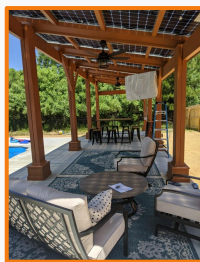


# Origins of Infinity Rack

## Design Evolution: From Concept to Second Iteration

- ❖ Evolved Through 12 Years of Innovation: Infinity Rack has developed custom, watertight solar canopies, focusing on ease of installation and practical benefits for installers.
- ❖ Installer-Centric Design: Created by installers for installers, our structures evolved to feature a sleek, mechanically watertight design that appeals to both customers and end-users.



# Design Evolution: Refining Our Concept

After over a decade of experimentation, Infinity Rack now produces highly modular and visually appealing canopies and carports.

## The Infinity Rack Advantage

- ❖ **Mechanically Watertight:** Horizontal support clamps modules together on EPDM gasket
- ❖ **Safe Hidden Wiring:** Fully Encapsulated dual wiring chaseways for AC & DC wiring eliminating safety hazards of exposed wiring
- ❖ **Integrated Design:** Post bases designed to accept conduit or plumbing to bring electric, water and gas directly into the frame on our Aluminum Structures. Access points for pulling wire internally into steel frame, Cantilever Steel Structures
- ❖ **Extreme Durability:** Designed for extreme weather and snow loads
- ❖ **Modular Design for Panels:** By fully supporting modules on all four sides large format bifacial solar panels can be used in high wind and snow load regions
- ❖ **Limitless Customizations:** Modular and infinitely expandable components

# The Future of Infinity Rack

Canopies and Carports are just the beginning for Infinity Rack. The goal is to create a whole new ecosystem for how building are constructed using Infinity Rack framing as the backbone as well as a lighter cheaper version to replace traditional ground mounts turning them into usable spaces.

- ❖ **Modular building with SIP panel walls and Insulated glass:** Modern modular spaces
- ❖ **Preconfigured SIP Panels:** Designed with embedded plumbing, electrical and cabinetry to match the needs of the room it will enclose
- ❖ **Low installed price per sq ft:** Goal of 200\$ per sq ft installed cost to make housing more affordable and without utility bills.



## SunLounge



## Carport



## Cantilever Carport



## Dual Cantilever Carport



## Super Span Structures



# Components

- ❖ **RoofBeam:** Our structural beam creates the rafter that holds solar modules when combined with the top cap and wire trough. Bonding jumpers bond the modules to the framing system using the bonding rail. Optimizers can be mounted to the bonding rail using the same brackets used for module frame mounting. Wire management clips can be clipped onto the bonding rail to keep wires hidden and organized. Our structural beam can span over 14 feet, needing only two points of attachment.
- ❖ **Top Cap:** EPDM gaskets slide into slots on the top cap to make a watertight seal against the solar modules. The Top Cap is then secured to the threaded channel in the SunBeam using 5/16 stainless hex bolts creating a very strong connection that secures modules in high winds.
- ❖ **Wire Trough:** Slides into the SunBeam to completely conceal wiring and optimizers leaving you with a clean look from below.
- ❖ **Gaskets:** Our H Gasket slides into the slots in the top cap and our adhesive 1/4" gasket is adhered to the long edge of the modules and is pinched between the modules.
- ❖ **Frame Beams:** A two part structural beam system that has two large chaseaway. One for AC wiring and the other for your DC home runs. All of your wiring can be concealed within the headers and posts assembled using these Frame Beams resulting in no exposed conduit. Our 8"x 5 1/4" assembled beam can span up 18 feet while supporting our SunBeams which means fewer columns to give you more open space.
- ❖ **T-bolt Slots:** M10 T-bolts can be used to mount a variety of accessories, from TV mounts, to fans, to wrapping the columns with Trex or any other type of outdoor building product to customize the look and feel of your outdoor living space.

## Horizontal Supports

Our horizontal supports clamp the modules together on the horizontal gasket forming a heavy duty long lasting water tight seal that:

- ❖ Cover the module frames and match the structure color scheme.
- ❖ Bond the modules together
- ❖ Provides wire chase from module to wire trough
- ❖ Provides structural support for the larger solar modules to increase wind and snow load capabilities. This component also means that the Infinity Rack system both supports and clamps the the module on all four sides.

## Frame Beam

- ❖ **Frame Beams:** A two part structural beam system that has two large chaseaway. One for AC wiring and the other for your DC home runs. All of your wiring can be concealed within the headers and posts assembled using these Frame Beams resulting in no exposed conduit. Our 8"x 5 1/4" assembled beam can span up 18 feet while supporting our SunBeams which means fewer columns to give you more open space.
- ❖ **T-bolt Slots:** M10 T-bolts can be used to mount a variety of accessories, from TV mounts, to fans, to wrapping the columns with Trex or any other type of outdoor building product to customize the look and feel of your outdoor living space.

## Cantilever Framing

- ❖ Column and T Top designed as wire chaseaway to conceal wiring
- ❖ T Top has welded tube that slides into column locking it in to place upon placement making for a safe and easy installation
- ❖ Ability to use a set bolt to apply pressure to the down tube to adjust T-Tops to make sure they line up perfectly level down the row
- ❖ Using slotted horizontal framing makes it very forgiving for slight variations during installation



# Mission

At Infinity Rack, we innovate with durable, easy-to-install, and aesthetically stunning designs that seamlessly integrate into any space, delivering exceptional value and clean electricity production. Our solutions transform environments into beautiful, functional spaces, starting with pergolas, pavilions, carports, and charging stations, and expanding to fully modular building solutions.



[www.infinity-rack.com](http://www.infinity-rack.com)

<https://www.herox.com/solarprizeround8/entry/55712>