



SpanGuard™


Power Line Markers

P&RTECH
making life visibly safer

SpanGuard™

Power Line Markers



P&R Tech is the worldwide leader in power line markers and related safety products for the utilities industry. For over  50 years, SpanGuard markers have been saving lives and protecting valuable power lines by making them visible to low flying aircraft.

We introduced our original SpanGuard/HeliMark spherical power line markers in 1960, and many of them remain in service to this day. Because of their durable construction, easy installation—often by helicopter—and “line friendly” performance, SpanGuard markers have been chosen by over 2,000 utilities, and all are repeat customers.

Over the years, we have improved our marker design and extended it to a variety of models that fit nearly any application and budget, including EHV markers for high voltage lines and aluminum markers for higher voltage/temperature lines.

Talk to us about your application. We can help match the right markers with the job, provide the necessary quote, coordinate with your project schedule, and as needed, arrange helicopter installation.

FAA Advisory

The FAA advises that 36" markers be used on high transmission lines and hazardous river crossings. Smaller 24" and 20" markers are permitted on less extensive power lines or on lines below 50 feet in approaches to airports. Each marker should be a solid color—international orange, yellow, or white—and the FAA suggests that alternating colors be used on critical lines to optimize visibility in all seasons. (Orange alone may be difficult to see against fall foliage.)

ABS vs Fiberglass

Our SpanGuard ABS and EHV markers are constructed of K-10 ABS with our special UV weather cap that ensures superior color retention and prevents fading, cracking, or breaking. It has 15 times the weatherability and color retention of fiberglass.

Spiral Preform Attachment

SpanGuard markers are securely attached to the live conductor, OPGW, or shield wire with spiral formed armor rods. These spiral preforms extend outward from the marker and actually reinforce and protect the conductor at the point of attachment. Completely slip-proof, they prevent line damage often associated with clamps that dig into the line. The preforms are matched at time of order to the specific size, type, and diameter of line.

SpanBrite™ Nighttime Option

SpanBrite reflective tape is an option available with all SpanGuard markers, making them more visible at night for helicopters and small planes.



Directional landing lights reflect off the tape, making the marker visible up to 2500 feet away at night (750

feet with a small flashlight). SpanBrite is superior to phosphor paints, which are slow to react.

SpanGuard Assembly & Installation

SpanGuard markers are easy to install on the ground or from a bucket, and they are ideally suited to installation by helicopter.



This makes it possible to install markers on otherwise inaccessible lines across rivers or deep canyons, or where it is not feasible to take the line out of service.

The markers can be largely assembled on the ground in a “clamshell” configuration that greatly simplifies installation on the power line.

SpanGuard, SpanLite, and SpanBrite are trademarks of P&R Technologies, Inc.

On the cover: Tacoma Narrows, Washington State



SpanGuard ABS

Standard Markers

Suitable for shield wires, OPGW and energized lines up to 115 kV, this is the power line marker that has set the standard for decades! Many of our original SpanGuard markers remain in service after 50 years, long after competing products have failed. Routinely installed by helicopter, SpanGuard markers use spiral wire preforms for secure attachment and are made of durable K-10 ABS with superior color retention. Available in international orange, yellow, or white.

Model	Diameter	Weight (w/o rods)
SG9	9"	4 lbs.
SG20	20"	5 lbs.
SG24	24"	10 lbs.
SG36	36"	17 lbs.

Add "O" for orange, "W" for white, "Y" for yellow after model no.



SpanGuard EHV

345 kV Markers

Developed for installation on higher voltage lines, our EHV markers use the same K-10 ABS material as our standard markers, but have a special coating and other design features to reduce corona effects that can degrade and discolor a standard marker, or even lead to burning or melting. While non-EHV markers have been installed on lines up to 135 kV, corona damage can take years to develop. Atmospheric contaminants and other environmental factors can accelerate the process. Our 24" EHV markers are rated up to 230 kV, while our 36" EHV markers go to 345 kV. Available in international orange, yellow, or white.

Model	Diameter	Max Voltage	Weight (w/o rods)
EHV24	24"	230 kV	13 lbs.
EHV36	36"	345 kV	20 lbs.



SpanGuard AL

High Temp Markers

Highly conductive, lightweight SpanGuard AL markers are constructed from aluminum for direct attachment to high corona and/or high temperature ACSS/ACCR lines and are rated up to 250° C (482° F) and 500 kV. Plastic and fiberglass markers can melt or burn at high temperatures or in a strong corona field. SpanGuard AL 12" markers are suited to dual and triplex lines where larger markers don't fit. They can also be used as bird diverters on high voltage lines to protect wildlife, avoid federal fines, and prevent costly damage. Available in international orange, yellow, or white.

Model	Diameter	Weight (w/o rods)
AL12	12"	4 lbs.
AL24	24"	10 lbs.
AL30	30"	17 lbs.
AL36	36"	20 lbs.



SpanLite™

Self-Illuminated Marker

The patented SpanLite meets FAA standards for marking power lines by day and incorporates long-life LED obstruction lights that meet FAA Advisory 70/7460-IL and ICAO catenary lighting standards at all hours. SpanLite installs directly on live lines from 15 kV to 500 kV and picks up the electrical field generated by the line to drive two steady red 810 LED lights that each produce 32.5 candela. The line must carry 40–2,000 Amps to fully illuminate both lights. SpanLite can also be flashed and is available with amber, blue, green, or IR LEDs. LED technology ensures many years of operation with little or no maintenance, and the self-illumination of SpanLite makes it ideal for marking river or canyon crossings, as well as low hanging lines around mines, power plants, and similar installations. The marker shell is made of light weight aluminum and is available in international orange, white, and yellow.

Model	Diameter	Line-to-Line Height*	Net Weight
SL12-2	12"	20"	17 lbs
SL24-2	24"	32"	30 lbs
SL36-2	36"	44"	51 lbs

*Outside dimension



SpanGuard Ordering

All markers are made-to-order, and orders should be placed 4–6 weeks in advance of installation (8–12 weeks for SpanLite), or earlier during the peak summer season. Please contact us for current delivery schedules. Utilities may also choose to stock SpanGuard markers and spiral preforms in various sizes (the marker halves nest to save space).

Ordering Instructions:

1. Give model number and color of markers.
2. Give type and size of line, diameter of line, and material:
 - Aluminum conductor
 - OPGW
 - Alumoweld
 - Copper
 - Galvanized steel
3. Terms are Net 30.
4. FOB Roseburg, Oregon.

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