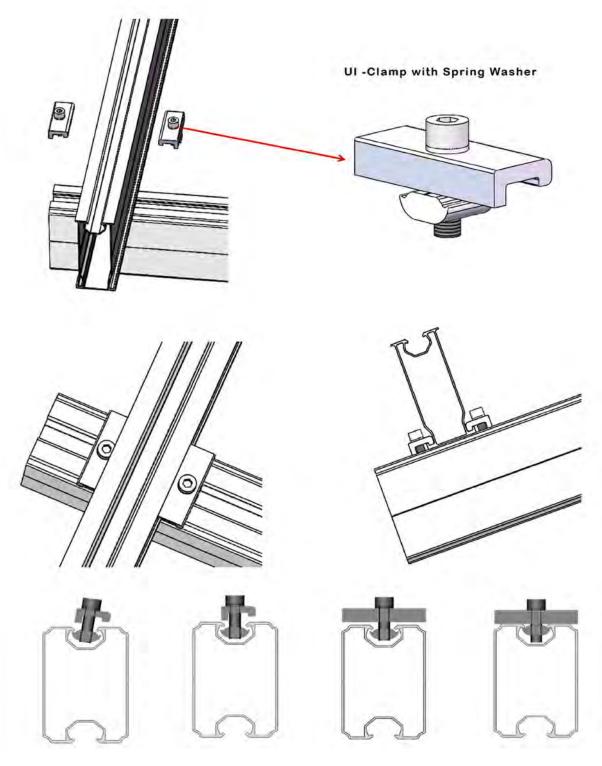
NOTE:- 2.1. Install rails from lower side to higher according to technical drawing. (Take 1956 x 990 solar panel forexample).







## 2.2: UI - Clamp with Spring Washer.



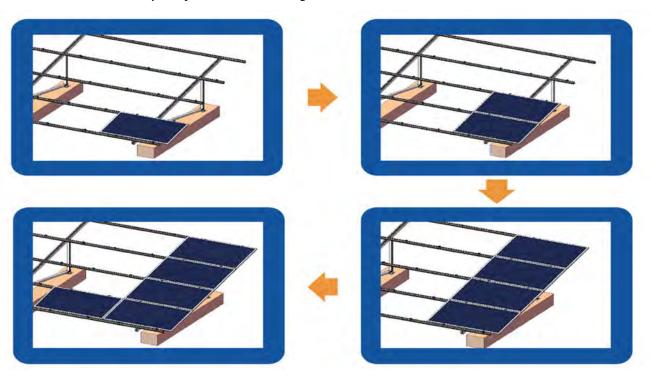




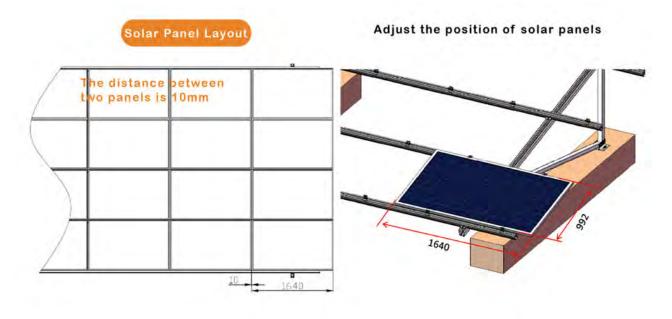
## 3. Solar Panel Installation

#### 3.1: Solar Panel Layout

**NOTE:- 3.11** Install solar panel from lower side to higher.



NOTE:- 3.12 Solar panel layout according to following drawing. (Take 1640 x 992 solar panel for example)

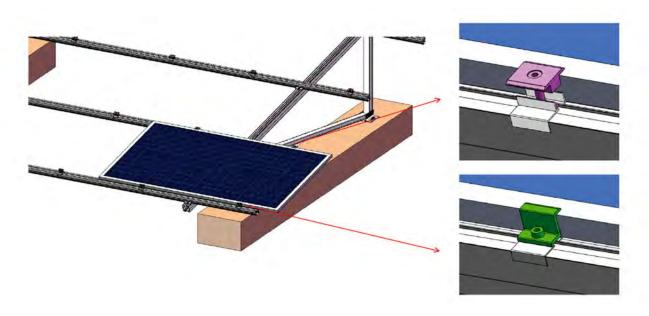




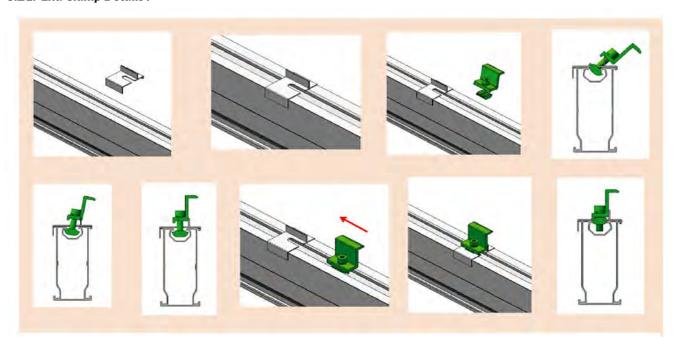


## 3.2: Clamp Installation

**NOTE:-** Install clamps according to above solar panel layout.



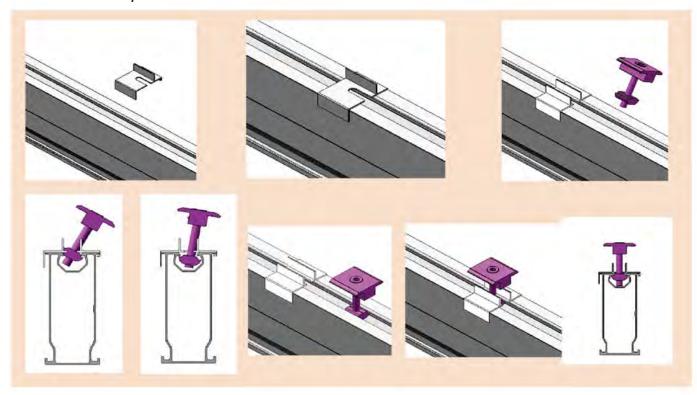
#### 3.21: End Clamp Details.







NOTE: 3.22: Mid Clamp Details.



## 4. Installation Finished

