

LIGHTRAYTM



**THE NEXT GENERATION OF
TRENCHLESS LED TECHNOLOGY**

**UNDERGROUND SOLUTIONS
YOU CAN RELY ON,
BRANDS YOU CAN TRUST**

LIGHTRAY LR3 SYSTEM

The new LightRay LR3 LED UV system is the most advanced UV cast in place pipe technology allowing the operator complete control of the curing process. Our patent-pending, state-of-the-art technology can significantly reduce your costs and risks when compared to traditional thermo-setting or ambient-cured CIPP liners, creating new opportunities for plumbers and municipal contractors.

The LR3 is both a pull-in-place and spot repair system giving you the flexibility to perform both operations by only changing the proprietary double strand cold LED repair packer. The LightRay non-VOC resin is pre-impregnated into the high-performance fiberglass liner and shipped ready to install for no-dig small diameter pipe infrastructure repairs. Once the install site is prepped, casting times in under 10 minutes can be achieved eliminating the risk of premature or prolonged curing times due to temperature variations.

FEATURES:

- Repairs pipe diameters of 3-, 4- or 6-inches including transitions
- The 100-foot hose couples with 5-, 10- or 20-foot packers to perform repairs
- Casting times of 10 minutes or less
- Liner materials arrive ready to install with no wet-out needed
- Easily navigates 45 and 90° bends
- Training included and 24/7 support
- Designed, built, and supported in the USA



LIGHTRAY LR3 PACKER, LINER AND RESIN

The patent pending LightRay packers are a proprietary cold LED double strand system offered in standard lengths of 5, 10 and 20 feet. Offered in diameters of 3, 4 and 6 inches, these UV packers require only 24-volts to cure and are protected and reinforced by a specialized silicone bladder for multiple uses and sustained durability.

The leading-edge navigation spring assists in going around bends and can house a radiofrequency device for location and tracking below ground or within walls and floors. In addition, the spring is removable allowing the hook to be exposed for all pull-in-place applications.



FEATURES:

- Available in 3-, 4- and 6-inch diameters
- Double strand, cold LED lights for industry leading cure times
- Reinforced, multiple sized silicone bladders
- Leading edge removable spring guide exposes pull hook
- Specialized retrieval harness
- Quick disconnect system for easy packer switching

No more carrying hazardous materials in your truck or trailer and no need to measure and mix on site. LightRay liners arrive ready to install without any need for refrigeration. This greatly reduces the variability from mixing and preparing liners but also eliminates the requirement for extra equipment in the field allowing for rapid deployment of the system.

The LightRay LR3 system incorporates non-thermal UV casting resins along with high-strength flexible fiberglass pipe liners. No matter what the current temperature is above or below ground, the casting times are consistent anytime and every time, all in under 10 minutes.

FEATURES:

- Resin impregnated liners in 3-, 4- and 6-inch diameters including transitional flex
- Cures in as little as 5-10 minutes
- No refrigeration necessary and a 6-month shelf life when stored in a controlled environment between 50-70 degrees
- Standard UV resins are non-VOC (no odor)
- Exceeds the structural requirements of ASTM F1216
- Sold in rolls of 50, 100 and 300 feet



CORPORATE OVERVIEW

Waterline Renewal Technologies (WRT) is a leading provider of engineered technologies used in the trenchless rehabilitation of wastewater/stormwater infrastructure for municipal, commercial, industrial and residential applications and provides a unique portfolio of products and services through its brands AP/M Permaform, ConShield Technologies, LMK Technologies, Perma-Liner Industries and LightRay.

We provide trenchless rehabilitation of degraded infrastructure through differentiated products, technologies and services, to prevent inflow and infiltration of sewer systems.

WRT offers unique industry products through its core brands - AP/M Permaform, Centripipe, ConShield Technologies, LMK Technologies, Perma-Liner Industries and LightRay - to revolutionize the water industry. The brands' experience in designing, patenting and manufacturing trenchless technology continues to rise while producing

products that are cost-effective solutions to rehabilitating, without excavation, existing sewer systems.

With a combined eighty-five years of global industry experience through its core brands, WRT continues to transform the water industry through intentional platform development, design and execution, while being one of the most comprehensive sources of education and information in the industry.

WRT's pioneering approach to trenchless rehabilitation is changing how municipal, commercial, industrial and residential sectors repair their water and wastewater infrastructure. Our goal is nothing short of completely revolutionizing the water industry to get water to where it is needed, when it is needed, and to get the right quality of water to satisfy the specific demand.



MARKETS SERVED



MUNICIPALITY



COMMERCIAL/INDUSTRIAL



RESIDENTIAL



 **Waterline Renewal Technologies™**