Case Study

Application: 360° UV Curing on Cylindrical Products

Systematic Automation integrates Phoseon’s UV LED curing technology into their UVSP LED, a new system created to replace traditional curing ovens for 360° curing on cylindrical products.

About the UVSP LED
The UVSP LED (https://youtu.be/5ewB_XKTBRc) is designed for those who demand outstanding UV curing performance, energy efficiency and the highest return on investment. No ozone is emitted as opposed to the conventional UV system. You no longer need to worry about exhausting ozone from your building.

Universal vacuum plates securely hold most cylindrical products without the need for special holding nests. When special holding nests are needed, such as for small diameter tubes, the nest (or spindles) insert into the vacuum plate center hole without tools. All of these features are available in one compact machine requiring minimal floor space.

UVSP LED Features:
- Entire print area rotated past LED emitting window. Uniformity of cure, an inherent feature of LED, is guaranteed.
- LED peak irradiance of 16W/cm² allows for fast cycling time. Long wavelength of LED ensures consistent through cure.
- No tooling is required for change over, adjust LED distance from various product sizes via hand wheel.
- Whether curing inks, coatings or adhesives, the UVSP LED system allows for adjustment of indexing and rotation speed as well as UV intensity.
- Compact, air cooled LED lamp design requires no chiller, or field replaceable components.

Oven Replacement
Traditionally, cylinders (such as a water bottle) would go through a curing oven on a conveyor. The UVSP LED replaces the curing oven, allowing a 360° cure, instead of the uneven “spin on the fly” curing found on in-line conveyor systems. The product has direct UV exposure for a uniform cure.

LED Light Sources
The UVSP LED incorporates the air-cooled FireJet™ FJ200 light source into its system. The FireJet is a high-irradiance UV LED curing light source that is capable of curing at the highest speeds for a variety of curing applications.

About Systematic Automation
With over 10,000 screen printing machines installed worldwide, Systematic Automation has become the world leader in screen printing machinery.

For more information visit: http://www.systauto.com/