



## ROCKY SOIL CONDITIONS

APA's ground screws are designed for sites with rock. The forged tip helps lead the screw straight and plumb. The threads of the screw bite and hold firmly into the soil without getting caught on rocks and cobbles. The heavy walled tube and welded connections allow massive amounts of torque and downward pressure to be applied helping the screw to advance into even the toughest soils.

## SIMPLE INSTALL

Several types of equipment can be used to install APA's ground screws. Skid loaders or mini excavators with an auger attachment are among the most common installation equipment. Many drilling contractors can use a simple adaptor to drive ground screws without buying new equipment. Most pile driving rigs can be converted to rotary heads with little effort.



## GROUND SCREW

APA **Ground Screws** are manufactured for even the most challenging solar sites. Our ground screws use heavy walled tubing for the main shaft of the screw. The tips of the screw are forged, making them extremely hard, this is essential to help it penetrate into or pass by underground obstructions. The threads are welded with a patented automated welding process to provide a consistent and strong weld along the entire length of the thread. Ground screws come with a durable hot dipped galvanized coating that will protect them from corrosion.

*In business since 2008, APA offers the most versatile line of racking and foundation solutions for projects in even the most challenging environments. With projects nationwide, APA is a trusted quality racking partner.*

# WHAT MAKES THE GROUND SCREW FOUNDATION SO CAPABLE?

## HARD SOILS

Hard soils are why ground screws were designed. The forged tip and heavy duty steel tube allow for thousands of pounds of downforce and turning torque to be applied to the screw. This amount of torque and downforce allows rocks and cobbles to be pushed out of the way during installation

## SOLID ROCK

Ground screws can be installed into solid rock. By utilizing the method of drilling a pilot hole and adding some gravel backfill. The ground screws are securely installed into the pilot hole using the threads of the screw and the gravel backfill then locks them into the solid rock

## SANDY SOILS

The granular structure of sand has poor friction value making it hard for driven piles to perform well. However, the shape and threads of a ground screw displace and compact the sand around it when installed. This helps interlock the sand together and provides excellent holding power of the screw threads

## HEIGHT ADJUSTMENT

Posts can be adjusted to the perfect height by simply raising or lowering the top post in or out of the screw. To secure the top post, simply tighten the three set screws

## SHALLOW INSTALL

The ground screws can be installed as shallow as 30" depending on the soil. This allows for less chances of hitting underground obstructions

Diameter	Overall Length			
2.35"	40"	61"	73"	85"
3.00"	40"	61"	73"	85"
3.50"	40"	61"	73"	85"
4.00"	61"	73"	85"	
4.50"	61"	73"	85"	

Custom sizes are available - contact us for more information

## SET SCREW OR FLANGE CONNECTION

Ground screws can be manufactured with a set of three screw nuts or a flange welded to the top of the post. The set screws and flange options allow the screws to be used with fixed tilt, tracking and other solar mounting applications

