

UV LED Curing Solutions for Fiber Optics

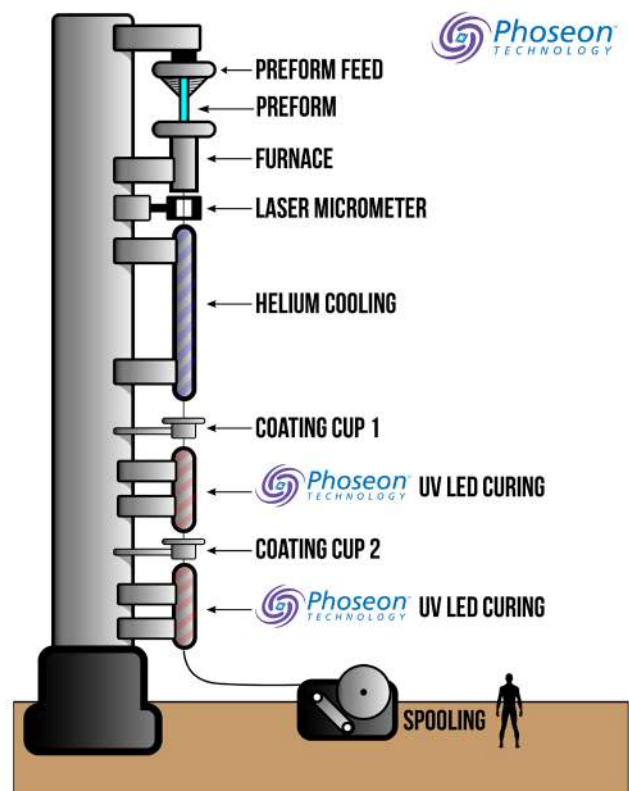
LED Light Sources for Process Improvement of Primary and Secondary Curing

Phoseon Technology’s Fiber Curing System consists of a high intensity UV LED light source, which cures the coatings protecting the glass fibers, along with a patented Fiber Reflector Unit (FRU) to direct the UV energy uniformly around the circumference of the fiber. The UV LED light source and FRU are enclosed in an IP52 enclosure, protecting the system from liquid spills. LED technology drastically reduces energy consumption and significantly reduces operational costs and maintenance downtime. For applications where process monitoring is required, the FRU includes a mounting feature for an irradiance monitoring system.

The latest generation of Fiber Curing Systems features an improved air-flow design to increase internal cooling and reduce fan noise. Mounting hardware integrated into the enclosure makes retrofitting onto existing towers easier than ever. The field proven, fiber optimized UV LED light source paired with the patented focusing reflector provide concentrated UV light energy within a tight cylinder at the fiber draw line, creating ultra-high intensity for maximum curing at the highest speed.

Advantages of UV LED curing systems over mercury UV systems:

- ✦ Reduced energy - up to 50% or more
- ✦ Reduced infrastructure - exhaust, air-exchange, power delivery, no roof penetration
- ✦ Elimination of lamp related consumables bulbs, shutters, reflectors
- ✦ Improved safety and environmental - no Hg, no UV-B, no UV-C, no ozone
- ✦ Requires less preventative maintenance time
- ✦ Reduced equipment failures
- ✦ Increased yield due to tighter process control
- ✦ Faster process speed



UV LED Fiber Curing System

Phoseon's Fiber Curing System consists of a high intensity UV LED light source and a patented Fiber Reflector Unit (FRU). The LED array in the light source and the focusing reflector in the FRU are designed to uniformly irradiate the fiber around its entire circumference for optimum cure. Available light sources include the air-cooled FireJet™ FJ228 or the water-cooled FirePower™ FP300. The light source and FRU are housed in an IP52 protective enclosure.

Air-cooled: FireJet™ FJ228 Light Source



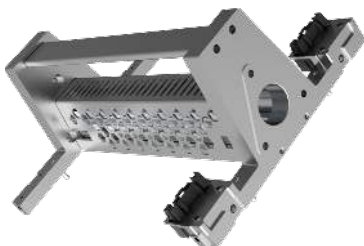
- Air-cooled
- Irradiance: 55-60W/cm² at the fiber
- TargetCure™ & WhisperCure™ technologies
- Linear intensity control
- 40,000+ curing hours

Water-cooled: FirePower™ FP300 Light Source.



- Water-cooled
- Irradiance: 67-72W/cm² at the fiber
- Linear intensity control
- Requires external chiller
- 40,000+ curing hours

Fiber Reflector Unit



- Patented compound reflector design
- Provides uniform irradiance around the circumference of the fiber
- Reduced reflector maintenance

7th Generation Fiber Enclosure



- IP52 enclosure protects light source and FRU
- Internal fans with improved air flow and reduced noise
- Integrated mounting hardware compatible with existing draw towers

Contact Phoseon Today!