

# TDP™ 2.0 TURNKEY SOLAR TRACKER With *BalanceTrac*

™ TDP is a trademark of Solar FlexRack

## Tough, Reliable Tracker & Team of Experts at Your Service



Solar FlexRack's new TDP 2.0 Turnkey Solar Tracker with complete project support services for commercial and utility-scale solar installations introduces an advanced design featuring new *BalanceTrac*. This next-generation technology enables solar power plants to increase energy yield while significantly reducing project risks. That translates to smart installation cost-savings across your project budget.

### The Only Tracker Solution with:

- Full Design
- Installation
- Commissioning Services

### Increased Energy Yield

TDP 2.0 with new *BalanceTrac* is efficiently designed to support more modules per row, a rotational range of up to 110°, and is compatible with 1,000 and 1500V modules. These key features enable significant energy production gains in solar power plants.

### Greater Adjustability To Maximize Performance

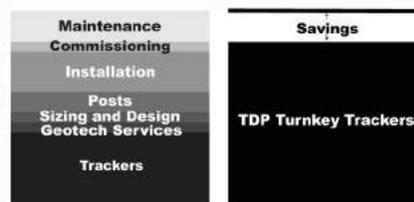
TDP 2.0 Tracker has up to a 10% slope tolerance that can eliminate the need to level land. Independently driven rows provide easy access for mowing, cleaning and maintenance. Autonomous tables increase design flexibility to maximize ground coverage on irregular and non-adjacent lots. Programmable granular backtracking, snow shedding and new wind damper technology mitigate inclement climatic events and reduce risk of tracker damage. All of these features compound to increase system performance.

### Installations Fly with Solar FlexRack

No special equipment or additional steps are required to square your racking. The proprietary design allows modules to easily slide into place, accelerating the process, and reducing installation time.

### Complete Support Services Reduce Project Risks And Costs

A tracker solution that comes with all the critical associated support services and an unmatched team of experts that will significantly reduce your risks and project costs. Project management is simplified, redundancies are eliminated, and you have one highly-experienced supplier-instead of many.



### Increased Yield & Reduced Costs

- More modules per row (up to 90)
- Rotational range of up to 110° (±55°)
- Optimized for 1,000 & 1,500V modules
- Lower per-unit fixed costs for balance of system savings
- Allows shorter piles
- Programmable technology to mitigate inclement climatic conditions
- installations fly with no prying, adjusting or special tools
- Built to last, the robust design reduces amount of tracker components and wear
- Autonomous tables increase design flexibility to maximize land use
- Smart backtracking reduces row shading to optimize energy production
- Independently driven rows provide easy access for mowing, cleaning and other maintenance

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## TESTING

Rain, wind, sleet, snow, heat – every day and everywhere, our products are battling the elements.

We perform ongoing extensive testing in these key areas: wind tunnel, structural load, electrical bonding, and life cycle.

Solar FlexRack trackers also undergo wind tunnel testing performed by RWDI, per American Society Of Civil Engineers Standard ASCE 7.

## UL COMPLIANCE

All Solar FlexRack systems have gone through UL testing.

Each component-connection point within the system conforms to NEC codes for electrically bonded and conductive systems.

Testing is performed by TUV Rheinland in accordance with UL 2703.

Certification covers both United States and Canada.

Find out more about Solar FlexRack product reliability and testing at <http://solarflexrack.com/products/testing>



Learn more about our Preferred Installer Program: <http://solarflexrack.com/resources/preferred-installer-program/>

TRACKING	
<b>Tracking method</b>	Single-axis horizontal, distributed drive
<b>Backtracking</b>	Smart backtracking - customized to terrain for maximum production
<b>Tracking range</b>	Up to 110° (± 55°)
<b>Ground coverage ratio (GCR)</b>	Configurable (0.33 to 0.50)
<b>Tracking accuracy</b>	2°
<b>Stow Angle</b>	Configurable

ARRAY CONFIGURATION	
<b>Panels per tracker</b>	Up to 90
<b>Trackers per controller</b>	1
<b>String voltage</b>	Up to 1,500 Volts
<b>Panel configurations</b>	1 in portrait (crystalline) 2 in landscape (crystalline) 4 in landscape (thin film)
<b>Drive type</b>	Slew 24 Volts dc

OPERATIONS & MAINTENANCE	
<b>Scheduled maintenance</b>	None
<b>Warranty</b>	10 Years: Structural and Controllers 5 Years: Drives and Electrical
<b>Certifications</b>	UL 2703
<b>Dynamic load management</b>	Limited progressive damping technology
<b>Snow management</b>	Programmable snow shedding

INSTALLATION & TOLERANCES	
<b>North-south slope tolerance</b>	Up to 10%
<b>North-south post spacing</b>	± 1.5 inches
<b>East-west post alignment</b>	± 0.625 inches
<b>Post height</b>	± 1 inch
<b>Post plumb</b>	± 1°
<b>Post twist</b>	± 2°
<b>Tube twist</b>	± 2°

CONSTRUCTION	
<b>Structural materials</b>	Hot dip galvanized steel
<b>Bearings</b>	UV-rated engineering plastic, no lubrication needed
<b>Mechanical connections</b>	Bolted - no welding, drilling or cutting required

CONTROL SYSTEM	
<b>Data feed</b>	Ethernet, Zigbee, SCADA
<b>Power consumption</b>	31 kWh per tracker per year

ENVIRONMENTAL	
<b>Operating temperature</b>	-30 °C to +60 °C
<b>Wind Stow</b>	105 mph (Up to 130 mph) 35 mph
<b>Snow load</b>	10 psf (standard) Higher snow load available upon request



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## Support Services

- ✓ Geotechnical Services
- ✓ Structural Analysis
- ✓ Layout & Design
- ✓ Foundation Design Services
- ✓ Post Driving
- ✓ Pull Testing
- ✓ Tracking System Installation
- ✓ Visual Inspection of Trackers
- ✓ Preferred Installer Network
- ✓ Post, Rack & Module Installation
- ✓ Configuration of Tracker Controls
- ✓ Configuration of Network Controls
- ✓ Project Management
- ✓ PE Stamp
- ✓ Onsite Training
- ✓ Commissioning
- ✓ Remote Data Monitoring & Reporting

## Over 2.0 Gigawatts of Solar FlexRack Installed

Solar FlexRack, a division of Northern States Metals, is an integrated solar company that offers custom-designed, fixed tilt ground mount and single-axis solar tracking systems in the commercial, community solar and utility-scale solar mounting industries. Solar FlexRack offers full turnkey packages including engineering, geotechnical, pullout testing, field, layout, and installation services to address the actual site conditions of an installation and provide a full scope of services from design to delivery and installation. Solar FlexRack has completed over 2 GW of solar racking installations in 40 states across America and five countries globally.

For more information on Solar FlexRack visit: [www.solarflexrack.com](http://www.solarflexrack.com)