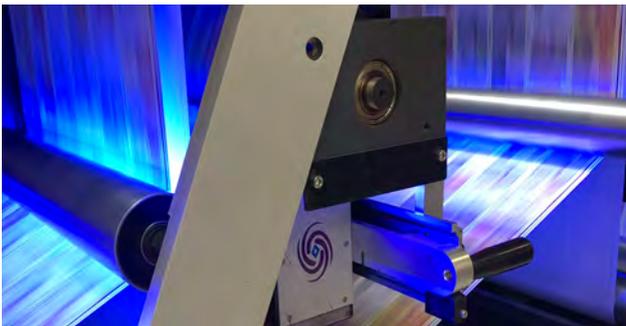


Sopano Rolls Up Cost Savings and Expands Market Opportunities After Phoseon UV LED Retrofit.

Safer Inks and Technologies Reduce Environmental Impact and Meet Food Packaging Regulations

Challenge

Sopano is an independent printing company located west of Paris, near Rouen, France that manufactures and prints adhesive labels and rolls of receipts. Sopano's customers are hypermarkets and supermarkets, as well as industrial companies in the agro-food and many other fields. The company currently employs around 80 people.



Sopano traditionally printed its labels and receipt rolls on a flexographic printer that used high-temperature mercury UV lamps to cure the inks. However, these legacy technologies were starting to become an issue for Sopano, impacting operational processes and hindering its ability to attract new customers and meet new food safety regulations.

Mercury UV lamps are notoriously power-hungry, and are slow to warm up to optimal curing temperatures (between 1550 to 1750 Fahrenheit), and equally slow to cool down. This impacted printing uptime whenever the print technicians had to stop the presses to change papers or inks. Labels or other printed matter rolling out of this high temperature curing process were also extremely hot, and cooling these materials was a process of its own, requiring a specialized chiller to speed the cooling process. Furthermore, Sopano found it challenging to print clearly and dry quickly using the paper used for receipt rolls (which Sopano prints on the back with coupons) with mercury UV lamps and the inks developed for these processes.



These traditional inks were themselves becoming an issue due to regulatory changes, as inks that are not properly formulated for food packaging can result in migration of unwanted chemicals into the packaged food. The European Union has adopted new REACH standards to protect human health and the environment from certain chemicals in both industrial processes and household products, including paint and ink.



In addition, food industry giant Nestlé has issued its own guidelines identifying the inks that can be used for the outside of its food packaging materials. These new stricter guidelines have been adopted by a number of other food industry companies; new “low migration” UV inks have become the industry norm. The mercury UV lamps pose another environmental concern. As part of their curing process, mercury lamps produce ozone, a toxic gas that is considered dangerous to breathe, especially when concentrated in a restricted space. Though

Sopano installed an ozone extraction system to protect its workers, it’s also is just another machine for the staff to manage and maintain.



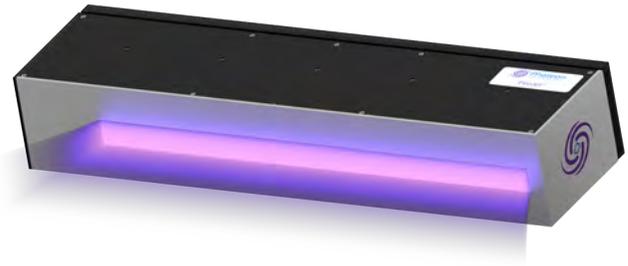
With its outdated older technologies and processes, Sopano found itself locked into its printing niche, unable to address new opportunities that required printing on a wider selection of papers and other substrates, and increasingly unable to meet stricter guidelines for printing food-related labels. “We immediately identified the possibility of upgrading our printing processes,” said Laurent Charbonneau, president of Sopano. “It was evident that we needed to adopt UV LED technologies on our machines.”

“Phoseon UV LED technology at Sopano brings us both the savings we expected and is opening up new markets for us.” - Laurent Charbonneau, president of Sopano.

Solution

Sopano decided to replace its aging mercury curing system with Phoseon UV LED ink curing solutions. UV LED curing technology is the new standard for flexographic printing, providing faster printing throughput for higher yields and decreased operating costs, leading to increased profitability. The low heat output of UV LED lamps also cuts energy costs, and—importantly—UV LED lamps don’t produce ozone. Not only does this improve the workplace environment, it eliminates the need for costly ozone mitigation equipment and a chiller to cool the printed materials.

Sopano chose to retrofit its existing Nilpeter 5 stations press. Implementation was quick and simple: after an in-depth audit of Sopano's needs, Phoseon's technical teams installed the self-contained air-cooled FJ601 LED curing solution in just three days. Phoseon's UV LED solution opens the opportunity for Sopano to explore new printing opportunities that require a broader range of substrates and safer inks. Lower lamp temperatures with UV LEDs allow the use of thinner and more heat-sensitive papers and substrates. Importantly, the fast-drying inks developed specifically for UV LED curing can be printed on a wider range of papers and other media, and meet the new EU requirements for low migration inks.



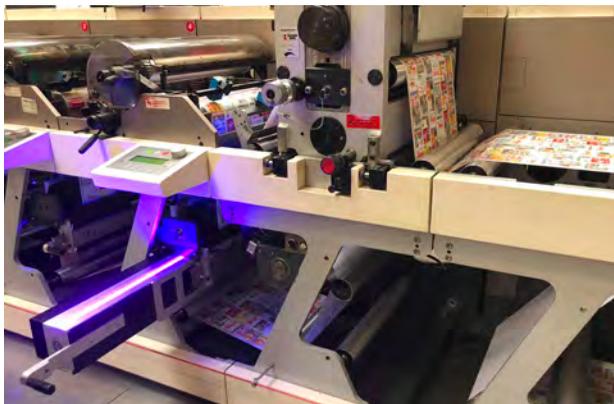
Phoseon UV LED solutions also help lower energy costs, as traditional UV mercury arc lamps use 70 percent more electrical power to operate than low-heat, low energy UV LED technologies. UV LED lamps also require much lower maintenance than traditional UV lamps, which can take up to 30 minutes to reach temperatures necessary to effectively fuse UV inks. UV LED lamps are also fully dimmable, with their intensity coordinated to match the running speed of the press by the onboard printer computer.

"The instant on/off Phoseon LED lamps allow us to gain up to 30 minutes of production time per day and per team." - Christophe Pichard, production and technical manager at Sopano.

"Phoseon's LED solution allows us to start the press immediately," said Christophe Pichard, production and technical manager at Sopano. "The instant on/off Phoseon LED lamps allow us to gain up to 30 minutes of production time per day and per team." Along with more efficient print process, Sopano also found that the Phoseon solution also helps boost customer satisfaction with their products. "The LED technology clearly showed that we could print even faster than we did before, with much tighter color rendering and faster curing process, which now our customers are requesting as our new standard," said Pichard.



Impact



Sopano is very pleased with the operational efficiencies that the Phoseon UV LED solution has delivered, and the new business opportunities that more flexible printing technologies provide. “We realize today at Sopano that UV LED brings us productivity savings and a safer workplace for the operators, and also opens up new fields and printing capabilities that are very interesting to us,” said Charbonneau. “That is why other machines at Sopano will soon be retrofitted with this technology.”

Sopano also expects to see a rapid return on its investment. “The return on investment that we calculated before investing in this technology is very simple: energy savings plus time saved preparing the machine and maintaining the LED lamps, allowing us to identify an ROI of maximum three years,” said Charbonneau. “Phoseon UV LED technology at Sopano brings us both the savings we expected and is opening up new markets for us.”

Start Your Retrofit Today

Learn more about Phoseon UV LED retrofits, our financing options and how to contact us at retrofit.phoseon.com.

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CONTACT:

Marine Faucher
Marine.Faucher@phoseon.com