



Trace the sun
Capture the benefit



PST-1AX6 Single Axis Tracking with Real-Time Sensing Technology.
Real tracking moving forward.



Built with MAC
Steel for
**maximum
durability** and
lasts longer
than galvanized
steel



**Real-Time
Sensing**
Technology for
optimum
tracking and no
pre-programming
necessary



4x Less motors
than
independent row
trackers



Pivot
Assembly for
**installation
flexibility**



**We innovate and deliver high quality products.
We are a Total Solutions Manufacturer.**

Sun Action Trackers is a full line manufacturer of solar tracking and racking systems. With headquarters in San Antonio, Texas, we offer bankable solutions to commercial and utility scaled projects in the U.S., and worldwide. We employ some of the industry's most innovative tracking solutions which have been proven and deployed worldwide. Both our PST-2AL (Dual-Axis Tracker), and our class leading PST-1AX6 (Single-Axis Tracker) utilize Sun Action Trackers' Real Time Solar Sensing technology which is used to capture maximum production. Our steel is made from a revolutionary product known as Magnesium Alloy Coated steel. This product together with its self-healing properties ensures that your project will be able to stand up to the rigors of the elements. We guarantee bankability and have the knowledge and expertise to help you move forward. We offer solutions. We innovate and deliver high quality products. We are a total solutions manufacturer.

140 MW
Ft. Stockton, Texas



Dual Axis Tracking



Single Axis Tracking



Cost Competitive



Installation Solutions

1GW
WORLDWIDE

At Sun Action Trackers, we have the knowledge and expertise to better serve you. Our company has deployed 1GW of proven solar tracking technology worldwide.

Deployment of Dual and Single Axis
Tracking Technology in Texas, USA - 470MW

Sun Action Trackers has deployed 470 MW of dual and single axis trackers in the state of Texas. The 470 MW Alamo solar project delivering renewable energy is part of the new energy economy for CPS Energy.

Bankability. Quality

We guarantee bankability and stability from major recognized firms giving you breakthrough solar tracking systems that are reliable and efficient.



Texas 470MW



LET US SERVE YOU

Engineering and Design

At Sun Action Trackers, we provide engineering services such as: **Engineering & Design, PE Stamps** and **PVSYST Analysis**. We are committed in guiding you through every aspect of your project planning.

Operations & Maintenance

Sun Action Trackers offers operations and maintenance services support giving you the best value.

Site Installations

Sun Action Trackers offers an experienced group of installers who will assist you with your tracker installation, for small utility scaled projects - at low cost.

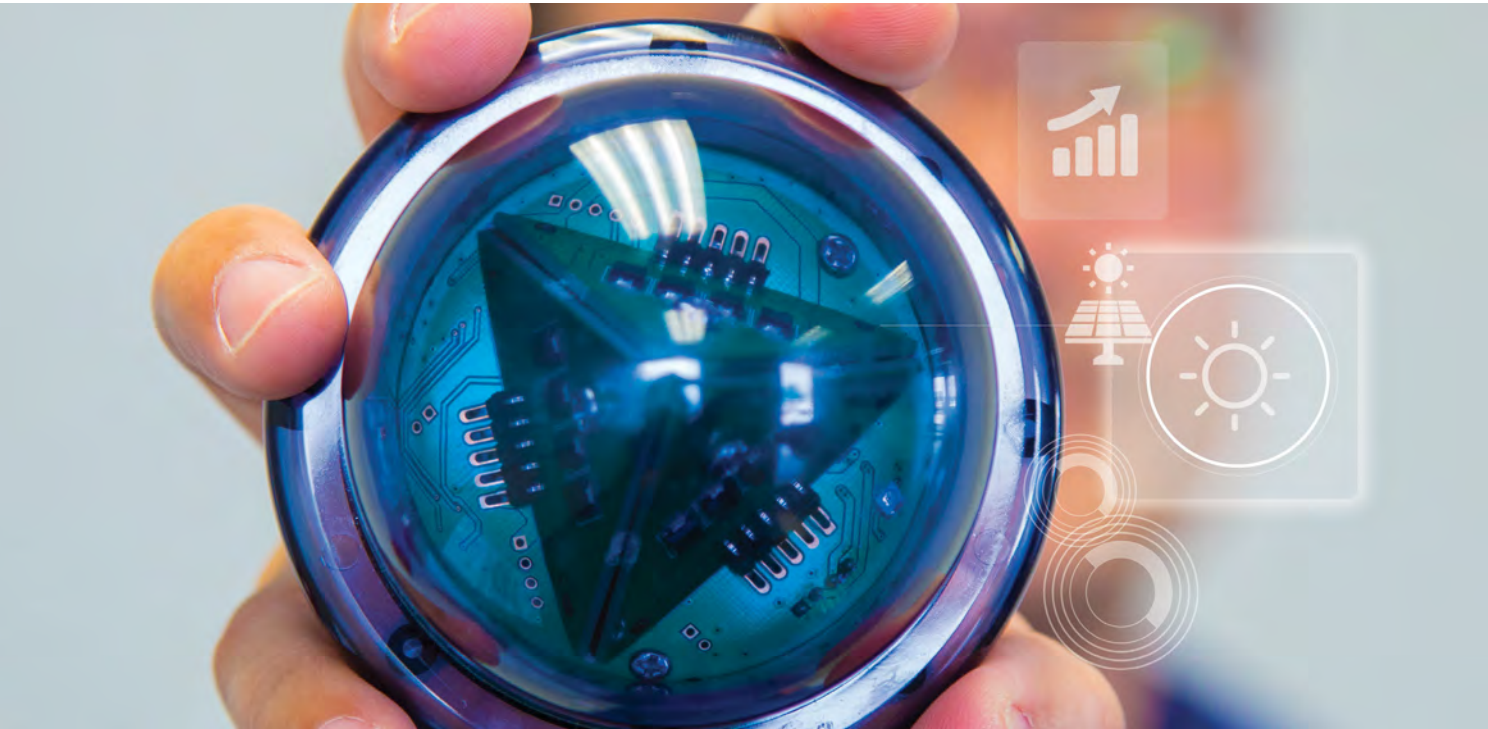
Certifications & Trainings

Sun Action Trackers offers a partner certification program that allow us to certify intergrators small and large, and allow for them to install our products in small utility scaled projects.

Site Commissioning

As part of our services, we offer site commissioning support which will guarantee accuracy of installation and performance to your tracking technology.






Better tracking. Better solutions.
CAPTURE THE BENEFIT IN REAL-TIME


Real-Time Sensing Technology was developed to capture maximum energy from the sun. The patented real-time sensor guides our systems to the highest point of irradiance optimizing energy production. It instantaneously communicates with the tracker control box to make the necessary movement to face the array perpendicular to the sun - unlike other astronomical systems that are pre-programmed to follow their pre-programmed path.

PATENTED REAL-TIME SENSOR

Nation	Title
China USA Japan	High efficiency condensing Solar tracking device (Real Time Sensor) and the method.
Germany France Spain Turkey Austria	High efficiency condensing Solar tracking device and the method.



International
Patented
Technology



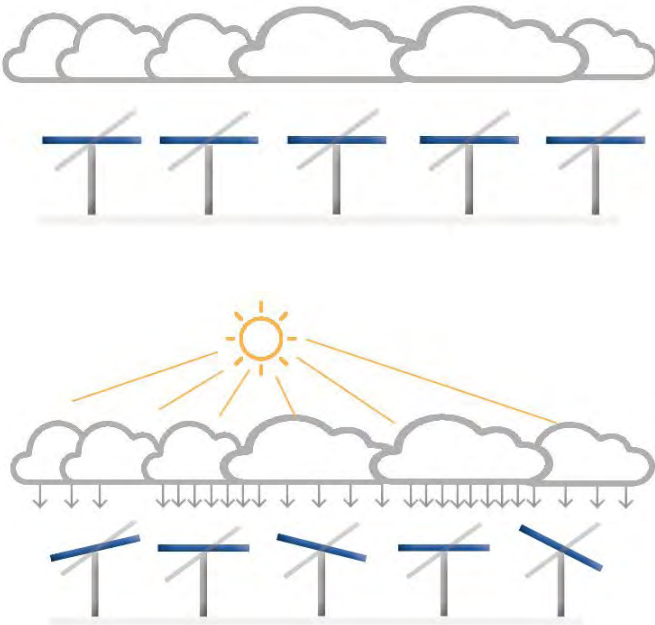
UV
Resistant
Plastic

How it works

Our patented Real Time sensor offers **tracking in real time** - without any pre-programming necessary. During lack of irradiation from cloud coverage, the Real Time Sensor positions the trackers in a stow or 0° degrees position, allowing for no wasted energy compared to astronomical trackers that follow their pre-programmed path.

Diffused light

Due to diffused light, the optimal position of the tracker is not always facing directly towards the sun. An Astronomical tracker will continuously move with its predetermined programming and not take into consideration a shift in irradiance.



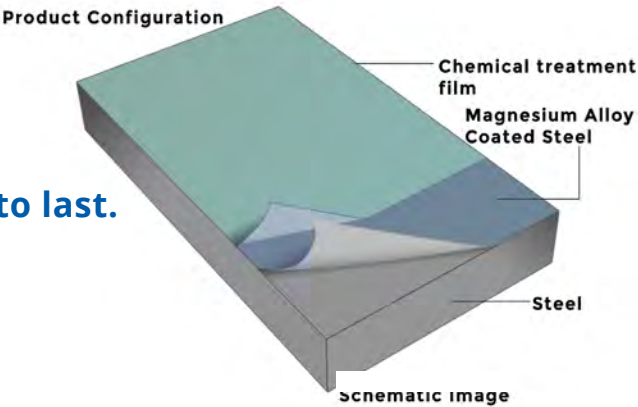
Better tracking. Better solutions.
Real-Time sensing Technology.

EXTEND THE LIFE OF YOUR PROJECT!

What is MAC Steel?

Our trackers are built to withstand high corrosive atmospheres. Thanks to the strength of MAC Steel, (Magnesium Alloy Coated Steel) a self-healing product that is stronger than galvanized steel. The self-healing properties of the MAC Steel allow for our trackers to stand the test of time, giving them durability and functionality. It's equipped with a self healing process preventing future corrosion. This process, makes our trackers, stronger and more durable than any other trackers on the market.

Developed to have superior strength because we believe a product should be made to last.



It Self Heals

In the event of scratching or damage, the MAC Steel begins a self-healing process **fig.1**. The upper coating layer dissolves to cover the damaged area and accellearates the growth of a stable corrosion product. In the event that red rust is found, the self-healing film covers the cross section and serves to prevent future corrosion.



Fig.1



MAC Steel is fully resistant and self-heals even if cutting adjustments occur.

UL tested

600-hr. Accelerated Salt Spray Test According to UL 3703. Test confirms the **self-healing** MAC Steel is higher in resistant to corrosion compared to galvanized steel.



PST-1AX6 Single axis tracking with real-time sensing technology





The PST-1AX6 is Sun Action Trackers horizontal single axis tracker. The 7 row tracker offers a unique design and breakthrough technology to maximize your energy generation. With up to 10% higher ground coverage ratio than any other single axis tracker, this system comes with a full tracking range of motion and backtracking functionality.

Built with MAC Steel for maximum durability over traditional galvanized steel.







KEY ADVANTAGES

-  **Built with MAC Steel for maximum durability**
Built to withstand high corrosive atmospheres, thanks to the self-healing properties of **MAC Steel**, (magnesium alloy coated) a corrosive resistant product that **lasts longer than galvanized steel**, gives our PST-1AX6 longer life and functionality than any other trackers in the market.
-  **Real tracking with Real-Time**
The PST-1AX6 offers patented **real-time sensing** technology to optimize **more energy generation** than astronomical pre-programming systems. The patented sensors, guides our systems to the highest point of irradiance maximizing energy production.
-  **4x less motors**
The PST-1AX6 is equipped with **4x less motors** than independent row trackers allowing maximum flexibility.
-  **Pivot Assembly for installation flexibility**
The PST-1AX6 is designed with **pivot assembly** that self-aligns eliminating installation adjustments saving you time.


BREAKTHROUGH BENEFITS

**Highest Reliability & Durability**


- MAC Steel
- Highest Power Density
- UL certified (3703)

**Installation Flexibility**

- 7 Modules per post
- One set of critical parts per link*
- Flexible on any types of terrain

**Manageable System**

- Low Voltage DC Motors
- Zero scheduled maintenance on Pivot Assembly
- No in-field welding

**Breakthrough Technology**

- Real Time Sensing
- 10% higher Ground Coverage Ratio
- High Operational Wind Speeds

* Control Box, Actuator, Real Time Sensor, Pivot Assembly

PST-1AX6 - CRITICAL PARTS

The PST-1AX6 utilizes only one set of critical parts (Pivot Assembly, Control Box, Linear Actuator, Real-Time Sensor) per link (7 rows).



Pivot Assembly

- ✓ No maintenance required
- ✓ Self-alignment
- ✓ allows for flexibility of ±4° to self adjust
- ✓ UV Rated



Control Box

- ✓ Safety Modes (Wind or Snow Modes)
 - ✓ Automatic / Manual Mode
 - ✓ Error Message Display Function in LCD
 - ✓ Simple Control
- Protection Class • IP 65
Certificate • UL



Linear Actuator

- ✓ High Degree Corrosion Protection
 - ✓ High Accuracy Operation
 - ✓ Easy Maintenance
 - ✓ Vibrantion Resistant
- Certificates • UL



Real-Time Sensor

- ✓ UV Resistant Plastic
 - ✓ International Patented Technology
- Protection Class • IP 65
Certificates • UL

INSTALLATION FLEXIBILITY - PIVOT ASSEMBLY

The PST-1AX6 is designed with a Pivot Assembly, fig.1 that requires no greasing, **eliminating maintenance for the life of the tracker.** The inner spherical form of the Pivot Assembly as see in the figure 2. is flexible and self-aligns, eliminating installation adjustments.



Fig.1

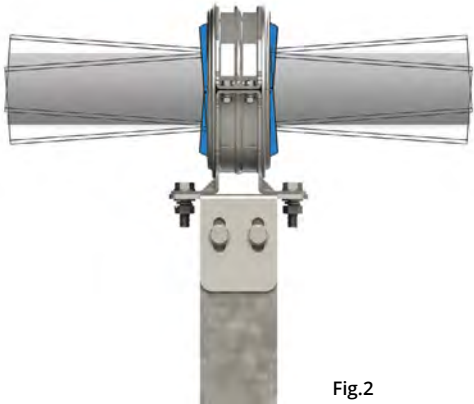
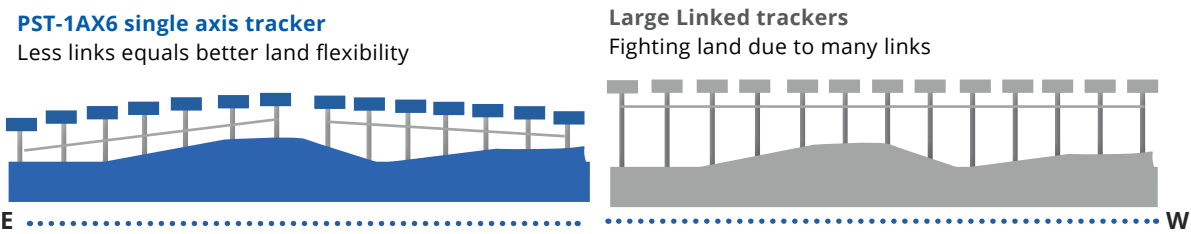
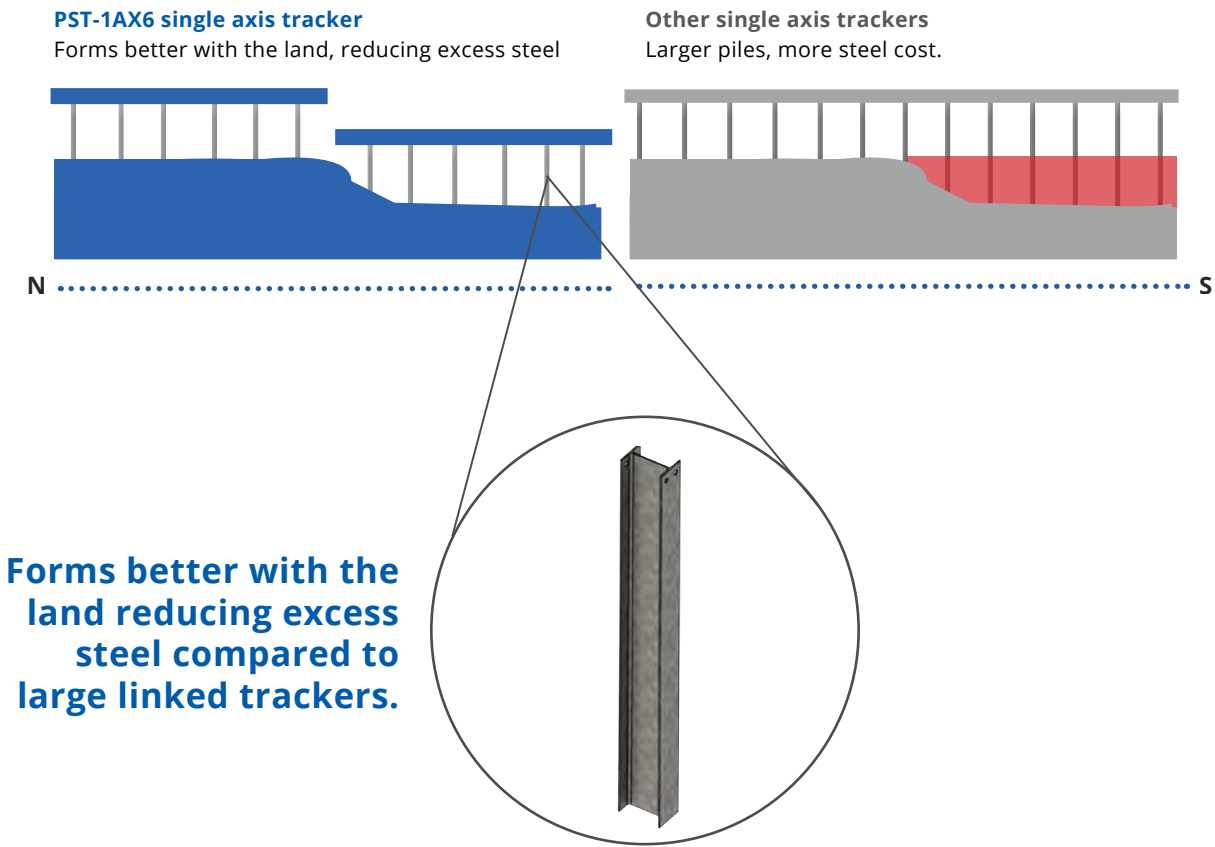


Fig.2



INSTALLATION FLEXIBILITY - LAND FLOW

Unlike other single axis trackers, the PST-1AX6 is more compact and forms better with the land instead of fighting it with large piles. The tracker also reduces excess steel purchase, compared to other single axis trackers with larger piles. .

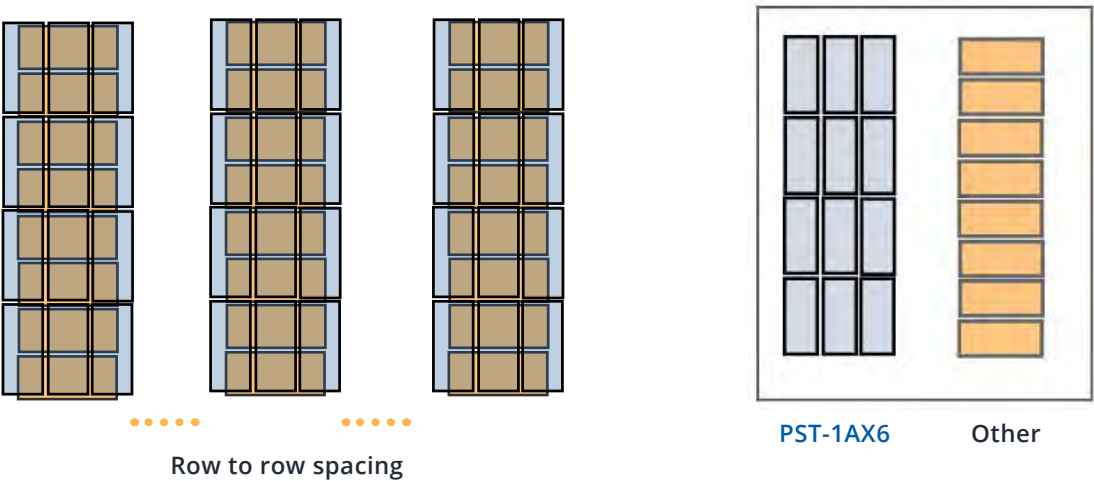


Unlike other trackers that connect many rows together, the PST-1AX6 flows better with the land due to less links saving you cost.



50% MORE MODULES FOR THE SAME AREA

Compared to other single axis trackers, the PST-1AX6 is able to fit more modules per row, resulting in 50% more modules for the same area.





Reliability and Bankability
YOU CAN COUNT ON.

TESTED AND APPROVED



UL Certified 3703

The PST-1AX6 single axis tracker is certified with UL 3703. The certification ensures the PST-1AX6 has met the overall safety, electrical and engineering standards. The certification also includes our revolutionary self-healing MAC Steel (magnesium alloy coated steel). The MAC Steel underwent through a 600-hr accelerated salt spray corrosion test, confirming its resistance to corrosion better than typical galvanized steel products used in the industry today. This allows for our trackers to stand the test of time, giving them durability and functionality.

TECHNICAL DUE DILIGENCE

Bankability



The PST-1AX6 is recognized for its quality and bankability with a Technical Due Diligence Report from **Black & Veatch**.

Technical Data - PST-1AX6

General Features

Tracking type	Horizontal Single Axis
Model	PST-1AX6
Max Capacity per tracker	399 modules (72-cell)
Max. links per Actuator	7 Rows (1row = 57 modules)
Rotating Angles	+45° ~ -45°
Driving System	Linear Actuator (Actuates up to 127kWp with single DC motor, using 320W modules)
String Voltage	Up to 1,500V DC
Ground Covered Ratio (GCR)	Adjustable
Max Row Size	up to 60 modules/row
Array Height	1.45 meters (adjustable)

Module Compatibility & Configuration

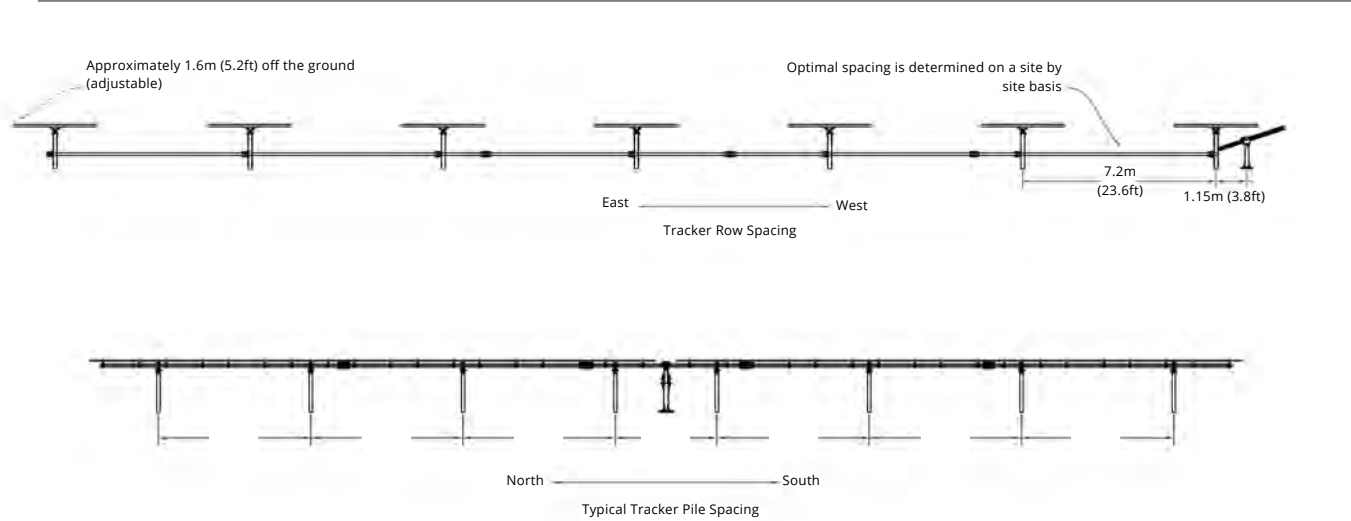
Module Compatibility	Most commercial available including: Frameless, Glass / Glass, Bi-facials, and Thin Film
Module Configuration	Standard triple landscape, 72-cell & 60-cell (Other configurations available)
Modules per post	7 modules*

Motor & Structural materials

Motors per MW AC	8 (using 320W PV module, using 320W modules)
Motor Input Voltage	100-240V AC / 50 ~ 60Hz
kW per Drive Motor	Up to 125kw
Structure Materials	MAC Steel (Magnesium Alloy Coated Steel) / Hot-dip galvanized steel

* 7 modules per post at site specific

PST-1AX6 ROW & PILE SPACING



Technology Features

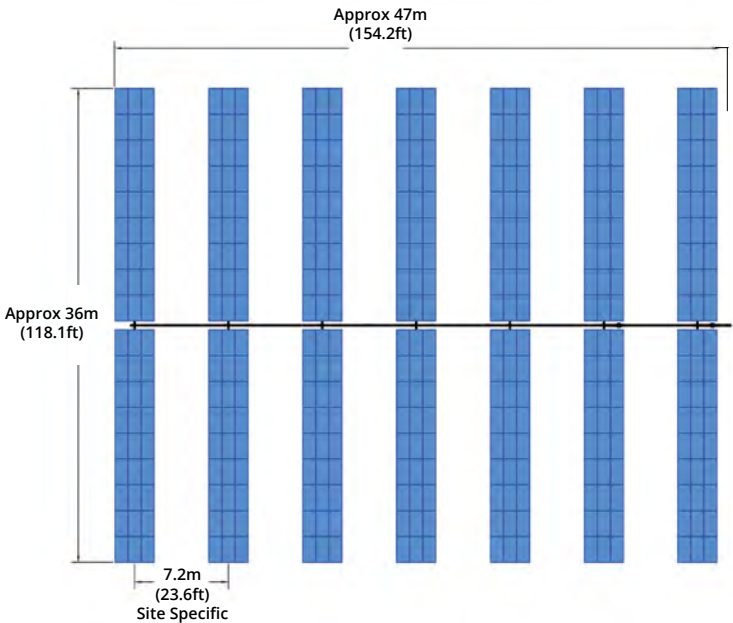
Solar Tracking Method	Real-Time Solar Sensor
Maximum Wind Speed	Standard 110MPH ACC. ASCE 7-10
Safety Mode (Automatic Horizontal)	Wind mode / Low light conditions
Safety Mode (Tilted Position)	Snow mode
Night-time stow	Yes
Backtracking	Yes

Services, Installation & Maintenance

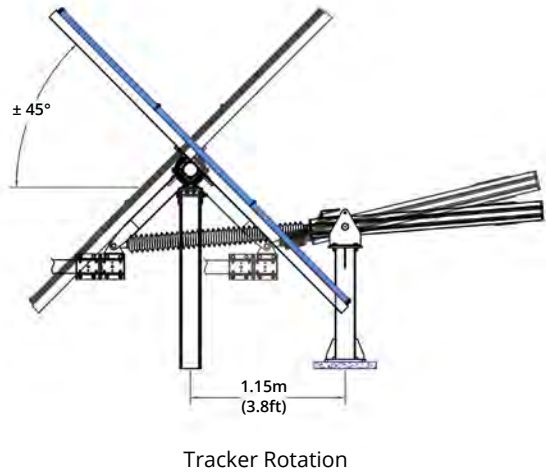
PE Stamped Structural	Yes
Calculations & Drawings	Yes
On-site training & System Commissioning	Yes
Connection Type	No welding required
Pivot Assembly	No lubrication required
Land Area Required per MW	3.8 Acres, standard 7.2m spacing
Energy Gain vs. Fixed-Tilt	Up to 25% site specific

Certifications / Warranty

Certifications	UL 3703
Patented Technology	Real-Time Sensor
Warranty	5 years critical parts / 10 years structure warranty.



Tracker Aerial View

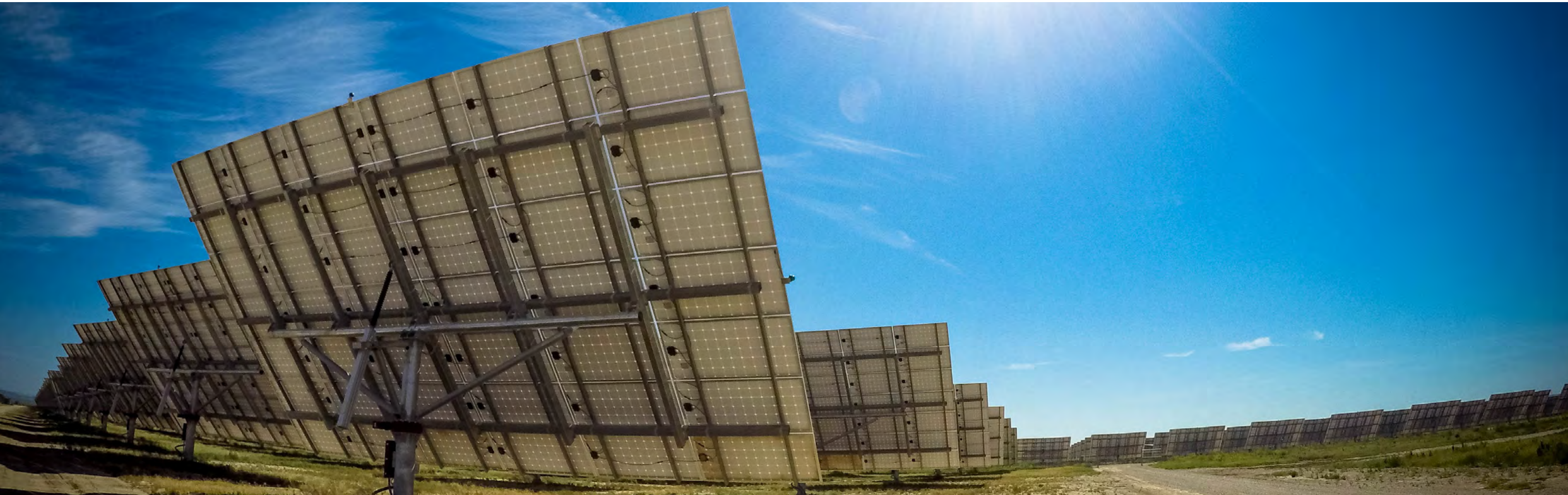


A wide-angle photograph of a solar farm featuring PST-2AL dual-axis tracking systems. The solar panels are mounted on a complex metal structure that allows them to follow the sun's path. The panels are arranged in long, parallel rows that stretch across a dry, grassy field. The sky is a vibrant blue with wispy white clouds, and the sun is shining brightly in the upper right corner, creating a lens flare effect. The overall scene conveys a sense of clean, renewable energy in a natural setting.

*Energy generation of up to 40-45 percent more
than fixed tilt systems.*

PST-2AL
Dual axis tracking with real-time sensing technology

The PST-2AL is the premium choice in modern tracking technology. Thanks to our patented Real-Time sensors that allow for optimum solar energy generation due to the ability to follow the sun at its maximum irradiation point both vertically and horizontally



KEY ADVANTAGES



DURABILITY

Built with **MAC STEEL**, (Magnesium Alloy Coated Steel) a cutting edge technology that is 5-10 time stronger than hot dip-galvanize steel, and is equipped with a self healing process preventing corrosion, making it the strongest and most reliable dual axis tracker in the market.



REAL-TIME SENSING TECHNOLOGY

The PST-2AL features two patented **Real-Time** solar sensors designed to capture the maximum energy. It positions the tracker at "0° or flat" during low light conditions eliminating wasted energy, compared to other solar tracking methods.



INSTALLATION FLEXIBILITY

The PST-2AL **adapts to any terrain**, giving you maximum flexibility during project planning and is a **low maintenance** system.

BREAKTHROUGH BENEFITS



Highest Reliability & Durability

- MAC Steel
- Wire management
- Withstands higher windspeeds
- Black & Veatch report



Installation Flexibility

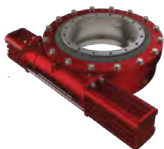
- Can be installed on any terrain
- Low voltage DC motor
- Module compatibility
- On-site training & commissioning



Breakthrough Technology

- Patented Real-Time Sensing Technology
- No wasted energy
- Easy electrical plug & play connection

PST-2AL - CRITICAL PARTS



Sleew Drive

- ✓ High Torque Transmission
 - ✓ Totally Enclosed
 - ✓ High Accuracy Operation
 - ✓ Easy Maintenance
 - ✓ Specifically Designed for solar tracking
- Protection Class** • IP 65
Certificate • UL



Control Box

- ✓ Safety Modes (Wind or Snow Modes)
 - ✓ Automatic / Manual Mode
 - ✓ Error Message Display Function in LCD
 - ✓ Simple Control
- Protection Class** • IP 65
Certificate • UL



Linear Actuator

- ✓ High Degree Corrosion Protection
 - ✓ High Accuracy Operation
 - ✓ Easy Maintenance
 - ✓ Vibration Resistant
- Certificates** • UL



Real-Time Sensor

- ✓ UV Resistant Plastic
 - ✓ International Patented Technology
- Protection Class** • IP 65
Certificates • UL

Technical Data - PST-2AL

General Features

Tracking type	Dual Axis
Model	PST-2AL
Module Area (Max)	85m² [42 modules 72-cell]
System Weight	1,970kg without modules and foundation
Tracking Axis	Dual axis; azimuth & vertical
Tracking Range of Motion	Azimuth -135° to +135° Vertical: 0° to 60°
Azimuth Rotation	Slew Drive
Vertical Tilt	Linear Actuator
Materials	Magnesium Alloy Coated Steel / Hot Dip Galvanized

Technology Features

Solar Tracking Method	Real-Time Solar Sensor
Maximum Wind Speed	Standard 105MPH ACC. ASCE 7-05
Safety Mode (Automatic Horizontal)	Wind mode / Low light conditions
Safety Mode (Tilted Position)	Snow mode
Temperature Range	-25° to 55° C (-13° to 131°F)
Night-time stow	Yes

Services, Installation & Maintenance


PE Stamped Structural	Yes
Calculations & Drawings	Yes
On-site training & System Commissioning	Yes
Connection Type	No welding required

Certifications / Warranty

Patented Technology	Real-Time Sensor
Warranty	3 years critical parts / 10 years structure warranty.



42 modules 72-cell

The **PST-2AL** offers bankability with Technical Due Diligence Report from **Black & Veatch**. 



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Visit our YouTube Channel for
product videos

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