

DIFFERENT RACKING AND MOUNTING OPTIONS

When you install a solar energy system you will need some type of mounting system to secure them. This is part of the balance of system that you need in addition to the panels and inverter.

Here are the primary mounting options:

Ballasted Mounts



This type of mount does not require roof or soil penetration. This essentially involves a structure or frame that is held immobile by weight of concrete blocks sitting in ballast trays of the structure. To increase the friction and to protect the surface, EPDM rubber is used on the underside of the frame. The construction is typically aluminum to reduce the weight while hardware is of stainless-steel to ensure long life.

The simple design saves labor, and the top-clamping racking components ensure easy mounting. The tilt angles can be adjusted up to 45 degrees to enable the panels to catch the maximum sunlight.

Ground Mounts



Standard solar panel ground mounts uses a framework of stainless or galvanized steel or lightweight aluminum arranged in a grid shape. The framework tilts the solar panels up toward the sun, and the angle can be either fixed or adjustable. This type of mounts requires ground surface preparation and soil testing.

Pole Mounts

Pole mount systems are typically used when roof access is not available. You can also mount solar panels on the side or top of poles.



Roof Mounts

Roofs are where most solar installations go, and most installers use this type of mount.



For home installations, where the weight of the panels is low, flush mounts are used. This uses a metal bracket on each side of the solar panel and holds it above the surface of the roof. There is usually at least 2-4 inches of space allowed between the panel and the roof, so that plenty of air can flow beneath the panel, and keep it cool. Overheated solar panels do not perform as efficiently and will not last long.

Vertical Mounts

Panels can be mounted on vertical walls or curtain walls by using lightweight structural galvanized iron, stainless or aluminum frames. These are available from a variety of manufacturers and custom fabrication is also possible.



Source: <http://brightergy.com/education/different-racking-and-mounting-options/>