Eaglewood Technologies Wins 2018 FTA Technical Innovation Award for Sitexco Laser Anilox Cleaning System

The Sitexco Laser Anilox Cleaning System produces no waste, requires no consumables, keeps a history of each roller and is harmless to the environment.

After the sense of accomplishment that comes from cooking a great meal and the satisfaction of eating it, there is the dread of doing the dishes. Regardless of how they get cleaned—soaked in a mixture of soap and water, run through a dishwasher, scrubbed by hand—there's the same set of concerns: Will all the dirt and grease come off? Will today be the day that fancy serving platter is accidentally shattered? Is it more efficient to clean one way versus another? Are these chemicals *really* safe to clean the things you eat off? What if some plates are dishwasher-safe but some aren't? Now you have to run the washer and clean some by hand.

After running a job and staring down a press filled with dirty anilox rollers, it's a similar situation on the pressroom floor, but with **Eaglewood Technologies**' Sitexco Laser Anilox Cleaning System, all of those same concerns are non-existent. The machine uses a laser to clean every nook and cranny of an anilox's cells, with no consumables used or waste generated, and logs all the data to provide a comprehensive overview of inventory.

And, as Eaglewood Technologies' Vice President and General Manager Peter J. Mulheran points out, the Sitexco Laser Anilox Cleaning System's power consumption—between 1.8-kW. and 2.5-kW. per hour—is less than a household dishwasher.

For bringing all these capabilities together in one machine, Eaglewood Technologies was awarded a 2018 **FTA Technical Innovation Award**, one of two winners and the only one in the Prepress – Pressroom category. "We are honored to be chosen for this award," Mulheran says. "We still cannot believe that this product was selected over many other amazing technologies. This gives validation for all the hard work many people have put toward the development, marketing and sales of this technology."

Where Chemistry Meets Science

The sodium bicarbonate cleaning systems Eaglewood Technologies has been manufacturing for more than 25 years have evolved, but their niche has always been flexography's corrugated and specialty market segments, Mulheran says. In the pursuit of a system better suited for wide web, mid web and narrow web printing, the company has experimented with a range of technologies and materials it thought could be feasibly used to clean anilox rollers.

"Whether it was dry ice, steam, plastic media, chemicals—we've tested it all," he recalls. "We know lasers are replacing liquid cleaning solutions in industries all around the world. Why not flexo?"

And so four years ago, Eaglewood Technologies began testing lasers on anilox rollers. Its initial trials with manufacturers from all over the world showed little promise. It was then the company discovered **TEG Technologies**, based in Girona, Spain, who Mulheran says was the first to successfully build a laser anilox cleaning system (at the time, the company's name was Sitexco; in September 2017, it rebranded as TEG

> "We've always been impressed by this technology, but when we saw the reactions from flexo printers around the world, we knew we were onto something special."
>
> — *Peter J. Mulheran, Eaglewood Technologies*

Technologies and made Sitexco the name of its product line). Eaglewood Technologies signed on as the company's U.S. distributor.

"TEG had already built a proven, safe cleaning technology, but it had significant room for improvement," he explains. "With our market knowledge and TEG's engineering capabilities, the Sitexco Laser Anilox Cleaning System was achieved."

"Now the Finger Can Be Pointed Somewhere Else"

"Do more with less" is a mantra any business owner or balance sheet observer can get behind, and it's one to which the Sitexco Laser Anilox Cleaning System adheres. By using a laser specifically designed for cleaning anilox rollers, it can ablate any ink, coating, varnish or adhesive chemistry with no line count limitations. That's done without the need for chemicals, consumables, water or freight costs, and eliminates any waste stream. Mulheran says there has never been a technology that can allow a printer to be more sustainable while also improving its cleaning process, all the more valuable when you consider the importance of the specific press part involved.

"As every flexo printer knows, the anilox roll is the heart of the press. If print quality is not being achieved, the finger is pointed at the anilox roll first, usually," he admits. "Having a technology that takes this variable completely out of the equation is invaluable. Now the finger can be pointed somewhere else."

A printer can trust the fidelity of an anilox cleaned by the Sitexco Laser Anilox Cleaning System because it is capable of restoring 100 percent of the roller's volume. And through the right combination of laser, motion controls, software and safety guards, the machine can clean anilox rollers and sleeves of any specification, including the traditional 60-degree hex and trihelical, as well as manufacturer-specific geometries like Eflo and GTT.

Mulheran says the Sitexco Laser Anilox Cleaning System can remove not only an ink's pigments but all the components that make up its chemistry through the use of thermal decomposition. It allows the laser to clean all the way to the bottom of each cell and eliminate monomers, oligomers, Teflons and adhesives that can't be cleaned with any other method. When there are no residues at the bottom of the cell, he points out, the ink will release more effectively and more uniformly when the anilox is in the press

A Simple System

As its name would imply, the Sitexco is a "system" of which "cleaning" is only one part. Along with hitting an anilox with a laser, the machine can also incorporate a microscope—be it an AniCAM, 3DQC or other—to audit and inspect the roller while it is being cleaned.

If a printer is using an RFID-equipped roller, the operator can scan the embedded chip, which takes all the anilox's data and plugs it into the machine. Cleaning recipes for each roll are pre-set; all the operator needs to do is push the "on" button. Once the laser has finished, the relevant data—all the anilox's specifications, when it was

"Instead of a printer having to quarantine its existing cleaning technology to a slop room in the back of the building, it can now have its cleaning needs met right next to the press," explains Eaglewood Technologies' Peter J. Mulheran.
Photo courtesy of **Eaglewood Technologies**

last cleaned, what settings were used—is stored
for future reference. The Sitexco can then store all this data and build a life story for each anilox a printer has in its inventory.

Put together, Mulheran says the combination of features allows press operators and prepress departments to get a better grasp on their anilox inventories. “When anilox rolls are selected for a job, [a printer] can have the comfort of knowing that roll will perform as advertised. The software can immediately tell the operator when each roll has been cleaned, how many times, and even pull up a roll audit right from the touchscreen. This takes guessing out of the process.”

Operated with a touchscreen interface and connected to a networked PC, TEG and Eaglewood Technologies’ technicians can remotely access every Sitexco Laser Anilox Cleaning System on the planet. Mulheran says this enables his company to provide technical support, run diagnostics, troubleshoot potential issues and download software updates, all without any costs to the customer and without interrupting production.

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