

Solar Piling

Drive Results by Automating Pile
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All Gain. No Pain.

Piling is demanding, and traditional means and methods are being pushed to their limits. Built engineers have spent thousands of hours developing an advanced autonomous solution that can rise to meet the challenges of utility-scale solar.





The Bold Standard: The RPD 35

Don't compromise on your tools. The RPD 35 is a fully autonomous robotic pile driver that combines four steps — surveying, pile distribution, pile driving, and data collection — into a single robot. Take advantage of the superior production and efficiency gains that only a robot can deliver, and outshine the competition.

40,000 lbs	224 piles	10%
Hammer impulse force	Maximum pile capacity	Maximum grade
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A Powerful Sidekick: The RPS 25

Every RPD 35 pairs with an RPS 25. The robotic pile stabilizer ensures driven piles exceed the most stringent tracker tolerances and produce consistently placed piles every time: accurate z-heights, perfect plumbness, and unrotated piles.

Up to 17 mm

Pile-to-pile height
variation

Up to 30 mm

Pile z-height tolerance

W6×7 to W8×28

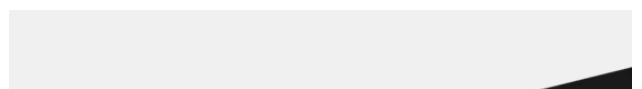
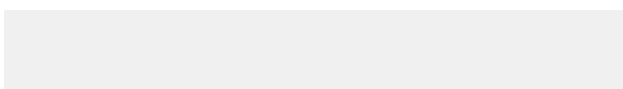
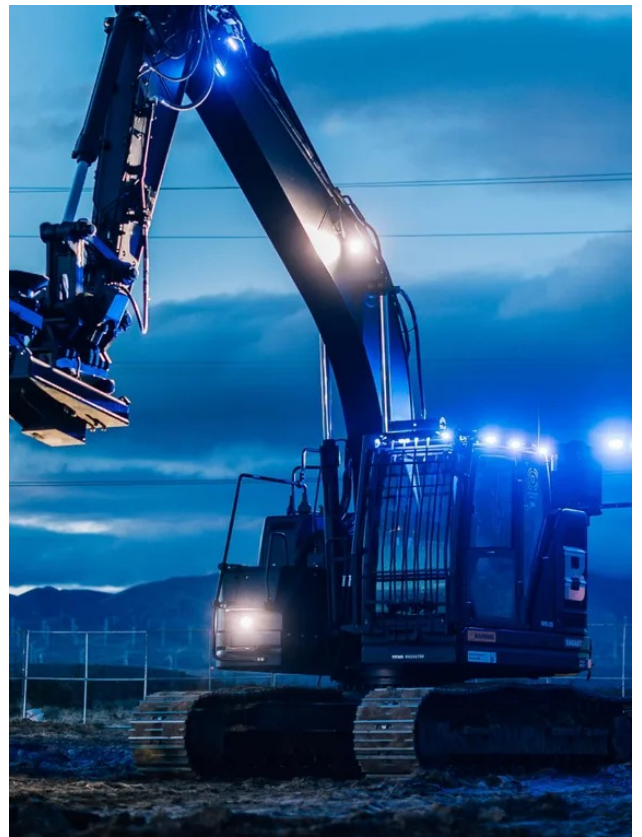
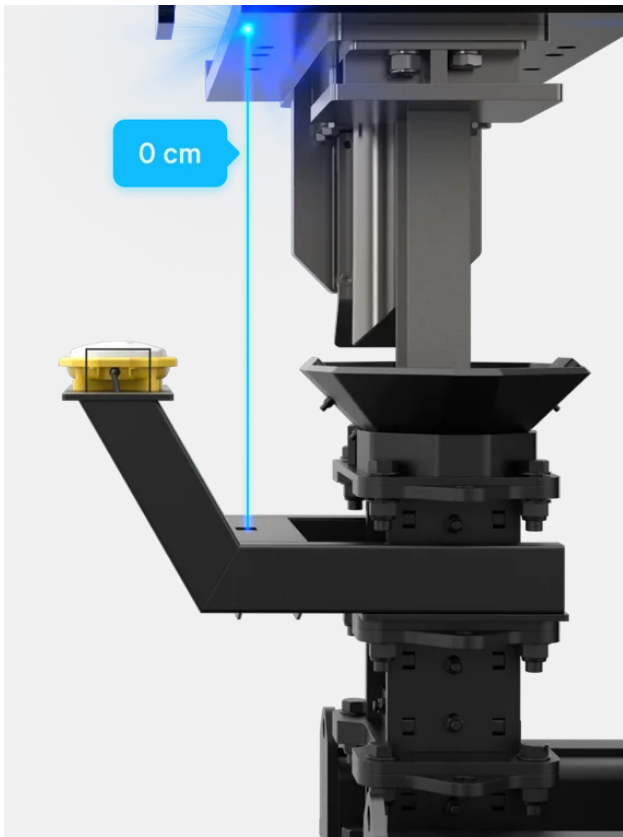
Cross section
compatibility

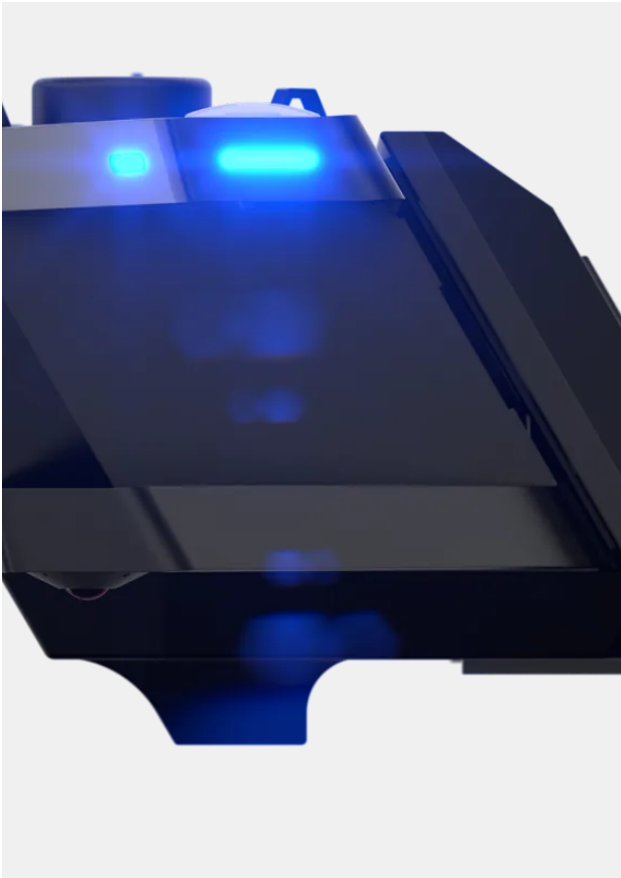


Advanced Robotics

With intelligent sensor fusion, AI-powered vision systems, real-time production data, and edge computing, the most advanced construction autonomy is now available for piling on solar farms.



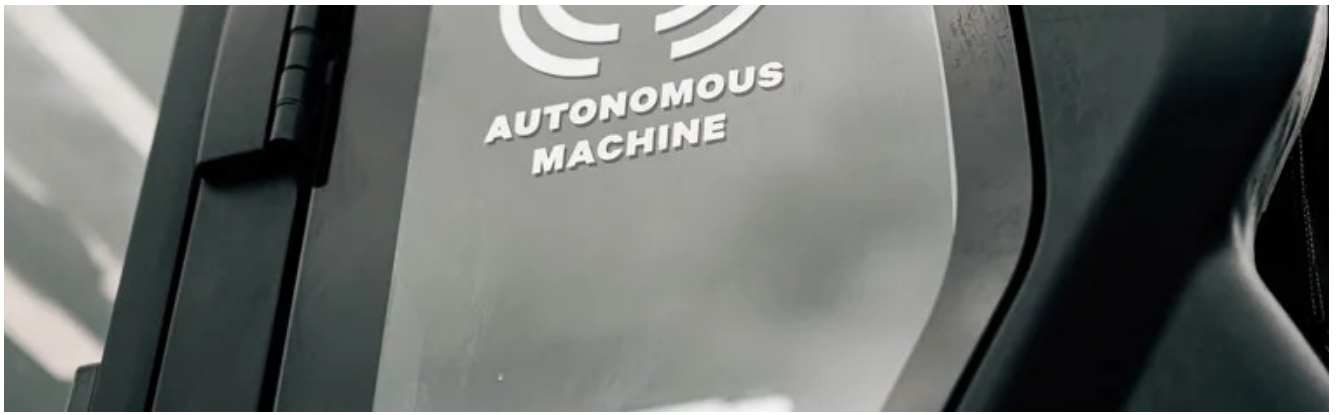




Safer Results. Safer Work.

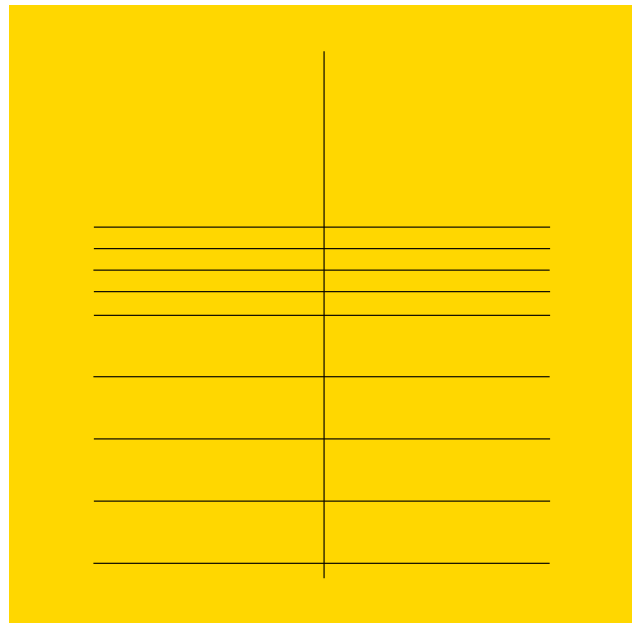
Make jobsites safer with autonomous tools. An 8-Layer Safety System keeps workers safe around the robot. With autonomous piling, workers can avoid the extreme weather, sound, struck-by, and caught in-between accidents common with manual operation.





Tight Tolerances

Nothing compares to the accuracy and precision of a robot. Achieve results that repeat themselves from the first pile to the very last to help enable issue-free tracker installation.



Lower Costs

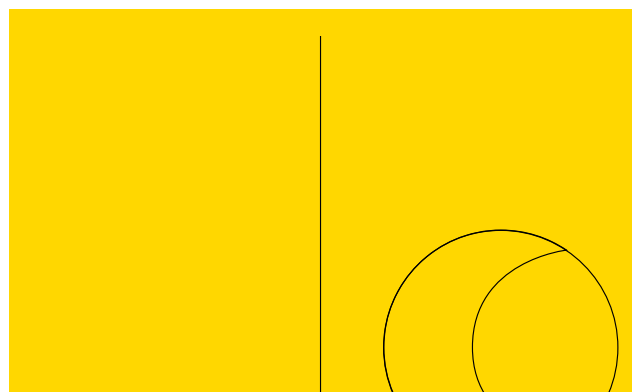
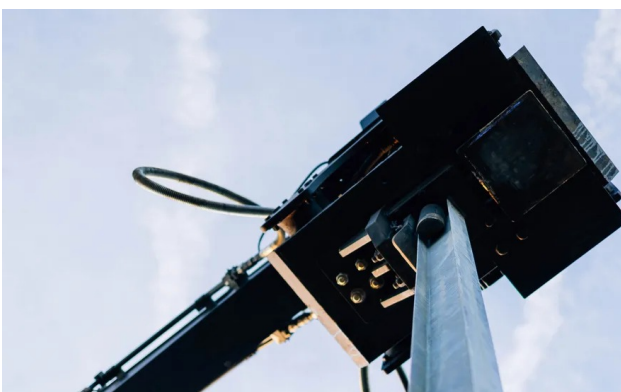
Drive more, spend less. Robotics lower installation and labor costs. The RPD 35 frees up valuable labor to focus on critical tasks letting solar developers optimize piling

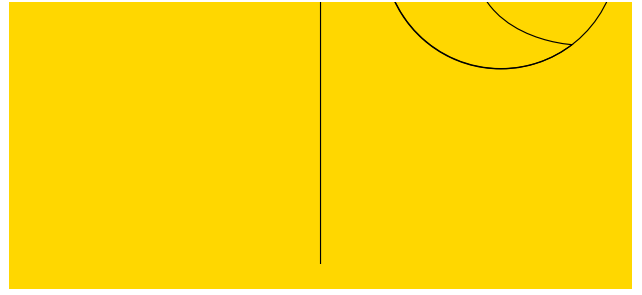
costs to stay competitive and win the market.



Maximum Uptime


Unlock a new way of running your business. Robots reduce schedule uncertainty, limit rework, and operate with little interruption, which maximizes equipment utilization and uptime to create productivity unseen with traditional means and methods.





Pile on the Features





Up to 5× Faster

The RPD 35 is a field-proven force multiplier that works up to five times faster than a traditional pile driver. Reduce cycle times and boost productivity with the most advanced pile driver on the market.



RPD 35 Specifications

Exosystem™

Processing Power	64-Core Intel® Xeon®
Vision System	360° camera coverage
Machine Learning	1,000,000+ data points
Graphics	Dual NVIDIA GPUs
Precision & Positioning	Sub-centimeter RTK GPS
Safety	Geofence, AI-powered smart cameras, wireless emergency stop, and Guardian™ remote monitoring
Durability	Liquid-cooled computer. Shock and vibration resistance. Water and dust protection.
Hammer	
Driving Action	Vibratory

OEM Model	Ho-Pac 4000
Operating Frequency	2,100 revolutions per minute
Impulse Force	40,000 pounds
Operating Pressure	2,200 pounds per square inch
Weight	~8,000 pounds

Sleds

Payload	22,000 pounds
Pile Cross-Sections Supported	W6×7 to W8×28
Maximum Supported Pile Flange Width	6.5 inches
Length of Machine with Unloaded Sleds	~45 feet
Width of Machine with Unloaded Sleds	~12 feet

Comparison to Manual Operation

	RPD 35	Manual Operation
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Productivity

Cycle Time	1–3 minutes	2–5 minutes
Quality Guarantee	Consistent pile driving	Rework may be required

Task Requirements

Survey	Autonomous	Manual
Pile Distribution	Autonomous	Manual
Pile Driving	Autonomous	Manual

As-Builts	Autonomous	Manual
Maximum Supported Pile Length	19 feet	20 feet
Maximum Pile Capacity	224 piles	1 pile
Operating Ground-Bearing Pressure	~11 pounds per square inch	~8 pounds per square inch
Data & Technology		
Average Cycle Time Tracking	✓	✗
Pile Driving Capabilities	Remote control included without additional software or configuration	Remote control requires specialized equipment and configuration
Remote Control Operating Range	Limitless with 4G and 5G cellular and Starlink	100–300 feet
Real-Time Telematics	✓	✗
Pile Driving Capabilities	Autonomous and remote control	Manual and remote control
Hammer Type	Vibratory	Impact
RTK GPS	✓	✓
Auto-Plumb	✓	✓
Virtual Map of Jobsite	✓	✗
Automatic Cloud Backups	✓	✗
Safety		
Bystander Awareness	✓	✗
Eight-Layer Safety System	✓	✗
24/7 Remote Monitoring	✓	✗

GPS-Designated Geofence
Work Area



Wireless Emergency Stops



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