
RPD 35 & RPS 25 Robotic Solar Piling System

Technical Specifications



RPD 35

Robotic Pile Driver

Get more done. The RPD 35 is a fully autonomous robotic pile driver that combines four steps — surveying, pile distribution, pile driving, and data collection — into an AI-powered technology platform.



Machine

OEM Model	Caterpillar 335
Operating Weight (Fully Loaded)	144,000 lbs
Ground Pressure	11 psi

Hammer

OEM Model	Rammer Ho-Pac 4000
Driving Action	Vibratory
Impulse Force	40,000 lbs
Operating Frequency	2,100 rpm
Maximum Pile Weight	600 lbs

Sleds

Pile Lengths Supported	10–19 ft
Pile Cross Sections Supported	W6×7 to W8×28
Pile Capacity	60–224 piles
Maximum Payload	34,000 lbs
Pile Mix Supported	10+ pile types

RPS 25

Robotic Pile Stabilizer

Drive with precision. The RPS 25 locates and stabilizes piles as they are being driven, ensuring each pile meets the strict tolerances required for today's single-axis tracker assemblies.



Machine

OEM Model	Caterpillar 325
Operating Weight	65,000 lbs
Ground Pressure	8 psi

Pile Stabilizer

Localization Technology	RTK GPS and LIDAR fusion
Pile Types Supported	W6 and W8
Pile Twist Accuracy	±1°
Plumbness Accuracy	±1°
Reveal Window	2.5–8 ft



Safety Features

A blueprint for safety. Every robot from Built is powered by an 8-Layer Safety System that includes safety barriers, emergency stops, AI-powered collision avoidance, and more.

- 1 **Geofence** Isolates robot from workers
- 2 **Safety Barrier** Keeps people out of the robot's area
- 3 **Warnings Lights & Sounds** Indicates robot is active
- 4 **Warnings Signage** Provides visual and written warnings
- 5 **Hardwired E-Stops** Instantly shuts off engine
- 6 **Wireless E-Stop** Instantly disables autonomy
- 7 **AI-Powered Smart Cameras** Avoids collision with people
- 8 **Guardian™** Provides real-time monitoring

Productivity Features

More than a robot. Maximize ROI with a suite of advanced features designed for utility-scale solar construction, including cloud-based dashboards, API integrations, and on-site technical support.

- ✓ **Automatic as-builts with custom ERP integration**
- ✓ **24-hour operation**
- ✓ **Real-time telematics**
- ✓ **Everest™ cloud dashboard**
- ✓ **Live video feeds with 360° coverage**
- ✓ **Starlink satellite connectivity**
- ✓ **High-gain bonded 4G/5G cellular**
- ✓ **Refusal detection**
- ✓ **AES-256 data encryption**

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