



SpanGuard™

Power Line Markers

P&RTECH
making life visibly safer

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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 high 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 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.



The flashing lights of the aircraft reflect off the SpanBrite. Helicopter landing lights make SpanBrite

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 115KV, 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 115KV+ Markers

Developed for installation on higher voltage lines (up to 500KV), 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 135–150KV, corona damage can take years to develop. Atmospheric contaminants, bird nests, and other factors can accelerate the process. For this reason, P&R Technologies recommends that EHV markers be installed on energized lines above 115KV. Available in international orange, yellow, or white.

Model	Diameter	Weight (w/o rods)
EHV24	24"	13 lbs.
EHV36	36"	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 500KV. 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 patent pending SpanLite is a combination power line marker and obstruction light. Made of aluminum, Spanlite is installed directly on the live conductor from 50KV to 500 KV and carrying 40–2,000 Amps. By picking up the electrical field, SpanLite illuminates two 810 FAA & ICAO LED lights that each produce 32.5 candela steady red light.* 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. SpanLite markers are ideally suited to river or canyon crossings, as well as low hanging lines around mines, power plants, etc. For most applications, 12" SpanLite markers in international orange are used. SpanLite is available in international orange, white, or yellow and by special order in 24" and 36" diameters.

Model	Diameter	Weight (w/o rods)
SL12	12"	26 lbs.
SL24†	24"	NA
SL36†	36"	NA

†Special order

*Meets/exceeds FAA Advisory AC70/7460-1K Catenary Lighting



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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