

Utilities

BUSINESS REVIEW



ROTBLOC® UTL
**ENGINEERING POLE SERVICE-
LIFE FROM THE GROUND UP**



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PHOTO: by Jessica Carhart of a ROTBLOC UTL on-site install by ALAMON, INC. who services electrical grids and utility poles nationwide.

Wooden utility poles are expected to remain in service for decades, but their durability is shaped less by what happens above ground than by how the pole is affected at and below the ground line.

At the soil interface, moisture, oxygen and organic material create an abundance of microorganisms. These living organisms are responsible for millions of premature utility pole failures each year despite the chemical strategies commonly used by the industry to control them. This groundline degradation is the leading cause of premature pole failures in utility infrastructure.

In addition, periodic inspection cycles and maintenance activity only intensify those conditions by repeatedly disturbing the very fiber of the pole itself and the surrounding soil over the pole's service-life.

Providing a lifetime solution to groundline pole degradation that is user-friendly and accommodates utility pole inspection programs has shaped ROTBLOC LLC's approach to protecting and sustaining utility infrastructure.

Its utility-specific groundline protection system, ROTBLOC UTL, is installed as a durable, non-toxic barrier wrap around the base of the pole at the soil interface. The system is designed to be easily removed and reapplied, allowing protection to remain in place throughout inspection and maintenance cycles rather than being sacrificed by them.

"Our uniqueness is in design discipline," says Ken Carhart, co-founder of ROTBLOC LLC.

The design reflects years of observing and understanding how treated wood performs under real operating conditions. Chemical preservation slows decay, but variables are many, including chemical delusion, migration and leaching over time. ROTBLOC UTL addresses the problem by introducing a physical barrier at the point of exposure.



Anything that helps extend service life in a predictable way gives planners more flexibility and fewer surprises.

So, rather than replacing existing treatments, it reinforces them—helping retain preservatives within the pole while limiting biological attack. The result is protection that works as a performance multiplier for traditional treatments throughout the pole's service life.

Designing for Inspection, Not Around It

Any groundline protection that cannot withstand product installation, pole transport, pole installation, excavation, inspection, backfill and time ultimately works against long-term preservation. If a barrier punctures or tears, its protective role erodes regardless of intent.

Many conventional protection approaches, including thin wraps and coatings are not designed to be disturbed before or after installation. During inspections, they are often cut away to gain access.

ROTBLOC UTL addresses this failure mode at the material level. Its design emphasizes durability and reusability, so the barrier maintains structural integrity through the installation and transport of new poles, or the excavation, inspection and backfill of existing poles.

Several design details reflect this field-first logic. ROTBLOC UTL has a full utility patent and is designed from the installer's perspective relative to the speed and ease of practical installation. It requires no special tools to accomplish this 30-second task.

The product's 'Adaptive Seal' is an integrated feature; it is an inward-facing flange that substantially seals the product to the pole without additional blowtorches or butyl tape to perform this function. In addition, clear ground-line indicators ensure consistent placement across crews and installations. Together, these features address the most common concerns with barrier systems of the past and redefine reliability as consistent performance over time.

"Our solution treats inspection as a fixed operating condition, not a disruption. When inspection compatibility becomes a core design requirement, ground-line protection becomes part of the pole's long-term structure rather than a consumable layer," says Ken.



PHOTO: by ALAMON, INC. who services electrical grids and utility poles nationwide.

Preservation that Fits Utility Cost Reality

Ground-line protection carries a clear economic dimension, shaping not only when poles must be replaced, but how utilities plan capital and manage uncertainty over time. Every premature pole replacement represents more than the cost of wood. It brings labor, traffic control, outage risk, safety exposure and downstream impacts to the attached infrastructure. Across large networks, those costs compound steadily, often in ways that are difficult to predict or smooth across planning cycles.



PHOTO: by Jessica Carhart. ROTBLOC LLC has been collaborating with Oregon State University since 2012.

From a planning perspective, even modest extensions in average pole life can materially change how capital is allocated. By slowing ground-line degradation—the primary driver of premature failure—ROTBLOC UTL helps reduce the variability that forces utilities to plan defensively around replacement risk. Capital that would otherwise be held in reserve for unplanned failures can be redirected toward modernization, resiliency or grid expansion.

For smaller and rural utilities, where replacement programs often strain limited budgets and staffing, this reduction in uncertainty is as important as the cost savings themselves. More predictable service life allows planners to stabilize assumptions, sequence work more deliberately and avoid disruption-driven decision making.

“The reality for many utilities is that replacement isn’t just expensive, it’s disruptive,” notes Jessica Carhart, co-founder of ROTBLOC LLC. “Anything that helps extend service life in a predictable way gives planners more flexibility and fewer surprises.”

The adaptability and versatility of ROTBLOC UTL reinforces this planning logic. Because the same system can be applied during new installations, inspections, retrofit programs or used as an animal deterrent, utilities are

not forced into separate products or parallel processes. Protection can be added where it makes sense, without introducing additional product complexity or altering established field workflows.



When I started the company years ago, I really wanted the products to be accessible to everyone, not just somebody with three or four hundred dollars in their pocket.

Sustainability as a Structural Outcome

Sustainability emerges from how a system performs in service, not from a separate set of objectives layered on afterward.

When pole life is extended, replacement cost cycles slow and fewer trees are harvested. When protection remains intact at the ground line, preservative chemistry stays where it is intended, reducing migration into surrounding soil. And when remedial treatments are required less frequently, cumulative worker exposure to chemicals declines. Over time, these outcomes compound as a function of normal utility operations rather than special programs.



PHOTO: by Jessica Carhart for ROTBLOC LLC.

The material choices behind ROTBLOC UTL reflect this lifecycle logic. Manufactured from 100 percent recycled polyethylene and produced domestically, the barrier is designed to remain in service through many inspection cycles rather than be removed and discarded after a single inspection cycle. Durability and reusability are not framed as sustainability features, but as practical requirements for long-term performance.

“Our non-reactive physical barrier provides protection without introducing additional environmental burden, allowing utilities to maintain asset integrity while operating within regulatory and site-specific constraints,” explains Jessica.

Building for Pervasive Use, Not Novelty

ROTBLOC’s positioning emphasizes accessibility as a deliberate design outcome. The goal was never to build a premium solution that only a narrow slice of utilities could adopt.

“When I started the company years ago, I really wanted the products to be accessible to everyone, not just somebody with three or four hundred dollars in their pocket,” says Carhart.

That integrity of the intent shows up in how ROTBLOC thinks about pricing and production together. The company engineered its facility for volume, enabling the cost per wrap to come down and supporting wide deployment rather than limited, case-by-case use.

Accessibility is also operational, not only economic. ROTBLOC UTL is built around field usability and repeatable handling. A single system is intended to address common utility conditions without requiring a patchwork of variants, allowing it to be deployed across different environments and programs without introducing additional complexity into tools, trucks, crews or workflows.

ROTBLOC’s approach is to make broad adoption realistic by keeping deployment fast, simple, costs low and predictable, without requiring utilities to alter how work is planned or performed.

In utilities infrastructure, this is what smart adoption looks like.

A system earns its place when it becomes part of standard practice because it is available at scale, usable in the yard or in the field and reliable across inspection cycles. ROTBLOC’s work reframes how utilities evaluate preservation decisions. Instead of asking whether a treatment delays decay, the more consequential question becomes whether protection can endure the realities of inspection, handling and long-term use.

When that answer is yes, ground-line protection stops being a recurring decision and becomes a settled part of asset strategy. **UB**



PHOTO: by Jessica Carhart